11 good reasons
to specify Azrock Floors.

Azrock Floors stand up to every-day wear, year in and year out... and offer beauty, durability, low cost, and easy maintenance. For more good reasons to select Azrock vinyl composition tile for your next health care project, call toll-free 800-228-2222 (in Nebraska, 800-642-9642), or write Azrock Floor Products, Dept. 414A, P.O. Box 34030, San Antonio, Texas 78233.

The name to specify in resilient floors.

Circle No. 309 on Reader Service Card
Nevamar Natural Finish gives a selected group of our woodgrain laminate patterns a more natural look and feel. The patterns, such as our new Vessel Oak shown here, are the most realistic yet developed by Nevamar. And the Natural Finish enhances the look with a low-luster surface. Where you need a durable, practical woodgrain surface, Nevamar Natural Finish makes the application more attractive. Available nationwide. For samples, call on our toll-free hotline, 800/638-4380. Or write Nevamar Corporation, Odenton, Maryland 21113.

When you want something that even has a "feel" that's more natural.

Circle No. 358 on Reader Service Card
For today's sophisticated open office electrical needs, the word is out.

Haworth.

Haworth's TriCircuit ERA-1™ provides three panel-integrated electrical circuits that can be individually dedicated according to need. Separate circuits are available for lighting, convenience outlets and special power requirements like word processing—or any other power combinations dictated by the user. And, up to six 25-pair communications cables can be concealed within a separate base raceway compartment. It's all part of UniGroup™, the complete open office system by Haworth.


Circle No. 337
November 1980

Progressive Architecture

Editor
John Morris Dixon, FAIA
Executive Editor
James A. Murphy, AIA
Managing Editor
Barbara McCarthy
Senior Editors
David A. Morton, Features, Books
Suzanne Steenhorst, Features
Richard D. Rush, AIA, Technics
Associate Editor
Nory Miller, Interior Design
Copy Editor
Virginia Chatfield
Editorial Assistant
Veronica Hartman

Graphics
George Colette, Art Director
Susan Newberry, Art and Production
David W. Scott, AIA, Architectural Drawing

Contributing Editors
Norman Coplan, It's the law
Josephine H. Drummond, William T. Lohnes, AIA, AIA
Walter Rosenfeld, CSI, Alvin D. Skolnik

Correspondents
Esther McCoy, Los Angeles
Barbara Goldstein, Los Angeles
Sally Woodbridge, San Francisco
George McCue, St. Louis
Peter Papandemouj, AIA, Houston
Ralph Warburton, AIA, AIP, PE, Miami
Stuart E. Cohen, AIA, Chicago
Carleton Knight III, Washington
Jon Hayes Carleen, AIA, Atlanta
Monica Pidgeon, London
Joanna Baymiller, Minneapolis

Publisher
James J. Hoveman

Daniel H. Desimone, Business Manager
Louise Brischi, Administrative Assistant
Margaret McGrath, Sales Service
Wilton M. Vargh, Marketing Service
Nancy Lee Gallagher, Promotions Coordinator
Lynn Munley, Promotions Assistant
Vicki Nichol, Production Manager

Gloria Adams, Associate Director of Circulation
Mary Ann Salko, Fulfillment Manager
Herty Rizvi, Customer Service Manager

Penton/IPC

Progressive Architecture (USPS 485-906) is published monthly by Reinold Publishing, A Division of Penton IPC, Philip H. Hubbard, Jr., President; Harry J. Martin, Vice-President; Penton IPC, Thomas L. Dempsey, Chairman; Sal F. Marino, President; N.N. Goodman, Jr., Benjamin L. Hummel, Joseph Lipka, Paul Robins, Executive V-Presidents. Executive and editorial offices: 600 Summer St., Stamford, CT 06901 (203-318-7373).

Subscription information: Send all subscription orders, payments, and changes of address to Progressive Architecture, P.O. Box 90759, Cleveland, OH 44101 (216-696-0390). When filing change of address, give former as well as new address and ZIP code, and include recent address label if possible. Allow two months for change. Publisher reserves right to refuse unqualified subscriptions. Professionals include architectural and architectural-engineering firm personnel and architects, designers, engineers, and draftsmen employed in allied fields. Subscription rates, payable in advance, are:

<table>
<thead>
<tr>
<th>Country</th>
<th>Professional Rate</th>
<th>Nonprofessional Rate</th>
<th>Single Copy Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>U.S.</td>
<td>$15</td>
<td>$18</td>
<td>$55</td>
</tr>
<tr>
<td>Canada</td>
<td>$18</td>
<td>$20</td>
<td>$55</td>
</tr>
<tr>
<td>Foreign</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Indexed in Art Index, Architectural Index, Engineering Index, Controlled circulation postage rates paid at Hartford, CT 06113. Volume EXI. No. 11. Printed in U.S.A Copyright © 1980, Penton IPC.

8 Views
25 News report
36 Report from the Netherlands
64 In progress
136 It's the law
138 Books
124 Acorns to oaks
123 Specifications clinic: The unique product and public bidding laws
106 Assets secured
112 Under glass

7 Editorial: Reuse for downtowns?

Remodeling and reuse

87 Introduction: Rating reuse
The practice of reusing existing buildings is growing, with varying degrees of success. Shown are several commercial projects, with critical evaluations.

88 Generation gap
Architects Lorenzi, Dodds & Gunnill have adapted five late 19th- and early 20th-Century Classic Revival buildings to form The Bank Center, a specialty mall in Pittsburgh.

92 Richardson on the half shell
In Hartford, Ct, an 1870s building designed by H.H. Richardson is returned to mixed use by Stecker/LaBau, with stores at street level and apartments above.

96 Foiled again
Walker/Group's renovation of a bank interior for Citibank, previously remodeled by McKim, Mead & White, incorporates modern banking methods into a traditional space.

Cash on the line
The Cincinnati Union Terminal building, once threatened with demolition, has been saved by conversion to a mixed-use complex, with restoration by Schofield & Schofield.

Under glass
Arcade Square, a restoration/remodeling by Lorenz & Williams of five rundown buildings facing Courthouse Square, is expected to generate new activity in Downtown Dayton.

Assets secured
Renovation of a five-story building by Charles Herbert & Associates for Valley National Bank, Des Moines, restores Art Deco design and detail.

Technics

123 Specifications clinic: The unique product and public bidding laws

124 Acorns to oaks
Proflles of six manufacturers of diverse products outline the companies' growth, from the ideas of the men responsible for their beginnings to the present.

Departments

8 Views
25 News report
36 Report from the Netherlands
64 In progress
79 In perspective
136 It's the law
138 Books

Products and literature
Building materials
Coming next month

Cover: centerpiece in the rotunda, Arcade Square in Dayton, Oh (p. 106), by Lorenz & Williams. Photo: Bill Swartz, Gregory Glass.
Announcing Andersen’s New

At the center of the System:
The perfect windows for your commercial/institutional building.

Andersen® Perma-Shield® windows. They’re the same high-quality windows Andersen has been building for over 75 years. The perfect windows for big building window replacement because they offer exactly what owners and managers need:

- Complete replacement. Some replacement windows merely cover-up the old frame—and its problems. The Andersen System completely replaces both sash and frame.
- Fuel savings. 1. Solid wood-core sash and frame provide maximum insulation. 2. Double-pane insulating glass reduces heat loss. 3. Optional triple glazing system available to cut heat loss even more.
- Weathertightness. 4. Every Andersen window is at least two times more weathertight than industry standards.*
- Low maintenance. 5. Tough, long-lasting rigid vinyl exterior, in either white or earthy Terratone color, won’t rot, rust or corrode. Won’t chip, flake, peel or blister. Won’t need painting every few years.**

To insure the ideal windows fit snug:
Simple, versatile installation aids.

Andersen has designed a simple, functional line of installation aids that makes it easy to custom-fit stock-size Perma-Shield windows to virtually any opening.

These aids support, fill in and trim out the exterior area around the installed Perma-Shield window when the window is not the exact size for the opening.

The aids are covered with (or are completely made of) thick, low-maintenance rigid vinyl to match the Perma-Shield window and provide a lasting, beautiful appearance.

*AWMA Industry Standard I S. 2-73. **Low maintenance features vary by window style.

Andersen windows are available in a variety of styles and sizes to meet the needs of any building. For more information, contact your local Andersen dealer or visit the Andersen website at www.andersenwindows.com.
Window Replacement System.

To easily select the right size Andersen: A one of a kind guide.

The Andersen Selection Guide makes it simple for you or your architect/designer/contractor to use the System. The guide lists every conceivable window opening size, all the Perma-Shield window sizes and styles that can be used for each opening, and exactly which Andersen installation aids will be needed. This 92-page handbook makes window selection easier, faster and more precise.

To replace any style window: A complete Andersen window line.

Whether your building style is contemporary or conventional, progressive or traditional, there's an Andersen window to match. With exactly the glazing you need. Clear...tinted...environmental...spandrel...safety...decorative...Andersen has them all—in over 1,000 variations.

To assure fast delivery: Local Andersen window stocks.

Andersen has the distribution system to virtually assure the fastest window delivery. 134 Andersen distributors and many of the 15,000 Andersen dealers stock the Perma-Shield line of windows and the Andersen installation aids.

To get more information on the System:

Use the Reader's Service Card in this magazine. Or write Andersen Corporation, Box 12, Bayport, Minnesota 55003. Do it today. Andersen's new Window Replacement System is available right now.

Circle No. 308 on Reader Service Card
Fire Retardant Bonded Wood

Fire Retardant Bonded Wood + Mirror

Fire Retardant Architectural Tambour

Class I Flame-Spread Classification combined with good looks, versatility and competitive price make these popular wall materials easier than ever to specify. Select from Red Oak, White Oak, Teak, Walnut, and clear or copper mirror.

Forms & Surfaces Box 5215 Santa Barbara, California 93108 (805) 969-4767 969-5033. Circle No. 332 on Reader Service Card
The reuse and "extended use" of our architectural heritage depends on the fate of the urban cores—large and small—where much of it is located. Our countrysides are dotted with fine farmhouses and barns, country estates and campuses, the future of which is in doubt. But the vast majority of our architecturally valuable buildings suitable for preservation and reuse are in the central parts of our cities and towns. Much of the construction of the late 1800s and early 1900s took place in these urban cores, and that is where economic change has divorced so many substantial structures from their original functions. Hence the potential for economic return or public amenity through reuse is largely tied to the economic futures of these downtown cores.

It is encouraging to consider that this dependence is mutual. The economic revival of urban areas from Brooklyn to San Francisco is linked in many cases to the architectural and urbanistic quality of what has been built there, and many smaller towns have been revived almost solely because of their fine buildings. But it is hard to be optimistic about the cities.

For decades, the hopes of most architects and planners for renewal of city cores have been counteracted by a concatenation of government and business policies. Now, however, a return to urban living would logically be predicted on the basis of several interrelated factors: fuel shortages, diminishing standard of living, statistical decline of the child-centered family unit, ecology-based regulations, and reduction in readily accessible land for development. Yet preliminary figures for the 1970 census, even allowing for an unconscionable undercounting of the urban poor, seem to indicate a continued drain of people away from urban cores—and even from the inner suburbs of the old Northern cities—toward the expanding edges. In the Sun Belt, center cities may still be growing, but growth is more rapid in their suburbs.

Of course, raw figures on numbers of people don't present a complete picture. Many of our urban cores that the census tells us are shrinking are the sites of vast amounts of new construction investment—for offices, hotels, convention centers, and shopping centers. And these same centers are the places with the severest shortages of housing (which can be seen as paradoxical—or as one cause of the declining numbers). What is the evidence from the sites of remodeling-reuse efforts such as those presented in this issue? Over the past few months I have visited the cities where most of them are located. I have to admit that the districts where some are situated do not appear very reassuring.

Downtown Dayton, for instance, is quite attractive, physically. It stands within a bend of a river that is generally pleasant to look at, and it has an excellent stock of buildings. Just across from the Dayton Arcade (p. 106) is an exceptional Greek Revival courthouse (now a historical museum); facing that on another side, an office building by I.M. Pei & Partners is nearing completion; down the block is a fine turn-of-the-century Beaux-Arts post office turned cultural center; around the corner, another excellent old commercial building is being restored. There are lots of other good buildings ripe for renovation.

Why, then, have any doubts? Without investigating, I can pass along some firsthand observations: there seems to be hardly anyone in the downtown area except white-collar workers and some shoppers; the shoppers as a group don't look very prosperous, and the stores show little indication of recent investment. It appears that the middle class of the Dayton area comes downtown only when it is necessary. Can a development such as Arcade Square change this adverse situation? Maybe, in combination with other magnets, it can encourage more area residents to stay downtown evenings or weekends. Will any combination of amenities inspire out-of-towners to stay in Dayton over a weekend? Not very likely.

What's true of Dayton is more or less accurate for Hartford and Des Moines, as well. Cities such as Cincinnati or Pittsburgh obviously present different circumstances; urban cores of this size have substantial and irreplaceable masses of economic and cultural activities—and either of these two cities would be a rewarding place to spend a weekend. The point is that the places is not whether their cores represent enough economic potential, but rather whether the individual projects are located and designed to take advantage of it.

New York, the sixth city represented here, is of course in a class by itself. If it fails, the loss will be felt by the world.

The point is that we cannot afford, culturally, to lose a New York, or a Cincinnati, or a Pittsburgh. Nor should we permit smaller centers such as Dayton to decline to mere clusters of offices among parking lots, on the suburban model. The clients who have sponsored projects such as those shown here are committing their resources to the cities. If our society as a whole does not do the same, we shall all be the losers.

John Morris Opler
views

testing realities
A.D. Skolnik's editorial on "Laboratory Accreditation" (P/A, Aug. 1980, p. 89) was timely and I commend his support on the Department of Commerce's National Voluntary Laboratory Program. We participate in NVLAP as it relates to thermal performance.

It is important that the construction industry support these accreditation programs. We have a responsibility to furnish accurate, reliable performance data obtained by testing materials and assemblies as they are to be used. Performance predictions based on calculations will no longer suffice in today's environment where conservation is such a necessity.

Thermal testing in our large Guarded Hot Box (ASTM C 236) over the last five to six years has proven that only full-scale—as built—tests will produce usable performance data. Tests have indicated in some cases, that performance of an assembly is only half as good as calculations would indicate. These are extremes, but emphasize the necessity for requiring tested values in codes and specifications.

The large-scale testing capability in the U.S. is small, but growing. The NVLAP program is serving as a stimulus to more quality test work.

Marvin K. Snyder
Research Manager
Butler Manufacturing Company
Kansas City, Mo

the schindler/neutra rift
Just a minor correction to an otherwise fine review by Barbara Goldstein of Esther McCoy's latest book, Vienna to Los Angeles: Two Journeys (P/A, Aug. 1980, p. 101). One of Mrs. McCoy's purposes in doing the book was to clear away some of the fictions that have overgrown the personal and professional relationship of R.M. Schindler and Richard Neutra. Among these is the story, reiterated by Mrs. Goldstein, that Neutra's supplanting Schindler as the Lovells' architect caused the breakup of their friendship. Mrs. McCoy writes quite clearly (on page 63), "After Schindler left the hospital he told me the cause of the break in 1930. He made the point that the Lovell house commission was to Neutra an act of self-survival, but the removal of his name from their League of Nations entry was an act of malice." The act of self-survival "put a strain on the friendship"; the act of malice ended it.

Incidentally, the price of the book was changed in January from that listed in the review to $17.50 for the hardcover edition and $10.95 for the paperback.

David Travers
Arts & Architecture Press
Santa Monica, Ca

in search of great architecture
Your July editorial, "The delight deficit," touches upon an important issue in architecture today—that of Great Architecture. I am not sure, yet, what constitutes great architecture at this time. I think that no architect is producing great architecture today—i.e., architecture which would be universally recognized as great and which would be so recognized for longer than a "season" or two. Perhaps we are at an inevitable point of the whole process; the Heroes, who endured so long, finally died, leaving a vacuum which is, at the moment, unfilled. Perhaps enough time has simply not elapsed since their deaths. In addition, we have so many extraordinary technological toys available to us that it is often difficult not to play instead of being truly serious. Borromini, Michelangelo, and the early architects were, by comparison, severely limited in terms of systems and materials available to them. Maybe these limitations caused them to devote more effort to the careful manipulation of forms, light, space, etc., thus resulting in their incredible and enduring works.

Somehow, our current preoccupation with wit and allusion (not to mention illus ion) cannot take the place of true quality; but it can mask an architect's inability to produce true quality. (One can, at least, be amusing.)

There is, of course, the old argument of economic constraints, and it is justifiable one in some instances; but it does not always hold water. The same folks who shop on Rodeo Drive, Bendel, Tiffany, Harry Winston, etc., can afford enormous sums for architecture—and yet where are the results? (It might be interesting for P/A to do a full-length article on the homes of the super-rich; alter all, these are frequently the same power-persons who make the final decisions for much of the corporate architecture of today.) Very few of P/A's Design Awards and of the Record Houses appear to be designed for the super-rich.

Probably the most brilliant architect practicing today is Philip Johnson. Brilliant, but not great—as he would be the first to admit. Yet he does seem to be close to doing some very extraordinary buildings. He has probably come as close as any contemporary architect has to doing buildings which share the strength of some of those buildings of the past.

It is so easy to be seduced by "complexity," technological daring, wit and allusion, and new materials, that one could spend his entire career just playing with this overwhelming palette without ever committing himself to concentrating on producing works that conform to Vitruvius's notion of "Firmness, Commody, and Delight." I certainly like to play as much as anyone, but there lurks the feeling that Architecture with a big "A" demands much, much more. As the late Marvin Goody, FAIA, said to me when I was a student of his at MIT: "You know, Zoller, it's hard to do good architecture." How true. Clever, witty, slick, cute, pretty, complicated, fast-tracked, computer-drawn, post-modern, competent, economical, tallest, structurally innovative, seem to be fairly easy to come by; but "good"? And if "good" is hard to come by, how about "GREAT"? Pretty nigh unto impossible; at least by all of the evidence as presented so well by all of the magazines. If you have a list of works that you think qualify as truly great (contemporary works by living architects), I should certainly be interested in seeing these works in the pages of P/A.

William C. Zoller, AIA
Zoller Associates
Sarasota, Fl

[We are not seeing any Villa Savoyes or Johnson's Wax Headquarters these days—or we're failing to recognize them when we do. Just as it is easy to find great old works, it seems easy to find great small works. That suggests we are at the formative stages of a phase that has not yet produced large-scaled examples.—Editors]

Correction
We regret that Avinash Malhotra's name was misspelled in the credits for the Linda Hopp store (Aug. 1980, p. 77). Also Mr. Malhotra should be credited as co-architect with Robert Rodin and as architect of record.

moving?

Let us know 6-8 weeks in advance if you won't miss any copies of P/A.

AFFIX LABEL HERE

New address:
Name
Title
Company
Address
City/State/Zip
Type of firm
Mail to:
Subscription Services
Progressive Architecture
P.O. Box 95759
Cleveland, OH 44101
In today's energy-conscious economy, a building has to work as good as it looks.
And that's why Amarlite Anaconda offers a broad line of thermally improved architectural aluminum.
Five curtain wall systems and six low-rise framing systems. Each designed to keep nature outside and energy inside with specially constructed thermal barriers between indoors and outdoors.

In the final analysis, it's the lifecycle costs that concern a building owner. So our thermally improved products are designed to minimize long-term energy expenses. And to keep a building operating at a constant and economical temperature.

But even with such a broad line, we never stop improving our thermally improved products.

Amarlite Anaconda is constantly innovating. Refining our refinements. Our challenge is to stay ahead of the challenges facing you.

Which is part of the reason our architectural aluminum also comes with a design assistance team. To help you adapt Amarlite's special products to your project's special needs.

To specify Amarlite thermally improved products for your next project.

Your building design will look better with each passing year.

Whether you're involved with one story, or thirty stories, you'll want to hear our story. Send for our catalogs. "Thermally Improved Curtain Walls" and "Entrances and Storefront Systems." Write to Amarlite Anaconda, P.O. Box 1719, Atlanta, Ga. 30301. Or read about us in "Sweets: 8.1/HAN and 8.14/AN" Or you can call our home office at (404) 691-5750.

Circle No. 306 on Reader Service Card
The VIP Systems Package is a designer's dream. Create your own public-space carpets from Karastan's VIP Collection.

Our new VIP Systems Package puts Karastan's VIP Collection (in long-lived Antron III Nylon) at your fingertips—to be designed by you to your needs and imagination. The Systems Package has it all:

- A palette of 60 rich, yarn-dyed colors in small "feeler" samples to give you a sense of texture and hand.
- 12 public-space patterns; vibrant suggestions of the variety of designs open to you with Karastan's versatile Kara-loc looms.
- Design work sheets for your specifications. Of course you're not limited to our suggestions—your own designs are welcome. All 60 colors are stocked by Karastan in soil-concealing, static-controlled Antron III Nylon yarns so your design can be quickly woven in sample size. (If any of these 60 colors catch your fancy you may specify them for many other Karastan contract lines that are not in the VIP Package.)

Once you approve the sample, your order goes into production. All specifications (including minimum yardage requirements) are contained in the Systems Package.

The VIP Systems Package is at your Dealer. Or call Karastan Contract (212) 980-3434.
What would you get if you tossed away all your ideas about what a building should be?
Permanent fabric architecture from Birdair Structures.

A proven, durable system that offers an exciting alternative to traditional construction methods — and a freedom of design and conceptual versatility never before possible. Not just a wide span roof, but a complete environmental envelope that provides translucency, solar reflectivity, and esthetics. Simply put, a revolution in architectural form.

Florida Festival, a 60,000 square foot shopping and entertainment center at Sea World in Orlando, was fabricated and erected by Birdair Structures. The 90,000 square foot roof is made of SHEERFILL®, CHEMFAB's architectural fabric of fiberglass coated with TEFLEX®. With 18% solar transmission, it permits the growth of 40 foot palm trees and other tropical flora. Natural daylight bathes the interior to highlight merchants' products. The high reflectivity of SHEERFILL creates a cooler interior under the hot Florida sun, providing substantial energy savings through greatly reduced air-conditioning requirements.

The design and erection of permanent fabric structures require the specialized skills of a company with the demonstrated ability to help translate vision into reality. Birdair Structures is the pioneer and leader in this field. We invented the technology. Extensive involvement in virtually every permanent fabric structure built to date makes us uniquely qualified to offer state-of-the-art structural analysis and detailing assistance to the architect. We are the only single source that can offer integrated expertise in every phase of fabric structure technology: design, engineering, weaving, coating, fabrication, and erection.

Bring your new ideas to us, Birdair Structures, a division of CHEMFAB, 2015 Walden Avenue, Buffalo, New York 14225 U.S.A. (716) 684-9500 Telex: 91-353 Cable: Birdair Buffalo.

BIRDAIR STRUCTURES
A DIVISION OF CHEMFAB

Circle No. 314 on Reader Service Card
INSIST ON THE WORLD'S MOST PROTECTED ROOF.

Today's most effective and cost-efficient roof system depends on the unique properties of STYROFOAM brand insulation. It's the most ideally suited insulation for use on top of a roofing membrane. The high moisture resistance, compressive strength and insulating effectiveness of STYROFOAM shield roof membranes from temperature extremes, protect them against physical abuse, and reduce expensive energy loss.

The Protected Membrane Roof (PMR) was pioneered by The Dow Chemical Company and represents a major breakthrough in roofing technology. Because of the superior performance of STYROFOAM brand insulation in roofing applications, building owners can experience substantial long-term savings due to both decreased maintenance and energy costs.
Before you build, evaluate your roofing alternatives. Let your Dow Representative explain the financial benefits of the PMR system. He has data to support STYROFOAM brand insulation's superior insulating effectiveness and long-term proven performance. You'll see why roof systems incorporating STYROFOAM brand insulation are so widely specified by architects and contractors throughout America, and the world.

Write for more information. The Dow Chemical Company, Dept. J95, STYROFOAM Brand Insulation, Midland, MI 48640.

The Proven Answer

WARNING: STYROFOAM brand insulation is combustible and should be properly installed. For roofing applications it should be provided with an adequate protection.

For specific instructions see Dow literature available from your supplier or from Dow.

© 1980 The Dow Chemical Company
Introducing the StarTherm Energy Efficiency Analysis!

It won't cost you a penny, and it could save your clients thousands.

StarTherm insulated roof and wall systems are so remarkably energy efficient we think they'll out-perform almost any conventional construction materials. And we're willing to prove it with a free StarTherm Energy Efficiency Analysis.

Just give us the location and specifications of your proposed building project and your Star Builder will ask our computer to determine the energy savings you could realize with a StarTherm building of the same size. The results can be dramatic.

The StarTherm system's remarkable insulating properties will significantly reduce operating and maintenance costs, which account for about 50% of the total life cycle costs of any building. (The rest is initial construction and finance costs, plus improvements or building additions.)

You'll find it pays impressive dividends to build with StarTherm insulated panels.

$1,839 Annual Savings in Chicago.

In one example, the computer compared a 100' wide by 150' long by 20' high structure with 4" normal density blanket insulation in the roof and 12" corefilled concrete block walls, with a building of the same size equipped with StarTherm roof and wall panels.

Our energy savings calculations were based on heating loads only. We told the computer that our example buildings were located in Chicago, and we specified that each building had two 3 x 7' walk doors, two 10 x 10' insulated overhead doors and two 3 x 6' thermal pane windows. We assumed gas heating at $3.50 MCF.

The results?

The StarTherm building consumed 68% less energy than the conventional building, resulting in an annual dollar savings of at least $1,839. And when you consider the current rapid inflation in energy costs, this savings will be even more significant to the building owner 20 years from now.

Remarkable but not surprising.

StarTherm insulated panels offer some of the lowest U factors money can buy: 0.043 for roofs, an even lower 0.040 for walls. They have no through fasteners or compressed insulation points. Joints form a positive energy tight seal, and according to ASTM-E-283 testing procedures, allow no detectable air infiltration.

Tax incentives. Reduced maintenance costs. Even lower insurance premiums.

The StarTherm system's low thermal transmission properties might qualify your structure for energy-related tax incentives.

Additional savings will occur through reduced maintenance costs. And our Class 1 low fire hazard rating and UL 90, 60, and 90 wind uplift ratings could lower insurance premiums. So over the life of your building StarTherm panels really pay off.

Ask for your energy efficiency analysis today.

Your Star Builder wants to help you design the building your client will thank you for—both today and in the future.

So ask for your free energy efficiency analysis today.

Call toll-free 800-654-3921. In Oklahoma call collect 405-636-2548. Or write Star Manufacturing Company, Box 94910, Oklahoma City, OK 73143.

Circle No. 383
Progressive Architecture and NEOCON announce a new competition recognizing outstanding furniture and lighting design proposals, not yet associated with any manufacturer. The competition is intended to give the design profession a forum to express ideas about the next generation of furniture design. Designers are encouraged to consider the aesthetic and ideological implications for furniture design implied by the current concerns within architecture and other design disciplines. Physical feasibility must be considered, but the design need not be constrained by existing production or marketing practices.

Winning projects will be published in the May issue of P/A and displayed at NEOCON 13, the annual interior design products show at Chicago’s Merchandise Mart, June 14-19, 1981. Awards will be presented to winners in an evening program attended by press, designers, and NEOCON manufacturers. A traveling exhibit of winning projects to major cities is also planned.

In addition to the exposure afforded the submissions through P/A and NEOCON, 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 potential benefit to both is foreseen.

Submissions are invited in all categories including chairs, seating systems and sofas, tables, desks and work stations, storage systems, lighting 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.

Emilio Ambasz, architect, graphic and industrial designer, former curator of design at The Museum of Modern Art, New York;
Martin Filler, editor, House and Garden, New York;
Mildred S. Friedman, design curator, Walker Art Center, Minneapolis, and editor, Design Quarterly;
Michael Graves, FAIA, architect and Professor of Architecture at Princeton University;

Judging will take place in New York City during the month of February. Winners will be notified — confidentially — before March 15. Public announcement of the winners will be made at the presentation ceremony at NEOCON 13 and in the May 1981 issue of P/A. P/A will arrange for coverage of winning entries in national and local press.

Eligibility
1 Architects, interior designers, industrial designers, and design students from all countries may enter one or more submissions.
2 Design must be original, not known to be substantially identical to any existing product design. (continued on next page)
Entry form:

International Conceptual Furniture Competition

Please fill out all parts and submit, intact, with each entry (see paragraph 10 of instructions). Use typewriter, please. Copies of this form may be used.

Entrant:
Address:
Entrant phone number:
Category:

Designers responsible for this submission (identify individual roles if appropriate):

I confirm that the attached entry meets eligibility requirements (paragraphs 1-4) and that stipulations of publication agreement (paragraphs 5-6) will be met. I verify that the submission is entirely the work of those listed on this form (or an attached list as necessary).

Signature ______________________________

Name (typed) ______________________________

Furniture Competition

Progressive Architecture

600 Summer Street, Stamford, CT 06904

Your submission has been received and assigned number:

Entrant:
Address:

(Receipt)
In the 1960's we developed energy efficient triple glazing options for our existing line of wood windows, patio doors, and entrance systems. Currently furnishing passive solar window and door units in projects across the U.S. and Canada.

The widest variety of sizes and styles in coordinated wood windows, patio doors, and steel insulating entrance systems in the industry.

Plus a complete wood window, sliding and hinged patio door line for the replacement market.

Five exterior finishes for the entire product line. In addition to our primed units, we offer four low maintenance exteriors; white Lifeshield (vinyl clad), Adobe Aluma Clad, white or adobe Thin Fin Trim.

"Naturally" they’re beautiful wood interiors. Weather Shield for energy efficiency and total building continuity.

We want you to know more about Weather Shield windows and doors. Let’s talk. Call the office of H.J. Koester, our Marketing Manager, at 715-748-2100, and find out why Weather Shield is your best choice.

WEATHER SHIELD
P.O. Box 309, Medford, Wisconsin 54451

Circle No. 414 on Reader Service Card
How you design with Bali one-inch blinds depends, of course, entirely on your point of view.
That's our point, though. It only depends on you. Because with Bali, you can be as ambitious as you want to be. No matter what shape your imagination is in. And regardless of your colors.
Here, a little Blind Imagination helped establish a very imaginative beachhead. An office built inside a geodesic dome structure, featuring triangular windows and custom cut Bali blinds.
It's clearly a case of applied geometry. While this office may also be a special case, we've always been especially good at figuring all the angles.
We've also added some new optional features to make your finished jobs look better. One-position cord lock, limited tilter and clutch tilter are all available.

We've even specified our blinds in a simple CSI format to permit ready reference for procurement packages. And we'll make these specs readily available to you.
So, specify Bali. We'll help your ambition soar.
Trust and the Big Apple

Only in New York and all on the same program at the Waldorf: Tammy Grimes, fresh from her new stardom in "42nd Street," Barbara Cook direct from her Carnegie Hall performance, the cast of the Tony Award-winning "Ain't Misbehavin,'" and the creators of the hit song "New York, New York" playing and singing it themselves. This extravaganza in early October wasn't a $1000-a-plate dinner for a presidential hopeful. It was the opening of the National Trust for Historic Preservation's 34th annual meeting, which set an all-time record with 2080 in attendance.

If the beginning, which was master-minded primarily by New York City Landmarks Preservation Commission chairman Kent Barwick and conceived and directed by Anthony Wood and David Framberger, got off with a glamorous and wildly enthusiastically received start, the rest of the meeting settled into serious business.

One of the first matters on the agenda was the presentation of the Trust's prestigious—and only—award, the Crowninshield. Chairman of the Board Carlisle H. Humelfine bestowed the honor on Drs. Ernest Allen Connally and William J. Murtagh. Dr. Connally is secretary-general of the International Council on Monuments and Sites and was recognized for his 13 years as head of the Office of Archeology and Historic Preservation, which was reorganized in 1978 into HCRS (Heritage Conservation and Recreation Service). Dr. Murtagh, who is currently director of the graduate program in Historic Preservation at Columbia University, was cited for his 13 years as keeper of the National Register of Historic Places.

In honor of the location of the meeting, eight New York City structures were announced by HCRS's Hope T. Moore for listing on the National Register. They were: The Surgeon's Court, the Chamber of Commerce, the Tiffany Building, Grace Church, the Henry F. Sinclair House, National City Bank, the Hamilton Fish House, and the Lorillard-Snuff Mill in the New York Botanical Gardens in the Bronx. In addition, the U.S. Postal Service announced the second series of stamps in the American Architecture series. The edition of four, designed by Walter Richards of New Canaan, Ct, includes the original building of the Smithsonian Institution in Washington, DC (James Renwick), Trinity Church in Boston (H.H. Richardson), Pennsylvania Academy of Fine Arts in Philadelphia (Frank Furness), and Lyndhurst in Tarrytown, NY (Alexander Jackson Davis).

Some good news at the meeting was that the Trust's membership has now swelled to 160,000 and that the organization is in the black for the first time. Some bad news discussed was Congress's cutting of historic preservation funds and the fact that the new Preservation Act of 1980, which continues reauthorization of preservation funding through 1987, contains a provision that owners must consent to their buildings being placed on the National Register. The new Trust president, Michael L. Ainslie, made quite clear the organization's opposition to that proposal.

The president's main talk during the meeting concerned the idea of preservation as the key to redevelopment of American cities. His three-point program for achieving this includes reaching out across all income groups and races to make preservation philosophy and techniques comprehensive, developing a much strengthened justification for preservation, and building a stronger national network of politically active preservationists. The days in New York left little doubt about his qualities for achieving these goals. [DM]
Schindler House:
Life as usual (officially)

Title to the 1922 R.M. Schindler house on Kings Road in West Hollywood passed in September from Mark Schindler and his children to Friends of the Schindler House (FOSH). The building now houses the Center for the Study of 20th-Century Architecture in Los Angeles.

Finding contemporary uses for historic houses is often problematic, but for the Kings Road house, this is not so; it continues to serve, as always, as a haven for the arts. In the 1920s, more avant-garde music was heard at the Sunday evening concerts than in all the philharmonics in the country. More Paul Klees were stashed in Galka Scheyer's rented guest studio than in any American museum. The house sparkled with ideas. Living spaces were ideally set up to stir young architects to new thoughts in the arts; notable came for an evening, a week, a month. During the McCarthy period, the house was one of the few places where the political left could openly meet. There were also some IRS men around, for Pauline Schindler regularly deducted from tax payments her share for the Vietnam war.

Little changed, not even during Pauline's absence for a few years, when the couple had separated and the house was legally divided. Upon her return, young architects soon set up little offices everywhere—in the garage, in a carport, in the guest studio, on a sleeping porch. When Schindler died in 1953, his two studio rooms housed a steady flow of striving architects, and the present occupant is also an architect, Bernard Judge, board member of FOSH and project architect for the restoration of the house to its 1930 state. Kathryn Smith, an architectural historian and a board member, has her office on one of the sleeping porches, or "sleeping baskets," as Schindler called them. At present, Mrs. Schindler's former studio acts as offices for a Watts Towers group and for an Architecture and Design Group supporting the proposed Museum of Contemporary Art on Bunker Hill.

Several years before Mrs. Schindler's death in 1977 at age 80, she explored ways to preserve the house with David Gebhart, Smith, Judge, and others; out of the talks came a grant of 1000 hours of legal consultation time from the UCLA-based Advocates for the Arts, and through this a legal structure was developed for acquisition of the house. The price was $200,000, with $40,000 deducted as a gift from Pauline and her son Mark Schindler. (The property was appraised this year at $650,000.) A garden party and lecture series raised $11,000, $7500 of which provided the down payment to Mark Schindler and his children, Ian, Eric and Margot, all preservation enthusiasts.

Two of the largest architectural firms in the city offered to form a consortium to buy and hold the property for an unspecified time while FOSH looked for funds, and this offer pended while FOSH applied for grants. In 1978, the State Office of Historic Preservation, under a National Historic Preservation grants-in-aid matching fund program, gave $50,000. In the next two years, funds from defaulting recipients increased this amount to $160,000. Previous to the windfall, a $15,000 National Endowment for the Arts grant went towards preparing plans to adapt the house for a contemporary purpose.

Now that FOSH has title to the house, a campaign has begun to raise funds for restoration. Meanwhile, the balance of the NEA fund has bought a new roof, because, as Frank Lloyd Wright said of the Millard house, "The rains came to surprise the roofs." [Esther McCoy]

The Redevelopment Agency has granted Trans-World Center exclusive rights to develop the superblock containing the café, and they have hired Skidmore, Owings & Merrill, who have proposed two commercial/office towers and a low-rise block of retail stores for the property.

