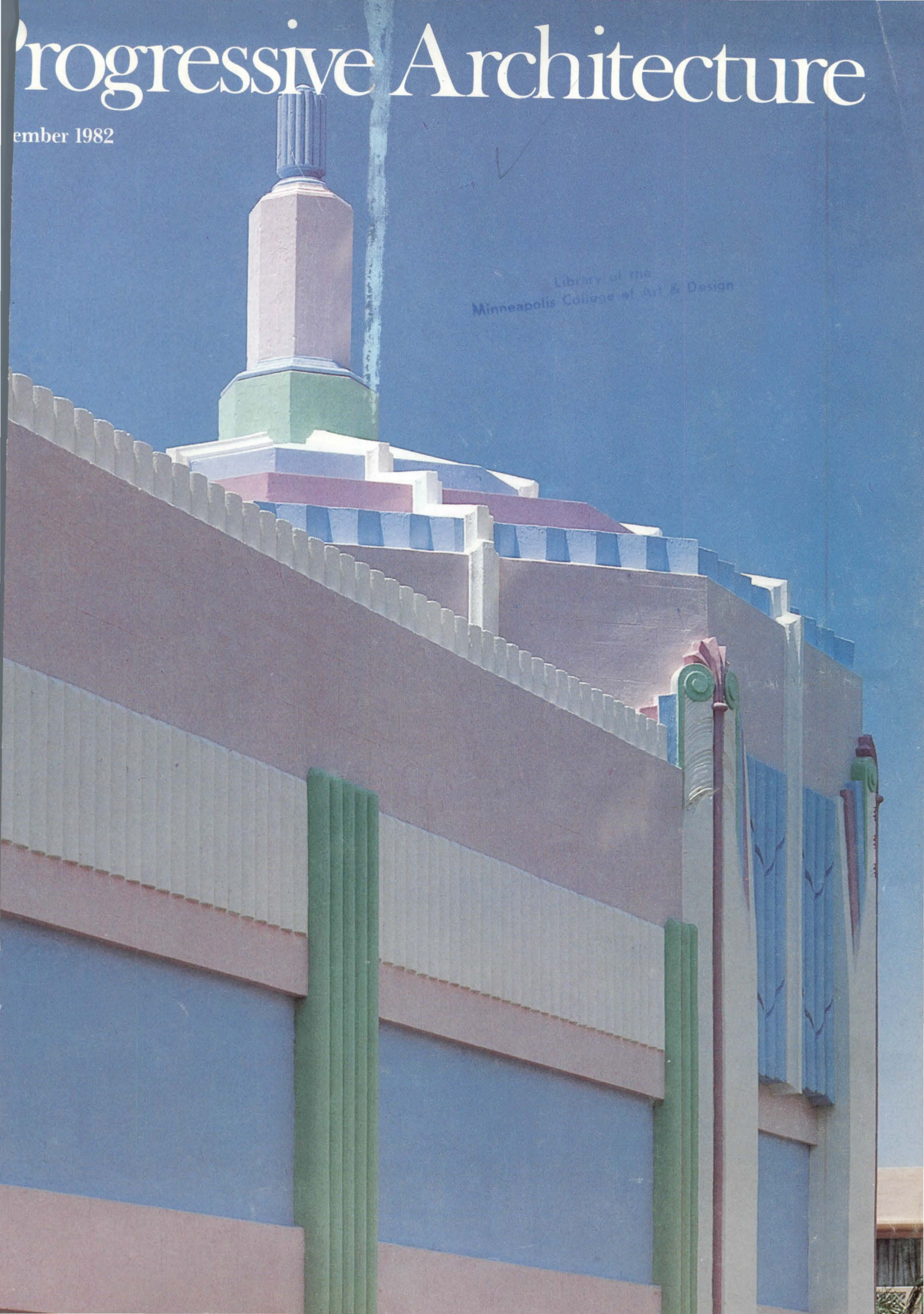
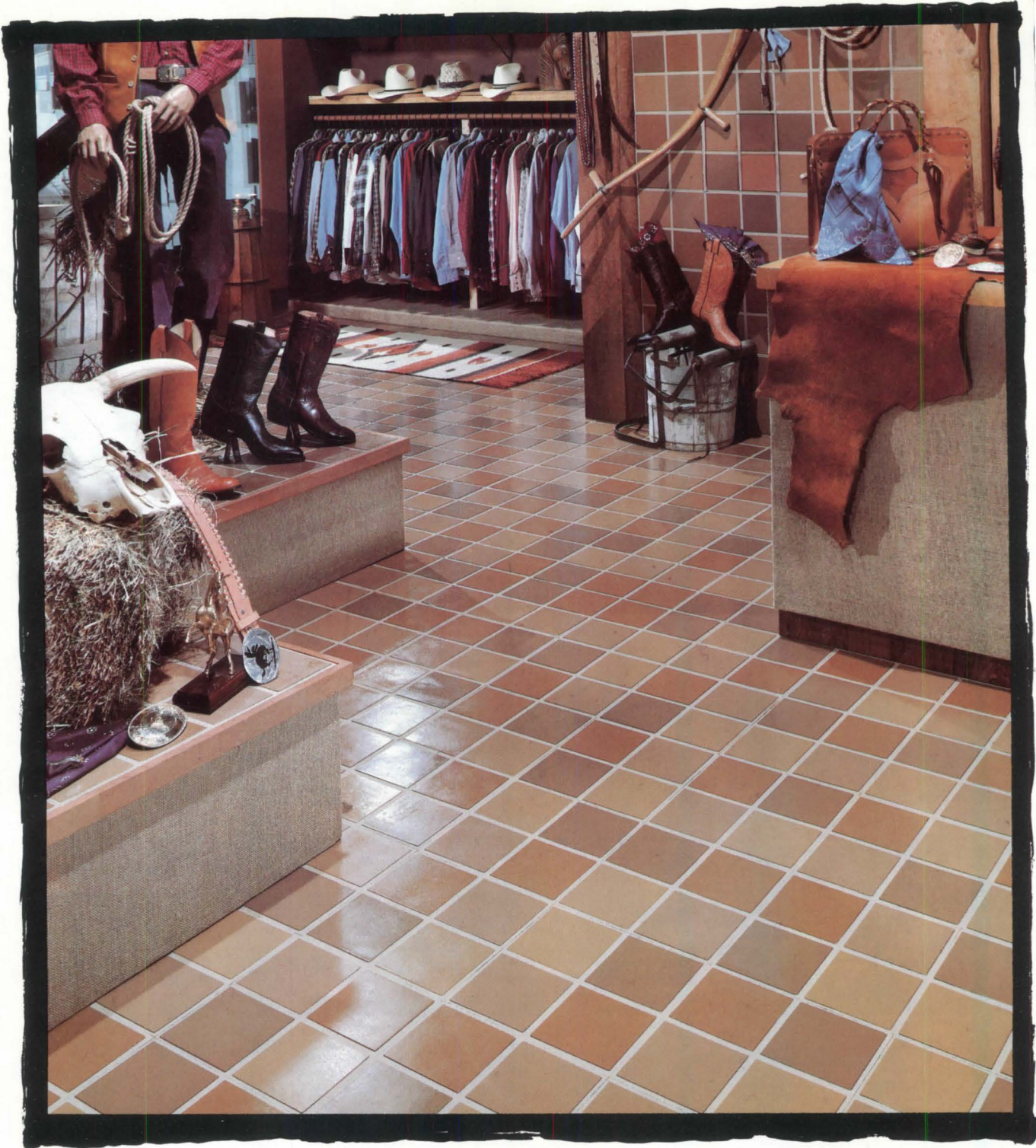


Progressive Architecture

September 1982



Library of the
Minneapolis College of Art & Design



Vinylcraft custom-design tile by Azrock. It looks like natural flooring...at a price nature can't match.

Azrock Vinylcraft combines the handsome good looks of natural flooring with all the practical advantages of vinyl composition tile.

An Azrock exclusive, Vinylcraft faithfully duplicates the tones and textures of natural flooring materials. And Vinylcraft comes in a splendid range of colors and patterns to meet virtually any commercial or residential design need.

You'll appreciate the rich, natural look of Vinylcraft. And you'll appreciate the economies it

offers—like low initial cost, simple installation and easy maintenance. For more facts, call your Azrock flooring contractor or write Azrock Floor Products, Dept. 415A, P.O. Box 34030, San Antonio, Texas 78233.



Illustrated: 6" Lite Duct Wall Wash with specialized Softshine optics.
Lite Duct is one of the 13 Longlite systems and comes in seven diameters
and configurations, in any finish, and extends to any length.



LIGHTING REINVENTED

It means controlled fluorescent lighting — control beyond anything that ever existed before. Consider this fixture. An ordinary wall wash is a victim of the laws of physics. At the bottom of an 8' wall, the light becomes 100 times weaker than it is one foot from the fixture. Here, Softshine optics refocus most of the light to the bottom of the wall, and the ratio becomes 5 to 1. Contact us, and we'll show you still more reinventions.

LOONGLITES BY PEERLESS

PEERLESS ELECTRIC COMPANY, 747 BANCROFT WAY, BERKELEY CA 94710. TELEPHONE (415) 845-2760.

"PEERLESS," "LOONGLITES," "LITE DUCT" AND "SOFTSHINE" ARE TRADEMARKS OF THE PEERLESS ELECTRIC COMPANY

Circle No. 375 on Reader Service Card

Haworth provides lighting equal to the task.

Office tasks and the lighting to support them should not restrict interior design. TriAmbient™ Lighting by Haworth expands design options. Easily. Economically. Efficiently. Attractively. Fluorescent task and ambient fixtures; and High Intensity Discharge (H.I.D.) freestanding and panel-supported ambient lights allow tasteful, tailored solutions. For accent, vertical display, task or ambient illumination, all fully integrated with Haworth's TriCircuit ERA-1® pre-wired panels. For design options that are equal to any task, consider TriAmbient Lighting by Haworth.



Send for the "TriAmbient Lighting Package". Write: Haworth, Inc., One Haworth Center, Holland, MI 49423

HAWORTH

Circle No. 338 on Reader Ser



Progressive Architecture

Editor
Morris Dixon, FAIA

Executive Editor
D. A. Morton

Section and Industry Editor
S. A. Murphy, AIA

Managing Editor
Sara McCarthy

Contributing Editors
Miller, *Features*
Douillet, *News, Features*

Associate Editors
Viladas, *Interior design*
Fisher, *Technics*

Editor
Chatfield

Assistant Editor
Jefferson

Editorial Assistants
Daffron
Jones

Technics
Corderre, *Art Director*
Smith, *Associate Art Director*
Newberry, *Art and Production*
W. Scott, AIA, *Architectural drawing*

Contributing Editors
Coplan, *It's the law*
T. Lohmann, AIA, FCSI,
Rosenfeld, CSI,
D. Skolnik, FCSI, *Specifications clinic*
D. Rush, AIA, *Technics, Energy*

Respondents
McCoy, *Los Angeles*
Goldstein, *Los Angeles*
Woodbridge, *San Francisco*
McCue, *St. Louis*
Papademetriou, AIA, *Houston*
Warburton, AIA, AIP, PE, *Miami*
Knight III, *Washington*
Vonier, AIA, *Washington*
Hayes Carlsten, AIA, *Atlanta*
Pidgeon, *London*

Publisher
J. Hoverman

Editorial Staff
H. Desimone, *Business Manager*
Brischler, *Administrative Assistant*
Hendrick, *Sales Service Manager*
M. Virgil, *Manuscripts*
Lee Gallagher, *Promotion Manager*
Munley, *Promotion Assistant*
Leneker, *Promotion Art*
Edwards, *Promotion Coordinator*
Maloney, *Production Manager*
Adams, *Director of Circulation*
Agacki, *Fulfillment Manager*
Rizvi, *Customer Service Manager*

on/IPC

Progressive Architecture (ISSN 0033-0752) is published monthly by Reinhold Publishing, A Division of Penton/IPC: Philip H. Hubbard, Jr., President; Harry I. Martin, James J. Hoverman, Vice Presidents; Penton/IPC: Thomas L. Dempf, Chairman; Sal F. Marino, President; N. N. Man, Jr., Benjamin L. Hummel, Paul Rolfe, Executive Vice-Presidents.

Executive and editorial offices, 600 Summer Street, Box 1361, Stamford, CT 06904 (203-351-1361).

Subscription information: For all subscription orders, payments, and changes of address to Progressive Architecture, Box 95759, Cleveland, OH 44101 (216-696-1361). When filing change of address, give former address as new address and zip codes, and include address label if possible. Allow two months change. Publisher reserves right to refuse unneeded subscriptions. Professionals include architectural and architectural-engineering firms, firms and architects, designers, engineers, craftsmen employed in allied fields.

Subscription rates, payable in advance, are:

Subscription:	U.S.	Canada	Foreign
Annual:	\$22*	\$27	\$50
Single copies:	40	45	90
Single copies:	60	70	—

Postage and handling charges extra. For rates outside the U.S., add \$5.00 per year. For rates outside the U.S., add \$5.00 per year. For rates outside the U.S., add \$5.00 per year.

Permission to photocopy is granted for users registered with the Copyright Clearance Center, provided that the base fee of \$1 per copy article, plus \$0.50 per page is paid directly to CCC, 21 Congress St., Salem, Ma 01970. Code 0033-0752/82 \$1.00.

Indexed in Art Index, Architectural Index, Engineering Index. Second class postage rates at Cleveland, Ohio, and additional mailing offices. Volume LXIII, No. 11. Printed in U.S.A. Copyright © 1982, Penton/IPC.

7 Editorial: One person's landmark . . .

Preservation and restoration

89 Introduction: Historic districts

Historic districts being restored and a reused industrial site illustrate an increasing interest in preservation.

90 Deco rating

Preservationists are struggling to save the nation's only 20th-Century historic district in Miami Beach.

96 Low gloss

Combined efforts of the community and the town's preservation foundation have produced admirable results in Upstate New York's Saratoga Springs.

102 New goods in old tins

On Granville Island, Vancouver, abandoned factories converted to retail and cultural uses fill spaces between industries that remain. *Sally Woodbridge*

110 The rewards of preservation

Architects who are aware of incentives for preservation in the Economic Recovery Tax Act can use the information to help sell their services to developers. *Sally G. Oldham*

112 Opulence on Olive

The landmark James Oviatt Building in Los Angeles has been returned to its original splendor. *Barbara Goldstein*

116 Richardson restored

Architects Mendel, Mesick, Cohen, Waite and skilled craftsmen have meticulously restored H.H. Richardson's New York State Senate Chambers.

Technics

129 Interior technics: Let there be light, again

Modern use of skylights for daylighting has renewed interest in restoring existing ones in turn-of-the-century buildings. *Deborah Dietsch*

134 Cold calculations

Designing for arctic conditions must consider the effects of design on human behavior as well as protection against cold and moisture.

148 Specifications clinic: Small office practice

Departments

10 Views

29 News report

50 In progress

68 Calendar

152 Books

158 P/A in December

163 Products and literature

175 Building materials

177 Management personal time

182 Directory of advertisers

183 Job mart

185 Reader service card

Loose subscription card in U.S. and Canadian issues



90



96



102

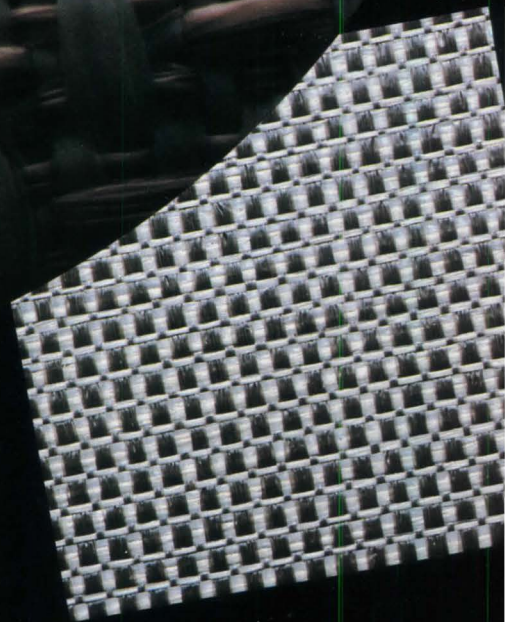
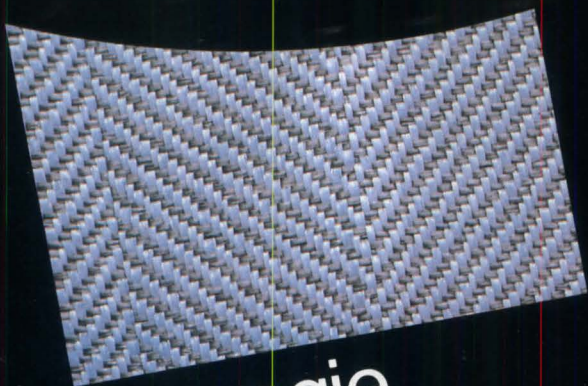
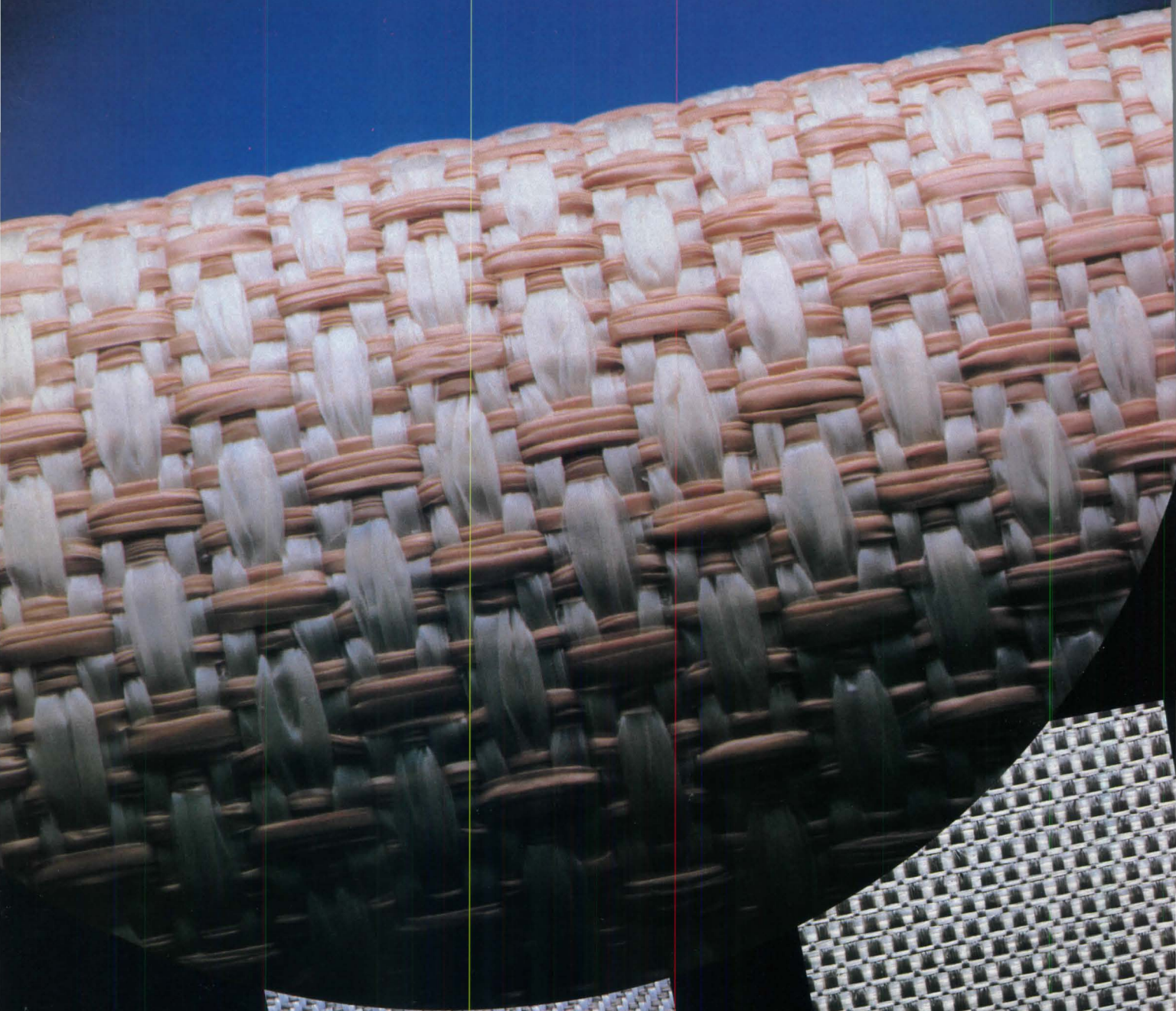


112



116

Cover: Friedman's Bakery, Miami Beach, Fl (p. 90), part of Washington Avenue project. Photo: Steven Brooke.



Carnegie

110 N. Centre Avenue
Rockville Centre, NY 11570
516 678 6770

e this:

Imagine the gleam of the
rdest glaze we've ever
ade, beautifully suited for
mmercial installations
ere a knockout new look
needed. Uniquely textured
high slip-resistance.
Bamboo, Brownstone,
e, Pecan, Pewter and
arcoal.

**PRIMITIVE[®]
ULTRA PAVERS[™]**



**American
Olean
Tile**

American Olean Tile Company
3003 Cannon Avenue
Lansdale, PA 19446-0271

A National Gypsum Company

Add to all this 9 of the newest bright, matte and
crystalline glazed colors in the industry—colors
ranging from Snow Mist and Almond to Blue Dawn
—and you've got the picture!

Here's how to get the real picture for yourself:

☐ Send full-color product sheets. ☐ Send an American
Olean sales representative with samples.

Name_____

Company_____

Address_____


City_____ State_____ Zip_____

Phone_____

COUPON

low. From an, of course.

Circle No. 305 on Reader Service Card



The preferred roof insulation Fes-Core.TM From Manville

Presenting Fes-Core, a composite roof insulation with performance characteristics that make it the smart choice for built-up roofing systems.

It's lightweight. Goes on fast. Needs no joint taping. And it is acceptable for use in most loose-laid single-ply roofing systems.

Top and bottom layers are Manville Fesco[®] Board. The core is polyurethane foam. Fes-Core is available in 3' x 4' panels in R-values from 10 to 20 and C-values from .10 to .05.

Fes-Core is superior in several ways. The top layer of perlite board provides an excellent surface for bonding roofing felts. The bottom layer of perlite board qualifies Fes-Core for use in Factory Mutual Class I construction.

Excellent adhesion, fire resistance, thermal efficiency, superior compressive strength and dimensional stability — all these make Fes-Core the ideal substrate. A product roofers can use with confidence. With the assurance of lasting protection and fewer problems.

For details, contact Alan Sowers, Manville Building Materials Corporation, Ken-Caryl Ranch, P. O. Box 5108, Denver, Colorado 80217, (303) 978-2784. Produced and marketed by Manville Building Materials Corporation.

Manville

Circle No. 364 on Reader Service Card

The Vietnam Memorial mustache
 The Vietnam Memorial in Washington, designed by Maya Lin (P/A, May 1982, p. 42), will be finished by Veterans Day, November 11. However it will not be dedicated as intended.

Arguments have persisted about the adjacent location of a flagpole and statuary. The addition of the three-man statue by sculptor Frederick Hart has been called "like drawing a mustache on someone's picture," and AIA has expressed strong opposition to inclusion. But the Fine Arts Commission will approve it.

That is, according to the New York Times (Oct. 13), it "would approve a location for the statue and flagpole near an entrance to the . . . site. . . ."

Inside out
 Gruzen Associates has been commissioned to design the 2.4 million sq ft Merchandise Mart west of Times Square in New York, and that firm will not be designing the skin. Another firm, as yet unselected, will.

Outside in
 Philip Johnson, on the other hand, will definitely be designing the skin of the four service towers at Times Square, but some other architect may be planning them.

C. Place: big plans
 The government of the Canadian province of British Columbia is planning to develop a 14-acre site in the False Creek area of Vancouver.

Arthur Erickson and Rodney Friedman are the master planners (one for his "vision," one for his effectiveness?).

The area will include up to 12,000 units of housing on 80 acres, seven million sq ft of office space, hotels with up to 1,000 rooms, 200,000 sq ft of local retail space, and 1,000 sq ft of other commercial space, a recently completed stadium, a provincial park as well as neighborhood parks and paths, totaling 73 acres, and public transit systems and roadways.

C. Place will be developed over two decades. Expo '86, a World's Fair being planned by Bruno Freschi with transportation as its theme, will occupy 140 acres of site until 1987, after which that land will be redeveloped.

Manhattan West approved
 The Board of Estimates has approved the Manhattan West luxury housing project, one of the most ambitious housing developments in Manhattan in recent years.

The \$1 billion project on the Hudson waterfront just above midtown will include about 4,000 housing units, office space, restaurants, and recreation areas.

The master plan was designed by Gruzen Partnership with Rafael Vinoly, and they hired Cesar Pelli & Associates, Mitchell/Parabola, I.M. Pei & Partners, Edward C. Larabee Barnes Associates, and Kohn, Pedersen, Fox are designing the housing.

The community remains concerned about the complex's density, in an already crowded neighborhood.

pencil points continued on page 60]



Local Law No. 10 and the disappearing cornice

New Yorkers have been observing a new and widespread architectural phenomenon: the cornice-stripped building. Since the passage in 1980 of New York City's Local Law No. 10, buildings have been losing their cornices, balconies, and decorative architectural features at an astonishing rate, and grand turn-of-the-century apartment buildings now sport brick parapets and stucco-scarred facades.

Local Law No. 10 was enacted following the death of a Barnard College student, who was struck by a piece of falling masonry from a Columbia University apartment building. The law requires periodic inspection of "exterior walls and appurtenances" for all buildings greater than six stories, an initial facade examination within two years of the effective date of the law (Feb. 21, 1980), and every five years thereafter. Necessary "repairs, reinforcements or precautionary measures" are then required to rectify any unsafe conditions.

Unfortunately, in the name of economy and in an effort to comply with the law's directive to "maintain a . . . safe condition," exterior architectural features deemed unstable are often indiscriminately sheared off. Largely ignored is the fact that certain exterior features, such as the cornice, serve not only a decorative but also a protective



Windows at New York's Mayfair Hotel before (left) and after (above).

function for a building's facade. Curiously, the repair process has resulted in another "architectural" by-product: construction arcades, permissible for the duration of repairs, however lengthy, have become a persistent part of the pedestrian's experience on New York streets.

The stripping problem is most evident in areas outside historic districts, such as the Upper West Side. At the southern end of Central Park West, across from the city's major park, is the Mayflower Hotel, a brick and terra cotta building designed in 1926 by Emery Roth. The facade of this apartment-hotel has recently lost its cornice, balconies, and decorative window enframement, and its once textured facade has been transformed to a smooth, scarred plane. On West 82nd Street, a turn-of-the-century Second Renaissance Revival apartment building has been stripped of its terra cotta cornice and balcony and retains little of its original architectural integrity. Several doors away, an elegant Queen Anne brownstone rowhouse has been capped with a stucco parapet. For these non-landmark buildings, there is no means to enforce repairs more sympathetic to preservation. Issues of aesthetics, the long-range value of a well-maintained building, and the quality of the street

Photos: Rita Caviglia

are not foremost considerations for an owner seeking short-term returns on an investment.

Buildings within historic districts and individual landmark buildings are better protected from a de-ornamented fate. The landmarks preservation local law directs that the exterior portions of landmark buildings, or buildings within historic districts, shall be kept in "good repair," and shall not be allowed to "deteriorate, decay or become damaged or otherwise to fall into a state of disrepair."

The Landmarks Preservation Commission requires the stabilization and restoration of a building's deteriorated exterior features, as nearly as may be practicable.

Often, of course, faithful restoration is neither the most expedient nor economical. On the Upper East Side, for example, the 1902 Beaux-Arts Hotel Fourteen, now an office building, recently complied with the Local Law 10's façade inspection requirement. Of six terra cotta balconies, four were declared unsafe and were removed, and the bare façade was stuccoed over. The owner is subject to a violation and fine. In a similar case on the Upper East Side, the owner of a Second Renaissance Revival apartment building was directed to uphold a preservation philosophy and to absorb the cost of repair and stabilization of deteriorated wrought iron balconies considered by the Landmark Commission to be a significant architectural feature in the design of the building, which itself contributes to the overall quality of the Upper East Side Historic District.

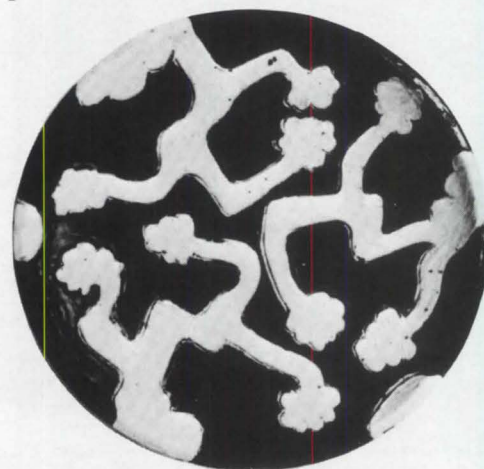
The spirit and intent of the landmarks preservation local law and the Local Law No. 10 provide for the safety of the people and the protection and regular maintenance of the architectural landscape. While there are problems inherent in required programs of preservation, inspection, and maintenance, both laws can be mutually supportive. Regular maintenance of historic buildings is probably the best and most cost effective method of preserving the city's built environment.

[Rita Caviglia]

Rita Caviglia has a graduate degree in architectural preservation from Columbia University, and works for the New York City Landmarks Preservation Commission.



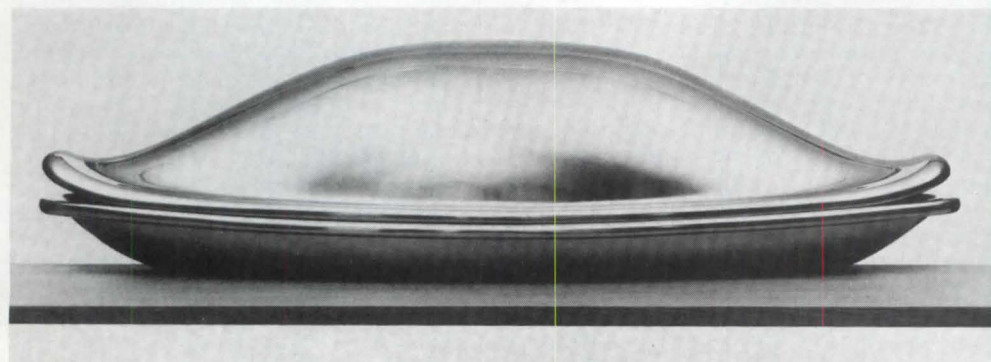
1



2



3



4

Scandinavian design, yesterday and today

Embracing over 300 objects, the exhibition "Scandinavian Modern: 1880-1980" is the major design exhibition the Scandinavia Today program, which is bringing scores of events in the visual and performing arts to America this fall. On view at the Cooper-Hewitt Museum in New York through Jan. 2, the show will move on to the Minnesota Museum of Art, St. Paul (Feb. 27-April 24, 1983) and the Renwick Gallery in Washington (July 8-Oct. 10, 1983).

Furniture, pottery, glass, silver, fabrics, lighting, jewelry—the Scandinavians have made widely recognized contributions to Modern design in all areas represented in this show. One has only to think of Hans Wegner's chairs, Geert Jensen's silver and jewelry, Tapio Wirkkala's glassware. Architects whose designs for furniture and other objects enrich this show include Gunnar Asplund, Alvar Aalto, and Arne Jacobsen.

Clearly David McFadden, Curator of Decorative Arts at the Cooper-Hewitt, had a hard time selecting key works of a century of extraordinary production in five countries. (Don't forget Iceland.) There is a fairly clear line of development from the promise of 1880s Arts and Crafts design through the classic, understated Modern of the 1950s. The story line is somewhat confused, however, at both ends—by a weakness for vestigially ornate pieces from the late 19th Century and by a predilection for either the coldly industrial or the mudpie naturalistic—too much like schizoid counterparts the world over—at the 1970s end. But clustered mainly in the middle decades of this design saga are some really inspired objects. Through them one sees the Scandinavians' design evolving from National Romanticism to 1920s Classicism to Modernism—as did their architecture—without abrupt dislocations.

The design of this show itself shouldn't happen to a show about design. The installation starts by walling off a corner of the museum's main hall, with utter disrespect for its design—so that visitors can be herded along a rigid chronological path. Text panels in black type on natural-grained birch parody the popular conception of Scandinavian Modern. Labels in dense small type mounted inside display cases to one side, call for a new kind of magnifying periscope. (My irritation was all the greater because I had only recently seen a display of Finnish design for the same period, impeccably chosen and installed at the Museum of Applied Arts in Helsinki.) Maybe something can be learned from installation problems here, so that viewers in St. Paul and in Washington can concentrate comfortably on the superb objects that make up the bulk of this show. [JMD]

Scandinavia Modern: 1 armchair, 1925, Gunnar Asplund; 2 plate, 1901, Thorvald Bindesboll; 3 chair, 1914, Kaare Klint and Carl Petersen; 4 fish platter and cover, 1954, Henning Koppel.

Other manifestations of Scandinavia Today

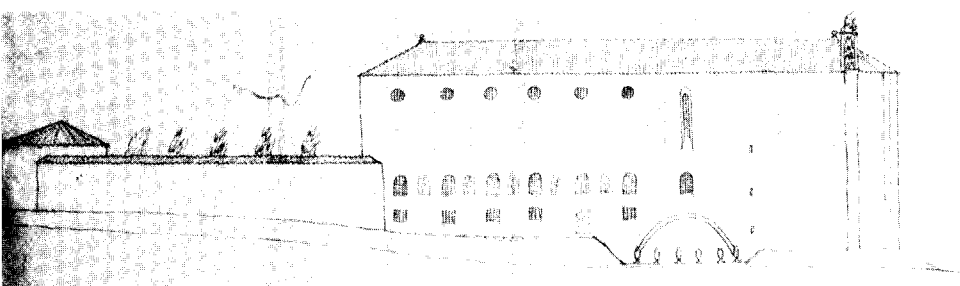
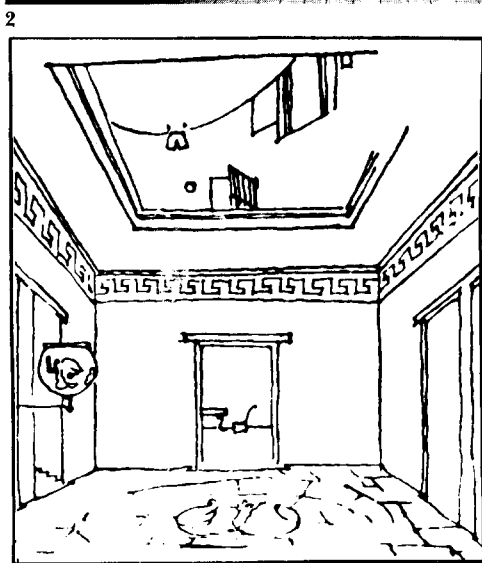
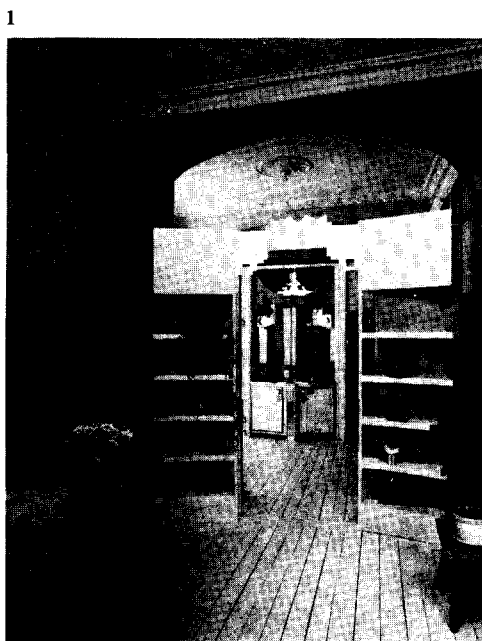
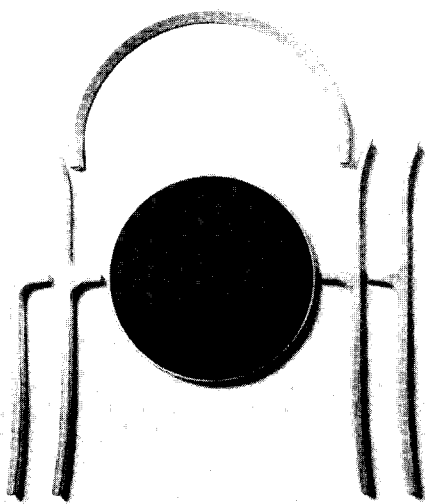
In addition to the main event at the Cooper-Hewitt (article above), Scandinavian design was shown in New York this fall at several other locations. Of particular interest to architects was the exhibit "New Dimensions in Scandinavian Architecture" at the galleries of the American-Scandinavian Foundation (Sept. 17-Oct. 16)—tentatively scheduled to travel to Philadelphia's Swedish Historical Museum, then to Seattle).

More properly titled "New Directions," this show focuses on the region's new deviations from the paths of vernacular and Modernism: the artful Charles-Moorish works of Norway's Jan Digerud & Jon Lundberg, the stylish high-tech of Denmark's Claus Bonstrup & Torsten Thorup, the cautious classicism of Finland's Pekka Helin & Juho Siitonen, the Expressionist revival of Sweden's Eric Asmussen and Jan Ekelund (these last two working separately). Many are young, and most turn out lush, polychrome drawings.

A pleasing show on Aalto's *oeuvre*, considered element by element rather than building by building, already seen elsewhere in America, opened at Columbia University's School of Architecture to herald Scandinavia Today. An opening-day lecture by Finnish architect Pekka Helin made connections between Aalto's work and some of his favorite places—Finnish farmsteads, Italian hill towns—as well as the Classical revival period in which his career began.

An exhibit of Danish industrial design, shown at the Houghton Gallery of Cooper Union (Sept. 13-Oct. 2) will be seen at Chicago's Museum of Science and Industry (Oct. 20-Jan. 6) and at AIA Headquarters in Washington in June 1983. Ranging in subject from bicycles to laboratory equipment, the show includes some architectural projects—lighting by Poul Henningsen, a chair by Thygesen & Sorensen, a neat outdoor lamp/sign by architects Friis & Holtke, and such ubiquitous items as the flux roof window and the Kevi chair. Subtitled "the problem comes first," the exhibit documents the cause and effect of design with lively graphics. But one sees, looking at these suave objects, that form has a will of its own, even for dedicated functionalists. [JMD]

Scandinavian design: 1 chair parts, 1981, R. Thygesen and J. Sorensen; 2 Jan's apartment, Oslo, J. Digerud and J. Lundberg; Nordic classicism: 3 Villa Väinölä interior sketch, 1926, A. Aalto; crematorium design, 1933, S. Lewerentz.



Nordic Classicism shown in Finland

Revived interest in the Classical architecture of Scandinavia between the World Wars has already inspired a number of magazine articles (including P/A's feature on Asplund, Feb. 1980). Now the exhibition "Nordic Classicism, 1910-1930" has been organized by the Museum of Finnish Architecture, with the cooperation of institutions in the other countries. Shown first in Jyväskylä this August, at the second international Alvar Aalto Symposium, on the subject "Classicism and Modernism," the show has since been installed in the museum's Helsinki galleries.

A fastidious and graceful exhibit, like the period it represents, Nordic Classicism consists primarily of fine original drawings of the time, rendered in clear pastel colors and sober grays. With them are small photographs of the works as realized and a few tantalizing pieces of period furniture. The portable panels of the exhibition, designed by Simo Paavilainen, are framed in favored interior colors of the period, which have a surprising but effective sharpness compared to the drawings.

The handsome catalog, in Finnish and English, contains over 50 capsule biographies and 500 illustrations, with an introduction by museum director Juhani Pallasmaa, with Paavilainen, and a concluding essay on the broader European picture by Kenneth Frampton. (The British-American Frampton and the Finnish-American Stuart Wrede are thanked for suggesting the whole project.) The sponsors hope to bring the show to the U.S. eventually, where it will be a revelation to many. [JMD]

Feet can be seen

So goes the press release for City Center, New York's midtown theater for dance, which just finished an \$800,000 renovation of its former Shriner's temple to improve sightlines (from orchestra seats) and spiff up appearances.

With funding largely from the Department of Commerce, the 55th Street Dance Theater Foundation, which operates the theater, raised the floor of the orchestra ten inches in the front and increased the rake from three to eight percent. Seats are staggered, and particularly awkward seats at sides and back have been removed. The whole has been repainted, replastered, and reupholstered in beige and burgundy. A second phase, to revamp the two balconies, is scheduled soon.

Patrons of the Joffrey and Alvin Ailey ballets, as well as the many visiting companies, have long awaited such a renovation. While those of the short persuasion may still have reason to grumble if the couple in front shows up, sightlines have on the whole been improved. (The low balcony would seem to have prevented a steeper rake.) From a more purely [News report continued on page 35]

THE END OF THE BLACK LINE.

Announcing the most revolutionary surfacing material since Formica Corporation introduced laminate.

Now for the first time, you can have the high-performance characteristics of laminate without the black line. Because the color in COLORCORE goes all the way through.

This integral color feature also eliminates the visual impact of chips and scratches—making it ideal for areas subject to heavy wear or abuse.

INTRODUCING COLORCORE.™



NOW YOU SEE IT. NOW YOU DON'T.

And COLORCORE can be routed to create unique three-dimensional and graphic effects.

COLORCORE. For exciting new design options never before possible.

For samples call: (800) 543-3000, ask for Operator 375. In Ohio, call (800) 582-1396.

Or write: Formica Corporation,
One Cyanamid Plaza, Wayne, NJ 07470.

ColorCore BY FORMICA CORPORATION

Enter the ColorCore "Surface and Ornament" Design Competition. Write for details or call the toll free number above.



Some things
will be around
a long time...

and remain maintenance-free!



Victoria Station Restaurant, Fairfax, VA., Architect: Donald K. Olsen, Sausalito, CA., Installation: Krupnick Bros., Glen Burnie, MD

factory-formed roofing systems

Pre-Weathered

MICROZINC[®] 70 & MICROZINC[®] 80

The natural, weathered look of Microzinc 70 is a pleasant alternative to traditional browns and bronzes. Widely specified for its distinctive gray patina, Microzinc 70 is beautifully aged before it reaches the job site. There is no other metal quite like it. Mill-finish Microzinc 80, the very same metal, weathers on the job and achieves the identical finish—but costs less.

Both are self-healing—minor scratches and abrasions weather back to the natural gray patina. Installations are water-tight—no leaks, run-off stains, or rotted materials. And all components are factory-formed, greatly reducing onsite installation costs and eliminating wasted material and shop labor. Offered in batten or standing seam LOK™ systems

Mill-Finish

and in standing seam AUTO-LOK™ systems with double lock automatic seaming at 14 feet per minute.

Microzinc 70 and Microzinc 80 are also available in factory-formed fascia systems, man-sards, trim and roofing accessories. For catalog and further information write or call Ed Pejsa at 615/639-8111.



**Metal
& Chemical
Division**

Greeneville, Tennessee 37743 615/639-8111



esthetic point of view, the biggest disappointment is the decision to refurbish the palette of a pleasantly appointed director's office (oddly juxtaposed to the bold highlights) instead of the bold, earthy blues, greens, and reds that could have (and once did) set off the massive Arabic domes and ornament brilliantly.

Renovation architects were Fred Pensold of Arcop Associates in Toronto and Bernard Rothzeid of Rothzeid Kaiserman & Thompson of New York. [NM]

all papers Protetch

The recent exhibition of drawings and objects by Venturi, Rauch & Scott Brown at New York's Max Protetch Gallery offered viewers a refreshingly unusual installation, as well as an illuminating look at the firm's designs through 67 drawings and sketches. The installation, designed by the architects, transformed a standard (i.e., anonymous) gallery into something pleasantly reminiscent of a 19th-Century *salon*. Walls painted a light, warm gray were given both depth and life with stenciled abstract patterns, *à la* Best, in three pale pastels. A horizontal datum line painted 77 in. above the floor separated the larger drawings and objects below from the smaller, magic-marker-on-trace sketches above, arranged in a frieze around the rooms. The combination of patterned walls and almost crowded installation was appropriately Venturian yet low-keyed enough to give the works on display their own voice. And they did, for the most part, speak eloquently. While the exhibition focused mainly on recent projects, and documented only a few projects in any depth, it nonetheless provided ample insight into VRSB's design process. There was a satisfying balance between detailed studies and presentation drawings, and Venturi's own sketches, whose emphatic black strokes make much of today's fashionable drawings look precious and overwrought. Many of the firm's well-known projects are there—the Oberlin art museum, the Atlantic City Marlborough-Norheim project, the Institute for Scientific Information—as well as newer or lesser-known works, such as the building for Baghdad, the Butler College dining hall at Princeton, and the beautiful, apparently doomed Hubbard House in Nantucket. The showier presentation drawings—for Atlantic City, Franklin Parkway, and Hennepin Avenue—tellingly exhibit VRSB's far-ranging, yet vaguely clinical, curiosity toward both the banalities and excesses of pop culture. [PV]



Ron Manville

Sympathy for a teahouse

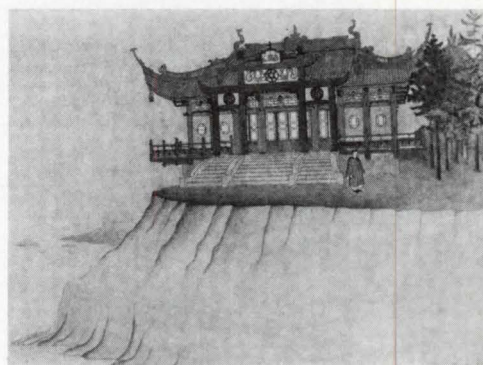
In 1912, architects Richard H. and Joseph H. Hunt, successors to their father Richard M. Hunt, were commissioned to design one of Newport, RI's most unusual structures. In a town filled with palatial million-dollar "cottages," they would add a small Chinese teahouse.

This "Oriental concoction," as architectural historian Antoinette F. Downing has called it, was installed on the grounds of Marble House, at the edge of the cliff overlooking the Atlantic Ocean. Marble House had been built in 1892 for Mr. and Mrs. William K. Vanderbilt, whose subsequent divorce granted Alva Vanderbilt the mansion, and when she later became Mrs. O.H.P. Belmont, she commissioned the teahouse.

At the onset of World War I in 1917, she closed Marble House and never reopened it. The estate was sold to new owners 16 years later, and then acquired by the Preservation Society of Newport County in 1963, which opened it to the public with its other house museums. The teahouse was another story, however. Heavily vandalized and deteriorated from the ocean air, it would take many years to raise the necessary funds (more than \$400,000) as well as 18 months of restoration work to reopen the Chinese jewel.

That effort was completed Sept. 2, with a ribbon-cutting by Chai Zemin, ambassador from the People's Republic of China to the U.S. He pronounced the teahouse "authentic Southern Chinese" in style, adding that it was the first example of Chinese architecture he had seen since coming to this country in 1979.

The authentic look is actually a pastiche of Chinese building types seen by the Hunt Brothers when they visited



Collection: John Hopf

The Teahouse today (top) and 1912 rendering (above).

China to research the commission. Their design combined Chinese embellishment with Western practicality. According to restoration architect Donal Simpson of Newport, the building is actually a simple post-and-beam structure, "the state of the art in 1913." Steel beams support the base, and tie rods, hidden in the chords of a series of magnificent stepped tube trusses that are solely decorative, hold the upper walls. A partial hip roof tops the structure.

The restoration was a challenge, according to Mark Weber, an architectural historian commissioned by the society to research the teahouse. "The hardest part was trying to fill in the gaps," he said. "It required both intuitive and subjective decisions." The main problem was determining the variety of colors on the polychromed building; the actual colors had faded and the only other information came from a few black-and-white photographs and some pale drawings by the Hunt brothers found in the AIA archives. The glorious solution—

[News report continued on page 36]

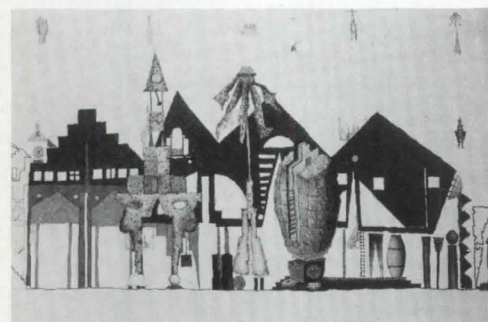
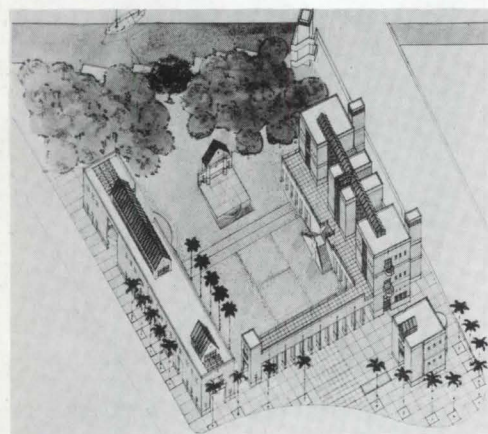
with Chinese red enamel columns, flat-black doors, and green, yellow, blue, and white trim—is a delight to any eye.

A number of craftsmen, under the overall direction of Arthur Marshall Restorations, Inc., of Newport, were employed to recreate the extensive copper metalwork trim, reinstall the ceramic tiles on the roof, and recast 24 Chinese Foo dogs that sit on the transoms above the glass doors.

One of the biggest tasks was the restoration of the delicately painted Ming Dynasty scenes on the interior wall panels. In order to cut costs, Mrs. Belmont had these paintings done on plywood, which over the years had buckled. In addition, the panels were badly defaced with graffiti and scratches. The completed work by Christy Cunningham, a fresco restorer, is a major accomplishment and a testimony to her ability.

There was one melancholy note at the dedication, however. Paul E. Molitor, Jr., the preservation society's director who had devoted much of his time in recent years to the teahouse restoration, died several days earlier, a suicide, according to police reports.

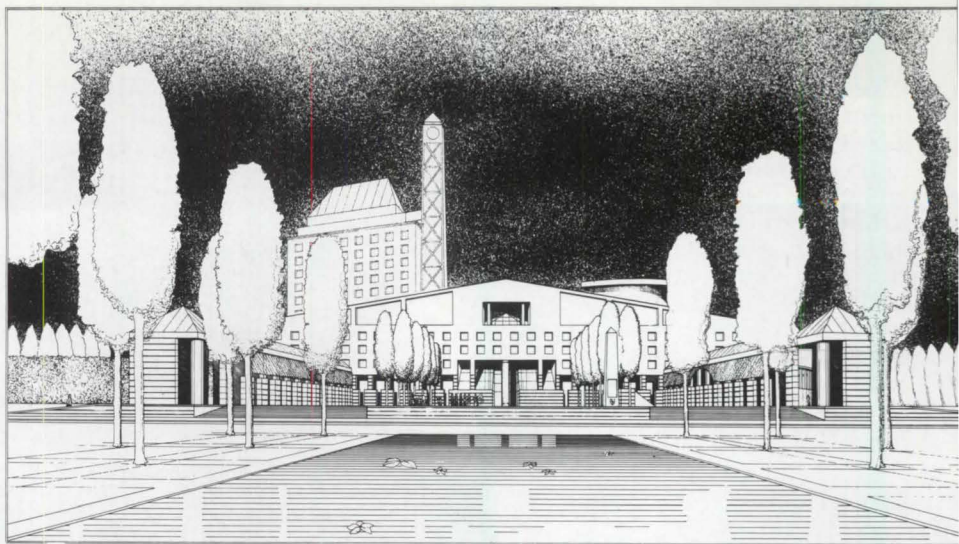
[Carleton Knight, III]



Fort Lauderdale: winner (top) and second prize (above).

Riverfront Plaza design selected

A team headed by James Ames Steffian of Aragon Associated Architects, Coral Gables, Fl, has won first place in the Fort Lauderdale Riverfront Plaza design competition, sponsored by the city's Downtown Development Authority (DDA).



Winning Mississauga City Hall scheme.

The winning scheme features several two-story buildings with food service, office space, and crafts exhibition areas, set around a grassy plaza. A grand colonnade marks the entrance to the plaza and leads up to an outdoor stage and arena. A visitor information center and presentation space for the DDA and other organizations is housed in a smaller building at the edge of the site, along the New River.

Jurors Mario Botta, James Stewart Polshek, and William Turnbull, Jr., selected the winning design from 195 entries and cited it as a "good, central idea that should add a lot to the heart of downtown." Second place went to B. Mack Scogin, Jr., of Heery & Heery, Atlanta; Thomas and Marleen Davis of Cortland, NY, placed third. Donald Singer served as professional advisor for the competition.

Riverfront Plaza is part of an intensive redevelopment program planned by the DDA which includes a library by Marcel Breuer Associates, a museum by Edward Larrabee Barnes Associates, and restoration of the historic Stranahan House. Construction of the \$1.7 million Riverfront Plaza is expected to begin in late 1983, with a 1984 completion date. [BMC]

Rave reviews for Canadian competition

Competitions for public buildings in Canada have a nasty habit of turning into political scandals. Last May, for example, Arthur Erickson, a personal friend of Prime Minister Trudeau, was appointed architect of the \$30 million Canadian Embassy in Washington, despite the fact that his name was conspicuously absent from the short list. With the announcement on Sept. 29 that the architecture firm of J. Michael Kirkland had won the national design competition for the \$30 million Mississauga City Hall and Civic Square, Canadian architects had at last found a precedent to cheer about.

Two precedents, actually. On Sept. 29, Post-Modernism arrived in Mississauga (population 312,000). Incorporated in 1974, the city has always been considered a dormitory of Toronto, its powerful neighbor to the northeast. Its origins are rural, character, suburban. The City Hall designed by Kirkland and British architect Edward Jones, with its multivalent allusions to vernacular, civic, rural, domestic, and monumental architecture, will set the tone for all future development in its vicinity. Jury member James Seligman gave it a rave, announcing the design was of high quality by world standards and would inevitably receive international praise upon publication.

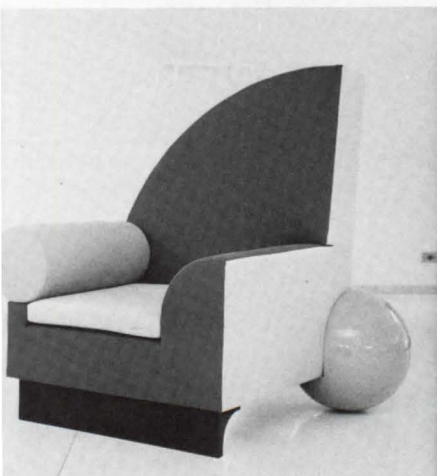
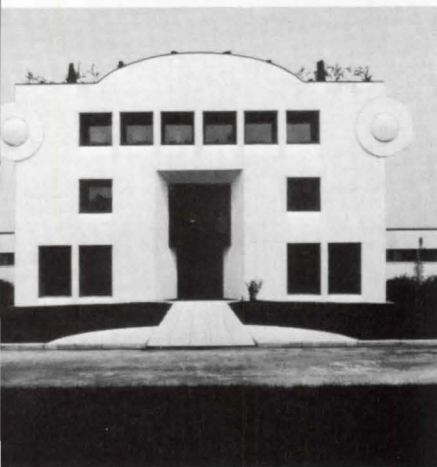
"If you go to the site and someone said 'city square,' you'd think it was a joke," said Jones. "It is not auspicious but it's very typical of the North American plight—you begin with nothing and make something out of it." Kirkland and Jones opted for simple primary forms, the most important being a long, limestone office block stretched across the center of the site with a gently sloping, symmetrical roof—"almost reminiscent of a farm building and a suburban house," in Jones's view.

The competition was organized by George Baird, lecturer, writer, and partner in Baird/Sampson Associates. As Professional Adviser to the City of Mississauga, Baird set the guidelines in a 93-page document detailing everything from the history of Mississauga (1789 to the present) to the geological formation of the site (fine-textured shale and limestone till). He insisted on 25 percent coverage and a maximum height of 10 stories. The winner would receive \$150,000 as an advance on fees, and a matching sum if the design were realized. Second, third, and fourth awards were set at \$75,000, \$37,500, and \$18,750, respectively. In addition, the jury could distribute three merit awards, totaling \$33,750, at its discretion.

Baird also selected the jury, composed of two representatives of the City Council and three architects—Phyllis La [News report continued on page 43]

t of Montreal, Toronto architect
ome Markson, and Stirling. The
ice of Stirling was a stroke of genius.
ver has an architect of his stature sat
a Canadian jury. Stirling's presence
punts in great measure for the
nber of entries received—246—and
Post-Modernist tendencies of the
missions. At the competition's end
jury's remarks were published and
the entries went on public display for
week. "It was a coincidence of an in-
gently written brief and assessors
rly not looking for normative work"
t in Jones's opinion made the compe-
on a success. It was the absence of
tical interference that pleased the
al Architectural Institute of Canada.
sident Macy DuBois has issued a
ss release encouraging other public
anizations to follow Mississauga's
mple. [Adele Freedman]

le Freedman is Architectural Critic of the
nto Globe and Mail.



Domus Academy by Studio Nizzoli (top);
Memphis chair by Peter Shire (above).

et me
Milano

Salone del Mobile (September 17-
Milan's annual furniture fair, of-
d little in the way of innovative fur-
re design this year, but no one
ned to mind. At the vast Milan fair-
ands, hundreds of furniture man-

ufacturers displayed their newest
designs, and it was clear that the move-
ment the Italians call Neo-Modernism
was firmly entrenched only a year after
the introductions at Memphis and
Studio Alchimia caused such a stir in the
industry. There seemed to be a prepon-
derance of what one editor succinctly
termed "fat furniture on skinny legs,"
mismatched patterns, multicolored
laminates, zooty silhouettes, and an ac-
companying load of ideological bag-
gage.

On the social circuit, however, there
was enough action to please the most
energetic gadfly. The denizens of the
acknowledged style capital of Italy man-
aged to turn out by the hundreds for the
fair and its attendant events. On Friday
the 17th, an office manufacturer called
MiMs unveiled an installation designed
by Alessandro Mendini. "The Sentimen-
tal Robot," a "rational spectacle in the
office jungle," seemed to consist mainly
of pink office-system components popu-
lated by masked mannequins stationed
at disembodied computer terminals. In
true Italian fashion, Studio Alchimia
failed to open its doors after sending out
hundreds of invitations to a reception;
crowds were turned away and advised to
"come back tomorrow." Undaunted,
they pressed on, to the Centro Domus
for the introduction of new laminates
designed for Abet Print by Bellini, Cas-
tiglioni, Magistretti, Mendini, Porto-
ghesi, and others. Later, everyone mi-
grated to a party thrown by *Abitare* at
Luna Park, the local amusement park.
On Saturday, the new Memphis collec-
tion appeared (see fat chair on fat legs),
and *Domus* unveiled its new Academy,
which will conduct one-year programs
in design under the direction of Andrea
Branzi. At the Pavilion of Modern Art,
fabric manufacturer Alcantara spon-
sored "Materialidea," an exhibition
featuring installations designed by
Michael Graves, Aldo Rossi, Ettore
Sottsass, Mendini, and Emilio Ambasz,
using the sponsor's synthetic suede. You
didn't need a catalog to guess who did
what. [PV]

Art Deco renewed in London

One of London's landmarks, the great
curved 1930 Unilever building facing
the north end of Blackfriars Bridge, is
undergoing a phased transformation
designed by Theo Crosby of Pentagram.

The building, originally built in one
year during the Depression by the archi-
tects Burnet Tait & Lorne, was never
properly completed, and very little of
the interior finishes remained. But the
elaborate stone-clad exterior with sculp-
tures by Reid Dick inspired Crosby "to
make something more out of the build-
ing."

He has called for considerable struc-
tural alterations. The main access has
been changed from the east to the north
river-facing façade. A new eighth floor
replaces the former blank windowless
attic, and where before there was a
[News report continued on page 45]

Kawneer

It means
framing
systems
engineered
for versatility,
economy and
performance.



Kawneer fully-integrated
framing systems work for your
building the moment they arrive
at the site. They install easily
and quickly. They complement
your building's aesthetics. And
they can provide long years of
resistance to the elements and
energy losses.

From pencil-slim designs
to performance-proven thermal
systems, Kawneer has the
framing system for your building.

For more information, see
your Kawneer dealer, or write:
The Kawneer Company,
Dept. C, 1105 N. Front St.,
Niles, MI 49120.

Kawneer
the designer's element

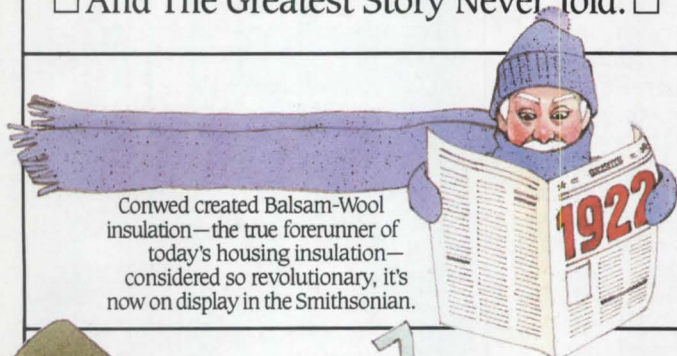
CONWED PRESENTS THE GREATEST STORY NEVER TOLD.

In the beginning, Conwed made insulation. □ A unique wood fiber house insulation that set the standard for the industry. □ And laid the groundwork for all the innovative interior products we've created over the past 60 years. □ From the acoustical blanket that lined the cockpit of Lindbergh's Spirit of St. Louis, to patented freestanding acoustical office panels, to the total high performance workplace design. □ They're all a part of what Conwed is today. □ And The Greatest Story Never Told. □

Conwed introduced its unique Micro-Perf acoustical ceiling tile with national advertising on the Today and Tonight Shows.



Conwed introduced the first non-combustible acoustical ceiling market.



Conwed created Balsam-Wool insulation—the true forerunner of today's housing insulation—considered so revolutionary, it's now on display in the Smithsonian.



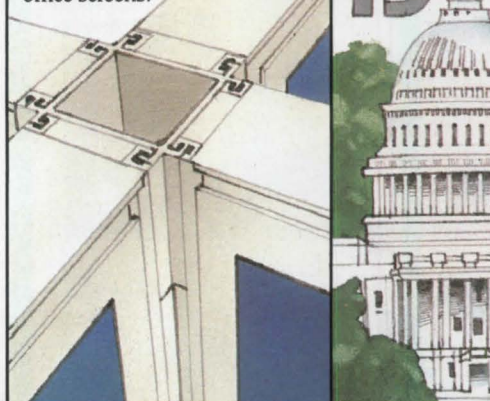
Conwed designed the acoustical blanket that lined the cockpit of Lindbergh's Spirit of St. Louis on his historic trans-Atlantic flight.



Conwed manufactured the acoustical insulation that was installed in Hollywood's first "talkie" sound stages.

1968

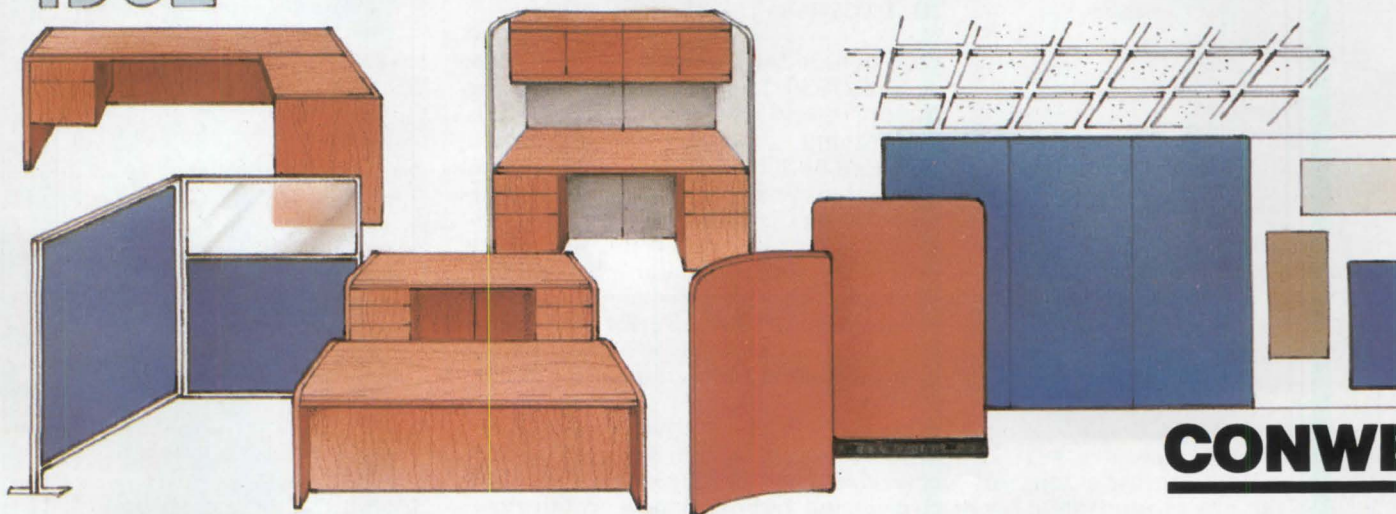
Conwed created its first freestanding and connectable acoustical office screens.



Conwed became a still remains, the supplier of acoustical panels to the Government.

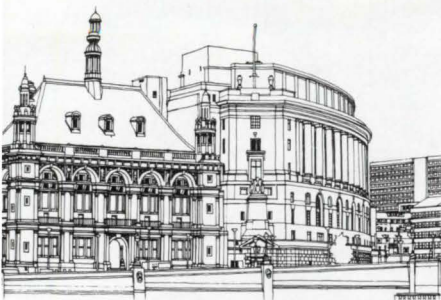
1982

Today, Conwed is the only manufacturer offering the "total workplace environment." From acoustical ceilings and wall panels, to freestanding panels, to furniture, to open office systems, to lighting, to sound masking. To hear the complete Conwed story contact Conwed Corp., Interior Products Division, 444 Cedar St., P.O. Box 43237, St. Paul, MN 55164.



CONWED

CREATING ENVIRONMENTS THAT WORK



heavy parapet concealing the seventh floor, there is to be a row of 16-ft-high fiberglass sculptures by Nicholas Monroe creating a screen in front of the seventh and eighth floors, now linked and glazed. A new shallow pitched roof in gray metal encloses mechanical facilities and elevator heads. The stone-vaulted north entrance has gates taken from the south front, and sprayed-bronze revolving doors are placed beneath a decorated glass panel and a flamboyant gilt sculpture by Bernard Sindall.

The exterior additions prepare the visitor for the splendors of Art Deco as reconstituted by Crosby for the interior. "The Art Deco origins," says Crosby, "were helpful . . . an ambitious contemporary variation could be attempted. The entrance hall . . . is intended to be an integrated decoration, exploring new territory. Unilever wanted to change the building, but they wanted to use the existing characteristics of the interior and extend them to make the whole richer." Punctuating the entrance hall are three tall angular pillars, existing columns now encased in travertine with bronzed steel triangular uplighters illuminating complex ceiling moldings. A steel and acrylic multilevel lighting fixture zigzags across the ceiling with points of color made bright by concealed fluorescent tubes. That it doesn't match the other decorative elements, says Crosby, is the whole idea. "It's meant to be as wild as possible." Colored marble patterns on the floor are based on those found elsewhere in the building, but are more complex, and colorful staircase railings are cranked bronze verticals connected by vermilion enameled discs.

Diane Radford designed the mirror wall, its decorative themes being an extrapolation of elements found elsewhere in the building. She also designed a number of other features such as the ceilings of the new elevators and the mirror trellis around the conference concourse. The new elevators are lined with mirror and a chromed-steel grille with dark green enameled sections.

For carpets, lights, and general fittings throughout the building, Crosby says, "There are several basic motifs we have developed. For example, there are swastikas along a wall panel in one area and there are some designs that are repeated, like squares within squares and diamond shapes."

Unilever, the tenth largest multinational in the world with the biggest range of products, pressed its constituent companies into making gifts to the revamped building. The Benin wall carving in the entrance hall came from Africa, as did woven fabrics, and art works poured in from many other countries. It was for Crosby to find a way of [News report continued on page 47]

- 1 Unilever House before alteration;
- 2 Sundall sculpture above entrance;
- 3 New ceiling fixture, and 4 railing and column/uplighter in entrance hall.

Kawneer

It means windows and curtainwall systems that save energy and labor.



Kawneer aluminum windows and curtainwall systems can help meet a wide range of design requirements for your new building or remodeling program. Our windows offer a variety of functions from thermal, light and sound control, as well as concealed ventilation and even retrofit insulation. And Kawneer curtainwalls are the standard of the industry for performing curtainwall systems.

For more information, contact your Kawneer dealer, or write: The Kawneer Company, Dept. C, 1105 N. Front St., Niles, MI 49120.

Kawneer
the designer's element

A message from the world's most experienced flooring company.

Tarkett offers you a sensible alternative to the asbestos problem

...with tile and sheet vinyl that's 100% asbestos free.

After Tarkett's purchase of the Floor Products Division of GAF about one year ago, we decided to eliminate asbestos from our line of tile and sheet vinyl products.

Our decision was based on independent scientific evidence that airborne asbestos particles could be potentially harmful.

Today, Tarkett is the only U.S. manufacturer of tile and sheet vinyl flooring whose entire product line is asbestos free.

A recent independent survey found that three out of every four respondents preferred vinyl flooring without asbestos. Of those responding, 82% viewed asbestos as a possible threat to their health.

With these continuing developments in mind, we ask you to give thought to this timely issue and decide for yourself whether you should be specifying flooring that contains no asbestos.

When you specify Tarkett tile or sheet vinyl flooring, specify 100% asbestos free Tarkett Flooring Products.

To help you consider this issue in greater detail, we would be pleased to send you a copy of the consumer study on asbestos.

Tarkett Inc.

800 Lanidex Plaza
Parsippany, NJ 07054

Circle No. 395 on Reader Service Card

orporating them into his overall design scheme. The execution of the complex, of which only the first phase has as been completed, is being managed by Unilever's chief architect Roy Ashworth. [Monica Pidgeon]

documenta 7: anarchic; urbana: reassuring

Once every five years, a small German city, Kassel, sponsors a summer-long art exhibition, *documenta*, which transforms into an international center of contemporary art. Founded in 1955 with a retrospective show of "Modern Art since 1900" (the first in Germany since 1927), *documenta* subsequently introduced American, Pop, and Media art to ever-growing crowds, predicting, often with uncanny accuracy, the trends to come.

This year's *documenta*, the seventh, truly lives up to the name it bears in artistic circles: "the Olympics"—180 participants from 21 countries, simultaneous shows in three exhibit halls (two restored for the occasion), official souvenirs, and posters all create a mid-century atmosphere. *Documenta 7* has proven controversial because it has no organizing themes and has even revelled in its disorganization, in a most anti-German fashion. The results of this approach include the dispersion of works by the same artist in different buildings and a catalog partially written by the artists themselves. To some this appears healthy anarchy, to others, a pathetic reflection of a stagnating, directionless art market. Trend-spotters were nevertheless able to note the recrudescence of Pop and Media art, the relatively weak showing of photography, the appearance of genres of Modernism, and the return of figurative art. There are "comers" like New York's Joel Shapiro and Germany's new Fauve, Lomé, as well as the inevitable Oldenburg, Twombly, Le Witt, Judd, and (so-hum) Warhol. Germany's man of the hour, Joseph Beuys, had been given the central square for his monumental wall construction and a stand at its base to sell Beuys' T shirts.

Documenta 7 includes works by architects and about architecture: two carefree collages by Frank Gehry combining water-stained working drawings and yellowed articles about him, two sound poems by Bernhard Leitner, photographs of industrial architecture by Bernd and Hilla Becher, and perspective analyses by Jan Dibbets. There was also a building within the gallery itself, which consisted of Michael Asher's transposition of a Mies Van der Rohe use.

Architecture was, however, the subject of a separate show called *documenta urbana*, the result of an invitational competition for the replanning of 15 public spots in Kassel. The 100 answers to the challenge *sichtbar machen* (make visible) were exhibited at the Rathaus

and collected in a catalog which, it is hoped, will continue to awaken local interest in the gaps and leaks in the urban tissue. *Documenta urbana* will also make a permanent contribution to Kassel's landscape on a site outside the city center, where 211 units of public housing have been built by nine different teams. It is conceived as a modest experiment, closer to Stuttgart's Weissenhof than to Berlin's gigantic International Building Exhibit. The new settlement Schöne Aussicht-Dönche, has succeeded in inspiring confidence among Kassel's leadership in the role of urban experimentation in the vast and expensive enterprises of future *documenta*.

[Hélène Lipstadt]

Hélène Lipstadt, who holds a doctorate from the Ecole Pratique des Hautes Etudes en Sciences Sociales in Paris is trained as a social historian and anthropologist.

Back to terra cotta

This year has brought a refired interest in terra cotta. The Friends of Terra Cotta, a nonprofit group founded in 1981 to promote both the preservation and new use of the material, have kindled that interest with a series of technical seminars held this year in San Francisco, Chicago, and New York, attracting large and enthusiastic audiences.

The seminars began with a history of terra cotta from its development in Renaissance Italy to its decline during the Depression, when the handmade material proved too expensive and too ornate for modern tastes. Sessions followed on terra cotta production, which still uses clay models and plaster of paris molds; its deterioration, usually from water spalling the glazed surface or corroding the iron strap supports; its analysis, employing everything from metal detectors to moisture meters and strain gauges; its repair, using epoxies and stainless steel pins; and its replacement with substitute materials such as fiberglass, polyester, or concrete. The seminars ended with preservation case studies of the Marquette Building in Chicago and the Woolworth Building in New York.

Funded in part by the National Trust, the seminars showed the spirit of cooperation that exists in the architectural conservation community among government, industry, and the architectural and engineering professions. Representatives of the National Park Service, major terra cotta producers such as Gladding, McBean & Co., and firms such as Holabird & Root and The Ehrenkrantz Group openly discussed both their good and bad experiences with the material, a valuable exchange that doesn't occur often enough in many areas of building technology. The seminars are worth repeating for their information and as a model for other technical conferences. [TF]

[News report continued on page 50]

Kawneer.

It means safety and security for entrances.



Paneline™



The Controller™

Are your building's entrances ready for an emergency? Do they provide the security your building needs? If you've got questions about the safety and security of your building's entrances, ask your Kawneer dealer about Paneline Concealed Exit Devices and Controller 3-Point Locking Systems that meet Life Safety codes.

For more information, see your Kawneer dealer, or write: The Kawneer Company, Dept. C, 1105 N. Front St., Niles, MI 49120.

Kawneer
the designer's element

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

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

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



Project: University of Minnesota-
Duluth

Carpet Mill: Bigelow-Sanford

Fabric: Pebblepoint

Color: Coffee

Designer: Bill Moser
Architectural Resources

Dealer: Commers Interiors

Project: Bankers Trust Company
Headquarters, New York

Carpet Mill: Gulistan

Fabric: New Generation IV

Color: Cedar

Designer: Designer Group
Bankers Trust Company

Anso[®] IV
ALLIED CORP. NYLON

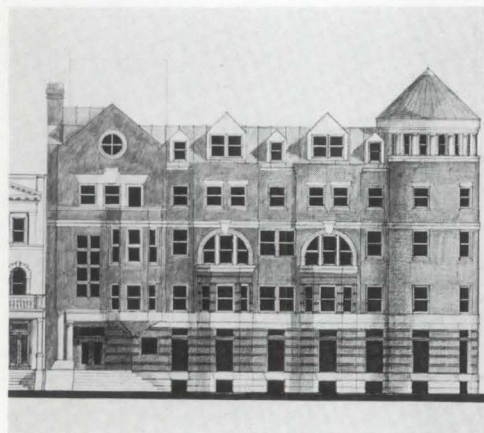
The 4th generation nylon that
made all other carpet fibers obsolete.



1411 Broadway, New York, NY 10018

Circle No. 301 on Reader Service Card

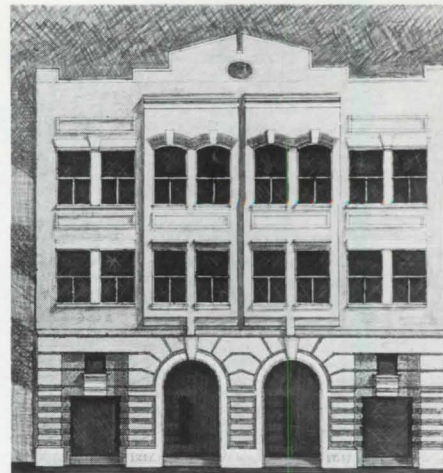
In progress



1 The Corcoran residential/office building, Washington, DC. Architects: KressCox Associates, Washington. This five-story, 32,000-sq-ft new structure, inserted on a corner lot in the Dupont Circle Historic District, is designed to fit comfortably into its turn-of-



The Corcoran residential office building (left). 1217 E Street Office building before (above) and future (right).



the-century Classical Revival setting. It is faced in dark red brick with limestone rustication, keystone lintels, and trim, and has a varied roof treatment, with peaks, dormers, and a turret. Office space totaling 22,000 sq ft, with ten-foot ceiling heights on the ground floor, is entered from the grand New Hampshire Avenue side. The 12 residential units, 10,000 sq ft in all, are entered through a private landscaped courtyard off the residentially scaled Corcoran Avenue.

2 1217 E Street Office Building, Washington, DC. Architects: KressCox Associates, Washington, DC. This no-nonsense 1930s com-

mercial warehouse, just off Pennsylvania Avenue downtown, is getting a novel look a renovation now underway. Appropriately the image of the new tenants, a law firm, architects are transforming the doorway facade into a Neo-Classical one. Limestone trimmed archways and keystone lintels combined with two colors of brick and stone to complete the exterior, which now includes a stylish parapet. Inside the main archway—retail space is at each side—are niches in the foyer, designed to hold busts of the law firm's founding partners immortalized, apparently, as they are paying for the facade's limestone. The 22,000-sq-ft concrete-frame building will be able to support two additional floors for future expansion of the three-story building. [News report continued on page 56]

MICROZINC® 80
saves 20-30% over painted galvanized.

Maintenance-free flashing!

Microzinc-80 is our mill-finish architectural sheet metal. It not only installs at up to 30% less than painted galvanized (saves even more over copper, TCS or stainless). It also eliminates call-backs—no repainting, leaks, run-off stains or rotting of adjacent materials. For greatest savings, specify our fac-

tory-formed flashing, gravel stop, coping, valley, gutter and downspout. Send for cost comparisons in your area or call Ed Pejsa free. 1-800/251-7506.



Metal & Chemical Division

GREENEVILLE, TENNESSEE 37743 • 615/639-8111

Ball is a registered trademark of Ball Corporation. © 1981 Ball Corporation.

Circle No. 311 on Reader Service Card

VENTARAMA® the plastic-domed ventilating skylight

Skylighting is the way to create beautiful light-filled rooms, add new dimension and greater flexibility to interior and exterior designs.

VENTARAMA SKYLIGHTS OFFER PASSIVE SOLAR HEATING, NATURAL AIR CONDITIONING, and can be used in any climate on any roof.

- COPPER FLASHED • SHATTER-PROOF • INSULATED DOME • SCREENING AND SUNSHADE • OPERABLE BY MANUAL, POLE, OR ELECTRIC MOTOR



VENTARAMA® SKYLIGHT CORPORATION
75 Channel Drive, Port Washington, New York 11050 (516) 883-5000

Circle No. 399 on Reader Service Card



ELEVATORS BY DOVER

**Modern technology
blends with
contemporary
charm.**

Adding to the revitalized downtown area of San Antonio is the new Hyatt Regency, a \$38-million, 633-room luxury hotel on the Riverwalk along the San Antonio River. A series of waterfalls flows through the atrium lobby as an extension of the river. Six glass-walled, cylindrical Dover Elevators add their own excitement as they move guests through this dramatic space. For more information on Dover's complete line of Traction and Oildraulic[®] Elevators, write Dover Corporation, Elevator Division, Dept. 688, P.O. Box 2177, Memphis, Tennessee 38101.

DOVER[®]

The elevator innovators.



Hyatt Regency San Antonio

ARCHITECT:

Thompson, Ventulett, Stainback
& Associates, Atlanta

ASSOCIATE ARCHITECT:

Ford-Powell & Carson, San Antonio

GENERAL CONTRACTOR:

Hardin International, Inc., Atlanta

Dover Elevators sold and installed by

Dover Elevator Company, San Antonio

The American Gas Association presents:

Passive Solar Design Awards Competition*

Purpose: To encourage the design and construction of practical residential housing which optimizes the use of energy through passive solar design techniques and the use of natural gas for space conditioning and household appliances.

Eligibility: This competition is open to all architects, designers, and builders with built or buildable designs. By entering the competition, designers of unbuilt projects agree that should they win, they will build their designs.

Categories: A. Single-family detached.
B. Multi-family, up to six dwelling units.

Registration: A non-refundable \$50 registration fee must be submitted by January 31, 1983 for each design to be entered. Design submission deadline is February 28, 1983.

Awards: Winners in each category will receive the following awards:

- First prize—\$4,000.
- Second prize—\$2,000.

P A S S I V E

SOLAR

DESIGN COMPETITION

AMERICAN GAS ASSOCIATION

• Honorable Mentions—\$1,000.

• National publicity in professional trade journals.

• Publication in a book of competition highlights to be distributed nationally.

Judging Criteria:

• Economic viability in local housing market.

• Suitability of design to urban mass housing market.

• Adaptation to surrounding environment.

• Optimum use of gas energy for backup and appliances.

• Architectural style.

• Overall energy efficiency.

• Marketability of design.

Jurors: Samuel J. Cunningham, Manager of Research, Southern California Gas, Los Angeles, CA; James Leach, Downing-Leach, Boulder, CO; Richard G. Stein, FAIA, The Stein Partnership, New York, NY; Donald Watson, FAIA, Guilford, CT; Steven Winter, Steven Winter Assoc., New York, NY.

Competition Director: Albert J. Ream, American Gas Association, Arlington, VA (703) 841-8575.

*Cosponsored by Solar Age Magazine.

To receive a copy of the registration booklet which contains detailed instructions concerning design submissions, please complete this form and return to: Passive Solar Design Awards Competition, Room 1002, American Gas Association, 1515 Wilson Boulevard, Arlington, VA 22209.

Do not send design entry with this form.

PA-11

NAME _____

COMPANY _____

ADDRESS _____

CITY _____

STATE _____

ZIP _____

PHONE () _____

AREA CODE

Category: ☐ A. Single-family ☐ B. Multi-family

☐ Built ☐ Unbuilt

© 1982 AMERICAN GAS ASSOCIATION

Gas: The future belongs to the efficient.

Circle No. 304 on Reader Service Card



An unusual detention facility in Virginia.

ELEVATORS BY DOVER

Distinctive in shape, efficient in design, the new Roanoke County/Salem Jail creates a compact and secure housing facility without the use of bars. Two Dover Elevators are an integral part of a system that maximizes supervision and security of inmates, yet minimizes staff requirements. For more information on Dover Elevators for low, mid, and high-rise structures, write Dover Corporation, Elevator Division, Dept. 692, P.O. Box 2177, Memphis, Tennessee 38101.

DOVER[®] ELEVATORS

Roanoke County/Salem Jail, Salem, Virginia

ARCHITECTS:

VVKR Incorporated, Roanoke • Alexandria, Virginia

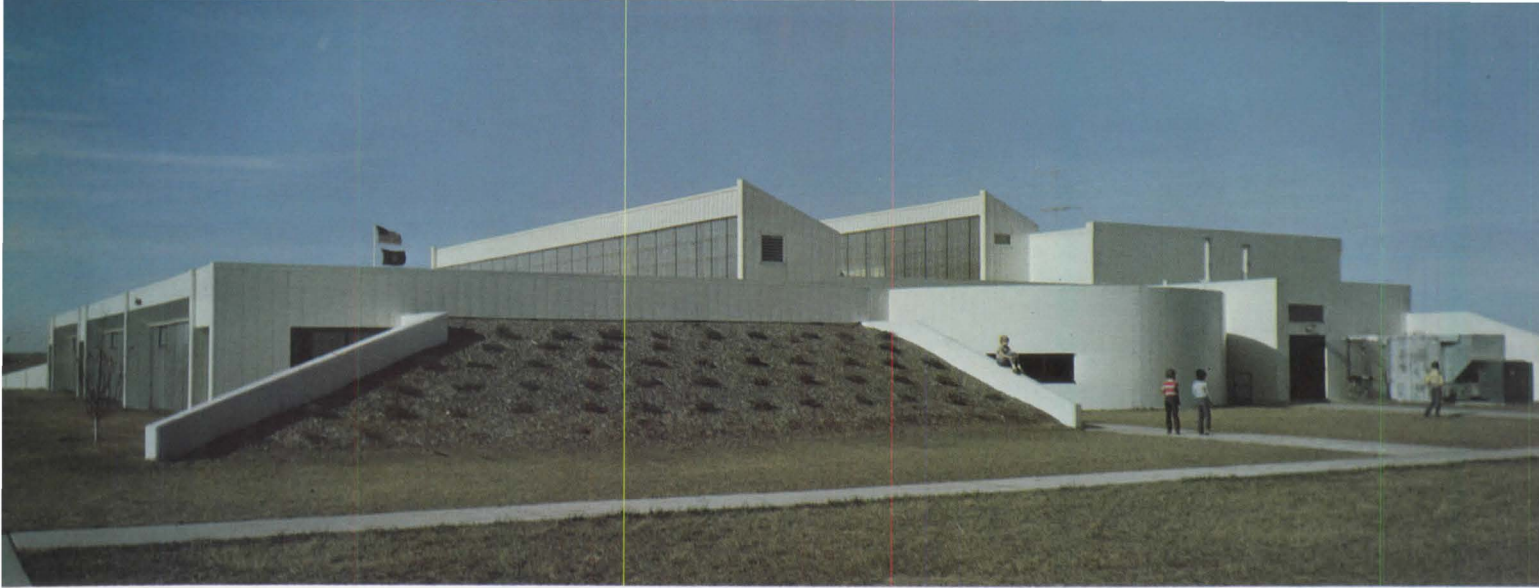
GENERAL CONTRACTORS:

J. M. Turner & Co., Inc., Salem, Virginia

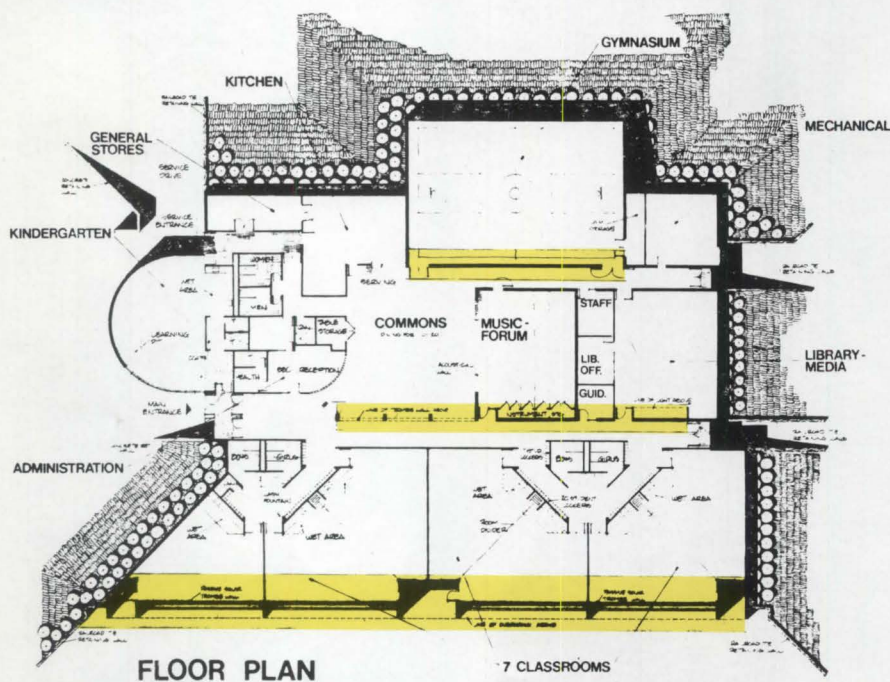
Dover Elevators sold and installed by

Dover Elevator Co., Greensboro, North Carolina

Photographer: Huffman Studio, Richmond, Virginia



An overall view of the school from the southeast, showing the earth berming, the long Trombe wall and clerestory windows used in combination with two long interior concrete masonry thermal storage walls.



A floor plan of the school. Colored areas indicate the location of the concrete masonry thermal storage walls.

A view along one of the axial corridors showing the clerestory windows and the solid concrete masonry heat storage wall.



WINDY HILLS ELEMENTARY SCHOOL
KEARNEY, NEBRASKA

ARCHITECT/LYNN BONGE

Concrete masonry passive solar school in Nebraska, designed to cut energy costs by one third.

Energy saving concrete block walls at work throughout.

Earth berming part of design.

"I believe that a designer can observe and respect some fundamental principles of nature and then enjoy a new direction in architecture..."

This statement from Architect Bonge comes to full reality in his Windy Hills School in Kearney, Nebraska, aptly named by its students for its high, windswept location.

The design combines loadbearing concrete masonry construction, earth berming, and passive solar heating with a Trombe wall and clerestory windows.



Lynn Bonge, Architect



View of the school from the south showing the 160' Trombe wall.

Classrooms are located directly adjacent to this wall.



Load-bearing concrete masonry is employed throughout the structure.

The concrete masonry Trombe wall on the south face running approximately 160' forms the primary passive solar heating system. This long wall is built with 18" fully grouted concrete masonry. Other concrete masonry walls in the axial corridors of the school store heat gained through restroly windows.

It is expected that solar energy will provide about one third of heating needed for this 23,000 sq. ft. structure.



The classroom side of the Trombe wall, showing vents, through which solar heated air enters the room.



Detail of the Trombe wall from the outside. Manually operated windows can be opened if necessary. This picture shows the class room ventilators which are opened or closed automatically by thermostats, and the black painted concrete masonry Trombe wall.



National Concrete Masonry Association

P.O. Box 781
Herndon, Virginia
22070

Marketing Dept. National Concrete Masonry Association

P.O. Box 781, Herndon, Virginia 22070

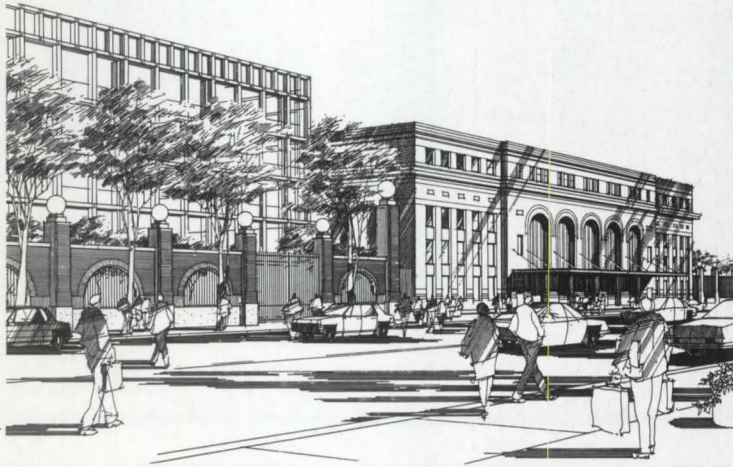
Please send me without obligation, further information on concrete masonry solar architecture.

Name _____

Firm Name _____

Address _____

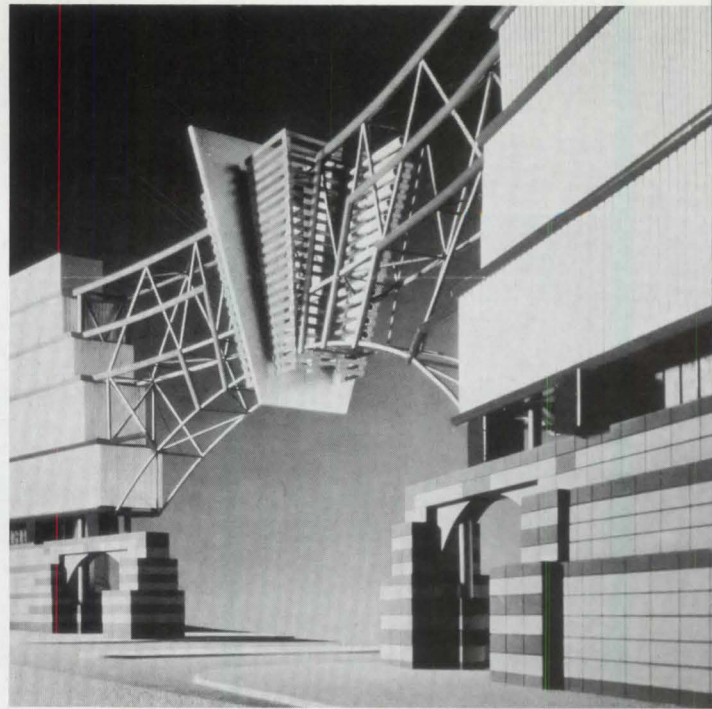
City _____ State _____ Zip _____



3 New Haven Railroad Station Renovation, New Haven, Ct. Architects: *DeLew Cather Parsons, and Skidmore, Owings & Merrill and Herbert S. Newman Associates.* By 1985, the voluminous and currently empty Cass Gilbert railroad station will be renovated at a cost of \$28 million, to be used as a mass transit hub for Southern New England. The interior will receive "respectful attention," while metal-clad tubes will take passengers to platforms. The complex, which will include a 900-car

garage, will be unified on the street through the use of giant brick pylons between a screen wall, combining Lutyens-esque civic imagery with metalwork meant to evoke railroad ornaments.

4 Breakfast Television Center, London, England. Architects: *Terry Farrell Partnership, London.* A large block of studio space for use by England's version of the "Today" show is wedged into a narrow site on the side of an



industrial canal. An undulating screen wall will front this addition to an older brick building and allow entrance underneath a giant arch whose steel truss work is painted to resemble the rising sun. Inside, public areas are highly articulated through the use of several temple- and aediculae-forms, including a Texas desert garden with mirrored walls. Completion is scheduled for summer 1983.

[News report continued on page 68]

True, PermaGrain® isn't the only flooring we make. But only we make PermaGrain.



The name PermaGrain has become synonymous with durable, beautiful wood flooring. But only PermaGrain has all the qualities and features that continue to make us the leader in the field.

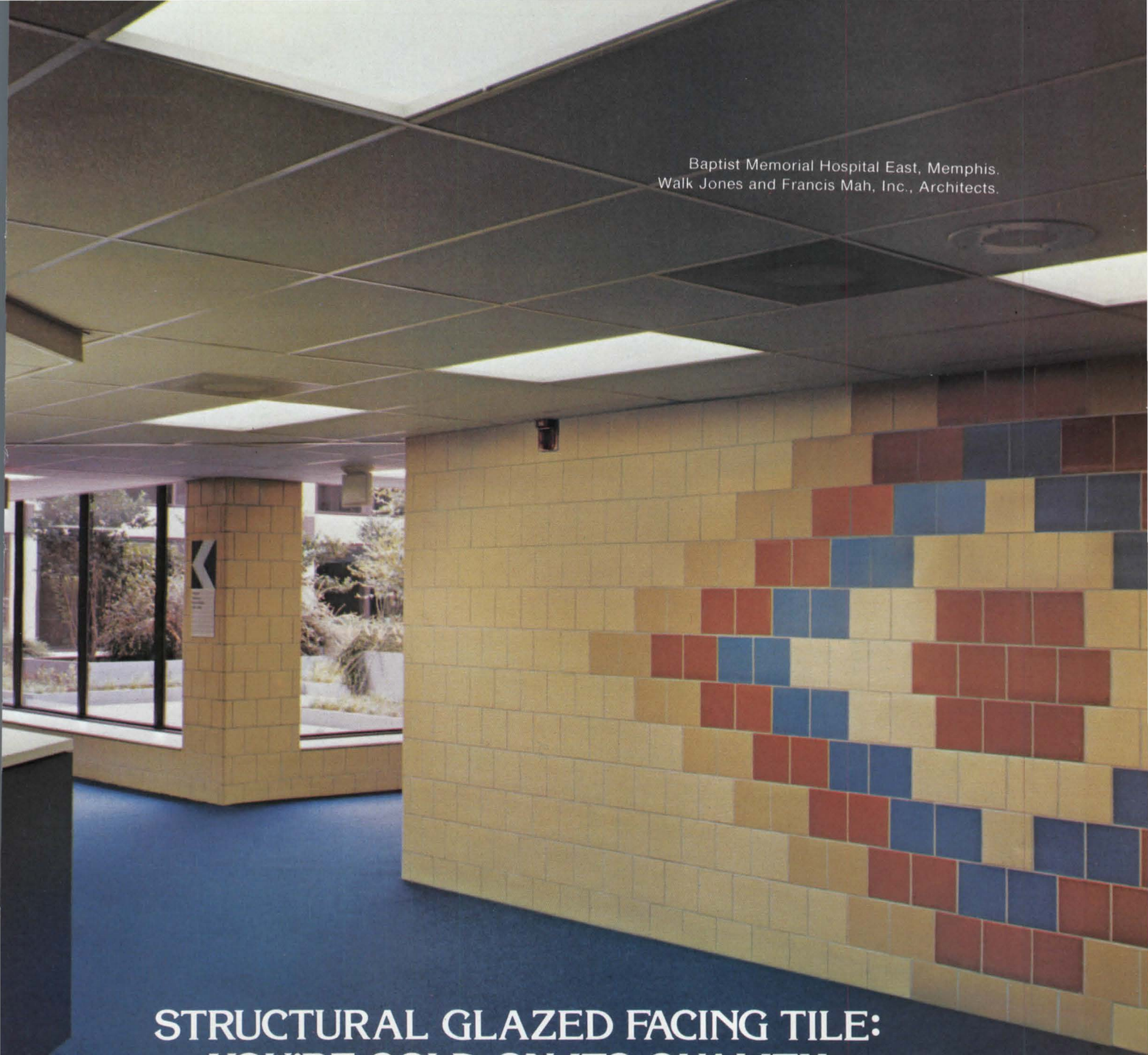
PermaGrain is just one of many flooring products in the PermaGrain family. And, of course, all our products are unsurpassed for beauty, uncommon durability and cost-effectiveness.

So to insure you're getting the best in quality flooring, be sure to specify us by name. Then check for the PermaGrain trademark.

Naturally #1.

PERMAGRAIN PRODUCTS, INC.

PermaGrain Products, Inc., 22 West State Street, Media, PA 19063, (215) 565-1575
Circle No. 405 on Reader Service Card



Baptist Memorial Hospital East, Memphis.
Walk Jones and Francis Mah, Inc., Architects.

STRUCTURAL GLAZED FACING TILE: YOU'RE SOLD ON ITS QUALITY. NOW TAKE A LOOK AT ITS PRICE!

SGFT: \$6.50/sq. ft.

Brick: \$6.50/sq. ft.

Concrete block with epoxy coating: up to \$6.39/sq. ft.

Ceramic tile (mortar set) on concrete block: \$6.40 to \$7.52/sq. ft.*

You may find it surprising that the most durable wall material you can specify is so cost competitive in the wall, but it's true. One reason: structural glazed facing tile (SGFT) provides both wall and finished face in one unit. It reduces on-site labor because it is installed in one step by one trade.

But in-the-wall cost is only the beginning of the story.

SGFT's kiln-fired body with ceramic glazed face gives it permanent color, makes it impervious, fireproof and easy to maintain, saving the building owner maintenance cost in the years to come.

And now, SGFT is available in the 8" x 8" size shown here for more design flexibility.

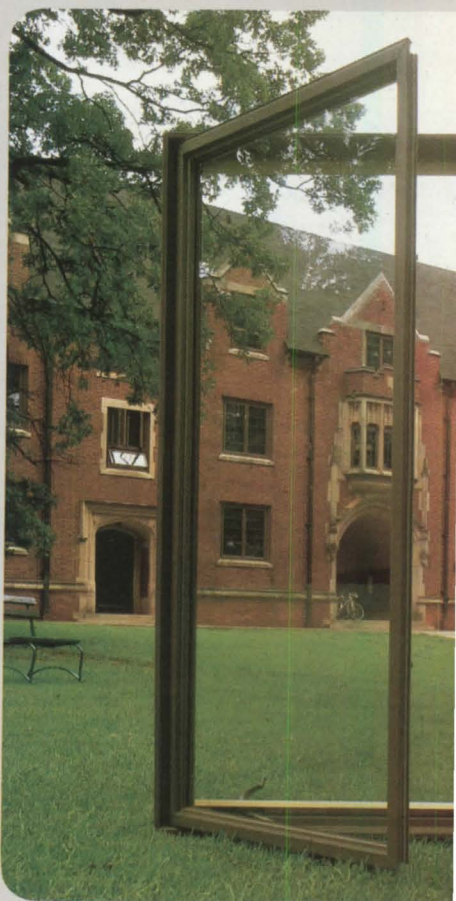
SGFT: The savings go in when the walls go up.