The café is all that is left of a 1922 grand scheme that included a shopping arcade with stairs to a basement bowling alley and to the 8000-sq-ft café, designed in the King Tut style made popular by the contemporary discovery of his tomb. Prohibition put a crimp in the café's activities, and when the Depression closed it in 1937, the arcade and bowling alley went, too. The stairs were removed and the building was split into storefronts. With the main access closed, the Egyptian Café was like a tomb behind a false wall. Long forgotten, it has now surprised the city by its splendor. As Egyptology it is spurious, but as theater it is genuine; and Glendale is low on drama: architecturally, only Forest Lawn Memorial Park and two fine Lloyd Wright houses have provided excitement.

Climb the dark service stair off the alley, and at the top you find a burst of light: a 25-ft-high skylight runs the length and width of the building, held up by a double row of square fluted columns with capitals that never knew a book. A wide frieze rests on volutes that could support St. Peter's dome. At the four corners of the room, under lowered ceilings, are enormous scenes in oil—one illustrating the Sphinx and pyramids, another showing a view through arches of (maybe) the Bay of Naples and Vesuvius. The dining areas have lost some of the oils, but none of their exuberance.

Thrown down carelessly under the cruciform skylight are mechanical ducts: in scale with the columns and capitals, they seem, after a few minutes, to be Constructivist art forms! A hollowness resounds when you tap the columns—they are furred out and faced with the main access closed, the Egyptian Café was like a tomb behind a false wall. Long forgotten, it has now surprised the city by its splendor. As Egyptology it is spurious, but as theater it is genuine; and Glendale is low on drama: architecturally, only Forest Lawn Memorial Park and two fine Lloyd Wright houses have provided excitement.

Climb the dark service stair off the alley, and at the top you find a burst of light: a 25-ft-high skylight runs the length and width of the building, held up by a double row of square fluted columns with capitals that never knew a book. A wide frieze rests on volutes that could support St. Peter's dome. At the four corners of the room, under lowered ceilings, are enormous scenes in oil—one illustrating the Sphinx and pyramids, another showing a view through aches of (maybe) the Bay of Naples and Vesuvius. The dining areas have lost some of the oils, but none of their exuberance.

thrown down carelessly under the cruciform skylight are mechanical ducts: in scale with the columns and capitals, they seem, after a few minutes, to be Constructivist art forms! A hollowness resounds when you tap the columns—they are furred out and faced with 12-in. boards and nailed-on fluting. The café is a handsome movie set play-
EGYPTIAN CAFE STAIR RAIL.

wants to save; so does the Planning Commission, and so does the City Council. Some preservationists suggest that the skylight be reassembled on the plaza to link the two proposed towers, and most, like Mrs. Carole Dougherty, who lives in a Lloyd Wright house listed on the National Register, want to see the cafe rebuilt as a restaurant.

Trans-World is making a new feasibility study and has hired Cushman & Wakefield along with Skidmore, Owings & Merrill. The outcome is anyone's guess! [Esther McCoy]

WOES AND WINNING WAYS ON WILSHIRE

Los Angeles, like other American cities which experienced rapid growth during the 1920s and 1930s, has many splendid examples of Art Deco and Streamlined Moderne architecture. A good number of these stand along Wilshire Boulevard, beginning near MacArthur Park with the legendary Bullocks Wilshire building, and continuing five or six miles west to Beverly Hills. These structures create a distinct visual rhythm on the street. They are all less than 13 stories high and are built to the Wilshire street edge of the property line, with lower development or parking lots behind; each embodies a strong, geometric motif in its design.

In recent years, property values along the Boulevard have risen in response to the proposed installation of a subway line along the Wilshire corridor. As a result, there has been enormous pressure by property developers to demolish old buildings and erect the higher tower blocks now permitted by the city's building codes. Many important buildings of the 1920s and 1930s are under threat of demolition. Although attempts are now being made to establish a historic district along parts of Wilshire Boulevard, for some buildings it may already be too late. Two recent examples illustrate the problem and point to a possible solution.

THE PELLISIER/WILTERN STORY

The Pellisier Building/Wiltern Theatre represents one of the finest examples of zigzag Moderne architecture still standing in Los Angeles. The Building, completed in 1931, was designed by Stiles O. Clements of Morgan Walls & Clements; G. Albert Landsburgh, celebrated designer of the Orpheum theater circuit, created the Theatre. Situated at the busy intersection of Wilshire Boulevard and Western Avenue, the pioneering mixed-use development consists of a 12-story tower placed diagonally to the corner, and two low wings of retail shops which hug the edge of the street. Sweeping around the street corner at the base of the tower is the grand marquee of the Wiltern Theatre, a 2300-seat auditorium originally built as a showcase for Warner Brothers' new films.

The tower has truncated corners; it steps back diagonally toward the top, peaking, at its northeast corner, in a small rectangular form which was visible for miles when the building was first built. To express the tower's structure, sea-green terra-cotta panels rise vertically, interrupted periodically by horizontal panels decorated by an interlocking pattern of diamonds. For further emphasis, black metal surrounds the windows. The building is listed in the National Register of Historic Buildings and is also a Los Angeles historical monument.

In 1979, the owners, Franklin Life, having tried to sell the building for many years, applied for permission to demolish the structure in order to sell the vacant site. For more than a year, the future of the building remained uncertain; and during that time much damage was done to the interior. The owners auctioned off many of the Art Deco fittings, including a magnificent chandelier from the cinema. The pipe organ, said to be the largest west of the Rockies, was dismantled and placed in storage.

After tremendous public pressure and several "stays of execution," the Building and Safety Department declared that it would not issue a demolition permit without a full environmental impact report.

The building was eventually sold to Los Angeles developers Ratkovich Bowers, Inc., who have earned acclaim for their exceptional rehabilitation of other Art Deco masterpiece, the Oviatt Building near Pershing Square. They are now studying the feasibility of preserving all or part of the building, incorporating it into a larger mixed-use development. As the building, like so many others along Wilshire Boulevard, stands on the front portion of a large lot, the owner will probably plan a higher development behind it. Although there is no guarantee that the whole building will be preserved, Ratkovich Bowers, Inc., an astute developer with experience in rehabilitation, will certainly see the commercial and tax advantages in maintaining the old as a centerpiece for the new. [News report continued on page 28]
The Broadway story
The Broadway building may not be so fortunate. This building, originally designed by Stiles Clements for Coulter's Department Store, is reminiscent of Eric Mendelsohn's Schocken stores in Germany. The structure is reinforced concrete, and the finish is articulated cement plaster, embellished by continuous bands of glass brick which curve seductively around the corners. On the street side, a full-height glass brick panel, with a flat marquee suspended from it, forms the central entry facade. Inside, the ground floor sales area occupies a generous space, and has a mezzanine overlooking it; here, lighting is custom-designed.

Unfortunately, despite its obvious architectural merits, the building may be demolished. It was sold early in 1980, and its entry onto the National Register of Historic Buildings is still pending. The Cultural Heritage Board of Los Angeles, in a flagrant act of apathy, failed to summon up enough positive votes to save it. As of this writing, the Broadway faces imminent demolition.

Preservation possibilities
It would be a sad commentary on current architecture to say that replacements for such buildings will probably not exceed the originals in quality; but that is not the real issue. This part of Wilshire Boulevard is unique because of the height, massing, scale, and decoration of its buildings. No other section of the city has the same visual qualities; nor could we possibly build, today, a district in the same spirit. Yet these structures could easily be saved, and new development could proceed on vacant lots without sacrificing an existing one, especially as the State's own Urban Strategy, written in 1978 and endorsed by Governor Brown, clearly stated its intention to encourage revitalization of the inner city through rehabilitation and preservation. Furthermore, in an area close to the Civic Center, a 60 percent vacancy rate in historically significant buildings which could house the state offices.

Title Insurance Building conversion
Although it seemed obvious to many people that the state office building should be located in a retrofitted building along Spring Street, it took a great deal of political pressure to reverse the recommendation, which had already passed through the state legislature. Mayor Bradley, Assemblyman Torres, and Councilman Lindsay, representing the local community, urged the Governor to press the Department of General Services to investigate the possibility of rehabilitation combined with redevelopment. In subsequent studies, it became obvious that this alternative would be both socially and financially desirable. Welton Becket Associates, proposed architects for the new building, are now preparing schematics and a request for proposals for the conversion of the Title Insurance Building of 1933 and the construction of an 8-10-story building on the adjacent plot. The entire project will eventually house the Supreme Court, Appellate Courts, the Department of Justice, and a number of other state offices. The development will include commercial facilities at ground floor level, which will stimulate activity on the street and provide revenue for the state. As an integral part of the deal, the Community Redevelopment Agency will build a 1400-car parking structure near the site and will initiate a minibus service between South Spring Street and the Civic Center. Financial negotiations are still proceeding, but it is likely that the state will enter into a lease/purchase agreement with either the building's owner or a developer team.

Title Insurance Building
Preserving South Spring Street
After the big earthquake in 1971, the California state office building in Los Angeles, built in 1933, was demolished as an unsafe structure. Since then, state offices have been located in rented accommodations scattered throughout the city. Although the state always intended to consolidate these offices, the issue of a possible new structure became prominent in 1979, when the Department of General Services recommended that the State build a new 800,000-square-foot building in the Civic Center area of Los Angeles.

Hotly debated were the benefits of building a new structure as opposed to retrofitting an old one, especially as the State's own Urban Strategy, written in 1978 and endorsed by Governor Brown, clearly stated its intention to encourage revitalization of the inner city through rehabilitation and preservation. Furthermore, in an area close to the Civic Center, it was estimated that the state will enter into a lease/purchase agreement with either the building's owner or a developer team. Contributing to the building of the Title Insurance Building, the State will spur Spring Street's renaissance by locating an additional 3000 workers there. It will also gain a magnificent property, featuring marble-lined interiors, high ceilings, and interior and exterior foyers—priceless qualities almost impossible to duplicate today. [Barbara Goldstein]

“Ornament & Architecture, Reconsidered” by AIA
At a design conference held in San Francisco September 8 and 9, the AIA tried to come to grips with the newly respectable subject of ornament. Robert Geddes, Dean of Architecture at Princeton and Program Chairman for this event, introduced the subject by saying that “there has never been an architecture without ornament”—not even
Some things will be around a long time...

and remain maintenance-free!

**MICROZINC® 70**

factory-formed roofing systems

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.

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

Microzinc 70 is also available in factory-formed fascia systems, mansards, 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

Ball is a registered trademark of the Ball Corporation © Ball Corporation, 1980

Circle No. 398 on Reader Service Card
To Retrofit Is To Replace.
To Specify A Disco Window Is To Resurrect.

No other window does more to give the old, new life. Or to bring the beauty of the past in line with the energy and maintenance needs of the present.

It's no idle boast. Each of our window systems is custom engineered to compliment the architectural integrity of the buildings we retrofit. We take great pride in bringing to the past, the advantages of futuristic performance.

Thermal windows, like our T-2001, dramatically reduce air and water infiltration, eliminate drafts and cold spots, and assure superior sound attenuation. They literally create a new living environment in old buildings.

Because of their superior thermal efficiency (U value as low as .42) they also reduce HVAC requirements and can trim the cost of other phases of a retrofit project.

In every way, they continue to save over the "new life" of the building. Because of their operable design, they can be cleaned from inside. Fully enclosed, narrow slot venetian blinds are virtually maintenance free. Solid construction and anodized finish guarantee that there will never be rot, rust or a need to replace again.

If you're thinking of resurrection instead of mere retrofit, think of DISCO, the customized window system which reduces the energy and maintenance costs of the present without offending the beauty of the past.

Write or call today for a free copy of "WINDOWS," a question of cost vs. worth. Should you want to meet with a DISCO architectural representative or require aid with drawings or specifications, contact George Zinser, DISCO Aluminum Products Company, P.O. Box 1019, Selma, Alabama 36701, (205) 875-9283. Telex: (205) 875-3577, TWX: 810-744-3341.
Mies’s. Architect Frances Halsband of New York and Richard Oliver of the Cooper-Hewitt Museum had the unenviable task of reviewing the ornament of this century in two hours, a process that came into focus only during Oliver’s analysis of five key works by Bertram Goodhue.

The discussion, scheduled for the second morning, became more challenging on the second day, when the conference heard architects Thomas Beeby of Chicago, Allan Greenberg of New Haven, and Kenneth Frampton of the Institute of Architecture and Urban Studies, New York. Greenberg’s purposeful exposition on Classicism, which he both studies and practices, had an authority that comes only of scholarship.

As one who appreciates the integrity of systems of ornament, he said, “Recent attempts to take parts of the Classical vocabulary and glue them—or screw them—to the façades of Modern buildings...usually demean both the artifact and the building.”

Kenneth Frampton, too, was critical of today’s architects who “just apply detached and think they’re with it.” But he stressed that the issue of ornament could not be separated from the “issue of representation.” Adolph Loos, he pointed out, had not indicted the ornament of the past, but rather maintained that the invention of ornament was not possible in this period of history. Since we are unable to represent anything—with conviction—in our ornament, we have the option, which Loos himself pursued in practice, of using ornament from other periods in such ways that it is clearly seen as displaced quotations.

Aside from some thoughtful observations in brief “response” periods, local architects played little part. But they had, of course, designed and altered the settings for the afternoon tours, which were planned and introduced by architectural historian (and P/A correspondent) Sally Woodbridge. One afternoon’s tour took participants through the marble halls—Classical Revival, Art Deco, and Modern—of the city’s Financial District. The other tour encompassed the better known—and truly spectacular—ornamental treasures of its Civic Center and Palace of Fine Arts, then reached across the Bay Bridge to the Art Deco Shangri-la of the Oakland Paramount Theater (P/A, July 1974, pp. 50–57).

The conference dealt remarkably little with the kind of ornament peculiar to the Bay Area, the Craftsman, Mission, and Japanese influences that came together in the domestic work of Maybeck, Howard, and Morgan, and influenced such later figures as Wurster, Esherick, and Moore; but given the limited time, the emphasis on international modes was appropriate. For an audience that had largely abstained from ornament—and admits it now mainly as an ironic gesture—a two-day conference was, in any case, only a teaser.

Will citizens plan Oceanside?

Oceanside is an exception to the image of Southern California’s gold coast. While manicured million-dollar homes, pampered state beaches, and marinas exceeded with luxury compete for square inches elsewhere, Oceanside’s beach remains for the most part a sad strip of faded motels and cottages, raw parking lots, and cracked concrete on the edge of a rock strewn shore. Years of neglect and marauding Ma­rines, to take one example, have contributed to the deterioration of the coast near Camp Pendleton.”

Concerned with any used or abused beach, California’s Coastal Conservancy last spring waded ashore in this city of 78,000 persons about 35 miles north of San Diego to see if some plan could be developed to revitalize the area. In keeping with the agency’s commitment to community involvement, planning consultant Jim Burns of San Francisco was brought in to drum up interest among the citizenry and to involve them in a design process. It has been a noble experiment that has raised the design consciousness of the community and, not unexpectedly, the ire of some real estate interests and local politicians.

Burns called the process of citizen participation “Take Part,” and he organized it in four steps: awareness, perception, participation, and implementation. Each step involved a charrette and drew increasing numbers of local residents. Citizens also served on a panel of professionals and city and state officials to select a design team to give the process form. After a protracted review of presentations from 35 offices, they chose the team of Martinez-Wong, architects, Parc Tec landscape architects, and the Urban Collaborative, all of San Diego.

The plan produced in the citizen workshops calls for organizing a series of major and minor, active and passive, open spaces along the beach road, known as The Strand; limiting vehicular access; attracting small scale commercial enterprises; and tying all the elements together with appropriate signage, graphics, and banners of a nautical design. The workshop also proposed a new 2000-foot-long wooden pier projecting into the Pacific, which can accommodate a quality restaurant. A renovated amphitheater, an expanded community center, and a major water sculpture cascading down from the stabilized bluff overlooking the beach are core elements of the plan.

The proposal now goes before the Oceanside City Council, which has been feeling pressure from Watts Industries of Santa Monica, a private development firm that has a contract from the city’s redevelopment agency to draw up a plan for the entire downtown, including the potentially valuable beachfront.

Meanwhile, in keeping with the fourth step of the process, implementation, citizens who took part in the workshop have formed a task force to press for the plan developed with the selected design team. “It is now in the hands of the citizens and their supporters,” says Jim Burns, obviously pleased with the results to date. “I’m hopeful the citizens will prevail. After all, that is what the process is all about.” [Sam Kaplan]

Sam Kaplan is a writer on urban policy and planning on the staff of the Los Angeles Times.

Barnes receives Sullivan Award

Edward Larrabee Barnes has been named the fifth winner of the Louis Sullivan Award for Architecture presented every two years by the International Union of Bricklayers and Allied Craftsmen. The award consists of a silver medal and a $5000 prize. Previous winners of the award are Ulrich Frank­zen, Philip Johnson, Hartman-Cox Archi­tects, and Davis, Brody Associates. This year’s jury was composed of architects Lewis Davis, John Burgee, Arthur Erickson, Barton Myers, and Donald Singer; Associate AIA member Alon Parker, Dallas, and Harvard student Jonathan Foster.

[News report continued on page 36]
Up...and on time

Your Sargent hardware comes in... delivered right on time, just as your Sargent distributor promised. Up it goes, swiftly installed. And you appreciate, once again, the way Sargent helps get the job done right.

SARGENT
Division of Kidde, Inc.

It makes good sense to specify Sargent everywhere. From door closers to exit devices: from bored-in and mortise locks to auxiliary dead bolts. Not to forget the dependable Sargent Keso Security System.

Sargent, New Haven, Connecticut 06511/Sargent (Canada) Ltd.
Now, the name that offers you more in exclusive insulating sheathing systems is first to fill another important architectural need. It's a 1-hour fire-rated commercial system for rigid insulating sheathing—with load-bearing steel framing (see schematic above).

This unique new system employs high performance FOAMULAR insulation—the remarkable polystyrene produced by a patented vacuum/hydrostatic process. Remarkable because of a closed-cell core structure, continuous skin surface, good flexural and compressive strength, minimized wicking, plus resistance to water, vapor and decay. FOAMULAR insulation scores and snaps clean to expedite installation. Meets Federal Specification HH-I-524B and major building codes. Call your U.S.G. Representative. Mail coupon now!

The higher the R-value the greater the insulating power. Ask your seller
Extruded Polystyrene Insulation

Only UNITED STATES GYPSUM brings you this

1-HOUR FIRE-RATED SYSTEM!

Exclusive! New 2" USG® waterhead insulation screw.

Large head for greater holding power!

(A joint venture between subsidiaries of UNITED STATES GYPSUM COMPANY and CONDEC CORPORATION)

United States Gypsum, 101 S. Wacker Dr., Chicago, Ill. 60606, Dept. PA 118D

Send complete product information on PGA/MULAR® Polystyrene Insulation Systems to:

Name: __________________________ Title: __________________________

Firm: __________________________

Address: __________________________

City: __________________________ State: __________ Zip: __________

Phone: __________________________

Product currently not available in western U.S.

Circle No. 388 on Reader Service Card
Preservation has been described as the management of change, in this case alterations to the physical fabric of a community. While preservation problems the world over are remarkably similar—adaptive use, saving of great estates, renovation of housing for the poor, government aid, underutilization of old churches—the Dutch seem particularly attuned to accommodating change with constructive solutions, as a recent visit proved.

The Netherlands, a country roughly the size of Massachusetts and Connecticut, offers some startling preservation contrasts to the U.S. It has some 40,000 registered historic properties (that includes buildings to 1850; they are now surveying up to 1930 and expect to add 15,000 more to their protected list), while the National Register of Historic Places has roughly 20,000 in the U.S. The Dutch government preservation grants budget is currently $60 million; ours is $32 million.

In Holland, registered historic buildings are protected by law from demolition or alteration (interior or exterior) without permission. And in Downtown Amsterdam, the regulations almost preclude demolition for any reason. Thus there is a continuing reuse of available resources. But change is inevitable, and how the Dutch manage this can be seen in several current projects.

During the early 20th Century in Holland, a significant effort was made to improve the living conditions of the lower social classes. One result was the Amsterdam School, a very romantic style of architecture that “gave workers their own castles,” as Tjeerd Boersma, an editor of the Dutch architecture magazine, Wonen, puts it. This socialist approach to building, conceived and championed by Dutch architect M. de Klerk, was diametrically opposed to the functional, clean-line approach being taken by Rietveld and others at the same time.

The most exuberant example of the Amsterdam School is de Klerk’s housing project (1913-17) in the Spaarndammer section of Amsterdam. The brick buildings are constructed around a central courtyard that includes a chapel. Bizarre-looking bulbous projections at the corners of the buildings hold bay windows. A magnificent, but nonfunctional, tiled tower tops the roof. (It would no doubt not be permitted there today, but editors note the requirement of one percent of the construction cost for “art,” noting that the tower could be built as a sculptural element in the courtyard.)

This housing was difficult to live in because of deterioration in recent years and because of changes in life styles. Rather than construct new housing, however, the Spaarndammer complex was renovated last year for $2 million. Beset of all, the residents, who were moved to temporary housing during the work, were then moved back into their original units after they were completed.

They found a number of changes, not the least of which was in the floors. When the complex was built, the windows were high off the floor; today, however, people like to sit and look out the windows. How could this change be accommodated? Jon Jesserun, director of the Dutch Department for the Preservation of Monuments and Historic Buildings, said that his agency has given extensive consideration to such problems. One solution—altering the size of the windows—might be easy, but would seriously compromise the proportions of the building, one of the reasons for its being designated historic. Raising the floors inside, although that would change the interior configuration and would be more expensive, seemed a reasonable solution to a difficult problem, he said.

What happens with a building that is 300 to 400 years old, as many in The Netherlands are, and that has had a number of changes made to it over the years? Jesserun believes all changes should show, since they are a part of the building’s architectural history.

This position has put him in conflict with one restoration project in Amsterdam. The Dutch West-India House (1617), where the decision to found New Amsterdam, now New York City, was made in 1625, was burned in 1975 and is being restored (completion is scheduled for March 1981). The city’s civil marriage bureau will rent much of the space, but the board of governors’ room is to be a museum.

The size of the room’s windows had been changed since 1625, and while government preservationists thought that change ought to remain as part of the history, the foundation in charge of the restoration thinks otherwise. “It’s a great idea in theory,” says the foundation’s Guert Brinkgreve, “but this is too beautiful a room to allow that.” Both have a point and it is significant that the subject is being given serious consideration.

In Haarlem, a city east of Amsterdam, another project has drawn Jesserun’s eye. On the main Market Square just opposite St. Bavo, a 13th-Century church that is now closed awaiting a $15-20 million restoration, there is a row of 400-year-old buildings. Since the laws would not permit demolition of these buildings, a developer, backed by the country’s largest pension fund, is saving the front 20 ft and constructing a $25 million mixed-use commercial, office, and shopping complex behind. Brinkman Passage, designed by a Dutch and West German consortium, is to open in fall 1981.

There is a serious attempt to blend old and new elements in this huge project (6000 sq m of shops, 8500 sq m of offices, 22 apartments). The new elements, which are distinctly contemporary, are broken into comprehensible pieces and are similar in scale to the older parts. Despite this effort, Jon Jesserun wonders whether it is preserving...
The elevators were running before the building was finished.

Delivered on time. Installed on time. Operating ahead of time. That's the story of the 22-elevator installation at Clinical Science Center of the University of Wisconsin-Madison, one of the most ambitious building projects ever in the state of Wisconsin.

The huge building complex on a 45-acre site houses four major components of the University of Wisconsin Center for Health Sciences—Hospital and Clinics, Medical School's Clinical Departments, School of Nursing and Wisconsin Clinical Cancer Center. On a typical day 6000 patients, staff, students and visitors use the building, and enjoy quiet, efficient inter-floor transit on Dover Elevators.

Dover wants to be on your team by providing on-time elevator installations. Dover Corporation, Elevator Division, Dept. 669, P.O. Box 2177, Memphis, Tenn. 38101.
Bostonians on those streets outside the conference tended to be sarcastic about the Great Cities shindig in their midst. Representative Mel King, a black opponent of Mayor Kevin White in the last election, complained of gentrification and condominium conversion, pointing out, "A city is only great if it meets the needs of its people."

Though the five-month birthday bash featured several architectural and urban design exhibits, Bostonians have misgivings about the dozen highrises on the drawing boards, and about the rapid dwindling of the planning department (20 planners were dismissed in October).

The exhibitions included "Place Over Time," a permanent walk-through stage set of six sections of the city; two summer-long shows, "The Boston Tradition" illustrating the city's literary heritage, and "Gateway to the Sea: 350 Years of Boston Harbor"; and two autumn exhibits, "Lost Boston," at City Hall, which features photographs (from the forthcoming book by this writer) to remind birthday celebrants of the perils of destruction, and "Boston: Forty Years of Modern Architecture" at the Institute of Contemporary Art, a perfunctory examination of a star-studded cast, from Gropius through Breuer,

Jane Jacobs.

Big and little plans in Boston

"Make no little plans," said developer James Rouse. "Make no big ones," rebutted author and critic Jane Jacobs, in a series of addresses, at Boston's Faneuil Hall, introduced by Harvard's Urban Design Chairman Moshe Safdie as part of the Second International Conference on Urban Design. That event, as well as the Great Cities of the World Conference, took place in the last week of September, and they were the final major happenings in Boston's "Jubilee 350" birthday celebration.

Mayors and planners invited from three dozen cities, from Paris to Bangkok, paused during the week's seminars and lectures to hear these two articulate speakers voice opposing views on the issue of the hour: shall we create new settlements for the multiplying millions inch by inch, or on the grand scale?

Rouse, surrounded by his own Faneuil Hall Marketplace, insisted that only work as large as his projects in Columbus, Md, Baltimore, Boston, the South Bronx, and London "embrace all the parts and pieces" necessary to succeed, and "possess the magic to stir men's minds."

But the urbane pipe-smoking Rouse, accustomed to tangling with bankers, found more than his match in the gray-haired folk heroine with flowing wool dress and ready wit. Invited to respond to prepared addresses by Rouse and by Secretary of HUD Moon Landrieu, the author of The Death and Life of Great American Cities began by dismissing all supersized plans. "By the time it's possible to think up a big plan," she said, "the plan is middle-aged." Reducing a plan to a formula, furthermore, "stiffles alternatives" and loses the "love and imagination" of the original impulse, even when the inspiration is as successful as the nearby Quincy Market renewal. "Highways," continued Jacobs, "are big plans, while Boston streets, for example, illustrate the imbuing of so many little (beautiful) plans."

Saarinen, and Le Corbusier, to Rudolph (DES Building), Pei (Hancock Building), Johnson (Boston Public Library), and Gwathmey/Siegel (Knoll showroom).

And, as icing on the birthday cake, Entenmann's Bakery consulted with architects Graham/Meus for their reconstruction, in edible form, of the original Faneuil Hall. [Jane Holtz Kay]

Jane Holtz Kay, architect critic of The Nation, is author of Lost Boston, to be published this month by Houghton Mifflin.

[News report continued on page 42]
The ergonomic solution to space planning.
Carpeting of Antron® III resists dirt better, stays new-looking longer.

The secret: Unique hollow-filament fibers.

Antron® III nylon is the only carpet fiber with a rounded hollow-filament structure. So it resists dirt better than other nylon fibers. The smooth exterior shape of Antron® III minimizes dirt entrapment, and the hollow-filament structure scatters light to make dirt less apparent. So the carpet stays new-looking longer than ordinary nylon carpeting.

Antron® III is durable. Pile of Antron® III resists crushing and abrasion even in heavy-traffic areas. Keeps its fresh, new look.

Antron® III controls static shock. Gives you protection that won’t wear out or shampoo out—because it’s built right into the fiber.

That’s why Memorial Hospital of Phoenix used carpeting of Antron® III nylon to cover over 58,000 sq. ft. in its new building in Phoenix, Arizona. And why your next contract carpet should be Antron® III nylon.

Write for Specifiers’ Information Kit: Du Pont Company Room 37230 A Wilmington, Delaware 19898


Du Pont registered trademark for nylon fiber. Du Pont makes fibers, not carpets.
News report continued from page 38

Last movie houses shown in latest New York gallery

John Margolies, indefatigable chronicler of vernacular architecture, has recently completed a tour of all 48 contiguous states in search of endangered roadside design. A sampling of his photographs in the movie house category is on display, through Dec. 1, at The Lobby, 369 Lexington Avenue, New York (P/A, Aug. 1980, p. 40).

"Since idle amusement has never been overtly promoted by our culture," says Margolies, "the builders of early movie theaters used every architectural trick in the book to entice and seduce their potential customers—all of us." He quotes movie theater architect S. Charles Lee: "The show started at the street."

Margolies laments, of course, the passing of these buildings, some of which are being smashed just after—or just before—he reaches them with his camera. These buildings are "grand, exuberant gestures, made when downtown was alive." Now, in contrast, movies are shown at "anonymous cinder block Cinemas I, II, III, and IV on parking lots at the outskirts of town. The building no longer has to advertise the movie." Even if a downtown gets rehabilitated, the theaters are often destroyed: "People don't value humor in architecture." His surveys are timely, he feels, "because finally architects are beginning to be human again."

Margolies' photographs of "Resorts of the Catskills" were exhibited at the Cooper-Hewitt Museum in New York last summer (see P/A, Feb. 1978, pp. 46-51). His itinerant work has been supported by grants from the Guggenheim Foundation, the National Endowment for the Arts, and the New York State Council on the Arts, and the spring of 1981 will see publication of his book, "The End of the Road," on motels, gas stations, and roadside attractions. [JMD]

Designer's Saturday continues to grow

At least one showroom counted visits from more than 6000 architects and designers during Designer's Saturday, Oct. 3 and 4. High design dominated the introductions. What was introduced in terms of systems, either new or as additions to existing offerings, was geared to the increasing role played by desk computer terminals in American business.

Many of the new offerings of individual pieces were imports from European countries and designers, not all of them new but all new this year to the U.S. On the other hand, some were quite old, reflecting this era's serious interest in history. In addition to the Eileen Gray and Otto Wagner revivals earlier this year by Stendig and Thonet respectively, ICF introduced two pieces by Josef Hoffmann and a hitherto unproduced sofa by Aalto. Thonet also repeated its excellent sesquicentennial display of antique bentwood pieces.

Contemporary designs continued to explore the aesthetics of industrial components with perforated metal, plexiglass, metal-like finishes, and gridded surfaces. At the same time, other designs leaned toward anthropomor-
When your design calls for genuine cedar shingles or shakes, there's one sure—and easy—way to get consistent quality and appearance. Shakertown Siding. It's made of straight-grain #1 grade western red cedar shingles or shakes, permanently bonded to 8-foot-long plywood backing. There are no seconds, no grade falldown. And application is always straight and true, because Shakertown Siding is automatically self-aligning. You get the look you design into the job, every time.

What's more, Shakertown Siding goes up 3 times faster than individual shingles and shakes. No specialized labor or special tools are needed. And, in many cases, no sheathing or stripping. All major uniform codes permit Shakertown Siding to be applied directly to studs, using only one or two nails per stud. The result: a significant savings in time and labor costs over individually applied shingles or shakes.

Next job, specify Shakertown Siding. It's available in four textures with 7" or 14" exposures, even or staggered butt lines and matching pre-made corner pieces. Write us for complete product information and specification details.

Architect:
"To keep this home in harmony with its wooded surroundings, I wanted the natural beauty and texture of cedar shingles."
Alan Liddle, FAIA

Builder:
"I put them up the easy way."
Bruce R. Steel, President, Crown Pacific Corp.

The payoff.

Specify a Johns-Manville built-up roof and you're specifying the best possible protection.

For several good reasons.

First, we make finished roofing products in our own plants including roof insulation and roofing accessories, using many raw materials from our own mines. We control every step of production. For consistent product quality and performance.

J-M offers everything that goes into a built-up roof. A one-source supply for a complete package of systems, components and services.

J-M has the most complete Research and Development Center in the roofing industry. A unique capability for identifying and solving roofing problems before they happen.

J-M has a full-time staff of 12 field engineers and 95 commercial and industrial sales representatives. Their combined expertise forms a technical resource unmatched in the industry.

Then there's the Built-Up Roofing Systems Institute, sponsored by J-M. A one-of-a-kind training facility for the industry in good roofing design and technology.

Together they add up to a total built-up roofing capability that assures the ultimate payoff in performance and protection. And that's what a J-M roof is all about.

Find out more. Consult Sweet's. Or contact George Constantin, Johns-Manville, Ken-Caryl Ranch, Denver, CO 80217. (303) 979-1000.

For single-source built-up roofing systems.

Johns-Manville

Circle No. 345 on Reader Service Card
Laminated architectural glass.
How it spruced up this old library is a case for the books.

The restoration of Chicago's 1880's-vintage library has earned the architectural firm of Holabird & Root a coveted 1979 AIA Design Honor Award for the extended use of a building.

The design challenge was to revitalize the structure to meet modern functional standards while preserving its historic appearance. For this project, the glazing specified was laminated architectural glass, reinforced with a Saflex* interlayer of polyvinyl butyral by Monsanto. It was selected for many convincing reasons.

Safety is enhanced because tough, resilient Saflex absorbs and dissipates an impact. The strong adhesion of the interlayer to glass prevents injuries from flying or falling fragments.

Laminated architectural glass with tinted Saflex was used to reduce glare and to control solar heat gain. And it was easily fabricated into special insulated units to provide temperature and humidity control for an area containing valuable rare books.

It was important that the glazing chosen could be cut to fit on site or in the shop because the library's antique iron window frames were irregular in size and shape. Laminated architectural glass is easily cut to size with simple tools, impractical or impossible with other glazings.

An added benefit is sound attenuation. Laminated glass reduced the din of traffic from nearby Michigan Avenue. And there are no maintenance problems. Laminated glass can be cleaned as easily as ordinary glass without scratching.

If your challenge is renovating one of America's great old landmarks—or building a new one—there are a lot of convincing reasons to use laminated glass. Let us tell you about them. For more information and a list of the leading manufacturers of laminated architectural glass, featuring the Saflex interlayer, write: Monsanto Plastics and Resins Company, Dept. 804, 800 North Lindbergh Blvd., St. Louis, MO 63166.
News report continued from page 42

phism, often with a winking humor or even pop confrontation. Colors continue into the tertiaries, especially greens and pinks of extraordinary subtlety. The purples of last year are still with us as are the warm neutrals.

Local government paid homage to the contribution of the interiors held to New York City with a citation, accepted by Designer's Saturday president Herb Tillis of John Stuart International, from the Mayor's Advisory Council. [NM]

Mixed-use rehabilitation on the Denver frontier

Between the jostling highrises of Denver's core and the drab boundary of its railroad yards lies an extensive area of low-rise blockfronts that look something like Hopper cityscapes come to life. The potential of these long-neglected rows has now become apparent, and rehabilitators are moving in rapidly.

The image of an earlier urban order, ready to be recaptured here with little architectural intervention, is exemplified in one of the earliest reclaimed rows. Originally built as apartments over stores, these two-story buildings had become warehouses. Renovated as a row of two-story-and-basement condominiums in 1976 by Decker Associates, Architects, the project was the first to reintroduce dwelling units to this part of town. (Street level spaces can be either used by owner-residents or put into a commercial rental pool.) To enhance the prospect of living over the store, backyards were filled—rather tightly—with a pool and a tennis court served by a dressing-sauna-lounge wing along the side street. Hence the project's classy name: Blake Street Bath and Racquet Club.

The brick facades here, comparable to others on nearby blocks, required only cleaning (and discreet new dark aluminum windows) to bring out their proto-Post-Modern detail. At street level, however, a patchwork of wood-framed fronts was cleared away and replaced by uniform, recessed, dark-painted ones, which serve as foils for newly exposed cast iron columns. These slender shafts, with their pragmatically syncopated spacing, are very effective visually, by today's standards of restoration, but differ sharply from the original character of the buildings. At the back of the row, brick walls were painted light tan, and their regular recesses were filled in with steel balconies and spiral stairs linking apartments with recreational offerings below. [JMD]

History respected in Stanford reconstruction

Looking at its 79-year-old stone walls, you would never guess that the History Corner building—one of the structures in Stanford University's original Quad—was dangerously unstable only a couple of years ago. Damaged in the 1906 earthquake and only hastily patched up after it, the structure had become, in the words of one engineer, "a pile of bricks and stone which somehow had to be tied together" lest another jolt bring on disaster.

History Corner was not the first of Stanford's original buildings to be rehabilitated to meet seismic standards. But—appropriately enough for a history building—it shows much more respect than earlier instances for the original design, by H.H. Richardson's successors Shepley Rutan & Coolidge. In this case, reconstruction was not accompanied by insertion of new low-ceilinged stories or unsightly breaches of the tile roofs to squeeze more space into the attics.