For immediate product information, see SWEET's section 4.4/St, or for complete cost comparison data, call or write: Stark Ceramics, Inc., P.O. Box 8880, Canton, OH 44711. Call toll free 1-800-321-0662. In Ohio, call collect (216) 488-1211.

*Per square foot in-the-wall cost for a 4" wall. This information is copyrighted by Robert Snow Means Co., Inc. It is reproduced from *Building Construction Cost Data* 1982 with permission. SGFT cost is for the functional color group, 8" x 16" units.

Circle No. 390 on Reader Service Card

stark



A testament to the power of Andersen. Before: Leaky, drafty steel casements that look like the devil. After: Snug-fitting, weather-defying Perma-Shield casements in dignified Terratone color.

When replacing windows at this seminary, many were called. But Andersen was chosen.



Columbia Theological Seminary in Decatur, Georgia, is a quiet, peaceful place where it's easy to feel at home.

And lately it has become even more comfortable. Because, with the help of their contractor, the Seminary owners replaced their leaky, drafty steel casement windows with Andersen® Perma-Shield® casements.

Why Andersen windows? First, they knew Andersen windows are quality windows. Built far more weathertight than industry air infiltration standards. To seal out drafts, seal in comfort all year long.

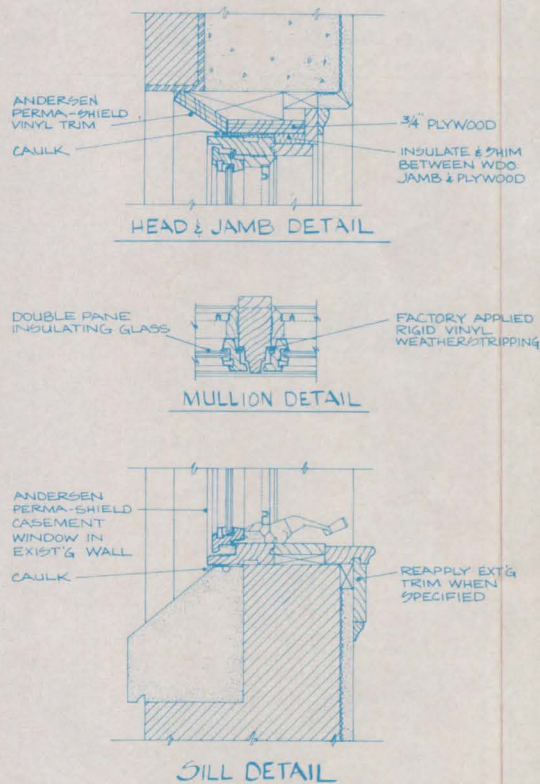
But just as important they found that, of all window companies, Andersen offered the best system for filling the odd-shaped openings of the steel casements: The Andersen Window Replacement System.

The Andersen Window Replacement System is specially designed to custom-fit stock-size Perma-Shield windows into window openings of any size. The System's low maintenance rigid vinyl or vinyl-clad installation aids easily adapt to any exterior siding. To maintain maximum weathertightness and window beauty.

The aids are available in white or Terratone™ color. Here at Columbia the beautiful earth-hued Terratone color of both the Andersen windows and the aids blend beautifully with the brick and stone exteriors. So the character of the Seminary isn't changed. Just beautified.

Got a replacement job coming up that needs a little more spirit and grace? Specify Andersen windows, and the Andersen Window Replacement System.

For more details, see Sweet's File 8.16/An. and Sweet's File 8.22/An. or your Andersen dealer or distributor. They're in the Yellow Pages under Windows. Or write Andersen Corporation, Box 12, Bayport, Minnesota 55003.



Columbia Theological Seminary
Decatur, Georgia

Contractor: M.W. Buttrill Special Projects, Inc.
Decatur, Georgia

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

82130 Copyright ©1982 Andersen Corp., Bayport, MN

Come
home to
quality.

Come
home to
Andersen.

Andersen Windowwalls®
ANDERSEN CORPORATION BAYPORT, MINNESOTA 55003



Circle No. 307 on Reader Service Card

Competition in Paris

France is holding an international competition (registration deadline was October 23) for the design and construction of an International Communications Centre and two Ministries in La Défense region of Paris.

¶ The 13-person jury includes Oriol Bohigas, Kisho Kurakawa, Richard Meier, and Ada Louise Huxtable.

Victoriana among Rochester winners

A brand new "Victorian Refreshment Stand" for Genesee Country Museum by architects Handler/Grosso took one of the Awards in the annual Rochester (NY) AIA honors program. Awards also went to:

¶ the Chautauqua Institute Amphitheater renovations by Lawson-Knapp & Pulver

—which maintain its Victorian character; ¶ the United Cerebral Palsy Group Residence by Macon/Chaintreuil Associates; ¶ the O'Neill Residence by Charles F. Lewis.

¶ Citations went to: the Academy Office Building—Victoriana reworked—by Handler/Grosso;

¶ a beverage distribution center by Starks Wurzer Patterson Romeo;

¶ a vacation house and an office building by Macon/Chaintreuil.

¶ Jurors were Osyp Martynuik of Kent State University, John Shaw of Cornell, and John Morris Dixon of P/A.

Rochester Arts in Architecture

In a new competition for arts in architecture, cosponsored by Arts for Greater Rochester and the local AIA chapter, the top prize went to metal craftsman Albert Paley's gates for the State Capitol Senate

Chamber in Albany, NY (p. 116).

¶ Jurors were Robert Johnston, Dean Fine & Applied Arts at Rochester Institute of Technology, Rodger Mack, Director of the School of Art at Syracuse University, and P/A Editor John Morris Dixon.



Murphy/Jahn design.

Star of Texas

Murphy/Jahn's design of a 1400-ft-tall tower in Downtown Houston for South Bancshares and Century Development Corporation (P/A, Aug. 1982, p. 21) has been revealed.

¶ The steel, granite, and glass skyscraper with 82 floors (including a ten-story arc at street level) and two million rentable sq ft of office and retail space, is rotated 45 degrees on the site and tapers to a peaked top.

¶ The commission was awarded in a competition, with SOM/Houston and K Pederson Fox & Associates also submitting proposals. (More next month.)

Wolf Trap redesign

The Wolf Trap Foundation has hired Dewberry & Davis (not Edward Knowles, one of the original architects of Wolf Trap Farm Park) to redesign its theater which burned down last spring (P/A, June 1982, p. 4).

¶ D & D had offered its services to assist in locating and installing the temporary structure on the site, and has promised to complete working drawings in time to begin construction by December 1. The ceremonial opening will be next August. That's a fast track.

¶ Congress has approved a \$9 million grant and an \$8 million loan for the structure which will use the CADD/CAM system.

Fairfax

Arthur Erickson with Dewberry & Davis, Fairfax, Va., have won the competition to design the new \$50-70 million Fairfax County Government Center (P/A, June 1982, p. 39).

¶ The Board of Supervisors has voted to pay \$50,000 to the joint venture architect but is worried that the voters, who will now decide on the center, may be opposed to backing such an expensive venture.

¶ The winning design is a 350,000-sq-ft multitiered structure overlooking a lake. [Pencil points continued on page 64]



Design: Ritz. Manufactured in the United States under license from Wilkhahn.

Often imitated,
never equalled

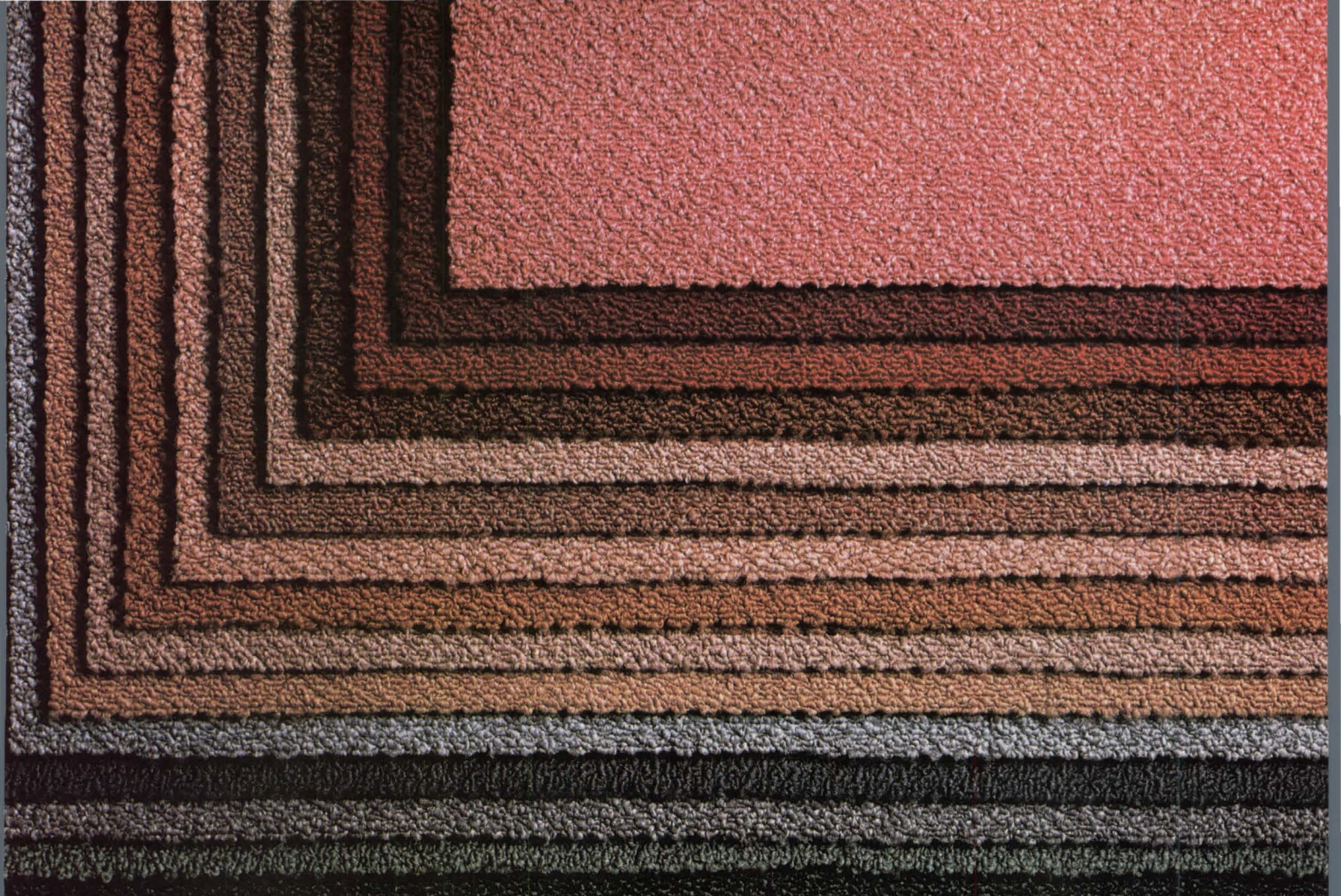
Krueger's Wilkhahn 400 furniture features an innovative laminated wood frame concept. A technical achievement, it utilizes multiple plies of select hardwoods laminated into diverging configurations. The light scale of frames belie a strength that surpasses solid wood.

Program 400 furniture includes side and arm chairs as well as tables. See them at the showrooms listed, or contact Krueger, P.O. Box 8100, Green Bay, WI 54308. (414) 468-8100.

krueger

Technical innovation... by design

New York (212) 371-9595 • Boston (617) 893-2752
Philadelphia (215) 277-7100 • Jackson, MS (601) 362-8062
Indianapolis (317) 788-4737 • Chicago (312) 467-6850
St. Louis (314) 241-8431 • Minneapolis (612) 874-6600
Dallas (214) 747-7629 • Houston (713) 222-1408
Denver (303) 534-6060 • Los Angeles (213) 659-2133



QUADRANT MODULAR TEX-TILES®. COLOR READY-MADE OR CUSTOM-BLENDED.

a textured loop tile with infinite color possibilities, made of soil-release, soil-hiding Allied Anso® IV.

COLORS. Fifteen. Neutrals to primaries to
n hues. Each with the lush, heathery softness
-color blend.

THIRTY YARN DYED BASE COLORS. We can create your custom
color by blending any three strands together.

A unique service for interior designers available in
Quadrant modular 18" x 18" tile and coordinating 6 foot
Powerbond® HEF 700. Another breakthrough in
modular flooring from the people who know it best!

Collins & Aikman
COMMERCIAL FLOOR SYSTEMS

210 MADISON AVENUE, NEW YORK, NY 10016 (212) 578-1217

Circle No. 321 on Reader Service Card

Anso IV
ALLIED CORP. NYLON



Braving the elements.



Industrial buildings
meet nature head on.
*But protected metal paneling takes
the power out of her punch.*

Foul weather can pack a wallop. There's a rain on top of high winds. Salt fog. Even oxidation from ultra-violet light. So any industrial building, from a warehouse to a coal prep plant — needs protection against corrosion. And against high maintenance costs, too.

That's why so many coal companies specify Corrstan® protected metal for their prep plants. Corrstan has the longest performance record.



coal preparation plant in Virginia, owned by Clinchfield Coal Company, a division of Pittston Company. Designing engineers, Roberts and Schaefer Company.

protected metal on the market today. All wonder. It took our R&D team three years to the unique chemistry that fuses Corrstan's two coatings into one dense surface bonded permanent to the metal. Then we put it to the real test — the marketplace. 17 years Corrstan has routinely replaced other metals. None have performed better in the field. We have beaten it in independent tests. It's simply

the industry standard for combatting corrosion. And beating nature at her own game — economically.

That's because it's our nature to set the highest standards in research and development. Quality control. Craftsmanship. And service.

For more about Steelite and our products, write Steelite, Inc., 1010 Ohio River Boulevard, Pittsburgh, PA 15202. Or call (412) 734-2600.



Circle No. 392 on Reader Service Card

¶ *There have been some grumblings that the competition "was wired from the start."* The Washington Post described D & D as "locally influential."

Memphis in New York

Furniture by the design group Memphis is now being sold in New York at the Showroom Furniture of the Twentieth Century in Chelsea.

Botta doings

Mario Botta has designed his first chair, called Prima. A version without arms is called, of course, Seconda. Manufacture is apparently underway.

Jencks takes to film

The ubiquitous Charles is now working on

a series of films that will contrast pre- and post-modernists.

¶ Contrasting pairs are said to include Frank Lloyd Wright and Michael Graves; and Gaudí and Ricardo Bofill.

Little House at the Met

December 3 will see the opening at New York's Metropolitan Museum of the living room from the house that Frank Lloyd Wright designed for Francis Little in Wayzata, Mn. The room, which will be installed with much of its original Wright-designed furniture, was acquired by the Metropolitan when the house was demolished in 1972.

Son of Skyline

Tabloids are definitely an idea whose time has come. Apparently New York may be topped out but other markets beckon.

¶ In DC now there is Design Action, edited

by Richard Etlin and underwritten by NEA grant and varied institutional support (no ads).

¶ The emphasis is heavily regional with eye on a larger than architectural audience. The first issue focuses on DC architecture as a thing in itself, supplies nitty-gritty technical dope on legislation, and rediscovered DC and Baltimore gems. What it lacks in hot, it makes up in enterprising.

And again

The Texas rangers, ranging out of Rice time, have started a Lone Star table called Cite (with news section Citelines, for those slow to grasp filial relationships).

¶ Edited by Gordon Wittenberg, teacher and energy specialist, it will be published "on a regular basis" says its laid-back editorial.

¶ In the first issue: Graves's aborted St. Antonio theater scheme, Piano's museum, an interview with Pelli, a review of Goldberger's book, and—finally!—some addressing of things specifically Texan.

¶ The calendar is Texan.

Catalog dry, with a twist

¶ The Chicago Architectural Club has leased its second journal, this year edited by Deborah Doyle.

¶ The juicy center is "Work by Members"—all new and all juried by Messrs. Peter Eisenman, James Stirling, Daniel Libeskind, Evans Woollen and Frank Ygergancioglu.

¶ All entries are published but projects selected were shown at the Art Institute of Chicago.

¶ Mischievous excerpts from jury comments, however, are included in the book.

S.F. guide and other events

John Woodbridge and P/A correspondent Sally Woodbridge have completed a 200-page guide to San Francisco architecture, one of the accomplishments planned as part of the 100th anniversary celebration of the Northern California AIA chapter.

¶ Other events: an exhibit at the San Francisco Museum of Modern Art, which opened at the end of October and will be shown through January; and a convention held November 4-7.

Eames memorial program

Furniture manufacturer Herman Miller Inc., is donating a series of lectures and films to ten institutions: the Art Institute of Chicago, Cooper Union, Cranbrook Academy of Art, Harvard University, National Building Museum, Rhode Island School of Design, University of California at Los Angeles, University of Cincinnati, University of Michigan, and Washington University (St. Louis).

DC's new D.C.

Washington's new Design Center—an old warehouse remodeled and enlarged—Keyes Condon Florance (P/A, Nov. 1981, 66)—is scheduled to open early in 1983.

¶ Robert Stern is designing the Shalom Walker showroom. Michael Graves is designing the Sunar showroom.

Portal Site may go begging

The Portal Site, one of DC's largest remaining [Pencil points continued on page 68]

Plan Hold can save you \$5.25* on every 100 sheets you file!

That's a real saving that adds up to more than \$100 per rolling stand filled with plans or prints. Plan Hold set the industry standard and now we've improved it. The SuperFile Binder and Rolling Stand increase your filing capacity 66% — and cut space needs 38.3%. Now, you can increase your efficiency as you cut your costs. See your Plan Hold Dealer today.

The more you file... the better we look!

PLAN HOLD
A TIMES MIRROR COMPANY
17621 Von Karman Avenue • Irvine, California 92714

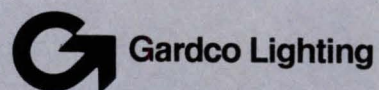
Plan Hold products are sold by leading blueprinters, engineering and art supply dealers and office furniture dealers.

*When compared to Plan Hold's 12 Binder Rolling Stand.



Style High

Definitive classics that changed the patterns of outdoor lighting. Gardco's Form Ten luminaires remain high on aesthetics, low on energy, sharp on cut-off. Optical options and configuration choices give you scope and precision in tailoring luminaires to the site geometry and your architectural intent. Gardco Lighting, 2661 Alvarado Street, San Leandro, California 94577. 800/227-0758 (In California 415/357-6900).



Circle No. 406 on Reader Service Card

GAF ROOFING PEOPLE ROLL OUT GAFPLY EP™ SINGLE PLY ROOFING SYSTEMS





GAFPLY EPTM

Single Ply Roofing Systems

For nearly 100 years GAF has been a major supplier of roofing materials. GAF people—in the lab, in production, in sales, in service—are Roofing People. They speak your language and stand ready to answer your questions. Now they bring you GAFPLY EPTM Single Ply Roofing. If you've been waiting for a system you can trust, from a company you know, your wait is over.

Technical support from start to finish

Every aspect of every GAFPLY EPTM Single Ply Roofing job will be approved and inspected by one of the many GAF technical service people located throughout the country, near you. They can do it because every component is thoroughly tested from laboratory to field use, precisely formulated to work together as a total system.

Totally engineered system

GAFPLY EPTM Roofing Systems are of two designs, adhered and ballasted, come in sheets up to 20 by 150 feet, and can be used for new or reroofing installations. The total system in conjunction with GAFTEMP[®] Roof Insulation and GAF TITE[®] Fasteners provides a complete roofing package from a source you can depend on.

Time-tested performance

The heart of the GAFPLY EPTM Single Ply Roofing System is the EPDM (ethylene propylene diene rubber) membrane which has demonstrated superior weatherability in continuous roof exposure for over 15 years. GAFPLY EPTM Neoprene Flashing has been used successfully for many years in critical roof flashing applications and our adhesives/sealants have also passed the test of time. It's what you expect from experienced Roofing People.

Most comprehensive guarantee

No other major company offers a more comprehensive guarantee on EPDM than GAF Guarantees covering the original cost of the installation are available on the GAFPLY EPTM Single Ply Membrane for up to 15 years, and on the Total System for up to 10 years. There's no prorating!

*Experienced roofing people
always on call: (212) 621-5129*

GAF CORPORATION
Building Materials Group
140 West 51 St., New York, NY 10020

GAF, GAFPLY EP, GAFTEMP AND GAF TITE
are trademarks of GAF CORPORATION

© 1982 GAF Corporation

Circle No. 333 on Reader Service Card

ing parcels of land, was awarded last winter to developers Banneker Associates with Vlastimil Koubek, architect (P/A, Apr. 1981, p. 49).

¶ The developers missed the deadline for purchase of the property, and have lost the two major tenants—Comsat and the Urban Institute—expected to take a major portion of the office space in the \$355 million mixed-use complex.

¶ DC is rapidly becoming overbuilt with office space. The Redevelopment Land Agency, Washington's urban renewal agency, has awarded rights to redevelop four major parcels in the past four years, and not one has yet started construction.

Kahn lecture room
The Louis Kahn Lecture Room at the

Samuel S. Fleisher Art Memorial in Philadelphia opened recently to the public. Designed by artist Siah Armajani, the room has unadorned, factory-finished lumber used in the bench seating and lectern, and a poem by Walt Whitman inlaid in the floor.

Colonial Williamsburg
Nicholas A. Pappas, a partner in the Washington, DC, firm Yerkes, Pappas & Parker, is replacing Roy E. Graham as resident architect of Colonial Williamsburg. Graham is now teaching and doing consultation work.

Public Library renovation
The renovation of the Dewitt Wallace Periodical Room was recently completed, part of the four-phase restoration, scheduled for completion in 1987, of Carrère and Hastings' 1911 New York Public Library in midtown Manhattan.

Designing Quality Communications Systems!

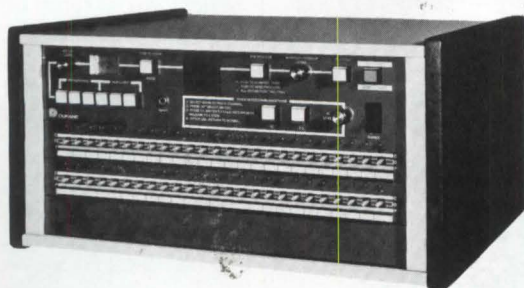
You're the expert in your field. You're the one who put all the time, talent and energy into the project. You specify quality materials to match the quality of your work.

We're the experts in our field — the field of communications. We're Dukane; we manufacture communications systems for schools, hospitals, prisons, institutions and industry. Our systems are designed to meet your requirements for internal communication, public address, paging, monitoring, tone signaling and background music. Dukane offers a full range of quality products from the simple two-way Compact Communications System to the highly sophisticated microprocessor controlled System 1200.

Our commitment to your project doesn't end with the sale of the product. We have a team of highly trained systems engineers who will assist you with the design of a system to meet your specific needs. A nationwide network of Dukane distributors provide on-site communications planning, local installation and maintenance.

We've helped experts in your field with communications systems for the Harris County Jail in Texas, the Miami School District in Miami, Florida and the Market Square Arena in Indianapolis, Indiana. We'd like to show you what we can do for you . . . expert to expert.

Attach your business card to this ad and send for free information.



DUKANE CORPORATION/COMMUNICATIONS SYSTEMS DIVISION
ST. CHARLES, ILLINOIS 60174 312/584-2300



Circle No. 325 on Reader Service Card

Calendar

Exhibits

Through Nov. 28. "H.H. Richardson Residential Projects, 1879-1886." Far Gallery, Rice University, Houston.

Through Nov. 30. The Work of Atg Old Paris. Museum of Modern Art, New York.

Through Nov. 30. Louisville Past a Present: The Architect's Hand. Louisville Art Gallery, Louisville, Ky.

Through Dec. 6. La Photographie Comme Modele. Chapelle des Petits Augustins, 14, rue Bonaparte, Paris.

Through Dec. 12. Santa Barbara: The Creation of a New Spain in America. University of California at Santa Barbara.

Through Dec. 18. "Precursors of Postmodernism: Milano 1920s/30s." Architectural League, Villard House, 4 Madison Ave., New York.

Through Jan. 2. Scandinavian Modern 1880-1980. Cooper-Hewitt Museum, New York.

Through Jan. 3. "Buildings on Paper." Rhode Island Architectural Drawing 1825-1945." The Octagon, Washington, D.C.

Nov. 8-Dec. 31. Quaint and Secular Places: Philadelphia 1682-1982. Art Gallery, 117 South 17th St., Philadelphia.

Nov. 13-Jan. 2. The California Connection. La Jolla Museum of Contemporary Art, La Jolla, Ca.

Nov. 17-Dec. 31. Ernst Lohse, drawing of imaginary architecture and 3D models. Philippe Bonnafont Gallery, San Francisco.

Nov. 17-Jan. 9. Josef Hoffmann: Design Classics. Fort Worth Art Museum, Fort Worth, Tx.

Nov. 23-Feb. 27. "American Picture Palaces." Cooper-Hewitt Museum, New York.

Dec. 5. Permanent exhibition, Living Room from the Francis Little House. Frank Lloyd Wright. Metropolitan Museum of Art, New York.

Competitions

Dec. 1. Entry deadline, 1983 Tucker Architectural Awards (incorporating the use of natural stone). Contact Building Stone Institute, 420 Lexington Ave., New York, NY 10170 (212) 490-2530.

Dec. 29. Entry deadline, International Open Competition for the Creation of a New Office Furniture. Contact Concours Mobilier, Commissariat General des Concours, Pavillon de Marsan, 1 rue de Rivoli, 75001 Paris, France.

Dec. 31. Proposal deadline, General Electric Lighting Design Competition for Architecture and Interior Design Students. Contact Daniel Hayes, C Nela Park #4635, Cleveland, Oh 44111.

Jan. 7. Application request deadline, Rotch Travelling Scholarship. Contact Norman C. Fletcher, Secretary, Rotch Travelling Scholarship, 46 Brattle St., Cambridge, Ma 02138.

Jan. 26. Entry deadline, P/A Third Annual International Furniture Competition (see ad, page 176).



Products For The Urban Environment

URBAN SYSTEMS
 Streetscape Incorporated
 P.O. Box 1743
 Grand Rapids, Michigan 49501
 Telephone (616) 453-3560



Circle No. 398 on Reader Service Card

Steelcase

Introducing Eclipse™ Steelcase task lights take a turn for the better.

Now, Steelcase workstation task lights can be adjusted to answer any need.

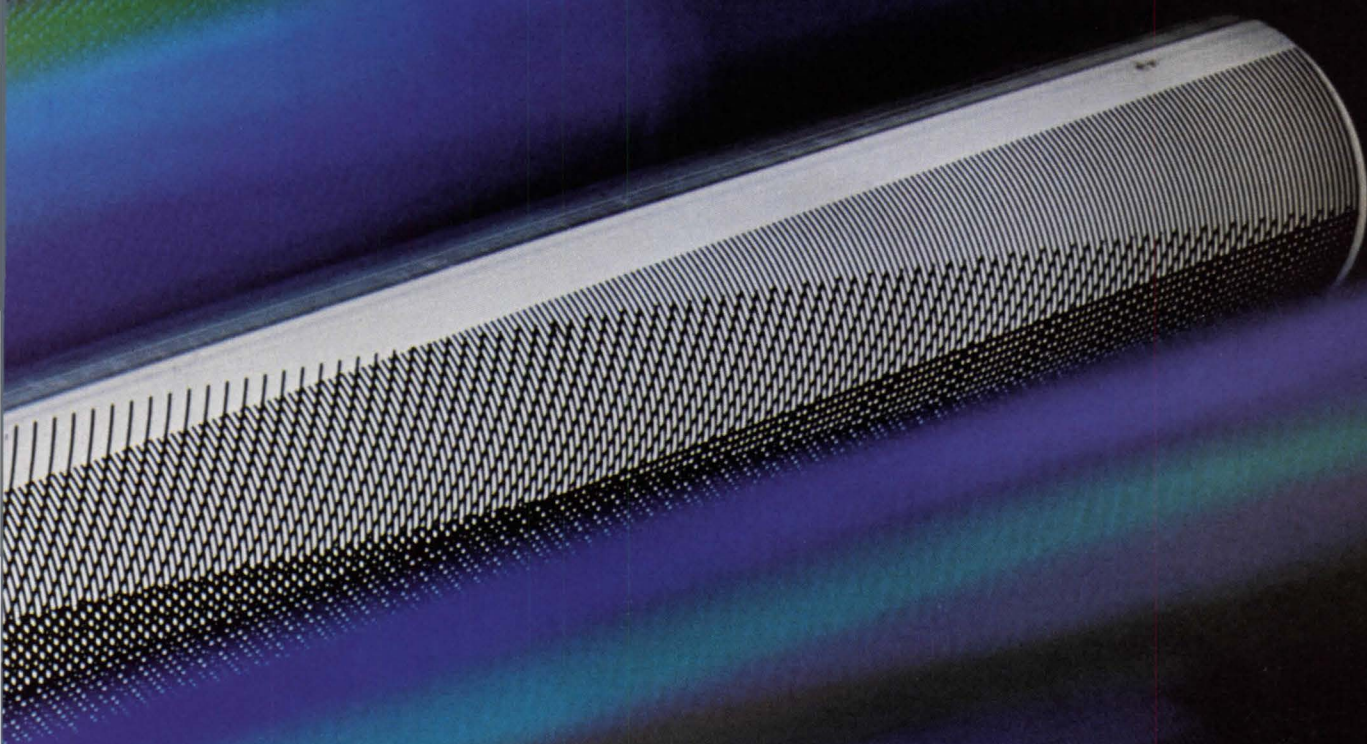
With a twist of the wrist, this variable intensity task light provides just the right light for any job. Intense, muted, or anywhere in between.

Eclipse is designed to work beautifully with Steelcase systems, including Design 9, Mobiles/Movable

Walls, Series 9000 and Ultronic 9000, the ultimate furniture for today's electronic office.

See Eclipse at one of our regional offices or contact your Steelcase Representative. For worldwide product service or sales information, write Steelcase, Box 1967, Grand Rapids, MI 49501. Or, call toll-free 800-447-4700.

Circle No. 391 on Reader Service Card



With Buchtal, shape a new world around you.



Tile featured: Keraion 2' x 2' "Kopenhagen"

Create a mood with the warm, elemental beauty of KERAION ceramic panels from Buchtal. Fill empty space with color and unfold a living, workable sensation with KERAION, the world's most advanced ceramic tile. Individually hand-glazed KERAION panels offer new options in designing dramatic indoor environments, and new dimensions in color, size and durability. KERAION adds excitement to floors, walls and even ceilings—from office space to living space, from foyers to shopping malls. Popular interior sizes 2' by 2', 2' by 1', and 1' by 1'—even a giant 4' by 5'—KERAION is virtually indestructible to ensure the permanence fine design deserves.

Or consider Buchtal's popular RUSTIC GLAZE—an exciting assortment of rich earthtones, enhanced by natural flame flashing. Or bright, intensive MONO COLOR for brilliant color, strength and durability unsurpassed in glazed ceramics. Or Buchtal's UNGLAZED—tough and skid-resistant enough for the heaviest wear, yet so attractive it adds to any setting.

Each Buchtal line offers a wealth of colors, a variety of surface and trim sizes, and Buchtal's outstanding quality and workmanship. Architectural ceramics from Buchtal—for designs that endure—new worlds that last.

BUCHTAL USA

Architectural Ceramics

Shape a new world around you.

Suite 450

5780 Peachtree Dunwoody Road, N.E.

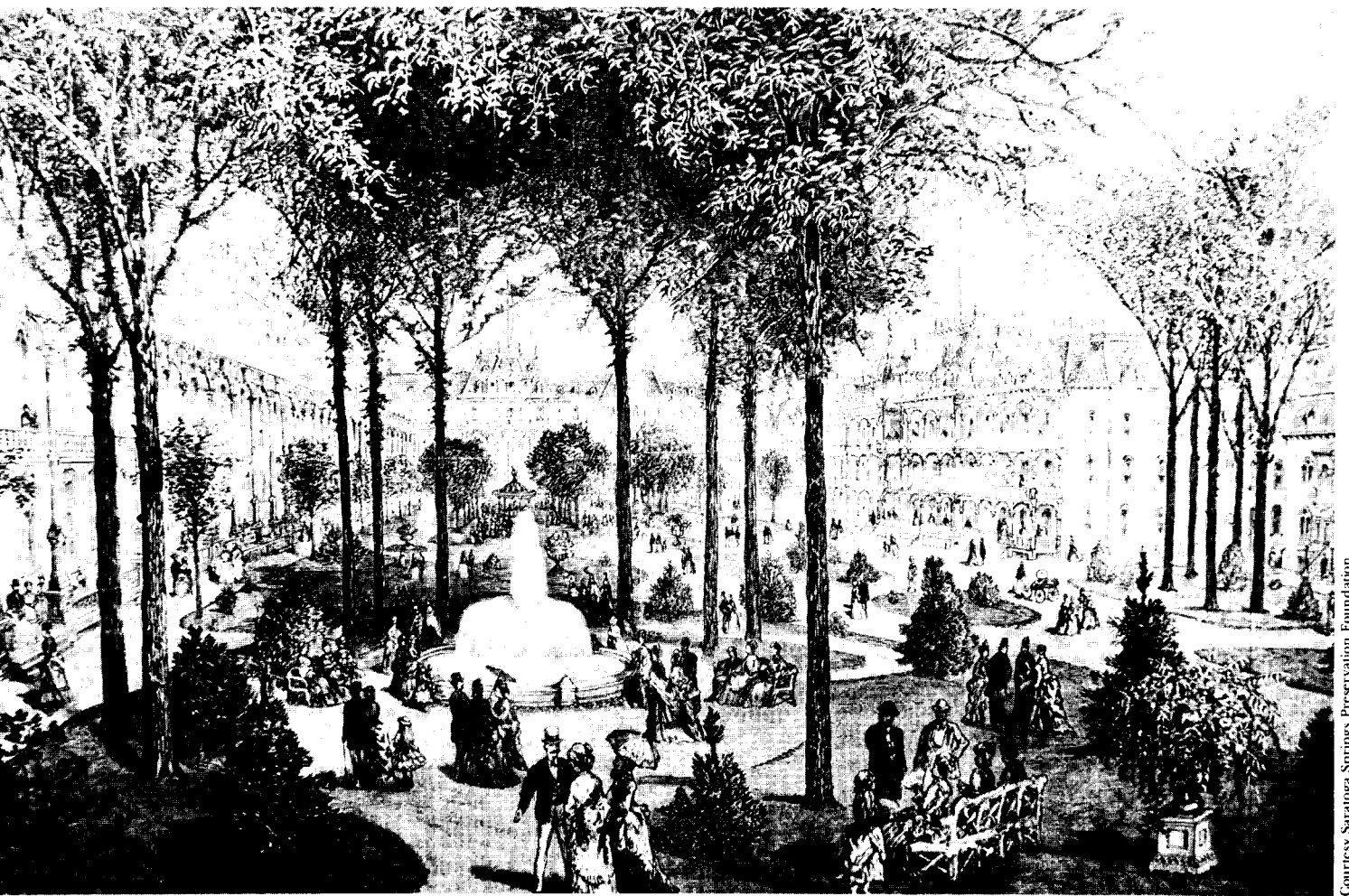
Atlanta, Georgia 30342

Telephone: (404)256-0999

TWX: 810-751-8485

Circle No. 313 on Reader Service Card

Historic districts



Courtesy Saratoga Springs Preservation Foundation

Historic districts and a
used industrial site are
the major issues on the
following pages.

the turn of the century, an af-
noon promenade was de
vour in the courtyard of the
United States Hotel at Saratoga
Springs, NY, as depicted in a
etch by Harry Ogden (above).

Although there are 2700 historic districts in the country today, ranging from places such as Virginia City, Nv, to Manhattan's upper east side, it was not too long ago that there were none. Only 51 years ago was legislation first passed by a city to protect historical structures, but not long after that 1931 ordinance for Old and Historic Charleston, SC, other pioneering efforts followed and the movement continued to grow.

The interest in historic districts today, however, differs greatly from that of 50 or even 20 years ago, when efforts were largely directed toward preserving, often in as pristine condition as possible, only areas of great historical or architectural importance. Although one of the areas discussed on the following pages is neither a historic district nor in the U.S., the three were selected, in part, as illustrative of current attitudes.

In Miami Beach, the nation's first 20th-Century historic district, preservationists are

struggling to preserve 800 buildings that would have been considered unworthy of attention a few years ago, but which comprise the world's largest concentration of Streamlined Moderne architecture. In Saratoga Springs, NY, a pragmatic group sees fast food outlets and motels as part of their natural heritage. And in Vancouver, B.C., an old industrial site has become an extraordinarily successful place for shopping, recreation, cultural activities, and dining, while retaining its remaining industrial activities.

To help guide others in such efforts, the new federal investment tax credits are outlined in a following article; and to treat the eye, the section closes with a look at two recently restored architectural gems.
[David Morton]

Deco rating

In Miami Beach, the nation's only 20th-Century historic district is still not out of the economic woods. But it's getting there.



For many resort towns on the east coast of Florida, the last decade has been nothing but fun in the sun. For most of Miami Beach, however, it has been heavy sledding. The seven-mile-long island community that was once a glamorous vacation spot (and which still boasts miles of sundrenched beaches) has suffered for many years from shifting demographics, economic decline, and apathy. Political squabbles, a dwindling tax base, and poor planning have exacerbated the problems.

The last ten years have seen a succession of false starts at revitalization. The ill-fated South Shore redevelopment scheme (P/A, Nov. 1979) would have leveled the southern tip of the island to make way for a huge resort community, but the economic uncertainties of the last few years killed the plan (of the original group of investors, only First Boston Corp. has resurfaced, having recently introduced a scheme to develop South Shore with the Rouse Company). A project to rehabilitate Lincoln Road, once the city's most elegant shopping district, met with a similar fate. The comprehensive city plan developed by the architectural firm of Anderson Notter Finegold (P/A, Jan. 1982), that was submitted to the city well over a year ago, has yet to be

reviewed. Only one project—Venturi, Rauch & Scott Brown's plan for Washington Avenue—has been implemented at all (photos on these and following pages).

Furthermore, the last few years have seen a never-ending feud between preservationists on one hand, and developers and city fathers on the other, over the fate of the 800 Art Deco and Streamlined Moderne buildings concentrated in a one-square-mile area of South Beach—the nation's first and only 20th-Century historic district. The fact that the district boasts what is arguably the largest and most cohesive concentration of these buildings in the world may have guaranteed frequent headlines, but has done little to guarantee its future. Few developers have considered the buildings worth saving, economically or aesthetically, and there were times when it seemed they pulled down buildings as a simple show of force, as in the case of the New Yorker Hotel (P/A, Feb. 1981), for



Steven Brooke

which the Miami firm of Bouterse, Fabregas and Perez had designed a striking mixed-use scheme that would have saved a notable building while attracting new tourists and residents. Meanwhile, the Miami Design Preservation League, led by the indefatigable Barbara Baer Capitman, had fought for and secured historic designation for the Deco district in May 1979. Designation, however, cannot guarantee a building's survival; it simply qualifies owners for tax credits and incentives that encourage preservation (and few small businesses can afford the investment of 100+percent of a building's original price, necessary to receive *those* tax breaks). On a local level, the Miami Beach preservation ordinance that required 100 percent owner approval for historic designation (51 percent is standard)—effectively blocking any designation at all—was struck down in September. The Dade County Attorney declared the ordinance “an improper delegation of authority by a public agency” to private persons; the Metro Dade Preservation Commission now holds jurisdiction over Miami Beach until a new ordinance is approved. This marks a victory for preservationists, who can now attempt to block, for example, construction of a

33-story tower on the site of the White House, a beachfront hotel destroyed last summer by a fire of suspicious origin.

It would seem that the only hope for revitalizing the city—especially the Deco district—would be a joint effort between public and private sectors to attract new investment while preserving the fragile tissue of the urban fabric. So far, this remains an arduous task, thanks to a chronic lack of zoning or local tax incentives and the intransigence of local businessmen, who see the preservation issue as one of property rights versus government coercion. Preservationists, of course, urge businessmen to look beyond short-term profit to long-term urban improvement. Obviously, there must be a balance between the two. In this light, it is interesting to examine the two major preservation projects in the city—Washington Avenue and the beachfront hotels, examples of largely public and largely private investment, respectively—the better to read which way the winds are actually blowing in Miami Beach.

On Washington Avenue at 10th Street, the offices and warehouse of the Washington Storage Company (facing page), built in 1927, boast rich Spanish Renaissance ornament. On the opposite side of the avenue, the Kenmore and Taft Hotels, recently repainted, can be glimpsed through the widened median, with its plantings of tropical vegetation (above), part of the revitalization program for the street.

Miami Beach

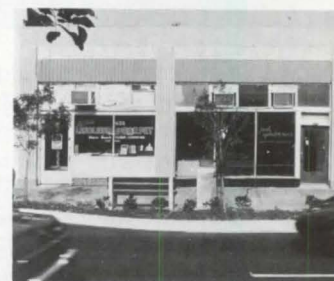
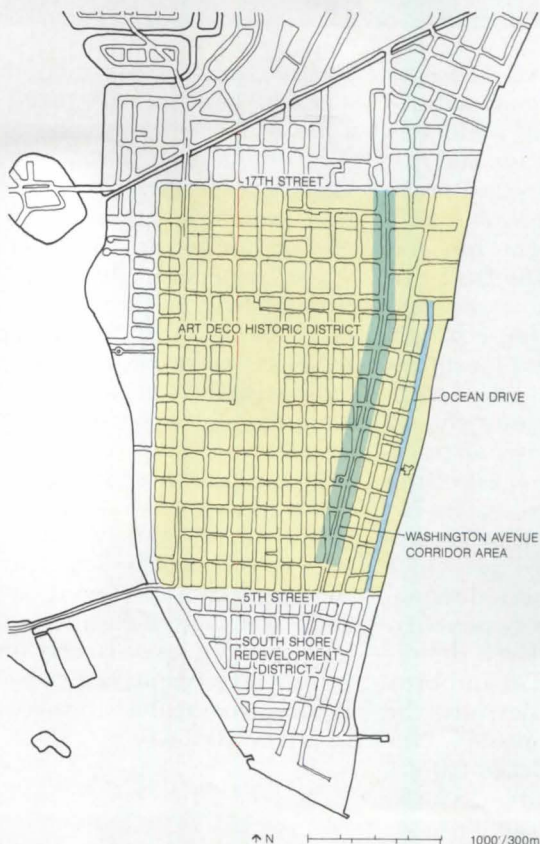
On the avenue

Washington Avenue, South Beach's 12-block-long commercial strip, while in the heart of the Deco district, itself boasts few architectural notables. It is lined with one-story stucco shop buildings on the east side, and taller hotel and bank structures on the west. The merchants of this varied and colorful neighborhood have long catered to an elderly Jewish population that is rapidly giving way to increasing numbers of Haitian and second-wave Cuban refugees. The city, looking for a way to revive the fast-fading street, commissioned Venturi, Rauch & Scott Brown (with David Jay Feinberg, AIA, associate architect and Richard Rose, consulting architect) to develop a plan for the area. The Washington Avenue Revitalization Plan, submitted in 1979 (P/A, Aug. 1980), is a comprehensive planning, design, and economic guide for the Washington Avenue Corridor Area that stretches from 5th Street North to 17th (see map). It calls for extending the old pink sidewalks, widening and landscaping the median strip, creating bus stops and mini-parks, and extensive relandscaping. It also establishes design guidelines for signage, street furniture, exterior paint colors, and for preservation and restoration. Design review procedures and short- and long-range development guidelines are aimed at upgrading the neighborhood without destroying its unique character. Thus far, however, only the public works parts of the plan have been implemented; VRSB's other suggestions have yet to be taken up. Partner in charge of the project, Denise Scott Brown, who has not seen the street since the first phase of work was begun, believes that the landscaping was not as extensive as had been recommended, but she was quick to point out that most of the planting is still too immature to warrant a final judgment. When asked about the issue of gentrification of the area in the face of a rapidly dwindling elderly population (90 percent in 1970 to 50 percent in 1980), Scott Brown said she would not object to a slow "boutiquefying" of the street as long as the change was gradual and subtle. David Feinberg regrets that neither he nor VRSB was retained as consultants on the implementation of their plan, which thus far has encompassed approximately \$2 million in road improvements, according to Monte S. Lee, AIA, director of the city's Office of Planning.

Along this new and improved road, however, the streetscape is slower to change, although two (literally) bright spots do exist. On the east side of the avenue from 6th to 7th Streets, and on the west side at 10th Street (the Kenmore and Taft Hotels), buildings now sport multicolored exteriors, the result of a program funded by the Dade County Community Economic Development Office. Designer Leonard Horowitz, IDSA, carrying out a plan originally developed along with architect Charles H. Pawley, drew up a program of 40 colors to be chosen in cooperation with local owners and merchants. The colors



Steven Br...



Friedman's Bakery (top photo), at Washington and 7th, wears a combination of new and old signage, aimed at both pedestrian and vehicular traffic. It was repainted (cover photo) as part of the project for the 600 block of Washington Avenue (see map, left, for scope of Washington Avenue development plan). A "before" photo (above) illustrates the general neglect of storefronts in the area. The Venturi, Rauch & Scott Brown plan gave guidelines for exterior improvements such as paint, signage, window display, and awnings. All painting was done by CRF, a firm owned by Carlos Colazo, a young Argentinian.



Steven Brooke

Mark and Eric's variety store at 6th and Washington (left) got a mauve, pink, and aqua color scheme with new signage and window display. Near the other end of the block, the Famous Restaurant (middle photo) can be seen near one of many medical clinics that now occupy ground floor space intended for retail use—a result of the area's depressed economic state. A drawing (below) illustrates part of Venturi, Rauch & Scott Brown's plan for Washington Avenue.



Steven Brooke

ed seem quite strident compared with those originally envisioned in the VRSB plan (see drawing), although the program received VRSB's blessing. On the other hand, for the one being, the almost candy-box palette may be better suited to the area than the subdued range of whites and pale pastels favored by VRSB. Elsewhere on the avenue, the 1927 Cinema Theater by Thomas Lamb is soon to become a mini-mall, and "upscale" shops are starting to move into the area. The locals are holding their collective breath, hoping that improvement, if not prosperity, is just around the corner.



Venturi, Rauch & Scott Brown



Alex Azarchs



Martin Helfer



Walter Smalling

Ocean Drive (top) is lined with small hotels and apartments, six of which are now owned by Art Deco Hotels: shown here are the Victor (middle left) and the Cardozo (bottom left). In the Victor's lobby (middle right), balconies were reopened, new color schemes developed, and the original Earl Le Pan mural was preserved. The lighting fixtures, many of which are of museum quality, were either restored or reproduced. The Cafe Cardozo (right) sports light fixtures salvaged from the demolished New Yorker hotel.



Dan Forer



Dan Forer

There's a small hotel

In fact, there are seven on or near the beach along Ocean Drive, that comprise what is the far the most successful example of preservation-oriented private enterprise in the District. Art Deco Hotels, a limited partnership led by Robert Beuret, Andrew Capitman (Barbara's son), and Mark Shantzis, recently secured the necessary financing on a \$6 million beachfront hotel package (P/A, Sept. 1982). The Victor, Leslie, Carlyle, Cardozo and Cavalier Hotels, as well as the Senator Collins Avenue) and the Ocean Front (apartments) will eventually offer a total of 452 rooms to a rapidly growing market that the partners have identified as 25-to-40-year-old urban professionals in design and visual-arts-related fields (who are, the partners feel, trendsetters for the rest of the under-40 set). The historic nature of the neighborhood and the architecture is the point of departure for the hotels' marketing as well as design schemes.

Thus far, only the 103-room Victor (Murray Dixon, 1937) and the 70-room Cardozo (Henry Hohaus, 1939) have been renovated. They were the first hotels purchased (in 1979), and represent the corporation's flagship effort at making historic properties viable economically. While a structural restoration was neither possible nor desirable in either case, the task of purging these hotels of their accumulated seediness and restoring their original glamour was arduous. It was supervised by Margaret Doyle, the wife of Andrew Capitman, who holds a degree in historic preservation from Columbia University and who teaches at the University of Miami. Doyle was faced with the prospect of removing 30 years' worth of paint, plastic laminates and shag carpeting, to name but a few of the transformations made in the name of modernization. She developed color schemes for the lobbies of both hotels (with Leonard Horowitz at the Cardozo) that were derived from the elegant terrazzo patterns in the floors. Light fixtures were restored or replicated, and furniture was either restored or custom-fabricated to approximate period styles. At the Cardozo, the former card room and coffee shop was transformed into a tiny restaurant—the Cafe Cardozo—which turned a net profit of \$70,000 in its first year. A similar effort is now underway at the 70-room Carlyle (Kiehnell & Elliot, 1941), which closed this summer for a total renovation, at which will reopen in December with its own restaurant, one that will have a more ambitious menu and a dressier setting than the Cardozo's. The renovation efforts so far have been commendable; both the Victor and the Cardozo appear merely to have been unscathed by the ravages of time, rather than tricked out in some contemporary version of Art Deco. However, both hotels suffer from lack of maintenance, and will need great infusions of money if they hope to be truly competitive for the vacation dollars of affluent young sun worshippers.

Nonetheless, the project makes a great deal of sense economically. These hotels, claimed by developers as being too small to



Dan Forer

competitive, have been purchased as a group to make an eventual "resort village." And since it costs roughly five times as much to build a new oceanfront hotel room as it does to buy and refurbish an old one, the Art Deco Hotels partners stress that more money can be funneled into improving service. Their successful financing effort was seen as a triumph by preservationists, and even the most cynical developers admitted to being impressed. But whether or not this shining example of civic-minded free enterprise can be emulated elsewhere in Miami Beach, alas, the question on which the district's future rests. [Pilar Viladas]



Walter Smalling

In the lobby of the Victor (above), carpet was removed to reveal six different terrazzo colors; original furnishings were salvaged where possible. Pink doors enclose the telephone booths at the Cardozo (left).