The architects for the remodeling, a joint venture of Esherick, Homsey, Dodge & Davis with Stone, Marraccini & [News report continued on page 51]
The New Otis Elevonic 101 elevator system delivers fast, efficient, reliable performance and can save 30 percent in energy costs.

The Otis Elevonic 101 system gives a faster, safer, more efficient, reliable and comfortable elevator ride. And, it can reduce energy costs by as much as 30 percent. It's the result of three years of elevonics* engineering.

Easily reprogrammable, software-based microcomputers control all elevator operations—velocity, position, direction, car assignment, travel and waiting time, door operation, energy use and system diagnostics. As a result, average waiting time can be as much as one-third less than our best previous equipment. Car hoistway position is measured to $1/2^\text{o}$ and is continuously adjusted electronically.

A silicon-controlled rectifier (SCR) system, used to convert AC to DC to drive the hoisting machine, uses up to 30 percent less energy than a motor-generator set.

Installation time can be reduced by as much as 20 percent because system testing and fine tuning is done before shipment to a job site. Maintenance also is reduced by standardized computer components, multiplex wiring, modular circuit board design, and self-adjusting features.

If you want to learn how the Otis Elevonic 101 system can fit your next building project, call your local Otis office, or write for our booklet, "Everything You Wanted To Know About Microcomputer Elevator Control Systems...But Were Afraid To Ask." Send your request on your letterhead to Otis Elevator Company, Dept. 520, One Farm Springs, Farmington, CT 06032.

*Elevonics is the science of moving people and products through the use of advanced elevator and microelectronic technology.
"We build Oasis Water Coolers as if we were going to buy them."

"We try hard to put out the kind of product we would like to buy if we were the customer. We don't like to put out anything that isn't good. And will go to quite some lengths to avoid doing it," states L.P. Benua, our company President.

It's the philosophy that permeates every level of our company. (Our people believe in the products they produce. They are proud of what they are doing. It shows in every detail of design, in every step of manufacturing and assembly.) It puts meaning in the line at the bottom of our ad: Oasis. The water cooler that's built without shortcuts.

We believe that.
Ebco Manufacturing Company, 265 North Hamilton Road, Columbus, Ohio 43213.
Phone 614/861-1350.

Oasis®
The water cooler that's built without shortcuts.

New automatic wheelchair model ODP7WM-P shown above.
How to save our silos

What do you do with some old grain silos? That was the question facing the architects and developers who owned the original Quaker Oats Co. in Akron, Ohio. Their solution was deceptively simple: using diamond-tipped saws to cut holes in the sides and dropping floors in like poker chips, they created a hotel.

The retention of the building's original spatial character is all the more remarkable in that the structure behind the stone facades was entirely destroyed and rebuilt—in an intricately phased process. (Wood-framed floors, for instance, served as formwork for concrete slabs before removal.) The stone walls served as formwork and facing for sprayed reinforced concrete structural membranes applied to their inner surfaces, which are joined to a new internal system of columns and slabs. [JMD]

Now Scamp sound masking gives your "closed" office the privacy you deserve.

Just because you don’t have an open office doesn’t mean you’re not affected by noise such as typewriters, copying machines and the chatter of people using them. Even with your office door closed these sounds can seep through and hamper your work. No more! One or more decorative Scamp units for wall or ceiling, placed strategically in your office, can mask these sounds and provide the atmosphere for optimum efficiency.

The Scamp system provides speech privacy in most offices by generating a unique sound spectrum which masks unwanted speech, noise and its directivity without being intrusive itself. Scamps install quickly and easily and have music and paging capability.

Find out how Scamp can make a better working environment out of your office. Write or call us today. Also ask about Scamps for open office areas with dropped ceilings or high ceilings.

Control Electronics Co., Inc.
107 Allen Boulevard, Farmingdale, N.Y. 11735  •  (516) 694-0125
See 1980 Sweets Catalog Vol. #39 1 Acoustical Treatment

Circle No. 320 on Reader Service Card
Above: The Hilton conversion.  
Right: The original silos.

would take until now to open the hotel. In the meantime, however, they were able to reuse the factory section as a restaurant and shopping arcade.

Funding for the hotel came from private investors, the sale of industrial revenue bonds and a $1 million Urban Development Action Grant to Akron from the U.S. Department of Housing and Urban Development.

[Carleton Knight, III]

Factory becomes auction gallery

Sotheby Parke Bernet, the fine arts and antiques auctioneers, this September opened their new New York galleries devoted to the decorative arts. The architectural firm of Lundquist & Stonehill redesigned the four-story, block-long concrete building, which was constructed as a cigar factory in 1922. The new façade has gray Quebec granite, strips of 7-ft-high casement windows, and two 22-ft picture windows. Inside, each floor covers a one-acre area; the huge main salesroom is 3500 sq ft and is connected electronically with additional sales and exhibition rooms by means of computers, viewing screens, and an extensive security system.


A.A.S.L.H. Annual Meeting

The American Association for State and Local History held its 40th annual meeting in New Orleans, La, Sept. 6-10, 1980. Lead-off speaker was The Honorable Lindy Boggs, Congressional representative from Louisiana's 2nd District.

Representative Boggs, active in preservation and restoration work, is co-sponsor of a Heritage Bill—in which natural as well as cultural preservation is considered. The bill is presently in committee, but shows good signs of becoming law. The congresswoman stressed the link in the circle of knowledge which all civilized societies have as their heritage—and link of history. And now today, when one gallon of gas is used to make, deliver, and install only eight bricks, recognizing and utilizing our past, where buildings are concerned, is not only civilized, it's practical!

The Conference seminar's subjects included the preservation of Afro-American history, Energy Conservation and Management, and Historical [News report continued on page 56]
Now Paraline linear ceilings go where none have gone before.

The best test of a product is its ability to perform where others fail. Paraline ceilings are built better so you can specify them in more places than other linear metal ceiling systems.

Paraline ceilings are available in both low cost, high strength steel, or moisture and corrosion resistant aluminum.

Paraline ceilings are available in a wide range of colors and textures with either open or closed reveals.

If you need a fire-rated system, Paraline system is the only one you can buy. Paraline square edge pans have been shown to be three times stronger than round edge designs.

Paraline system's exclusive grid and locking design eliminates lift and lateral shifting in both positive and negative pressure conditions. You can install Paraline even in severe wind load areas.

At last. There's a linear ceiling that goes where your imagination takes you. Find out more. Talk with your Donn representative or write for full specifications.

Donn makes sense.
1000 Crocker Road
Westlake, Ohio 44145 • (216) 871-1000
DesignTex offers the most varied and unique selections of architectural wall coverings available. All designed for easy installation and maintenance. Every one in stock, most with paper backing. Plus our soundly engineered Acoustex™ foam base for environmental noise control. Put us up against the wall. And get the best of us.
Societies and Museums, and new technologies of preservation including the preserving of architectural materials as well as records. The A.A.S.L.H., located in Nashville, Tn, provides guidance in a young and expanding field. [Edward D. Levinson]

**Restoration/solar conversion**

In the conversion to offices of an old brick warehouse (used temporarily as a university library) and fire station in Detroit, John Stevens Associates, architects, restored the original east façade and transformed the south elevation by applying a sleek, neat mirror glass and steel beam cladding system. The design

---

**Granite.**

**The best in first impressions.**

*The first impression is the important one. Granite can make that impression more vivid than any other building material available. That's why Motorola, Incorporated selected Cold Spring's Texas Pearl for their corporate headquarters in Schaumburg, Illinois.*

Granite affords the architect a resource from which he can create a building that reflects an image of quality...a corporate image. For lasting first impressions, specify Cold Spring Granite.

For more information, plus a free copy of our 16-page, full-color catalog showing all 18 Cold Spring colors available, call toll free 800-328-7038. In Minnesota call (612) 685-3621, or write to the address below.

**Cold Spring Granite Company, Dept. PA-11** 202 South 3rd Avenue, Cold Spring, MN 56320

Circle No. 316 on Reader Service Card
Everyone knows Riviera™ Blinds by Levolor. But there's more from Levolor. Much more. Levolor Ceiling Systems for unsurpassed beauty and sound control, ideal for renovations—available in a hundred colors, many configurations. Duvinage Spiral and Circular Stairs—the ultimate in quality for 80 years, custom built to your specifications. Levolor Galaxy™ Sun Controller Blinds for skylights, hard-to-reach windows, extra-large expanses of glass. For windows, ceilings, stairs, sun control, Levolor has a system designed for your needs.

Send for details. Today.
High interest rates, rising building and investment belt-tightening are but we do have the answer to your

**Tuffak**

the cost effective

**TUFFAK CM-2 is cost effective because:**

- It's virtually unbreakable, so you don't have to worry about breakage problems.

- It's abrasion resistant, so that you can clean it without worrying about scratching.

- It's chemical resistant, so you don't have to use any special cleaners or be concerned about the effects of airborne dirt and chemicals.

- It stands up to the blazing summer sun with its damaging ultraviolet rays, as well as to rain, sleet, hail and snow – and still retains its optical clarity over a long period of time.

**Durable, clear, hard coating**

TUFFAK CM-2 sheet has a durable clear, hard coating that provides the maximum protection against these "other" punishments that window glazing is subjected to, while the standard polycarbonate substrate takes care of the big problem... breakage.
costs, increasing liability claims, problems we can’t solve...

window glazing headaches:

CM-2
COATED POLYCARBONATE SHEET

glazing material

“We installed TUFFAK CM-2 because we wanted a material that was not only vandal resistant, but one that would be weatherable and easy to maintain”.

Joseph G. Koehler, Principal
Upper Moreland Junior High School
Willow Grove, PA

Meets safety standards
TUFFAK CM-2 meets all the requirements of a safety glazing material as defined by the Consumer Product Safety Commission’s Architectural Glazing Materials Safety Standard (16 CFR 1201), Categories 1 and 2, and the requirements for light transmitting plastic under building codes.

Get the facts before you buy
CIRCLE THE READER SERVICE NUMBER before you buy or specify a window glazing material to solve your breakage or vandalism problems and get all the facts on TUFFAK CM-2. Other polycarbonates may be as tough, but none are more durable or more cost effective!
News report continued from page 56

Calendar

Conferences
Nov. 2-4. Student Design Rally, Institute of Business Designers, Grand Rapids, MI. Write Box 15747, Columbus, OH 43215.


Nov. 6-7. Conference on Foundation Design Education, Boston. Write CFDE, Program of Continuing Education, Massachusetts College of Art, 364 Brookline Ave., Boston, MA 02215.


Nov. 9-14. 35th IFHP World Congress on Community Planning and Development, Jerusalem, Israel. Contact IFHP, Congress Department, Wassenaarweg 43, 2596 CG The Hague, The Netherlands.


Nov. 15. Society of Commercial Archaeology annual meeting, Office of Venturi, Rauch & Scott Brown, 4236 Main St., Manayunk, Philadelphia, PA 19127. Contact Steven Izenour or Frances Hundt at the address above for information.


Nov. 22-25. American Society of Landscape Architects annual meeting and exhibit, Fairmont Hotel, Denver. Contact ASLA, 1900 M St. NW, Suite 750, Washington, DC 20036.


Exhibitions


Competitions


Course applications

Personalities
William L. Ensign, FAIA has been appointed Assistant Architect of the Capitol and Director of Architecture, Washington, DC.

Virginia Dajani has been offered one of eight planning and design Loeb Fellowships in Advanced Environmental Studies at Harvard University. Ms. Dajani is associate director of the Municipal Art Society and is editor of The Livable City, in New York.

Peter Stamberg, architect and furniture designer of New York, has been named director of design and development at Monarch Furniture, based in High Point, NC.

Michael Graves, architect, of Princeton, NJ, has been awarded the 1980 Arnold W. Brunner Memorial Prize in architecture from the American Academy and Institute of Arts and Letters.

[News report continued on page 64]
New independent tests prove:
Halsey Taylor energy efficiency delivers the lowest life cycle costs.

ETL Testing Laboratories, Inc., Cortland, NY, an independent research and testing lab, recently evaluated comparable models of the four leading water coolers. Each was purchased from distributors’ stocks without prior adjustment. The new generation Halsey Taylor water cooler was found to have the lowest life cycle costs of all. Lower than Sunroc, Elkay, and Oasis. Even in smaller buildings with just a few units, the savings can amount to thousands of dollars.

Ask your Halsey Taylor representative, or write for a copy of ETL’s Report and our cost comparison details from Energy Department, Halsey Taylor, Route 75, Freeport, IL 61032.

It’s a waste of energy specifying anything but...

Halsey Taylor

ELKAY $1241
OASIS $1123
SUNROC $1726
HALSEY TAYLOR $894

saves more than $800 over highest competitive life cycle costs

ETL’s test results used ARI specification #1010-78 for schools, hospitals, and offices (40 hours per week usage) and a Halsey Taylor life cycle cost formula.
Four comparable units were tested: Oasis ODP7M, Elkay EWA-8, Sunroc, NSW-8, and Halsey Taylor WM8A1.
Energy costs. Life Safety Codes. Better security. Visual appeal. Building costs. Locations. These are just a few of the reasons why there's a remodeling boom happening in America these days. Remodeling in the 80's means more than just a pretty face. Building revisions need to work their way down to the bottom line. Fast.

Since 1906 Kawneer has been helping buildings extend their useful and profitable lives. That's why, today, Kawneer is well prepared to provide your remodeling project with building tools that can help you comply with revised codes, provide better security, improved energy efficiency, and create a handsome, new exterior image. Here's how we can help:

**Energy Savings**
Long before energy costs were a factor, Kawneer pioneered thermal breaks for aluminum framing members. Energy loss was reduced, convection drafts were diminished, and unsightly condensation damage was virtually eliminated.

Recent thermal products from Kawneer include a second generation design thermal break, a retrofit insulating window which saves the expense and inconvenience of total window replacement and a revolutionary new entrance weather stripping system. Kawneer's new aluminum Thermal Entrance System complete with functional hardware, utilizes a thermally-clad door with insulating glass and is hung in a thermal frame assembly to help shut out energy losses.

Kawneer can also provide your building with a wide range of framing systems, windows and entrances, every one designed to help you keep your energy to yourself.

**Life Safety Codes, Security and Accessibility**
Many of yesterday's buildings are actually out of compliance with today's Life Safety and Uniform Building Codes, not to mention societal needs. For these reasons, Kawneer has developed systems such as Panic Guard® Entrances, which help prevent illegal entry through paired panic entrances, and Paneline™ handsome, concealed rod
exit devices that don't get in
the way of people. For
accessibility for handicapped
persons, Kawneer Series 800
Barrier-Free Manual
Entrances comply with
varying state and local codes
and also meet the demands
of normal traffic flow.
Another innovation is the
Controller™ safety flush bolt
system in which paired
entrances can have the
safety required by building
codes without sacrificing the
security afforded by the
traditional 3-point locking
system.

**Good Looks**
Kawneer offers a range of
products known exclusively
for their ability to transform
dull, unexciting facades into
bright, contemporary visions.
Some of these are:
Shadowform, a uniquely-
designed facing system with
nature as its theme; and
I-line Entrances, a collection
of designer entrances which
utilize narrow aluminum
sightlines to create a sleek
appearance.

Increased business. More store traffic. Improved property values. Remodeling
has always paid good dividends, but today, it's much more than skin-deep.
That's why it's important to know who can provide you with products that can
satisfy all the reasons you need to remodel. Kawneer.
For more information, write Kawneer Company, Dept. C, 1105 N. Front
Street, Niles, MI 49120

**Kawneer**
**The designer's element**

Circle No. 347 on Reader Service Card
The Biltmore Complex restoration, Coral Gables, Fl. Architect: Ferendino/Grafton/Spells/Candela, Coral Gables, Fl. This 19.8-acre estate, developed in 1926 as a posh hotel and country club, is now being restored with the help of the original architectural drawings. In the spring of this year, the Country Club building was dedicated for use, with the Metropolitan Museum and Art Center occupying 85 percent of the space. Galleries are located in the old ballroom and casino, a children's museum and auditorium on the lower level, an art school on the first floor, and a sculpture display on the terrace. The remaining space houses a public restaurant, a pro shop, and locker rooms for the golf course users.

The architects attempted to duplicate the original materials as closely as possible, including matching the handmade clay roofing tiles and the color of the original exterior paint; the ballroom's elaborate east window was restored using the 1924 specifications as a guide.

The Miami-Biltmore Hotel Tower, focal point of the site, is now being considered for conversion to apartments or condominiums.

University of Virginia, Charlottesville, Va. Architect: Frederick D. Nichols, Charlottesville, Va. Thomas Jefferson's "academical village" is showing signs of age. With its central Lawn bordered by two rows of student rooms and pavilions (the original professors' homes) connected by arcades, and the two Ranges beyond, which accommodate additional student rooms and Hotels (the original dining rooms) needs help. Wooden shutters are warped and peeling, shingles are loose, bricks are beginning to crumble, and on the south end of the west Range, roof beams are rotting extensively. In the rehabilitation, the original drawings are being followed to construct new cornices and shutters, hinges are handmade, and old brick is being reused. The only changes will be in the use of fir instead of pine for the cornices, nails instead of wooden pegs in the outlooks, and copper rather than tin for flashings. Costs are estimated at $800,000, and application for funding has been made to the Virginia Historic Landmarks Commission.

Playhouse Square Development, Cleveland, Oh. Architects: Dalton, van Dijk, Johnson & Partners, Cleveland, Oh. In 1970, the threat of the wrecker's ball galvanized citizens to fight the demise of Cleveland's Playhouse Square, a theater district developed in the early 1920s. The Playhouse Square Foundation was set up, first, to demonstrate that Clevelanders would come downtown for first-class entertainment, and only then, to solicit money for physical restoration. The core of the six-block area is formed by the State, the Ohio, and the Palace theaters, all recently named to the National Register of Historic Places. The first two theaters were designed by Thomas Lamb, and the third by the Rapp Brothers, and will accommodate, [News report continued on page 68]
How to combat worker fatigue and be rewarded with greater productivity

Productive people are active and require seating that is both comfortable and supportive in all work positions.

Vertebra seating is designed for active people. It reacts automatically, without adjusting or manipulating levers, to meet the worker's immediate needs.

Simply relax... the seat slides forward while the backrest tilts back; sit up... and it adopts an upright position; lean forward... and seat and backrest tilt downward. Because mechanisms move independently, Vertebra provides maximum weight distribution and lower back support for almost anyone in the most comfortable positions. These features are available in a broad line of seating for the office.

Vertebra is the most advanced seating system.
How do you make a conventional steel-framed building unconventional?

The Riviere du Loup Building, Greenwich, Conn., offers one solution—in steel.

Architects Johnson/Burgee achieved the desired esthetics for this three-level structure by introducing a concave facade to what otherwise would have been a routine rectangular office building. In the process, they satisfied building code restrictions for both height and area.

Cost studies point to steel

Both structural steel and reinforced concrete framing schemes were investigated for the three-story structure. Bethlehem's District Office Sales Engineer provided a quantity summary and a cost estimate based on the steel framing scheme prepared by the consulting engineers, DeSimone + Chaplin & Associates.

Owner: Riviere du Loup Newsprint, Ltd., Greenwich, Conn.
Bethlehem supplied most of the structural steel for the project.
In the final evaluation made by the construction manager, Louis Lee, Inc., structural steel proved to be the least expensive framing method. The engineers explained, "Steel framing proved to be more efficient because we were able to minimize the construction depth of the floors by using shallower beam depths."

The structural system

The structural system consists of a roof and the three steel-framed floors. The design is based on a nine-foot module. A ramped, underground garage provides parking for 60 cars.

The floor system is composed of a 2½-in. concrete topping poured on a 2-in.-deep composite steel floor deck, supported on structural steel filler beams. Lateral loads are resisted by X-bracing provided in the elevator shaft walls and in the stair walls of the building.

Two types of torsional considerations are involved. First, the exterior face of the stone cladding on the north, west, and south faces is 2 ft. 3 in. outside of the column centerlines. Second, the curved edge beams at the east face are subjected to torsional loading.

On the curved face, the curved edge beams are restrained from excessive rotation by the use of additional supports. The spans of the curved beams are limited to 21 ft.

The stone cladding, interrupted by a glass panel at each level, is supported by a continuous lintel, hung from the floor above by hanger angles spaced at a maximum of 4 ft.

Preliminary framing analysis available

Let us help you determine the most economical steel frame for your next building. Our District Office Sales Engineer and Home Office Buildings Group can provide you with a detailed budget cost study on the total framing system package. There's no fee or obligation involved.

Our Sales Engineer will be happy to give you more details on this program or on any of the other technical services we offer. You can get in touch with him through the Bethlehem Sales Office nearest you. Bethlehem Steel Corporation, Bethlehem, PA 18016.

Give us a call:
Atlanta (404) 394-7777
Baltimore (301) 685-5700
Boston (617) 267-2111
Buffalo (716) 856-2400
Chicago (312) 861-7700
Cincinnati (513) 984-4615
Cleveland (216) 696-1881
Detroit (313) 336-5500
Houston (713) 659-8600
Los Angeles (213) 726-0616
Milwaukee (414) 272-0835
New York (212) 688-5522
W. Orange, N.J. (201) 736-9770
Philadelphia (215) 561-1100
Pittsburgh (412) 281-5900
St. Louis (314) 726-4500
San Francisco (415) 465-6290
Seattle (206) 938-6800
Ask for Sales Engineer
WASHROOM DIRECTIONS are reference manuals designed to guide specifiers in selecting the right Parker equipment for use in each of a wide variety of washroom categories. The stainless steel units in this washroom were taken from a WASHROOM DIRECTIONS checklist of essential and optional space-saving units for use in a men's washroom in an office building. They include:

- MULTI-PURPOSE UNIT (paper towel dispenser, mirror, shelf, soap dispenser) — No. 614
- WASTE RECEPTACLE— No. 656
- TISSUE DISPENSER— No. 611

If space-saving units are not required, WASHROOM DIRECTIONS also provides checklists for recessed, surface-mounted, barrier-free, and concealess washroom designs. Send for your WASHROOM DIRECTIONS and find out how easy specifying Parker units can be, whatever direction your washroom plans are taking.


WE FIT IN
STAINLESS STEEL UNDER COUNTER LAB REFRIGERATORS AND FREEZERS

UC-5-BC refrigerator has a blower coil cooling system with automatic off-cycle defrosting and condensate evaporator in condensing unit compartment. Two adjustable stainless steel shelves are provided.

UC-5-F-BC freezer is equipped with automatic timer electric defrost. Capacity—5.4 cu. ft. (155 ltr.)

UC-5-CW* refrigerator with cold wall cooling system is equipped with push-button defrost, automatic reset and condensate evaporator. Capacity—5.4 cu. ft. (155 ltr.)

UC-5-F-CW* freezer is equipped with manual hot gas defrost. Capacity—4.6 cu. ft. (130 ltr.)

UC-5-CW-E refrigerator has the same interior features as the UC-5-CW but modified to make it totally explosion-proof. Capacity—4.9 cu. ft. (140 ltr.)

UC-5 features a two-tray ice cube cooling system with manual defrost and stainless steel defrost water tray. The cooler section has two adjustable stainless steel shelves. The entire UC-5 series features polyurethane insulated thin wall construction and air-tight neoprene thermo-break door seals. Capacity—5.4 cu. ft. (155 ltr.)

Jewett also manufactures a complete line of blood bank, biological, and pharmaceutical refrigerators and freezers as well as morgue refrigerators and autopsy equipment for world wide distribution through its sales and service organizations in over 100 countries.

Refer to Sweet's Catalog 11.20/J for quick reference.

Circle No. 344 on Reader Service Card
Energy conservation...architectural drawing...construction materials...design considerations...you'll find it all in

The architect's and planner's book club

The Library of Urban Affairs

(Publishers' Prices shown)

34267. ARCHITECTURAL PRESENTATION TECHNIQUES. William Wilson Atka. Guide to drawing, scale modeling, photocopies, and even printed brochures. More than 300 illustrated examples. $75.00

44790. ENCYCLOPEDIA OF ARCHITECTURAL TECHNOLOGY. Pedro Guztier. The long and rich story of architecture, detailing every technique, plan, and material that shaped building through the ages. $24.95

42269-2. ARCHITECTURAL ILLUSTRATION. Paul Stevenson Ole. Shows how to predict with photographic accuracy the future appearance of any structure. Counts as 2 of your 3 books. $34.50


38175. CITY ZONING: The Once and Future Frontier. Weaver and Batschek. Discusses how planners find zoning a helpful device for reviving the urban core. $16.95

36965. THE BUILDERS. Martin Mayer. "A penetrating, provocative look at the nation's largest, most complex industry."—N. Y. Times Book Review. $15.00

4335-2. THE ARCHITECTURE OF PRECAST CONCRETE. A. E. J. Morris. Describes the dramatic progress of the material from the early beginnings to today's beautiful shapings to future directions. Counts as 2 of your 3 books. $42.50

43433. ARCHITECTS ON ARCHITECTURE: New Directions in America. Paul Heyer. 40 leading architects reveal their ideas and design methods. $24.95

43440. THE ARCHITECT'S GUIDE TO ENERGY CONSERVATION: Realistic Energy Planning for Buildings. Seymour Jarmul. Includes numerous case studies. $88.50

40403-2. CONSTRUCTION MATERIALS: Types, Uses, and Applications. Caleb Hornbostel. Counts as 2 of your 3 books. $35.00

42019. DESIGN COST ANALYSIS FOR ARCHITECTS AND ENGINEERS. Herbert Suttorne. $85.95

53925-2. HIGH-RISE BUILDING STRUCTURES. Wolfgang Schollauer. Counts as 2 of your 3 books. $25.95

42098-2. DESIGNING FOR LONG-TERM CARE FACILITIES. Ananyi and Goldman. Complete with case studies. Counts as 2 of your 3 books. $29.50

49485. FURNITURE DESIGNED BY ARCHITECTS. Martin Page. Generously illustrated. $25.00

46200. ESTIMATING AND COST CONTROL IN PLUMBING DESIGN. Miller and Gallina. For both plumbing and fire protection, describes how to formulate the cost effect of each design choice in the planning stages. $16.95

69343. PLANNING APPLICATIONS OF REMOTE SENSING. Kristina Ford. $20.00

42509-2. DODGE CONSTRUCTION SYSTEMS COSTS 1980. Edited by Percival E. Pereira. Complete cost data on all systems and assemblies for buildings of various types: the best way to cost out design decisions in just minutes! Softbound. Counts as 2 of your 3 books. $39.80

72991. PUBLIC RELATIONS FOR THE DESIGN PROFESSIONAL. Gerre Jones. Tells everything you need to know to showcase your practice—from press releases to copywriting, audiovisual presentations, and much more. $88.50

34320. ARCHITECTURAL WORKING DRAWINGS: A Professional Technique. Mario L. Thomas. $17.50


67160. PARK MAKER: A Life of Frederick Law Olmsted. Elizabeth Stevenson. Profile of American landscape architect's founding father. $17.95

62795. MIXED LAND USE: From Revival to Innovation. Danzie Proctor. Heavily illustrated. $18.00

80748. STREETS AHEAD. The Design Council. Packed with on-the-spot photos, describes opportunities for enhancing the street scene. $24.95

58115. LEGAL PITFALLS IN ARCHITECTURE, ENGINEERING, AND BUILDING CONSTRUCTION. Second Edition. Nathan Walker et al. $17.50


40270. CONSTRUCTION SPECIFICATIONS WRITING. Harold Rosen. Covers everything from the impact of systems building to the use of computers. $19.50

37384. CENTRAL CITY MALLS. Harvey M. Rubenstein. Guidelines to mall development of all kinds, with tips on feasibility, design, street furniture, plants, and more. $22.50

45480. ENVIRONMENTAL KNOWING. Moore and Golemb. An excellent compendium of the latest social science findings on how people shape their impressions of the environment. $25.00

36985. BUILDING REGULATIONS: A Self-Help Guide for the Owner Builder. Edmond Vitale. $11.95

If the reply card has been removed, please write to The Library of Urban Affairs Dept. A-108, Riverside, N.J. 08075 to obtain membership information and an application.
We're making a major investment in our capabilities to meet the demand for ACOUSTONE® AURATONE® and USG® gypsum ceilings. We're acting now to boost production to be ready for your increased future demand.

At the same time, we're accelerating the creation of beautiful new tiles and panels with innovative colors and patterns. Our engineers are developing new features to add to appearance and performance, simplify installation and provide needed accessibility.

A program of this magnitude takes time to implement so we are phasing in the elements as market conditions indicate your needs. And we will be telling you about it every step of the way.

With a broad selection of products in every price category, it's practical for you to specify a U.S.G. sound control ceiling for all your projects. Our goal is to see that you get the best-looking, best-performing ceilings it is possible to make, delivered in the best possible time to keep your project always right on time.

Circle No. 411 on Reader Service Card
Acoustic Panels and Tiles

Left, Acoustic Yellow Frosted ceiling.
Right, Acoustic "F" Fissured pattern ceiling.
Tougaloo College Collection, Mississippi Museum of Art.

Prestige plus noise and fire resistance
ACOUSTONE
Acoustical Panels and Tiles

The classic, stone-like elegance of ACOUSTONE ceilings is for real, for each tile is cast mineral fiber. Five distinctive patterns are now standard. They come 3/4" thick and from 12x12" to 2'x4'. See your U.S.G. representative for the superior specifications ACOUSTONE ceilings offer, or write Sound Control Products, 101 S. Wacker Dr., Chicago, Ill. 60606, Dept. PA1180E.

UNITED STATES GYPSUM
BUILDING AMERICA

Circle No. 389 on Reader Service Card
News report continued from page 68

Boardwalk, Boulevard," showing the chang­ ing face of the famous, fantasy-inducing re­ sort town, Atlantic City. Casino develop­ ments have not all been sympathetic to the historic character of the city and its boardwalk, but the Claridge Hotel and Casino project, on Brighton Park at the Boardwalk, intends to retain the existing structure, with an addition for casino and pool facilities. Anodized aluminum frames will replace all exterior wood sash; mechanical and electrical systems will be totally re­ placed; a curved glass entrance canopy will be added; and the interiors will be redone, retaining the "design flavor" of the area, in­ cluding a "stylistic adaptation of the English Brighton Pavilion" in the hotel lobby. Com­ pletion is expected in early 1982.

The Pacific Lumber Company Headquar­ ters, San Francisco, Ca. Architects: Environ­ mental Planning & Research, Inc., San Fran­ cisco, Ca. This building, the first to follow the design guidelines imposed in 1972 when the mid-19th Century Jackson Square was declared a historic district, aims to be a "good neighbor" sensitive to its surroundings, not a historic imitation. It is massed to create a transition between the adjacent financial dis­ trict and its lower Jackson Square neighbors, with a brick-surfaced diagonal (bulk-re­ ducing) tower with landscaped setbacks at heights reflecting adjacent rooflines. Diag­ onal window bays are self-shading, reducing heat gain. At ground level, a 3-story public con­ course diagonally connects the two cross streets and gives access to the retail spaces. Com­ pletion is scheduled for next autumn. [News report continued on page 76]
Energy saving can look cool in California.

Massive insulation placed on exterior walls got this railroad’s retrofit off on a fast track.

Architects Albert C. Martin & Associates faced one of the largest and most complex retrofit jobs in Southern California when the Santa Fe R.R. took over 3 buildings as their Western Regional Headquarters. The challenge was to retrofit with an emphasis on energy saving. And to accomplish the whole project within a year!

Insulation plans for two buildings called for an exterior system to conserve interior space. And the choice was Dryvit Outsulation. Why Dryvit? Because Dryvit not only met California’s Title 24 energy and insulation code, but it offered many additional advantages.

Dryvit went up fast. The lightweight 3" thick insulation boards on the outside were easy to work with and bonded directly to the existing walls. The Quarzputz Finish, unlike stucco, promised to be crack-free under climate changes. At the same time, Dryvit offered massive exterior insulation that sealed thermal bridges, equalized outside temperature thus minimizing thermal stress.

The Santa Fe Railroad was on the right track with the Dryvit System. Objectives of handsome buildings and energy conservation were met. On time and at a competitive cost.

Let us prove how Dryvit can work for you. Call or write, stating application: new construction or retrofit.

420 Lincoln Avenue, Warwick, RI 02888 (401) 463-7150 • Plant Locations: Warwick, RI and Tulsa, OK

Circle No. 324 on Reader Service Card
Wainwright State Office Complex, St. Louis, Mo. Architects: Team Four Inc., St. Louis, Mo; Hastings & Chivetta; Mitchell/ Giurgola, New York, NY. Louis Sullivan's 1896 Wainwright Building will be totally rehabilitated in this project to consolidate State offices and to reinforce the development of Downtown St. Louis. New construction on the rest of the site will be three stories high and L-shaped, leaving a variety of public open spaces at ground level. The competition-winning preservation and expansion scheme (P/A, Dec. 1974, p. 22) is now proceeding after a long delay (P/A, April 1978, p. 45), and completion is expected in 1981.

The Cyrus McCormick Mansion Condominiums, Chicago, Ill. Architects: Nagle, Hartray & Associates, Chicago. The McCormick Mansion, built in 1892, is the only remaining building in Chicago designed by Stanford White of McKim, Mead & White. The restoration follows the Chicago Landmarks Commission guidelines, retaining the exterior features of the building with its five stories of pale reddish stone and buff-colored brick, elaborate terra-cotta trim, iron grillwork, and balconies supported by polished granite columns. Inside, too, as many of the interior details are being kept as possible, including the oak and wrought iron spiral staircase and the walnut-paneled library. But accommodation is being made for three four-story townhouses, four two-story apartments, and two one-story suites.

The Golden Gate Park Conservatory, San Francisco, Ca. Original construction: Lord & Burnham, New York. Renovation is in progress in the central domed pavilion, with restoration to follow on adjoining wings, of this Victorian greenhouse built in 1879 and now listed in the National Register of Historic Places. Hand wood-turning is necessary to reproduce the intricate filigree of the building, sample templates are used to match the panel moldings, and an elaborate interim support system has been erected as all the 24 main structural columns are being replaced.

Olympic Hotel, Seattle, Wa. Architects: Naramore, Bain, Brady & Johanson, Seattle. George B. Post & Sons was the original architect for this 1924 Italian Renaissance-style hotel, owned by the University of Washington and placed on the National Register of Historic Places last year. It is now undergoing extensive renovation, with plans for a new Grand Entrance with a landscaped court, a skylit atrium lounge, a new spa complex with a conservatory-roofed swimming pool, and enlarged guest rooms. The main lobby and several other public rooms will be restored with appropriate materials.
For safe footing and good looks in high traffic interiors . . .

This unique new rubber floor tile is designed especially for interior floors where safe footing is required and handsome, easy to maintain appearance is desired. 1" diameter raised studs molded onto a special compound of tough, extra resilient rubber provides greater traction by allowing dirt and spilled liquids to drain off the walking surface. Extra resilience contributes substantially to safe footing.

Radial rubber tile is recommended especially for high traffic areas such as air terminals, shopping centers, ramps, elevator lobbies, stair landings and offices. It is made in two profile designs and in overall thicknesses of 1/8" and 3/16" with smooth back, and .210" and .235" with Acoustibak™.

Flexco also makes matching radial rubber stair treads as well as a complete line of rubber and vinyl treads, risers and stringers, rubber tile, conductive vinyl tile, cove base and vinyl carpet accessories.

For areas which require Class A fire rating, Flexco can supply on special order Radial Tile, Stair Treads and accessories which meet ASTM-E84-77A flame spread rating of 25 or less and smoke density of 75 or less.

For samples and information, write or call (toll free):
FLEXCO™ division of Textile Rubber Co., Inc., Tuscumbia, AL 35674 • 1-800-633-3151
End of an era in client billing.

Keeping track of client phone charges by manual logging is notoriously ineffective. In fact, industry estimates show that the average architectural or engineering firm absorbs 10 to 15 percent of those charges—simply through doubts about their proper allocations. There's another loss, too—of professional and clerical time spent in the month's-end allocation process.

Now the Bell System can provide electronic-age assistance for this chore, with precision and speed that pays off every month. You'll save time, be certain of collecting a far higher percentage of billable phone charges, and look more professional doing it.

A variety of Bell products and services can be applied, depending on the scale and complexity of your firm's needs. The answer could be as simple as having one line dedicated to long distance. Or you might need a system that automatically records and allocates charges.

Your Bell System Account Executive can analyze your operations, and bring you a new, more profitable era in client billing. It makes very good sense to put our knowledge of advanced communications to work for your business.