Low gloss

In the upstate New York town of Saratoga Springs, community involvement and energetic work by the city's preservation foundation have produced admirable results that lack pretension but still are somewhat short on style.

Victorian Saratoga was known far and wide for its glamour. Especially in the late 19th Century but even well into the 20th Century, the wealthy and the socially aspiring came to sample its springs, to attend the races, to gamble in its casinos, and surely not least, to promenade along the hotel-lined, colonnaded Broadway: to see and be seen, to appear beautiful, fashionable, and, perhaps, marriageable, to conduct flamboyant business deals in an aura of grandeur. One did not have to be blue-blooded to buy into the glamour: one only had to be able to pay one's way, and to assume a temporary gloss.

The baths are still there, magnificently sited if somewhat neglected and tarnished. The racetrack remains and flourishes, attracting the social set and the horse-mad every August. Of the casinos, few remain, and these do not operate for gambling, but the 1966 Performing Arts Center now draws July crowds to attend performances by the New York City Ballet and the Philadelphia Orchestra. Of the large Victorian mansions built by the wealthy, most still exist and many have been refurbished, providing a living history of American domestic architecture. But the grandeur that was Broadway is no longer. Decimated by fire and failing hotel enterprises, it remains gap-toothed, its various rather fine buildings punctuated by parking

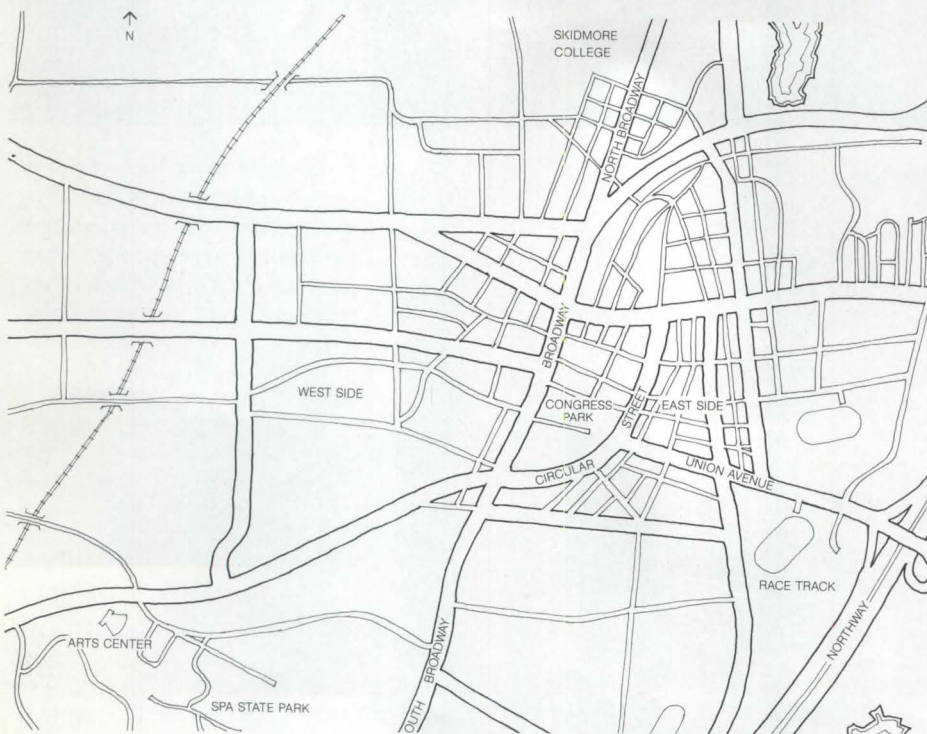
lots, by the cheapest of unadorned brick veneered façades, and by a suburban-type shopping center, fast food barns, and a motel all sited in individual asphalt fields. Even in the quality buildings that remain, storefronts lean heavily towards barnwood-style design or non-design. Yet in its way, Saratoga downtown is a preservation success story. Certainly it is a story of heartwarming community participation, rewarded by commercial success. While it no longer possesses the Parisian chic it is reputed to have had at the turn of the century, it has become the "smart" restaurant and shopping town for a 100-mile radius, and its stores do not close when the summer season is over. Furthermore, it demonstrates the value of pragmatic preservation: It is neither precious, pretentious, nor frozen in a single era.

The town's attitude is undoubtedly healthy, treating preservation as just one of various development techniques. But in the case of its convention center plans, only time will tell whether the town's priorities are correct. To capitalize on the high morale of the downtown business people who are providing the funding base, the town plans to build a pleasant but unremarkable new convention building/hotel at the northern end of the commercial center, while to the south in the lush state park languishes, understaffed and underused, one of Saratoga's finest resources: the 1930s Roosevelt and Lincoln Baths, serviced only by the recently refurbished Gideon Putnam Hotel. The town is considering encouraging the state to bring about the bathhouse renaissance by adding a convention hotel or executive retreat nearby. But meanwhile Saratoga will have its new convention center at its commercial heart.

A brief history of the town

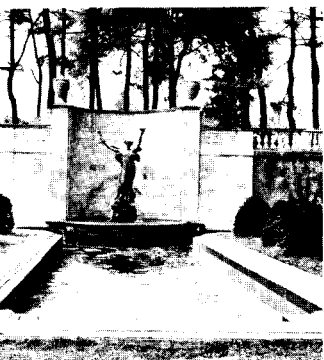
The reputedly healthful qualities of the mineral springs that well from the geological fault in Saratoga's valley first drew white settlers to the area in the 1770s. By the early 1800s, the waters had become a minor industry: the first hotels were built and a bottling plant was established.

In 1832, the opening of the Saratoga and Schenectady railroad truly swelled the throngs. More hotels were built in town, and lakehouses, carnivals, and steamboat enterprises were set up on nearby Saratoga Lake. In 1842, the first gambling parlors were established, and in 1863, the Saratoga Racing Association was founded.





George Bolton Collection

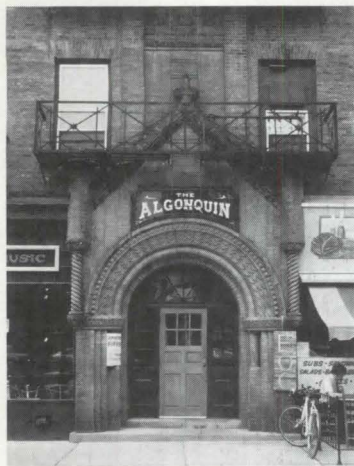


Saratoga Springs Preservation Foundation

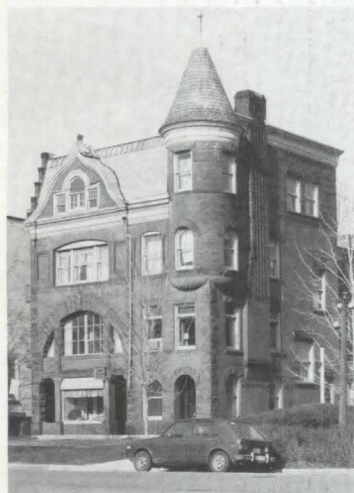
1907 photograph of Broadway (left) shows the glamour that was Saratoga, while a present-day view of Congress Park (right) illustrates an oasis of calm that still exists. The Casino, built in 1870 and enlarged in 1902, is visible in the background at the right. In the park stands the Spirit of Life (above) by sculptor Daniel Chester French, with the bridge and fountain by architect Henry Bacon.



E.H. Smith



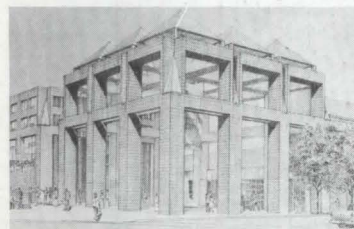
S. Doubilet



Betsy Hamilton



Saratoga Springs Preservation Foundation



Rendering by Jeffrey George

The present and future Broadway, above, top to bottom: doorway of the brick Richardsonian Algonquin Building; the masonry Queen Anne Moriarta House; the Collamer Building, which contains some of downtown's oldest storefronts; and the proposed hotel/city center (convention center) by architects Kroin/Narva.

Fires (a chronic Saratoga problem to this day) razed several of the hotels just as the Civil War was diminishing the numbers of visitors, but the post-War years saw the most dramatic growth of the resort industry: the grandest hotels were built, transforming Broadway into a piazza-lined avenue. The United States Hotel and the Grand Union Hotel, both of which opened in 1874, presented elaborately colonnaded brick façades to Broadway and enclosed elm-shaded courtyards behind. At the same time, public buildings were being erected, and fashionable Victorian residences appeared along North Broadway and Union Avenue.

The mood, however, altered in the 20th Century. Social reform did not totally stifle gambling in the area, but certainly cramped its style, both in the casinos and at the racetracks, and hotels began to fail. Other industries, such as textile manufacturing, mustered slightly, and gentler activities were established: Skidmore College was incorporated in 1922; Yaddo, an artists' retreat, received its first participants in 1926; and between 1915 and 1933, the state took control of the mineral springs, conserving them, bottling their waters, and, under Governor Roosevelt, opening a new and elaborate Saratoga Spa.

The Depression, the three-year closing of the racetrack during World War II, and the Kefauver Committee's crackdown on gambling in the 1950s dealt the final blow to the luxurious resort activities: The United States Hotel was demolished in 1946, and a supermarket and shopping center replaced the Grand Union Hotel by 1960.

The Saratoga of today, 42 square miles in area, possesses not only shopping centers, but residential sprawl as well, yet there are still backwoods and farms within the city limits. Industries have been established since the war, older industries have rallied (including an employee takeover of a textile mill), and the population has increased by a third, to 24,000, in the last decade. Of the working population, 80 percent is employed within Saratoga county.

The center city rebounds

The 1960s saw the construction of the Adirondacks Northway, the opening of the Saratoga Performing Arts Center, and the building by local investors of a Holiday Inn, a modest building but an inspiring sign of community initiative. The downtown, however, was dying, and the proposal by outsiders to locate a shopping center at a highway exit further threatened the center city's vitality and fired up the Chamber of Commerce. In 1972, a Plan of Action was established to revitalize the downtown. Property owners were solicited for contributions, volunteers planted trees, and students built a model of downtown so that citizens could act out their dreams for the area. When a \$3.6 million HUD grant application for funding façade and sidewalk improvements was rejected, the town turned to its own resources. A Special Assessment District was established in 1978, so that the downtown property owners, who would ultimately benefit from the im-

provements, would pay through increased property taxes. Money was also raised through community development funds and from allocated sales taxes. Throughout, the local Adirondack Trust Company has been most active in the revitalization effort, loaning several million dollars for downtown improvements over the last decade.

Meanwhile, preservation fever was raised in 1974 when the United States Government planned to "improve" its Post Office by moving the leaded skylight and tearing up the marble floor. The newly elected mayor sued the U.S. Government, a compromise was reached, and by 1977 the city established a not-for-profit preservation foundation and strengthened the zoning ordinance governing architectural review to cover all repairs to downtown façades. A façade easement program was set up in which federal money was made available for exterior repair and painting if the owners of the buildings agreed to correct code violations within the building and to maintain exterior improvements for 25 years. In 1979, the Saratoga Springs Preservation Foundation and its energetic executive director Julie Stokes earned downtown place on the National Register of Historic Places, making available additional grant and tax advantages. While grant money is now drying up, the impetus and incentives (property values rise) for private preservation have been established.

The façade easement program, having limited funds, does not cover storefronts, although the Historic Review Commission, established in 1979, controls signage, its prescriptions are loose: keep it simple and not flashy. Control of colors was rescinded, a pragmatic action which resulted within days in an outrageous fuchsia color appearing on a storefront beside the dignified brick city hall. Even more disturbing is the general lack of sophistication in overall design and detailing of the storefronts and interior malls that have been refurbished and newly created in several of the existing buildings. Barnwood is a favorite siding material, and the results are shabby.

Pragmatism, too, dictates the attitude that sees all existing buildings, from fast-food joints and motels to cheap brick-veneer commercial buildings, as part of the town's natural heritage. The results are inevitably somewhat disappointing, though over time quaint new façades would not be an improvement, as the local preservationists point out. Nevertheless, the decision to locate parking lots directly on Broadway, on sites where buildings demolished by fires, seems questionable. Rather than leaving the sites available for future development that will fill the gaping holes, a fair amount of money has been spent to gussy up one of the lots with brick piers, steel railings, and flower pots.



Saratoga Springs Preservation Foundation



S. Doubilet

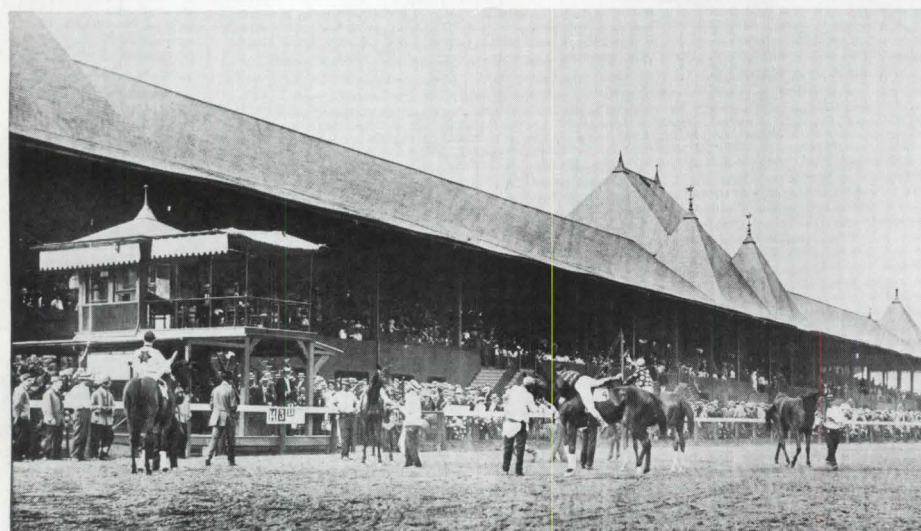
The Adelphi Hotel (right and top, center) was the smallest of the grand 1870s hotels, and is the only one that still exists. It has been restored on a shoestring, and while the restoration has great charm, its seams are showing. The Rip Van Dam Hotel (top left), built in 1840 with a 1923 porch addition, has become quite seedy. The Van Voast & Leonard storefront (above) is one of the few fine old storefronts that remain.



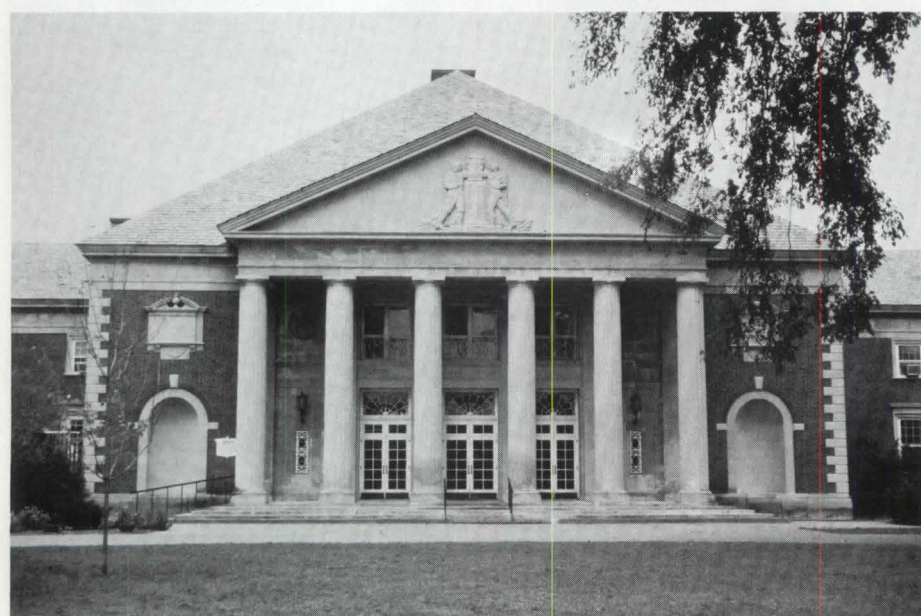
S. Doubilet



Saratoga Springs Preservation Foundation



George Bolton Collection



S. Doubilet

This page: The Batchellor House, 1873 (top). A 1913 photograph of the Saratoga racetrack (middle). One of Roosevelt Spa buildings (above). Opposite: Greek Revival house at Franklin Square (top). House on North Broadway (bottom).

East side, west side, all around the town
The downtown is not the only area where preservation activity is occurring. Over 80 buildings, notably on North Broadway, where many large late Victorian mansions still stand, and on the West and East Sides of town, are about to be listed in the National Register of Historic Places.

The West Side has been a National Register Historic District since 1972. It possesses some fine early 19th-Century houses near the site of the town's original railway station, such as the 1820s Greek Revival houses on Franklin Square. It also possesses smaller 19th-Century houses and row houses, mostly wood but some brick, many with porches, built for the servants working in the large hotels. Most of the houses are neat and well painted, and there are cases of very extensive preservation work in the area. The West Side is the area of the greatest racial tensions and violence (especially during the racing season), and the tension was certainly not relieved by urban renewal in the 1960s which destroyed several blocks of buildings and compressed the population into a smaller zone.

Many proud Victorian mansions line Union Avenue and Circular Street on the East Side—so many, in fact, that the East Side is one of the densest districts, in terms of historic buildings, in the state. Most of the mansions have remained fairly intact due to fortunate circumstances. As the yearly immigration of wealthy visitors dwindled between the World Wars, Skidmore College took over the large houses, using them for classrooms and dormitories. And within a few years after the college deserted these houses to move in 1967 to a new campus at the north end of town, federal funding became available for the preservation of several of the properties. Private individuals began to buy many of the houses and to restore them; property values have increased enormously, and Union Avenue is now a joy to behold.

Doing it their way

Property values have soared, retail sales profits have multiplied exceptionally, and the community has been justifiably proud of accomplishing a great deal through its own initiative, relying minimally on outside grants. Part of its independent spirit is also reflected in the use of architects: They'd rather not thank you. The city hires architects to advise on the restoration of the upper façades for the easement program, but in general, the people would rather do it their way: The houses were often built by contractors without architects, they point out, and they would rather renovate them that way.

Saratoga, one might say, has always been down-to-earth. The wealthy came to town, be sure, but they did not stand on ceremony as in Newport, and the pleasures were never limited to blue-bloods. Brashness, individuality, and the entrepreneurial spirit lay close to the surface, with only a stylish gloss to provide glamour and romance. Today, the naturalness is much to be preferred over preciousness and pretension, but one could still hope for a bit more style. [Susan Doubilet]



Saratoga Springs Preservation Foundation

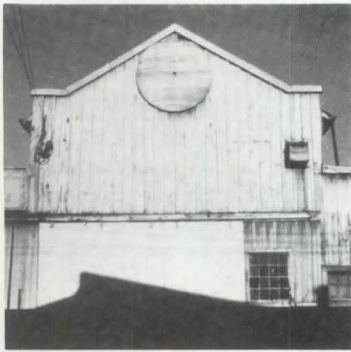


Saratoga Springs Preservation Foundation

New goods in old tins

Sally Woodbridge

A wide variety of retail and cultural uses now fill the volumes of abandoned factories on an island in Vancouver—and industries remain in their midst.



Part of façade of Public Market (opposite), before.

Granville Island is a place of destination, literally and symbolically. Only one road admits cars to this island under the Granville Bridge. But the people who take it—and often wait patiently in bumper-to-bumper traffic—are not on their way to anywhere else. Whether they come from downtown, from the suburbs, or from many miles away, they intend to spend their time on the island. Why? In the best promotional copy style, the answer would be: Granville Island offers a unique shopping, dining, and entertainment experience in a rejuvenated industrial setting closely tied to Vancouver's historical development. This banal statement masks a planning and urban design program that merits both study and emulation.

By now we are all familiar with the nostalgic appeal of recycled industrial areas. We have advanced from the puritanical position that such places have to be denatured to be appealing to what might be called the romance of reality, as represented by the Granville Island plan. One of its imperatives was to keep the existing industries in operation. Whether the increasing need for reality is a simple swinging of the pendulum away from Disneyland or a genuine appreciation of diversity is as yet hard to determine. In any case, being on Granville Island and seeing the trucks in the yard of the cement company or the piles of hand-forged chains in the factory yard feels good. It feels even better to survey this gritty reality while savoring a warm croissant.

Originally a sand bar in the saltwater inlet called False Creek, the site was made into an island in 1913 and slated for industrial development—as was the whole False Creek basin, much of which is being retrieved for residential development (P/A, Aug. 1980, pp. 78–82). By 1920, it was home to heavy industries, which valued the extensive waterfront accessible to barges carrying heavy cargo and equipment, but by the 1960s, this industrial sink had sunk to a level of economic stagnation that made it ripe for redevelopment. In 1973, the Canada Mortgage and Housing Corporation, the Canadian equivalent of HUD, was empowered to redevelop the island as a public place and assume its management. CMHC commissioned a planning study of the island from Thompson, Berwick, Pratt & Partners which set the guidelines for redevelopment and outlined the administrative structure necessary for the task. In 1976, following this report, the five-member Gran-

ville Island Trust was created to direct the redevelopment process; then Norman Hotson Architects prepared an urban design plan, while Urbanics Consultants, Ltd., prepared an economic program for the island redevelopment. The architects continue to act as coordinators for the plan and, with CMHC and the Granville Island Trust, to review new projects.

Allan Hammond, project manager for the Trust, recalls "We wanted the island to be a free zone where things could happen that couldn't happen elsewhere in the city—the mix of industry and culture and the creation of a precinct which accommodated cars but gave pedestrians first priority on the circulation space." Hammond, along with architect Norman Hotson and his associate Joost Bakker, affirms that encouragement of tourism was not a primary goal. Those in charge wisely chose to assess the quality of each proposed use and its potential contribution to a interlocking pattern of uses. Of course it helped immeasurably to have the island under a single, government ownership. This has meant that no private funds had to be solicited for the \$19.5 million spent on capital improvements such as a new sea wall, the improvement and undergrounding of utilities and new street hardware and paving. It has also meant that the economic model could incorporate nonmarket considerations and provide the environmental amenities of parks and playgrounds as well as cultural uses such as artisan studios, which require low rents and subsidies.

Since the opening of the Public Market in 1979 and its phenomenal success, a number of structures have been rehabilitated. The guidelines have helped to maintain the buildings' industrial character by retaining the typical heavy-timber and wood-frame structural elements, exposing ductwork, using multipaned industrial windows and doors and wired glass skylights, and cladding exterior with corrugated steel, painted in the original color if known. Since most of the structures had to be substantially rebuilt to bring them up to code, very few even retain their old envelope. Still, it was mandatory to conform to the original footprint of the building if not the exact form. Hotson and Bakker consid-

Sally Woodbridge, an architectural historian, lecturer, and coauthor of several books on West Coast architecture, is a contributing editor to P/A.



Simon Scott



Simon Scott



John Fulker

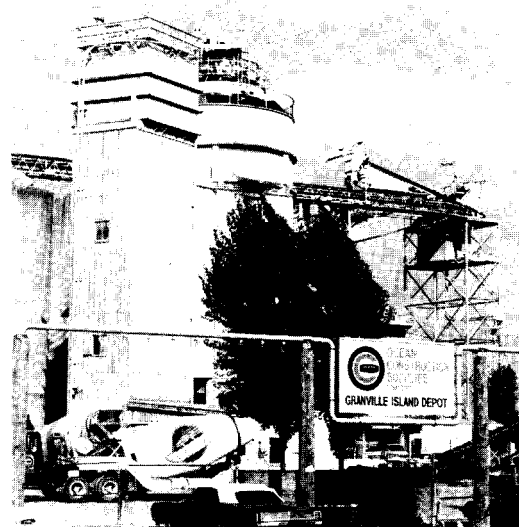
The "streetworks" system of steel pipe on cedar posts defines circulation areas, outside and in (above and left). Large glazed doors open market to outdoors. A wharflike plaza links rear of complex (above) to boat landing.

ered that the serendipitous charm of the island depended in no small measure on the random siting of buildings which in turn created spaces that matched their motley-ness. The absence of sidewalks, curbs, gutters, and other standard boundary markers permitted streets to have the appearance of pedestrian spaces into which cars were allowed to intrude. The feeling of a free circulation zone was reinforced by the use of a continuous surface material, interlocking concrete blocks set in sand.

The need for structuring devices to define driving edges and parking spaces was met by planting trees and designing new elements the architects called "streetworks." The most conspicuous of these is a linear system of cedar poles bearing brightly colored steel-pipe lintels that carry wiring for lights and also provide support for signs and awnings. Three-foot-high wood bollards with lights concealed behind steel mantels provide night lighting for parking areas. The pole-and-pipe system is most effective where it performs all the functions it was designed for, as it does in front of the market and the Emily Carr College of art. Where it simply suggests an edge it seems arbitrary and merely decorative.

At this writing, the regeneration of Granville Island is about at the halfway point. It seems like much more. Already the carefully nurtured mix of uses has made the island an urban microcosm, the success of which has exceeded all predictions. Indeed it may be choking on success. Because the island's offerings are not duplicated elsewhere in the city, monumental traffic jams afflict it on weekends. The "free zone" consecrated to the pedestrian becomes the zone of the would-be pedestrian who can't get free of the car. There is no way to augment significantly the parking. A parking garage originally proposed for a site just off the island was never implemented and is not likely to be now. A variety of remedies, including elevators from the Granville Bridge and other means of moving people on and off the island, are being considered along with charging a car fee. It is ironic that traffic pollution has replaced industrial pollution. Also ironic is the fact that, either as a result of the current economic slump or some other long-term process, the industries that were thought to be so indispensable to the island's image are shutting down. Soon only the cement plant will be left. Yet there is hope that other, more compatible industries, such as a brewery, will take their place.

There are other reasons for mourning the passing of the old scene. For although the harmony created by the carefully orchestrated recycling process deserves high marks, there is a level of good taste that is foreign to the place. In the self-conscious process of design it could hardly be otherwise. Though it might be wrong to preserve the tattered and tasteless old pieces, it would be comforting if they could be left to time's own recycling process. □



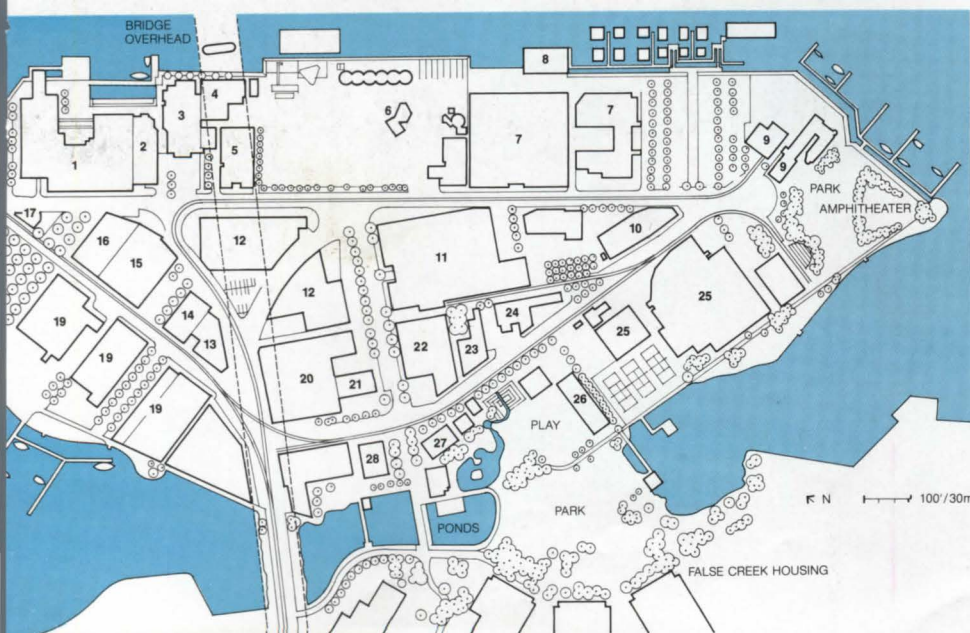
Bird's-eye view of island c. 1960 (above) contrasts with recent view (opposite) from bridge that overshoots island. Creek House office/retail complex under the bridge, with brookside garden leading to Mulvaney's waterfront restaurant (two photos above), established business potential of island after completion in 1973 by Norman Hotson Architects. Concrete supply plant (above right), coexisting with new commerce, is bounded by same continuous fence and gateway system of pipe and poles that runs along parking lots (right) and building fronts.

Simon Scott

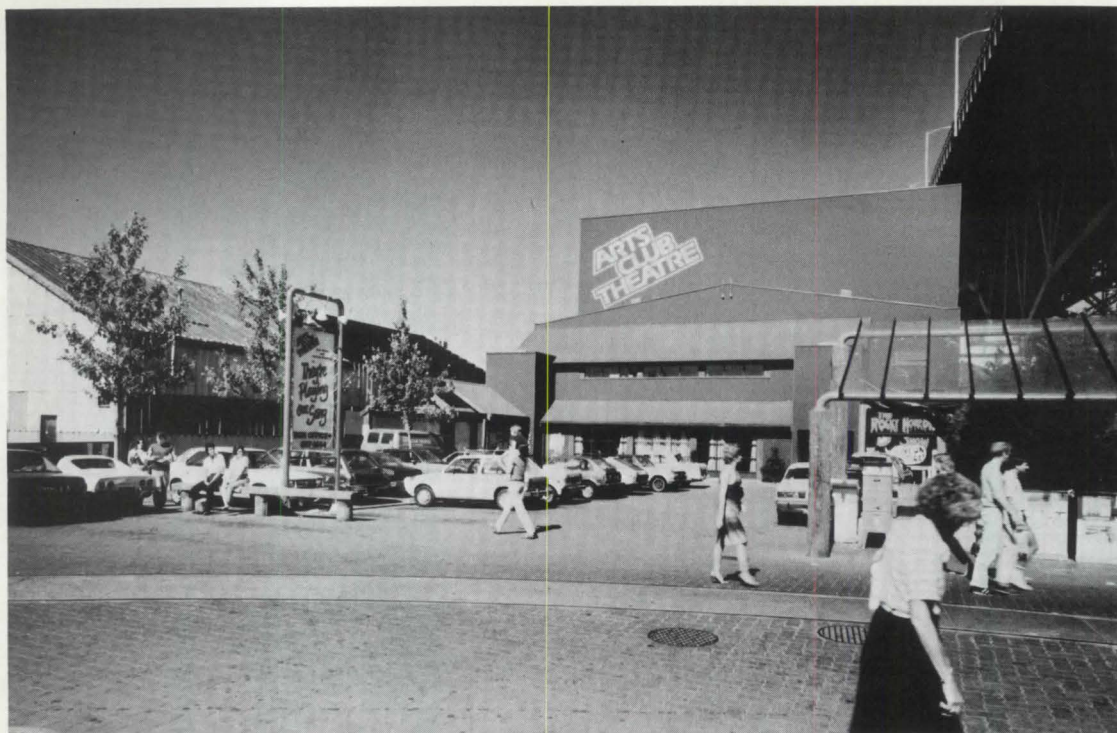
Courtesy architects



Simon Scott

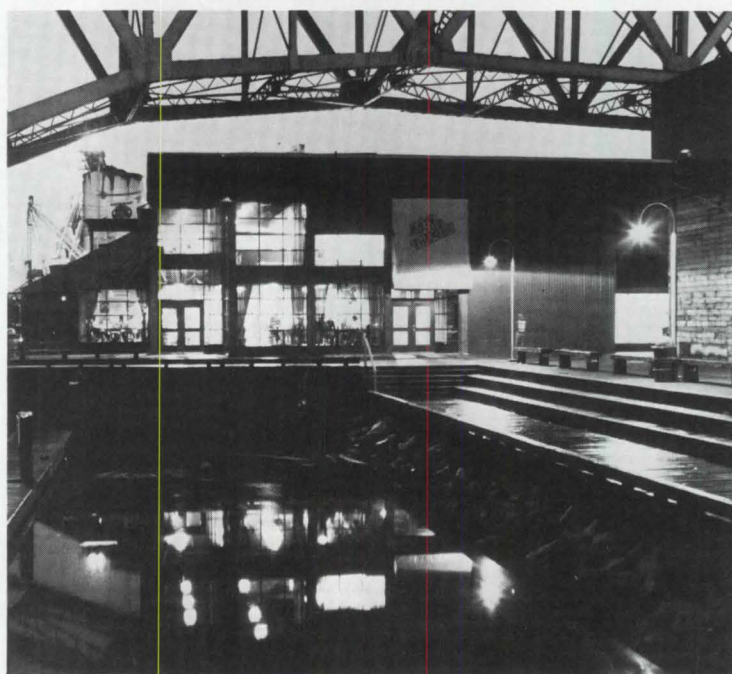


- | | |
|--|---|
| 1 Public Market | 15 Building 39-40, artists' workshops and offices |
| 2 Arts Club Cabaret | 16 Building 41, retail, offices |
| 3 Arts Club Theater | 17 Gourmet takeout |
| 4 Mulvaney's Restaurant | 18 Bridges Restaurant |
| 5 Creekhouse offices | 19 Maritime Market |
| 6 Ocean Construction Supplies (concrete) | 20 Lecky Paper |
| 7 Emily Carr College of Art | 21 Gallery, studios |
| 8 Pier 32, offices and Jonathan's Restaurant | 22 Theater scene shops |
| 9 Boatel | 23 Pottery studios |
| 10 Industrial | 24 Micon Drill Bits |
| 11 Artists' workshops and parking | 25 Morrison Steel & Wire plant |
| 12 Canada Chain and Forge | 26 False Creek Community Center |
| 13 Restaurant | 27 Columbia Bitulithic |
| 14 Building 38, artists' workshops | 28 Waterfront Theater |

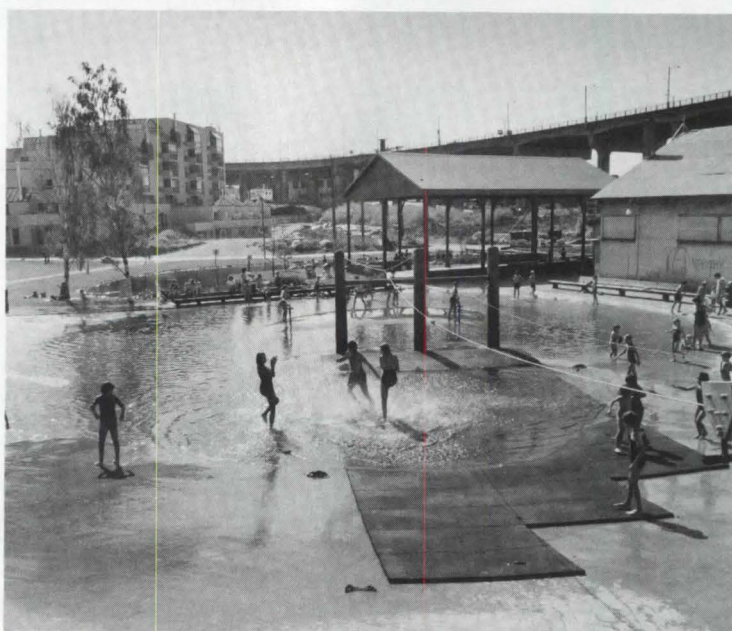


John Fulker

The Arts Club Theatre (above) occupies a converted industrial building in the shadow of the bridge. Dark gray corrugated cladding is a foil for white graphics, red pipe "streetworks," and bright night lights. A glazed lobby lounge (right) overlooks boat landing and Public Market plaza. The playground along the south edge of the island includes a dished water playground (below right), where kids can maneuver brass ship's hose nozzles; also here is an adventure playground where they can assemble used building parts, and at the east end of the island is a different park, with a viewing mound and an informal amphitheater sloping down to the water's edge.



John Fulker

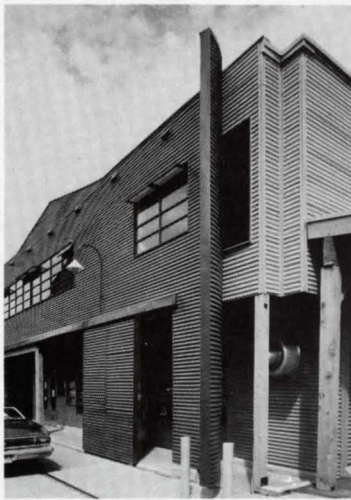


Simon Scott

Three buildings clustered near the west end of the island (facing page) exhibit the bright colors based on original ones, as interpreted under island's design guidelines. The Bridges restaurant (far right) with its commanding view of parked cars and boats, is an emphatic yellow landmark. Its interior designers were unsympathetic to the architectural cues, filling the dining room with period French chairs and painting exposed ducts rose. The steel-blue-painted Building 41 (near right) follows original volume and surface character faithfully, with a façade recesses emphasize stair tower. Lower—and bluer—abutting structure part of the Building 39 and 40 complex, with solar demonstration array on its roof. On the opposite, south, front of this complex (bottom photo) an existing gabled false front is dramatized with red paint, contrasting with carved out stairwell and walks vivid blue. The "peeling" termination of this false front (middle right) plays on the layering, but a singularly self-conscious device in this context.



Photos: John Fulker



Granville Island

Data

Project: Granville Island Renovation, Vancouver, BC.

Architects: Norman Hotson and Joost Bakker of Norman Hotson Architects, Vancouver (urban design and coordinating architects).

Client: Canadian Mortgage & Housing Corp.

Consultants: Urbanics, economic program; Don Vaughn & Associates, landscaping; Swan Wooster Engineering Co., civil engineering.

Data below on buildings cited in this article includes architects, not consultants. Structure and materials generally include: existing timber framing, new timber and glulam for replacement, extensions, and inserted floors; metal siding and industrial sash, new and reused; added insulation; new mechanical systems, exposed inside.

Project: Public Market.

Architects: Norman Hotson Architects.

Program: market floor, small mezzanine shops, outdoor sales area; 46,500 sq ft enclosed.

Cost: \$1,200,000 (1978).

Project: Arts Club Theatre.

Architects: Ron Walkey & Downs/Archambault (Richard B. Archambault, partner in charge; Ron Walkey, associated architect; Barry V. Downs, design architect).

Program: 450-seat theater, with auxiliary spaces; 15,800 sq ft.

Cost: \$1,025,000 (1980).

Project: Buildings 39 and 40.

Architects: William McCreery Architects (Edward J. deGrey, project architect).

Program: arts-crafts shop, offices.

Cost: \$629,215.

Project: Building 41.

Architects: Barbara Dalrymple, Architects.

Program: offices above shops; 15,000 sq ft.

Project: Bridges restaurant.

Architects: Henriquez & Partners.

Program: restaurant, pub.

Project: Emily Carr College of Art.

Architects: Howard/Yano

(Ronald Howard, partner in charge; John Bingham, project architect).

Program: studios, classrooms, offices; 114,600 sq ft.

Cost: \$5,500,000 (1979).

Project: Building 38.

Architects: Roger Hughes Architects.

Program: artisan workshops.

Project: False Creek Community Center.

Architects: Davidson/Johnston (Ian Davidson and Tom Staniszkis, design team).

Program: multipurpose hall, changing rooms, crafts, and classrooms; 10,000 sq ft.

Cost: \$562,000 (1980).

Project: Maritime Market.

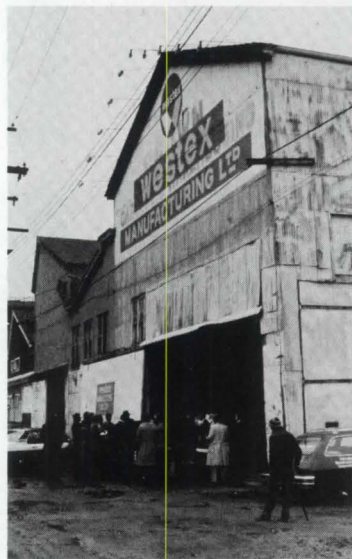
Architects: John Keith-King Architects.

Program: marine retail.

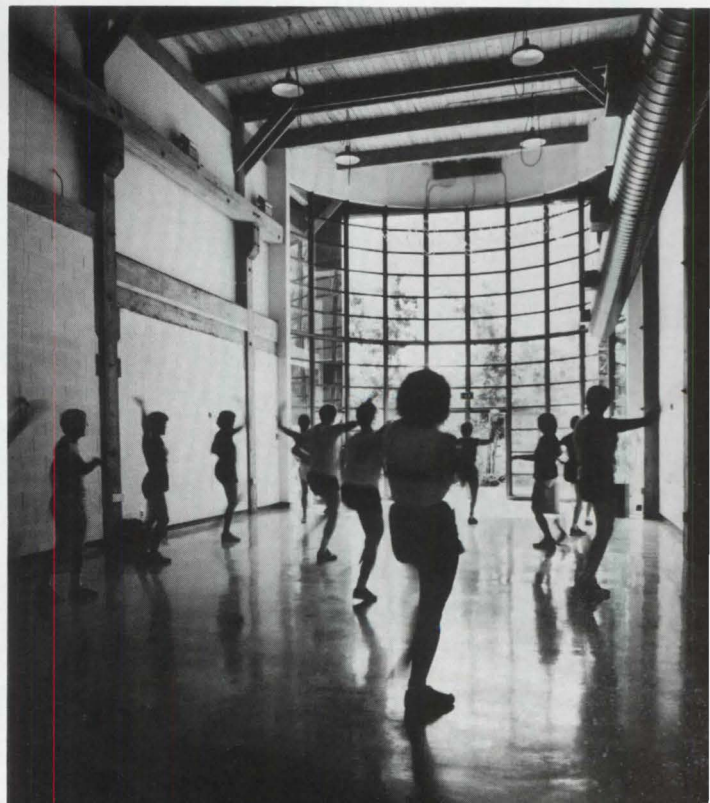
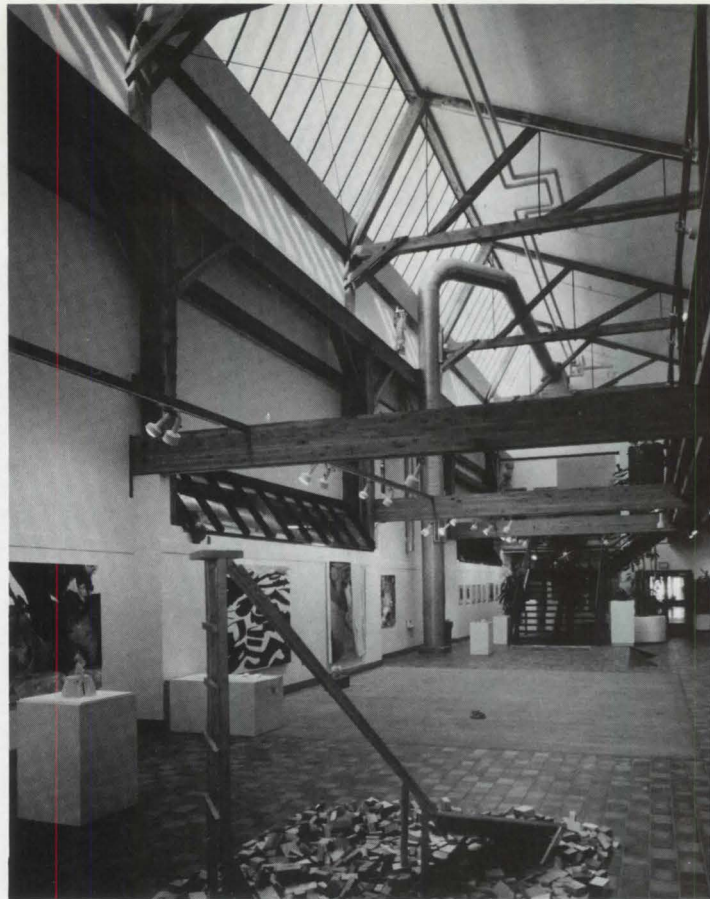
Project: Building 42.

Architects: Boak Alexander Architects.

Program: gourmet take-out.



Emily Carr College (above right and facing page, top) was assembled from three existing structures (above); additions and inserted floors doubled the original 57,000 sq ft to accommodate 400 students. Straightforward treatment of existing timber frame and sawtooth roofs is effective, but complex is not as open and visible to public as planners envisioned. A foursquare structure with openings reworked became False Creek Community Center (right and facing page, right). Recladding of Building 38 (facing page, left) for artisan shops yields the most high-tech image on the island.





John Fulkner



Simon Scott



John Fulkner

The rewards of preservation

Sally G. Oldham

The Economic Recovery Tax Act of 1981 includes incentives for preservation that can be used as a powerful tool for attracting investors to a project, and that can also be a major key to a project's financial success. Architects familiar with the benefits will be in an advantageous position when selling their services to developers.

Taxes and tax laws are subjects that hold little fascination for most architects. Disparate tax and design issues become intertwined, however, in the federal government's historic preservation tax incentives program, inaugurated in 1976. Over 4350 projects involving construction worth \$2.2 billion have qualified for these rehabilitation tax incentives over the past six years.

Rehabilitation projects involving historic buildings are not the only ones that qualify for special tax benefits. In the tax incentives for preservation passed as part of the Economic Recovery Tax Act of 1981, buildings at least 30 years old qualify for a 15 percent investment tax credit (ITC), and buildings at least 40 years old can receive a 20 percent ITC, but they need meet fewer requirements to receive these benefits, which can be used only in connection with rehabilitation of depreciable (income-producing) buildings. Historic buildings, however, can receive a 25 percent ITC for qualified rehabilitation expenditures, and it can apply to residential as well as commercial and industrial buildings. In addition, substantial tax benefits are available due to the provisions of the Accelerated Cost Recovery System, in which owners are allowed to depreciate their acquisition and rehabilitation costs over 15 years. Again, historic buildings receive an advantage because the depreciable base is reduced by only half the amount of the credit prior to figuring depreciation, rather than reduced by the entire amount of the credit, as is the case with nonhistoric rehabilitations that claim ITC benefits.

Rehabilitation credits work like energy credits in that they are deductions from the actual amount of taxes owed, not deductions from gross income before calculating tax liability. This means that the rehabilitation tax credit is actually a dollar-for-dollar tax saving, and a very significant factor in the planning for any rehabilitation project. The tax credit will have a tremendous impact on the cash-flow projections of a project for the year it is placed in service. As a powerful tool to attract investors to a project, it is generally a major key to the project's financial success. Substantial amounts of equity capital can be raised for

larger projects through syndication, bringing a number of investors into the project who receive a major portion of the tax benefits in the early years of the development and a lesser share of the cash flow and appreciation in later years.

General requirements

There are two important requirements that a rehabilitation project must meet to receive any of these credits. First, the money spent on rehabilitation must exceed the adjusted basis of the building (cost of the building less the value of the land, plus capital improvements less any depreciation) or \$5000 within a 24-month period. Alternatively, an owner has 18 months to meet this monetary test if the rehabilitation is completed in phases set forth in architectural plans and specifications completed before the work begins. Second, 75 percent of the walls external to the structure before rehabilitation must remain so after rehabilitation. This sounds easy to achieve, but many situations arise that pose problems in meeting this test. If a developer wanted to add an addition covering the existing side and rear walls, the rehabilitation could not qualify. Or, to really complicate the situation, a structural engineer may determine that the walls of an older structure are unsound, requiring that they be dismantled and rebuilt. It's possible the project may qualify for the credit if the walls are rebuilt using the original building materials, but that determination is up to the Internal Revenue Service. At the moment, second guessing their determinations is very difficult because no regulations have been published to provide guidance.

If a developer wants a project to qualify for the 15 percent or 20 percent ITC, the Internal Revenue Service is the only Federal agency generally concerned, and the constraints on the architect's design prerogative will be relatively small. If the developer aims to qualify the project for the 25 percent credit for historic buildings, however, another federal agency enters the picture and the architect's role increases in importance.

Requirements for historic buildings

The National Park Service (NPS) of the Department of the Interior must approve a project before an owner/developer can be assured of receiving a 25 percent tax credit. NPS gets involved in two respects: first, identifying which buildings qualify as historic, and second, in approving rehabilitation

Sally G. Oldham, former acting Chief of Registration at the National Register of Historic Places, is now executive vice president of Langelier Historic Properties, Inc., a Washington, DC, firm that provides equity syndication and specialized consultation for properties qualifying for rehabilitation investment tax credits.

ins as being consistent with the historic character of the building. Buildings that qualify include those listed on the National Register of Historic Places (a list the NPS maintains) or ones located within historic districts, whether a National Register historic district or a district designated by a local government authority if NPS has approved it as substantially meeting National Register criteria.

To qualify for the 25 percent ITC, a short two-part application form is filled out by the owner, the architect, or by a consultant who specializes in such work. Part 1 is required for buildings in historic districts to determine if they contribute to the district (the large majority of them generally do). Part 2, required for all projects, asks for a description of the proposed or completed rehabilitation work. The application is sent first to the appropriate State Historic Preservation Office for review and recommendation and then to the National Park Service regional office where a final decision is made. Judgments on both parts are made on the basis of standards set forth in regulations available from the Department of the Interior. These are broadly intended to cover a wide variety of building types, and basically look to the retention of existing significant characteristics and features of the structure. The question as to what is significant is a key one and is one that should already have been answered by the time the application is filled out—through either an architect's or consultant's analysis based upon information provided in the National Register nomination form for an individually listed building, or in the Part 1 application for a district building.

Confusion can arise, however, when the preservationist's viewpoint of what elements a building contribute to its historic character differs from the architect's and the developer's. The latter most often wants to "improve" the building, to make it look new to create a marketable image. The architect may want to make the design of the rehabilitated building reflect its new use, to standardize window openings, or to add a contemporary design element such as an atrium or arcade. The preservationist wants to enhance the historic qualities of the building as they exist immediately prior to rehabilitation and to see retained the features of a building that identify its historic appearance and role in its community.

There are valid reasons for each point of view, and at times the three viewpoints will naturally converge. Where the 25 percent ITC is at stake, however, NPS approval is needed, and it is the preservationist's viewpoint that must prevail. This is not to say that NPS will not entertain compromises in the review process, but it is a good idea to submit the Part 2 application before rehabilitation

work commences so that if elements of the design are unacceptable to the NPS they can be modified to gain approval. For guidance, a variety of material is available from the NPS, including a series of "Preservation Briefs" on technical problems, and "Interpreting the Standards" bulletins on various preservation issues.

There are several problem areas in applying the Standards for Rehabilitation that reoccur frequently in architects' good faith efforts to design projects that will qualify for the 25 percent ITC. Myra Harrison, who supervises NPS reviews in the Philadelphia regional office for projects in the Northeast and much of the Midwest points out, "Some developers and architects, usually those unaccustomed to working with historic architecture, are uncertain as to what comprises 'historic character.' For instance, in designing exterior treatments they tend to ignore the significant contribution that windows often make to a building's historic appearance, and windows are prime candidates for change." The NPS prefers to see original windows retained and repaired, but often allows replacement sash so long as it is compatible with what it replaces in size, type, color, and reflective qualities.

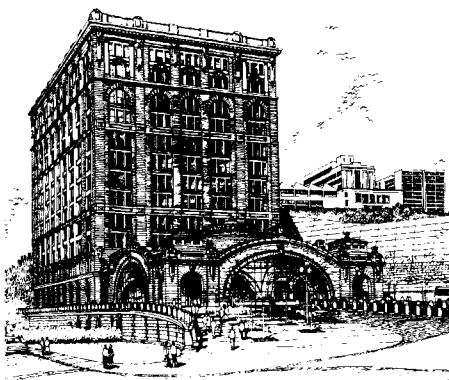
Related to the window issue is the question of handling storefronts on commercial buildings. A historic photo of a building is invaluable in deciding on an appropriate design when recent alterations have obscured the original design. Restoration of the storefront is not necessary, but to meet NPS standards, the new design should reflect the historic storefront character of the building even if the new use for the first floor is not retail.

If a historic photo is not available, an architect may be tempted to base infill design on neighboring buildings. Such design decisions must be made judiciously. It's not appropriate to add a brick veneer to a frame building just because the building next door is brick. Nor is it appropriate to extend architectural features from the upper stories of a building to the first-story level when the design of the street level historically differed from that of the upper floors, in part to reflect its different use and function. As a basis for the new design elements, it's necessary to find a building of a similar type, located close by and constructed at about the same time as the project building.

Development opportunities

Talk of standards, regulations, and tax law may not sound inviting, but the 15, 20, and 25 percent tax credits are compelling enough to have developers and syndicators scouring the countryside for old and historic buildings to rehabilitate. Nearly a million structures are included in National Register listings (about 24,300 individual listings and 2700 historic districts). These buildings are generally found in central locations and can have great appeal in the marketplace. The potential for development opportunities is tremendous. Moreover, the denial rate for NPS review of historic rehabilitation projects is currently only 5 percent. □

While almost half of the projects receiving benefits of the new Investment Tax Credits have been for housing, many other building types have also benefited. Two recent projects include the \$17.9 million rehabilitation by The Ehrenkrantz Group of Daniel Burnham's Pittsburgh Union Station (below and p. 133) for office and retail use, and the second reuse of Knoxville's Old School Building (bottom), which was last the City Hall, but will be converted by Anderson Notter Finegold for new office space.



Kaishian



Anderson Notter Finegold Inc.

Opulence on Olive

Barbara Goldstein

Although basically intact, a landmark building on South Olive Street in Downtown Los Angeles is returned to its original splendor.

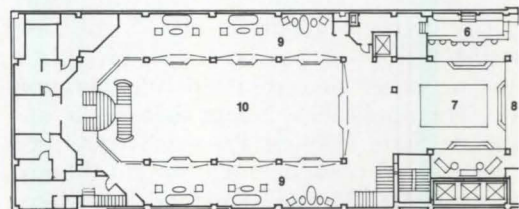


It is impossible to visit the James Oviatt Building in Downtown Los Angeles without falling into reveries about its previous glories. This was an archetypal romantic building, a glamorous combination of exclusive clothing store, offices and penthouse in one of the most ornate skyscrapers of its day. From its rooftop garden the owner could sip drinks and gaze at the Pacific Ocean, while downstairs movie stars like Adolph Menjou and Clark Gable came to buy their clothes.

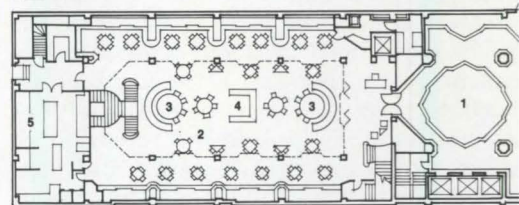
The "gothic deco" skyscraper was built in 1928 by James Oviatt, co-owner of the clothing store Alexander and Oviatt. The owner had an overriding interest in quality, and the building was to be a monument to his taste. Designed by architects Walker and Eisen, the Oviatt was embellished on the outside with embossed silvery metal panels, and inside with what was reputedly the largest collection of Lalique glass lamps, panels, and chandeliers ever assembled. Once, during his frequent travels, Oviatt visited the 1925 Paris World's Fair, and it influenced his decision to build an Art Deco masterpiece. At the time it was built, the Oviatt was as tall as the Los Angeles height limit allowed.

When Wayne Ratkovitch bought the building in 1977, it was rundown but fundamentally intact, although most of the Lalique glass had been removed from the ceiling of the lobby. James Oviatt and his wife had died in the 1970s, and the Alexander and Oviatt haberdashery had been closed for some years. The penthouse was empty, and only one-third of the offices were occupied, commanding an average rental of only \$3 per square foot per annum. Today it is fully occupied and office rents run as high as \$24 per square foot.

By renovating the Oviatt, Ratkovitch became a pioneer in the revitalization of Downtown Los Angeles. Although the importance of such restoration is now apparent, at the time this project was started, the Biltmore and the Bradbury buildings were the only real precedents. Ratkovitch saw the potential of the building, and decided to adapt it to contemporary needs, maintaining its external features while converting the offices to more modern standards. He commissioned architects Kaplan/McLaughlin/Diaz of San Francisco to carry out initial feasibility studies and base building remodeling, to establish standards and design strategies, and to make recommendations about the use of the public spaces. Later, Group Arcon was to take over



MEZZANINE



GROUND FLOOR

- | | |
|----------------|--------------------|
| 1 Lobby | 6 Bar |
| 2 Dining Room | 7 Dance Floor |
| 3 Banquettes | 8 Lounge |
| 4 Food Display | 9 Lounge/Promenade |
| 5 Kitchen | 10 Open |

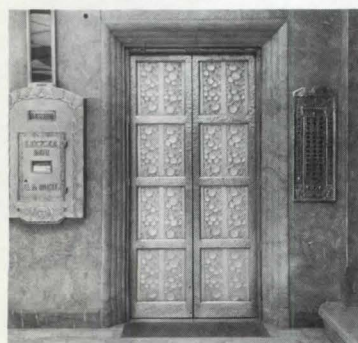


Barbara Goldstein is a Los Angeles correspondent for P/A and editor of Arts + Architecture.



Original Lalique glass ceiling in the lobby (opposite page) was only partly intact when renovation began. New cast iron gates (above) define a planned outdoor espresso bar.

Oviatt Building



Offices within the building, such as those for its owner (top) are not tied to the Deco richness exemplified by the elevator lobby (above). Opposite page: The elegant doors (center left) announce the Rex restaurant (top), a conversion of the previous haberdashery. Beautifully detailed living and bathing areas (bottom) distinguish the 10-room penthouse.

Data

Project: The James Oviatt Building, Los Angeles.

Architect: Kaplan/McLaughlin/Diaz, San Francisco, Herbert P. McLaughlin, head designer; Group Arcon, finished interiors and space planning.

Original architect: Walker and Eisen, 1928.

Client: Ratkovitch, Bowers, Inc.

Site: downtown Los Angeles, 86,000 sq ft.

Program: renovate existing building to upgrade space to current standards for office space and new restaurant.

Major materials: reused marble, slate, Lalique glass.

Consultants: electrical, Berg Electric; landscape, Ennet Whipple.

Cost: \$4 million (1981).

Photography: Bruce Boehner, AIA, except opposite page, top, Russell Abraham.

the job, finishing the building and creating the individual tenant spaces. Brenda Levin, project architect for Group Arcon, completed the restoration and today acts as building architect, with her offices in the Oviatt.

The building is clever in both plan and elaboration. A long narrow building, its lobby was recessed to create a sheltered forecourt for the office elevators and a ceremonial entrance to the shop. Originally, the lobby was entirely opened to the street, with a large display case in the middle. Above the lobby, there are three stories of bay windows surrounded by an elaborate metal frame. These windows were part of the shop and Oviatt offices. The building steps back at the thirteenth floor, creating a garden for the penthouse. A clock tower with neon numerals sits at the top of the building, and reportedly rang the "Chimes of Normandy" and other pieces when the building was first erected.

Fundamentally, there were few major design changes involved in the renovation. In order to make office rentals profitable, it was necessary to bring the space up to contemporary standards, to provide new wiring, air-conditioning, and a sprinkler system. The haberdashery was to be made into an elegant Italian restaurant, and the penthouse, which needed little, was to be restored for an unspecified use.

The offices were originally arranged in small increments along the marble-lined hallways. The architects and the developers decided to maintain the hallways but to create larger office suites. Converting the building floor by floor, they offered new tenants a basic spec office consisting of gypsum board partitions and acoustical tile ceilings. For a larger amount of money, the tenants could have whatever they wished.

In order to accommodate air conditioning, the office floors were gutted. Fortunately, the building had a concrete frame and the floor-to-ceiling height allowed enough space for ducts. Only in some of the service areas are the ceilings less than eight feet in order to accommodate mechanical additions. The architects were sensitive to the original fenestration, and retained the double-hung windows so the building's exterior appearance would not change. On the inside, however, neither the subdivision into offices nor the design of the offices themselves acknowledges the original layout of the building. And, although the hallways were left intact, most of the original strip lighting fixtures were replaced by unattractive panel lights.

The lobby of the building and the Rex restaurant are the most successful part of the renovation. In the restaurant, Brenda Levin and interior designer Luciano De Nardi joined forces to create an elegant environment with minimal disturbance to the original space.

In changing the haberdashery into the Rex restaurant, the designers decided to make as few alterations as possible. The space was of two levels, with a double height central space

overlooked by a mezzanine. It was fitted out in dark carved oak and decorated with Lalique panels and light fixtures. The part mezzanine overlooking Olive Street was called the California Palm Room and featured bay windows where customers could look at their clothing in natural light. In the renovation, display cases that lined the edge of the mezzanine were removed and replaced with balustrades; cases lining the ground floor walls were changed into wine cellar and the California Palm Room became a piano bar complete with a small dance floor. An Art Deco bar was designed for this area using old display cases as a liquor cabinet. Other display cases were recycled as linear trolleys.

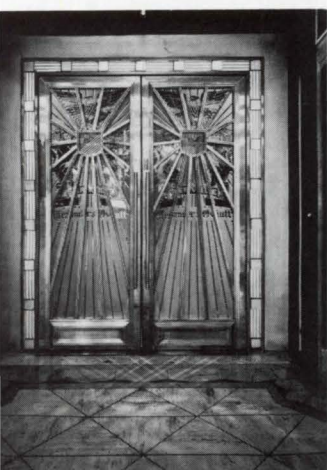
The store originally had a very dark, masculine color scheme featuring red carpet with oriental rugs as overlays. The new colors are lavenders, pinks, and purple, giving the space a lighter, more contemporary appearance. In order to create a cozy dining atmosphere, small triangular tables are arranged around the edges of the ground floor space, encouraging intimate dinners *a deux*. The mezzanine area was transformed into a lounge with banquettes, low tables, and a continuously changing art exhibition.

The architect was very careful in organizing the wiring and sprinklers in the restaurant to do minimum damage to the ceiling and woodwork. The only place in the Rex where the design seems awkward is the ceiling over the dance floor which, now lowered, to create an intimate atmosphere, seems rather claustrophobic.

The ceiling in the lobby was more problematic. Much of the Lalique glass used to illuminate the original lobby was missing, and a previous ceiling of faceted plexiglass had been installed. Since this looked incongruous with the existing decoration, Brenda Levin designed a new ceiling pattern, using existing Lalique panels and reproductions. The new ceiling is a faceted composition echoing the pattern in the floor where the original display case was located. While still rather meager compared to the original ornamentation, it is a vast improvement over the earlier attempt. In addition, a Deco cast iron gate was added giving more privacy to the planned outdoor espresso bar.

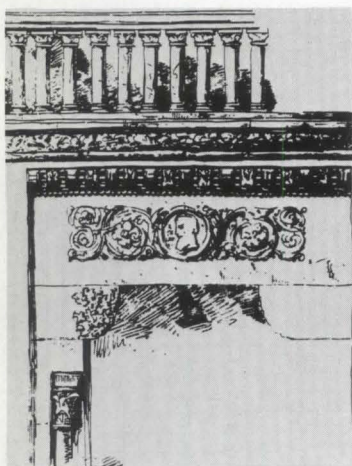
The penthouse is not yet restored, although Ratkovitch plans to bring it back to its former splendor. The apartment is very formal, with wood paneling in several rooms and an enormous bathroom featuring carved maroon plaster walls depicting jungle scenes. As the building was always zoned to have an apartment on the roof, it would be desirable to see it restored as residential space, so it could continue in its original use. This would mean guaranteed preservation of the suite.

Wayne Ratkovitch is currently involved in the adaptive reuse of another splendid Art Deco building, the Pellisier on Wilshire Boulevard. Again he is working with Brenda Levin, and with careful reconstruction and the respect shown to the Oviatt, Wilshire Boulevard may also have a "contemporary Deco" skyscraper. □



Richardson restored

After long neglect, H.H. Richardson's New York State Senate Chambers have been meticulously restored. The project's success comes from the architects' careful documentation as much as from the craftsmen's skill.



Richardson's sketch (above) served as the model for the late Carrado Parducci's relief sculpture over the senate doors (opposite, bottom left). The other views of the restored senate chamber interior (opposite) show the reproduction carpet and lighting fixtures, the cleaned and polished stone, the repaired stained-glass windows, and the rebuilt senate desk and settees.

Henry Hobson Richardson might not have understood the care architects Mendel, Mesick, Cohen, Waite have taken in their restoration of his senate chambers in New York's capitol. As partner-in-charge John Mesick put it, "We conducted ourselves as building conservators rather than renovators or decorators," respecting "the intentions of the original architect," and establishing "a restoration discipline to which personal and contemporary aesthetic tastes have been subordinated." Richardson might not have understood because most 19th-Century architects viewed preservation much differently. Working within an existing building provided, for them, an opportunity to update it, a chance to leave their personal stylistic mark, as Richardson himself did in New York's capitol.

The English architect Thomas W. Fuller, best known for his design of the Canadian capitol in Ottawa, prepared the first design for New York's capitol in 1867. Fuller dressed the capitol in Italian Renaissance detail although, in response to public objections, he later added mansard roofs and ornate towers in the then popular Second French Empire style. The state legislature approved that design, apportioning \$4 million for its construction. Work began in 1869, and for reasons not entirely clear, construction proceeded slowly, so that by 1875, \$5 million had been spent with only the first two floors complete. The legislature, angered by the delays and the expense, appointed Lieutenant Governor Dorsheimer chairman of a new building committee; he in turn hired an advisory board comprised of Richardson, Leopold Eidlitz, and Frederick Law Olmsted to recommend ways of quickly completing the building.

In 1876, the board presented a list of defects in Fuller's design, along with drawings of their own, showing Richardson's Romanesque top to the capitol. The presentation brought a flood of criticism, mainly from the architectural community. The New York Chapter of the AIA thought that the advisory board should have consulted with Fuller in the revisions and that they erred in changing the style of the building halfway up. The criticism had little effect. The lieutenant governor fired Fuller, while the legislature commissioned the advisory board to proceed with its plans in June 1877.

Richardson and Eidlitz split the design responsibilities, with Richardson taking, among

other things, the senate chamber. Thinking the 60' x 100' space Fuller had allocated too large, Richardson turned the room into a cube by enclosing lobbies at either end, with visitor galleries above. A colossal round arched arcade separates the galleries from the senate chamber.

While we usually think of Richardson as proto-Modernist, an influence on Sullivan and Wright, the senate chamber shows his Victorian taste for complex pattern, deep colors, and rich materials. The furniture, mahogany and red leather, stands against lower walls of white Knoxville granite. Above that runs a 12-ft-high grid of Mexican onyx framed in yellow Siena marble, a band of gilded embossed leather, and a beamed ceiling supported by granite corbels. The round Scottish granite columns in the arcade, with their white marble capitals, provide a contrast to the chamber's golden hue. Two tiers of stained-glass windows, along with chandeliers and wall sconces, light the space.

Out of funds and out of patience, the senate moved into the unfinished chamber on March 10, 1881. As John Mesick describes, "The stone carvers just picked up their tools and left without ever completing the room. The carpet and the light fixtures underwent frequent replacement, while the senate chamber Richardson had designed slowly disappeared as senators retired. The room also suffered smoke damage in 1911 and major redecoration in 1912, 1914, and in the 1940s. By 1970 when the senate decided to restore the chamber, the stone had become encrusted with grime, the gilded leather covered with gaudy fabric, the electrical system overloaded, the ceiling damaged by water, the carpet threadbare, and the galleries enclosed with bullet-proof glass screens. In the words of Roger Thompson, Secretary of the Senate, "The place appear(ed) little better than a third-rate hotel."

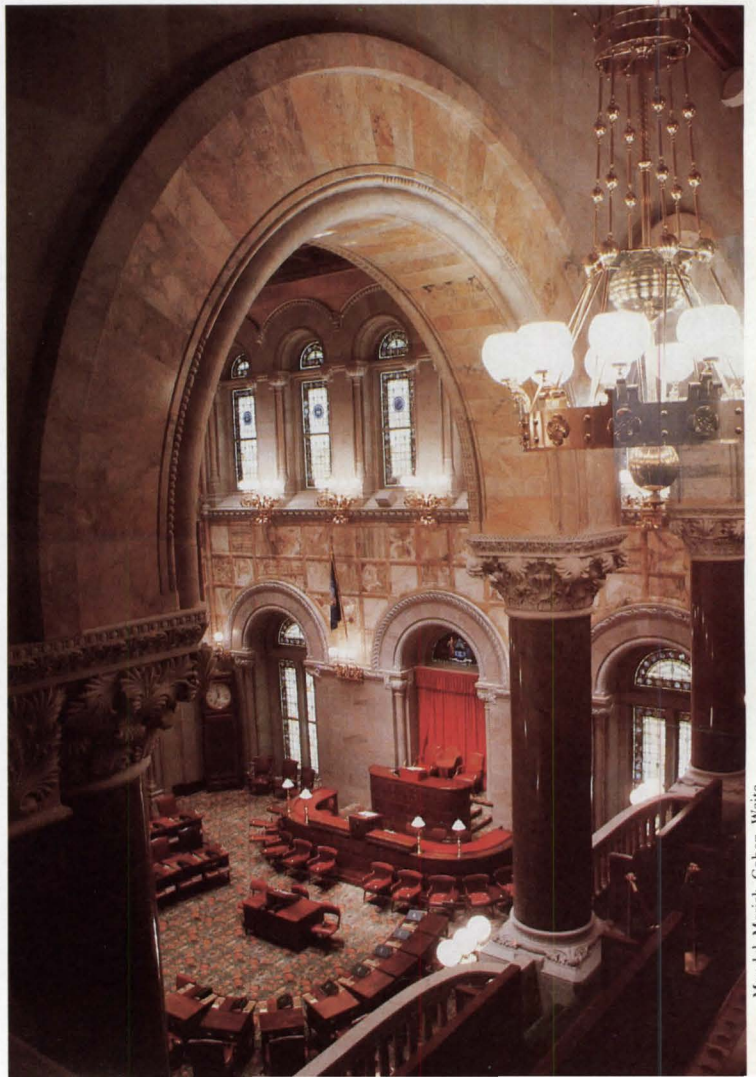
Those sentiments led the senate to retain the Albany firm of Mendel, Mesick, Cohen, and Waite, well known for their restoration experience. In the first four months of 1970 the firm prepared a historic structures report documenting the history and existing conditions of both the senate chamber and the lobby. The completed report is Richardsonian in scale, measuring over 2 in. thick. It contains a narrative history and description of the chambers, recommended restoration



er Smalling, Jr.



Walter Smalling, Jr.



Mendel, Mesick, Cohen, Waite

Senate chambers

procedures for every architectural element, an engineering analysis and plan, and measured drawings of both the existing and the proposed spaces.

That document became part of a much larger effort by the state to establish a preservation plan for the entire capitol, hiring the Ehrenkrantz Group to prepare a historic structures report. Running 10,000 pages in 25 volumes, the Ehrenkrantz study records the location, material, finish, style, and date of virtually every architectural and engineering item in the building's 800 rooms. The amount of data required the use of a computerized data management system. Coded survey forms allowed easy entry of the information into a computer as well as its rapid retrieval when preparing maintenance schedules, when locating items for repair or replacement, or when planning future preservation projects.

Meanwhile, construction began on the senate chambers after a six-week contract document phase. The masonry cleaning contractor used a poultice on the marble and soap and water everywhere else to remove surface dirt, polishing the cleaned stone with wax to bring out its veining. A sculptor reproduced the embossed leather wallcovering in a fiberglass-reinforced polyester to provide a longer lasting substrate for the gold leaf. A lighting manufacturer reproduced the original brass fixtures based on drawings made from old photographs, while a stained-glass studio removed, cleaned, and releaded the stained-glass windows.

Examining photographs under a microscope, the architects reconstructed the original carpet's design, a stylized Persian pattern of variously colored flowers on a blue-gray ground. The oak ceiling also required careful reconstruction where diffusers and lights had been added. Rather than using oak, the architects decided on a resin that could be easily modeled to reproduce moldings, and painted and grained to match the oak. From the floor 50 ft below, the repairs are imperceptible. Carpenters rebuilt the senate desk, as well as the settees that once lined the chamber. These received embossed leather cushions studded with brass upholstery nails made to match the original.

The integration of new electrical and mechanical systems proved the most taxing. Rather than disturb the original fabric with a ducted HVAC system, the architects decided upon a hot and chilled water system with fan coil units replacing the radiators in cabinets under the windows. Electrical conduits were installed beneath the floor and threaded through wall cavities and ceiling spaces without removing the original finishes.

The restoration of the senate lobby presented a different set of problems. The vaulted gothic space, designed by Leopold Eidlitz, wraps around three sides of the senate chamber, its walls and ceiling constructed

of brown and gray sandstone and its floor covered originally in encaustic tile. By 1977, the state had not only removed the original light fixtures, windows, and floor, but had partitioned the lobby into a maze of offices, leaving a twisted, narrow passage for both the senators and the public to navigate. The architects removed all of the partitioned spaces. They then hung the reproduction brass chandeliers and installed carpeting that would remain until funds become available to reproduce the colorful Minton encaustic tile. San Francisco artist Hilda Sachs designed new clear glass windows with a cascading leaded pattern enframing rectangular lights to replace the existing lobby windows, while a Detroit sculptor, the late Corrado Parducci, working with Richardson's sketches, developed busts of the various architects involved in the capitol as well as various representational scenes for the uncut stone over the senate doors.

Not every decision in the restoration rested on precedent. To create private conversation areas for the senators, the architects had to close off the side lobbies at places where no gate or doorway ever existed. A similar problem occurred at the staircase and elevator portals, where the air-conditioned lobby had to be separated from the rest of the building. The architects' solution differed in each case. At the side lobbies, John Mesick decided to commission modern gates that sympathized, without mimicking, the room's Gothic style. Artist Albert Paley, who had recently completed gates for the Renwick Gallery, designed two pairs of gates with a curvilinear structure supporting a flamelike brass and bronze centerpiece, a design that captures both the pointed linear quality of Eidlitz's Gothic lobby and the generous scale of Richardson's round-arched senate chamber. At the portals leading to the rest of the building, Mesick decided upon a more temporary solution, since the whole capitol may be air conditioned at some point in the future. The architects designed tempered glass doors and sidelights with minimal bronze fittings to provide the least visual intrusion. That those changes almost go unnoticed testifies to their appropriateness.

Mendel, Mesick, Cohen, Waite have made the restoration of the senate chamber look effortless. The reason for that lies in the procedures they followed as much as in their restoration skills. Too few preservation projects budget enough time or money to prepare a historic structures report as thorough as that documenting the senate chamber, even though the accurate reconstruction of missing features and the unobtrusive insertion of new elements could not have occurred without it. As John Mesick put it, "the preparation of a historic structures report is an act of discipline," applying, "investigative techniques to the process of building restoration. Once this has been accomplished, the plans for preservation and restoration can be formulated without whim, fancy, or conjecture." If Richardson might not have understood that approach, he certainly would have been pleased with its results. [Thomas Fisher]

Albert Paley's gates at the side lobbies of the senate chamber (right).

Data

Project: State Capitol Senate Chambers, Albany, NY.

Original architects: Thomas Fuller, Frederick Law Olmsted, Henry Hobson Richardson, Leopold Eidlitz, Isaac Perry.

Restoration architects: Mendel, Mesick, Cohen, Waite Architects, Albany, NY; John I.

Mesick, partner in charge; A. Craig Morrison, James Johnson, Robert Pierpont, assistants.

Client: New York State Senate

Program: restoration of furnishings and interiors and replacement of mechanical and electrical systems in Senate Chamber and related spaces in New York State Capitol.

Structural system: load-bearing masonry walls with brick jack vaults between iron floor beams over timber and stone vaulted ceilings.

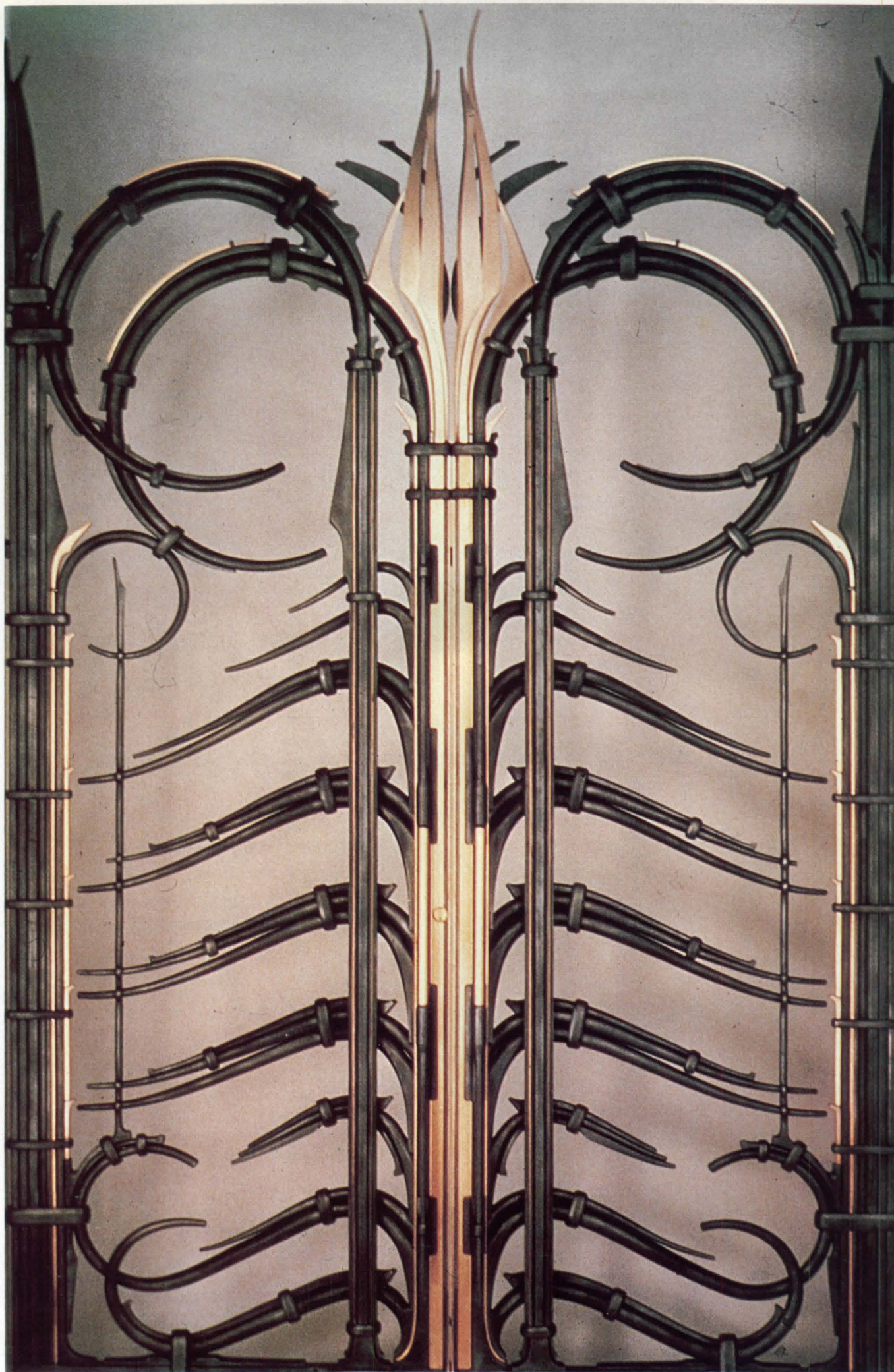
Mechanical system: hot and chilled water HVAC system.

Major materials (custom work): Gene Mundell, wallcoverings; C.M. Goodrich & Son, Shay's Upholstery, millwork; E.F. Thresh, revedos, settees; Donald S. Dales, sofas, chairs; Smith & Watson, chairs, settee; Albert Paley, metal gates; Cummings Studio, decorative glass windows; Vincent Leggiadro, stone carving; New York State Museum Workshop, rostrum, including desks; The Willet Stained Glass Studio, stained glass repair.

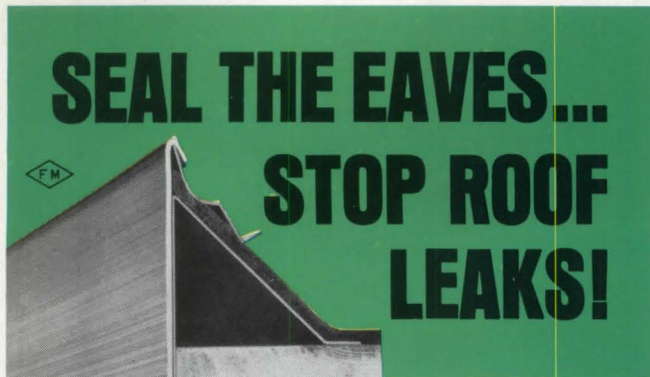
Consultants: Syska & Hennessy, electrical, HVAC; Edwin S. Bishop, acoustics; Eugene Torrent, furniture reproduction design; Samuel J. Dornsife, ASID, research; David Zdunczyk, historian; David Coughtry, renderings.

Artists: Corrado J. Parducci, lintels and corbels; Hilda Sachs, contemporary windows; Albert Paley, sculptural metal gates.

Contractors: There was no general contractor. Because of a fast-track schedule, separate contracts were let to individual subcontractors.



William Rowley



SEAL THE EAVES... STOP ROOF LEAKS!

Hickman Gravel Stop prevents leaks at eaves by clamping out the moisture — permanently. It's a complete three-piece system thermally-compatible galvanized water dam; free-floating extruded aluminum fascia; patented compression clamp with neoprene-washed fasteners. Our system excludes water so effectively, nobody's ever found a failure in a Hickman Gravel Stop. And permanent, foolproof protection like this is actually less expensive, installed, than less dependable gravel stops. Next time you're roofing (or re-roofing), specify Hickman and stop worrying.

Hickman's FREE "Roof-Line" . . . 1-800-438-3897

See our catalog (7.3 Hi) in Sweet's.

Available in Canada

HICKMAN ALUMINUM CONSTRUCTION PRODUCTS

W. P. Hickman Company □ 175 Sweeten Creek Road
P.O. Box 15005 □ Asheville, N.C. 28813 □ (704) 274-4000

Circle No. 340 on Reader Service Card



DESIGNER GRIDS™

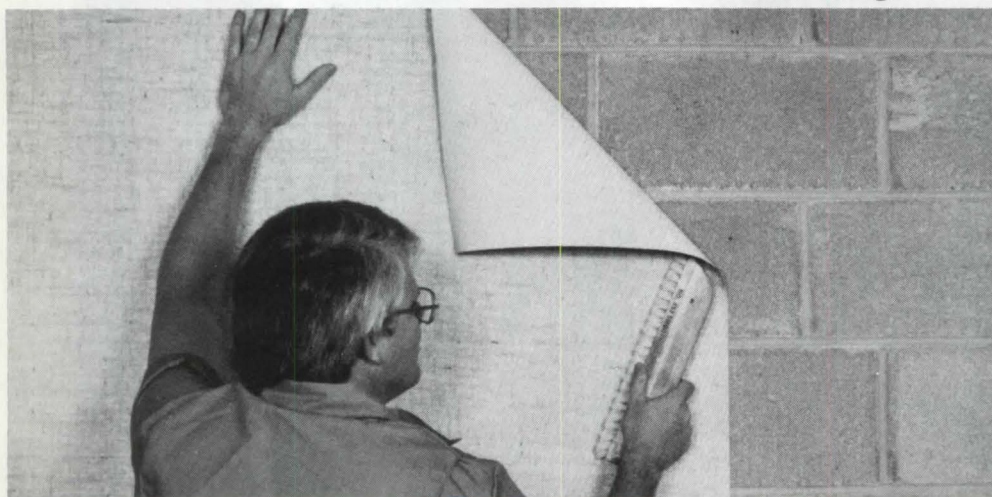
Perspective grids for the artist, architect, and designer. For the drawing that must be demanding accurate, systematically aesthetic, and beautifully precise. **Architectural Grids™ Designer Grids™ Production Grids™ The Gridkit™** Superiority of design and function.

Available at stores: 44 grids, including perspective, layout, orthographic, and paraline.
Kleidon & Assoc., Inc., 26 Waterside Dr., Medina, OH 44256

designer grids™

Circle No. 356 on Reader Service Card

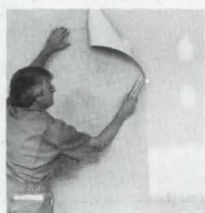
Flexi-Wall® Passes Rigid Government Fire Toxicity Test



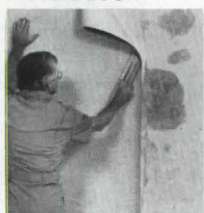
COVERS NEW OR OLD BLOCK



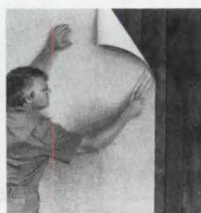
TILE



GYPSUM



PLASTER



PLYWOOD

**The cost effective
Problem Solver that
meets your specs
and beautifies your design.**

- Approved by All Government Agencies
- H.U.D. Contract #OPH(CO)M-3620
- Hospital Approved
- Class-A Flame Spread
- Eliminates Lead Paint Hazard
- Zero Smoke Generation
- Produces No Toxic Fumes
- City of New York Dept. of Bldgs. #MEA 6-79-M
- See Sweet's File 9.13/FL

**FREE SWATCHES. CALL OR
WRITE TODAY.**



Flexi-Wall Systems Post Office Box 88
Liberty, South Carolina 29657 (803) 855-0500

Flexi-Wall is a trademark reg.
U.S. and Canada. U.S. and
international patents issued, others pending.

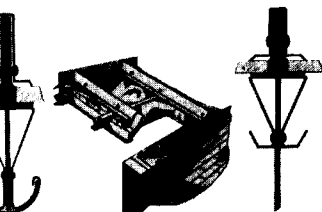
© 1981 Flexi-Wall Systems

Circle No. 328 on Reader Service Card

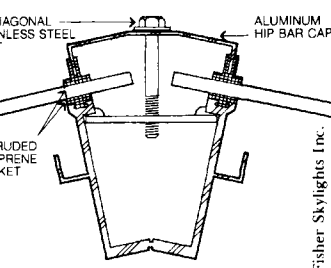
Let there be light, again

borah Dietsch

he recovery and
restoration of turn-of-the-
century skylights poses
problems of modern function
as well as of preservation.



Early steel glazing bars.



Modern aluminum glazing
s.

borah Dietsch is a free-
lance writer and architect
who is based in New York.



1 Charing Cross Station, London, 1864-66.



2 Kew Gardens, palmhouse, 1845.

The recent resurgence of the use of skylights in contemporary architecture, providing energy-efficient, naturally lit spaces, has contributed to renewed interest in the restoration of their precursors. As increasing numbers of public structures such as courthouses, museums, statehouses, banks, and office buildings built between 1870 and 1920 are preserved, the problems involved with skylight restoration have become a growing concern for architects and conservators. They are discovering that restoration of these glass and frame constructions is not merely confined to mending leaky joints. Consideration must be given to not only a vast range of possible cleaning, repair, and replacement methods, but to how the skylight will be incorporated into the building's present lighting, mechanical, and structural system.

Skylights have been used throughout the history of architecture as a means of lighting and ventilation. The positive effects of admitting part of the outdoors to the dark recesses of a building were recognized by Greek and Roman architects, whose skylights, such as the oculus in the dome of the Pantheon, were literally open to the sky. The vaulted spaces of Renaissance and Baroque churches were toplit by means of lanterns above their domes. In the 18th Century with the rise of public building types—libraries, museums and banks—skylighting was used to illuminate assembly areas and provide task lighting.

Early skylights were limited by glass size and framing methods. By the mid-19th Century, innovations in plate glass and cast iron framing techniques made possible the development of large areas of glazing for greenhouses and exhibition halls in England and France. Their prefabricated iron and glass components were rapidly adopted for other building types such as markets, department stores, arcades, and train stations, beginning an era of "glass mania" in the second half of the 19th Century (1, 2).

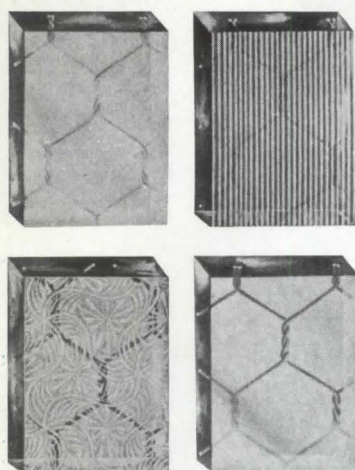
Glazing methods of the 19th Century consisted of wood or iron framing bars with insertion of lead putty to hold the glass in place. Lead comes, H-profiled extruded strips, were also used as joining members in stained glass. Experiments in the early 1890s led to the development of patent glazing, a method aimed at eliminating the use of putty, which continually had to be replaced. Steel "T" bars began to be substituted for wood frames, protected from corrosion by lead strips or caps with curved flanges to support the glass. By the turn of the century, these caps were covered with copper or galvanized with zinc. Both steel bar and cap were ridged to allow for water drainage (3). The eventual mid-20th Century manufacture of extruded aluminum framing supports with internal guttering systems ameliorated the persistent problem of leakage (4). In the 1950s, the development of neoprene gaskets that produced a watertight seamless joint, along with the invention of synthetic caulking, eliminated the need for lead putty altogether.

Glass manufacture

Improvements in the manufacture of glass also enabled skylights to span greater distances. From the late 17th Century, plate glass, developed from the need for perfectly parallel surfaces, was produced by casting. This type of glass was available in the U.S. after 1830. (Plate, as well as other types of window glass, was largely imported in this country throughout the 19th Century, although production of American-made glass steadily increased after 1850.) In the first decade of the 20th Century, the process of making flat sheets of glass, without blowing or flattening characteristic of cylinder or crown

Photos: G.S. Wyatt

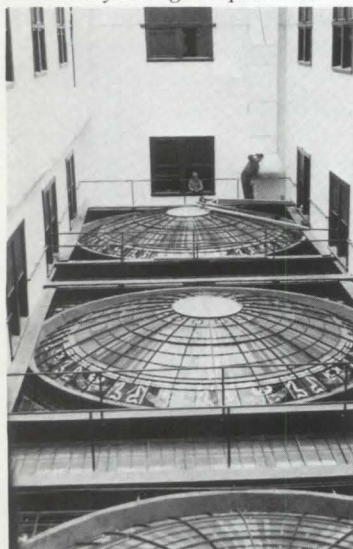
Skylights



5 Early versions of safety glass.



6 "Ondoyant" glass patterns.



7 Pennsylvania RR Station, Baltimore.

glass, was invented in Belgium. Subsequent manufacturing methods, developed by Libbey-Owens and Pittsburgh Plate Glass Co., improved this flat drawing process by streamlining extrusion methods.

First introduced as "armoured glass" in 1855, safety glass was made by insertion of wire mesh into molten, rolled glass. Chicken wire was originally used in its early manufacture, but later abandoned at the turn of the century for finer, electrically welded netting, because of the internal breakage caused by the coefficient of expansion difference between wire and glass. Wire glass was produced in many versions, including wavy or "lenticular," ribbed, and patterned (5).

Decorative glass manufacture was also improved by the late 19th Century. A process of extruding figured and cathedral glass between two rollers resulted in various degrees of transparency and texture by varying the surfaces of the rollers. Many late 19th- and early 20th-Century skylights, gracing the interiors of mansions and statehouses alike, were composed of leaded lights of Tiffany-style opaque, opalescent, rolled cathedral, and etched colored glass. This stained glass derived its colors from metal oxides added while in its molten state: cobalt and copper for blue, manganese and copper for red, chrome and nickel for green, and carbon and sulphur for yellow. Also characteristic of ornamental skylights from the turn of the century was pressed patterned glass, generically referred to as "ondoyant," which was also produced in wire glass versions (6). Still another skylight invention, patented in 1856, was the setting of small glass prisms into perforated iron plates, placed on sidewalks and floors to illuminate rooms below.

With increasing sophistication of electrical and mechanical systems at the turn of the century, skylights were often installed more as decorative ceilings than as sources of light or ventilation. During the early 20th Century, the availability of inexpensive fuels, coupled with advances in engineering and manufacturing, led to the dominance of complete environmental control systems. As these systems were increasingly relied upon to supply electric lighting, heating, and cooling, the use of skylights decreased considerably after 1920.

Skylights characteristic of turn-of-the-century American Beaux-Arts public buildings were composed of two parts. A roof skylight, referred to as a "monitor" when transmitting light from its sides (from the 19th-Century monitor shed roof) or "penthouse" (a 20th-Century term to indicate a large attic space), was usually composed of clear or translucent wire glass set into lead-covered steel frames. Placed below a roof skylight were laylights, interior skylights composed of leaded, stained, or patterned glass set into panels. An interior skylight called a diffuser was provided to filter the bright sunlight and to prevent glare, as the size of roof skylights increased. Historic skylights were also energy-efficient systems, incorporating air spaces between the diffuser and the plenum to allow for flow of air from the room and to prevent buildup of condensation under the roof.

Restoration objectives

As part of an overall objective for preserving a historic structure, skylight restoration requires careful evaluation of extant documentation, functional requirements, and budgetary considerations. The removal or obstruction of a skylight may mean not only loss of a building's natural illumination, but also diminishment of its architectural integrity. The pursuit of authenticity in replacing a skylight should be weighed against functional requirements. As an actual light source, the level of illumination compatible with the current use of the room should be provided. If a skylight is to serve as a purely decorative artifact, availability of original or sympathetic materials, to simulate its original appearance, should be determined.

Historical replication versus functional replacement as a preservation approach is illustrated by the proposals for the restoration of skylights in the Tweed Courthouse in New York and in the New York State Capitol in Albany. Designed by John Kellum in 1872, the Tweed Courthouse originally featured painted and etched glass diffuser over the main rotunda, which, as part of the daylighting system for the building, also supplied light to the glass block skylights in the balcony floors. The skylight was demolished, but the plan for the reconstruction of its surviving panels was designed by architect Frank S. Schuch of the New York City Landmarks Preservation Commission. Recreation of the pattern of glass panels was accomplished through calculation and comparison of the surviving fragments to the diffuser's existing frame. Evidence of the positioning of lead came that held the glass in place also aided in the design of their reconstruction. Dependent on replication of new panels to match the original glass, the proposed restoration of the diffuser would reinstate the quality of light that defined the rotunda.

In contrast, the restoration proposed by the Ehrenkrantz Group for the skylights in the New York State Capitol (see p. 118), calls for replacement with new glass and frames. The skylights, which originally provided illumination for the lavishly carved Great Western Senate, and Assembly staircases, were blocked out, removed, or covered in the 1940s. While some documentation exists, the architects feel that what is more important is the preservation of the Capitol is their replacement as natural light sources for the staircases, which serve as major orientation points within the building. Architect Theodore Prudon explains that while "the existing skylights will be conserved and period examples studied, the most important consideration is the restoration of the character of the space itself."

Conservation methods

Once an overall approach to restoring a skylighting system has been formulated, actual cleaning and repairing techniques must



8 Appellate Division, New York State Supreme Court.

...e determined. One of the most commonly encountered problems is how to uncover skylights coated with an accumulation of lime, putty, asphalt, tar, or paint. While the blocked glass of a roof skylight can generally be replaced without loss of historical integrity of valuable materials, the cleaning of an intricately patterned laylight demands more conservative measures, since its appearance is important to the definition of an interior.

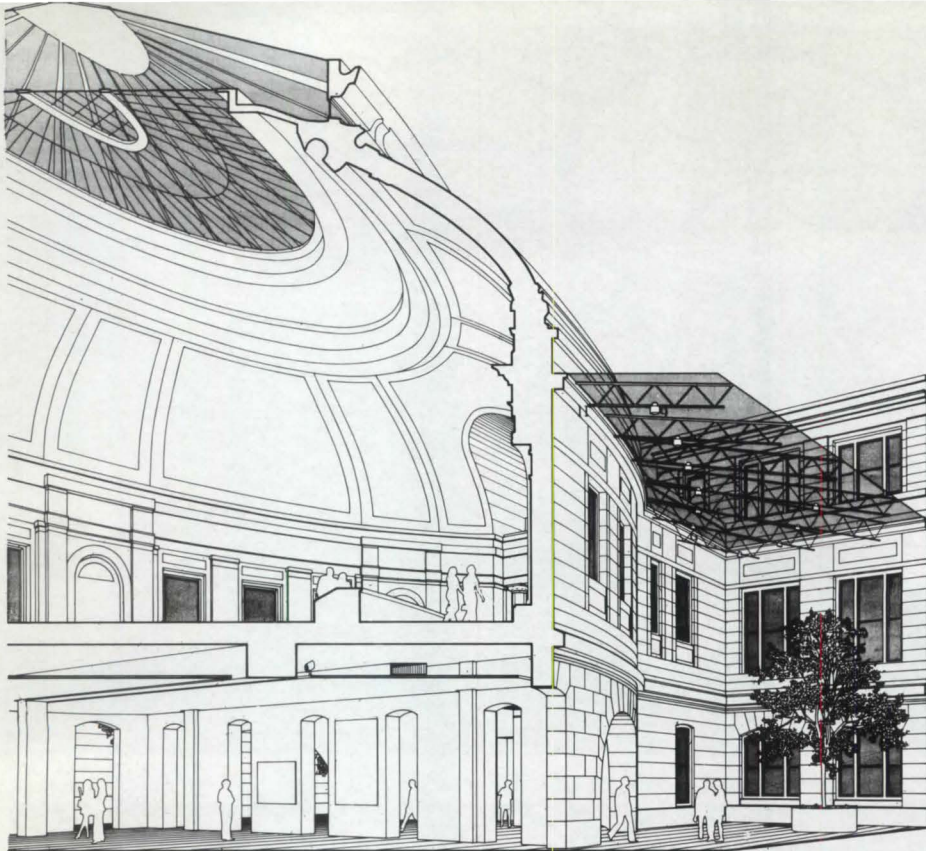
In preserving the monitor above the dome of the 1904 headquarters of a Baltimore investment banking firm, The Rambusch Company, a crafts and lighting firm that specializes in stained glass restoration, replaced leaded-over glass with Lexan plastic. However, restoration of several other stained glass domes required more stringent methods. The three 24-ft domed laylights, positioned 10 ft below the skylit interior courtyard of Baltimore's Pennsylvania Railroad Station's concourse, had been painted and covered with debris (7). Removed in over 200 sections, the leaded glass panels were soaked in a mild solution to remove the paint and surface grime from the glass and corrosion from the lead came. The opalescent and cathedral glass in the dome of the Appellate Division of the New York State Supreme Court, a beaux-Arts structure designed by James Brown Lord in 1900, was similarly removed for cleaning and repair. Buckling of the leaded glass panels was corrected by reinforcement with additional saddle bars, attached by copper wires to provide bracing and support (8, 9).

In recommending cleaning methods for leaded glass, Rambusch president Viggo Tech Rambusch advises using a mild (1-5 percent) solution of ammonia and water, applied with soft-bristle brushes, rinsed with clean water, and polished with a soft cloth. He adds that "certain solutions (such as tannic, hydrochloric, hydrofluoric, acetic, formic, and nitric acids) cause some chemical damage to lead came." Rambusch stained glass



9 Appellate Court, glass panel.

Photos: James Chotas



10 U.S. Custom House, New York.



11 Woolworth Building, New York.



12 South Dakota Senate Chamber, new reflective ceiling.



13 South Dakota Senate Chamber, backlit skylight.

restorer Michael Love states categorically that "acids should never be used to clean stained glass," and that "as a precaution, samples should be tested first with any cleaning solution, starting with the mildest cleaning agent." Strong basic solutions such as caustic soda (lye) can also be harmful to metal framing and glass if their application is not closely supervised.

Replacing original glass to restore the decorative integrity of a stained glass or patterned laylight could prove difficult because of the unavailability of certain 19th-Century glass types. Historic glass may be supplied from stained glass studios or suppliers who maintain "libraries" of old glass. Glass that is used to replace a roof skylight, while less critical to the appearance of a historic interior, must be chosen with an eye both to controlling the quality and amount of light to be emitted and to factors of safety. Most building codes still require that skylights use wired glass, although the Building Officials and Code Administrators (BOCA) recognize use of laminated glass—which, along with plastics, is often used to replace wire glass, because of its translucency, strength, and insulating properties. Architect Jared Edwards, a partner in the firm Smith/Edwards, which is now restoring the skylights of the Wadsworth Athenaeum in Hartford, Ct, prefers tempered glass over laminated glass and plastic since "plastic will yellow, scratch, and deform with age. Glass also has reflective qualities—a certain sparkle—not found in plastics." One drawback to using tempered glass is that it can break spontaneously because of its nickel sulfide content, which causes internal stresses to build up under extreme temperatures.