The knowledge business
News report continued from page 76

In perspective

Old Lancaster
The revival of the center of Lancaster, Pa., has gotten an encouraging boost through the rehabilitation of a three-acre residential enclave just two blocks from the city's main square. The tract, a designated redevelopment area, contained 59 old masonry buildings, dating from 1750 to 1930, most of them vacant and many in advanced stages of decay—plus a scattering of vacant lots. Now the tract has been transformed into 58 rehabilitated houses, with amenities such as private garages, walled patios, and roof decks. Plans provide for 13 new units, as well, to fill in gaps. The project was carried out by Old Town Lancaster, Inc., an organization representing DePaul Design (interior planning), deVry, Gilbert & Bradley (architects, planners), High Industries (developers), and Martin & Mohler (construction).

Because of the wide diversity among the existing buildings, their differing amounts of salvageable interiors, and their irregular distribution on oddly-shaped parts of two city blocks, the sponsors decided to make a virtue of variety. They found it desirable in a few cases to make one house out of two, or two out of one, and they realigned many [News report continued on page 80]
of the old lot lines to yield more usable outdoor spaces. New streets curving through the interior of both blocks provide access to garages and some of the houses. The filling of vacant lots, the placing of utility lines underground, and new landscaping have given the whole area some coherence, though unpredictable shifts of form and detail remain the visual theme.

In the reworking of individual houses, a similar ad hoc, serendipitous process went on. Old mantels, balustrades, and windows appear amid new construction, with occasional transfer of components from one house to another. On some houses, the typical one-story rear wing supports a roof deck, and parts of some rear wings survive only as masonry-walled patios. A wide choice of interior layouts was developed, depending on the extent to which original partitions and floors could be revised. By completing work on some houses while decisions were being made on others, the developer-design team was able to feed back some of the lessons of the construction and marketing processes into the design of later houses. [JMD]
In Graceful Tension Structures By Helios.

The delicacy and beauty of these tensioned membrane structures is thoroughly practical. In this economical shelter for an outdoor music amphitheater, the natural beauty of the site is preserved, with only minimal disturbance for footings for structural elements. The smaller white tensioned structure at the Aspen Design Conference in Colorado is even simpler, facilitating its erection and demounting each year.

All these structures, including the festive rest area sunshades, are fabricated of vinyl-coated polyester material held in tension on a steel framework. The result is a lightweight, rigid structure engineered to withstand heavy wind. Though a tensioned membrane structure is in a higher price class than a tent, it offers far greater strength and durability. Compared to alternative structures of wood, steel or masonry, it typically results in important cost savings.

When your imagination calls up sweeping curvilinear shapes or great enclosed space, Helios Tension Products are the people to try your ideas on. We specialize in helping architects translate their innovative designs into practical reality. Our expertise includes design, engineering, fabrication and erection—a total, comprehensive service unmatched in the U.S.

For more information, or assistance with a specific project, call or write: Dept. P5, Helios Tension Products, Inc., 1602 Tacoma Way, Redwood City, CA 94063. Telephone: (415) 364-1770, Telex 345590.
Why did the new Atlanta Airport choose gas air conditioning?

Pure economics.

In the world's largest airport terminal complex, designed to serve over 50 million people a year, air conditioning is a prime consideration.

When Atlanta's engineers examined the systems meeting their specifications, they decided on heat driven equipment as the lowest energy user and the most cost-efficient based on life-cycle analysis.

Their selection was a steam operated turbo-absorption air conditioning system. Designed for future growth, this 7,500 ton system has one of the lowest energy consumption rates per ton hour of cooling available. The primary fuel is natural gas.

Since gas offers total system efficiency, the new Atlanta Airport also depends on gas for heating. But not only large-scale buildings can benefit. Gas heating/cooling systems can provide operating economies in smaller buildings as well. For details on such integrated systems, contact your gas company.

Gas: The future belongs to the efficient.
An elevator should do more than go up and down. These days it's not enough to just get people where they want to go. Worker productivity, energy consumption, and tenant satisfaction are all affected by the elevator service in your buildings.

Yet a surprising number of architects still design without a second thought to elevator and escalator specs. Pity. They're overlooking options that can make a big difference in their building's utility for years to come.

Savvy architects and planners look to Schindler Haughton to speed passenger service and reduce operating expenses. With sophisticated solid state equipment and the right choice of geared, gearless and hydraulic equipment for the job to be done.

Don't specify elevator and escalator equipment out of habit. Talk with your Schindler Haughton representative. He has a better way to get you up and down.

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

Circle No. 379 on Reader Service Card
What will a Tapered FOAMGLAS Roof Insulation System do?

- Drain water off the roof, fast.
- Provide constant insulating value.
- Remain strong and dimensionally stable.
- Make an excellent base for built-up roofing.

Pittsburgh Corning offers Tapered FOAMGLAS Roof Insulation Systems with tapers of $\frac{3}{8}$-inch or $\frac{1}{4}$-inch per foot which provide positive drainage on any flat roof deck regardless of drain location. And, there are pre-packed cricket systems with the same taper for drain-to-drain installation. All of these systems drain water off the roof, fast.

**Retains Insulating Value**

Because FOAMGLAS cellular glass insulation is all glass, water, in either liquid or vapor form, cannot penetrate it and destroy its insulating capability. That's why Tapered FOAMGLAS Roof Insulation Systems provide constant insulating value.

**Excellent BUR Base**

FOAMGLAS insulation has high compressive strength and an exceptionally low coefficient of expansion. It won't compress, shrink, stretch, swell or warp, so Tapered FOAMGLAS Roof Insulation Systems remain strong and dimensionally stable and are an exceptional base for built-up roofs.

**Single-Source Responsibility**

Pittsburgh Corning offers a no-leak, no-thermal-efficiency-loss guarantee that includes everything from the deck up. Call or write for details.

To learn more about Tapered FOAMGLAS Roof Insulation Systems, refer to Sweet's General Building File or contact Pittsburgh Corning Corporation, Marketing Department PA1180, 800 Presque Isle Drive, Pittsburgh, PA 15239. (412) 327-6100.

PITTSBURGH BUCK STOPS HERE!

Circle No. 365 on Reader Service Card
Year after year of harsh Indiana weather had taken its heavy toll on Richmond's Coca-Cola bottling plant. In places, the concrete had become so badly deteriorated that rusting tie rods were exposed.

But new buildings are very expensive these days, and inside, the building was still perfectly usable. So after it was determined to be structurally sound, Coke decided to restore their existing one.

General Contractor V.H. Juering & Sons, Inc., began by sandblasting the entire structure, chipping away all fragmented and weakened concrete and replacing the rusted tie rods.

Then the application contractor, Ralph Wisenhunt Co., brought the surface back to its original form with Thorite. Thorite is a non-slumping, quick-setting patching material that restores even vertical concrete without expensive formwork.

Next, Thoroseal Plaster Mix (blended with Acryl 60 to enhance bonding and curing) was troweled on and floated smooth. Thoroseal Plaster Mix is harder and more wear-resistant than concrete alone, and bonds so tenaciously that it actually becomes part of the wall. Best of all, it's 100% waterproof. A permanent barrier against the onslaught of weather.

More and more, people are looking to make the most of buildings they already own instead of commissioning new ones. More and more they want designs and materials that last. And more and more, they're coming to us.

We're Thoro System Products and for more than 65 years, all we've ever done is save people time and money by restoring and protecting their concrete and masonry. Better and more often than anybody else in the world.
SEACLIFF

RICH AND EARTHY.
NATURALLY BEAUTIFUL.
BEAUTIFULLY COMPATIBLE.

SEACLIFF D42-6
from
THE FINE ART OF WILSONART

The Wilsonart brand Design Group 1 and exclusive "Limited Edition" solid color collections provide 56 vibrant choices. A broad spectrum of hue and intensity from soft, muted desert tones to the richly saturated accent colors. Ask a Wilsonart representative to show them all to you, or write for your Design Group 1 and Limited Edition solid colors brochures.
On a scale of 1 to 10, the reuse projects shown on this page illustrate extremes. In the critical look at reuse that follows, everything else falls somewhere in between. All the projects involve commercial use, now the largest segment of the remodeling market.

With the growing practice of reusing old buildings, they become increasingly subjected to the same pitfalls and errors that can be found in new work. But for too long now, an unspoken conspiracy has kept silent the discussion of such matters, fearing that any criticism is detrimental to the whole preservation movement. Today, though, a $40-billion-a-year market is too big for such an attitude. In this issue, P/A takes a critical look at some recent projects that have been reused for commercial purposes. The examples vary according to the degree of incursion; some illustrate that even when working with an intact original shell, new design elements can be so disruptive that demolition would have been little worse.

The most one could probably expect in reuse efforts can be seen in the new Helmsley Palace Hotel in New York, which rises behind the landmark Villard Houses on Madison Avenue. While McKim, Mead & White's Italianate palazzo of 1882 was protected by law (some of the back was removed, though, for the new hotel), the interiors, at least in the early planning stages, were not. Stanford White's Whitelaw Reid rooms in the southern wing of the six-house complex have been called among the best rooms in America, and they are now exquisitely restored for public use as part of the hotel. Although it cost owner/developer Harry Helmsley a great deal more to work around the Villard Houses and the Whitelaw Reid rooms, an agreement was reached whereby the hotel was given a height increase for his doing so. To a very large degree, everyone won. Emery Roth & Son's hotel tower, however, is hardly the unqualified 10 that their preservation architect James Rhodes was able to achieve for the restored rooms.

At the opposite extreme is the new Grand Hyatt Hotel, which is made out of the old Commodore Hotel at Lexington Avenue and 42nd Street. The original building, although not a landmark, wasn't all bad. It was designed by Warren and Wetmore as a companion to their Grand Central Terminal next door, and was the largest hotel in the world at its opening in 1919. Ten years later, Mid-Manhattan (journal) noted that "the beauty of its design and interior decorations and furnishings has few rivals."

Now all of this is gone. In its place is a glass box designed by Gruzen & Partners with Der Scutt as consulting architect. Developer Donald Trump said (in The New York Times, March 28, 1976) that a new façade was needed "to broadcast the newness of the project." Inside, the huge lobby has been made even bigger and slathered in marble and shiny metals and other "opulent" materials for that costly modern look now favored in the "better places." At least, though, one sort of expected the ballroom—the best part—to be retained. A 1978 press release says its spaces "will be restored to retain their traditional ballroom flavor." The opening night press release said "Hyatt is restoring, in all its decorative detail, the handsome ballroom of its fabled predecessor ..." From this you gather the ballroom was restored? Wrong. It's slathered up just like the rest. Little of what was there before, or even much hint of it, remains. The old Commodore is irrevocably lost. The good part about ascending the scale of the related examples of this issue is that little of the original architecture is irrevocably lost. [David Morton]
Five commercial buildings from the turn of the century became Pittsburgh's first specialty mall, but the result is an anarchy of styles and materials.

Details of original buildings: 1 Peoples Bank, 2 its inlaid marble staircase, 3 the second-floor interior of Colonial Trust as a bank, and 4 its corner stair.

Facing page: The largest and most elaborate building, Colonial Trust, houses most of the new shopping mall. Its Portmanesque glass-edged elevator can be seen at left.

This is a place where copper awnings are popular, where acoustic ceilings with metal strips seem necessary, where neon and banners are de rigueur. Recollections of small town main streets are popular here too, as is smoke mirror, diagonal redwood boarding, rope plant hangers, Mexican tile, woven cork, and travertine wallpaper.

Of the five buildings in which all this sits, the largest is a T-shaped Classical Revival bank built by Colonial Trust in 1902 (with a 1925 addition). The walls of what at the time was the longest open bank lobby in the world are lined in Italian marble. The ceiling is a series of stained-glass skylights in gilt framing. The upper walls are a Roman theatrical backdrop of pilaster orders and blind arches.

The creators of The Bank Center did not so much take things out as design without noticing what was there. The Trust building, for instance, has façades with lion-head keystones, giant columns, and carved stone shields. The 1901 People's Bank has an exterior of deeply carved rustication. But at the doorways of the Trust and along the walls of the bank tower are the cheerful patterned canvas canopies invented in California to brighten the appearance of rescued brick warehouses.

Inside, a small swatch of the original white mosaic floor appears momentarily before being overtaken by the kind of patterned carpet generally found in hotel chain lobbies. This occurs so close to the door that it leaves the marble double columns in a kind of visual limbo, belonging to the entryway but prisoners of the carpet. Wooden street furniture is set next to swirling marble staircases, steak-and-ale Tiffany beneath the original stained-glass skylights, fluorescent tube systems in front of Ionic columns.

Wedged into a marble doorframe is a directory with the typefaces and backlit colors of a pinball machine. Pasted onto a marble wall is a small-pained bay window with brick dado for display. And a huge black and white awning is hung off another marble wall to form a figurine shop. An old vault is now a jewelry boutique, but aside from the door, assumes the form of an adobe pueblo. The Classical order on the walls has been underscored with rust-colored accents against beige. And there is a Portmanesque glass-edged elevator in the same palette.

The old board room, with its original private elevator, is now a restaurant. There are several other restaurants, about 25 shops, a disco, and three movie houses. The galleria
occupies four of the five buildings. The fifth, Peoples Bank, is a 16-story office tower.

**No one's maniacal plan**
The Bank Center was not the maniacal plan of any one architect. Economic factors encouraged the splintering of decisions, and ultimately the design wound up in the hands of those most used to forming and catering to popular taste, of which it is an encyclopedic example.

The project began in 1973 when two planners with the city—James Morgan, an architect, and Henry Stewart III, a finance specialist—tried to interest Frank M. Van Ameringen, a lawyer, coal and gas dealer, and self-styled “huckster,” in buying the buildings. All but one had been owned by a bank that had moved to new headquarters. The young men thought the vacant buildings would make a fine Ghirardelli Square. Van Ameringen liked Underground Atlanta. He hired them and financed the deal. They first hired Graham Gund of Boston to make conceptual drawings to help get financing. Then they switched to a local firm, IKM Partnership, for easier logistics. At the time, a young Argentinian, Rodolfo Machado, was working for them; his design (with partner-in-charge Mihai Marcu), with its waterfall, central pond, and small-town stage set, was published in P/A (July 1974, p. 76). Machado left in August 1974, and the design, says Marcu, was “humored a little” at the request of Morgan who was anxious about, among other things, its allocation of square footage.

Morgan’s design vision was also quite different. The IKM design called for each new element “to be transparent or reflective, without a solidity of its own competing with the original building,” describes Marcu. Morgan, on the other hand, wanted “to hold onto the level of detail of the original . . . to blur the distinction between old and new.”

Meanwhile, however, the depressed economy was more than Van Ameringen wished to withstand alone. In mid-1975, Edward
Ryan, founder of Ryan Homes, became half owner and later he brought in Joseph Hardy, a lumber store owner. They turned the project over to Lorenzi, Dodds & Gunnill, an A/E firm that had moved into the bank tower a month before.

Architectural decisions were more and more fragmented as the project began construction. Morgan was now a consultant. First William Zinner and then Richard Myers were in-house architectural staff. And Ryan brought in William Seach, a home builder, to administer the project as a general partner. In addition to the number of decision-makers on the public spaces, there was less and less talk of enforcing design guidelines for the individual retailers.

In November of 1976, the center opened at half capacity. In May 1978, a full-time manager, Robert Hustwit, was brought in. The center is now full and is expected to show a profit next year, although tax breaks have made it a good investment from the beginning.

People's choice
"The thing that's missing in the design," says Morgan, "is a clear vision. You have to control it all or you just don't get there." But without the clear hand of an architect, the "there" you do get is not without interest. In this Diamond-Jim-meets-Son-of-Chocolate-Factory confrontation, there are the dreams of two generations. The earlier one, of accomplishing in America what had been impossible in Europe, had to do with belonging to an aristocracy. These were pretentious buildings even then, built in an age more of money than splendor, more of expectations than sensibilities. Their appeal today is no longer their optimism, but the sheer opulence of the materials and worn serviceability of the vocabulary.

The contemporary dreams still include elements that are direct descendents of the earlier dream, such as embossed wallpaper. But many images have a new theme. One is of the woodsman/peasant whose unfinished materials come from the earth, as if free from a larger society. Another is the rock star or space explorer, each a glittering loner for whom such things as family connections or cultivated manners would appear irrelevant. A third is small-town America, remembered as an egalitarian and less ambitious track where those less than stars are still known by name and considered of worth.

The new dreams not only erase class structure, they erase bureaucracy, corporations, and urban living. These are dreams of starting over but not, as in the 1920s, of creating a new social structure. These are transient dreams for people to escape into. There is no interest here in history, neither in tradition nor revolution. Not surprisingly, the architectural attitude is the same. Neither maintaining nor destroying, each store, each element starts over as if nothing else, old or new, were there. [Nory Miller]
Data

Project: The Bank Center, Pittsburgh
Program: create a downtown shopping, theater, restaurant and office complex within five Classic Revival buildings (dating from 1890 through the 1920s), with a combined total of 220,000 gross sq ft. The office tower has 16 stories of which 15 are used.
Structural system: addition of new steel framing, masonry walls, and composite concrete floors.
Mechanical system: new air conditioning and plumbing throughout, including sprinklers.
Consultants: R.M. Phillips, structural; Emgee Engineering, mechanical; Caplan Engineering, electrical.
Contractor: Mosites Construction.
Cost: $4.2 million, excluding fees and tenant furnishings.
A recent renovation raises questions about the split in architectural attitudes represented by the exterior and the interior design. There are instances of renovation when the preserved shell and its reconstituted innards diverge so drastically from each other that one wonders what kind of dish the owners and their architects thought they were serving up. In the case of The Richardson, it should be pointed out, architects Stecker/LaBau did not have much of the original interior ingredients to work with. The H.H. Richardson-designed Cheney block, built in 1875-76, had been subjected to evisceration several times over when the building served as warehouse space and offices with ground-floor shops for G. Fox & Co., the department store. Prior to that it functioned as the Brown-Thomson department store.

In fact the architects of the present conversion have returned the building to the mixed uses of Richardson's original program, with stores at the base and apartments above. (The Cheney block also contained offices, omitted in this case.)

The only trouble is that now the outside is monumental, massive, rich, ornate—beautiful. And inside it is the bland commercial design of the kind found in small airports and suburban shopping centers. The shock that accompanies the transition of moving from the outside to the inside puts into high relief the confusion prevailing in renovation work today. Both developers and architects now see the value of saving and restoring older architecture. Yet they can insert newly designed spaces within old shells where one has nothing whatsoever to do with the other—spatially, formally, even decoratively. One taste kills the essence of the other.

Oddly enough, here the developers are very "enlightened." Both Stanley Schultz and James Barbour have architectural degrees. Schultz, in fact, led a downtown business group in preserving Hartford's major landmark buildings.

The city of Hartford itself has been quite interested in the preservation of the Cheney block, put on the National Register in 1970. The city, given the building by G. Fox & Co. in 1977, leased it to developers Schultz and Barbour with attractive incentives built in: in lieu of rent, the city will receive a percentage of the annual profits, 10 percent initially and more as the project gets on its feet. It has also given the developers a ten-year graduated tax deferral on the full assessment of property improvements.

One man's meat
In renovating one of H.H. Richardson's most significant buildings, Stecker/LaBau has done no worse than dozens of their colleagues around the country. Although only two façades are actually visible (the north wall abuts the Fox department store), it was a formidable commission. Henry-Russell Hitchcock called the building in 1936 "one of the very finest buildings in the world dating from..."
The Brown-Thomson building was built by the Cheney Brothers as a residential, office and retail block. For the commission, Richardson decided on brownstone ashlar construction, with sandstone trim for the voussoirs of the arches. He also designed the seven-story building to read as three stories through compositional and scaling devices. Before this renovation, one of the two porches to the main entrances had disappeared, along with the steep pyramidal roof of the south tower. The interior had been renovated several times, and Richardson’s interior atrium dismantled.
The interior of the space has little to do architecturally with the exterior. The use of "modern-natural" details and finishes inside loosely recalls the renovation of Boston's Institute of Contemporary Art, which has a Richardsonian exterior (P/A, Nov. 1976, p. 54). Unlike ICA, however, this interior fails to come together in a coherent spatial whole in which new and old elements are effectively juxtaposed.

Today's market
In renovating the building for present-day marketing strategies, the architects had to solve complicated and potentially costly problems. They had to forge 85,000 sq ft of leasable space for a "tri-level" shopping mall that would accommodate 60 stores. Not only did the top of the Cheney block have to be converted to market rental apartments, but another building was involved. A buff brick eight-story warehouse, which had been moved to the rear of the site in 1938, would be joined to the buildings.

The Richardson's three retail floors also feed directly off the Fox department store located on the north side. Then these public access levels connect to a just completed "mixmaster" on the other side—a pedestrian node connecting to a second-level skywalk system. Intended to eventually tie into Constitution Plaza, the walkway may even bridge Main Street, a move that could block some of the oblique views of the Richardson building from the north.

The inards
In terms of the gut-and-paste job going on inside the two buildings, a homogeneity has been attained. There is very little difference between the loft-type apartments in the ordinary brick warehouse and those in the Richardson building. The ceilings are 15 ft high in the Cheney block portion; 14 ft-6 in. in the warehouse. Windows in the warehouse are 12' x 13'; in the Cheney portion, they extend floor to ceiling. While the Cheney block offers some stunning views out through the tops of arches, no wainscoting or other interior Richardsonian traces remain to taunt prospective tenants of the warehouse section.

The apartments generally conform to run-of-the-mill solutions for loft space renovated into apartments. A sleeping balcony, kitchen, bath, and closets usually compose a self-contained unit that juts out into the high narrow spaces. The interior finishes in the apartments range from modest (vinyl baseboards) to simulated luxurious, such as the synthetic pile rug that crawls everywhere. It even covers up the wood floors in the Cheney portion for acoustical reasons.

The real letdown comes with the public spaces. Apartment corridors, lit by luminous fluorescent fixtures mounted on the walls, with ordinary acoustical-tile-and-aluminum-spline dropped ceilings, "perky" orange and "soothing" beige colored vinyl walls and patterned carpeting, fail to refer, evoke, or reveal anything that might belong to the older...
buildings—whether they be the Cheney block or the industrial vernacular warehouse.

The tri-level shopping mall of stores on the order of Radio Shack, Florsheim Shoes, and Hickory Farms continues this aesthetic, with acoustical tile ceilings, flush fluorescent fixtures, and red carpeting. The mall is occasionally dressed up with materials of the “modern natural” vein: mirror and oak trim above storefronts, parquet flooring, oak capping on the metal banisters. Even the open-riser stairs are carpeted on both sides of the treads! The 45-ft-high atrium spaces for the two stairwells terminate in mirrors pasted on the ceilings where skylights would normally alleviate the closed-in bargain-basement feeling of the 12-ft-high and 12-ft-wide corridors alongside the shops.

The architects functioned as problem solvers. With a tight budget for the $9.2 million renovation, they linked two buildings, wedging a number of new apartments into these odd shapes and avoiding a surfeit of left-over unrentable spaces.

When, however, some architects argue that architecture has to be more than problem solving to be “meaningful,” they must have situations like these in mind. Expectations are raised by entering The Richardson. Even the name carries a promise of “architecture.”

Much of the spirit of the older architecture has been dissolved by the time one enters the building—whether through the Main Street entrance, or through a rear entrance where a hoked-up mural evoking Main Street America is tacked onto an addition to the rear.

The Brown-Thomson Restaurant, occupying 9000 sq ft of a double-height space at the street corner, does try to evoke the character of the old interior, which until the 1950s contained a Richardson-designed skylit atrium, replete with ornamental ironwork. The restaurant, designed by the California firm of Callister, Payne, Bischoff with the Hartford-based firm Design Group One, loosely reconstructs those qualities by the organization of dining areas on balconies around a central open space, and by incorporating original trim and balcony railings into the whole.

While the restaurant suffers from a “theme”-like quality with too many knick-knacks and too many split levels, the results might at least induce an observer to go take another look at the outside of the building.

This is not to say that Stecker/LaBau should have tried to be historically allusive. But the new mall simply takes a proven formula for standardized retail space and makes that “work” in a tight space. Instead of addressing the challenge of preservation, the architects have chosen to stay within a narrow functional focus, adding cosmetic devices, such as a little oak trim here, a mirror there, for effect. If one goes to the trouble to save a good building, more homework should be done. More questions could be asked, more consultants (landmarks, architectural consultants) brought in to advise the firms. Because the architects concentrated on enclosing rentable space, they reduced the perception of Richardson’s work to fragments. [Suzanne Stephens]
Walker/Group's renovation and restoration of a McKim, Mead & White banking space has become controversial for its attempt to meld old architecture with new.

The granite block structure of Neo-Classical style was designed in 1842 by Isaiah Rogers. In 1907, McKim, Mead & White renovated and expanded it for National City Bank, adding four floors plus a second-tier colonnade. In this renovation, Walker/Group did patchwork on the outside—for example, returning the cornice work—and added the Citibank signage.

The dome, glassed in by McKim, Mead & White, had already been filled in before the current renovation. It is newly painted in 24-karat gold leaf (opposite). The Walker/Group refurbished the older architecture and developed a consistent lighting scheme for all the arches.

Dramatically juxtaposing new design with older architecture still holds immense appeal as a renovation approach. The establishment of a dynamic tension between old and new was, of course, early espoused by Modern architects. Faced with adding or inserting light, planar, abstracted elements onto or within older, massive, ornamented structures, they sought a subtle and complex interaction between the two. The intricate interplay of Modern and traditional architectural vocabularies was probably most elegantly exemplified by Franco Albini's and Carlo Scarpa's renovations and reconstructions of Italian museums in the 1950s. While the situations were not identical to 55 Wall Street, Albini's and Scarpa's approaches provide a paradigm of how old and new modes can enhance each other.

But this kind of interaction is hard to pull off. Walker/Group was not able to do it at 55 Wall Street. Their intentions of creating modern banking facilities as a "foil" for the splendid and monumental McKim, Mead & White interior are commendable. The considerable gap between intention and result, however, is as intriguing as it should be instructive. As the preservation-recycling movement becomes more architecturally and economically appealing, the manner in which future uses can be accommodated within past frameworks must be closely scrutinized.

Renewals
This renovation is not the first for Citibank in this space. The building, designed by Isaiah Rogers in 1842, received a major remodeling in 1907 when National City Bank (now Citibank) took it over from the Customs Service, which in turn had altered it after its previous use as the Second Merchant's Exchange.

When McKim, Mead & White transformed the bank for National City, they added four floors to the original building. The existing Rogers-designed dome was replaced by a shallower one with skylights, since it would now form the base of an air shaft. Because the bank wanted a larger ceremonial space on the main floor, McKim, Mead & White removed the entire interior, leaving only the four exterior walls, and installed a highly visible vault in the central space, surrounded by a marble screen and bronze tellers' booths. Over the years, alterations were made, including lowering the vault to the basement and installing an elaborate wood balcony. But the most drastic change came in the 1950s. The main space was turned over to corporate transactions, with the branch bank moved to the basement. Tellers' cages were scrapped, replaced by desks, a new balcony and new chandeliers were added, all in the safe "traditional" style.

In 1979, when Citibank decided to return the main banking space to public use by making it the locus of branch bank activities, it weighed several different approaches to its 1980 remodeling. After heavy deliberation by management, the bank decided to go with the Walker/Group's more "futuristic" proposal as being appropriate to the new bank technology. For a branch bank, this one is a special job. It contains the first major installation of Citibank's Universal Teller Service, a computerized system that allows the customer to conduct more transactions than ever with one teller. Walker/Group's scheme would give these functions, as Kenneth Walker put it, "a life of their own."

Many of the banking operations are in effect merchandising advances. Walker/Group was able to bring their own merchandising knowledge with department store design to this area, and they obviously studied modern banking techniques to see how they might be incorporated into the traditional space.
Diagonal again

Since two points of entry to the space are located diagonally across the room from each other (one actually being a heavily trafficked back door), Walker/Group used this diagonal as the point of departure. The diagonal not only marks the line of traffic across the space, but it defines the queueing pattern for the bank customers and establishes the pattern for the organization of other banking spaces. Private banking, Wall Street banking, and agribusiness banking are placed on diagonally demarcated carpeted areas flanking the central space and on a mezzanine level jutting into the end of the diagonal, 20-ft-high wall that functions as the tellers' counter. In the central space, two automatic deposit and banking stations plus circular service desks and a long diagonal service counter complete the ensemble of specially designed elements.

The removal of the escalator at the entrance, which was installed during the 1950s remodeling, and the inclusion of a new escalator at the rear of the central space does free the area for bank functions. It should be
added also that the space now opened up plus the installation of the tellers’ wall make the uses of those spaces legible. People arriving at the main entrance can easily tell where they are meant to go for general banking functions. The location of the more specialized services, however, is more difficult to decipher.

The reflectivity, sleek lines, and zappy angles of these assorted opaque objects lend a certain sophistication to the everyday actions of banking. They also provide possibilities for impressive photographs in which the older architecture is reflected in the slanted, shiny brown surfaces. But experiencing the actual objects in place leads inevitably to Ada Louise Huxtable’s assessment, published in the New York Times, that the design is “disruptive” to the architecture. This is an impression no amount of wishing on the part of the client or the architect can erase.

Levels of disruption
The effect fails to come together on several levels. First in terms of a “life of its own,” these packaged shapes of minimal sculpture seem related only by virtue of their simple geometries and immaculate surfaces. As a grouping, however, the round desks and rectangular banking stations become oddments scattered between the diagonals, mute and unconnected.

The presence of the tellers’ counter dominates. A 20-ft-high, 75-ft-long prowlike structure may not sound large in relation to the 72-ft-high dome or the room’s 188’ x 127’ dimensions. Yet the scale of the wall, measured by human standards—on foot, from the ground—looms large, like the two-story building it is equivalent to.

Its opacity, in spite of the reflectivity of the surface, makes it even larger. Walker/Group had initially proposed a clear, reflective glass structure, 40 ft high, to contain the wiring of the computers, air conditioning, etc. While reflective glass may have dematerialized the mass more than brown plastic laminate surfaces, it still would have looked like a building within a building, especially at 40 ft.

The problem goes beyond the configuration of the new designed elements, their opacity, and the height of the wall. It goes right to the spatial pattern of the diagonally aligned spaces overlaid on the orthogonal plan. The strong diagonals, even if not consistently maintained in the furniture arrangement, effectively destroy the experience of the symmetrical, classical space. Axiality and centrality, two qualities of Renaissance space, are now apprehended only by looking up at the ceiling, at the flanking arches, and at the vertical thrust of the centered dome. But while the ceiling is doing one thing, the floor and the peripatetic observer are doing another.
A diagonal entrance to a classically oriented space can deepen the sense of approach: witness Choisy's point about approaching classical Greek buildings on the oblique and Philip Johnson consciously recalling this tactic in his Glass House. Diagonal paths cutting across orthogonal grids, too, ease circulation without destroying the character of the space. But the diagonal has to be used carefully, expeditiously, more discreetly than at 55 Wall, to allow the space to maintain its coherence as a three-dimensional entity.

As if to compensate for destroying the experience of Classical space, Walker/Group has lit up the vaults to a fare-thee-well. (The yellow and blue lighting in the coffered ceiling was already there—a given.) But calling attention to the vaults, while valid, strikes a strained note, as if they had to compete for their particular architectonic status.

In the larger scheme of things, Walker/Group could have done far worse, like install chrome and glass elevators in the central space. The bank ought to be congratulated for not going to an office supply house, and for taking such a keen interest in bringing to public view an important work of McKim, Mead & White, designated a National and City landmark in 1965. It is a step in the right direction for fostering institutional concern about architecture and design.

The reuse work here is at least reversible, meaning that it could be turned over to other uses without any major changes except the removal of the "furniture." In this respect, William Shopsin, the landmarks consultant for the exterior, points out that it is clearly a piece of furniture, and there is no ambiguity about what belongs to McKim, Mead & White and what belongs to Walker. By removing the 1950s "improvements" and restoring the 1907 work, Shopsin continues, the architects have depicted the space more clearly. The argument makes good sense except for one effect. While the apples can be distinguished from the oranges, the fruit bowl—as an aesthetic entity—does not cohere.

**Dissonant results**

Dissonance, characteristic of Modern art, has been consciously introduced. But here dissonance forces a perceptual rupture: The new objects read as obstacles to perceiving and fully appreciating the older architecture.

As an approach, dissonance between new and old architecture still refers to that from which it departs. It cannot necessarily be achieved by resorting to the currently fashionable affinity for highly reflective surfaces or diagonal configurations. This observation doesn't mean that architects must forsake that which they consider Modern for more historical motifs. But an Albini or Scarpa knew there were rules; the modern transparency of plane (achieved with clear glass) or the dependence on minimal line (achieved with elegantly minimal metal supports) provided dissonance without obstruction. Their designs did create a "foil." [Suzanne Stephens]

**Data**


Original architects: Isaiah Rogers, 1842; McKim, Mead & White, addition and interior, 1907.

Program: reestablish Citibank's retail banking on the main level of building, 22,000 sq ft, with tellers' counter and queueing area, service counter, and officers' platform, investment banking platform, tellers' offices. Relate circulation to entrances from Exchange Place and to the main Wall St. entrance. Develop lighting system for architectural features, local task lighting and exterior identification lighting, plus interior/exterior signage. Refurbish furniture.


Major materials: marble, linoleum, nylon carpet, polyester and plastic laminate finishes, wood, acrylic, glass.

Consultants: Goldman, Sokolov, Copeland, mechanical/electrical; Glee Olenek & Associates, structural; Bonvini/Kondos, lighting; William C. Shopsin, landmarks; Federman Construction Consultants, cost.

General contractor: A-J Contracting Co.

Client: Citibank; Pam Flaherty, Mary Lamb, Richard Eiter, Peter Magistro, Harold Reynolds, Rudy Pavesi.

Costs: $1.5 million not including furnishings, graphics, or fees.

Photography: Mark Ross.
An outstanding synthesis of 1930s decorative arts and architecture, the railroad station in Cincinnati has been saved by recycling as a mixed-use complex with generally mixed results.

Few buildings demonstrate quite as vividly as the Cincinnati Union Terminal the peculiar blend of streamline and monumental architecture that arose in the U.S. in the 1930s. Called Architecture Moderne by art historians, its close links to the Parisian-based Art Deco movement can be strongly detected in its interior finishes. Paul Cret, the Beaux Arts-trained architect, acted as architectural advisor to the New York firm of Fellheimer & Wagner for the design of this building that proved to be the last of the major symbolic artifacts of its type. More perfectly than its predecessors, it embodied the promise of high-speed transport in its extravagant imagery. Yet the building was obsolete by the 1960s. Slated for demolition by the railroads in 1972, only the unceasing efforts of preservationists, architects, and interested citizens kept the building intact. As it was, in 1972 the 450-ft-long grand arrival and departure concourse at the rear of the Rotunda was sliced off and demolished for a rail alignment that has never materialized. Service was shut down, and a small station was built elsewhere. By 1973, however, the building, only 40 years old, had been put on the National Register of Historic Places. Efforts by New York architects Hardy Holzman Pfeiffer Associates focused attention on how the station could be adapted for reuse. HHPA's proposal for an arts school and transit offices, however, didn't assuage economic qualms, and even three years ago (P/A, Nov. 1977, p. 57), the building's fate was still up in the air. Then last August, the Union Terminal opened with a new use—a shopping mall.

The ring of the cash register and munching of nuts by visitors browsing through soap and souvenirs create an aesthetic as perceptually "of a piece" as the painted rainbow arcs of the quarter-spherical Rotunda by Winold Reiss or the cut lacquered wood and linoleum murals of Pierre Bourdelle. In one sense, the bustling carnival aspects of the shopping mall do not diverge too drastically from the level of activity and movement that formed the railroad station's original content. It is not like opening a mall in the Morgan Library. Yet the nature of shopping malls today, which derives from a certain attitude about packaging and merchandising, does seriously threaten the appreciation of any kind of architecture. Not surprisingly, this observation holds true not only for recycled vernacular buildings once used for work-oriented tasks, but for the grander, monumental and symbolic artifacts denoting more ceremonial uses, such as Union Terminal.

Much of the decorative art and architecture has been nicely refurbished. Much of the mall design is virtually portable and can be reinstalled without any harm having been done to the architecture. Yet those elements still have to be "tuned out" for one to perceive and enjoy the older shell as a coherent whole. Needless to say, the missed opportunities for new design elements to support and enhance the old are rampant.

In transforming the terminal from a railroad station to a mixed-use complex of shops, restaurants, and offices, the developer, the Joseph Skilken Organization, must be given its due for taking the risk. It was aided, of
As extensive research by art historian Frances Crotty and others at the University of Cincinnati reveals, the design and construction of Union Terminal was a monumental undertaking. The structure, costing $8.6 million, was designed by Fellheimer & Wagner, with Paul Cret as architectural advisor. Cret, the famous Philadelphia Beaux Arts architect, who was Louis Kahn's teacher, is thought now to have had much input into the design. Cincinnati art historian Denny Carter has pointed to his competition entry project for the 1933 Century of Progress Chrysler Exhibit as showing a strong affinity to the Terminal. Cret's bridges, built in the early 1930s, and his executed scheme for the Hall of Science at Century of Progress, and especially his railway car designs (Pencil Points, Oct. 1938, pp. 608-638), support the thesis. Winold Reiss, schooled in the German Arts and Crafts tradition, executed the famous mosaic murals in the Rotunda (right) and in the rear concourse (opposite, left bottom). The 450-ft-long rear concourse was torn down in 1972, and 14 of Reiss's murals were mounted at the airport.

French artist Pierre Bourdelle's contribution to the decorative arts of the terminal was significant. Bourdelle's murals in the lunchroom, now Palmiers restaurant (below), the ceiling in the restaurant, and the hall leading to it, plus his murals for the restrooms, are exemplary of Art Deco design.

course, in the $20-million renovation by incentives from the city and federal governments. The company received $1.75 million in federal grants (UDAG), plus a $1-a-year building lease and a $1-a-year property lease from the city for 30 years. It also obtained property tax abatement on capital improvements above the $16,000 annual tax paid now. The expected $50 million in revenues should make the prospect worthwhile.

Of the retail area's 350,000 sq ft, 150,000 sq ft is being assembled as part of the Phase I development, along with 10,000 of a possible 55,000 sq ft of offices on the second and third floors. Architects Schofield & Schofield of Columbus, Oh, have been in charge of the rehabilitation work, including introducing a mechanical system into all parts of the building, installing new electrical wiring where needed, and bringing the building in line with the codes.
According to Frances Crotty, in an unpublished manuscript on the original decorative arts in the Terminal, Winold Reiss should be given much credit for the development of the interior design as a reinforcement of the flow of spaces. Reiss's color scheme for the Rotunda ceiling—silver, yellow, and orange—dramatized the rainbow effect, as his swirling floor pattern emphasized the space.

The Rotunda dome, 176 ft wide, 125 ft deep, and 107 ft high, has been refurbished. But the floor, once unobstructed except for the kiosk, now has Loehmann's store in its center. Loehmann's in-house designers have created a circus tent-like display of brushed aluminum and chrome around the kiosk, now a sales counter.

The South Wing (below), once for auto departure, now houses pushcarts and boutiques selling soap, candles, and souvenirs. In the North Wing (opposite, bottom), ethnic and natural foods can be bought. While most of the furnishings were removed for the renovation, Skilken states that some will be put back, in the shoe store and other places.

The concept
In transforming the railroad station into a privately based, mixed-use complex, the developers needed a "concept." James Gould, director of development, marketing and leasing for Skilken, said they toyed with the idea of creating an "Oz" type of recreational environment but became more enamored of the Faneuil Hall idea. The consumption of chocolate chip cookies and machine-crafted tchotchkes has proved a successful pattern for other specialty shopping centers in the U.S., especially in old markets, brick warehouses, piers, and other vernacular vestiges of the American past. Applied to monumental architecture, such as this station, the approach has already proved successful enough to attract inquiries about adapting the concept elsewhere.

The developer lacked the essential ingredient of a commercial enterprise—location.
To compensate, it charges $3.50 per sq ft rental instead of Faneuil Hall’s $16. And in spite of claims of “quality” control, Skilken more or less has allowed tenants to pursue their own aesthetic and economic dictates. But of course the interior has been unified with a gesture to a “theme” setting reflected in the 1890s signage, pushcarts, and stalls.

The look

Occupying the most critical position is Loehmann’s, a high-fashion discount store. Placed squarely in the hub of the Rotunda, it displays a straining-to-be-elegant vulgarity in its decor that draws attention immediately to the store. A circus-tent-like pavilion of shiny chrome-finished columns, glass walls, chrome-finished streamers, and globe lights swirls brashly around the original kiosk of the terminal, all but obliterating it. The developers wanted and needed Loehmann’s as the an-
Cincinnati Union Terminal, Cincinnati, Oh

The total design scheme for the Terminal included original lunchroom (top), the molded wood and metal elevator cabs, a tea room sheathed in ornamental Rookwood tiles (now being renovated into an ice cream parlor, middle), plus the Board Room and President's Office being renovated for community rooms (bottom) and private parties.

The integrated design approach included not only the mosaics and other murals, the brushed aluminum signage, door guards, and ventilator grilles, but aluminum and leather furniture, the sculpturally poured concrete ceiling above the vehicular ramps (opposite bottom), and the Bourdelle-designed linoleum murals (opposite top).

The two curving wings that served as entrance and exit for cars and buses (parking was underneath the structure) have been given separate identities. The North Wing, where cars and buses entered, is now Gourmet Fare, a gastronomic sideshow of events that offer a range of ethnic and natural foods. The South Wing is devoted to silk flowers, pine wood "accessories" for the home, and slimming aids. Both are visually linked by the "theme" signage of 1890s locomotives, images executed in heavy printer's ink style. In addition, pushcarts in the South Wing demonstrate a paradoxically erstwhile attempt to break down the fluidity of the space and the sleek lines of Moderne architecture. The pushcarts and canopies, appurtenances from the horse-and-buggy days of cobblestone streets and gaslights, strike a clearly contradictory note with the aerodynamic imagery of the older building. Signals got crossed. These props belong in Faneuil Hall.

The more straightforward stall partitioning in Gourmet Fare in the North Wing appears less intrusive, only because the stalls look like the luncheonettes one might see at the local railroad or bus station. While the character and configuration of the space could have been enhanced, it also could have been worse. It could have been kitschmed up with Decoid elements.

In the concourse underneath the Rotunda, the ramps from the North and South Wings debouch into a central and highly marketable space. There food and merchandise converge: F.A.O. Schwarz and Doubleday meet the Cincinnati Chip Yard and Natural Horizons. While this communal space receives a heavy flow of traffic, it looks mean and gloomy: the low acoustic tile ceiling, the fluorescent lighting in the old skylight-type fixtures, and the glare of lighting from the shops give it the subway ambiance in spite of butcher block tables and (original) brick flooring.

For the most part, the shop design in alcoves and other spaces within the Rotunda and concourse does not respond to the architecture of the place. In addition, an art gallery designed in glass, chrome, and gray carpeting may find itself across the corridor from a booth of garishly colored T-shirts.

The rupture between old and new architecture is akin to watching a Claudette Colbert-Gary Cooper train station scene from a 1930s movie spliced with a TV sitcom starring Glen Campbell and Cher.

Oasis

There is one place so far where the sense of the past has simply been and wisely retained. In Les Palmiers restaurant, the owners did nothing to the interior shell except for cleaning up the murals (still very dark) and adding plants, bentwood chairs, and industrial carpeting. The most drastic change in the former lunchroom was the removal of the serpentine lunch counter and reinstatement of its marble top in the Palmiers bar. A small amount of new and cute Decoid art work begins to mar the effect. But the Pierre Bourdelle-designed ceilings and murals in the two dining rooms, the hallway, and the ladies' and men's rooms still dominate.

As for the rest, at least there are no changes that have been made on a permanent basis other than the loss of a good deal of the furnishings and some finishes throughout the years. The City of Cincinnati's Historic Conservation Board does have to issue a building permit for each exterior and interior modification, since the building is a local and a national landmark.

Yet the perception of the total work of art so integral to the conception of the place no longer exists. It has been fragmented. We now have to piece together mentally what the total effect might have been by bloating out the new insertions. And what is inserted is a formula plucked out of another context.

The total effect

What is missing, clearly, is an overall design criterion. The Union Terminal mall lacks the cohesion between architecture and display that Benjamin Thompson & Associates were able to achieve with Faneuil Hall. While Faneuil Hall does become cloying with its touristic um-pah-pah atmosphere, it demonstrates that the display of merchandise, interior design, and graphics can be approached in a systematic, unified way. Pushcarts at Faneuil Hall go along with the spirit, scale, and imagery of the old brick warehouses.

And this kind of integral approach can still allow individual identity of the tenants to emerge within the larger, organized framework.

But such an integrated design approach results from analyzing the old architecture with which one is working and looking at the spaces, the materials, and the details. In other words, one needs to study the style and the "content" of the place and then decide how to foster and promote the perception and appreciation of that. Automatically applying "successful" retail formulas for the endeavor, however, destroys that delicate balance and certainly erodes the aura of the past.

[Suzanne Stephens]
Data
Project: Union Terminal, Cincinnati, Oh.
Renovation architects: Schofield & Schofield, Columbus, Oh; Don Schofield, principal in charge.
Interior design (for mall): Gordon Keith Interiors.
Original architects: Fellheimer & Wagner, New York; Paul Cret, architectural advisor.
Client: Joseph Skilken Organization; Steve Skilken, owner, Sid Putchat, president, James Gould, marketing director, Mike Balakrishnan, project coordinator.
Site: nine-level railroad station, built 1933, with 115,545 sq ft on main floor, on 10 acres of land outside of downtown core.
Program: renovate for mixed-use complex: 400,000 sq ft of retail space; 55,000 sq ft of offices. Phase I currently nearing completion, with 150,000 sq ft of retail, 10,000 sq ft of offices.
Structural system: existing concrete-encased steel structure, wood pile foundation.
Major materials: cleaned original exterior surfaces—granite on front, brick at rear, terra cotta roof; interior walls—marble plaster, glazed tile; ceilings: plaster with marble trim; interior floors—terrazzo, brick, concrete.
Mechanical system: limited reuse of existing steam heating; new combination rooftop units, gas units, and electric split system.
General contractor: Joseph Skilken Co.
Costs: $20 million.
Photography: ARTOG/D.G. Olshansky (current); courtesy Cincinnati Historical Society (original photos).
Part of Dayton's reclamation of its downtown, Arcade Square joins its neighbor, Courthouse Square, in welcoming shoppers and office workers to partake of goods and experiences. It is always a pleasure to watch a downtown recoup its losses from parasitic outlying shopping centers. Dayton is in the process of reintroducing downtown to the region's one million or so residents. Along with its exciting River Edge project, several new office towers—uninspiring, but built—and renewed or expanded department store commitments, comes Arcade Square. And with Arcade Square came a complex and delightful series of five buildings and a complex financing/sponsorship/management problem as well. Downtown Dayton has a series of handsome older buildings, and the architects for Arcade Square, Lorenz & Williams Incorporated (formerly Lorenz-Williams-Lively-Likens & Partners) are involved with a renovation of a number of them.

Arcade Square's components were built between 1902 and 1904; the most notable building, by architect Frank Andrews, fronts on Third Street, presenting a delightful guildhall-influenced façade. Originally, the main spaces were used as a major farmers' market, with government functions on the upper levels. Some housing or sleeping areas, which had been located on part of the third, fourth, and fifth floors, are to be renovated into 56 apartments in a future phase. Such housing, it would seem, is a factor much to be desired for the off-hour activity it would encourage in downtown Dayton.

The cast

Funding and responsibility for the project have been divided into two broad pieces, public and private. The City of Dayton shouldered the walkway and dome areas, financing improvements through a local Public Works grant from the Economic Development Administration, in-kind services, and $1 million of an Urban Development Action Grant (UDAG). Aspects included in this public sector were reconditioning of the mechanical systems, reglazing, repaving, installation of interior transportation components, and general refurbishing.

The private segment of the project is being developed by Arcade Square, Ltd. A limited partnership with two classes of partners, this organization comprises the general partner (affiliated with a nonprofit corporation created by the City of Dayton) and limited partners (local corporations and individuals). This group retained Halcyon Ltd., development consultants who were in charge of the retail concept, financial development—including assistance in getting the UDAG funds, leasing and operations, and construction coordination. All properties within the project are owned by the Dayton Arcade Development Corporation, a public interest corporation capitalized by six local corporations, all of which will remain limited partners in Arcade Square, Ltd.

As all of this—and it has been simplified—indicates, the arrangements were complex. The architects had to balance the needs and programs of two multi-headed clients, the City of Dayton and Arcade Square, Ltd. From the results, it would appear that this development is a model from which much can be learned about public/private cooperation. Not every city, of course, has officials with the sensitivity and/or the wisdom to hire talented design people and listen to them. It is much to the credit of both this city and this developer that, for the most part, they listened.

The breaks of the game

Given the complexity of this project, it is amazingly true to the ideals the architects set out to accomplish. Where compromises crept in, it was usually a case of design versus dol-
Under the newly glazed rotunda, three commercial levels open onto the 90-ft-diameter space. Bedecked with ornamental detail, the upper level is planned for restaurant and night club use. On the middle level (right) are minimal shop fronts and broad circulation.

lars, typical in commercial endeavors. The desire to produce as much rental space as possible forced some unfortunate escalator decisions on the designers. At the Arcade entry from Third Street, there is only an up escalator, and shoppers are asked to walk down stairs from the second level. Considering the importance of pedestrian flow across Third Street to and from Courthouse Square and its surrounding stores and offices, a one-way escalator seems a bit mean.

A more major disruption is the placement of escalators in the 90-ft-diameter rotunda space. Although angled to pick up the skewed traffic flow from the arcade, the twin escalators intrude noticeably. Originally proposed further east, out of the rotunda area, they were pushed on stage by rental space requirements. It's too bad, but it doesn't kill the magnificent space, nonetheless. Expediency seems to have won out over taste in some shopfront design decisions. Again, the good outweighs the bad, but a couple of atrocities got by over the architects’
objections. The rotunda space is not being used as intended yet and could use a few more places to sit and people-watch, and a few less crude pushcarts (not architect-designed). Wall and freestanding "streetlights" are not in use yet, either, awaiting replacement of overzealous HID lamps with incandescent.

Having said these things, however, we must hasten to add that Arcade Square is an absolute delight in every other respect. The Greekian elegance of the arcade and the ebullience and good humor of the rotunda are striking and engaging. The architects have done a masterful job of combining restoration with newly designed elements. The major spaces have been lovingly restored in color and detail wherever possible, allowing the prominent structure to lead the chorus. New insertions are deliberately simple and low key.

Where new metal rails were needed, for instance, the old ones were not copied, but reinterpreted very successfully. New wooden dentils in the arcade add a perfect finishing touch on new metal raceways below the skylight. Floor finishes quietly reemphasize major existing elements or recessed shop fronts. On the Third Street façade, the architects pulled the shop windows back to let the existing building speak clearly, and the column details were carefully rebuilt. Restrained metal soffits and ceilings and minimal glass fronts complete the palette of materials, receding into the background.

The rotunda promises to be a very inviting counterpart to the outdoor draw of Court-

house Square, once the weather turns inclement. Since there are still sizable chunks of unoccupied space in Arcade Square, it is too early to measure its economic or social success. Nor can predictions be made about the impact of upcoming storefronts on the whole. With luck, others will take a good look at, and emulate, the shoe store or the restaurant opening under the rotunda and not let fast food and plastic spoil a good thing. Adding housing to the mix will make the scheme just that much richer. And it is already very rich indeed. [Jim Murphy]

Data
Project: Arcade Square, Dayton, Oh.
Architects: Lorenz & Williams, Inc.; principal in charge, Leo E. Lauterbach; project designer and coordinator, Stephen J. Carter; project architect, Erich Heppner; design team, Robert Kaiser, Ken Greisemer, Brendan O'Mara.
Original architect: Frank Andrews, Third Street building.
Program: restore and/or remodel a rundown assemblage of 5 buildings to create 114,000 sq ft of retail rental space of which 40-50 percent is for restaurants, and 16,000 sq ft of public space.
Structural system: existing steelframe, some masonry bearing walls, concrete floor slabs.
Mechanical system: city steam heat converted to hot water. Centrifugal water chillers with cooling tower. Public areas served by central air handler with low velocity ducts; commercial areas, by individual fan coil units.
Major materials: existing masonry walls with stone ornament; new storefront walls, glass and anodized aluminum.
General contractor: Danis/ Superior Craftsman.
Clients: City of Dayton, public spaces; Arcade Square, Ltd., commercial spaces.
Costs: $7 million.
Photography: Bill Swartz, Gregory Glass.
Energy analysis

This analysis was prepared in the Center for Planning and Development Research, College of Environmental Design, University of California, Berkeley; Vladimir Bazjanac, Ph.D., Project Director. The work is funded by the U.S. Department of Energy.

The energy analysis of the Arcade Square in Dayton, Oh, demonstrates that physical renovation can significantly improve the energy performance of a building without sacrifice in architectural quality. It also demonstrates that a renovation cannot fully compensate for the poor energy performance of the original building. Even the best solution in this analysis demands more energy than a new, energy-efficient office structure might in the same location.

This analysis examines the performance of the building as originally built and as renovated. It also investigates several possibilities to improve the performance of the renovated building. The comparison of the original and renovated buildings shows that physical renovation affects energy consumption more than the changes in type of occupancy. The renovation, as designed, is a very energy-efficient solution—no variation of architectural detail can improve significantly its energy performance.

The complex consists of two "energy" parts—the Rotunda building and the Arcade building. The Arcade performs better. The ratio between external surfaces and the floor area is relatively small because the building is an "infill." This explains the relatively small skin loads. Artificial lighting causes the biggest cooling loads (in the summer), while infiltration (because of the large volumes of air in the building) is responsible for most of the winter heating load.

The original use of the building was residential (apartments), with retail on the ground floor. The performance of that building was 57 percent worse than after renovation. If the new uses were to be placed in the building before renovation, its performance would be 32 percent worse. Daylighting can be improved only minimally (on the third floor of the Rotunda), and the savings from it are negligible. Clear glazing actually worsens the performance, and triple glazing improves it only marginally. The renovation, as designed, has the optimum amount of insulation. Even a very substantial increase in its amount does not greatly improve its performance.

Thermal loads in the building can be reduced significantly only if the Rotunda and Arcade public spaces are not conditioned. Analysis shows that 5 percent of energy in the building can be saved if the temperature in those spaces is allowed to swing freely; temperatures would remain quite acceptable from February to June and October to December. Temperatures in the Arcade in such case fluctuate more widely than in the Rotunda. (See note, graph above.)

Thermostats in the conditioned parts of the building are set at 65 F for heating and 78 F for cooling, with night setback at 55 F. Since no NOAA weather tape exists for Dayton, a TRY tape for Indianapolis was used in all simulations.

The analysis of the energy performance of this building does not include the performance of mechanical systems in the building. It is based on annual simulation with DOE-2.1. Its accuracy is limited to the accuracy of DOE-2.1 in representing buildings' thermal behavior and does not necessarily conform to the energy use profile of the existing building (P/A, April 1980, p. 100). A detailed analysis report is available upon request.
Standing foursquare on a street corner in the heart of Des Moines is a five-story stone structure that might easily be overlooked, except by Art Deco buffs. Designed as a base for an ambitious 27-story tower, the building was stopped at this height in 1932 by the Great Depression. Neutral in color and low in relief, the street fronts of the building—facing north and west and generally shaded—reveal their subtleties only on careful inspection. Fluted limestone walls rest on a severe one-story base of polished black granite, which rises to frame a deep, three-story-high entrance recess, with fine brass and bronze details (photo left).

The muted richness outside is only a prelude to the spatial and ornamental drama that unfolds—but gradually—inside. A low lobby leads to central escalators (1951 replacements for the original stairs) which rise to a twostory-high banking space. The main hall, a column-free room 131' x 54' x 30' high, is straight ahead, on the south side of the building where it gets ample sunlight; from there, the double-height space returns, past service cores and massive columns, to the tall glazed opening over the main entrance.

This unconventionally placed upper-floor banking hall is exactly contemporary with the more famous one at the PSFS headquarters in Philadelphia, by Howe & Lescaze. While the more adventurous PSFS cast aside the symmetry and ornament of traditional banking halls, this bank retains them—but reinterpreted in a way that shows an understanding of Modern spatial fluidity, as well as Art Deco ornament. Architects of the Des Moines bank were the local firm of Proudfoot Rawson Souers & Thomas (whose successors, Brooks Borg & Skiles, practice there today).

Type and scale—has already earned a Central States AIA award. What is more, the restoration of the painted plaster reliefs has earned a 1979 national AIA/AFL-CIO Craftsman of the Year award for Svend Paulsen, who directed this painstaking work.

While the plaster reliefs on the banking hall ceiling and walls were the focus of restoration efforts, the working space below had to be rearranged to fit modern banking practices. The 60-position tellers' counter that ringed the main hall was reduced to an eight-teller row to one side, using the best portions of original counter. With fine matched walnut veneers and restrained detail in nickel bands and etched glass, these counters are one phase beyond Art Deco in spirit and have a remarkably low profile, more typical of today's bank counters than those of the 1980s.

The furniture that now occupies most of the main floor is not the architects' choice. The massive desks and numerous bamboo Chippendale chairs—all dark stained—belong neither to the 1930s nor the 1970s, but are at least unobtrusive.

The tall windows that light the main banking hall were judged to need improvement.
Heavy drapery that had previously fended off the sun also obscured their shapes and decorative patterns. Wishing to avoid any kind of blinds, the architects decided on silver reflective glass, which appears mirrored on the outside only (during daylight hours). The lead stencil designs, originally placed between two lights of glass, were cleaned, repaired, and reset. The metallic coating is on the outside of the inner light, so that the patterns read from outside.

The superb series of nickel chandeliers in the principal spaces had been cleaned and restored, but their function has been taken over in the main hall by eight 6-ft-high cylinders, each with 1000-watt metal halide units aimed at the white ceiling. The chromium-plated surfaces of these sentinels does tend to dematerialize them visually, but when they are noticed they seem too harsh against other surfaces here. The justification for the change is energy efficiency: the chandeliers in the main hall alone had 484 incandescent 60-watt bulbs, converting almost 30,000 watts largely into heat. Relamped with 40-watt bulbs and controlled by dimmers, the chandeliers are now mainly decorative. (Actual savings depend, of course, on turning the dimmers down—even switching off lighting when it is sunny.) Elsewhere in the building, typical office windows, which had deteriorated badly, were replaced with fixed gray insulating glass in black-painted aluminum frames.

Another attempt to improve on the original building is the polychroming of reliefs on the lobby ceiling, which had originally been painted one neutral color—probably to save money. With colors based on the upper-floor ornament, the entrance lobby now announces the building's interior character more emphatically.

On the exterior, street-level shopfronts had always been chaotically varied. Even the original uniform jamb moldings and awning covers had been largely lost. Partly out of respect for the building's formal dignity, partly to emphasize its new ownership, a uniform shopfront treatment was adopted (photo and section, right). The placement of Mullions (doubling as door jambs) divides the openings into three parts, with "Chicago window" proportions. Signage is controlled, and shops have standard suspended ceilings, with louvered lighting units.

The shopfront portion is an example of today's good taste restoring a condition that never really was. We may be revering buildings such as this more than their contemporaries did, but that's forgivable. [John Morris Dixon]
Lofty main banking hall (top, facing page and above) is linked to double-height loan department (top left). Mailbox and elevator doors (top) are original flourishes. Storefronts (facing page, bottom) are now recessed, with consistent details.
A new aid to drafting

Eliminate time consuming hand lettering with Typiton

Typiton is a versatile, pressure sensitive vellum which has a unique surface that takes a clear, sharp impression from a typewriter — without the need of a special ribbon. When applied to a drawing, it will not deteriorate with the passage of time and will copy clearly on all Diazo reproduction equipment — without casting a shadow — appearing as though it had been drawn directly onto the original.

For repetitive work, any master title block, drawing or text can be duplicated onto as many Typiton sheets as required with many of the dry tone office copiers. Additionally, Typiton is particularly compatible with offset printing, making it highly suitable when large quantities of copies are needed. The original work is simply offset onto Typiton which is applied to as many drawings as necessary.

Supplied in packs of 25 sheets of 8½" x 11", Typiton pays for itself many times over by saving tedious hand lettering time and duplication of work.

With Dukane sound masking, the office can be open... the discussion is closed.

Open offices are wise investments. They dramatically increase usable floor space and reduce maintenance, heating and cooling costs. Even employee efficiency is increased.

Dukane sound masking makes the open office even more practical. These electronic systems help achieve a higher degree of speech privacy in a busy office. The system works by preoccupying the ear, yet goes unnoticed, itself.

Dukane has over 50 years experience with sound systems. We can custom design a sound masking system suited for the acoustical conditions in your open office.

Attach your business card to this ad and send for information today.
Tables. Tables large, medium, and small. Exotic marbles and fine wood tops in several shapes: round, square, and the Race oval up to 270 inches long. Whatever your conference or executive table needs, Sunar's new collection, designed by Douglas Ball, includes many choices.
Wait till you see the sensation that Italian styling creates when it’s built by American-Standard.

If you thought the French styling of Ellisse generated excitement, look for even more dramatic results from our newest product grouping.

It marks the dawn of a new era for the entire industry, by combining the sought-after styling of Italy with the quality that’s made us the international leader.

AMERICAN-STANDARD
European elegance built to your standards.

Circle No. 397 on Reader Service Card
Beautiful on both sides

One-piece Inryco/wall 2PS preinsulated sandwich panels are only 2" thick, but even with interior surface exposed, their isocyanurate foam cores give them an outstanding U-value (.064)—keeping interiors warm in winter and cool in summer—conserving energy in all seasons.

Expensive? 2PS panels actually save money in terms of life cycle costing. For more data, contact your Inryco representative, or INRYCO, Inc., Building Panels Div., Dept. L, 4069 W. Burnham St., Milwaukee, WI 53201.

Circle No. 341 on Reader Service Card
Here's Thermol 81 - The Energy Rod™

Why has it been making solar energy news coast to coast?

You've seen it featured at the A.I.A. Convention in Cincinnati. On the cover of Better Homes & Gardens featuring a passive greenhouse with Thermol 81. In Solargreen II. And, now, featured in the current television and radio commercials being aired by Phillips Petroleum Company. Just to name a few.

Now it's time for you to get a closer look and see how this exciting thermal storage rod can significantly save heating costs in your designs. Thermol 81 — The Energy Rod is more efficient, more compact and less expensive per BTU than other thermal storage systems now available. Plus, it adapts equally well to renovations as well as new construction — residential and commercial structures.

Call or write today for complete specs and our Free brochure.

Thermol 81 — The Energy Rod™
Making News in Thermal Storage Performance

P.S.I. Energy Systems, Inc.
1533 Fen Park Drive
Fenton (St. Louis County), MO 63026
(314) 343-7164

Circle No. 568 on Reader Service Card
TASTE.

It's defined as the power of discerning and appreciating fitness, beauty, order, or whatever constitutes excellence. It's foremost in the minds of the designers and builders of Magic Chef appliances. And it's just one of the things you can count on when you specify Magic Chef Taste in design. Quality construction. Dependable delivery. Coast-to-coast service.

Magic Chef. When it's a matter of taste. And more.

Call 615-472-3371 for the name of your nearest Magic Chef sales representative—plus our new Sweet's brochure. Or write Magic Chef, Inc., 740 King Edward Avenue, Cleveland, Tennessee 37311

Circle No. 352 on Reader Service Card

Magic Chef
Your full-line of gas and electric kitchen and laundry appliances
naturally beautiful...

“natural classics” fabric wallcoverings from

VICRTEX®

The soft look and surface interest that is natural to fabric make “Natural Classics” especially appealing.
The collection includes linens, wools, woven Indian cottons — even a suede cloth in almost every conceivable color.
Perfect coordinates for the extensive Vicrlex vinyl wallcovering collection.
No minimum order requirement. Ask to see them.

L.E. CARPENTER and Company A Dayco Company, 170 North Main Street, Wharton, N.J. 07885, (201) 366-2020/NYC (212) 751-3565
DISTRIBUTED BY VICRTEX DIVISION, New York, Atlanta, Chicago, Dallas, Los Angeles, San Francisco, Boston,
Minneapolis, Toronto, Montreal, HOWELLS, INC., Salt Lake City/PAUL RASMUSSEN, INC., Honolulu

Circle No. 313 on Reader Service Card
Bidding laws and regulations that affect the construction of public buildings funded with tax dollars have a reasonable and honorable purpose: to assure that taxpayers get their money's worth. To obtain the best price for a given scope of work, all bidders must be placed on an equal footing, and no preference can be shown one manufacturer to the disadvantage of others. Most such laws contain provisions permitting product substitution and call for at least three equal products to be specified in each case. As taxpayers, architects can generally endorse this purpose, though as architects they are acutely aware of the problems such a system presents.

While the architect can accept legally prescribed bidding procedures, rules for selection and substitution of products do not always appear consistent with his professional efforts to provide better buildings. In selecting products initially, the architect often has trouble finding three or more identically functional, durable, well-designed items for each use, and yet he knows that even others may turn up later when the often-mandatory phrase "or equal" is used in the specifications. A substitution proposed during the course of construction always threatens to mean something merely cheaper and less appropriate, perhaps by an unknown manufacturer or of greatly different character from that which he had envisaged. Though the architect is usually the ultimate judge of quality under the contract, he is always aware that he acts under observation, potential criticism, and constraint.

Consider also the plight of the manufacturer's representative trying to promote his product in a competitive marketplace. He needs to convince the specifier that his product's unique features make it especially desirable. His company may put great effort into developing new products and improving existing products. Discounts, credit arrangements, and advertising all stand behind his drive to rise above his competitors by providing something they can't duplicate, and yet government demands that his product be considered as merely equal to other similar items.

Though the architect may work to create a special building to satisfy the (public) client's needs, the building will be built, after all, largely out of common materials generally available to the construction industry. Even so, the materials will be organized and assembled to create a truly unique product: the building itself, an expression of the circumstances of its origin and of the designer's skill and vision. The added burden in doing public buildings is to develop and maintain the building's unique character without going beyond the limitations of product selection imposed by the "or equal" philosophy.

Several specification techniques are available to help deal with this dilemma. All are discussed in the CSI Manual of Practice, Chapter 11, "Methods of Specifying." Though naming three manufacturers and their products is the most direct response, the amount of research involved is considerable, particularly the first time around. Also applicable is the descriptive specification in which the product is only identified generally, with no manufacturer cited as a source. Of course, all important characteristics must be mentioned if no surprises are wanted when the proposed manufacturer's data are finally submitted. Performance specifications, another method, are often suggested as a cure-all, but they are by far the most difficult to write, since the desired results must be set down in great detail. Controlling the physical appearance of the product by this means is especially difficult, and the manufacturer's degree of latitude in approaching the problem is usually wide. Alternates may be permitted where new products or proprietary systems are desired; but with alternates, the emphasis is still usually on low price, and unless the product is successful in the marketplace, it probably won't be selected.

The conflicts between uniformity and uniqueness, between special quality and low price, are old ones and not easily resolved. The architect's challenge is to create public (and private) buildings which may be unique out of this variety of similar but not always equal products and processes. Many of the specifier's skills are needed to deal with the regulations of public agencies, particularly in the choice of products and the method of specifying. It may well be, as a famous modern architect once said, that "God is in the details." Practical experience clearly indicates, however, that it's Caesar's project manual.
Acorns to oaks

Time and distance rarely permit the architect to meet his decision-making counterparts in the manufacturing fields. The architect’s interface is often with a sales representative, convention exhibitor, or product literature. Locked into every product selected, however, is a world of creative human endeavor as rich and fascinating as the design of the building itself. To illustrate this fact, we have selected six manufacturers who, in the combined breadth of their product lines, encompass an impressive array of design interests. Their ideas and experiences act as both a mirror and a mask for ours. After all, we use them both to express our architectural ideas exactly and to cover for our areas of ignorance.

A tree grows in Santa Barbara

The wood carving on the door seemed appropriate. A condominium built at shore side at Lake Tahoe did not need to be a Swiss Chalet to have a mountain flavor. Perhaps a carved wood door would give the dwelling the extra touch that would sell it. Sherrill Broudy was the designer of the building; the year was 1963. The dwelling sold, the door sold, and within three years Broudy was to give up his design practice to devote his time to his new Panelcarve business.

Broudy had been in the design profession for nearly 15 years when he made the leap into product manufacturing. Trained as an industrial designer, he worked briefly for Raymond Loewy, Victor Gruen, and the then combined firm of Pereira & Luckman. By 1955, he was on his own as a designer of buildings. After a year, he gave up and "re-tired" to Mexico. His brief stay there resulted in the birth of a small glass mosaic business, which he brought back to Los Angeles where he returned to resume his practice. His design work progressed up the California coast to Mill Valley and then Lake Tahoe. The condominiums with the carved doors were a joint venture with U.S. Plywood.

To produce his carved wood doors, Broudy found a small shop in Los Angeles that used mechanized wood-carving machinery. Soon that machinery had turned out 15 different Broudy designs, and Panelcarve was born. By 1967, he was in the business full time and doing well.

But the door pulls weren’t right. Recalls Broudy, “We always had a hard time getting good hardware for our doors.” For his earlier glass mosaic business he had created cast-bronze cabinet pulls through a foundry in Italy. So when he and sculptor-painter-wife Joy took their next trip to Italy, they spent a week in a pension in Florence, turning out door-pull ideas in the morning and taking them to the foundry in the afternoon. They put the most successful versions in a new suitcase and left to complete their European trip. Back in California, the ten door-pull designs in bronze eventually became the patterns for the first door hardware castings. By 1968, it was clear that the company was going to make more than carved wood doors and panels; it needed a new name—"Forms & Surfaces.”

Joy Broudy’s experiments with cast-aluminum door pulls led to aluminum tiles. The tiles were expensive, and on the next trip to Europe, Broudy was searching for a more inexpensive, lightweight method of obtaining a metallic wall surface. He found an English craftsman, David Gillespie, in Surrey, England, who had produced a wall panel that Broudy had seen in an English hotel. Gillespie had used “cold cast metal,” a method of combining polyester resin with bronze powder, reinforced with fiberglass, that had a finish which, when complete, looked like bronze.

Soon Gillespie and the Broudys were back in Santa Barbara in an old rented boatworks, working out ten designs in clay for the new Forms & Surfaces line of "Bonded Bronze.” By October of 1969, the new product was available, and the aluminum tiles were phased out. What started as an idea for door and wall panels later blossomed into planters, benches, and elevator facings. The early 1970s proved to be a turning point for the young company. Explains Broudy: “We began to think about our direction and what kind of design we wanted to do. Our own sympathies were with pure architecture, and Panelcarve was not the ticket for contemporary architecture.”

In 1973, an ex-architect named Harold Edmondson walked into the Forms & Surfaces office with a product he thought would interest Broudy. The machine he had invented made it possible to groove the two sides of a 4-ft-wide wood panel in perpendicular directions to produce a wood grille. The product was called “Sculpturewood,” and Broudy liked it. He bought the license to use the equipment and evolved his own oak and redwood variations in the original patterns. Says Broudy, “This launched us into wood panels. It was a natural direction for us, something clean and crisp for contemporary architecture.”

Forms & Surfaces then turned to laminating their redwood and oak to make planters and benches. Broudy soon found that he “couldn’t predict what would happen to the laminated pieces when they were shipped to other parts of the country.” The answer proved to be the bonding of 2-in.-wide thin wood layers (backed with perforated paper) to a pressboard substrate.

Broudy does not use market research. “We usually go on gut feelings about things,” For Tambour he recalls: “I remember seeing architectural sketches of something that looked like Tambour, but there never was any Tambour.” A tambour is the closure used for years for the old rolltop desks. Forms & Surfaces now makes Tambour for use on curved surfaces.

The philosophical direction of the company soon expanded into all realms of the architectural interior, and the ceiling and floor were added. Broudy was building a house in 1976 and couldn’t get satisfactory ceramic floor tiles. “There was a need in the ceramic tile field,” he says, and he decided to sell ceramic tiles. “We set out trying to find a
The chart and photographs trace the product development of Forms & Surfaces from its first product, Panelcarve, to today's full line of interior products. 1 Panelcarve, 2 Sculpturewood, 3 Patterned Sculpturewood, 4 Tambour. 5-8 The evolution from the first cast metal door pulls to the simple lines of today.
These products demonstrate the single-minded fascination Robert Keller had with the bonding of dissimilar materials. The above training glider dates from 1945.

tile company that would make tiles to our specifications.” He has since started his own tile company.

There are no engineers or laboratories at Forms & Surfaces. Many of the designs are worked out in the factory. “The kind of designing we do,” says Broudy, “you don’t do in the drafting room.” He tries to limit the number of materials used. “Architects use a limited variety of materials. I just love a single material in a space. It produces a more quiet envelope.”

He also does more and more of the manufacturing himself. “It’s hard to tell another manufacturer how to make what you want.” The trick, he explains, is “using good solid materials and detailing them perfectly.” The smaller firm stays ahead of the competition by being inventive. “If it isn’t revolutionary, we aren’t going to do it.”