Lighting design

While skylights can be restored to emit natural light, this alone may not be sufficient

to provide an adequate source of illumination for the building's current use. Furthermore, it may not be even historically accurate. Skylights of the late 19th and early 20th centuries were designed as part of lighting systems that incorporated sources of artificial illumination, installed to augment the skylight when sunlight was unavailable—at night or during inclement weather—and to highlight the skylight itself. One of the skylights over a staircase in the New York State Capitol, for instance, included incandescent bulbs as part of the original design. Other turn-of-the-century buildings, such as Pittsburgh's Union Station and the U.S. Custom House, NY, also incorporated incandescent lamps encircling their skylight domes (10).

Electric lighting was also inserted in the plenum below a roof skylight to backlight a laylight—an approach used in restoration projects when a source of natural light is no longer possible or a higher level of illumination is required. During the construction of the Woolworth Building, for example, several floors were inserted above the lobby, requiring the skylight over the grand staircase to be artificially backlit (11). Restoration by the Rambusch Company included cleaning and repair of its 24' x 40' stained glass surface, as well as a new program for its lighting. A similar environment was provided for the South Dakota State Capitol's Senate Chamber skylight, originally installed in 1910 (12, 13).

In both cases, the plenum between the laylight and the floor above was covered with a highly-reflective paint and supplied with new fixtures. "We used a mixture of high-pressure sodium and metal halide lamps," explains Rambusch, "because of their long life and color veracity." Mock-ups were used to study how certain fixtures and their light intensity would affect each space. Simulating daylight by means of artificial lighting requires consideration about the balance of light. First, shadows from the roof skylight or ductwork in the plenum should not be cast on the glass of the laylight below, thus requiring an evenly coated reflective surface from which the light will bounce. The mix of lamps should generate a color temperature to approximate the appearance of daylight, and highlights on the glass should be provided by spotlighting. "A good skylight," concludes Viggo Rambusch, "should have some sparkle and halation." It should be kept in mind, however, that artificial backlighting will never produce the gradual shift in light intensity that is characteristic of a naturally lit skylight. Insertion of heat-producing lamps must also be accompanied by adequate ventilation.

Energy efficiency

In addition to the benefits of low-cost illumination, skylights offer other advantages of energy efficiency: passive solar heat gain in winter, supplementing fuel-consuming heating systems, and reduction of lighting heat loads on cooling systems in the summer. But as with other windows, the environmental problems associated with them include exfiltration, radiant heat gain, and conductive

James Stewart Polshek & Associates

James Chotas

The Rambusch Co.

The Rambusch Co.

at loss. These considerations are especially critical in a building such as a museum, where environmental conditions must be closely regulated and may require the use of reflective and insulated glass skylights (14, 15). For insulated units, Joseph Stein of EPI Architectural Systems recommends use of a 1/4-in. clear or tinted heat-strengthened or tempered glass on the outside with a 1/2-in. air space and an inner light of laminated glass.

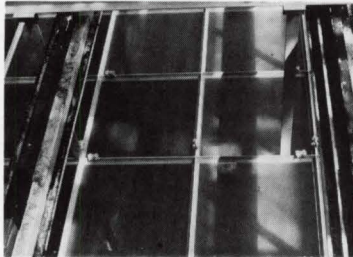
Although voluntary standards, such as the Architectural Aluminum Manufacturers Association's method for calculating a skylight's annual energy balance of heat gain and loss, can be used for an older building with skylights, determination of actual energy-giving benefits may prove impossible because of construction and complicated interior layout. Nevertheless, some restoration efforts have capitalized on the use of skylights to provide passive solar heat gain. Such a project is the Philadelphia Bourse, an 1895 stock exchange rehabilitated into a shopping mall and office building by H2L2 Architects. The skylight over the building's atrium was raised from the third to the tenth floor, creating a much larger interior space (16, 17). While this "buffer zone" may have clear advantages in terms of energy savings (P/A, July 1982), repositioning of the skylight at the top of the building not only required extensive structural bracing, but more fundamentally, changed the architectural character of the space below. As a result, a high level of glare, incompatible with the building's original provision of diffuse light, is produced from sunlight directly striking the skylight at the top of the atrium and reflecting off the new curtainwall above the third floor.

For such reasons, skylights in a building of similar type, Union Station in Pittsburgh, will be maintained in their original configurations. Restoration of the Beaux-Arts Union Station's complex of train sheds, cab stand, and office tower, designed by Daniel Burnham 1900-1902, will begin next year under the supervision of the Ehrenkrantz Group (18). Preservation of the skylights requires replacing missing glass in its steel-framed mullion and cleaning the etched and ondoyant glass of the laylight over the main waiting room, now covered by a suspended ceiling. Theodore Prudon points out that buildings designed for "sunlight and air" from the early 19th Century, such as Union Station's office tower and the Woolworth Building, "were originally designed with extremely logical systems of daylighting. The courtyard of the Woolworth Building, for example, was clad in lighter color terra cotta to reflect sunlight into its surrounding offices."

As logical systems providing light, air, and building decorations, and as contributors to the spatial articulation of a building, skylights are not simple architectural elements to restore. Understanding their formal and functional roles within the broader scope of preservation is essential to ensuring the design integrity of a historic structure. By successfully combining these factors, skylight restoration can mean a bright future for many of this country's older public buildings. □



14 Brooklyn Museum, skylight exterior.



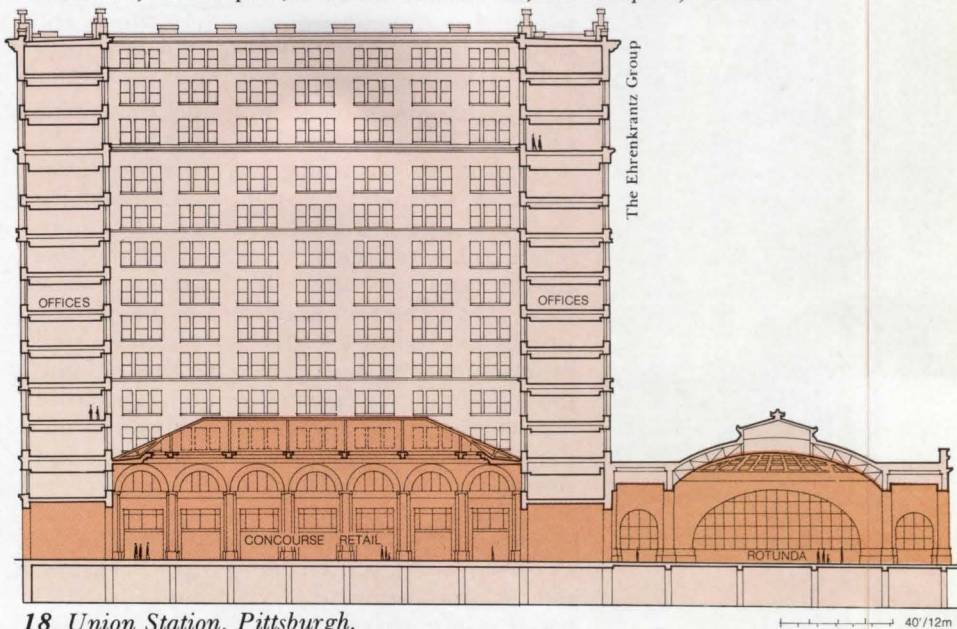
15 Brooklyn Museum, renovated laylight.



16 Bourse, Philadelphia, exterior.



17 Bourse, Philadelphia, interior.



18 Union Station, Pittsburgh.

Deborah Dietsch

Deborah Dietsch

Theodore Prudon

Theodore Prudon

Cold calculations

The arctic's extremes require a rethinking of design issues. This holds true especially for the relationship of a building to its site, the continuity of thermal and moisture protection, and the effect of design on human behavior.

The Alyeska Permanent Housing by CCC architects and planners (right) employs several design features common to the arctic, including raised pile foundations, beveled edges, colored metal skins, entry vestibules, and shallow roofs with no eaves.

We learn from extremes, if only to better understand moderation. While few architects will ever build in the arctic, the problems encountered there—infiltration, condensation, construction delays—occur in more moderate climates as well. The arctic merely exaggerates their severity.

Unfortunately, we have only begun to deal with the problems of arctic construction. As one Fairbanks architect put it, "We're at the lower end of the learning curve." Apart from the research going on at facilities such as the Army Corps of Engineers Cold Regions Research and Engineering Laboratory (CRREL) in Hanover, NH, much of what we know comes from the painful experience of watching buildings sink into the permafrost, insulation freeze in a wall, or snow drift over an entrance. That experience deserves the attention not just of architects who work in the arctic, but of anyone who has questioned the value of contextual design, for we neglect the arctic's physical or social context at our own peril.

The arctic winters last from seven to ten months, with frozen permafrost as deep as 1000 feet, sparse tundra vegetation with only occasional shrubs, low solar angles with some areas in darkness for two months, constant winds often from a E-NE direction, and average snow depths of 4 to 5 ft. Those conditions vary, however, depending upon a site's location and latitude. Settlements near the ocean often have warmer winters (-20 to -30F) and cooler summers (40 to 50F) with stronger winds than inland communities, where the winters can reach -60F and the summers 100F. In the northern arctic, the continuous permafrost might have an annual thaw zone of a few feet deep, while Fairbanks, on the arctic's southern fringe, has discontinuous areas of permafrost, often along northern slopes. Similar differences occur in sky conditions. The northern coasts usually have cloudy summers and clear winters, while Fairbanks experiences dense ice fogs in the winter because of air inversions exacerbated by automobile and wind-blown industrial pollution. The design process in the arctic, as in any climate, must begin with a thorough understanding of local weather and ground conditions.

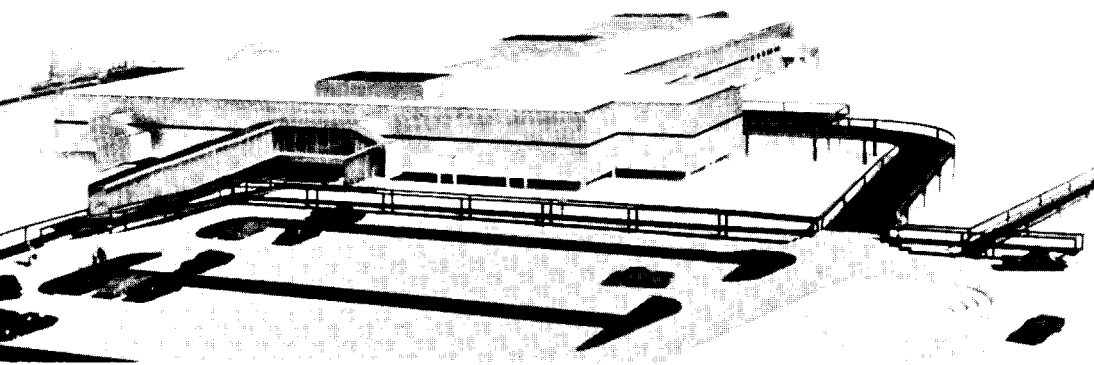
An understanding of social and economic conditions also helps. With the influx of southern immigrants over the past century, the Eskimo's nomadic, communal society, based upon a barter system, has largely dis-



Steve G.

appeared as the desire for permanent dwellings, consumer goods, and a cash economy has grown. That contrast is no more evident than in the Eskimo's housing. Cold arctic dwellings, often poorly constructed frame dwellings mimicking the suburban house, have replaced a building tradition well suited to the arctic environment.

The indigenous architecture ranged from the ice block igloos of northern Canada to the sod-covered timber structures of northern Alaska. Most igloos faced into the wind to prevent snow drifts from blocking entrance



CRS's Bethel Hospital (left) unites arctic design strategies with high-tech imagery. The rounded, streamlined forms reduce drifting, the entrance tunnels reduce snow and wind infiltration, and the slit windows reduce glare.

Moshe Safdie's housing prototype for Frobisher Bay, NWT (below), has a partially heated first floor which traps warm air above as in an igloo. The second-floor living room, with its symbolic translucent dome, has service and sleeping areas opening off of it, again like an igloo.

William R. Campbell

drifting was further reduced by the structures' domed configuration, which minimized surface area, eased construction, and increased air movement. The long entrance tunnels, used for the storage of outerwear and perishable goods, had their vaulted roofs below the igloo's floor level to prevent drafts and to trap warm air inside. Sod or packed snow provided insulation, while oil lamps provided sufficient heat. Animal skins, which lined the floors and walls, produced a soft, colorful interior as a necessary contrast to the arctic's visual monotony.

If the materials and construction of the Esmo's architecture hold little that is useful to modern needs, the design principles behind that architecture hold a great deal, for they force a reexamination of forms and details generated in more temperate climates. As Colin Bent, a Toronto architect, said, "The exciting thing about the arctic is that the rules haven't been written. We can rethink architectural problems without the usual baggage."

Community planning

Physically, arctic communities fall generally into two types. The complexes built by companies for their workers usually consist of dormitory-like rooms around central community and recreational spaces within a large, self-sufficient megastructure. In contrast, the native and immigrant communities usually contain a scattering of conventionally-framed single-family houses which, although expressive of the inhabitants' independence, are expensive to build, heat, and service.

The major planning issue in the arctic lies in achieving the efficiency of the megastructure without negating the independence associated with the detached house. Moshe Safdie addressed that issue in his unbuilt scheme for housing in Frobisher Bay, Northwest Territories (NWT), by grouping structurally dependent two-story hexagonal units into tight clusters. While individual units retain a visual identity, their clustering saves on utility connections and shortens distances to community facilities.

Another effort to combine attached and detached housing arose in Ralph Erskine's plan for Resolute Bay, NWT. The community and commercial facilities stand at the head of two curved apartment blocks which turn their back to the prevailing winds and open out to the south, embracing detached housing within their arms. Erskine conducted

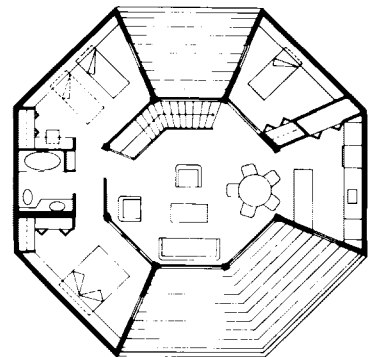
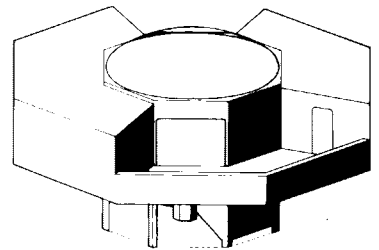
snow drift studies of the project to prevent unwanted drifting and to insure adequate wind scouring of the roads and outdoor recreational areas.

Snow drifting

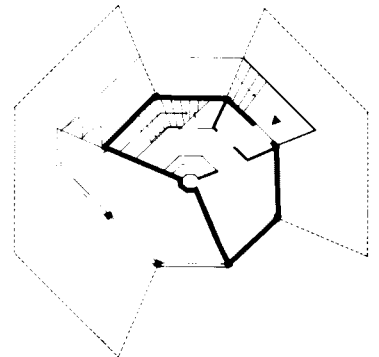
The arctic's constant winds and fine snow make drifting a major problem. It usually occurs on both the windward and leeward sides of an obstruction, be it a hill, a snow fence, or a building projection. It can work to an architect's advantage, as in Wainwright, Ak, where CSM architects and MHTR engineers have proposed the construction of 10-ft and 15-ft-high snow fences several hundred feet to the windward side of town to alleviate the drifting problems around buildings. The fences should cut the 12- to 15-ft-high drifts in half.

Drifting around a building is a problem mainly on the roof, where drifts behind a projection such as a clerestory can greatly increase snow loads; and at entrances, where drifts behind a wall projection can completely block a means of egress. To prevent that, a building's form should be compact and streamlined. Entrances should be on elevations perpendicular to the prevailing winds or on a windward elevation if protected by a vestibule. At the recently completed hospital in Bethel, Ak, by Caudill, Rowlett & Scott, the building's smooth, rounded skin reduces drifting, while the entrances, not unlike those in an igloo, have long sloping drift tunnels to keep out snow and drafts and to trap warm air.

The BP/Sohio complex at Prudhoe Bay, Ak, shows how much a building's form can affect drifting. Its architects, Wallace Floyd Associates, Inc., conducted a series of snow tests with the idea of keeping drifts as far away from the building as possible. They found that by elevating the building 7 ft, maintaining a rectangular form perpendicular to the prevailing winds, and rounding especially the bottom edge of the building, they could induce a strong enough Venturi effect under the structure to keep drifts 20 ft away, clearing an adjacent service road. The raising of buildings on piles and the rounding of their edges has become a ubiquitous design feature in the arctic.



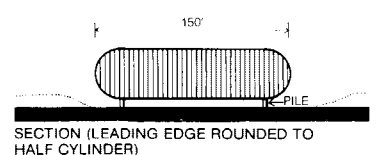
UPPER LEVEL



LOWER LEVEL



RECTANGULAR-SECTION



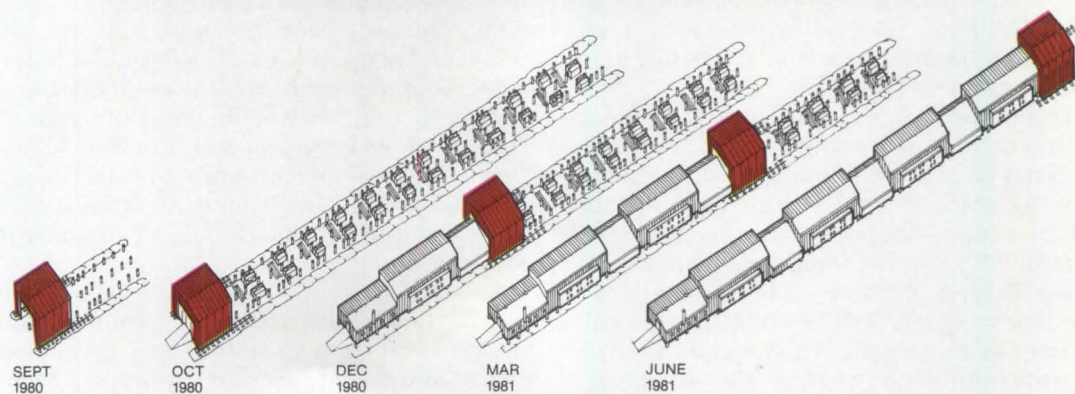
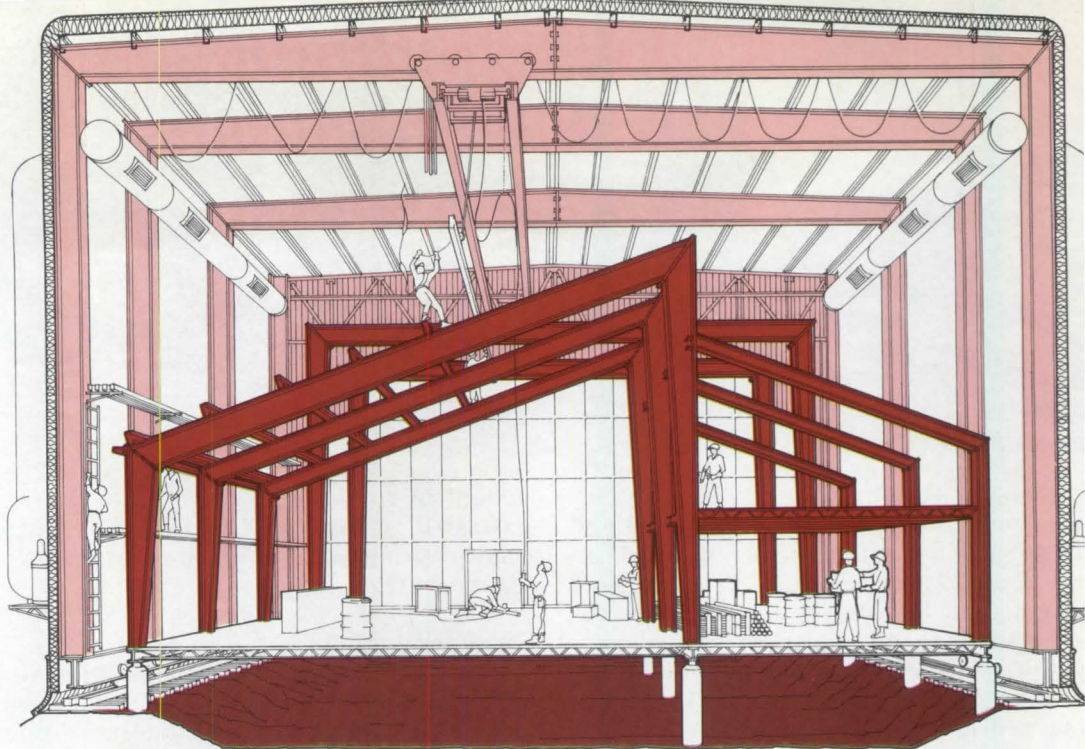
SECTION (LEADING EDGE ROUNDED TO HALF CYLINDER)



FINAL BUILDING FORM

Schematic sections of the BP/Sohio project at Prudhoe Bay, AK.

Colin Bent's *Polaris Mine Housing* (right) was to have its pre-engineered sections erected within the mobile rail-mounted enclosure that eventually became the gym. The three-story sections contain housing, interspersed with two-story community and recreational functions.



Construction methods

The choice of a construction method in the arctic depends upon the remoteness of the site, the availability of local labor, and the project's schedule and budget. Factory-built modules have the advantage of good quality control and rapid on-site completion, although they can be expensive to build because of their necessary structural rigidity, and expensive to ship because of their high volume-to-weight ratio. Arco's Prudhoe Bay Operations Center by CCC/HOK Architects and Anderson, Bjornstad, Kane, Jacobs, structural engineers, consists of a series of long, two-story modules that were fabricated in Seattle, sea-lifted through 65 mph winds, and hauled by a transport crawler to the building site. The modules' rigidity came from longitudinal steel trusses and transverse rigid frames in the walls, acting in conjunction with concrete and steel deck floors. The engineers used computers in analyzing the modules to insure that, in addition to the normal seismic and wind forces, the units could withstand the listing at sea (50% greater than the seismic load) and the racking forces of the crawler. Despite all of that, the architects claim "a minimum 30% saving over conventional stick-built construction."

Stick-built construction, nevertheless, remains popular, especially in publicly funded projects, because it can employ semiskilled native labor and has lower shipping costs.

The drawbacks are in quality control and with wood construction, in shrinkage due to the arctic's low humidity. Wallace Floyd & Associates, Inc., switched from wood sheathing and framing to steel studs with polyurethane steel-faced sandwich panels in their arctic projects when, in the words of principal Peter Floyd, "measures to control the moisture content of the wood, especially during the construction phase when high humidity ambient conditions were expensive to control, proved too onerous."

Pre-engineered, panelized buildings offer a middle ground. They allow rapid on-site enclosure without the high shipping costs of modules, and they can use local labor without the quality control problems of stick-built construction. Colin Bent, at the Polaris Mine Housing on Little Cornwallis Island, NWT, devised the ingenious method of mounting the facility on wheels and moving it along rails as an all-weather enclosure for the crews erecting in increments, the pre-engineered housing. The Polaris project still required such cold climate techniques as heated tents for curing concrete and electrified gloves for people.

working outside. Given those precautions, it comes as no surprise that arctic construction ranges from 2 to 4 times the cost of building in temperate climates, with \$300 to \$400 per sq ft not uncommon.

Foundations

An arctic building must preserve the thermal regime of the permafrost beneath it. Heat, either from the building or from solar radiation, once the protective layer of tundra has been removed, can turn the ice-laden soil into quagmire, eventually undermining the structure's foundations. For that reason, most arctic buildings are elevated on piles, with insulated floors, an open crawl space, and a protective gravel pad over the permafrost.

The most common pile setting involves augering a hole, backfilling around the pile with a water-sand slurry, and allowing that to freeze solid. Another method involves thawing the permafrost with steam jets to allow the driving of steel piles. Preventing the pile from acting as a thermal bridge necessitates choosing a nonconductive material such as wood, providing a thermal break at the pile cap, or installing heat extraction devices within the piles to keep them refrigerated.

The heaving of piles occurs as the permafrost's active layer freezes and thaws, gripping the piles as it moves. Ways of preventing this include connecting an anchor plate to the pile below the active zone, coating the pile with a thick oil/wax mixture, wrapping the pile with a steel or plastic sleeve, or backfilling with a freeze-resistant material. Nevertheless, many pile foundations will creep due to thermal deformation. Pile caps that allow periodic jacking and shimming of the building can minimize that problem.

For buildings carrying heavy floor loads, a ventilated pad foundation is often used. Beneath a building's insulated floor, a thick gravel pad will contain open-ended pipes or

culverts for cold air circulation. The system has several vulnerable features, however. The ventilation pipes, if too small, can become clogged with debris; their intakes and outlets can become covered with snow drifts if not adequately elevated; or the cold air can become stagnant if the pipe is too long, requiring expensive mechanical ventilation.

In the arctic, even a bedrock foundation presents problems. Arctic bedrock often contains embedded ice which, if allowed to melt, will cause severe settlement. In Nanasivik, NWT, the melting of bedrock ice under the new community center required mining under the building and installing structural supports within the ice cavity.

Building envelope

The building envelope must serve as an extremely efficient environmental filter. For example, condensation in a wall or roof, which usually has enough drying time in a temperate climate, will progressively wet a substrate over a few seasons because of the arctic's short summers, ruining the insulation and occasionally creating enough ice pressure to rip apart the building's skin.

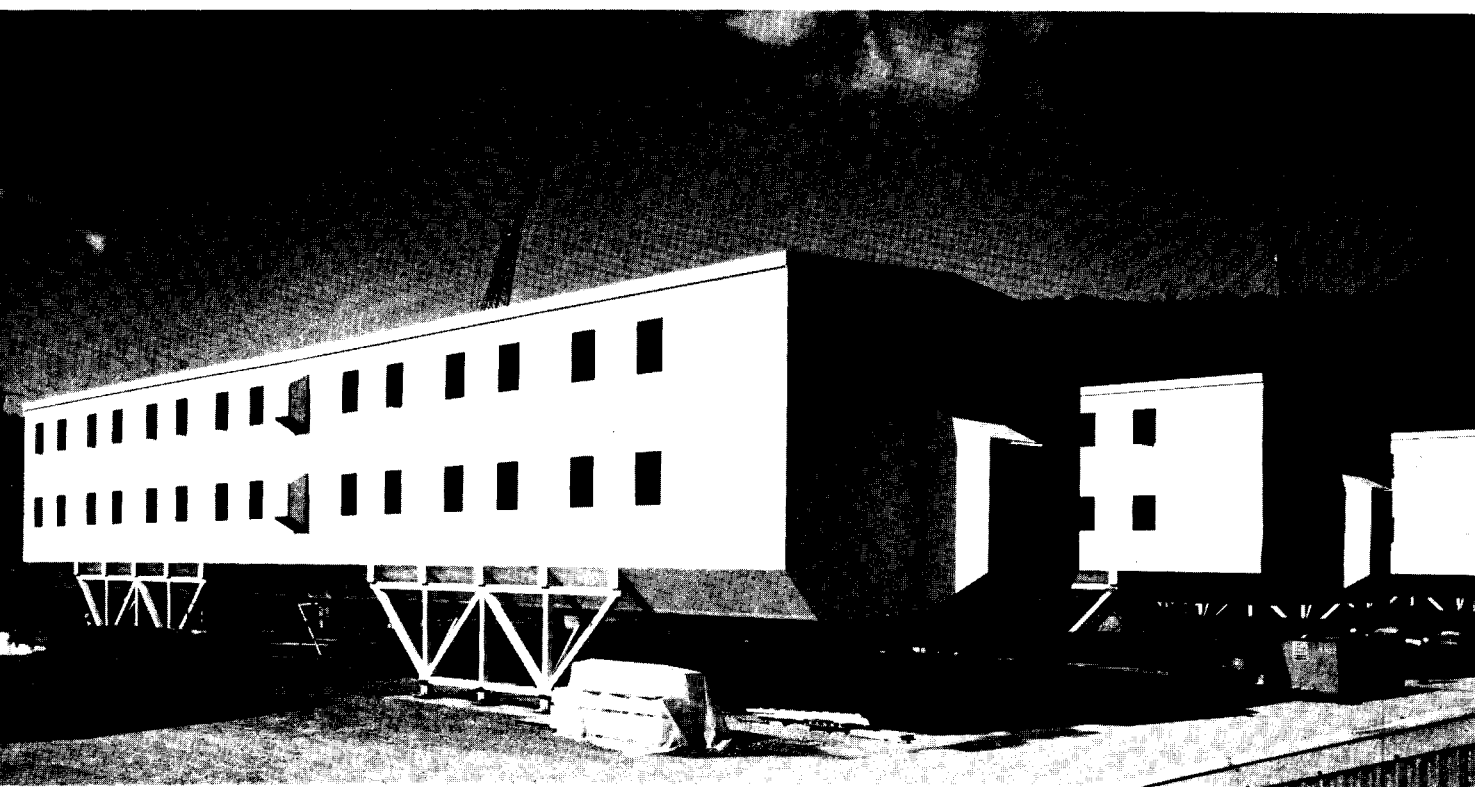
Maintaining the integrity of the vapor retarder requires holding it back a few inches from the interior wall surface to minimize the penetrations of electrical systems or the damage of fasteners. In the Polaris project, the vapor retarder runs 3 in. behind the interior metal liner panels, protected by pads as it passes over structural connections.

While some architects prefer foil as a vapor retarder because of its durability under windy conditions, and others prefer six-mil polyethylene because of its fewer seams, all recommend a thorough inspection of the installed material to insure a tight vapor seal. The same should occur with the insulation. If the insulation does not completely fill all vertical cavities, the temperature differentials in

Arctic, Inc.



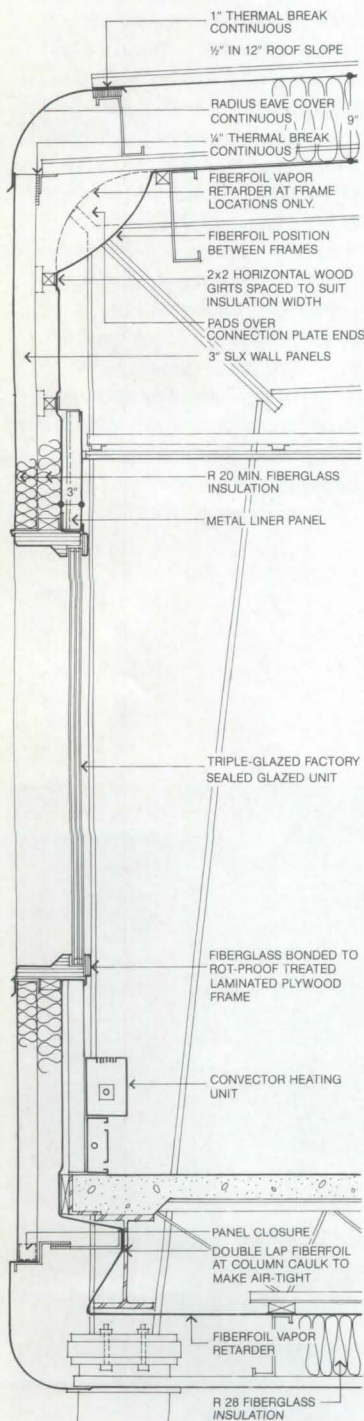
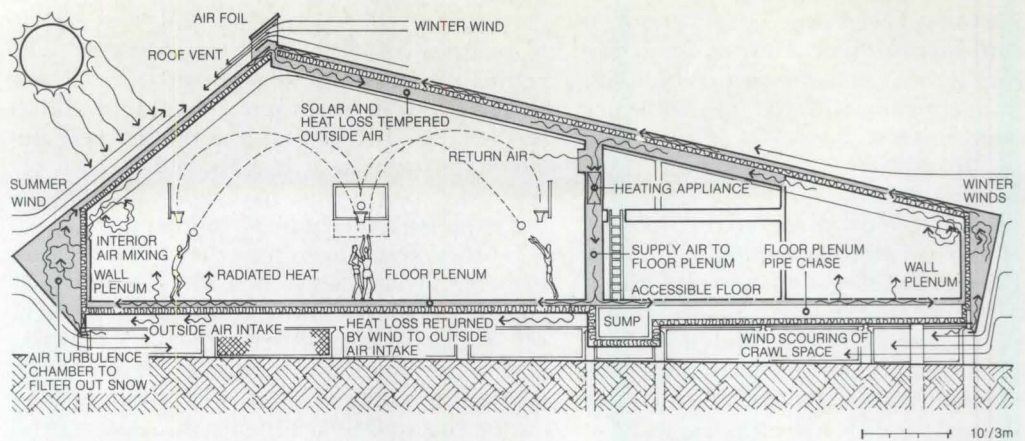
The air-supported structure for the Echo Bay Mines' Lupin Gold Project in Contwoyto Lake, NWT (above), provided a year-round construction enclosure. Ideal for construction purposes, air-supported structures or geodesic domes, when used as permanent climate-controlled enclosures in the arctic, can degrade the permafrost. The prefabricated modules for the Arco Operations Center at Prudhoe Bay by CCC/HOK and Anderson-Bjornstad-Kane-Jacobs, Inc. (below) have steel sponson supports attached to the superstructure, which was designed as a horizontal beam for flexural rigidity. The sponson supports minimize air turbulence and piling connections. The hoods over the doors and exhaust vents reduce infiltration.



CCC Architects & Planners

Design for cold climates

The wood-framed Kuchpu Secondary School by CSM architects and planners (right) draws outside air through angled fascia panels, which filter out the snow. The cold air moves under the metal roof, picking up heat from the sun and the building, before entering a heating unit and passing into a floor plenum, where it warms the plumbing prior to its exhaust into the rooms. A ridge air foil keeps the roof free of snow.



This wall section at the Polar Mine Housing (above) shows the foil vapor retarder threading through the structure.

the arctic can create convective currents that will greatly reduce the insulation's effectiveness.

Packing insulation tight against the roof surface only works in the arctic if the site provides enough wind scouring to keep the roof free of snow. Otherwise, thermally isolating the insulated envelope and the exterior membrane is the safer course to insure against icing. Problems with cold roofs in the arctic occur at their vents, easily clogged with snow, and at the inside surface of the roof, where condensation often occurs. Solutions to those problems include deep soffit vents with narrow intakes to prevent clogging, and secondary roofs over the insulation to shed condensate.

For flat roofs, many architects advocate an inverted membrane system. The single-ply membrane can be installed easily, while the rigid insulation and ballast above protect it from thermal extremes. The common solutions to the splitting of roof membranes, such as substrate vents or frequent expansion joints, address the wrong problems in the arctic. The research of Wayne Tobiasson and others at CRREL shows that most roof failures in extremely cold climates occur not from excessive moisture or thermal movement, but from a combination of poor substrate adhesion and the deflection and settlement of the structure itself. If nothing else, that research shows how much of the arctic learning curve lies ahead.

Utilities

Most arctic settlements face high utility costs with a rudimentary and often unreliable utility infrastructure. This requires that separate water and power sources be installed for larger scale projects. Utilities inside buildings usually run through heated, insulated chases under access floors or in interior walls, with heat tapes tracing the most crucial lines. On the exterior of buildings, because of the permafrost, utilities run above ground in insulated tubes called arctic pipes, or in larger insulated chases called utilidors. Flexible pipe connections at the building accommodate differential movement.

Despite the arctic's abundant snow, water remains a scarce commodity. Most lakes and

rivers are shallow and, under their ice covering, brackish. That leaves most communities with the expensive alternatives of drilling deep wells below the permafrost, desalinating sea water, melting ice, or collecting run-off.

The same holds true for power sources. Despite the arctic's abundant oil, coal, and gas reserves, refined fuels remain expensive. Most buildings use heat exchangers, heat pumps, or exhaust filters to conserve as much of their heated air as possible. Passive solar techniques can add little heat, given the low solar angles and dark arctic winters, although the constant winds make wind generation promising. For the Kaktovick Community Center, CSM architects have proposed two 15 kw interface wind generators to provide much of the building's electrical needs. With the town's average annual wind speed of 14 mph, the generator's initial cost of \$50,000 would be amortized in 6.7 years at current rates.

Waste disposal underscores the arctic's utility problems. Since few communities have a central water or waste treatment facility, most buildings discharge wastewater into nearby waterways and discharge solid waste into large "honey bags," which are trucked to remote landfills and buried during the summer thaw. Apart from the health hazards, these procedures greatly limit further arctic development. Both the U.S. and Canadian governments have set as a priority the construction of treatment facilities in the arctic over the next decade.

Interiors

Living in the arctic demands psychological as well as physical stamina. A sense of isolation, disorientation, and lethargy plagues newcomers to the extreme climate, the vast distances, and the visual uniformity of the landscape. Buildings can play an important role in countering that response.

A brightly colored exterior can provide visual interest to the landscape. On the interior, planted atriums, accent colors on furniture and finishes, spatial variety, and glazing activity areas have all proven helpful antidotes to cabin fever. So have bedrooms with good sound insulation, where individual thermostats and movable furniture help create a sense of personal space. Dispersed activity areas with a variety of travel routes and small meeting places, also help to reduce the sense of isolation and confinement.



Colin Bent Architect

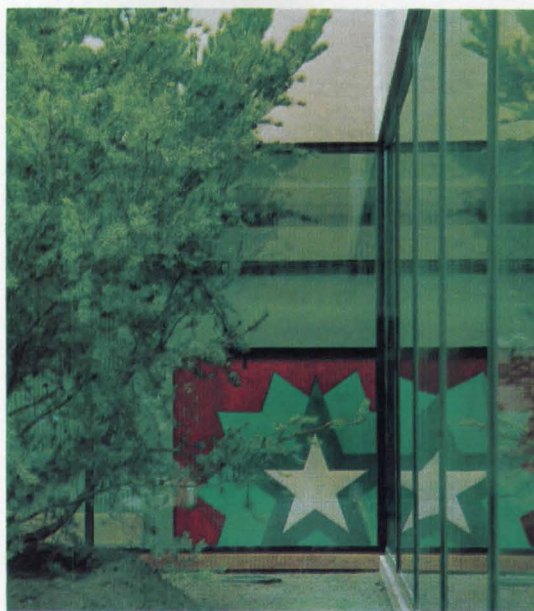
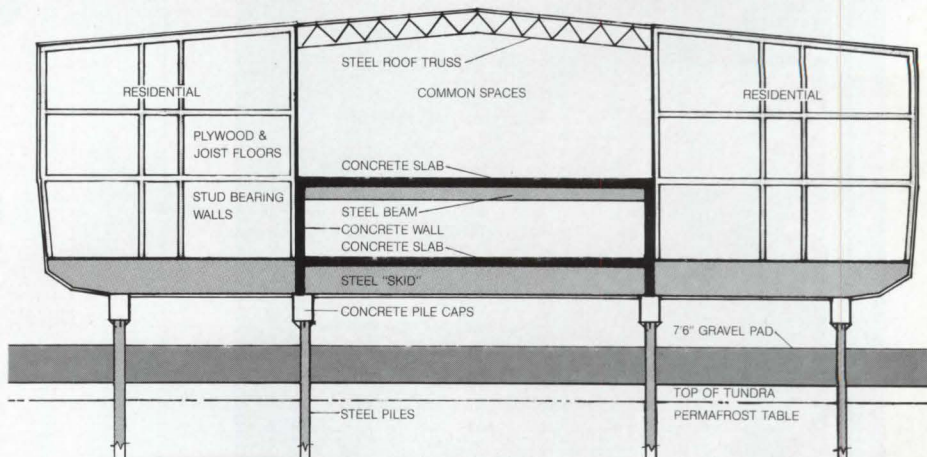
The size and location of windows greatly affect well-being. Large, south-facing windows allow the sun to counteract the sense of pervasive cold and unending winter. Placing the windows flush with the inside wall enables convective air currents to keep the surface generally frost-free, while a semireflective glass will reduce glare.

The size of a facility itself has psychological applications. Studies conducted by CRREL reinforce the theory of R.G. Baker and others that an undermanned community requires greater participation and responsibility from each individual and results in greater satisfaction. The research showed that smaller army facilities in the arctic contained a much higher percentage of contented people than larger installations.

Unfortunately, little research has occurred in building codes in the arctic. Alaska enforces the Uniform Building Code even though, in -50F, direct egress from a building can be as hazardous as any smoke, and the sprinkling of a building with water as damaging as any fire. Many arctic communities have developed their own life safety measures. Residents are trained to fight fires in safe places of refuge, either in a separate building or behind a fire wall, are often supplied with their own utilities and food stocks. In the BP/Sohio Operations Center, Wallace Floyd Associates, Inc., designed the building's central bay in concrete as a place of refuge and a barrier to fire. With building costs so high and fire fighting so difficult, the arctic desperately needs a code that deals effectively with its unique conditions.

Conclusion

In the face of extremes, the architecture of the arctic is anything but extreme in its form or function. By responding to the physical and psychological needs of its inhabitants, by minimizing the impact on its immediate environment, and by conserving such scarce commodities as water and energy, arctic buildings set a goal worthy of architecture in any climate. With their elevated, streamlined forms sheathed in taut metal skins, these buildings also show that practical constraints need not preclude a powerful architectural imagery. They remind us that adversity needs strength. [Thomas Fisher]



Wallace, Floyd, Associates Inc.

The Polaris Mine Housing (top) uses bright exterior colors to identify community spaces within the building and to identify the building in the landscape. This section through the BP/Sohio building (middle) shows how the central concrete bay provides a fire break and an area of refuge between the two conventionally framed outer bays. Several arctic projects share the BP/Sohio building's use (left) of primary colors on walls and furniture, a central recreation area, and a planted skylit atrium.

Acknowledgments

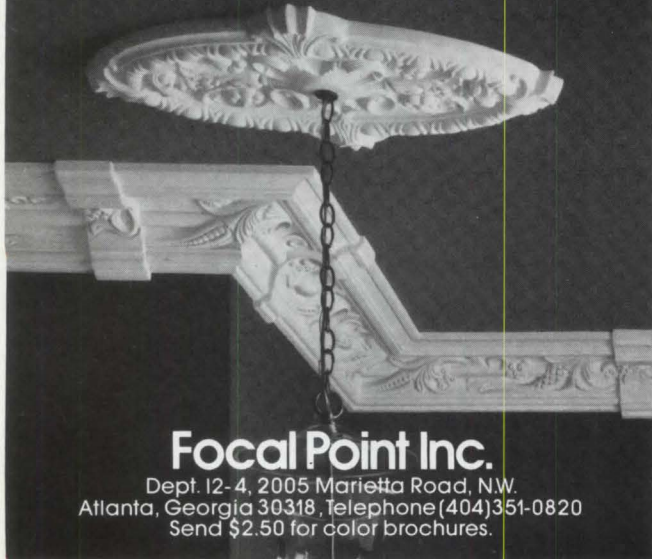
We want to thank the following people and organizations for their ideas and time: Gary Sullivan, Armco, Inc.; Bruce Batten, Army Corps of Engineers; Colin Bent; Edwin Crittenden, Kate Gillespie, CCC; Wayne Tobiasson, Charles Korhonen, Barry Coutermarsh, Alan Greatorex, Frederick Cory, Sherwood Reed, Steven Flanders, CRREL; Randle Pollack, CRS; Donald Newman, Thomas Livingston, CSM; Charles Morgan, Ellerbe Inc.; William Remington, HOK; William Lane, KTM; John McCool, McCool MacDonald; Moshe Safdie & Associates; Guy Gérin-Lajoie, PGL; Peter Floyd, Wallace Floyd Associates, Inc.; Eberhard Zeidler, Zeidler, Roberts Partnership.

Finally, Something Beautiful Comes Easy.

Focal Point's exclusive Endure-all™ material provides the beauty you expect with the benefits you need:

- Crisp detail • Lightweight • Factory primed
- Paintable • Stainable • Sawable • Nailable
- Fire-retardant • Affordable • Shippable
- Weather-resistant

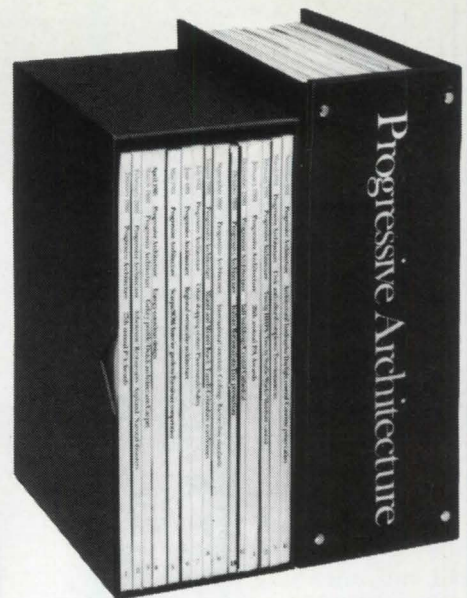
Presenting the first documented American Nineteenth Century Collection of historic mouldings for yesterday, today, and tomorrow endorsed by the Victorian Society in America.



Focal Point Inc.

Dept. 12-4, 2005 Marietta Road, N.W.
Atlanta, Georgia 30318, Telephone (404) 351-0820
Send \$2.50 for color brochures.

Circle No. 329 on Reader Service Card



Now — Two Ways To Save and Organize Your Copies of P/A

Protect your P/A issues from soil and damage. Choose either the attractive library case or the all new binder. Both are custom designed in blue simulated leather with the magazine's logo hand-somely embossed in white.

Jesse Jones Box Corporation
Dept. P/A
P.O. Box 5120
Philadelphia, Pa. 19141

My check or money order for \$_____ is enclosed.

Please send P/A library cases

- _____ One for \$5.95
- _____ Three for \$17.00
- _____ Six for \$30.00

binders

- _____ One for \$7.50
- _____ Three for \$21.75
- _____ Six for \$42.00

Name _____

Company _____

Street _____

City _____

State & Zip _____

Check must accompany order.
Add \$2.50 per item for orders outside U.S.A.

Allow 3-4 weeks delivery

NEW PASSIVE SOLAR GREENHOUSE



- | | |
|---|---|
| <input type="checkbox"/> New System 3 "Brookhaven" model for U.S. Dept. of Energy | <input type="checkbox"/> Meets all building codes |
| <input type="checkbox"/> Curved eaves—Bronzetone finish | <input type="checkbox"/> Custom built or standard sizes |
| <input type="checkbox"/> Factory insulated glass | <input type="checkbox"/> Totally PRE-FAB construction |
| | <input type="checkbox"/> National dealer network |

COLOR CATALOG and TAX CREDIT GUIDE: FREE—catalog and price list, plus our guide to the latest federal and state passive solar tax credits and qualifications.

SAMPLE WINDOW KIT: Enclose \$5 for catalog and tax guide above, plus actual samples of greenhouse aluminum frame, G.E. Lexan® glazing, assembly manual and heating guide.



FOUR SEASONS GREENHOUSES

910 Route 110, Dept. PA-211
Farmingdale, N.Y. 11735
Phone: (516) 694-4400

Div. Four Seasons Solar Products, Corp.

SEE US IN SWET'S CATALOG

Dealer inquiries invited

Circle No. 332 (For catalog only)





Herb Burnham, Daniel International

"Bell designs systems where form follows function."

No project ever goes as planned. Nowhere is timing more critical than in your industry—where every job is customized and each contingency can keep it from coming in on budget and on time.

Whatever the size of your business, flexible voice communications—with Dimension® PBX or the Horizon® communications system—can ease the production process and streamline office operations. With conference calling, you speed decision-making. With the customer control feature, you can change lines or station features yourself—react to change immediately, control costs and save time. Through call detail recording or toll restriction, you prevent calling abuse. With responsive call management, you improve administrative efficiency and increase client satisfaction.

Daniel International, in Greenville, South Carolina, put Bell knowledge to work to meet their total telecommunications needs. With their Dimension PBX, Daniel realized net savings of more than \$200,000 the first year, and they anticipate greater savings with each succeeding year.

Daniel wanted a reliable communications system that could grow and change as fast as contingencies develop in each job. According to Herb Burnham, Director of Management Services, "A lot of our jobs are accomplished through task forces. With Dimension PBX, we can move phone numbers when work groups change—fine tune our operations ourselves. That's a big help and a big savings."

One call to your Bell System Construction Industries Account Executive can put our knowledge to work for you.

The knowledge business

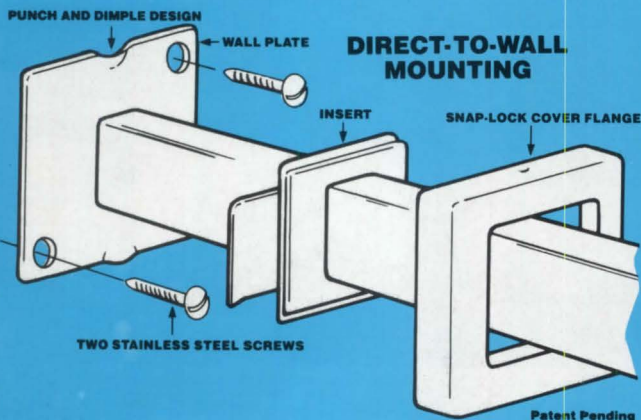


New from TSM:

FIELD-SAFE^{T.M.}

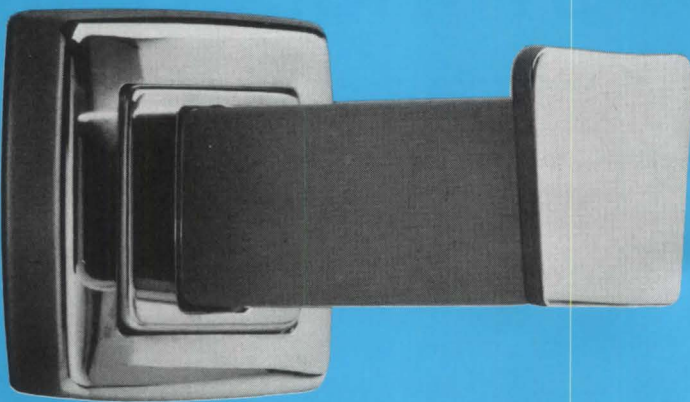
BATH ACCESSORIES

Now you can meet your bath accessories requirements for secure installations and field liability protection with TSM's "Field-Safe" Series 800 direct-to-wall fastening system and get top styling, too!



ENGINEERED SAFETY—no set screws

TSM's fastening system combines a heliarc-welded post and wall flange with a snap-lock cover to ensure secure, time-saving installations. By eliminating set screws, we lower installation costs, discourage vandalism and make bath accessories really safe for the end user.