The ultimate direction? Factory-made modules that could be used for different purposes on both the interior and the exterior. Plastic or metal “pod” structures that could be used as part of factory buildings, exhibitions, transportation rest units, or vacation modules. Inside? “Of course, we would use our own products.” Broudy concludes: “There is a vast, unexplored world out there of things to be designed for architects. Problems are our opportunities.”

The age of bonding is here

By the end of World War II, Robert Keller was prepared to start his own business manufacturing an extruded aluminum molding faced with wood veneer meant to match interior panels. His teenage fascination with bonding dissimilar materials had led him to experiment with fabrication of wood and fabric gliders and a pressboard surfboard.

The “hands on” attitude of “make it, test it, and break it” was well ingrained by the time he finished his business training in college. It enabled him to convert the store fixture company, which he managed before the War, into one which did war work making molded plywood airplane parts and panels.

His business experience had made a generalist out of him and left him open to all new ideas. It had also made him a pragmatist: “If I can’t get through a problem,” says Keller, “I get around it.” Armed with this kind of knowledge and experience, and no small amount of luck, he also added intuition. He explains: “I knew I had a profitable idea.”

The result was that Keller sold “miles and miles” of aluminum molding. It was not easy. The first three years, while he managed a plywood company in Maine, he also experimented with acrylics and polyesters reinforced with glass and other filling cloths. He expanded his knowledge to include high-pressure laminates and the new experimental resins for plywood.

Using intuition and careful observation, Keller soon had his manufacturing shop producing all sorts of custom “bonded” products: glider parts, molded plywood furniture and plywood cabinets, floor panels for the Stinson Stationwagon plane, honeycombed aluminum panels for the early Sikorsky helicopters, boat cabin rooftops, shoe heels, parts for government contracts, and some custom work for architects. Says Keller, “We got more and more into sandwich panels. When a new core material came out, we got involved.” By the early 1950s, Keller’s young custom job house “had as much experience in bonding panel construction as anyone in the world.” He set a new goal: “We need a finished, proprietary sandwich material.”

Keller’s war contacts with architects and postwar experience in the construction field had exposed him to a growing interest in panel construction. The liability concerns and short-term needs of aviation were too demanding for a fledgling technology. The building industry moved more slowly, involved less risk, and allowed time to perfect new ideas.

He also recognized that, architects have strong preferences for materials, and he consulted directly with over a dozen local architects during the creation of his new product. He decided on a lightweight, inexpensive insulating panel that would last the life of the building and transmit light. The surface materials would be thin fiberglass sheets, and the framework would be aluminum. The problem was the adhesive, a problem that Keller was confident he could develop the technology to solve. The result he called Kalwall: K for Keller, AL for aluminum, and WALL for the expected use of the material.

Success was not immediate. Keller recalls: “We had a great panel, but we couldn’t sell it.” He needed a new means of fastening the panel to the building. The experience in the molding business soon produced a design for a clamp type of fastener which allowed for construc-
tion error and varying thermal expansion and guarded against delamination. The product began to sell, and sales again improved with the design of Keller's own windows and vents. Then he ran into building complaints and installation problems. "People always blame the new product." So he started his own installation company and eventually included the transportation of the product to the building site.

By the late 1950s, volume production had begun. Edward Durell Stone had used the material on his pavilion for the Brussels World's Fair. Philip Johnson constructed a roof of Kalwall for his New York State Pavilion, and Hellmuth, Obata & Kassabaum employed it on the St. Louis Priory Church.

Products such as the Kalwall panel are never allowed to become fixed in design. Each architect, use, and building is unique. The values of the society change. The fiberglass used in the product has varied substantially over the years, reflecting concerns for vandalism, fire protection, quality and quantity of light, and energy conservation. As Keller puts it, "The work is never done."

Keller's experience with the myriad needs and products before his plunge into Kalwall exposes an uncommon curiosity. He explains: "I like to get into fields where the other fellow isn't. My kicks come from tomorrow's products. This mentality led to a venture into lobster farming, which eventually failed, but resulted in the creation of fiberglass water storage tubes. When "water walls" came into use in the early 1970s, the water tubes were converted from containers for cold sea water to storage of energy-laden solar-heated water.

Keller's newest entry into the energy market is Kalwall "pods" containing phase-change chemicals, which can replace the water tubes in a building situation short of the space and weight capacity. When the pods are exposed to solar heat, the chemical crystals liquefy, storing the heat. A future advancement will be what Keller calls a "heat mirror," which promises to increase insulation and insulation of his walls. Eventually, all of the Kalwall products will be available in an energy-efficient premanufactured metal building system for light industrial purposes.

Keller's value as director of all this activity transcends the technology involved. "I make progress through communications with people." He continues, "First I get the big picture, then I go step by step." He usually goes from the practical reality to the theory behind it, and encourages as many multiple uses for his products as possible. He does not see himself as a good salesman. He adds: "Most of the time we have been very far ahead of the market. The innovator has to know when to back off plans or be able to stick to them when others back out. Ideas are a dime a dozen; the value is to make something of them."

**Faith design and technology**

Dirk Jan De Pree, at age 38, had owned his furniture company only six years when the Depression of 1929 hit. In the words of D.J. De Pree, "I was sure we weren't going to make it." The Zeeland youth had worked for the Michigan Star furniture company since graduating from high school. He married Nellie Miller in 1915 and was able to convince her father of the future value of the company and to buy controlling interest. De Pree changed the company name to Herman Miller in 1926. This was a revelation for De Pree. At first he criticized them for being "utterly plain" and compared them to manual training school design. Rohde countered every criticism and convinced De Pree that "I didn't know what I was talking about and he did."

Rohde unfolded the design philosophy which is paraphrased here: The interesting thing about a house is not its furniture, it is the people who live there. We mustn't "over furniture." Women don't have maids any more. This is new furniture, and it must be sold as new furniture, not artificially aged or copied from another period. We don't deal in fakery... no pretense, no phoniness. The furniture must be multipurpose and long lasting, no more fashions. We don't change a design until we have something better. The answer is repetitive manufacturing; it will lower the cost and improve the quality. We are not selling furniture, we are selling a way of life.

To D.J. De Pree, all of this was just plain common sense." He linked it to the Christian principles which dominated his childhood in the Dutch Zeeland community. De Pree continues: "Rohde taught me basic things about good design and design responsibility."

For five years or so, Herman Miller continued to manufacture both traditional and Rohde's modern furniture. The combination of commercial success in the East and simple conviction finally transformed the company into a fully "modern" furniture company. The turning point might have been the Chicago World's Fair where De Pree sat and eavesdropped as customers came and went from his Herman Miller display. He marveled: "The people understood what was going on."

Rohde's untimely death in 1944 left the Herman Miller company without a
designer. De Pree searched in America and abroad for a replacement. A story in Architectural Forum magazine led him to George Nelson. Nelson, then managing editor of Forum, along with Henry Wright, wrote the story about a wall that organized and stored the various objects found in the home. Like Rohde, he was articulate, and De Pree found him to be a "student of living." Nelson had never designed furniture, per se, but De Pree commissioned him to design his first line for Herman Miller between 1945 and 1946. Before it was even into production, Nelson called De Pree with raves about a new chair he had just seen. "This chair is the best thing in chairs I have ever seen." The chair was, of course, the first Eames molded plywood chair, its designers, Charles and Ray Eames.

With Nelson, therefore, Herman Miller got more than a single designer. Nelson brought with him a critical eye for quality in other designers to complement his own talents. De Pree remembers Nelson's words: "I don't have all of the good ideas." Nelson did not want a team of designers; he wanted what De Pree calls "a stable of a couple of good horses to do the racing." So with Nelson, Miller eventually got Charles and Ray Eames, Paul Lazlo, Alexander Girard, and even Noguchi.

In the 1948 Herman Miller catalog, George Nelson described the design philosophy formally as follows: "The product must be honest. Herman Miller, like all other companies, is governed by the rules of the American economy, but I have yet to see quality of construction or finish skimped to meet a popular price bracket, or for any other reason. "Design is an integral part of the business. The designer's decisions are as important as those of the sales or production departments. If the design is changed, it is with the designer's participation and approval. There is no pressure on him to modify to meet the market."

"The product must be honest. Herman Miller discontinued production of period reproduction almost 12 years ago because its designer, Gilbert Rohde, had convinced the management that imitations of traditional designs were insincere esthetically..."

"You decide what you will make. Herman Miller has never done any market research or any pretesting of its products to determine what the market will accept." If designer and management like a solution to a particular furniture problem, it is put into production. There is no attempt to conform to the so-called norms of 'public taste,' nor any special faith in the methods used to evaluate the 'buying public.' "There is a market for good design. This assumption has been more than confirmed, but it took a great deal of courage to make it and stick to it."

George Nelson's formal and informal design leadership at Herman Miller continued for more than two decades. His influence was felt in every aspect of the company's public profile, and the Herman Miller graphic symbol was designed by him. During this period, the product line of Herman Miller ventured forth from the home and into the office. His relationship with Herman Miller continues today, after 35 years.

It was under the influence of Robert Propst, however, that Herman Miller flowered into the Action Office. D.J. De Pree was on a visit to see his young son in college in Denver when a local architect suggested that he meet Propst. The designer was working at that time on a bed designed for paraplegics. His shop was his garage. De Pree recognized the Propst genius for function coupled with a "heart for solving a problem." After their third informal meeting, De Pree was convinced that Propst should work for Herman Miller. Together they worked out the concept of the Herman Miller Research Corporation.

The concept was that Propst would come to Ann Arbor, Mi, and establish a research center with himself as head. A similar idea had been approached years before by Nelson and Eames. Eames was for the establishment of a technical center much like the automotive test centers. As Eames described it: "The tech center must be responsible for making a product unassailable in the marketplace." The research center concept was less engineering testing oriented. When Propst arrived, he had 39 different projects in mind. It was a major chore to narrow down the tasks to a few to begin. It was also during this time that the direct leadership of Herman Miller passed to Hugh De Pree. With the change of leadership went a team and systems emphasis that ideally suited Propst. By 1962, Herman Miller had adopted the systematic approach.

Consistent with the systems method of design, Propst created a very clear and coherent set of criteria for his open office design work. It makes an interesting comparison with the statements of Rohde and Nelson before him. These criteria are as follows:

"A good design delivers an anticipatory intelligence. It should readily yield to what good managers, planners, and users want to do—provide an equipment world with very human attributes. The criteria that allow this to happen are:

Forgiving: Ready to forgive without penalty the arrival of the contingencies and errors in planning that are inevitable in human affairs.

Coherent: A comprehensive system of parts that work in agreement and that bring other services into agreement in a complex environment.

Process forwarding: Ready to interface with the work process and help carry it forward.

Modular limited: With complete assembly agreement and simplicity, the fewest possible parts serving the maximum depth of functionality.

Open ended: A growing, evolving system going with organizational life where it needs to go, open to new solutions, able to drop off obsolete functions.

Readily available: A stable, predictable commodity ready for long-term involvements and supplied by a dedicated organization.

Replaceable: The ability to react to wear, failure, and obsolescence with simple, economically plausible decisions.

Agreement to periodic regeneration.

Progressively enterable: Allows a progressive involvement with a new order of things; a way to gradually gain experience and skill with a new effect, to experiment, educate ourselves as users.

Facility renewing: Provides a way to consistently bring a fresh new capability to facilities, old or new."

The Action Office concept of the 1960s has been augmented in the 1970s with COSTRUC, short for coherent structures, a hospital and laboratory application of the systems approach which needed the addition of only 300 new parts to the 3000 available from the Action Office. The most recent application is the Action Factory, which needed only 85 new elements added to the system to create a work environment tailored to the specific needs of light industry. In a factory with office personnel as well, the use of the system serves to reduce the distinction between the two types of workers.

It is no accident that such an equation is attempted by Herman Miller. From the early years of the 1920s to the present, there has been a concerted effort to treat the company workers as peers. The company adopted the Scanlon management technique in the 1950s. The system incorporates increased employee participation in decision-making processes, corporate division bonuses, and a formalized communication system that takes decisions from top to bottom to top of the corporation.

This importance of free communication has also been the key to relation-
The products above demonstrate over 50 years of furniture history at Herman Miller.  
1 The company started out making traditional "period" furniture. 2 Eames's plywood chair and 3 the complete line of chairs emerged under George Nelson's direction. 4 The systems concept in office furniture was evident in early drawings by Gilbert Rohde. 5 The Action Office grew and developed in the early 1960s. 6 The office was followed by an extension of the system which included hospital functions and 7 most recently the Action Factory. They are products of the design approach fostered at Herman Miller by Robert Propst.
Technics: How products get designed

ships the firm has had with its designers. All of its great designers have been good talkers, and enlightened men of vision. The freedom, however, did not come without its price. As D.J. De Pree puts it: “Freedom for the designer added greatly to his responsibility.”

Decentralized design

Manufacturing companies, like the people who own them, grow and age. When a company endures beyond the lifespan of its founder, it cherishes the accomplishments of the past, and tries to maintain its past qualities while forging new ones.

It was six weeks after Robert E. Lee surrendered at Appomattox and three weeks after his own nineteenth birthday that a young soldier named George Westinghouse obtained his first patent. On March 12, 1914, almost fifty years and 360 patents later, George Westinghouse died.

The son of a farm machinery manufacturer was born into the explosive and dynamic period of history where inventors of vision and courage laid the foundations for modern life and transformed their debts into fortunes overnight. Invention was equal in importance to the correct evaluation of the context created by the other inventions of the day.

George Westinghouse by chance discovered a magazine explaining the use of a compressed air drill used in Italy and recognized the opportunity to apply the technology to an air brake for locomotives. The invention which followed increased the safety of trains by allowing them to stop in shorter distances, and used only one man to replace the two-man braking chore. The air brakes were Westinghouse’s first great success, at age 22. He continued to invent for the train industry but soon branched into the telephone industry, natural gas, and electrical power.

In the mid-1880s Westinghouse met Frenchman Lucien Gaulard, who along with an English engineer, John Dixon Gibbs, had invented a “secondary generator,” later to be known as a transformer, which could effectively increase or decrease the voltage of alternating current. Westinghouse and his associates further developed the machinery to the point where they confidently organized the Westinghouse Electric Company in 1886. Six years later Westinghouse proved the importance of the concept by providing an inexpensive and reliable system for lighting the grounds of Chicago’s Columbian Exposition. As a result he was commissioned to transform the potential energy of Niagara Falls into electricity.

While he went on to pioneer the use of turbines in locomotives and ships, his company, Westinghouse Electric, later excelled in the manufacture of electrical appliances for the home, the electric elevator, and the first mass-produced x-ray machines. The company produced items as diverse as precast concrete homes and jet engines.

Today the multibillion-dollar Westinghouse Corporation manufactures 8000 products and employs 140,000 people. Some segments of the company would certainly surprise George Westinghouse. They don’t make locomotives (or jet engines) any more. Nor does Westinghouse make home appliances or medical products.

Westinghouse does have a power systems company which continues the heritage of electrical generation and distribution. Their products most commonly known to architects (elevators, office furniture, transportation systems, and HVAC equipment) are all part of the construction sector of the public systems company along with defense and radar. There is still room left for the Westinghouse Broadcasting Company, the sole distribution of the Longines Watch Company, and the Westinghouse Learning Corporation.

The Westinghouse Corporation could accurately be described as a collection of independent companies. How does one control the product design of such a giant? What role does design play?

Industrial designers played a role in Westinghouse as early as 1925. It wasn’t until 1959, however, that a large scale concern for design emerged. A study by Ketchum, MacLeod and Grove, commissioned by Westinghouse, yielded the opinion that the company as a whole had a negative overall design image. Concern mounted in the following years and finally culminated in 1967 with the Westinghouse Corporate Design Center. For once, all of the design-oriented functions of the company were consolidated. The graphic designers, industrial designers, and architectural and interior designers were under the same roof. Eliot Noyes, Paul Rand, Serge Chermayeff, and other top designers of the day were frequently consultants. By corporate decree, products costing over a certain dollar amount were compelled to use the services of the center. A commonality of graphic design united all of the divisions. Various division personnel interacted with the designers, learned their vocabulary, and recognized their values.

The program was not without flaws. At times designers intimidated the engineers and corporate decision makers. The early system of free design services was replaced by an accounting system where the in-company “clients” “paid” for services rendered. The design success rate improved with pay. Nevertheless, over time, doubts arose about the financial credibility of the project. A realignment of the corporation in the mid-1970s eventually led to the demise of the Corporate Design Center in March of 1980. The graphic designers became part of Corporate Communications. The architectural and interiors people went to the traffic and real estate division, and the industrial designers went to research and development.

Designers who have outlasted the decentralization feel some nostalgia for the heyday of the Corporate Design Center.
They realize that the strong central emphasis has served to educate many division people and their services will continue to be used but without the formal design emphasis. The designers must work to justify their existence and even publicize their presence. The realignment also allows the designers more intimate relationships with the particular divisions in which they have been assigned. Of greatest importance, in the midst of a huge corporate structure and the cushion that years of association with a single company brings, they are tasting the vitality that comes from risk, and the fight for their design lives.

**A good mix of activity**

"Roy Grumman physically dragged the first piece of business into—the shop. A wrecked Loenig amphibian, purchased from an insurance company, was towed from New York City all the way to Baldwin, Long Island, behind Grumman's Hudson Super Six. Only half of it would fit through the garage door. A passing motorist ran into the half that stuck out into the street. Facing a lawsuit that would have bankrupted the concern before it got started, an emergency automobile repair shop became the top corporate priority. The motorist drove away happy, and work on the Loenig wreck was finished. The plane they'd bought for $400 eventually was sold for $20,000."

The above is reprinted from the 50 year history of the Grumman Corporation published earlier this year. It well portrays the kind of risk and profit that is possible in the aerospace industry. As Grumman President Joseph G. Gavin, Jr. explains: "When you have spent 50 years defying gravity it causes you to look at things differently." Of course architects and engineers defy gravity in their own way; how is aerospace different? "The consequences of a mistake in aerospace are frequently fatal. There is a completely different standard of risk-taking. The analytical and test procedures are more sophisticated. The aerospace technical capability is also honed by competition and an overwhelming motivation for success."

By maintaining government contracts with the military, Grumman also guarantees that it stays in the forefront of the technology. A commercial endeavor has only the market and the laws of nature to contend with. A fighter or missile must also confront an enemy mind which is trying to undo all that has been designed.

In periods of tight military budgets, good innovative design often has an enemy in life cycle cost analysis. As Gavin explains: "Predicting the life cycle cost accurately suggests that you are not being very adventurous. And if the new product does not make a significant step, it probably isn't worth it." In the early 1970s Grumman absorbed a $250 million loss surrounding the early stages of the creation of the F-14 fighter plane. A company with this kind of resiliency and which employs 28,000 people has had major success over the last 50 years.

To stay afloat in the early years of military airplane design, Grumman built aluminum truck bodies. They still build them today. Their first Navy airplane contract finally came through in 1951 for the first fighter with retractable landing gear, the XFF-1, "Fifi."

The company continued to pioneer in new areas of development. Their early work on pontoon design and their Loenig repair led to amphibious aircraft. Their string of warplanes for World War II inspired Vice Admiral John S. McCain to proclaim: "The name Grumman is like sterling on silver." As the war was ending, the company used its aluminum presses to manufacture the first Grumman canoes.

After the war the airplane industry was transformed into the jet age, and Grumman kept pace with warplane design, as well as planes equipped with complex electronic surveillance equipment. At the same time as the company was breaking speed records with its fighters, it was dropping lower to the ground with a plane expressly designed for crop dusting. In the late 1950s it also developed a civilian corporate jet.

Of course Grumman's crowning achievement of the 1960s and early 1970s was the completion of the contract to create the Project Apollo Lunar
Grumman's crowning achievement was the Apollo Lunar Module. About this time the Grumman Aircraft Engineering Corporation became the Grumman Corporation.

In the late 1970s the new corporation became involved in technologies as diverse as solar energy, wind energy, the conversion of garbage into steam, and nuclear fusion technology. It acquired a petroleum equipment company, a bus manufacturing company, and Pearson Yachts.

Many times the only continuity between the various product types is the name on the side and the Grumman commitment to what they call "a mature first-class product." In spite of its size, however, very little of the Grumman product line could be categorized as mass production. Says Gavin: "We don't get excited about the canoe business; we are in the canoe business because we are in the canoe business. The canoe is part of our reputation, from an image point of view."

When there aren't any wars to fight and no moons to land on, an aerospace company starts to fidget. Like an architectural firm, in lean times it is a problem solver looking for a problem. Gavin explains: "We are keenly aware of the response to a mission requirement. We are searching for a mission in which we are qualified to get involved. Many times land-based technology is as good as aerospace technology. An aerospace company doesn't always know how to turn off its sophistication in another field."

In spite of its size and decision-making expertise, ideas for product development at Grumman are not a "neatly fenced off responsibility." Says Gavin, "The interpersonal relationship is as important as the formal structure." Ideas are hard to plan in advance. "Many ideas start in the depths of the organization. Decisions involving risk are made at all levels of the organization. The sooner you find an error, the better off you are. You must make it known that the bearer of bad tidings will not get slain."

A large new product line must, of course, eventually have the enthusiasm of at least one management official. That product will then be the result of "vigorous communication." At Grumman there is not much faith in market surveys. Says Gavin, "We don't know whether to believe the answers." It is, therefore, the role of the corporate decisionmaker to ask himself daily: "Where is the present mix of activities going?"

A constant state of change

The imaginative young Canadian did not invent asbestos-protected metal (APM), but in 1906 he obtained the patent for it, along with sufficient knowledge for its manufacture. Within a short time, Harold Hansard
Robertson had moved out of the abandoned silk mill in Canton, Massachusetts, and into his second factory closer to Pittsburgh (the source of his raw materials and his large clients). With his natural gift for selling, his profits improved, and he changed the product name to Robertson Protected Metal (RPM).

Protected metal is still the backbone of the international corporation that bears its founder's name, H.H. Robertson. The H.H. Robertson product line progressed from walls to roofs, to roof ventilators and power roof ventilators. The company eventually adapted their supply of corrugated metal to the electrified cellular floor. The protected metal has evolved from a corrugated iron product to the electrified cellular floor. The protected metal has evolved from a corrugated iron product with bitumen-adhered asbestos felt to a more durable version called Galbestos in the 1930s. The new product replaced the older Galbestos product. The company eventually adapted their supply of corrugated metal to the electrified cellular floor. The protected metal has evolved from a corrugated iron product with bitumen-adhered asbestos felt to a more durable version called Galbestos in the 1930s. The new product replaced the older Galbestos product.

The galvanized steel sheets already used for Galbestos were coated with a thin protective layer of flexible epoxy polyamide instead of asbestos. The epoxy was then protected from the ultraviolet rays of the sun by a specially modified polyester hot-melt resin or alternatively a 50 percent silicone-modified polyester. This top layer includes color pigmentation.

Accelerated weathering tests were then conducted to approximate a 20 year usage. Of course such a coating is worthless if it cannot be conventionally factory formed. Therefore, form testing was accomplished in the Pittsburgh factory. The new material, Versacor, was tested in place in Norway.

Robertson researchers at home and in Norway closely monitored the performance results. While confronting growing concern over the use of asbestos in this country, the older Galbestos product does not perform well in the horizontal shear necessary for composite sandwich panels. Most important, the acidity of the rain and the resulting corrosion of the metal on our buildings has accelerated in recent years.

In conjunction with the European testing of the material, the company drew upon the expertise of its material installers to evaluate installation problems, and architectural representatives to evaluate sales potential. The construction expertise along with the ready sounding board for the new ideas gave Robertson confidence that their new material would do well in the United States. In 1979 production of Versacor began in Pittsburgh on a full scale.

H.H. Robertson employs chemists, engineers, installers, factory technicians, and marketing and sales people, but no "designers." They make the protected metal "cloth," not the "suit." The visual part of the team is literally the architect. Each job begins with the selection of the details needed for the junctions of the material and its color and texture. For example, when Robertson originated the colors for their Galbestos products in the 1950s, they took them directly to the architects. New suggestions were made so that now it is possible to completely customize the color designed to the specification of the architect. New ideas generally do not mean new products, per se; they are new applications of the same product. There is no stock of products. They are all created from stock rolls of sheet metal.

The laboratory and research capability of Robertson offer a constant support activity. Communication among research, manufacturing, installation, and marketing is vital. The reason is simple. Once a product reaches the stage of being a mass-producible commodity, companies as small as Robertson will be beaten by larger companies. A constant effort must be made to improve the quality, uniqueness, and cost of the material. Very simply, custom products can't stand still. [Richard Rush]
Design flexibility and good engineering have been major objectives in the development of Blum railing systems. Components of the several systems are interchangeable to offer the designer the widest possible selection of metal, acrylic/wood and plastic components. Examples shown here illustrate the variety achieved by designers and executed through the ability of metal fabricators.

Blum's comprehensive catalogs supply data and methods for engineering design as well as clear and complete details of stock components. Thus the designer can specify Blum railings for style and appearance, for economy and structural soundness, and design railings to meet applicable codes or safety requirements. All components are carried in warehouse stock in quantity and are available through architectural metal fabricators in all parts of the United States. Refer to Sweet's catalogs or request Catalog 13.

RAILING SYSTEMS

Carlstadt®
Acrylic/Wood  Colorail®
Connectorail®  Ornamental

THE MOST COMPLETE SOURCE FOR ARCHITECTURAL METALS

Member of NAAM, NOMMA, NAAD & Steel Service Center Institute

ZURICH AMERICAN INSURANCE CO.
Moorstown, New Jersey—
Arch: Gruen Associates
Fabr: Albro Metal Products Corp.
ST. LANDRY BANK, Opelousas, Louisiana—
Arch: Bank Bldg. Equip. Corp. of America;
Fabr: United Steel Co.
SPOKANE STORY, Spokane, Washington—
Designer: Zentis Design.
BIRMINGHAM MUSEUM OF ART,
Birmingham, Alabama—
Arch: Warren Knight & Davis Inc.;
Fabr: Newman Brothers Inc.
STONES RIVER TREATMENT PLANT,
Nashville, Tennessee—
Arch: The Chester Engineers;
Fabr: USONA Manufacturing Co.
To begin with, all joints and sections of Trocal's exclusive multi-chambered PVC window profiles are fusion welded together; precision mitered corners form a smooth, one-piece solid frame and sash. There are no joints to seal, no drafty leaks to plug up. The air locked into the individual chambers adds insulation and prevents condensation.

That's how Trocal windows are shutting out tropical heat, arctic cold, high velocity wind, torrential rain and conserving energy. Even corrosive elements which play havoc with other type windows, have no effect on Trocal. Because Trocal is all PVC—rigid, high impact PVC—not just a vinyl sheath which is often used to improve wood, steel or aluminum. Result: Trocal is completely resistant to salt air, noxious gases and industrial pollution. Shrugs off mortar, lime, cement.

How about cost? Trocal is right in there in initial costs with thermal-break aluminum and wood systems. And far more economical in the long run—never needs painting or repainting. Won't swell, pit, peel, rot or dry out.

With over 130 different interchangeable profiles to choose from, Trocal offers infinite variations to suit any design or construction purpose. Plus a choice of seven attractive colors to blend with the facade. The colors are permanent, can't peel off, fade or deteriorate. Because the ½ mm (20 mils) layer of colored acrylic is homogeneously bonded to the PVC profile as it is extruded.

Yes, there are millions of reasons to choose Trocal—the millions of Trocal windows that have brought this proven efficient approach to energy conservation everywhere. For over 20 years.

Want more reasons? We'll gladly spell them out for you.

Send for 8-page brochure, "A New Dimension in Energy Saving"
Suits arising from work performed by a partnership in the name of one partner can be the responsibility of the firm, even if the partnership has been dissolved.

The dissolved partnership: What is its liability

Norman Coplan

The partnership as a business entity for the practice of architecture continues to be commonly utilized. Questions often arise, however, as to the obligations of former partners after they have withdrawn from the firm, or the partnership has been dissolved. The United States District Court for the Southern District of New York recently was called upon to consider the liability of former partners of an architectural partnership which had been dissolved, in a situation where one partner sought a proportionate reimbursement from his other partners for expenses incurred by him, and for his contribution to the settlement of a claim asserted against him arising from partnership business (Seiler v. Nakrosis and Kerner, 78 Civ. 4904).

During the pendency of the litigation, the defendants had formed a partnership in 1966 for the purpose of engaging in architectural and engineering work. In 1968, the firm had an opportunity to provide architectural and engineering services for the design of a store in Delaware. The partnership was not licensed to practice in Delaware. However, Seiler had obtained a personal license in that state, and consequently the contract was taken and the work performed in Seiler's name. All payments for such architectural and engineering services were deposited in the partnership account, and the project was considered a partnership business activity.

The store opened for business in 1969 and the partnership dissolved shortly thereafter. In 1970, flood waters from a nearby creek entered the basement of the store and caused extensive damage to the inventory stored therein. The store owner instituted an action in Delaware against Seiler to recover damages. The partnership was not named in the suit. Later, in 1971, a second flood occurred causing additional damage, and the complaint was amended to seek damages of over $3 million. Since the amount of the suit was substantially in excess of the malpractice insurance that had been carried by the partnership, Seiler retained personal counsel in addition to the counsel who represented the partnership's insurance carrier. In a decision in 1975, the Court found that Seiler was negligent in performing the architectural and engineering services for the store. The issue of damages was left for a separate trial.

Seiler took an appeal from the decision, and feeling that the attorney representing the insurance carrier, because of inexperience, was inadequate to represent him on appeal, retained additional outside counsel to handle the appeal. The Appellate Court remanded the issue of Seiler's liability back to the trial court, and Seiler then authorized his outside personal counsel to continue his representation in trial court proceedings.

During the pendency of the litigation, Seiler was concerned that his insurance carrier might have a conflict of interest, as it not only insured him, but was connected with the subrogated insurer of the store owner. It was recommended that a separate suit be instituted against those insurance carriers, apparently in the hope that this would result in a settlement of the action instituted by the store owner. In 1977, Seiler retained a well-known New York law firm to commence such litigation, and as a consequence of this action, the suit by the store owner was settled with the insurer paying $1,090,000 and Seiler $60,000.

Seiler then wrote to his former partners requesting that they reimburse a proportionate share of the $60,000 which he was required to contribute to the settlement, and to reimburse him proportionately for the legal fees incurred. His former partners retorted that the suit against them for a wrong that arose as a result of his conduct in the reasonable operation of his business should be brought against all or any of them in their individual capacities... or against the partnership as an entity. The fact that a partnership has been terminated after the tort occurred does not discharge the existing liability of any partner... Finally, if one partner is sued alone for a wrong that arose as a result of his conduct in the reasonable operation of his business, and that partner makes payments in satisfaction of any liability arising thereunder, he is entitled to indemnity from his other partners to the extent of their share in the partnership.

The defendants further contended that Seiler's legal expenses far exceeded those that might be incurred in the ordinary course of the partnership business, and that Seiler had no authority to incur such liability on behalf of the partnership. The defendants particularly objected to the legal expenses involved in the suit instituted against the insurance carriers. In rejecting this contention, the court said:

"The defense and settlement of a lawsuit which arose out of tort committed by a partnership is certainly within the ordinary course of a partnership's business... a partnership's business... Seiler's retention of the Gordon-Hurwitz firm (the New York firm) also appears reasonable and justified. The action was brought against the insurance carriers... a sound tactic and provided a significant added inducement for the subrogated insurer for the (store owner) to settle."
Total Performance


Sunglas® Reflective by Ford blocks up to 65% of the sun's heat, while letting in over 40% more natural daylight than the closest competitor, at a cost that's surprisingly low. The next time you specify reflective glass, specify the total performance of Sunglas® Reflective.

For more information call: 1-800-521-6346.

Ford GLASS DIVISION

Circle No. 331 on Reader Service Card
ARCHITECTURAL ORNAMENTAL METAL & STONE WORK

BENCHES • GATES • FOUNTAINS & POOLS

SCULPTURE & STATUARY • BOOKS • PLANTERS & URNS

TOPIARY • SUNDIALS • WEATHER VANES

SHEET METAL ORNAMENTS • MUSEUM SUPPLIES

These photographs cannot begin to show you all the products we make. That is why we publish many hardbound library reference-catalogs filled with product photographs and useful information. One of these is the Book of Garden Ornament (No. 2076, reg. price $6) which we offer FREE to architects and designers. Send for your free copy today.

KENNETH LYNCH & SONS

TRADITIONAL CRAFTSMEN

DEPT. P 78 DANBURY ROAD WILTON, CT 06897

(203) 762-8363

Circle No. 405 on Reader Service Card

On reuse

Books

PRESERVATION: TOWARD AN ETHIC IN THE 1980s


This book presents the recommended goals of the National Preservation Conference held in Williamsburg in 1979, and it also includes papers from the Future Directions Symposium of the National Trust held in Chicago in 1978. The book addresses such subjects as where preservation is heading and where it should go. In presenting the discussions of the leading preservationists at the meetings, the book outlines the goals they established as well as the means for achieving them in such areas as objectives, roles, and organizational structure; standards and practices; avocational versus vocational involvement; education; communications; information resources; funding; and legislation. Specific concerns addressed include the economics of preservation, neighborhood conservation, criticisms of preservation, endangered building types, a national legislative agenda, communicating the preservation message, and public policies toward preservation.


What relationship should new architecture bear to old architecture? Should new buildings mirror, or be in stark contrast to, historic buildings? Can formulas quantify desirable relationships between old and new? Are imitation and replication acceptable? Can design controls be properly administered by local design review boards? These are some of the questions discussed in this book, often with contrasting viewpoints, by 20 of the country's leading architects and preservationists. Topics addressed include the history and theory of design relationships, the legality of architectural controls, historic districts, design guidelines, adaptive use, and public and pro-[Books continued on page 140]
Franciscan Terra Craft is a new ceramic floor tile with a hint of the Old World handcrafted look which beautifully compliments traditional as well as contemporary architecture. Terra Craft is available in both “Dunes” and “Waves” patterns in five colors — Almond, Charcoal, Cordovan Brown, Flashed Walnut and White White. The sizes of 4” x 4”, 4” x 8” and 8” x 8” provide the flexibility of creating a variety of patterns. And for those who want to design with more unusual shapes, Terra Craft offers 4” cobble, hexagon, octagon, and serpentine wedges.

Your clients will enjoy the durability and easy maintenance of Terra Craft. And they will be proud that their residential or commercial installation features Franciscan — the hallmark of quality in American ceramics. For full information on this exciting new line call your Franciscan distributor or contact:

Franciscan Ceramics, Inc. 2901 Los Feliz Blvd. Los Angeles, CA 90039
201 E. 61st St. New York, New York 10021
Member of the Wedgwood Group

Call No. 333 on Reader Service Card

8” x 8” Dunes in Cordovan Brown
Tastefully designed, meticulously crafted... NEO-RAY’S “TRILOGY” ceiling systems provide illuminated surfaces of perfect proportions; accentuating the outstanding features of an interior space.


This important new study proves that restoring old buildings saves energy by showing that it takes more energy to construct a new building than to rehabilitate an existing one. The book uses a new method to measure the energy investment in rehabilitation and new construction, providing formulas to determine the Btu’s needed to do the work. Three case studies are documented to calculate the energy differences between the two attitudes, and in each instance rehabilitation showed significant savings over new construction. In one case, a hotel of 1899 was restored as an office complex in 1972 at a cost of 17 billion Btu's. A comparable new building constructed of new materials would have required 109 billion Btu's—85 billion to make the materials needed and 24 billion to put them into place. The energy saved in this instance was enough to heat and cool the building for 15 years.

Everything you need to know about “Barrier-Free Door Control” is here. Comparisons between leading brands...feature by feature. Charts and graphs to help you select exactly the right control for your needs. Complete descriptions of fully automatic, semi-automatic and manual controls. A detailed review of the present state of the art and a presentation of the most sophisticated new smoke barrier system ever devised. Phone or write for your free copy of “Solutions To Barrier-Free Door Control.”


This unit price and building systems cost guide is designed for estimating costs involved in the reuse and renovation of existing structures. Its uses cover assembling early stage estimates as well as composing final comprehensive bids. The types of projects considered range from small-scale residential remodeling work to major commercial renovation projects. The resource contains 8000 unit prices plus building systems costs. A group of over 125 of the most widely used repair and remodeling systems has been selected as the basis...
Qiaro. A 'Food Fair' system designed to upgrade the interior mall eatery. Qiaro can be easily assembled as a four contact point free standing unit, or a fixed two point system. Solid maple contoured seats, solid maple-edged tops with a variety of inlaid finishes, or solid maple butcher block table tops are standard. Options include a two-seat arrangement, canopy, stand-up counter, divider panel and seat with back support. Qiaro is for malls, arcades, cafes, theatres, airports, hospitals, schools, office cafeterias and hotels.

Design: Taylor/Sprules

For product information contact:
Arcado Systems Limited
224 Norseman Street
Toronto, Canada
M8Z 2R5
(416) 863-6769

Circle No. 354 on Reader Service Card
The ultimate window replacement system

Savings over 30% are documented; pay back periods range between 3 and 5 years.

Ask for an Energy Audit by Kalwall.

Your potential savings can be accurately and quickly calculated.

Call or write for personal assistance, and the names of installations in your area.

KALWALL CORPORATION
P.O. Box 237, Manchester, NH 03105
603-627-3861

Circle No. 346 on Reader Service Card

Books continued from page 140

for the volume's illustrated systems section. The book focuses on labor cost variables based on average union wage rates, manhour output, and factorable productivity, plus other necessary variations. Also available are city cost modifiers for 162 U.S. and Canadian metro-regions for calculating costs on a division-by-division basis for any locality.


The Tax Reform Act of 1976 and investment tax credit provisions in the Revenue Act of 1978 were landmark changes that already have brought significant results including millions of dollars of rehabilitation in nearly every state. These incentives are examined in this book, together with other benefits available in numerous states and cities. Practical advice on how to take advantage of tax incentives is provided for developers, builders, property owners, tax attorneys, and preservationists. Where to go for information, examples of completed projects, cost and tax savings comparisons are all spelled out in detail. The book's contributors—leading preservationists and attorneys—also evaluate the effectiveness of available tax incentives and analyze the challenge facing preservationists in changing the power to tax into the power to save.


This bibliography provides a guide to the various HCRS publications compiled to give technical assistance and guidance to states and localities for managing their cultural resources and for developing their historic preservation programs in compliance with historic preservation mandates. In addition, some publications listed provide the general public with information about American historic, architectural, and archaeological resources, and are intended to increase general awareness and encourage public concern for historic preservation.


This first edition of the directory of local, state, and regional organizations active in preservation lists several thousand preservationists including local organizations and neighborhood associations, landmarks and historic district commissions, statewide preservation groups, historical societies, and allied organizations. The directory is arranged alphabetically by state and city, providing names of organizations and complete mailing addresses, and covers all states and US territories.

Circle No. 356 on Reader Service Card
Look to us for 1287 new redecorating ideas.

With our Guard®, Satinesque®, and other Wall-Tex® Wallcoverings, you can add texture, color, dimension, and uniqueness to nearly any commercial remodeling project. And you can do it with the greatest of ease. Our wallcoverings are simple and fast to put up. They don't have to be handled with kid gloves, either... because they're scrubbable. And you can change them easily, too. So for long-range economy, we have the most cost-effective decorating material you can buy. Literally, hundreds of colors, patterns, woodgrains and textures let you create exactly the image and tone you want to achieve. And they're quickly available from 33 stocking locations across the country. No other decorating medium can so thoroughly change an environment so simply. Contact us for the name of our representative nearest you. Columbus Coated Fabrics, Columbus, Ohio 43216.
The best passive solar heating system under the moon.

Thanks to the unique thermal performance of masonry, it's possible to use the sun's heat to warm buildings at night.

Masonry, because of its mass or weight, absorbs heat more slowly and holds it longer than any other building material. In passive solar heating systems, masonry walls and floors collect and store the sun's heat during the day. Then, because of masonry's thermal conductivity, the stored heat is slowly radiated back into the interior at night, providing enough free warmth to substantially reduce mechanical heating requirements.

The natural energy efficiency of masonry materials—brick, concrete block, stone—is enhanced by the skill with which masonry craftsmen use them. Every wall masons build is carefully hand-fitted to reduce air infiltration and heat loss.

What's more, masonry walls and floors designed to function as elements of a passive solar heating system can serve many purposes—structural, decorative, enclosure—and they don't occupy extra living space. Masonry enables building designers to meet the demand for energy efficiency without compromising on aesthetics.

Masonry—the most beautiful building material under the sun. And the best passive solar heating system under the moon. Doesn't your next building deserve masonry?

If you'd like to know more about passive solar masonry buildings, write to the International Masonry Institute, 823 15th Street, Northwest, Washington, D.C. 20005.

INTERNATIONAL MASONRY INSTITUTE
(The Bricklayers' International Union and the Mason Contractors in the U.S. and Canada)

Circle No. 342 on Reader Service Card
See the entire collection at our showrooms, or write on your letterhead for our new catalogue. Or design your own fixture. We'll do the contract work. We do it all. And we do it here in the U.S.A.

Circle No. 350 on Reader Service Card

CRESCENT SERIES
At home anywhere.
In polished brass or chrome. Reflector shade swivels 350°. Up to 150 watts.
Saddlebrook is a great new idea for your next FLORIDA VACATION

It's new! Different! Elegant and exciting!
Saddlebrook, Florida's unique golf and tennis resort.
Why is it unique?
Because you live in a luxurious one,
two or three-bedroom condominium
suite instead of a hotel room at a
comparable price!
Because you play golf on rolling
fairways and undulating greens amid
lofty pines, stands of cypress
sprinkled with sparkling ponds and
bayheads. It's "Northern" golf in the
South. But that's not all.
There's tennis and swimming and
dining and just plain relaxing while
you're being pampered by a
courteous, magnificently trained
staff. Trained to make your vacation at
Saddlebrook a genuinely pleasurable
experience.
Saddlebrook is no more than 90
minutes away from "almost
everything" in Florida...Disney
World (90 minutes), Busch Gardens
(15 minutes), Cypress Gardens (60
minutes), Weeki Wachee (45 minutes),
Circus World (60 minutes), Sea World
(75 minutes), beaches (50 minutes),
just to mention a few attractions.
Just 25 minutes from Tampa's
International Airport...on Route I-75
...there's not a single traffic light
between you and our front gate. Drive
yourself, or use our limo service.

For a personal condominium resort
vacation that offers you a whole lot
more and costs you a whole lot less,
contact your travel agent. Or call
toll free 800/237-7519.
In Florida call 813/973-1111.

Circle No. 366 on Reader Service Card
Saddlebrook is a great new idea for your next FLORIDA BUSINESS MEETING

Ideally situated on 400 acres of naturally beautiful Florida land just 25 minutes north of Tampa’s International Airport.

- Guests live in privately owned, luxurious condominiums instead of hotel rooms.
- All amenities are within walking distance of your condominium suite.

- Ready in the winter of 1981
  - Conference rooms for groups from 10 to 75
  - 100 one, two, and three-bedroom luxury condominium suites
  - Championship 18-hole golf course
  - Clubhouse
  - Pro shop
  - Restaurant and lounge
  - Six tennis courts
  - Swimming pool

- Ready in 1982
  - Facilities for meetings and banquets — groups up to 800 persons, specializing in 300-400 group range
  - Main clubhouse and conference center, close to all sleeping accommodations
  - 400 one, two, and three-bedroom luxury condominium suites
  - Major lake-size swimming pool
  - Golf course expanded to 27 holes
  - Tennis courts expanded to 18 courts
  - Tennis teaching area with tennis pro in attendance

Plan your next business meeting at Saddlebrook.

Call toll free 800/237-7519.
In Florida call 813/973-1111.

Circle No. 367 on Reader Service Card

Saddlebrook
The Golf and Tennis Resort
Wesley Chapel, Florida 33599

Saddlebrook
The Golf and Tennis Resort
A Penton/IPC Subsidiary
Here, for the first time in this century, is an opportunity to re-examine the philosophy of the Beaux-Arts school of architecture.
11 Public Relations for the Design Professional
By Gerre Jones,
270 pp., illus...$21.50
An authoritative book on public relations written in easily understood language for architects, engineers and other design professionals. Explains how to plan, set up and carry out a PR program that meets special requirements, as well as how to take advantage of some often overlooked opportunities for free publicity from the media.
Circle B611 under Books.

NEW* 12 Markman: A Working Guide to Their Development and Design
By Donald W. Adie & Dip Arch, 336 pp., illus...$49.95
Explores all the considerations that planners, developers and architects must take into account when creating marinas, covering site selection to bunkering and pollution control, plus economic and legal considerations.
Circle B612 under Books.

NEW* 13 Leisure Homes
By A. W. Lees with E. V. Hyen,
568 pp., illus...$24.95
The homes collected in this informative guide represent a broad spectrum of imaginative architectural design. Floor plans and interior views of 56 stunning leisure homes are shown in striking color, plus step-by-step instructions and complete plans for building the Popular Science Lockbox House.
Circle B613 under Books.

NEW* 14 Architectural Illustration
The Value Delination Process
By Paul Stevenson Oles,
208 pp., illus...$34.95
In this copiously illustrated, clearly organized explanation of the value delineation system, the author presents a detailed description of the process which has resulted in these award-winning delineations that show realistically how a designed structure will appear when built.
Circle B614 under Books.

NEW* 15 Furniture Designed by Architects
By Marian Page
224 pp., illus...$25.00
This well-illustrated volume features 26 prominent architects whose work, spanning two centuries, encompasses a broad spectrum of styles. The author explores the architects' reasons for their designs, as well as how they related to their time, place and contemporaries.
Circle B615 under Books.

NEW* 16 Trees for Architecture and the Landscape Condensed Edition
by Robert L. Zion
206 pp., illus...$11.95
This attractive book will aid communication between landscape architect, architect and layman with a comprehensive collection of photographic portraits of trees whose structure, form and other characteristics make them especially useful in relation to buildings and outdoor spaces.
Circle B616 under Books.

NEW* 17 Drawing & Painting Buildings
By Reggie Stanton
144 pp., illus...$17.95
A one-volume library on architectural rendering shows how to render the many components, props and elements in terms of setting, mood and composition for both residential and commercial projects.
Circle B617 under Books.

NEW* 18 Design Cost Analysis for Architects & Engineers
By Herbert Swinburne
317 pp., illus...$16.95
This first-of-its-kind book shows architects and engineers how to analyze and estimate the costs of building construction during the design stage when the potential for controlling costs is greatest.
Circle B618 under Books.

NEW* 19 Architectural Stained Glass
Edited by Brian Clarke
234 pp., illus...$29.50
The contributors to this book (through their stunning designs) emphasize stained glass as a constructivist art form, taking it out of its medieval ecclesiastical context and putting it into a contemporary framework, both secular and architectural.
Circle B619 under Books.

NEW* 20 The Earth Shelter Handbook
By Tri-Arch Associates
244 pp., illus...$12.95
This paper-back handbook presents to architects, builders, private homeowners and commercial clients an easy-to-follow, step-by-step evaluation plan for site selection, soil evaluation and criteria for placement in relation to wind and sun.
Circle B620 under Books.

NEW* 21 The Architecture of Frank Lloyd Wright A Complete Catalog
Second Edition
By William Allin Storrer
456 pp., illus...$15.00
This second edition, which documents all of the buildings designed by Wright, replaced a number of photographs with new ones that show the buildings to better effect, changed some copy in the text, and incorporated factual information that has come to light since the original publication in 1974.
Circle B621 under Books.

NEW* 22 Old and New Architecture: Design Relationship
280 pp., illus...$25.00
How to make new architecture compatible with its current setting, whether in the midst of a large historic urban area or as an addition to an old building, is analyzed in this first comprehensive book on the subject by 18 design experts.
Circle B622 under Books.

NEW* 23 By Their Own Design
Edited by Abby Sucklee
150 pp., illus...$19.95
Ten internationally known architects describe their concerns, both artistic and pragmatic, as they related to the process of designing and constructing one or more of their major buildings.
Circle B623 under Books.

24 Rendering With Pen and Ink
By Robert W. Gill,
360 pp., illus...$12.95
This paper-back edition is a copiously illustrated guide to the techniques and methods of rendering, including sections on perspective, projection, shadow, reflections, and how to draw cars, ships, aircraft, trees, and human figures. The author also describes the very wide range of instruments and equipment currently in use.
Circle B624 under Books.

NEW* 25 Integrated Space Systems Vocabulary for Room Language
By A. Pressman & P. Pressman,
118 pp., illus...$16.95
This unique volume describes the theory and practices of integrated space systems, a novel approach to home renovation that promotes the economical and humanistic use of space, without damage to the existing structure.
Circle B616 under Books.

26 How to Recycle Buildings
By Laurence E. Reiner
244 pp., illus...$19.95
The consensus of opinion by many authorities in the building industry is that recycling is here to stay and to expand. Here is an excellent reference on how to find, evaluate, survey, finance and market recycling projects profitably.
Circle B626 under Books.

Circle B625 under Books.
The Producers' Council is now the Construction Products Manufacturers Council, Inc. After 60 years, we’ve solved our identity crisis with a new, more definitive, better-fitting name. A name that more precisely identifies us as an association of manufacturers of products for building construction.

We'll keep our logo. And our function: To serve our membership with timely information about developments in the construction industry, and to maintain good working and idea-exchanging relationships with other professional and trade groups in the industry.

To find out what's new besides our name, write the Construction Products Manufacturers Council, 1600 Wilson Boulevard, Arlington, Virginia 22209.
To go to space, Rockwell International came to Clearprint.

Rockwell International specifies the finest quality drafting paper — Clearprint Paper — for its projects like the Space Shuttle Orbiter.

Because Clearprint won't ghost. It's tough, it won't crack, or yellow with age.

But don't just take our word. Send in the coupon, and put Clearprint Paper to the test.

Then you'll know why companies like Rockwell International specify the paper we perfected in 1933 — Clearprint Paper.

The Space Shuttle, designed to be the keystone of the nation's space program through the 1990's, the Space Shuttle is the first re-usable space transportation system. Rockwell International Space Division is integrating the system and developing the payload carrying Orbiter stage for NASA's Lyndon B. Johnson Space Center. One of a series covering historic Clearprint design events.
Stark Structural Facing Tile

The wall with the face that won't crack

Thermal expansion and moisture absorption make concrete block crack. But Stark structural textured tile, because of its dimensional stability, won't crack, rot or deteriorate.

With textured tile, the natural face and clay body are kiln-fired at over 2000° F. So the wall will keep its original color and texture, even in harsh environments.

Stark textured tile is strong, too. It can bear 2½ times the load of lightweight concrete block. This means you can design longer roof spans without costly structural framing. The deep-relief, random texture offers attractive alternatives for exterior or interior design. Available in 8" x 8" and 8" x 16" sizes.

Not just another pretty face

To accent durability with good looks in interior areas, specify Stark Structural Glazed Facing Tile. Its kiln-fired, smooth face and body are one piece, not painted on and not plastic. So the wall won't peel, fade or discolor with age. Ideal for high traffic and abuse areas, Stark glazed facing tile is available in a variety of colors.

Products and literature

The following items are related to the theme of this issue, restoration and reuse. They are grouped here for the convenience of the reader.

Products

Austrian Postal Savings Bank Stool, designed by Viennese architect Otto Wagner and first produced in 1904, is being revived. Legs are 5/8-in. squares of steam-bent American elm with aluminum detailing caps. Seats are 3/8-in. perforated elm veneer molded plywood. The stool is 16 1/4" x 16 1/4" x 18 1/2" high and has a 16 1/4" x 16 1/4" seat. Thonet.

Decadex Firecheck is a protective coating that not only provides a flame-resistant surface, but also can be used to encapsulate asbestos insulation. The coating, 16 times the thickness of paint, provides a seamless, impermeable plastic membrane over asbestos. According to the manufacturer, it is impervious to chemicals and ultraviolet light and cures to a water-resistant surface that can be cleaned easily. Pentagon Plastics Ltd.

Sure Klean products come in several formulations to suit specific applications related to restoration work, from height silver finishing to be used in hand-cleaning marble pillars, sculptures, and fireplaces. ProSoCo, Inc.

Hi-Art Steel Ceilings, made from 80-year-old original dies, include a complete line of center, corner, border, corner and mold plates, and other pieces. The product can be used on walls or ceilings. Design styles available are Greek, Colonial, Rococo, Empire, Gothic, and Oriental. For an illustrated catalog, send $3 to W.F. Norman Corp., 214 N. Cedar, Nevada, Mo 64779.

Zinc-plated ceiling catalog shows sheets pressed from original dies, with 6-in., 1-ft, and 2-ft designs. They have a bright silver finish that can be treated with clear lacquer, painted with oil-base paint, or left uncoated. Sheets are 2' x 8', Chelsea Decorative Metal Co.

Etched glass, finely detailed with photo silk screen methods and chemical etch formulas, provides semi-privacy and blocks out undesirable views. In addition to having a stock of several designs, the company will interpret almost any black-and-white line art or work with customers on special designs. Applications include room dividers, shower doors, decorative mirrors, and poolside.

Literature

Hi-Art Steel Ceilings, made from 80-year-old original dies, include a complete line of center, corner, border, corner and mold plates, and other pieces. The product can be used on walls or ceilings. Design styles available are Greek, Colonial, Rococo, Empire, Gothic, and Oriental. For an illustrated catalog, send $3 to W.F. Norman Corp., 214 N. Cedar, Nevada, Mo 64779.

Zinc-plated ceiling catalog shows sheets pressed from original dies, with 6-in., 1-ft, and 2-ft designs. They have a bright silver finish that can be treated with clear lacquer, painted with oil-base paint, or left uncoated. Sheets are 2' x 8', Chelsea Decorative Metal Co.

Etched glass, finely detailed with photo silk screen methods and chemical etch formulas, provides semi-privacy and blocks out undesirable views. In addition to having a stock of several designs, the company will interpret almost any black-and-white line art or work with customers on special designs. Applications include room dividers, shower doors, decorative mirrors, and poolside.

MILNOR.
With capacities ranging from 35 pounds to 600 pounds, MILNOR* manufactures laundry washer-extractors in 32 different models with 11 different weight capacities. MILNOR has laundry systems for every type of facility... from schools, hotels, factories and nursing homes, to prisons, hospitals and commercial laundries. So, if your next project includes a laundry, check with MILNOR.

For a FREE Laundry Planning File—and help in selecting the right laundry system for your clients—check the reader response card or write us today.

PELLERIN MILNOR CORPORATION
P.O. Box 400 Kenner, La. 70063
(a suburb of New Orleans) 504-729-7381
Sold and serviced by leading independent dealers the world over

*PELLERIN MILNOR CORPORATION

Circle No. 363 on Reader Service Card
Why 40,000 sq. yards of carpet made of Zeflon 500™ – the designer’s nylon – was specified for One Dallas Center.

I.M. Pei & Partners wanted a carpet with the aesthetic elegance of wool, but it had to perform for years under extra heavy traffic. They found that Zeflon 500 solution dyed nylon produced carpets with both wool-like beauty and long durability.

With Zeflon 500, carpets achieve the rich heather effects and subtle patinas that are the hallmarks of wool. Colors are always clear, fast and uniform for exact matching – and they are locked in the core of the yarn where they are protected from damage by wear, sunlight or cleaning. Even chlorine-based spot cleaners can be used for stubborn stain removal without altering colors. Superior soil hiding, soil resistance and permanent shock resistance are other major advantages.

The level loop carpet selected by the Pei team is just one of many wool-like styles made of Zeflon 500 solution dyed nylon that are finding favor with leading designers everywhere. All are Performance Certified and traffic classified by Badische. You can see them all by writing for our latest Contract Carpet Selection and Specifications Guide. Badische Corporation, Williamsburg, Virginia 23185.

Free specifying help is always available from the Badische Contract Carpet Consultants Service. Call (804) 887-6573 or contact the consultant in your area.
SURE-KLEAN®
UNCOVERING
THE FACE OF
HISTORY

Sure Klean restoration cleaners have transformed the exteriors of countless architectural landmarks from weatherworn back to their original beauty. Many architectural specs now require a Sure Klean trademark on all appropriate restoration products. Sure Klean offers clients national distribution, staff and field technical service, and cleaning contractor referrals. For more information on the quality trademark that restores the past for the generations of the future... Call or write today.

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

Washington, D.C. Post Office receives a facelift.

Sure Klean restoration cleaners have transformed the exteriors of countless architectural landmarks from weatherworn back to their original beauty. Many architectural specs now require a Sure Klean trademark on all appropriate restoration products. Sure Klean offers clients national distribution, staff and field technical service, and cleaning contractor referrals. For more information on the quality trademark that restores the past for the generations of the future... Call or write today.

Sure Klean restoration cleaners have transformed the exteriors of countless architectural landmarks from weatherworn back to their original beauty. Many architectural specs now require a Sure Klean trademark on all appropriate restoration products. Sure Klean offers clients national distribution, staff and field technical service, and cleaning contractor referrals. For more information on the quality trademark that restores the past for the generations of the future... Call or write today.

Sure Klean restoration cleaners have transformed the exteriors of countless architectural landmarks from weatherworn back to their original beauty. Many architectural specs now require a Sure Klean trademark on all appropriate restoration products. Sure Klean offers clients national distribution, staff and field technical service, and cleaning contractor referrals. For more information on the quality trademark that restores the past for the generations of the future... Call or write today.

Sure Klean restoration cleaners have transformed the exteriors of countless architectural landmarks from weatherworn back to their original beauty. Many architectural specs now require a Sure Klean trademark on all appropriate restoration products. Sure Klean offers clients national distribution, staff and field technical service, and cleaning contractor referrals. For more information on the quality trademark that restores the past for the generations of the future... Call or write today.

Sure Klean restoration cleaners have transformed the exteriors of countless architectural landmarks from weatherworn back to their original beauty. Many architectural specs now require a Sure Klean trademark on all appropriate restoration products. Sure Klean offers clients national distribution, staff and field technical service, and cleaning contractor referrals. For more information on the quality trademark that restores the past for the generations of the future... Call or write today.

Sure Klean restoration cleaners have transformed the exteriors of countless architectural landmarks from weatherworn back to their original beauty. Many architectural specs now require a Sure Klean trademark on all appropriate restoration products. Sure Klean offers clients national distribution, staff and field technical service, and cleaning contractor referrals. For more information on the quality trademark that restores the past for the generations of the future... Call or write today.

Sure Klean restoration cleaners have transformed the exteriors of countless architectural landmarks from weatherworn back to their original beauty. Many architectural specs now require a Sure Klean trademark on all appropriate restoration products. Sure Klean offers clients national distribution, staff and field technical service, and cleaning contractor referrals. For more information on the quality trademark that restores the past for the generations of the future... Call or write today.

Sure Klean restoration cleaners have transformed the exteriors of countless architectural landmarks from weatherworn back to their original beauty. Many architectural specs now require a Sure Klean trademark on all appropriate restoration products. Sure Klean offers clients national distribution, staff and field technical service, and cleaning contractor referrals. For more information on the quality trademark that restores the past for the generations of the future... Call or write today.

Sure Klean restoration cleaners have transformed the exteriors of countless architectural landmarks from weatherworn back to their original beauty. Many architectural specs now require a Sure Klean trademark on all appropriate restoration products. Sure Klean offers clients national distribution, staff and field technical service, and cleaning contractor referrals. For more information on the quality trademark that restores the past for the generations of the future... Call or write today.

Sure Klean restoration cleaners have transformed the exteriors of countless architectural landmarks from weatherworn back to their original beauty. Many architectural specs now require a Sure Klean trademark on all appropriate restoration products. Sure Klean offers clients national distribution, staff and field technical service, and cleaning contractor referrals. For more information on the quality trademark that restores the past for the generations of the future... Call or write today.

Sure Klean restoration cleaners have transformed the exteriors of countless architectural landmarks from weatherworn back to their original beauty. Many architectural specs now require a Sure Klean trademark on all appropriate restoration products. Sure Klean offers clients national distribution, staff and field technical service, and cleaning contractor referrals. For more information on the quality trademark that restores the past for the generations of the future... Call or write today.

Sure Klean restoration cleaners have transformed the exteriors of countless architectural landmarks from weatherworn back to their original beauty. Many architectural specs now require a Sure Klean trademark on all appropriate restoration products. Sure Klean offers clients national distribution, staff and field technical service, and cleaning contractor referrals. For more information on the quality trademark that restores the past for the generations of the future... Call or write today.

Sure Klean restoration cleaners have transformed the exteriors of countless architectural landmarks from weatherworn back to their original beauty. Many architectural specs now require a Sure Klean trademark on all appropriate restoration products. Sure Klean offers clients national distribution, staff and field technical service, and cleaning contractor referrals. For more information on the quality trademark that restores the past for the generations of the future... Call or write today.
augmented with purchased electricity that heats the water by means of immersion heaters or an in-line duct heater. The four-page brochure describes the system, provides a chart of sizes and capacities, and includes specifications for the storage tubes. Solar Components Div., Kalwall Corp.

No. 203 on reader service card

'The Design of Herman Miller,' by Ralph Kaplan, is the story of the firm's beginning, development, and growth from a small furniture manufacturer to a major office systems firm. Among the designers who worked closely with the company were George Nelson, Charles Eames, Robert Propst, Gilbert Rohde, and Alexander Girard. The book is 120 pages and has 8 full-color and 100 black-and-white illustrations. It costs $13.50 and was published by Watson-Guptill Publications, 1515 Broadway, New York, NY 10036.

Other products

REPALC (Revolutionary Precastable Autoclaved Lightweight Concrete) is a steel-reinforced construction material that can be worked almost like wood, according to the manufacturer, yet is noncombustible and resistant to corrosion, like concrete. It is formed by foaming, and has a smooth texture that needs no painting or plastering. It can be used indoors or outdoors for applications from curtainwalls, ceilings, walls, and floors to pergolas, outdoor furniture, and decorative panels and grilles. It is the material being used for a prototype prefabricated housing project sponsored by the Japanese government. Showa Denko K.K., REPALC Project.

No. 106 on reader service card

Enkasonic® sound-rated matting is a two-layer composite of polyester nonwoven fabric heat-bonded to compression-resistant, three-dimensional Enkamat® webbing. According to the manufacturer, it meets sound rating requirements for multiunit dwellings. The matting is available in 18 mm and 9 mm thicknesses and lengths of 30 m and 50 m respectively. American Excelsior.

No. 107 on reader service card

Lime Crest roofing aggregates of white calcite marble are nonporous and resist weather and corrosion. They are said to reflect up to 60 percent of solar heat, making roof insulation more effective. Limestone Products Corp.

No. 108 on reader service card

Rug #2, designed by Michael Graves, is available in a signed, limited edition. Colors are gradations of green on a pumpkin background, with touches of lavender. The rug is being produced of hand-tufted, 100 percent wool in an 8' x 10' size. V'Soske.

No. 109 on reader service card

Industrial Line lighting fixtures are prewired and have a 4-ft white cord and standard white canopy. Fixtures are made from heavy-gauge steel coated with porcelain and use 60 to 300 watt incandescent bulbs. There is a choice of dome shapes and colors. G.J. Neville.

No. 110 on reader service card

[Products continued on page 158]
Perhaps the most important new door closer since 1900:

THE RIXSON

*Model 2000-I (Interior)*
*Model 2000-E (Exterior)*

Superb door control.
More durable, reliable and versatile than any other closer not imbedded in a concrete floor.

**STRONGEST SURFACE CLOSER EVER OFFERED**
Assures life cycle economy... reduced maintenance... long term reliability.
- Exclusive one-piece cast iron closer body... cold rolled steel arm... heavy gauge, welded steel cover.
- Exceptional hydraulic capacity and oversized piston, with brass needle valves.

**SUPERIOR, EXTREMELY RELIABLE CONTROL**
Easy to open, guaranteed to close; protects hardware, door, frame and passersby.
- Unique field-adjustable backcheck system for degree—pre-set at 75° but easily adjusted from 65° to full door opening, regardless of arm application.
- Independent, fully adjustable latch and stroke valves.

**EXCELLENT, TIMELESS APPEARANCE**
Adaptable to any architectural design or environment. Steel cover and arm readily accept all painted and plated finishes.
- Aesthetically proportioned total closer cover.

**UNEQUALLED VERSATILITY/SPECIFICATION SIMPLICITY**
Remarkable capabilities of two basic models (identical in appearance) assure proper, uniform selection, with uncommon ease.
- Model 2000 I (interior):
  Narrow stile, narrow projection model to complement quality aesthetics in virtually all interior applications. With on-site "power conversion" feature to modify closing force for unusual conditions. Available for parallel arm or top jamb mounting.
- Model 2000 E (exterior):
  A rugged, equally attractive model with narrow profile, suitable for exterior use and particularly demanding interior applications. "Power conversion" feature allows modification of closing forces on-site. Available for parallel arm or top jamb mounting.

**RIXSON-FIREMARK**
A DIVISION OF CONRAC CORPORATION
9100 West Belmont Avenue
Franklin Park, Illinois 60131
and Rexdale, Ontario—312/671-5670

Circle No. 371 on Reader Service Card
Products continued from page 156

The Tria folding chair has solid beechwood legs with seat and back of molded plywood, burnished metal connectors and hinge mechanisms. The award-winning chair is 17¾" x 20" x 36½" high and comes in either black or white. Beylerian.
Circle 111 on reader service card

SuperFile provides flat drawers for storage of drawings, film, art work, and renderings. File capacity, in a mixture of 1¼-in. and 2½-in.-deep drawers is up to 43 drawers. Optional accessories are dust covers, sheet depressors, drawer dividers, and a reference shelf. Plan Hold Corp.
Circle 112 on reader service card

Stoneware terra-cotta tiles, imported from France, are fired at high temperature for low porosity. They are said to be frostproof and suitable for outdoor use. The tiles come in a wide range of shapes and colors. Baldwin Hardware Mfg. Corp.
Circle 113 on reader service card

Victoria-style bath fittings include spout, escutcheon, and handles of vitreous china. Trim is polished chrome. The faucet can be mounted on 8- to 12-in. centers and has a cartridge warranty against leaks and drips. China accessories in the Victorian line include towel bars, soap dish, robe hook, paper holder, toothbrush/glass holder and grab bar/soap dish. Bradley Corp.
Circle 114 on reader service card

Eight fabrics for use in commercial office interiors are fire-rated and include some with acoustical value. Upholstery fabrics are 100 percent wool heathers, tweeds, and others in over 60 colors. Wall, screen, and panel coverings are texturized, nonporous polyester in about 70 colors. Homestead Fabrics.
Circle 115 on reader service card

Sonocoat concrete floor coating is a water-reducible, two-component coating that combines acrylic and epoxy resin. It has high gloss, good color retention, and durability. Sonocoat comes in several colors and can be applied by brush, roller, or spray. Sonneborn Building Products.
Circle 116 on reader service card

Outdoor lighting fixtures of laminated western red cedar, for walkways, patios, and similar areas, are built to customer specifications to suit site. Graphics can be incorporated in the designs. Ryther-Purdy Lumber Co.
Circle 117 on reader service card

Del Mar Softlight pleated shades let in light while a thin layer of aluminum on the outside helps to reduce solar heat gain and the effects of harmful rays. Made of woven polyester, they are permanently pleated and raise compactly out of sight. They also create an insulating air space between the shade and the window in winter to provide insulation and reflect heat back into the room. Liken Home Furnishings.
Circle 118 on reader service card

Window Quilt® insulating shades are made up of five layers: aluminum plastic film, with polyester fiberfill on each side, faced and backed with woven polyester. The foil layer acts as both moisture barrier and heat reflector. The [Products continued on page 160]
The Rose*Johnson system addresses itself to the needs of all levels. A wide selection of panels, work surfaces, storage cases and electrical components can create the suggestion of status, limited only by the imagination.

The meticulous attention to detail, quality and design will be evident in any furniture grouping.

For further information and literature on how this system can work for you contact Rose*Johnson.
custom-cut and installed quilt operates in a track that holds it against the window, sealing out cold air and keeping heat from escaping. Colors are white, bone, camel with white backing, and navy with bone backing. Appropriate Technology.

Circle 120 on reader service card

Mural from the Newark Airport by Arshile Gorky rendered in seven ceramic panels.

Large ceramic plates up to 600 mm x 3000 mm x 20 mm thick (2' x 10' x 0.8" thick) are produced in Japan by Otsuka Ohmi Ceramics Co., an accomplishment for which the company received a technology award. Multiple panels are used as the base for original art or reproductions of art work, which is then glazed and fired. Mitsui & Co. (USA), Inc.

Circle 121 on reader service card

Dauphin seating combines ergonomic design with European styling. Included in the line is a drafting height chair, which has airlift height adjustment from 24 to 32 in. and an attached footrest. The fabric is polyacryl, available in anthracite, beige, orange, and blue. Charvz-Carsen Corp.

Circle 122 on reader service card

Acoustical suspension systems include exposed tee, concealed grid, fire-rated exposed or concealed, and the Coordinator® ceiling system, a modular integrated ceiling that can be installed flat, coffered, or pyramidal. There is also a low-cost method for installing a gyspum board ceiling in 2' x 4' modules that will also accommodate lay-in light fixtures. Donn Corp.

Circle 123 on reader service card

Cosmolites, suitable for indoor, outdoor, or wet locations, are also vandal-proof. Prismatic white diffusers, injection molded of polycarbonate, are high-impact resistant. Housing of die-cast aluminum in a unitized design is fully gasketed to be weathertight. The lights are available rectangular, square, or round in over 150 models. Omega Lighting.

Circle 124 on reader service card

Pen-Chrome Super S and Super V coatings, made of urethane, are water-based. Super S stains, in 11 colors, have sealing properties, eliminating the need for a separate sealer coat. Super V clear finishes resist marring, marking, many chemicals, and discoloration. They are available in flat, satin, and gloss finishes. Fuller-O'Brien Paints, O'Brien Corp.

Circle 125 on reader service card

Solid wood doors of oak or mahogany, recently introduced, have leaded glass inserts with hand-cut bevels. One model is also available with an etched glass insert with glue chip background. International Wood Products.

Circle 126 on reader service card

Keyless Entry® doorlock is a solid-state system with models for residential/commercial (KE-100) and commercial/industrial (KE-200) models. The master combination can be changed at any time. It is weather and vandal resistant, has a tamper alarm, and can have a secondary code programmed in without affecting the master combination. The commercial industrial model has additional features. Essex Transducers Corp.

Circle 127 on reader service card

The EZ-1 emergency lighting unit is a self-contained unit that provides a minimum of 90 minutes of light in the event of a power outage. It is constructed of flame-rated, high-impact thermoplastic material and has a solid-state charger, low-voltage battery disconnect, test switch, charge rate indicator, and sealed maintenance-free battery. Dual-Lite, Inc., Emergency Lighting Div.

Circle 128 on reader service card

Now, all the benefits of carpeting... with better static protection than tile.

Compu-Carpet™

COMPU-CARPET anti-static carpeting is a unique, high performance floor covering developed specifically for use in modern offices, computer rooms, terminal areas and other static-sensitive environments. Attractive and durable, Compu-Carpet has anti-static properties superior even to those of hard surface flooring. Compu-Carpet meets IBM resistance recommendations. Since its anti-static properties are inherent in its construction, protection is assured for the life of the carpet. Compu-Carpet carries a 5-year static and wear warranty. Send for complete details.

See Sweet's Catalog 9.28/Un.

Mfd. by United Technical Products, Inc.
The Static Control People

U.S. Pat. No. 4,153,740

Dept. A/PA 32 Southwest Industrial Park, Westwood, MA 02090, (617) 326-7611

Circle No. 390 on Reader Service Card
Homasote Easy-Ply® Roof Decking is 2 3/8" thick in nominal 2'x8' panels, with long edges T & G. Ceiling side is a white vinyl film which provides a prefinished, decorative vapor barrier.

Thermasote® is a composite of strong asbestos-free, insulating and weather resistant Homasote structural building board plus polyurethane foam and a bottom surface of asphalt saturated felt. It is a nail base insulation for application to Easy-Ply, wood or metal decking.

The R/35 PLUS roof insulation system is the result of combining 4" Thermasote, 2 3/8" Easy-Ply Roof Decking and asphalt, fiberglass, wood shingles or roofing tile. As easy as one, two, three—roof deck with a prefinished ceiling, roof insulation and finish roofing. Other thicknesses and R values available. Use the coupon for full data and samples.
Hot tubs, made of either redwood or mahogany, have 1 1/2-in.-thick tongue-and-groove staves held together with corrosion-resistant steel hoops. Each tub is provided with two bench seats and all necessary plumbing fixtures. Sizes are 4-, 5-, 6-, and 8-ft diameters, 2, 3, or 4 ft deep. Accessories available include outside shelf, outside ladder, Jacuzzi whirlpool, heater, and a cover to reduce heat loss and keep out debris. Almost Heaven Hot Tubs, Ltd.