SCULPTURED BEAUTY—styling & finishes for every decor

"Field-Safe" accessories match any bathroom decor with their luxurious finishes in satin, polished or bronzetone stainless steel and bright brass. This coordinated line is American-made for precision craftsmanship you can rely on for both institutional and residential applications.

If you are concerned about the security of your bathroom accessories, write or call for a full-color catalog illustrating the complete line of TSM "Field-Safe" accessories.

Circle No. 397 on Reader Service Card
TSM TUBULAR SPECIALTIES MFG., INC.
 13011 South Spring Street, Los Angeles, Calif. 90061
 213/515-4801 • Toll-free outside Calif.: 800/421-2961



Books continued from page 152

a straightforward manner. Although there were turbulent moments, it was the unself-conscious revolution of a man active in many facets of life, not only as goldsmith, architect and engineer, but also as politician and supervisor of quarries. Battisti uses material from social and political histories for specific purposes, such as delineating the social and functional factors in Brunelleschi's involvement with the Foundling Hospital. At the same time, he examines the issue of perception by focusing on the Corinthian capitals of the hospital, and analyzes them in relation to the perception of archaeologically "correct" standards.

Battisti succeeds in making new material accessible—his chapter captured my interest in his chapter on the dome of Santa Maria dei Fiori—as well as making familiar material more lively. The Santa Maria dei Fiori chapter is an antidote to the high-tech analyses of recent years. The chapters on the Old Sacristy at San Lorenzo and the Pazzi Chapel, which I have turned to first to relive the enjoyment of seeing archetypes become perfection, contradicted my previous view of Brunelleschi, and the masterful description and analysis increased my perception of the buildings.

This book is well illustrated with new photographs and extensive drawings. The captions are descriptive and the translation is natural and readable. It is disappointing not to have more treatment of Brunelleschi's precursors, and it would be satisfying to have had a survey of Brunelleschi's immediate legacy, that is, beyond the many of "his" buildings which were completed and altered after his death.

It is difficult to present a bewildering subject like the churches of Rome well; recent attempts have been either dry compendiums or anecdotal accounts. *Churches of Rome* by Roloff Beny and Peter Gunn falls into the latter category, in that neverland between coffee table books and guides. As a guide, the Gazetteer and maps are the only valuable portions. The often interesting tidbits presented in the text are architectural and historical name-dropping that would be useless for touring. If *Churches of Rome* is primarily a coffee table book, its photographs, described on the jacket as "mystical," should be redubbed *mystifying*. There is no excuse for obtuse photographs, such as the one which isolates Santa Susanna from its context.

The book is organized chronologically and ends in the Eighteenth Century. There are no Nineteenth Century or modern works considered. This may be an indictment of the Church's recent lack of support for high quality ecclesiastical art and architecture; nevertheless, there certainly are examples to choose from in Rome; Brasini's haunting and near derelict Buon Pastore or the 1930s Chapel of the Holy Cross at Santa Croce in Gerusalemme, at least.

The Vatican is treated as a unit at the end of the book. The authors may not have wanted the Vatican to dominate, but since Vatican City illustrates the development of architectural styles in Rome in microcosm, it might have provided an appropriate preface to the chronological treatment of the rest of the book.

Worst of all, the book makes no more than a superficial account of the spiritual reasons for the concentration of churches in the center of Catholic Christendom.

Art fabrics

The Art Fabric: Mainstream by Mildred Constantine and Jan Lenor Larsen. New York, Van Nostrand Reinhold, 1981. 272 pp. \$39.95.

This volume is the authors' sequel to their *Beyond Craft: The Art Fabric*, an international collection of the major fabric artists of the 1960s. The new volume represents the 1970s and coincides with a traveling exhibit selected by the authors and organized by the American Federation of Arts. Included is an introductory essay by the authors tracing fabric art from William Morris to Christo. Miss Constantine teaches at Parsons School of Design and is a former associate curator of architecture and design at the Museum of Modern Art, New York. Mr. Larsen is a well-known fabric designer. □

BART TRAINS WON'T SWITCH



After 10 years experience with wool, BART is staying on the track with pure wool carpet. BART, San Francisco's modern automated Bay Area Rapid Transit System, began service in 1972. In each car 100% pure wool sandstone/gold/orange Moresque carpet was installed.

Every work day 190,000 riders—over 5 million a year—trudge on the carpet surface depositing mud and dirt; leaving coffee spills, grease and smoldering cigarette ends.

Wool's long wear, resilience and lasting appearance are equal to the challenge. Soil and stains are removed with monthly shampooing. Burns are easily brushed away, discouraged by wool's natural flame resistance.

BART is completely sold on pure wool's durability and easy maintenance. They are now planning to order 60-150 new cars, and for the carpet they insist on the same 100% pure wool specifications they have used for a decade.

This is the kind of satisfaction your clients can expect from pure wool, especially when you consider that wool carpet's lasting beauty and long life make it the most cost-effective choice.

Again 100% pure wool sets the standard of carpet excellence.



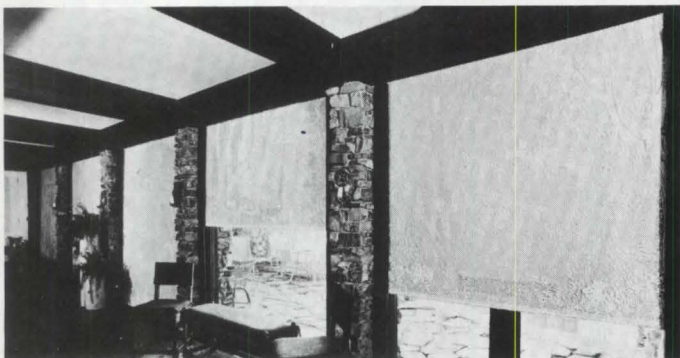
The Standard of Carpet Excellence.

The Wool Bureau, Inc., U.S. Branch
of International Wool Secretariat
360 Lexington Ave., NY, NY 10017
212/986-6222

The Woolmark is a registered certification mark owned by The Wool Bureau, Inc.

Circle No. 403 on Reader Service Card

**The problem:
Heat loss through glass
The solution:
ICW®**



Insulating Curtain Wall® is the accepted solution for effective window energy control for one simple reason: It's the most cost-effective way to SAVE ENERGY DOLLARS for large glazed areas.

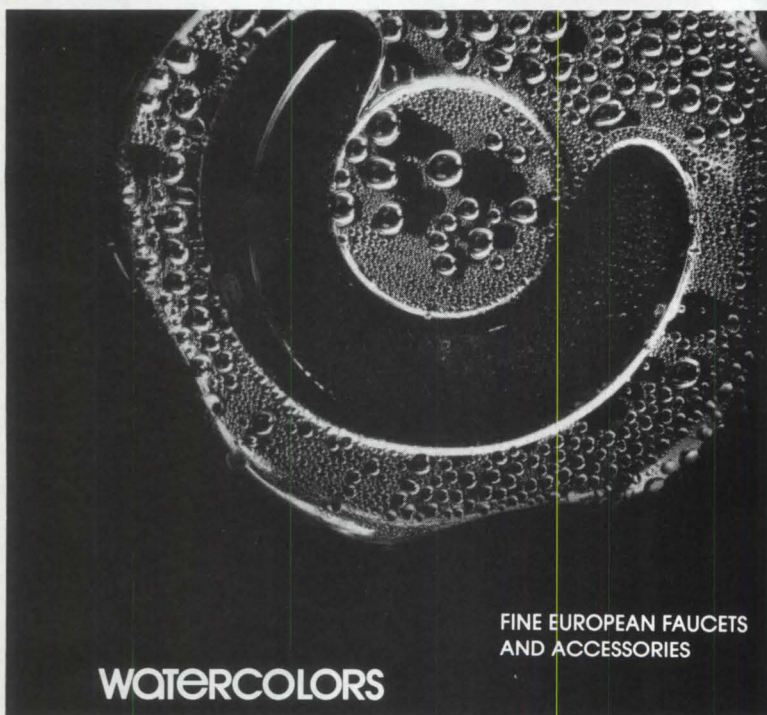
- R-9 to R-12 (depending on size)
- Automatic Operation
- Choice of Decorative Covers
- Field Proven for Seven Years

To order the solution to your window energy control problems, call **Toll-Free 800-525-8698**.



Thermal Technology Corp. of Aspen, Inc.
600 Alter Street
P.O. Box 682
Broomfield, CO 80020
303-466-1848

Circle No. 396 on Reader Service Card



FINE EUROPEAN FAUCETS
AND ACCESSORIES

WATERCOLORS

GARRISON ON HUDSON
NEW YORK 10524
914 424 3327

Coming next month



Kramer Apartment, New York, by Machado-Silvetti.

Money is essential to architecture—to either building or maintaining a practice. Yet money can't buy good design, and good designers don't always make the best money. This series of articles in the December P/A will explore some aspects of the exasperating relationship between money and design. There will be some light shed on that chronic question: how can architects make more money?


Interior design will be the subject of two features on New York interiors by young firms—one residential, one commercial.

P/A's Energy Design series this month will take up hotels, motels, and nursing homes.

Other articles in the December issue will include promising new buildings in the U.S. and abroad.

P/A in January will bring you the results of the 30th P/A Awards program. See the 20 winners P/A's distinguished jury chose from among 1040 submissions.

P/A in December: Money and design



Now. A solar operated roof vent. From Manville.

Here's an easy way to solve one of the major causes of premature roof failure—moisture in the membrane.

It's the Manville FP-10 One-Way[™] Roof Vent. This solar operated venting unit is designed to release moisture-laden air from the membrane. And to prevent its re-entry.

The vent works simply. And automatically. When the sun's heat causes trapped moisture-laden air in the roof to expand, the vent's one-way valve opens, releasing the moisture. When the roof cools, the valve closes, sealing damp air out.

The valve also keeps out snow and wind-driven rain as well as water, even if submerged.

The FP-10 Vent is ideal for roofs where internal moisture may enter the system because of a faulty vapor retarder or lack of one.

In addition to black polyethelene, the Manville FP-10 One-Way Roof Vent is also available in white acrylic for use with single-ply systems.

It's easily and quickly installed on both new and existing roofs. And is eligible for coverage under the Manville Guaranteed Roof Program.

For more information, consult Sweet's. Or contact George Constantin, Manville Building Materials Corporation, Ken-Caryl Ranch, Denver, Colo. 80217, (303) 978-3281. Produced and marketed by Manville Building Materials Corporation.

Manville

Circle No. 365 on Reader Service Card

**We can prove
what they can
only promise.**

Today, the elevator industry is abuzz with startling claims of remarkable control system performance. It's understandable. We were excited, too, when we introduced our computer supervisory system with those same performance characteristics back in 1975.

Schindler Haughton's 1092MC micro processor continuously monitors critical status factors throughout your elevator system. Using this information, it evaluates all possible service combinations for the entire building, and selects the one that will provide all users with the fastest possible response time.

Our Accu-Flite™ velocity control monitors the hoistway position of

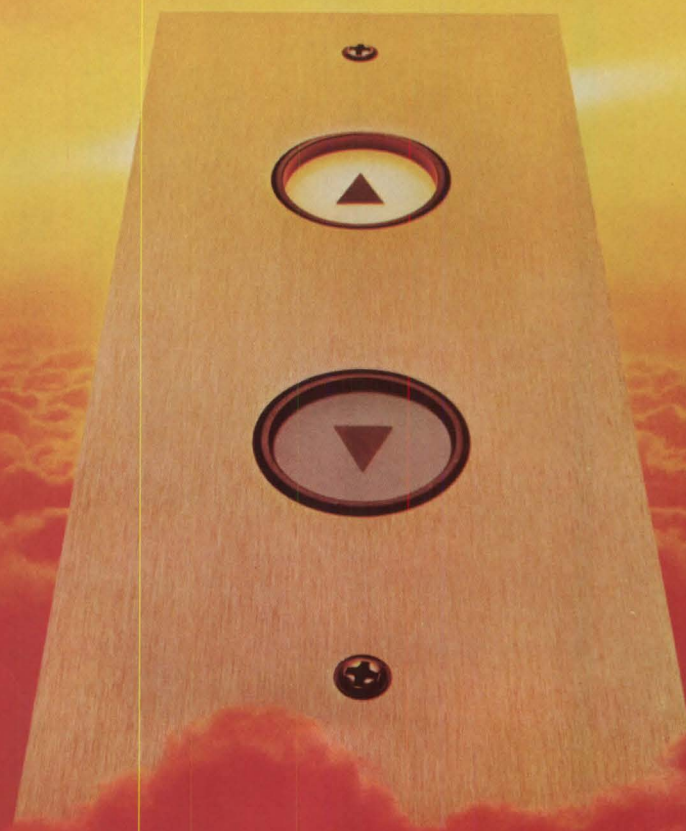
each elevator car to within $\frac{1}{10}$ in. It has been generally recognized the industry standard for years.

And Schindler Haughton's static drive unit, introduced almost a decade ago, has proven its reliability while saving on energy and space requirements.

This kind of improved service is nothing new to Schindler Haughton customers. In scores of major buildings around the country, we've proved our control system can deliver the kind of performance other companies can only promise.

**We're #2 in the world and
going one better.**

Circle No. 386 on Reader Service Card



Schindler Haughton

ELEVATOR CORPORATION

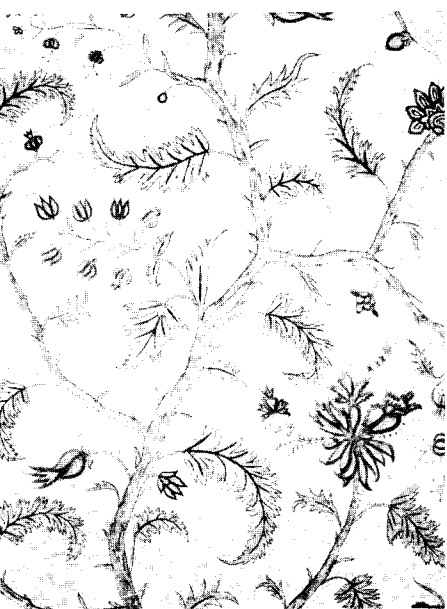
Toledo, Ohio 43695



Products and Literature

The following items are related to the general theme of this issue, preservation and restoration.

Products



Wallcovering collection of 17 authentic 18th-Century designs and an eighteenth-century scenic is being offered in the original colors, as well as in four to six other colorways. Documented from the Winterthur Museum archives, the collection also includes four companion borders for use at ceiling, baseboard, or dado. Robert Van Luit & Co.
Circle 100 on reader service card

Ceiling panels in over 75 designs to complement contemporary, Art Deco, or Classic interiors are available in standard colors and 2' x 2' or 2' x 4' modules. They can accommodate air-handling diffusers, lighting, sound, and sprinkler systems. Panels are nonrated, but can be ordered at extra cost in noncombustible versions for Class A installations. Entol Industries, Inc.
Circle 101 on reader service card

Woodepox-I two-component lightweight structural adhesive paste bonds almost anything, hardens without shrinking and can be used indoors or outdoors. According to the manufacturer, worn, pitted, cracked, or corroded areas of wood, concrete, metal, or fiberglass can be filled, rebuilt, and resurfaced. The white material takes

any stain or pigment. Woodepox-I is also available in black, buff, brown, red, yellow, green, and custom colors. Abatron.
Circle 102 on reader service card

All-wood moldings and ornaments in traditional and contemporary designs can be used for architectural details or furniture accents. Unfinished and unpainted, they are suitable for contract or residential applications. Bendix Mouldings, Inc., Subs. of Lightron Corp.
Circle 103 on reader service card

Fabrics and wallcoverings made from print, woven, and wallcovering designs researched at the Shelburne Museum in Vermont consist of 12 fabrics with 14 related and companion wallpapers, 4 woven textiles, and 12 additional wallpaper designs. The fabrics are printed on 100 percent cotton in Eng-

land, and with the exception of one design, the fabrics are 56 in. wide. Greeff Fabrics, Inc.

Circle 104 on reader service card

Antique longleaf heart pine, retrieved and remilled, is available as flooring, paneling, millwork, cabinetry, and furniture. The company offers turnkey service or fabrication to order, with installation and finishing by others, or installation by others and finishing by their staff. Legacy Pine Limited, Inc.
Circle 105 on reader service card

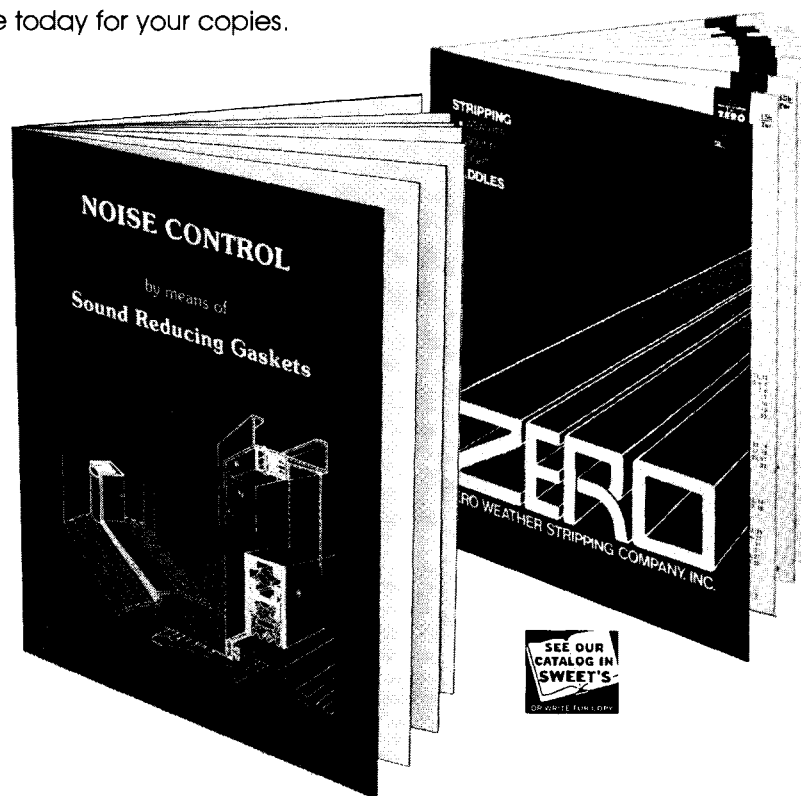
Textiles from the 18th and 19th Centuries are reproductions of six designs from the archives at Winterthur Museum. There are two florals, two stripes, a damask, and a velvet in a total of 41 colorways. Also offered are up-
[Products continued on page 164]

2 new catalogs now ready!

16-page Noise Control Guide. All you need to know about STC ratings, decibels, frequencies—and many other sometimes confusing terms.

32-page Product Catalog. 190 drawings, in full-scale, of weather, light and sound seals, plus thresholds.

Write today for your copies.



Zero Weather Stripping Co., Inc.

415 Concord Avenue, Bronx, NY 10455 · (212) 585-3230

1924-1983... 59 years of opening the door to progress

Circle No. 404 on Reader Service Card

holstery leathers in authentic colors. Stroheim & Romann.

Circle 106 on reader service card

Literature

Architectural ornaments offered in a 16-page catalog include medallions, complete ceiling designs, brackets, friezes, cornices, and capitals. The decorative pieces are molded from a fiberglass-reinforced cement plaster, a material that does not support combustion or release toxic fumes in the event of a fire. The company also offers custom design work. Dovetail, Inc.

Circle 200 on reader service card

Old-house restorers' catalog offers reproductions of Victorian hardware, gas light fixtures, etched glass shades, porcelain bath handles, and fancy-cut red cedar shingles new to this edition. Also available are reproductions of Colonial hardware, marble fireplace mantels, a kit to restore rotted wood, and over sixty reference books. The 36-page catalog is \$1.50 and can be ordered from Crawford's Old House Store, Room 902, 301 McCall St., Waukesha, WI 53186.

Other products

A casement window in the Focus Window series, for new construction or retrofit, offers high thermal efficiency. It is double glazed and weatherstripped for

thermal isolation. The frame is available in woodgrains of walnut, cherry, oak, and birch, and in solid colors. Howm Aluminum Corp., Commercial Remodeling Division.

Circle 107 on reader service card



The Mini Mizer™ zero-clearance fireplace with built-in heat circulating system is suitable for smaller homes. It requires no ducts for outside combustion air; the outside air intake is incorporated in the chimney so that the fireplace can be used even on an inside wall. It has either a 28-in. or a 36-in. firebox. Units can be stacked one directly above the other for multilevel installation. Glass doors are optional. National Fireplace.

Circle 108 on reader service card



Sea Island furniture, for indoor or outdoor use, has heavy-gauge aluminum frames and sling seats of ele-tex® stretch fabric for comfortable support. The group consists of dining chairs, dining tables, occasional tables, and lounge seating and cots. Table tops are tempered glass, some drilled for umbrella.

Circle 109 on reader service card

The TigreLok security door magnet has 1500 lb of holding force. It can be connected with an annunciator or detector and has an optional door status sensor device to indicate if the door is closed. In the event of an alarm or power cutoff, the magnet is automatically released to meet fire code standards. The magnet is 8" x 2 7/8" x 1 3/4" deep; armature is 8" x 2 7/8" x 1/2" thick. Rixson Firemark.

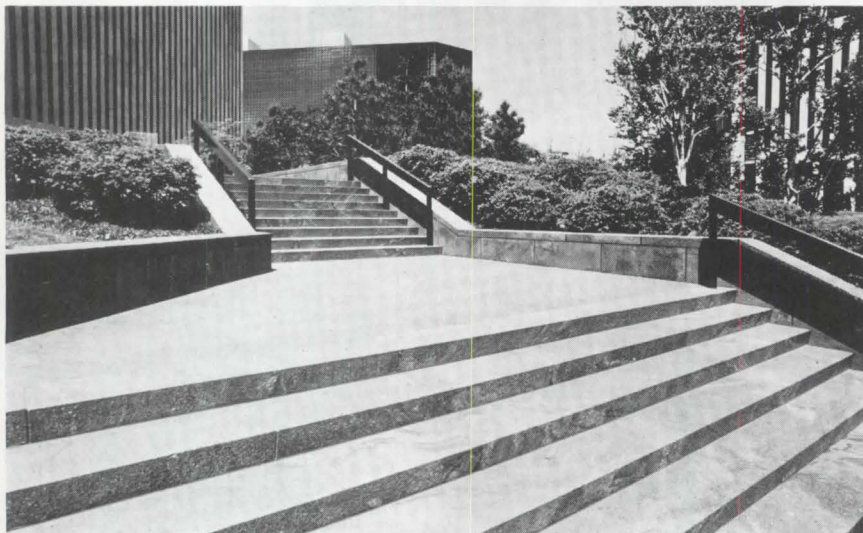
Circle 110 on reader service card

Desks in the 4000 Series will accommodate a 19-in. to 24-in.-deep computer CRT unit. The series consists of executive desk, credenza, secretarial a

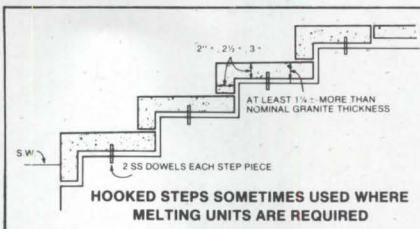
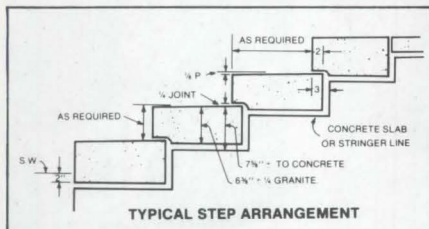
[Products continued on page 167]

Granite.

To say it stands up underfoot is an understatement.



Nationwide Plaza, Columbus, OH/Architect: Sasaki Associates, Boston, MA.



Because what else will be able to withstand decades, even centuries of footsteps and weather without staining, fading, or showing measurable wear? That's why Cold Spring Granite is the ideal choice for steps and paving. For planters, fountains, landscaping, and seating. Plus, all 16 colors of Cold Spring Granite offer the same unique combination of beauty and unsurpassed durability.

For a 20 page, full-color catalog showing all Cold Spring Granite has to offer, just call **800-328-7038**. In Minnesota call (612) 685-3621. Or write to the address below.

Cold Spring Granite Company Dept. P/A-11 202 South 3rd Avenue, Cold Spring, MN 56320





Boise, Idaho



Portland, Oregon



Houston, Texas



Towson, Maryland



Las Vegas, Nevada



Pacific Palisades



San Diego, California



Fresno, California



Denver, Colorado



Newport, California



Universal City, California



Reno, Nevada

New York City, New York



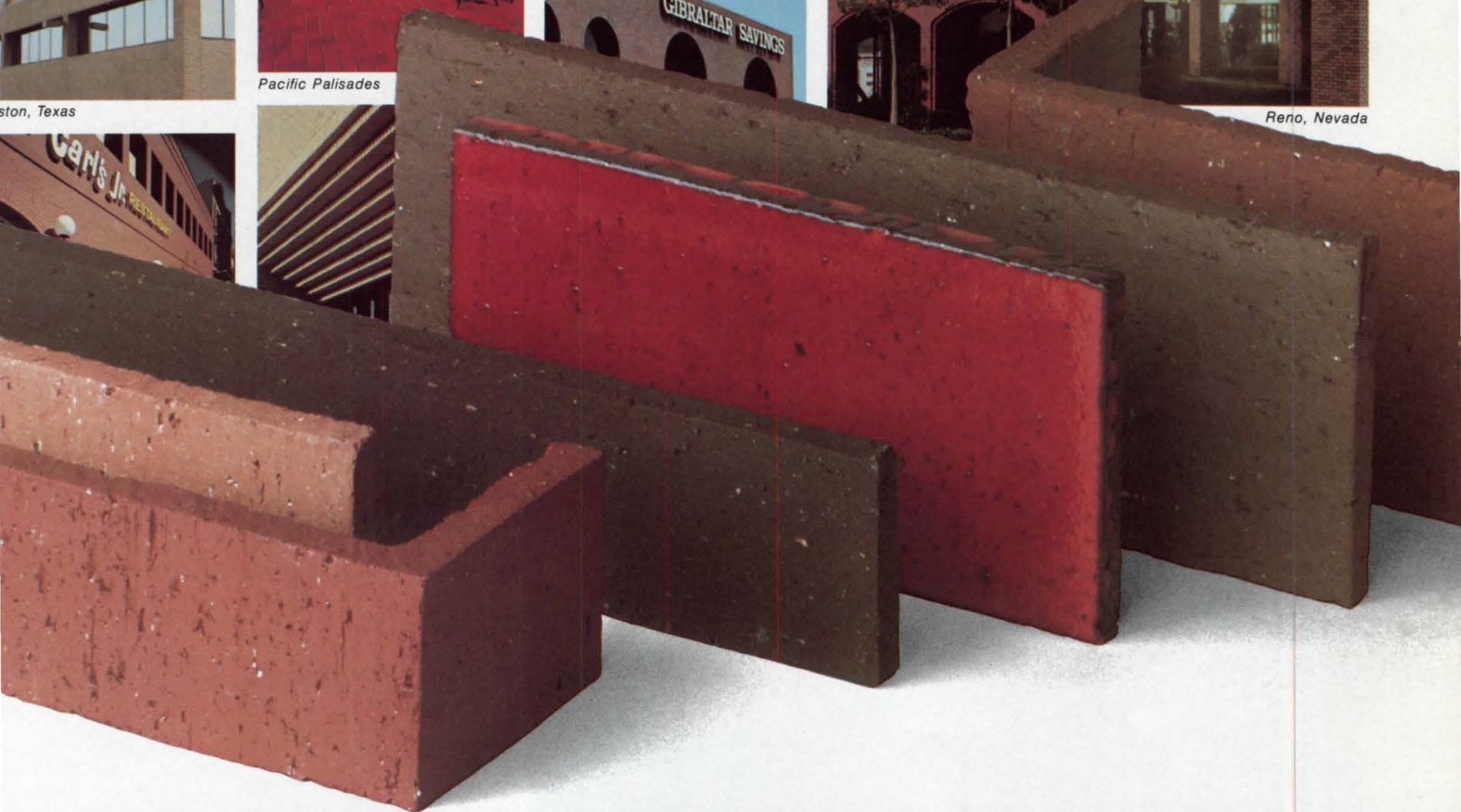
Oahu, Hawaii



Plantation, Florida



Reno, Nevada



Mini-Brick/Maxi-Experience

More Mini-Brick has been installed on more types of buildings than any other thin brick. Coast to coast. Inside and out. In fair weather and freeze/thaw foul.

That's a lot of experience with a lot of jobs. Over 38 million units have been produced in the last five years. And that experience is all yours to build on.

We've learned that consistent, high quality is a must. So every Mini-Brick is made from pure Alberhill clay, wire-cut to 7/16" and carefully kiln-fired.

And we've shaped our line to give you the variety you

need, too. Eight distinctive glazes and nine unglazed colors in four sizes.

You can match several of our unglazed Mini-Brick colors with pavers or full-sized brick of the same color in order to use the different sizes in combination.

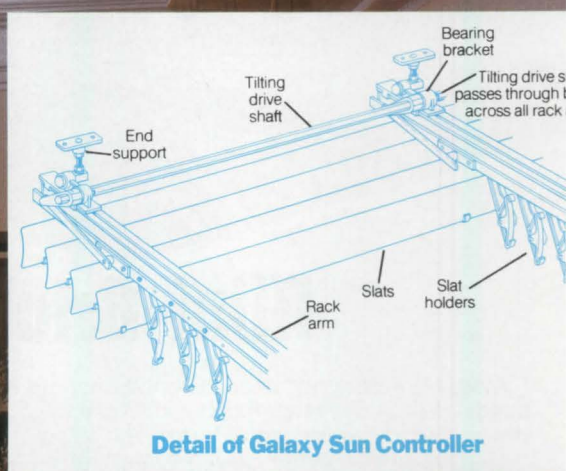
Blends become another story. An endlessly fascinating one as you look at what's been done with both factory and on-site blending of our unique, natural finishes.

But get all the details. You'll find many of them in Sweet's General Building File #9.18/Hu. Or ask us, and we'll get our latest brochure to you.

Huntington/Pacific Ceramics, Inc.
Building a tradition of innovation.

P.O. Box 1149, Corona, CA 91720/(714) 371-5320/Telex #676-377

Circle No. 341 on Reader Service Card

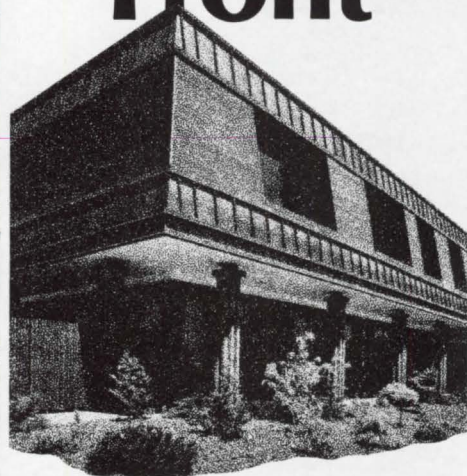


Levolor. A beautiful and practical way to control the sun.

The Galaxy[®] Sun Controller by Levolor redirects the sun's rays exactly where you want them with absolute mechanical precision. Available in a variety of widths and configurations, the systems can be operated manually or motorized. Motorized systems can be controlled by button, computer, clock or light-sensitive apparatus. Because of their unique light control capabilities, Galaxy systems are ultra-efficient as an aid to summer cooling and winter heating. They can be used on hard to reach vertical surfaces, inclined windows, horizontal skylights, and greenhouse glass areas of practically any shape. The perfect economical answer to odd-shaped, special lighting and energy control situations. For details, write: Levolor Lorentzen, Inc., 1280 Wall St. West, Lyndhurst, N.J. 07071.

LEVOLOR
Extending your
creative options.

Put Up a Good Front



Specify Snap-lok™ Fascia Systems

The **Snap-lok** aluminum fascia with galvanized steel **Cant Dam** is the perfect complement to single ply roof systems. And our patented **Snap-lok Coping** is the most advanced system for parapet covering...it eliminates exposed fasteners and reduces installation cost.

All MM Systems products are designed to put up a good front with precision fit and easy installation. Let us send you a total reference file on the complete MM Systems for your standard or custom designs.

Check Sweet's 7.3b/MM or call us TOLL FREE—

(800-241-3460)



4520 Elmdale Drive
Tucker, Georgia 30084

Circle No. 368 on Reader Service Card

Products continued from page 164

executive returns, and a 65-in.-high hutch. The group is available in oak or walnut veneers or mahogany finish on walnut. Davis Furniture Industries.
Circle 111 on reader service card



The Anthropom Chair has resilient foam cushions over a contoured, double-shell construction. Wood arms and base caps are steel-reinforced. Controls include synchrotilt tension, back lumbar support, and pneumatic lift. Wood options are oak or walnut in a variety of finishes, and upholstery is fabric, leather, or vinyl. Executive Office Concepts.

Circle 112 on reader service card

The Defender® window insulator consists of a snap-in or magnetic frame and an acrylic pane that attaches to the frame. Used on the inside of a window, the frame can be mounted on jamb or window frame. Since acrylic is less conductive than glass, radiant heat loss is reduced. According to the manufacturer, the seal also blocks as much as 95 percent of air infiltration. General Energy Systems.

Circle 113 on reader service card

Fully automatic conveyor systems for continuous batch washers feature electronic weighing to ensure proper load sizes suitable for any of 16 wash classifications. A data sheet describes the conveyors, their controls, and loading and unloading systems. Pellerin Milnor Corp.

Circle 114 on reader service card

Gibraltar Office Organizers furniture group are all 48 in. wide, 60 or 72 in. high, and 22 or 28 in. deep. Each has a 12-in.-deep upper display section. Base units have legs or plinth bases and are equipped with drawers, doors, or a combination of the two. Fleetwood.

Circle 115 on reader service card
[Products continued on page 169]

Telephone 617 492-4000
Telex 951650

14 Story Street
Cambridge, Massachusetts 02138

Kroin Architectural Complements

Sitting is Believing

At first glance it's hard to imagine that steel and wire outdoor furniture could be anything other than uncomfortable.

In fact, unless that seating is from the Kroin Series of Park and Garden Furniture, your first impression would be accurate.

But, unlike our competition, we've added some soft touches to an otherwise hard metal. Like anatomically contoured wire mesh in our seat and backs to better fit

your seat and back. Even the tubular steel frame is designed curve for curve. Plus, the thick sintered synthetic coating that protects our seating from the ravages of time and weather acts as a protective layer for you as well.

So, the next time you specify outdoor furniture, choose Kroin. The seating with a softness that's hard to believe.

Circle No. 351 on Reader Service Card

Kroin



EPS (expanded polystyrene) insulation is combustible and should not be exposed to flame or other ignition sources.

Since 1978, the use of EPS insulation in roofs has increased threefold. Why? Because the survivors in this business have been switching from their old standbys to more cost-effective alternatives ... like EPS insulation.

EPS offers more Rs per dollar than any other product on the

market. It's highly water resistant. And it performs equally well in built-up or single-ply roofs.

It's also the most versatile product available for the job. Size, density, and thickness are variable. You can specify tapered EPS for positive slope-to-drain. It's available laminated with an

integral thermal barrier and/or an overlayment to accept adhesives or hot bitumen.

Best of all, EPS in your next roof will make a survivor out of your client ... with lower heating and cooling bills.

ARCO Chemical Company

Division of AtlanticRichfield Company

Manufacturer of Dylite® expandable polystyrene

Intelligent solutions

Circle No. 308 on Reader Service Card

ARCO



© 1982 AtlanticRichfield Company

► **SURE KLEAN** ◀

Restores the "Grand" to Grand Central Station.



SURE KLEAN PLAYS A MAJOR ROLL IN URBAN FACELIFT

Carbon, atmospheric dirt and pigeon droppings obscured the eighty year old limestone face of New York's Grand Central Station. SURE KLEAN products were put to work to restore the exterior of the weather-worn landmark back to a natural, 'like new', appearance.

For more information
... Call or write today.



ProSoCo, Inc.

P.O. Box 4040 • Kansas City, Kansas 66104
913-281-2700

Circle No. 378 on Reader Service Card

Products continued from page 167



Series 9000 work environment includes a 63-in.-high credenza with overhead storage, task lighting, and lateral file drawers. The "L" table/desk surface is available with octagonal base or legs. The work station is made from a choice of woods with oil or lacquer finishes. Edges are hand-cut and chamfered. Modern Mode, Inc.

Circle 116 on reader service card

Contract linen wallcoverings from Belgium are offered in 25 patterns, with bouclé effects, small square geometrics, chevron, twill, and ribbed looks. The 42 colors range from oatmeal and oyster to beiges and grays. They are suitable for commercial buildings, retail stores, hotels, restaurants, and other public areas. The wallcoverings pass ASTM E84-80 "Standard Method of Test for Surface Burning Characteristics of Building Materials." OJVM Linen Wallcoverings.

Circle 117 on reader service card

The Ceramicron[®] pen, a ceramic-tipped refillable pen is suitable for template work, ruling, graphics, and lettering. It produces a sharp, clean, .3mm line, does not clog, and needs no cleaning. Pentel of America, Ltd.

Circle 118 on reader service card

The Sabobend[®] lounge group, designed by Irving Sabo, is constructed of solid oak or mahogany frames. They have upholstered front, side, and back panels and upholstered attached cushions with shirred detailing. There are coordinated oak- or mahogany-framed tables with oak veneer, mahogany veneer, or plastic laminate tops. Thonet Industries.

Circle 119 on reader service card

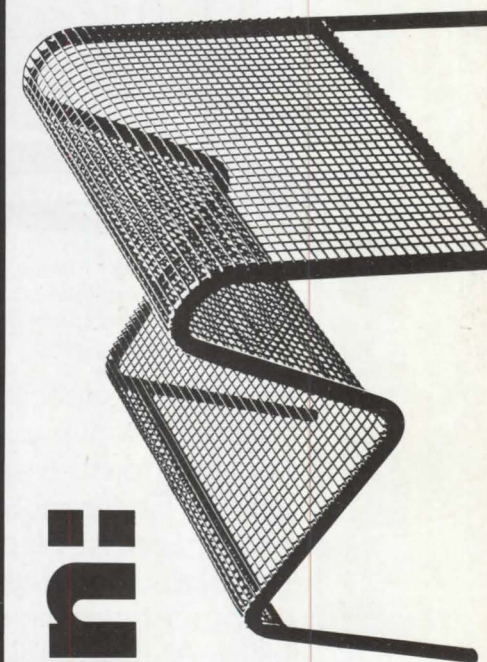
Task-Light-Round (TLR) lighting consists of cylinders of extruded aluminum, with acrylic diffusers, that use economical fluorescent lamps. Standard finish is polyurethane paint in four colors or polished aluminum or brass. TLR can be mounted to wall or ceiling, wall-

[Products continued on page 171]

Telephone 617 492-4000
Telex 951650

14 Story Street
Cambridge, Massachusetts 02138

Kroin Architectural Complements



Kroin:

Anchors and ganging clamps insure configuration integrity and deter vandalism when moveable seating is grouped in sequence.

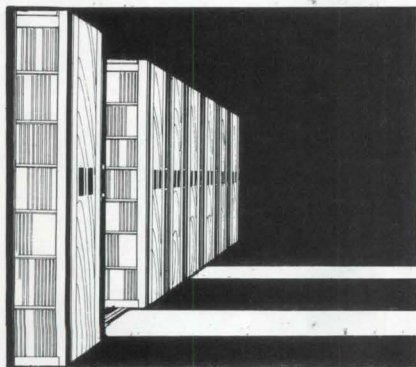
Mobil is part of a series of Park and Garden Furniture, manufactured in synthetic coated tubular steel and wire mesh, available exclusively from Kroin.

Circle No. 352 on Reader Service Card

TURN FILING SPACE INTO OFFICE SPACE.

The product line you need.

Kardex engineered Kompakt, Lektriever and Shelf Filing Systems to help you design productive

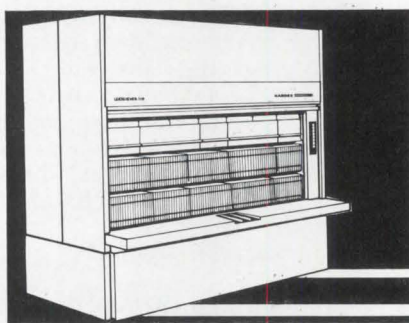


Kardex Kompakt Movable shelving with exclusive multiple access aisles. Saves 80% of the space occupied by conventional systems.

office space. Specify Kardex and give your clients up to 80% space savings. Faster more convenient access. Electronic control and security. Even computer interface capability. And our full line of products will blend with any interior you create.

The service line you want.

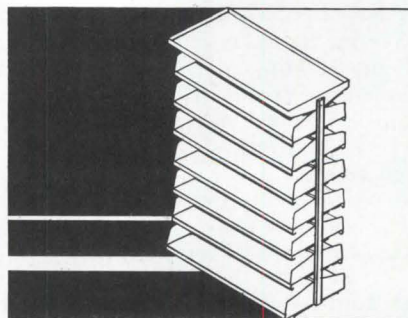
Your toll-free line to expert information from Kardex is **1-800-848-9761***. Call when you have a question



Kardex Lektriever The automated system that boosts retrieval efficiency up to 250% by delivering materials to the operator work station.

that isn't covered by these helpful guides to Kardex specifications and capabilities:

- ☐ 1983 Sweet's catalog specification information.
- ☐ Kompakt Architect's Brochure specifically for architects and space planners.



Kardex Shelf filing Single and double-face systems keep records visible for 50% faster retrieval.

☐ Kardex Return on Investment Analysis—the brochure that helps you explain to clients just how much money you're saving them in space and access efficiency with a new Kardex system.

Bill Bennet and Jeff Rader are on the answering end of the Kardex Toll Free Hotline. They're ready to share 50 years of knowledge about hard copy and materials management with you. Including the name of the Kardex dealer in your area. Kardex Systems Inc., Marietta, Ohio 45750.

1-800-848-9761

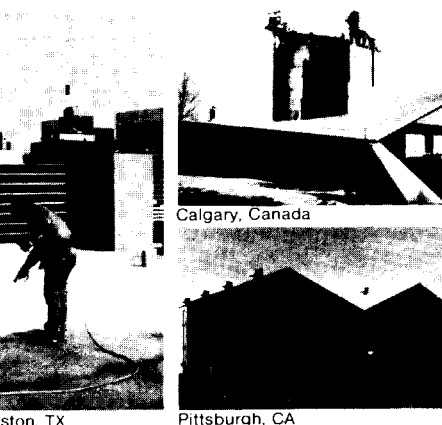
Your Toll Free Hotline to the Kardex Support Team for Architects and Space Planners. Call or write for more information today.

*In Ohio, call 1-800-282-9556

KARDEX
The Leader in Filing Systems

vip

Fire Retardant Roofing Systems STOP LEAKS



VIP has two UL Rated roofing systems. VIP #3500 Roofing System, a UL Rated Class C system over primary substrate employs two products from the VIP line of waterproofing systems. VIP #5100 Brush grade sealant (525% elongation) for the joint seaming material, and VIP #3500 Fire Retardant Roof Coating (150% elongation) as the coating. VIP #4000 Foam Guard® is made specifically for application over urethane foam. The VIP #4000 System is a self-flashing system that is ideal for irregular curved roofs. VIP #4000 Foam Guard® is UL Class C Rated over urethane foam and Factory Mutual Approved. Both VIP Roofing Systems have superior adhesion and flexibility, a particle to particle bond with the substrate, minimum maintenance requirements and lower installed cost than other quality systems. The VIP Roofing Systems have a full five year guarantee when applied to manufacturer's specifications.

For a fact file of information about the complete line of VIP Waterproofing Products, call George Bell 800-327-7479 or Dwight Cole 1-800-227-2638.



Factory Mutual System APPROVED
UL LISTED

VIP ENTERPRISES, INC.
Corporate Offices and
Eastern Operations Center
9690 NW 41st St., Suite 1
Miami, FL 33178
(305) 592-6045

Western Operations Center
1287 - 66th Street
Emeryville, CA 94608
(415) 653-9633



For more information see SPEC-DATA or SWEET'S section 7.9/Vi. Call Sweet's BUYLINE 800 toll free for our nearest representative.

Circle No. 400 on Reader Service Card

Products continued from page 169

to-wall, under cabinets, or on a stand as a table or desk lamp. There is a choice of diffusers, and cylinders rotate 180 degrees to direct light where it is needed. Several connectors permit design flexibility. Custom & Architectural Lighting. Circle 120 on reader service card

Ballastar III™ electronic ballast costs about \$30 for a three-lamp fluorescent fixture compared with \$50 for a four-lamp fixture. The three-lamp fixture produces about 90 percent as much light and offers a 30 percent reduction in power consumption. Based on a rate of 6¢/kwh, payback according to the manufacturer is approximately five years, and 20-year savings on a typical 1000-ballast installation operating 3000 hours annually would be \$115,000. Ballastar is UL-listed and has a Class P thermal protection rating. Triad-Utrad Div., Litton Industries.

Circle 121 on reader service card

A system for protection against graffiti consists of two base coats of GraffitiBase, either clear or colored, and a protective coating of GraffitiCatcher. Marks can be removed by washing with GraffitiRaser, which can be applied by spray can, hudson sprayer, roller, or brush. GraffitiCatcher can then be reapplied. It is said to be effective even against primer spray paints and those with metallic bases. Rainproof Technical Coating Systems.

Circle 122 on reader service card

Wood play system Environment 2000 for playgrounds is guaranteed against rot and insect damage for ten years, according to the manufacturer. It uses 4" x 4" construction and has easy-to-assemble modular components: swings, slides, horizontal ladder with rope, tower, ladder, and platform. Wooden Environments, Inc.

Circle 123 on reader service card

Other literature

'The Office Planning Guide' shows axonometric drawings, model numbers, and dimensions for Marcatré contract furnishings designed by Mario Bellini. Also included in the 10-page fold-out brochure are casegoods, seating, and lighting. The guide discusses the system, its construction, wood and laminate finishes, and colors. Atelier International Ltd.

Circle 201 on reader service card

Automatic sliding and swinging door assemblies for commercial applications are the subject of a 16-page catalog. Details and specifications are included for each type. Also shown and described are electric and pneumatic operators, activating devices, accessories, and components for retrofit. Horton Automatics, A division of Overhead Door Corp. Circle 202 on reader service card

[Literature continued on page 172]

Telephone 617-492-4000
Telex 951650

14 Story Street
Cambridge, Massachusetts 02138

Kroin Architectural Complements

Can you afford a cheap imitation?

Choosing the right outdoor seating could mean the difference between a sound investment and a costly mistake.

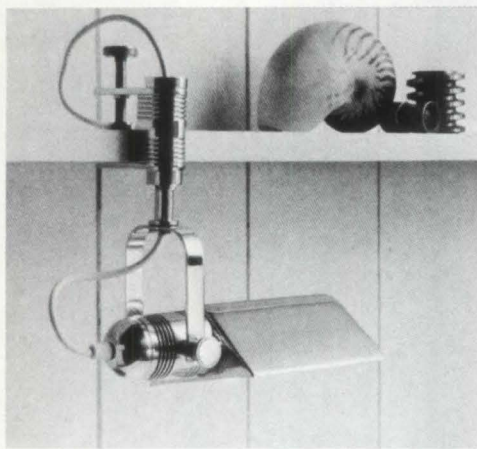
Because, while companies may try to imitate the way our furniture looks, they can't match the way it lasts. And what makes Kroin Park and Garden Furniture stand out is the way it stands up: to the elements, abrasion and even the severest abuse.

That takes reinforced welds at every joint, drawn steel wire mesh in every seat and back, plus a heavy tubular steel frame specially prepared to accept a sintered synthetic coating that actually becomes fused to the surface.

So the next time you specify outdoor furniture choose Kroin. After all, can you afford not to?

Circle No. 353 on Reader Service Card

Kroin



The Nessen/Augusti lighting line from Spain features lamps with a choice of six reflectors for each design, five of solid brass and one of matte glass. All metal parts are solid brass. The group, shown in a 24-page catalog, includes floor lamps, wall-mounted lamps with either cord and plug or outlet box mounting, and table or desk lamps. Nessen Lamps. *Circle 203 on reader service card*

'Toward a Thoughtful Working Environment,' an 18-page brochure, shows in full color more than 25 open office arrangements and product options. It introduces the radius-edge design, which is said to be physically more comfortable and visually pleasing. Free-

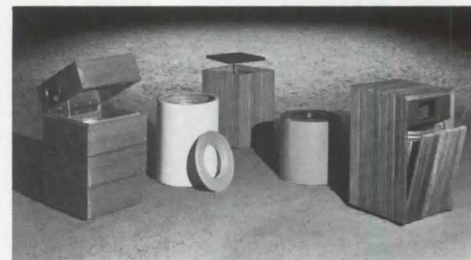
standing furniture, accessories, revolving tops for shared CRT units, and dual height EDP worksurfaces are included in the planning ideas. All-Steel Inc. *Circle 204 on reader service card*

'Added Dimensions,' a four-page color brochure, describes the Software™ open office and Midline raceway. Components of the open office system include work surfaces, drawer pedestals, and enclosed shelf units. The raceway provides power and communication capabilities at work surface level. Panel Concepts, Inc. *Circle 205 on reader service card*

Surface-mounted ceiling and wall lighting products use the Westinghouse Double Fold Fluorescent lamp. Compared with incandescent lamps, they save 60-75 percent of watt consumption for the same light levels. The entire line is shown in a 32-page color catalog that includes descriptions and specifications. Lightolier, Inc. *Circle 206 on reader service card*

Operable walls for room division have L, T, and X track intersections that allow a room to be divided many ways. Descriptions of the components, illustrations, and dimensional drawings are included in Catalog F-320, which also describes how the hardware allows 90-degree turns. The panels can be stored outside the room or along the walls, as well as in other ways. Panel options include pass doors, chalkboards, tack-

boards, and projection screen surfaces. Richards-Wilcox Manufacturing Co. *Circle 207 on reader service card*



A litter receptacle group is available in top- or side-opening models. Lids lift or fronts open for easy removal of liners. Containers are oak, redwood, or fiberglass in a choice of 12 standard colors. Landscape Forms, Inc. *Circle 208 on reader service card*

Performance Pattern carpet tiles for open offices, executive suites, hotels, restaurants, and hospitals are available in 8 designs and 52 color combinations. The series is illustrated and described in a color brochure. Interface Flooring Systems, Carpets International Georgia. *Circle 209 on reader service card*

Sprinklers in the Micromatic™ and Decor® lines and for special applications are described and illustrated in an eight-page color brochure. Micromatic sprinklers are available in matte or bright chrome, natural or polished brass. [Literature continued on page 175]

NEW PRODUCT GUIDE ON Life/Safety Door Controls

Yours FREE! From Reading-Dorma 20-page illustrated product guide on the failsafe Dorma F Series and the Reading Protector Series. Covers both electro-mechanical and electro-pneumatic door closers. Includes a Typical Application Chart to simplify correct product selection for specific applications. Contains a Cross Reference Guide to competitive products; also a Function and Size Selector Chart. Get your copy now.