Burdick Group office systems, designed for top management by Bruce Burdick, integrate electronic equipment into the executive office. Components are molded of polyurethane structural foam supported by polished aluminum beams. Special stands hold CRT terminals, telephones, typewriters, dictating machines, books, files, and other office items. The system can be adapted to meet individual work patterns and needs. Tops are wood, marble, glass, or black laminate in rectangular, round, or half-round shapes, in a variety of sizes. The system integrates with the company's Action Office. Herman Miller.

Symbol of access signs incorporate the international symbol of a wheelchair identifying buildings with doorways wide enough to accommodate wheelchairs and restrooms with support bars for the handicapped. The symbol is also combined with other markings indicating ramps, and special parking places. Seton Name Plate Corp.

The Commercial Lay-in HID fixture is said to be more energy efficient than fluorescent and easy to install. The 2' x 2' light can be used with most grid ceilings or racquetball installations by using an optional mounting frame. There are three lens types: prismatic acrylic or polycarbonate, or tempered glass. Hubbell Lighting Div., Harvey Hubbell, Inc.
PPG OFFERS A STUNNING ALTERNATIVE TO THE DRAB SLAB.

Discover a spectacular exterior wall treatment that puts new designs on all that it surrounds. Discover PPG's Solarcool® Spandrelite® wall cladding.

In addition to dramatic beauty, Solarcool Spandrelite wall cladding offers outstanding performance capabilities. In new or existing applications. And at a cost that's lower than the expected exterior wall treatments: masonry, aluminum, stone and polished stainless steel.

An advanced structural silicone glazing system with the mullions inside can make Solarcool Spandrelite wall cladding appear seamless.

You're free to choose glass types and thicknesses previously unimagined.

And Solarcool Spandrelite works as an energy-efficient opaque curtain wall or a window area. Can even hang in front of insulation.

Since 1965, PPG has led the world in creative application of structural silicone glazing systems. And began to build more "oohs" and "aahs" into buildings.


PPG: a Concern for the Future

Circle No. 408
Concrete trench system, Channel Slope, has cast iron or steel grates that are tight fitting and bicycle or wheelchair proof. The drains are interlocking precast polyester concrete channels with a built-in slope. Components are grates, catch basins, caps and vandalproof locking devices for the grates, pipe connections and knockout panels in various positions, and neutral channels. ACO Drain, Inc. Circle 136 on reader service card

Coffer Lighting System 2 is made up of a multisided coffeer and any of several lighting options. It can be used to make up an entire ceiling or to form lighting groups within a ceiling. There are three sizes and three different angle slopes. Finishes are polished or satin metals, woodgrain vinyl, or matte white. Lightolier. Circle 137 on reader service card

Metal-face ceiling panels, either perforated or unperforated, resist high humidity and freeze/thaw cycles. The vinyl-coated surface resists penetration of dirt, grease, and moisture. The lay-in panels offer installation ease and plenum access. The unperforated type has a Class 25 fire rating. Conwed Corp. Circle 138 on reader service card

Other literature

Conversion factors for architects and designers are contained in a 28-page guide with universal applications. The nearly 1000 entries, organized in alphabetical order, convert metric to English, provide decimal equivalents, etc. Acme National Refrigeration Co. Circle 206 on reader service card

Polypropylene fibers and fabrics are discussed in a 36-page, full-color company capabilities brochure. Shown are carpeting, upholstery, and other fabrics made by the company from polypropylene yarns. Charts compare properties of polypropylene to those of other fibers. Amoco Fabrics Co., Patchogue Plymouth Div. Circle 207 on reader service card

‘Stainless Steel Membrane Roof’ is a 24-page booklet that discusses the concept, design, fabrication, and installation of air-supported steel membrane roofs. This type of roof provides a clear-span cover over large areas such as sports arenas, airport terminals, and exhibition spaces. The report is illustrated with photographs of completed buildings and diagrams showing the kinds and configurations of suspended roofs for different applications. Committee of Stainless Steel Producers, American Iron and Steel Institute. Circle 208 on reader service card

Rubber flooring color selector shows colors available in resilient rubber Travertine, Argonaut®, and Marble tile. Also shown in the eight-page brochure are cove and carpet base and stair tread colors. Recommended adhesives and maintenance methods are included. Burke Flooring Products. Circle 209 on reader service card

Dispensers for hand soap, either granular or lotion, include surface-mounted and recessed models. Several styles are shown and described in a four-page brochure, which also includes information about hand cleansers for light and heavy-duty use. U.S. Borax Co. Circle 210 on reader service card

‘Design Manual of Structural Tubing,’ both square and rectangular, includes material and specifications, and tables of dimensions and properties of both. The 70-page manual discusses allowable stresses in tension, shear, compression, combined stresses, and wind and seismic stresses, with graphs that illustrate the text. It also covers columns, beams, and column and beam connections. Nippon Steel Metal Products Company, Ltd. Circle 211 on reader service card

[Literature continued on page 169]
Saves 80% of what others waste!

Conventional faucets waste a lot of hot water. For good reason. None of them are designed to meet ASHRAE/BOCA criteria* for public restrooms. This faucet is: the new Bradley 90-75 Metering Faucet. And it's the one and only.

Because it is, it saves hot water (and energy) like no other; 80% of what others waste! It's vandal-resistant, too, with a push-button design that takes a mere two pounds to turn on. Which makes it perfect for barrier-free applications.

There's no one-hand juggling act necessary either. While others stop immediately... or splash... or don't shut off at all... the 90-75 is timed to give you all the water you need and no more.

Clean, functional lines with solid brass construction underneath complement any commercial or industrial decor for a long, long time.

Specify the only metering faucet that really works... and saves its owner more money than any other faucet made: the new Bradley 90-75. Bradley Corporation, 9101 Fountain Blvd., Menomonee Falls, WI 53051. (414) 251-6000. Telex: 26-751.

*Public restrooms are required to be equipped with outlet devices that limit hot water consumption to 1% gallon at no more than 110°F. at 0.5 gpm.

Another right idea from Bradley
Introducing GLID-WALL™
A new, low cost wall surface renovation system from Glidden.

GLID-WALL covers cracks, small holes, deteriorated or lead-based paint, plus a lot more. Without a lot of work.
Simply prepare the surface. Apply GLID-WALL. Then prime and paint, any color you wish. Without even resetting plumbing, electrical outlets or trim.
GLID-WALL isn’t a wallcovering. It’s a flexible fiberglass material, combined with Glidden Insul-Aid™ and any Glidden finish coating to make a bonded repair system.
It’s strong. Resilient. Mildew-resistant. Not only does GLID-WALL increase insulating factors of walls, it carries a Class A fire rating.
Used with Insul-Aid, it adds a vapor barrier that helps reduce heat loss. And GLID-WALL adds strength to a wall. In a most cost-efficient way.
Find out more about GLID-WALL, the new wall surface renovation system from Glidden.

Circle No. 335 on Reader Service Card
Grab bars and corridor rails for safety and convenience are the subject of a six-page brochure. Dimensional drawings show typical applications for toilets, showers, and tubs. There are also illustrations of grab bars and corridor railings, along with mounting kits and detail drawings showing concealed or exposed methods of mounting. Bradley Corp., Washroom Accessories Div. Circle 212 on reader service card

Glazed roofing tiles, Brand 117, available in Western United States, come in several glaze colors, with custom glazes possible on special order. In addition to special shapes for ridges, eaves, and gables, there are ornaments to be used at ridge ends. A four-page brochure illustrates the tile shapes and colors available, and provides installation and specification information. International Tile & Supply Corp. Circle 213 on reader service card

Entrances and storefronts are shown, with specifications, in an eight-page brochure. Specifications and illustrations of flush glass frame systems are also provided. The brochure includes hardware, such as pulls, closers, push bars, and hinges. Roto-Swing, Inc. Circle 214 on reader service card

Architectural brick brochure illustrates several types of brick in typical installations. The four-page brochure lists suggested specifications for bricks along with color illustrations of each type in natural and earthen tones. Huntington/Pacific Ceramics, Inc. Circle 215 on reader service card

‘Superior Interiors’ brochure has full-color photographs showing variously shaped red cedar shingles and shakes used on interior walls. Drawings and step-by-step instructions are provided for applying shingles. A selector chart includes information about grades, lengths, and types of shingles, shakes, and hand-split shakes. Fancy shingle shapes are illustrated in the eight-page brochure. Red Cedar Shingle & Hand-split Shake Bureau. Circle 216 on reader service card

Delivery service will make large or small shipments around the world. The service, explained in an eight-page folder, is available 24 hours a day, seven days a week, to 25 countries. The sender is notified when delivery has been made. Air Couriers International, Inc. Circle 217 on reader service card

‘Clay Tile the Traditional Roof’ is a 20-minute color film, with sound, covering a brief history of clay tile and its use as a contemporary roofing material. Arrangements can be made for a free showing of the film to architects, designers, developers, builders, general contractors, and roofing contractors by telephoning U.S. Tile Co. at (714) 773-9161.

Asphalt roofing brochure illustrates several types and grades of shingles for residential, light commercial, and institutional applications. Colors for each type are shown, along with photos of typical installations. The 16-page brochure also lists cements, coatings, and emulsions. The Flintkote Co. Circle 218 on reader service card

Literature continued on page 170

---

PYROSO® II

Qualifies for 2 hour fire-rating

ALUMINUM TILE, COVERED FACE, BACK AND ALL FOUR EDGES

Thick (.010") aluminum shell with non-combustible rigid mineral board core.

EASY MAINTENANCE, GOOD ACOUSTICAL AND SOUND ATTENUATION RATING.

Low cost large module units can be repeatedly washed for easy maintenance.

TILE IS REVERSIBLE IF BAKED WHITE ENAMEL FINISH IS USED ON FRONT & REAR SURFACES

For sizes, finishes or prices, call or write

SIMPLEX CEILING CORP.
50 HARRISON ST., HOBOKEN, N.J. 07030 • PHONES (212) 349-1890, (201) 864-6630

Sales "Reps" needed—Write to Simplex for information

Circle No. 381 on Reader Service Card

---

FREE. Our new brochure that gives you a five year shelf life guarantee!

Fight the high cost of repetitive drawings...with the STANPAT System.

Since 1943, STANPAT has fought inflation for engineering and architectural firms with the only system of appliques that gives you a five year shelf life guarantee!

Use STANPATS for error-proof reproduction of symbols, diagrams, details, title blocks and more. The STANPAT System also includes polyester sheets for making repetitive drawings. Send the coupon today.

FREE SAMPLES, TOO!

STANPAT PRODUCTS, INC.
366 Main Street, P.O. Box 11050
Port Washington, N.Y. 11050
Telephone: (516) 883-8400

Yes, help us fight the high cost of repetitive drawings. Send new brochure and samples to:

Name
Company
Address
City State Zip

Circle No. 382 on Reader Service Card

---

Progressive Architecture 11/80

169
The designers of the twin 11-story South Port Towers in Elmira, N.Y. evaluated several framing methods in their search for the most economical construction method. They decided on reinforced concrete for these apartments for the elderly. Any other material would have increased the floor-to-floor heights by up to 1 foot. And that would have resulted in an 11-foot height increase, substantially increasing final costs.

Each reinforced concrete tower is 87 ft. x 85 ft. in plan view and rises 95 ft. above ground level. The connecting base is 125 ft. x 48 ft. The complex contains 208 apartments plus recreational and community rooms and clinics. The framing system is 8-in. thick concrete bearing walls and 8-in. thick concrete one-way slabs. Costs were slashed during construction by the use of a large tower crane placed between the two towers. Easy access to construction materials was thus provided and the towers were built in alternate stages. For even more economy, metal ganged forms were used for bearing walls and floor slabs. One set of forms was re-used 44 times.

Interior walls were painted to further cut costs. And the pleasing “fractured granite” look of the outside end bearing walls and the fins of interior bearing walls was economically achieved with hard rubber-like liners inside the concrete forms.

Reinforced concrete gave the city of Elmira the answer to attractive, functional low-rental housing. And there was never a question that concrete could do it all—economically.

Write for Bulletin 7904.

Architect: Haskell, Conner & Frost, Elmira, N.Y.
Structural Engineer: Miller-Sizing, P.E., Syracuse, N.Y.
General Contractor: Streeter Associates, Elmira, N.Y.
Owner: Elmira Housing Authority.

CONCRETE REINFORCING STEEL INSTITUTE
180 North LaSalle Street, Room 2112
Chicago, Illinois 60601

For information on Professional Membership Program, write to Director of Marketing.

THE ANSWER'S IN REINFORCED CONCRETE

Circle No. 400 on Reader Service Card

Literature continued from page 169

‘Steel Solar Systems’ is a 16-page brochure that shows school and university projects using steel flat-plate collectors in closed loop systems. Diagrams illustrate how such a system works and the text discusses the use of steel in solar systems. Committee of Steel Pipe Producers, American Iron and Steel Institute.
Circle 219 on reader service card

Duraphle FR particleboard, with a Class 1 fire rating in accordance with major building codes, is also resistant to termites. A technical data sheet provides architectural specifications and product information, including UL classification and physical properties. Willamette Industries, Inc.
Circle 220 on reader service card

Asphalt-base waterproofing products for construction are included in a selector chart that provides product description, uses, performance data, and application and packaging information. There are vapor barrier coatings, sealants, compounds for waterproofing below grade or on exposed surfaces, and asphaltic primer coatings for porous surfaces. The four-page brochure of Nokorode® products has detail drawings showing how they can be used. Tosco Corp., Protective Coatings Div.
Circle 221 on reader service card

Ceramic tile catalog shows glazed tiles for walls and floors, bathroom accessories, Master-Set® and Redi-Set® tiles in panels, mosaics, and quarry tiles. Suggested specifications are provided for each type of tile. The 36-page catalog also lists representatives and distributors. American Olean Tile Co.
Circle 222 on reader service card

Building materials

Major materials suppliers for buildings that are featured this month, as they were furnished to P/A by the architects.

In full accord with the original, Rambusch restores, rebuilds, repaints and enhances... a legislative chamber, a courtroom, a theater, a museum, a bank. From cleaning and refinishing oak panelling to painstakingly restenciling a Victorian architectural detail. And from designing and fabricating a stained glass window to the efficient relighting of a grand old room. Rambusch creates and recreates the total environment. In a unique series of art and craft studios, within Rambusch, highly skilled designers and artisans contribute their cumulative expertise to recapture a glory long past. For further information please contact William T. Weber.
Back in the 50's and 60's, asbestos was used routinely as structural steel insulation. In industrial plants, hospitals, apartments, and even schools.

Today, the U.S. government says asbestos is a killer. Responsible for all kinds of deadly diseases, like cancer and asbestosis. It's a hazard so serious, the U.S. Environmental Protection Agency is demanding that something be done about it.

And that's where Ox-Line EPA-evaluated* ABC Asbestos Binding Compound, developed by Lehman Bros. Corp., comes in. ABC is a spray-on compound that encapsulates asbestos, trapping fibers behind an impervious coating.

And it's rated #1 in comparative tests conducted by the New York Board of Education.

So, if you've got asbestos in your building, let Lehman Bros. help you do something about it. Before it does something to someone else. Write or call today for more facts.

Lehman Bros. Corp.
Jersey City, N.J. 07304
201/434-1882

Building materials cont. from p. 170


*Evaluated by Battelle Columbus Laboratories under contract #68-03-2562 with the EPA, through the office of Toxic Substances.
Reproduction is our business
After a mid-1970s lull, the skylines of our cities are again erupting in a burst of highrise construction. No longer driven to set records for height or square-footage, today's tall buildings represent more prudent calculation of factors such as structural efficiency, energy use, and marketability, plus a revived interest in distinctive imagery. In this issue, P/A's Technics editor will analyze and summarize the latest structural concepts and practices. A companion article will survey the various current challengers to the flat-topped parallelepiped that long reigned as the only acceptable form for the tall office building.

Inside the tall building, freer and more individualistic ways of dividing up office space are being explored. Two fresh and indicative new examples will be featured.

A magnet for architectural tourists even during its construction, Johnson/Burgee's vast prismatic church in the suburbs of Los Angeles has now opened to the accompaniment of television and national news magazine coverage. P/A will explain this remarkable religious building in photos and drawings, assessing its strengths and weaknesses in an accompanying critique.

This January, as it has every January since 1954, the architectural profession will have an opportunity to peruse the selections and findings of the annual P/A awards competition. It will be time to survey the forefront of design as this year's jury sees it—a time to applaud, raise eyebrows, shrug, or clamp palm to forehead, as each reader sees fit.
The most durable floor is the least expensive to own.

PermaGrain® natural wood flooring. 30% less expensive than vinyl. And terrazzo, quarry tile, nylon carpeting, and conventional wood flooring based on life cycle costs. 500% longer life than even epoxy terrazzo.

Good reasons you might choose PermaGrain.

But the best reason is more obvious: its beauty.

And beauty, cost-effectiveness, and long life is a combination for which PermaGrain is unsurpassed.

For beauty, The American Society of Interior Designers gave PermaGrain its highest award.

Cost-effectiveness is proved. When contract-quality flooring is compared under identical, high traffic conditions and a 20-year life expectancy, PermaGrain can save from 6% to 42% on life cycle costs. At 50 years, PermaGrain's estimated full life expectancy, savings jump to record levels between 21% and 55%. One reason: PermaGrain never needs refinishing.

Maintenance? With PermaGrain, you can forget soap — water — wax. Simply dust mop. And occasionally mist on some cleaner and machine polish to a showcase elegance.

ANNOUNCEMENT

PRE-QUALIFICATIONS
A/E Firms for King Faisal Medical City

I. The King Faisal Medical City Administrative Office in Riyadh, Saudi Arabia, Post Office Box 2727, wishes to prepare the design of 250 beds as an extension to the existing building of the King Faisal Specialist Hospital in Riyadh. The design shall include all the necessary medical and technical services.

II. Qualified A/E firms with prior experience in the design of Hospitals and Medical Institutions are invited to submit their qualifications.

III. All firms desiring to be pre-qualified should fill in application forms which can be obtained from:

Address:
Medical City Administrative Office
King Faisal Specialist Hospital
P.O. Box 2727
Riyadh, Saudi Arabia
Tel: 464-7272, extension 1020
Telex: 201050 ROSPEC - SJ

or

ROYSPEC PURCHASING SERVICES
7470 CANDLEWOOD ROAD
HARMANS, MARYLAND 21077
U.S.A.

TELEPHONE: (301) 796-7910
TELEX: 908029 — ROYSPEC - BAL

IV. Application should be submitted by mail to King Faisal Medical City Administrative Office, Riyadh, Saudi Arabia, before the middle of December 1980. The Administration reserves the right to select which ever applicants they find most qualified to submit a proposal for the design of the above mentioned facilities.
A Lighting Lens Material for Extra Toughness, Extra Protection and Extra Savings

When you choose a material for your lighting lenses and diffusers in such high-risk areas as subway stations, pedestrian walkways, parking garages and lots, and other public areas, you look for impact resistance. Plexiglas DR high-impact acrylic provides the EXTRA TOUGHNESS you need to withstand accidental breakage or acts of vandalism.

But breakage shouldn't be your only lighting lens concern. You need long term durability and protection from damage caused by exposure to the elements and to ultraviolet degradation. Plexiglas DR, the only all acrylic, high-impact material, provides the EXTRA PROTECTION you need for long-term like-new appearance and utility.

Yet, Plexiglas DR acrylic pellets cost far less than polycarbonate resins, so you get EXTRA SAVINGS as well.

The combination of good impact resistance, and high resistance to yellowing and discoloration—both in a moderate cost material—gives you EXTRA VALUE for your money.

For the latest information on Plexiglas DR for lighting lens and diffusers, circle the reader service number or write to Rohm and Haas Company, Independence Mall West, Philadelphia, PA 19105, Attn: Marketing Services.

Circle No. 374 on Reader Service Card

In Canada: West Hill, Ontario M1E 3T9
Expressive person eager to make an impact in an energy boom town. Contact Joan Robey, Scott Rice, 5353 Bannock, Denver, Co 80216.

Faculty Position—Architectural Technology—
open December 1, 1980. Undergraduate teaching in the area of architectural graphics, working drawings, and related architectural subjects, in well established two-year AAS program. Candidates should possess a professional degree in Architecture (B.Arch or M.Arch) and appropriate architectural experience. Registration desirable. Rank and salary open and will depend upon academic training and professional experience. Respond to: James B. Shane, AIA, Head—Construction Department, School of Technical and Applied Arts, Ferris State College, Big Rapids, Mi 49307. (616)-796-0461, ext. 3763. Ferris State College is an Equal Opportunity/ Affirmative Action Employer.

Graduate Architect: With Master of Architecture and 2 years experience in the design of multifamily housing in planned communities. Salary $16,640 per year for full time position. (5 days/ week, 40 hours/week.) Send resume to William L. Trice, 53rd Street, Tampa. Fl 33617.

Manager of Engineering and Architecture: Successful custom home manufacturer is seeking a qualified architect or engineer to head its engineering and design department. Individual should have a background in residential architecture. As a young organization with fresh ideas, our consistent success has provided financial and personal advancement opportunities to our other company managers. This position will allow you to input your ideas and leadership abilities. Besides a good salary and paid strong medical, dental, and long term disability plan, profit sharing and bonuses. If you are interested, reply with resume to Dickinson Homes, Inc., P.O. Box 2235, Kingsford, Mi 49801. Attention: Albert Santoni, President.

Project Architect: Young aggressive architectural firm in Tupelo, Mississippi is seeking a Project Architect with 3-5 years experience. An excellent growth opportunity in a desirable location. Contact Johnson, McCart, & Hansen, P.A., P.O. Box 1643, Tupelo, Ms 38801.

Project Architect: Exciting opportunity with potential for registered project architect, must have strong design capability, sound business sense, and ability to work well with people. Indianapolis area. Box 1361-359, Progressive Architecture. Renaissance Designer: For innovative design management firm consulting with clients in all areas of design: product, packaging, graphics, visual image, exhibits, store planning and restaurants, downtown rehabilitation, specialized structures, etc. Must have outstanding creative problem solving and presentation ability. Excellent salary, ownership potential, international client base. F. Eugene Smith/Design Management, Inc., 3653 Yellow Creek Road, Akron, Oh 44313, 216/666-5796.

[continued on page 180]
CRITERIA: ULTIMATE PERFORMANCE

TCS

Architects have become increasingly aware that a metal roof can become a welcome departure from the commonplace and an important aspect of contemporary expression.

When that departure is created by TCS, terne-coated stainless steel, as exemplified by the beautiful, new headquarters of Square D Company in Palatine, Illinois, this exciting new material permits the visually significant roof to become an important basic component of design.

TCS is unique among roofing materials. It has inherent adaptability to form and function, is maintenance free, and weathers to a predictable, warm gray. May we send you substantiating evidence?

Call us toll-free 800-624-6906

FOLLANSBEE
FOLLANSBEE STEEL CORPORATION
FOLLANSBEE, WEST VIRGINIA

Headquarters Building, Square D Company, Palatine, Illinois
Architects: Loeb, Schlossman & Hackl, Chicago, Illinois
Roofer: E. W. Olson, Chicago, Illinois

Circle No. 330 on Reader Service Card
ROOF TRAFFIC?

Not likely. Until now System of elastic paver supports and paving slabs transforms dead roof area into beautiful roof terrace for pedestrian traffic. Weather surface is totally protected by natural stone aggregate concrete paving slabs. Open joints allow sub-surface drainage—roof terrace is always dry white for details.


University of Virginia School of Architecture—is seeking professionally and academically qualified faculty to teach both graduate and undergraduate level design. Candidates should have demonstrable experience in history, theory or graphics and should have established directions in research or scholarly activity. Candidates holding a Master's Degree and professional registration will be given preference. Please send resume and references to Chairman, Graduate Division of Architecture, University of Virginia, Campbell Hall, Charlottesville, VA 22903. The University of Virginia is an Equal Opportunity/Affirmative Action Employer.

Dion Neutra, AIA: Design services offered for significant or unique projects here or abroad in master planning, schematic and design development, marketing; in collaboration with any size quality production firms. Richard & Dion Neutra, Architects & Associates, 2379 Glendale Blvd., Los Angeles, Ca 90039 (213) 665-4950, 666-1806.

Rina Sue Siegel Agency: The leaders in international search and placement of design professionals. Ms. Woody Gibson directs architecture and interior assignments. Please inquire about the range of services we provide. 60 W. 55 Street, NYC 10019, (212) 286-4750.

Notice
Please address all correspondence to box number advertised as follows:
Progressive Architecture
% Box
600 Summer Street
Stamford, Connecticut 06904.

Advertising Rates (Effective October '80 issue)
Non-display style: $100 per column inch. Seven lines per inch. Seven words per line. Maximum 4 inches. Column width approximately 2¼%. No charge for use of box number. Situations Wanted advertisements: $50 per column inch. Noncommissionable.

Display style: $170 per column inch, per your lay-out. Commissionable to recognized advertising agencies.

Check or money order should accompany the advertisement and be mailed to Job Mart % Progressive Architecture, 600 Summer Street, Stamford, Ct. 06904.

Display style advertisements are also available in fractional page units starting at 1/4 page and running to a full page. Contact Publisher for rates.

Insertions will be accepted no later than the 1st of the month preceding month of publication. Box number replies should be addressed as noted above with the box number placed in lower left hand corner of envelope.
LO... New harmony for the office, from the reception area to private suite... with matched walnut veneers and walnut-toned plastic laminate tops. This exciting new group offers a full line of coordinated desks, credenzas, bookcases, storage units and seating needs for the office with a professional approach to success.

For the name of the dealer in your area, and more information, contact R-Way Furniture Company, or visit one of R-Way's showrooms in New York, Chicago, Atlanta, Dallas, Seattle and Minneapolis.
REQUEST FOR SUBMISSIONS

from building owners, developers, architects, engineers, designers, tenants, contractors, operators, managers,

★ Are you associated with a lighting installation that is energy efficient and that demonstrates good lighting design?

★ Is it worthy of public and professional recognition?

The National Research Council of Canada is compiling a "Casebook of Energy Conscious Lighting Installations," to be made available as a source of good practice in lighting, to all those concerned with efficient application of artificial and natural illumination in and around buildings.

The casebook will include fully credited, photo illustrated, descriptions of new and retrofitted lighting installations for

★ Individual interior spaces in commercial, industrial, institutional, and residential buildings.

★ Building facades and canopies.

★ Special tasks within buildings.

★ Parking areas and service roadways directly associated with and served, electrically, from a building.

Outdoor lighting installations for sports and industrial areas will not be included, nor will specialty installations such as stage lighting for theatres, entertainment or audio/visual presentations.

Submission packets can be obtained from:

DR. A. H. ELMAHDY
Division of Building Research
National Research Council
Building M-24
Ottawa, Ontario
K1A 0R6

Please send me a submission packet as soon as possible

NAME: 
COMPANY: 
ADDRESS: 
CITY: 
STATE: 
POSTAL CODE: 
TELEPHONE: 

Alma Desk Co. .................116
Long, Haynes & Carr, Inc. 

Amarlite Anconda ............... 9
Corning, Wilson & Acton, Inc.

American Gas Association 
J. Walter Thompson Co.

American Standard, 
U.S. Plumbing Products 

Clinton E. Frank, Inc.

American Telephone 
& Telegraph Corp. 
N. W. Ayer ABH International

Americanopean Corp. ...........148
Mather & Banta Advertising, Inc.

Amoco Fabrics Co. ............ 148
Walfos & Co.

Anderson Corp. 
Campbell-Mithun, Inc.

Arcado Systems Ltd. ...........141

Azrock Floor Products, Inc. 

Glen, Basel & Jacobs, Inc.

Badische Corp. ............... 154
Millennium Design 
Communications, Inc.

Ball Metal & Chemical Div., 
Ball Corp. 
Charles Thomas Advertising

Bethlehem Steel Corp. 
Van Brunt & Co.

Blum, Julius & Co., Inc. 
Seery & Company, Inc.

Bradley Corp. ............... 165

Hoffman-York, Inc.

Buckingham-Virginia Slate Corp. 76

Building Stone Institute 
The Steel Company, Inc.

Carpenter, L. E. Co. ...........122
The Steel Company, Inc.

CHEMFAB/Birdair 
Structures Div.

Woodard Frame & Eggers 
& Schaffer, Inc.

Clearprint Paper Co. 

Color Lithograph & Brown, Inc.

Cold Spring Granite Co. 

Kerber & Associates

Columbus Coated Fabrics Div., 
Borden Chemical 

Lord, Sullivan & Yoder, Inc.

Concrete Reinforcement, Inc. 

Steel Institute 

Marsteller, Inc.

Construction Products 

Manufacturers Council, Inc.

Control Electronics, Inc. 

Lee Heider & Company, Inc.

Design Tex 

Harry & Marion Zelenko, Inc.

Disco Aluminum Products 

Cook, Roof, Span & Water

Donn Corp. 

Widmersen/Strandberg Associates

Dover Corp., Elevator Div. 

Caldwell/Bartlett/Wood, Inc.

Dow Chemical-U.S.A 

Cook, Roof, Span & Water

Dow Chemical-U.S.A 

Cook, Roof, Span & Water

Durham Industries 

Batten, Barton, Durstine 
& Osborne, Inc.

Dystry Systems, Inc. 

Fern/Hennessy, Inc.

Dukane Corp., Communication 
Systems Div. 
E.R. Hollingsworth & Associates

duPont Co.—Antron 

Batten, Barton, Durstine 
& Osborne, Inc.

Dystry Systems, Inc. 

Fern/Hennessy, Inc.

Elco Manufacturing Co. 

Howard Swink Advertising

Flexco, Div. of Textile 

Rubber Co. 

Jarman Associates, Inc.

Focal Point, Inc. 

Images, Div. of Focal Point, Inc.

Follansbee Steel Corp. 

Group Marketing & 
Communications, Inc.

Ford Sunglasses 

Wells, Ris, Greene, Inc.

Forms & Surfaces 

Sherill Broudy Associates

Franciscan Ceramics, Inc. 

Garforth Creative Communications

Fry Reglet Corp. 

Avery Advertising, Inc.
GAF Corp. ........................................ 184
Glidden Coatings & Resins
Div of SCM Corp. .................................. 166
Meldrum & Flwémith, Inc.
Halley Taylor Div.,
King-Seeley Thermos Co. ....... 61
Haworth, Inc.
Haworth Advertising
Helios Textile Products, Inc. ...... 81
Hiwash Advertising
Hickman W.P. Co. .................. 164
Hickman. W.P. Co 164
Hillman Co. .................. 161
Homasote Co. .................. 161
Gillepse Advertising, Inc.
INRYCO, Inc. .............. 119
Metrau Advertising Associates
International Masonry Institute . 144
Haworth Advertising
International Masonry Institute
International Tile and Supply
Corp. ........................................ 147?
Mebus Design Associates
Jenson, Industrial, Inc. ......... 162
Michael R. Abramson Associates, Inc.
Jensen Research, Inc., Inc. ...... 68
Bowman, Black, Fats & Cook, Inc.
Johnson-Manville—Building
Systems Div. .................................. 44, 45
Brealey, Allebach & Davis, Inc.
Kalwall Corp. .................. 142
Synergy Advertising, Inc.
Karastan Rug Mills .............. 10, 11
Media Basics, Inc.
Kawneer Architectural Products . 62, 63
Garmin, Jasper, Rose & Co.
Kimball Office Furniture Co. .... 39
Keller Crescent Co.
King Faisal Specialist Hospital .... 176
ROYSPEC
Koch & Lowy, Inc. .............. 145
Riibaut & Schaefer, Inc.
Koppers Co., Inc. .............. 17-20
The Advertising Center
Kruenger
Ido Communications
Lehman Bros. Corp. ............ 172
William V. Levy
Levolor Lorenzento, Inc. ...... 57
Muller Jordan Weiss
Lynch, Kenneth & Sons
Couch & McConnell, Inc.
Macmillan Book Clubs, Inc. ...... 69-71
Magic Chef, Inc. .............. 121
Walter Cuddington Associates, Inc.
Marathon, Carry-McFall Co. .... 24
Glenn, BzsiS & Jacob, Inc.
McPhilen Lighting
Emerson Electric Co. ......... 155
Graddon Communications, Inc.
Monanto Plastics & Resins Co. .... 46
Advancers MediaProgramming, Inc.
Musson, R.C. Rubber Co. ....... 142
Richard Bacher Advertising
Neo Ray Products, Inc. ........ 140
Nevamar Corp. .............. 1
Lord, Sullivan & Yoder, Inc.
John Pearson, Inc.
Olympic Stain, Div. of Comerco, Inc. . G-4
Kraft Smith
Osterman & Schieve ............ 149Wd
Shep, Harget & Vladimir
Oris Elevator Co. .............. 48, 49
Poppie Tyson, Inc.
Parker, Charles Co. .......... 68
Le House Advertising
Pellerin Milnor
Peter A. Mayer Advertising, Inc.
Permagrain Products, Inc. ....... 175
Askins-Kynett Co., Inc.
Pittsburgh Corning Corp. ....... 84
David J. Westhead Co., Inc.
PCL Industries, Inc., Glass ....... 163
KMG International, Inc.
Progressive Architecture Bookstore .................................. 148, 149
Progressive Architecture
Furniture Competition .......... 21, 22
Progressive Architecture
Subscription Card ............. 167, 168
ProSoCo .................. 155
PSI Energy Systems, Inc. ....... 120
Blake Graphics
Rambusch .................................. 171
Manuzzi, Inc.
Reading-Dorma Closer Corp. .... 140
Battle Advertising, Inc.
Richards-Wilcox Mfg. Co. ....... 64
Hansom Advertising, Inc.
Rixson-Firemark, Inc. ......... 157
The Delco Company, Ltd.
Rock of Ages, Building
Granite Div. .................. 158
Culver International, Inc.
Rohm and Haas Co. ............ 58, 59, 177
Al Paul Lefum Co., Inc.
Rose/Johnson, Inc. .............. 159
Schoeppe Design & Communication
Rho-Way Furniture Co. ........ 181
R-Way Advertising, Inc.
Saddlebrook .................. 146, 147
Sargent & Co., Div. of Walter Kidde
Adams, Richard & Mason, Inc.
Saccomandre .................. 175
Jeanne Weeks
Schindler Haughton Elevator Corp. . 83
Walderschein/Strandberg Associates
Shakerton Corp. .............. 43
Gereger/Meyers Wolfe and Kigors, Inc.
Simplex Ceiling .................. 169
Lesin Associates
Standard Dry Wall Products .... 85
Martin Runis/Creative Group, Inc.
Stanpact Products .............. 169
Greencore Marketing Corp.
Star Manufacturing Co. ....... 16
Aachman McQueen Advertising, Inc.
Star Ceramics, Inc. .............. 152
Irv Thomas Associates, Inc.
Sultan .................. 117
Thermador/Waste King ........ 156
Joel Golden Advertising
Communications
U.S. Gypsum Co. .............. 34, 55, 72, 73
Marastit, Inc.
United Technical Products, Inc. .... 160
Group 4 Advertising, Inc.
Venco Corp. .................. 178
Bemis Kenosh Advertising
Ventarama SkyLight Corp. ....... 178
Channell Agency, Inc.
Wausau Tile .................. 180
Murray Marketing Services
Weather Shield Mfg., Inc. ....... 23
Four Star, Inc.
Weisbach Lighting, Inc. ....... 74
Langeler/Mason, Inc.
Wilson, Ralph Plastics Co. ....... 86
McKown & Company, Inc.
Zero Weather Striping Co. ....... 52
Harvard, Peabody & Edith, Inc.
OUR GLASS PLYSHEET HAD TO GO THROUGH SNOW AND HEAT AND GLOOM OF NIGHT BEFORE IT COULD GET TO YOUR ROOF.

GAF'S EXTENSIVE FIELD TESTING GIVES GAFGLAS™ PLY 4 AN EDGE OVER THE COMPETITION.

Gafglas Ply 4, our newest glass roofing product, is now ready for national distribution. But it had to go through all kinds of abuse first. On our roofs, in the great outdoors.

We tested its ability to weather the effects of harsh climate changes. How well it resisted moisture or other harmful elements that could cause premature failures. And made sure it was easy to apply, even under extreme conditions.

This rigid testing ritual is the reason Gafglas Ply 4 has actually exceeded ASTM specification D2178 and UL requirements.

In fact, all our glass built-up roofing products—from our glass vent-plies and standard base sheets to our ply and cap sheets—never leave our hands without being tested both on our roofs and in our labs.

What's more, when you specify GAF Built-Up Roofing products, our highly trained team of experts are at your disposal for technical assistance as well as input for job specifications.

So next time you need a glass plysheet, or any glass built-up roofing product, put Gafglas to the test.

Heaven knows we have.

ALL YOUR BUILT-UP ROOFING NEEDS ARE UNDER ONE ROOF

Circle No. 334 on Reader Service Card