READING-DORMA CLOSER CORP.
Dorma Drive, Reamstown, Pennsylvania 17567
Phone toll-free (800) 523-8483 In Pa. (215) 267-3881

Name/Title _____
Company/Phone _____
Address _____
City/State/Zip _____

Circle No. 380 on Reader Service Card



197 W/103

outstanding.
R-WAY
SEATING

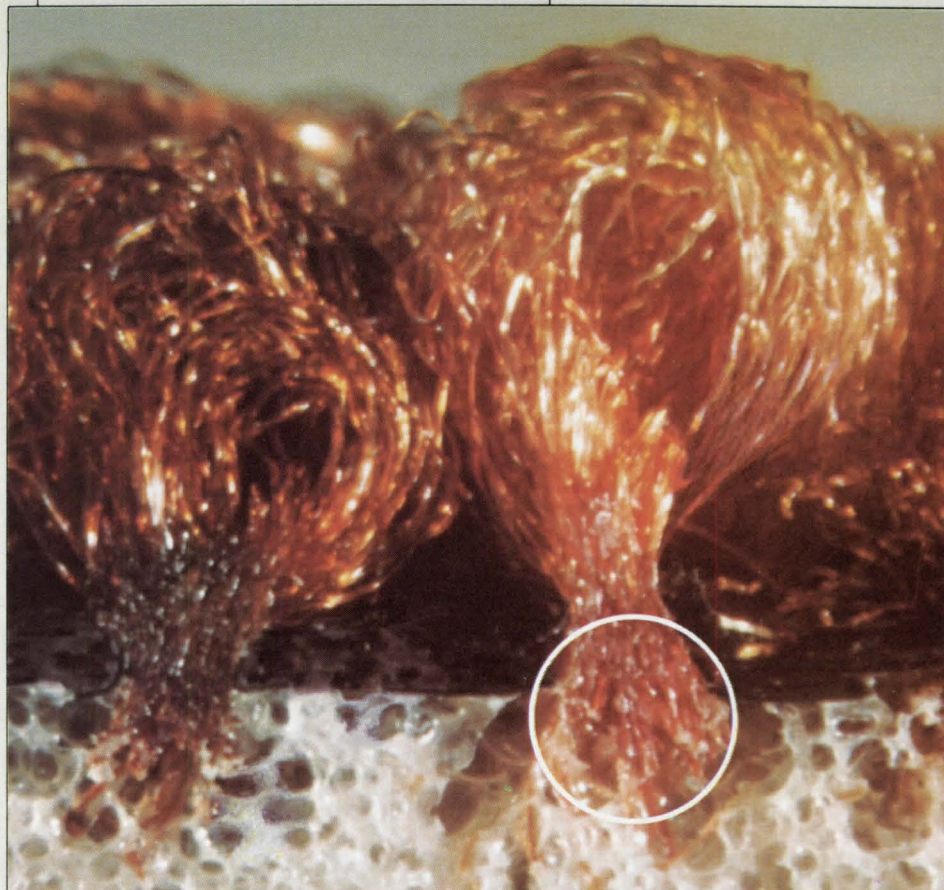
Many styles of seating and occasional pieces

R-WAY FURNITURE CO., SHEBOYGAN, WI 53081 (414) 457-4833
showrooms: Chicago, New York, Minneapolis, Dallas,
Atlanta, Seattle.

Circle No. 384 on Reader Service Card

Now there's a reason to specify carpet backing.

In this actual macrophotograph, VORACEL urethane backing penetrates carpet fiber bundles, locking them in, producing exceptional carpet wearability.



Now you can get a carpet backing that actually helps improve carpet life. VORACEL* urethane carpet backing, from Dow Chemical U.S.A.

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

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

Tests prove VORACEL backing superior to other backings, too. In the standard roll stool test, a weighted chair was rolled for 7,500 cycles over carpet samples with four different backings. After the carpet with other backings had shown significant wear, carpet with

VORACEL backing withstood 30% more testing. And *still* didn't show any perceptible sign of wear.

VORACEL*
Brand Urethane Carpet Backing

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

If you would like details on Dow's new installation support program, call the VORACEL Information Center toll-free at (800) 847-4212. In New York, (212) 847-6675.

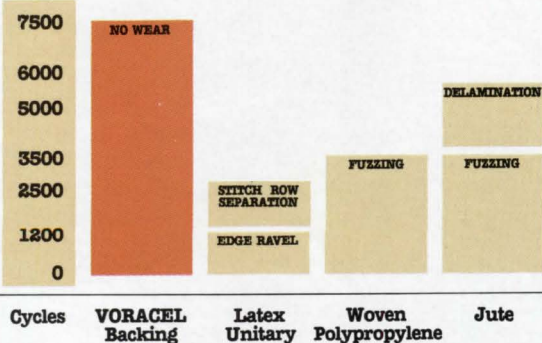
Or, if you'd like to discuss the specifics of carpet with VORACEL backing, contact any of the carpet mills listed below.

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



DOW CHEMICAL U.S.A.

*Trademark of The Dow Chemical Company



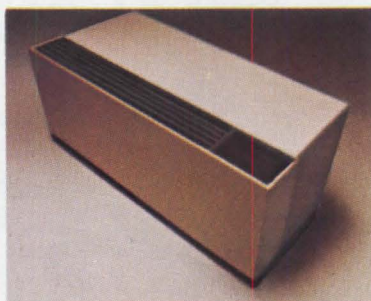
Custom Coating Inc. (404) 227-3778 • Galaxy Carpet Mills (312) 593-0555
Shaw Industries (404) 278-3812 • Wunda Weve Carpets (803) 298-9116

Circle No. 323 on Reader Service Card

GE introduces the Zoneline[®] heat pump that isn't afraid of heights.

Most everyone knows that you get outstanding comfort and economy from a heat pump. And that heat pumps are available in package terminal units for room-by-room comfort control. Which would seem to make them ideal for high rises—except for one little thing. Winter condensation. Which can be a big problem when it's leaking down twenty stories. And a big expense if you have to install a drain system to stop it.

That's why General Electric introduces a zonal heat pump designed specifically for multi-story construction.



**WE BRING
GOOD THINGS
TO LIFE.**

GENERAL  ELECTRIC

You see, the new Zoneline[®] heat pump has I.C.R....an Internal Condensate Removal system that cuts winter condensation to a minimum. Instead of dripping down the sides of your building, it's redirected into the room air for a more comfortable inside and a much drier outside.

So now your high rise can reap all the benefits of heat-pump heating and cooling without adding to your installation costs.

For further information, write J.A. Michelsen, Mgr. Cont. Mkt., General Electric, AP-6-104, Louisville, KY 40225.

Circle No. 335

n upright, pendant, conventional, and sidewall styles. The Decor line uses color-coded glass bulbs for different temperature ranges. Among special application models are dry pendant sprinklers for areas subject to freezing. The Viking Corp.
Circle 210 on reader service card

Master Index of Government Guide Specifications for Construction is divided into two parts. The first lists the guide specifications of major federal contracting agencies, such as the Corps of Engineers, Department of Defence, and General Services Administration, and includes the interagency Federal Construction Guide Specifications developed under the auspices of the Federal Construction Council. The second part consists of a cross reference of all guides indexed by the five-digit numbering system of the CSI Masterformat. The index is in looseleaf form, punched for standard three-ring binders. Copies are \$9.95 plus \$1.55 postage and handling and can be ordered from the District of Columbia Metropolitan Chapter, CSI, % Every Water Guard Company, 67 Southlawn Lane, Rockville, Md 0850.

Modular travertine architectural elements can be assembled in any number of arrangements. Based on a nominal 0" x 20" module, they include wall or

floor tiles, planters, smoking urns, litter receptacles, and various slabs that can be assembled into tables, benches, and dividers. An illustrated four-page brochure shows axonometric drawings of individual and assembled pieces and provides dimensions. Forms & Surfaces.
Circle 211 on reader service card

'Permalite® Roof Insulations' catalog provides information and specification data about the company's perlite and urethane roof insulation boards. It discusses physical properties, including heat transmission and resistance values. Advantages of each type are listed, along with suggested applications. Grefco, Inc., Building Products Div.
Circle 212 on reader service card

Abodia slide storage systems are illustrated and described in a 16-page catalog. Slides on metal racks pull out in front of a viewing screen. Racks hold 100 or 200 slides, with some storage systems having a capacity of 12,400 slides. Slide duplicate bases for bulk storage hold a maximum of 65,000. Separate Acculite™ viewers are also shown. Elden Enterprises, Inc.
Circle 213 on reader service card

Javelin II tabletop whiteprinter brochure describes its components and operational features. The four-page booklet includes specifications and recommended diazo print materials. Dietzgen Corp.
Circle 214 on reader service card

The Epo-Lux 100 polyamide epoxy system consists of ten major products. For application to steel, nonferrous metals, concrete, masonry, polyester, fiberglass, porcelain, glass, wood, and glazed tile, the products offer resistance to harsh environments and have tolerance for contaminated surfaces. A four-page brochure provides two charts: one compares Epo-Lux with other coating systems; the other is a primer selection guide. Steelcote Manufacturing Co.
Circle 215 on reader service card

Building materials

Major materials suppliers for a building that is featured this month as they were furnished to P/A by the architects.

Senate Chambers, State Capitol, Albany, NY (p. 116). Architects: Mendel, Mesick, Cohen, Waite Architects, Albany, N.Y. Tempered glass and bronze entrances: Ellison Bronze Co. Carpet: Firth Carpet, Mohasco Corp. Lighting reproductions: Louis Baldinger & Sons. Upholstery leather: Middletown Leather Co. Cast bronze grilles: Wheeler Bros. Brass Founders. Upholstery nails: The Turner & Seymour Mfg. Co. Steel windows: Hope's Windows, Roblin Architectural Products Co. Hardware: Ball & Ball. Sofa: Knoll International. Tables: Intrex. Bentwood chairs: Stendig. Upholstery velour: Knoll Fabrics.

Receive 2 new tile surfaces for the price of one!

Can be REVERSIBLE if baked white washable enamel finish is ordered for both faces.

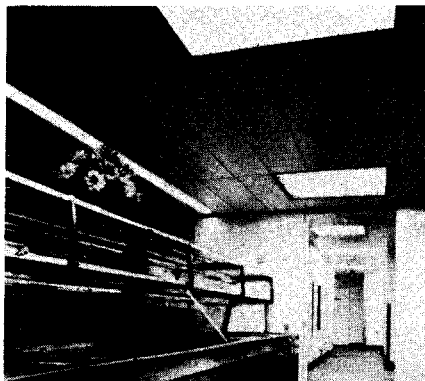
Wash-Alume® II UNPERFORATED LAY-IN TILES

Ideal for commercial and institutional kitchens.

If tile surface eventually becomes slightly discolored, simply flip tile over and get a sparkling new surface.

NONCOMBUSTIBLE,
FIRE-RESISTIVE
LOW COST TILES

Qualifies for
2 hour fire rating



COVERED ALL AROUND WITH THICK ALUMINUM...FRONT, BACK, 4 EDGES

(Standard finish is baked white enamel face and mill finish on reverse.)

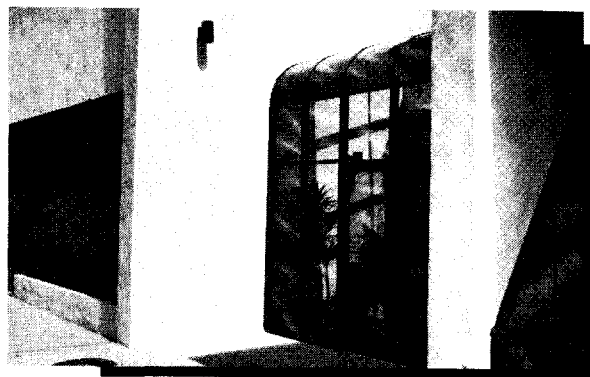
Approved for use in food processing areas by U.S. Dept. of Agriculture

Available directly from mfr. **SIMPLEX** CEILING CORP. Refer to SWEET'S CATALOG Section 9.1

50 HARRISON ST., HOBOKEN, N.J. 07030 • PHONE (212) 349-1890

• Sales "Reps" needed—Write to Simplex for information •

Circle No. 388 on Reader Service Card



Design your next Building or Home with



Standard or custom designed to meet your specifications.

FOR FREE BROCHURE AND MORE INFORMATION
CALL TOLL FREE 1-800-645-4506
IN N.Y. CALL 1-516-543-7766 (7)

SUN SYSTEM™
Prefabricated SOLAR GREENHOUSES Inc.
60-P Vanderbilt Motor Pkwy., Commack, N.Y. 11725

Dealer Inquiries Invited



Circle No. 394 on Reader Service Card

The Third Annual International Furniture Competition

sponsored by

Progressive Architecture

with winning projects to be
displayed at

NEOCON 15

June 1983

The Merchandise Mart
Chicago

Progressive Architecture announces the third annual competition recognizing outstanding furniture and lighting design proposals, not yet being marketed by any manufacturer as of entry deadline, January 26, 1983. The competition is intended to give the design professions a forum to express ideas about the next generation of furniture design, at a time when architects and designers are increasingly custom-designing furniture for their projects and manufacturers are increasingly open to fresh ideas. The competition is specifically aimed at furniture intended for use, but the design need not be constrained by existing production or marketing practices. Entries may be based on either fabricated pieces or project drawings. Designers are encouraged to consider the aesthetic and ideological implications for furniture design implied by the current concerns within architecture and other design disciplines.

Winning projects will be published in the May 1983 P/A, and they will be displayed at NEOCON 15, the National Exposition of Contract Interior Furnishings, at Chicago's Merchandise Mart, June 1983. Awards will be presented to the winners in an evening program in early March attended by press, designers, and NEOCON manufacturers.

In addition to the exposure afforded the submissions, the competition will encourage further discourse between the entrants and respected furniture producers. Any ongoing discussions will, of course, be up to the individual designers and manufacturers, but benefit to both is anticipated.

Submissions are invited in all categories including chairs, seating systems, sofas, tables, desks, work stations, storage systems, lighting, beds, and miscellaneous furniture pieces. Designations of **award** and **citation** may be made by the invited jury, based on overall excellence and advances in the art.

Entry deadline is January 26, 1983.

The jury for this competition:

Kenneth Frampton, Professor of Architecture, Columbia University; Fellow of the Institute for Architecture and Urban Studies; an editor of *Oppositions*; and author of *Modern Architecture: A Critical History*.

Frank Gehry, FAIA, president, Frank O. Gehry & Associates, Venice, California; furniture designer.

Arata Isozaki, principal, Arata Isozaki & Associates, Tokyo; furniture designer.

Rodolfo Machado, Partner, Machado-Silvetti Architects, Boston; Head of Department of Architecture, Rhode Island School of Design; furniture designer.

Michael McCoy, Co-chairman, Design Department, Cranbrook Academy of Art, Bloomfield Hills, MI; partner in graphic, furniture, exhibition and interior design firm of McCoy & McCoy.

Send to:
Furniture
Competition
Editor,
Progressive
Architecture,
600 Summer St.
P.O. Box 1361
Stamford, CT
06904

Return this coupon for entry form
and information.

Please type or print

Name

Company

Street

City/Country/Code

MANAGEMENT PERSONAL TIME

MONTHLY SECTION ON TRAVEL AND PERSONAL INTERESTS

Whoa! Before taking cover under the nearest tax shelter, take caution first.

The new tax laws not only have focused great attention on tax shelters; they also have made what traditionally has been a complex investment into one that today is trickier than ever.

Investment is the key word. A tax shelter is an investment that just happens to have tax advantages. It must be examined as an investment first.

The idea of a tax shelter—"sheltering" an investment so as to reduce or defer income for tax purposes—is to use part or all of the tax dollars to obtain growth and, ultimately, capital gains.

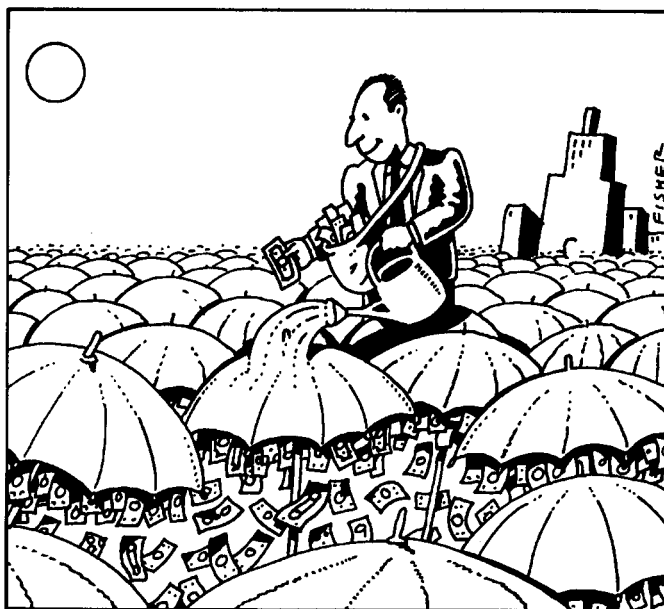
The fact that you are using so-called tax dollars to make this investment won't make you feel better if you lose it. Nor will you be ahead if the Internal Revenue Service (IRS) disallows it—and you wind up paying the tax *and* losing the money.

Even more alarming is the prospect that an investor can end up owing money. Some tax-sheltered investments involve signing a promissory note or letter of credit.

Investors who have undergone this triple-whammy wish they had paid the tax in the first place. Normally, these "triple-whammies" are marketed amid a grand flourish toward the end of the year.

In limited partnerships—the most common format for tax-sheltered investments—most business operating expenses can be claimed as deductions. One major exception is the "at risk" rule. Tax laws now prohibit individuals from deducting losses from an activity in excess of the amount they have "at risk."

Under this rule you are legally responsible for every dollar you write off—except in solar projects and real estate. And few investment-quality



TAX SHELTERS ARE INVESTMENTS, TOO

BY CAROL LEFCOURT

real estate transactions have multiple writeoffs.

The multiple writeoff (more than \$1 taken off taxable income for every \$1 invested) provides extra tax benefits. It also carries extra risk.

The "at risk" rule was designed to stop taxpayers from investing \$1, saving \$2 in taxes (that's a 4-to-1 writeoff), and not caring whether the deal succeeded or failed. The "at risk" rule states that if \$1 is invested and \$4 are written off, the taxpayer really owes the other \$3.

If you are told that the tax-sheltered investment you're considering involves no risk or that any specific shelter is an exception to the IRS rule, check out that advice most carefully. If a bank letter of credit is required, you can count on being at risk. Promoters have frequently assigned in-

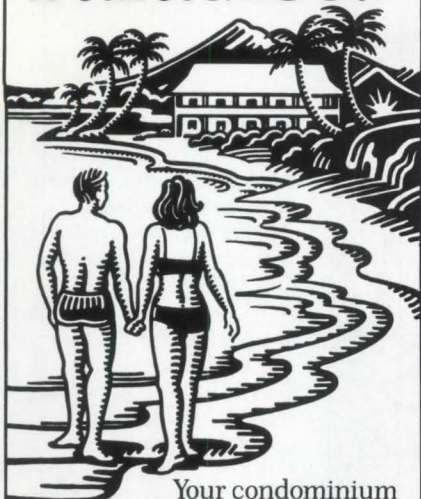
vestor letters of credit as bank collateral for their own loans—meaning you owe the bank regardless of the result of your investment.

Here are some more tips to consider before plunging into any tax shelter:

- As with any investment, study the offering memorandum or prospectus. If you don't have the time, patience, or background, hire someone to read it for you.
- Look for experienced management, an impressive and verified track record, and considerable confirmable assets in the promoter's name.
- Answer these questions: Where is your money going? How much is being taken off the top for promotion and sales? What does your tax adviser warn you about? What is the quality of the legal firm giving this tax opinion?
- If you receive a tax-shelter-investment offer from a stranger over the telephone or through the mail, avoid it. You should have an adviser who understands your total tax position, your current financial situation, your goals and your dreams.
- If the tax-shelter promoter is offering only one product which seems to be his solution to everyone's problems, walk away.
- What is the background of your tax adviser? Is he affluent enough himself to help if there is a problem?
- Is he pressuring you to make a decision because the deal is "closing" tomorrow? Although deals *do* close, there should be a reasonable amount of time for you to do your homework and make up your mind.
- In any case, you should never feel rushed during your get-acquainted interview with a financial planner you have decided to employ. By the end of that meeting the planner should know as much about your financial situation as you do.
- From your CPA or attorney to

United Airlines and
Creative Leisure bring you
a home in Hawaii.

Privacy in Paradise.



Your condominium vacation in Hawaii combines the flexibility of a home with the luxury of a fabulous resort hotel: swimming pools, saunas, golf, tennis, maid service, your own kitchen and more.

Settle right on the ocean on Maui or high atop a cliff on Kauai. Hide in the seclusion of Molokai, stretch out on the fairways of the Big Island, or be a part of it all on Oahu's Waikiki. There's a special United "Privacy in Paradise" condominium vacation waiting just for you.

Call United or your Travel Agent, then sit back as the friendly skies surround you in exclusive Royal Hawaiian Service on your way to "our little corner of the world."



Write:
United Airlines
P.O. Box 27
Glenview, Illinois 60025
Please send me your
"Privacy in Paradise" brochure.

Name _____
Address _____
City, State, Zip _____
My Travel Agent is _____

 **UNITED AIRLINES**
1060-1100

Circle No. 410 on Reader Service Card

MANAGEMENT PERSONAL TIME

whom you've given the offering for review, you should expect an evaluation of the tax benefits geared to your individual situation—and it should be in agreement with that in the offering memorandum.

- It's your money and the final decision must be yours. What is the absolute bottom line . . . the worst thing that can happen if you invest? Can you live with that?
- Take away all the tax advantages. If you didn't need shelter and the money was available, would you invest in this deal anyway? Why not?

Opportunities. Our firm feels that the best tax-advantage investments now are apartment houses and venture-capital research-and-development partnerships with equity. These seldom have writeoffs exceeding 100% of the dollars invested.

Use common sense. Weigh the deal yourself at the most elementary level. Is someone suggesting you buy a piece

of income-producing property with 10% down and an income that can't possibly support the expenses and the loan?

Research-and-development tax shelters are plentiful now and are most difficult for an individual to judge. Is the product marketable? Who are the people involved and what have they done before?

Equipment leasing is the best way to achieve a multiple writeoff; deals are arranged to comply with IRS rulings and emphasize safety. But few understand the complexity of this type of investment. It is paramount that your adviser explain the full tax ramifications, not just the first year's writeoff.

Whatever your tax-sheltered investment needs, look before you leap for shelter. ■

Carol Lefcourt is president and founder of Lefcourt-Golub-Baer-Moneypenny Inc., a Palo Alto, Calif., financial consulting firm.

The way to be free Go unhindered, unlimited in a Kountry Aire



Looking for the perfect RV? The Kountry Aire is the unit you need. The handsome Kountry Aire contains the latest kind of thinking, design integrity and attention to detail. It is made for RV people who know what they want and why.

The unhindered feeling of

freedom given by a Kountry Aire is enhanced by good construction that holds up for years. You can go from summer to winter playgrounds without problems. 22, 5th wheel trailers, 11 travel trailers, matching tow vehicles. Mini motorhomes in 6 models.


Kountry Aire
Where the going is great!

WRITE FOR A 4-COLOR BROCHURE

Kountry Aire
Newmar Industries, Inc.
P.O. Box 30, Dept. 244
Nappanee, IN 46550-0030

Circle No. 411 on Reader Service Card

Wind down and wise up at Saddlebrook.

Business friends keep asking, "What's a publishing company like Penton/IPC doing with Florida's newest and finest conference resort?"

What's your answer, Tom?

I say Saddlebrook performs the same information function as our 27 business-to-business publications. It's a different dimension of communication...and business communication *is* our business.

It's easy to communicate at Saddlebrook, Tom. Its attractions rival any resort anywhere: 27 holes of golf, designed and built by champions Arnold Palmer and Dean Refram, 15 tennis courts, a super pool complex larger than any other resort's, tropical waters teeming with bass and bream, exotic birds in lush natural landscaping, gourmet dining, and executive condo suites at less than hotel prices.

Pleasure before business?

Pleasure *and* business. The meetings center alone encloses 56,000 square feet, equipped with every state-of-the-art film and video device to serve groups from ten to 650.

Like business, Saddlebrook is practical — only 30 minutes' drive from Tampa International Airport. Easy access from all U.S. business/industrial centers.

And we've got another plus, Tom, that few other resort conference centers can match. Saddlebrook was built *by* communications specialists *for* communications specialists. We have incorporated all the best ideas we could find to help business people wind down at the same time they are wising up!

MORAL: Wise businessmen assemble at Saddlebrook so they can reassemble at the office, wiser.



Tom Dempsey, Chairman Sal Marino, President

Penton/IPC
One Great Communications Company

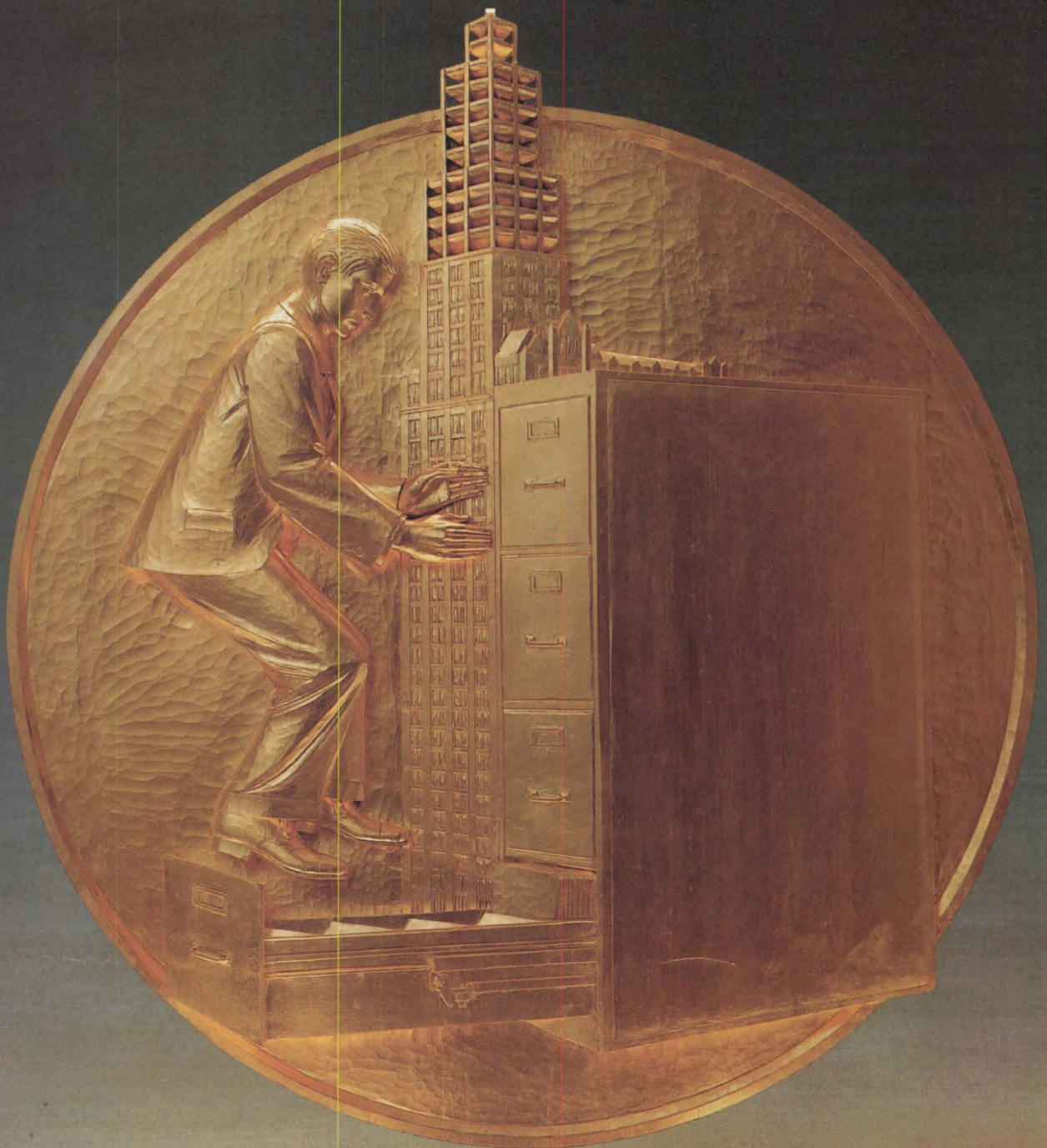


For an enticing kit of detailed information about Saddlebrook, Penton/IPC's business-to-business destination resort conference center near Tampa, contact your travel agent. Or call toll-free 800/237-7519. In Florida 813/973-1111.

For vacation information circle 408
For meeting information circle 409

We're Jumping.

SHAW-WALKER



Circle No. 382 on Reader Service Card



PHOTOGRAPHY AND ARCHITECTURE:

1839-1939

By Richard Pare Introduction by Phyllis Lambert

FROM THE ancient to the avant-garde in architecture, this important new book presents a major new study of world architecture as seen through the eyes of more than ninety great masters of the camera. Ⓒ 148 full-page triptone photographs, 284 pages clothbound. \$55.00 until 12/31/1982, \$65.00 thereafter. Ⓒ The inaugural publication of the Canadian Centre for Architecture, Montréal. Published in association with Callaway Editions, New York.

Available in bookstores everywhere or directly from:

CALLAWAY EDITIONS, 421 HUDSON STREET, NEW YORK,
NEW YORK 10014

Circle No. 314 on Reader Service Card

Statement of Ownership, Management and Circulation of PROGRESSIVE ARCHITECTURE (ISSN 0033-0752). Published monthly at 1111 Chester Avenue, Cleveland, Ohio 44114 (Cuyahoga County), for October 1, 1981, compliance.

The publisher of PROGRESSIVE ARCHITECTURE is James Hoverman; the editor is John Morris Dixon; and the managing editor is Barbara McCarthy. They are located at 600 Summer Street, Stamford, Connecticut 06904.

PROGRESSIVE ARCHITECTURE is owned by Penton/IPC, Inc., 1111 Chester Avenue, Cleveland, Ohio 44114, a wholly owned subsidiary of Pittway Corporation, 333 Skokie Blvd., Northbrook, Illinois 60062.

The known bondholders, mortgagees, and other security holders owning 1% or more of total bonds, mortgages, or other securities are: none.

EXTENT AND NATURE OF CIRCULATION	AVERAGE NO. COPIES EACH ISSUE DURING PRECEDING 12 MONTHS	ACTUAL NO. COPIES OF SINGLE ISSUE PUBLISHED NEAREST TO FILING DATE
A. TOTAL NO. COPIES (Net Press Run)	79,359	77,892
B. PAID CIRCULATION 1. SALES THROUGH DEALERS AND CARRIERS, STREET VENDORS AND COUNTER SALES	806	887
2. MAIL SUBSCRIPTION/REQUESTED COPIES	70,706	67,528
C. TOTAL PAID CIRCULATION (Sum of 1081 and 1082)	71,512	68,415
D. FREE DISTRIBUTION BY MAIL, CARRIER OR OTHER MEANS SAMPLES, COMPLIMENTARY, AND OTHER FREE COPIES	4,796	5,627
E. TOTAL DISTRIBUTION (Sum of C and D)	76,308	75,042
F. COPIES NOT DISTRIBUTED 1. OFFICE USE, LEFT OVER, UNACCOUNTED, SPOILED AFTER PRINTING	3,051	2,850
2. RETURN FROM NEWS AGENTS	0	0
G. TOTAL (Sum of E, F1 and 2—should equal net press run shown in A)	79,359	77,892

SUBSCRIPTION INFORMATION: Send all subscription orders, payments, and changes of address to Progressive Architecture, P.O. Box 95759, Cleveland, OH 44101. 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.

The annual subscription rate for PROGRESSIVE ARCHITECTURE to those individuals professionally involved in the practice of architecture and related fields is \$22.00 in the U.S., \$27.00 in Canada, and \$30.00 in all other countries. The annual non-professional rate is \$40.00 in the U.S., \$50.00 in Canada, and \$70.00 in all other countries. Single copies: U.S., \$7.; Canada, \$8.; all others, \$9.

I certify that the statements made by me above are correct and complete.

James J. Hoverman, Publisher

LOW ENERGY MAGIC...

Raylite®

Raylite . . . Minimalism.

The only thing more artistic about the way Raylite looks is the way Raylite performs. Space comes alive . . . gleaming with precise, crisp white light, controlled, efficient, durable, economical, energy conserving, low heat and light as a feather. Raylite takes your breath away whether you observe or work with them.



Five very small, very powerful projection lamps, with dichroic reflectors are used in Raylites. These 12 volt lamps are available in 20 and 50 watt sizes with various beam spreads, that provide a diverse range of intensities and spreads for a multitude of applications. In addition Raylites' rated life is much longer than conventional projection lamps. Send for our new, 68 page 1983 Designers Portfolio for further information about Raylites and many more stunning lighting products for the 80's.

© NEORAY 1982

neoray

NATURALLY

Room: LIGHTING UNLIMITED 537 Johnson Ave., Brooklyn, N.Y.
East 37th Street, New York City (212) 456-7400 11237

Circle No. 407 on Reader Service Card

Advertisers

- Allied Fibers & Plastics Co.48, 49
Bryant Press, Inc.
- All Steel, Inc.79
Frank C. Nahser, Inc.
- Amarlite AnacondaC-3
Cargill, Wilson & Acree, Inc.
Advertising
- American Gas Association52
J. Walter Thompson Co.
- American Olean Tile, Div. of
National Gypsum26, 27
Ketchum Advertising
- American Telephone & Telegraph
Co.155
N.W. Ayer, Inc.
- Amoco Fabrics Co.141, 142
Alford Advertising Agency, Inc.
- Andersen Corp.58, 59
Campbell-Mithun, Inc.
- Arco Chemical Co.168
Knight, Haunty, Inc.
- Azrock Industries, Inc.C-2
Bozell & Jacobs, Inc.
- Ball Metal & Chemical34, 50
Charles Tombras Advertising, Inc.
- Bethlehem Steel Corp.82, 83
Van Brunt & Co.
- Bigelow-Sanford21
AC&R Advertising, Inc.
- Bradley Corp.121-124
Stephan & Brady, Inc.
- Buchtal USA88
Koepenick & Horne, Inc.
- Callaway Editions, Inc.181
- Carnegie Fabrics4, 5
Tom Gaff, Ltd.
- Clearprint Paper Co.77
E.F. Sokol & Associates
- Cold Spring Granite Co.164
Kerker & Associates
- Collins & Aikman61
Collins & Aikman Advertising Group
- Consolidated Aluminum Corp.73
Weitzman, Dym & Associates, Inc.
- Conspec Systems, Inc.8, 9
Brian J. Ganton Productions, Inc.
- Conwed Corp.44
D'Arcy-MacManus & Masius, Inc.
- Copper Development
Association, Inc.17-20
Marquardt & Roche, Inc.
- Donn Corp.14, 15
Widerschein/Strandberg Associates
- Dover Corp., Elevator Div.51, 53
Caldwell/Bartlett/Wood
- Dow Chemical U.S.A.173
Sefton Associates, Inc.
- Dryvit Systems22, 23
Fern/Hanaway, Inc.
- Dukane Corp., Communications
Systems Div.68
Dukane Ad Group
- duPont Co.—Antron126, 127
Batten, Barton, Durstine &
Osborn, Inc.
- duPont Co.—Reemay Roofing Fabric 80
N.W. Ayer, Inc.
- duPont Co.—TYVEK Housewrap ..183
N.W. Ayer, Inc.
- Flexi-Wall120
Shorey & Walter, Inc.
- Focal Point, Inc.140
Images, a Div. of Focal Point, Inc.
- Follansbee Steel Corp.11
Group Marketing &
Communications, Inc.
- Formica Corp.32, 33
Kurtz & Tarlow Co.
- Forms & Surfaces6
Sherrill Broudy Associates
- Four Seasons Solar Products140
Four Seasons Advertising
- GAF Corp.66, 67, 184
Shaw & Todd
- Gardco Lighting65
David W. Evans, Inc.
- General Electric Co.,
Air Conditioning Div.174
Batten, Barton, Durstine &
Osborn, Inc.
- Glidden Coatings & Resins69
Meldrum and Fewsmith, Inc.
- Hartco, Tibbals Flooring152
John Malmo Advertising
- Hauserman, E.F. Co.144, 145
William C. McDade, Inc.
- Haworth, Inc.2
Haworth Advertising
- Helios Industries, Inc.154
Hisata Design Associates, Inc.
- Hickman, W.P. Co.120
John H. Rosen Advertising, Inc.
- Huntington/Pacific Ceramics, Inc. ..165
Reeds and Farris
- Inryco, Inc.78
Melrose Advertising Associates
- Interface Flooring Systems, Inc. 150, 151
Green & Burkhard
- Interlocking Pavers, Inc.72A, 72B
Weekley and Associates
- International Trade Centre72
- Kardex Systems, Inc.170
Hesselbart & Mitten, Inc.
- Kawneer Architectural
Products43, 45, 47
Garrison, Jasper, Rose & Co., Inc.
- Kleidon & Associates, Inc.120
- Koppers Co., Inc.13, 37-40
The Advertising Center
- Kountry Aire178
- Kroin Architectural
Complements167, 169, 171
- Krueger60
- Lees Carpet42
Wayne Advertising
- Levolor Lorentzen, Inc.41, 166
Muller, Jordan, Weiss
- Libbey-Owens-Ford Co.153
Campbell-Ewald Co.
- Longlites1
Hayes, Davidson, Inc.
- Manville Building Materials
Corp.—Building Systems Div. ..28, 161
Broyles, Allebaugh & Davis, Inc.
- Marvin Windows81
Martin/Williams Advertising
- Mayline Co.125
Jacobson Advertising
- MM Systems Corp.167
Sawyer Advertising, Inc.
- National Concrete Masonry
Association54, 55
The Harpham Co.
- Neo Ray Products, Inc.181
- Nevamar Corp.128
Lord, Sullivan & Yoder, Inc.
- Nucor Corp., Vulcraft Div.24, 25
Faller, Klenk & Quinlan, Inc.
- Olympic Stain, Div. of
the Clorox Co.C-4
Kraft, Smith
- Ozalid Corp.70, 71
Poppe, Tyson, Inc.
- Peerless Electric Co.1
Hayes, Davidson, Inc.
- Permagrain Products56
Aitkin-Kynett Co., Inc.
- Plan Hold Corp.64
PH Advertising
- Progressive Architecture Bookstore ..143
- Progressive Architecture
Furniture Competition176
- ProSoCo, Inc.169
Lisec Advertising
- Reading-Dorma Closer Corp.172
Reeser & Sperling Advertising
- Rixson-Firemark Div.149
The Delos Co., Ltd.
- Rolscreen Co.146, 147
Kerker & Associates
- R-Way172
R-Way Advertising, Inc.
- Saddlebrook179
- Saunders-Roe Developments, Inc. ..10
Hathcock Advertising, Inc.
- Schindler Houghton Elevator Corp. ..162
Widerschein/Strandberg Associates
- Shakertown Corp.143Wa
Gerber Advertising
- Shaw/Walker180
Shaw-Walker Communications
- Simplex Ceiling175
Leschin Associates
- Specification Built Corp.84
Appelbaum & Curtis, Inc.
- Stark Ceramics, Inc.57
Ira Thomas Associates, Inc.
- Steelcase, Inc.86, 87
Aves Advertising, Inc.
- Steelite, Inc.62, 63
Ketchum Advertising/Pittsburgh
- Sterner Lighting Systems76
Kerker & Associates
- Sun Systems Prefabricated
Solar Greenhouses, Inc.175
Nephews, Inc.
- Tarkett, Inc.46
Mitchell & Co.
- Thermal Technology Corp.158
Steele & Associates
- Thonet74, 75
Thonet Advertising
- Tubular Specialties Mfg., Inc.156
Kuklin & Associates
- United Air Lines178
- Urban Systems85
Nordstrom/Cox Marketing
- Ventarama Skylight Corp.5
Channel Agency, Inc.
- VIP Enterprises, Inc.17
Albert H. Mallory,
III Advertising, Inc.
- Von Duprin1
McQuade, Bloomhorst, Inc.
- Watercolors, Inc.15
A.C.3.D.
- Wood-Mode Cabinetry1
Foltz-Wessinger, Inc.
- Wool Bureau, Inc.15
Marc Merrill Associates, Ltd.
- Zero Weather Stripping Co.16
Lawrence Peskin Advertising, Inc.

Advertising Sales Offices

Stamford, Connecticut 06904:
600 Summer Street
P.O. Box 1361 203-348-7533

James J. Hoverman
Vice President & Publisher

Charles B. Selden,
Eastern Sales Manager
Francis X. Roberts, James J. O'Brien,
Donald J. Roberts, District Managers

Chicago, Illinois 60601:
2 Illinois Center Bldg
Suite 1300 312-861-0880

Tony Arnone, James L. Hobbins,
District Managers

Cleveland, Ohio 44113:
1111 Chester Ave 216-696-7000
John F. Kelly, Western Sales Manager

Los Angeles, CA 91436:
16255 Ventura Blvd, Suite 301
213-990-9000
Philip W. Muller, District Manager

Atlanta, Georgia 30326:
3400 Peachtree Road, NE-Suite 811
Lennox Tower 404-237-5528
Anthony C. Marmon, District Manager
Harmon L. Proctor,
Regional Vice President

Houston, Texas 77401
5555 West Loop South, Suite 505
713-664-5981
Calvin Clausel, Director
Southwest Operations

United Kingdom
Reading, RG10 0QE, England
Wood Cottage, Shurlock Row
0734-343302
Cables:
TEKPUB, Reading
Malcolm M. Thiele
Managing Director, U.K.

Tokyo, Japan 160
Bancho Media Service
15 Sanyacho, Shinjuku-ku
Genzo Uchida, President

Paris, France
Continental Europe
18 rue Gounod, 92210
St. Cloud, France 602-24-79
Yvonne Melcher, Manager

Job mart

Situations Open

Chairperson, Department of Architecture and Planning—School of Engineering and Architecture, University of Miami, Coral Gables, Florida. The University of Miami is a private university with an enrollment of 11,500 students, 350 of whom are in Architecture and Planning. The Department offers an undergraduate and a graduate program in Architecture as well as a graduate program in Planning. A program in Landscape Architecture is under study. Each program is coordinated by a Director. The five year B. Arch. is a professional degree accredited since 1974. The Master of Urban and Regional Planning degree received AICP recognition in 1981. A twelve month continuing appointment, the position includes teaching responsibilities in one course. Applicants should have advanced degrees in Architecture or related disciplines. A letter of application, three letters of reference and a resume should substantiate academic, administrative and/or professional leadership. Please submit the above documents or nominations before December 31, 1982 to T.A. Spain, Search Committee Chairman, Department of Architecture and Planning, School of Engineering and Architecture, University of Miami, P.O. Box 248294, Coral Gables, FL 33124. AA/EOE.

DESIGN STUDIO DIRECTOR

We are representing a nationally prominent architectural engineering firm which is restructuring its architectural design process. This reorganization has created the need for several Design Studio Directors who will, within the studio they manage, be entirely responsible for developing business, the design solution, and managing the project and client. Reporting to the president, each studio head will operate as principal-in-charge of a 30-40 person design studio concentrating in one market area. Specialized experience wanted includes: Commercial, Medical, Industrial, and Institutional.

Successful candidates will be registered architects, will have a record as design leader of large scale, award-winning and published projects, and will demonstrate ability to develop and maintain clients and manage large staff team. Positions are available at the firm's Midwest headquarters, as well as several branch offices. These are outstanding professional opportunities for qualified design leaders and will carry outstanding compensation and benefits. Interested candidates are invited to submit a resume to: **The Cox Group, Two Girard Plaza, Philadelphia, PA 19102.** Equal Opportunity Employer M/F.

Director—Innovative Design Division—Person being sought should have degree from recognized architectural school. Structural engineering background desirable. Must have previous experience demonstrating ideas and innovation in design of structures. Will be in charge of a department which applicant will help staff, working on innovations to take cost out of construction with masonry. This is a first-time opportunity, offering scope for originality and contacts with architectural and engineering professionals in U.S. Position in greater Washington, D.C. area. Salary dependent upon applicant's proven record. Send resume to: Box 1361-406, *Progressive Architecture*.

Landscape Architecture/Urban & Development Planning firm, located in Texas: Head of Office—Prefer Landscape Architect or Design professional with considerable administrative, management, marketing experience. Minimum 10 years experience. Austin. Project Manager—Responsible for project operations, scheduling, project management and production work. Minimum Eight (8) years experience. Dallas or Houston. L.A. Contract Administration—Requires extensive site construction observation experience. Minimum Six (6) years experience. Dallas or Houston. L.A. Designer—Ability to create innovative, quality products as Studio Designer. Minimum Five (5) years experience. Dallas, Houston or Austin. L.A. Position—Assist project manager in project development, design development to contract documents. Dallas or Houston. L.A. Planner—Landscape Architect with city or private de-

veloper planning experience. Send Resumes to: Myrick, Newman, Dahlberg & Partners, Inc., 5207 McKinney Avenue, Dallas, Tx 75205 (214) 528-9400.

Prison Architect—Expanding A/E firm seeks seasoned architects and drafters with experience in correctional facilities design. Send resume and salary history to: Paul Mifsud, EVP, Voinovich-Sgro Architects, 1224 Huron Rd., Cleveland, Oh 44115. EEO/M-F.

The University of Illinois, Urbana-Champaign—The School of Architecture is seeking applications for tenure track or visiting positions at the Assistant Professor or Associate Professor levels to teach Architectural Design Studio, and seminar or related elective course beginning fall semester 1983. Qualifications: Advanced professional degree in architecture is required, professional registration and teaching experience desirable. Salary commensurate with background and experience. Please send resume together with the names of three references to Professor R. Alan Forrester, Director, School of Architecture, 608 East Lorado Taft Drive, Champaign, IL 61820. The University of Illinois is an Equal Opportunity/Affirmative Action Employer.

University of Colorado at Denver College of Design and Planning—Interior Design, Director, Graduate program, 2 and 3 year Master degree programs. Tenure track, nine month appointment, Fall 1983. Competitive salary. Master degree in Interior Design required. Experience and recognition in practice, professional contribution, teaching or research. ASID membership required. Administration and teaching primary responsibilities; also, represent program to professional and business community. Interior Design: Two Assistant/Associate Professors, nine month tenure track positions, Fall 1983. Salary commensurate with qualifications. Provide graduate level instruction and conduct research or professional studies. Duties entail studio, lecture and seminar teaching and professional service. Three years teaching experience; three years professional practice; Masters degree and ASID membership. The College of Design and Planning at the University of Colorado is located in the Auraria Higher Education Center, and is a major urban educational institution in downtown Denver. The College offers graduate professional degree programs in Architecture, Planning and Community Development, Landscape Architecture, Urban Design and Interior Design. Total enrollment is approximately 325 students, and 40 full time and part time faculty members. Application Deadline: March 15, 1983. Send resume and three letters of reference to: Chairman: Interior Design Search Committee College of Design and Planning, University of Colorado at Denver, 1100 14th Street, Denver, Co 80202. Affirmative Action/Equal Opportunity Employer.

Services

Professional Resume Services

1125 South Cedar Crest, Allentown, PA 18103
We provide complete resume preparation for architectural professionals. Prompt. Confidential. Call collect or write for information.

(215) 433-4112

RitaSue Siegel Agency™ recruits exceptional architects, interior and retail designers. Corporate design and leading consultant clients need managers, planners, generalists, specialists, marketing/sales people. Contact Marsha or Melanie. RitaSue directs graphic and industrial design. 60 W 55 St, NYC 10019, 212 586 4750.

Notice

Please address all correspondence to box numbered advertisements as follows:

Progressive Architecture
% Box
600 Summer Street
Stamford, Connecticut 06904

Tests prove Tyvek® Housewrap cuts heat loss through walls by 33%.



- TYVEK® stops cold air infiltration—cuts heat loss through walls 33%. Independent tests prove it.* BOCA Report 79-34 confirms it.
- Keeps cold air out of wall cavity, protecting insulation R-value.
- Moisture permeable—no danger of in-wall condensation.
- Costs about \$150 for average house.

*DuPont registered trademark.

**Independent laboratory tests using 2x4 frame wall with 3½" R-11 insulation in 15 mph wind.



Circle No. 326 on Reader Service Card



FREE FACTS

Call (302) 999-2474. Or send coupon to DuPont Company, Room C-11K4-A, Wilmington, DE 19898

Name _____

Title _____

Company Name _____

Address _____

City _____ State _____ Zip _____

TIMBERLINE® LOOKS SO MUCH LIKE WOOD, OUR COMPETITION'S TRYING TO LOOK LIKE TIMBERLINE.



In 1968, we captured the beauty of wood in an asphalt shingle. We did it so well that since then just about every one of our competitors have come out with something like Timberline.®

You can't blame them for trying.

Timberline's unusual thickness and deep irregular shadow pattern makes our shingles look great. And they wear even better than they look.

Timberline shingles are composed of the highest quality, specially refined asphalt. They also have a ceramic baked, granular surface that resists fire and reflects the harmful ultra violet rays that eat away even the best of roofs.

But the fact of the matter is, for all their originality Timberline shingles don't really cost any more than most of our competitor's imitations.

So use Timberline shingles, the number one selling shingles of their kind.

After all, they're number one because they're easier to sell than their imitations.



TIMBERLINE®
ASPHALT ROOFING

On top of the industry.

Circle No. 334 on Reader Service Card