Progressive Architecture

May 1973 A Reinhold publication

Places to live
Azrock – the best buy in flooring...

Azrock vinyl asbestos tile is the best buy in flooring, because it serves more medical facility requirements better than any other type of flooring. Yet it costs less than half of what it did 20 years ago. Here’s why you can specify Azrock with confidence:

- Fire safe, will not support combustion
- Easy to keep sanitary
- Shock proof
- Easy, economical cleaning and stain removal
- Low-cost no-wax maintenance
- Non-allergenic, mildew proof, no odor retention
- Lowest motion resistance
- Resilient underfoot comfort
- High style at low initial cost
- Long lasting durability
- Exceeds federal specifications

More vinyl asbestos tile is used in hospitals, nursing homes, and clinics than any other kind of flooring. Keep patients and staff safe and comfortable with low-cost Azrock vinyl asbestos tile— the best buy in flooring.

Floor shown: Cortina Series, one of over 150 colors and styles.

Write for free samples and No-Wax Maintenance information:
Azrock Floor Products, 5274 Frost Bldg., San Antonio, Texas 78292.

Circle No. 330, on Reader Service Card
Most water coolers look pretty much the same on the outside.
Only one looks like this on the inside.

Halsey Taylor.
Not that you'd recognize it. Very few people ever have to look at the inside of our water coolers. Including repairmen.
That's because we concentrate on what really counts—function. Besides, where could anyone get the idea that an architect specifies functional products on appearance alone?
The ultimate pay-off is a cold, satisfying drink of water. But the pay-off that counts is years of service, extremely low maintenance, quality construction—and knowing that the product you specify is as good as your own reputation.

We put a lot more into it so your customers will get a lot more out of it. Cold water included. Here's how:

1. **Exclusive 2-stream bubbler.** Builds a large, drinkable mound of water. Squirt-proof and vandal resistant. One piece chrome-plated brass forging prevents contamination.
2. **Cooler top.** Satin finish stainless steel, polished and buffed for beauty and ease of cleaning. Separate drain strainer removable for easy cleaning without removing cooler top.
3. **Pre-cooler.** Incoming water line coiled around and tin-bonded to cold water drain. Boosts cooling capacity by 60%.
4. **Cooling storage tank.** All copper, hot-dipped pure tin lining. Incoming water coil is tin-bonded to refrigerant coil to cool water before it enters tank.
5. **Condensing unit assembly.** Hermetically sealed, lubricated for life. Automatic re-set overload protector prevents overheating. Capacitor insures compressor startup. All components designed and coordinated for top efficiency and long life.
6. **Cabinet.** One-piece unitized body of heavy gauge bonderized steel. Baked-on enamel resists wear, moisture, heat, sunlight. Cabinets also available in stainless and vinyl-clad steel.
7. **Dual temperature controls.** Two thermostats, primary and secondary, provide double protection against freeze-up.
8. **Automatic regulating/operating valve.** Maintains constant stream height under line pressures varying from 20 p.s.i. to 90 p.s.i. Easy to service. Tamper-proof. Large orifices resist deposits and clogging. All parts are corrosion-resistant.

Halsey Taylor Division, 1554 Thomas Road, Warren, Ohio 44481.
WHY CRAWFORD?

1. OUTSTANDING DISTRIBUTORS
2. COMPLETE PRODUCT LINE
3. COMPETITIVE PRICES

Call your local
CRAWFORD DISTRIBUTOR
(See Classified Directory)
or write direct:

Crawford Door • 4270 High Street • Ecorse, Michigan 48229 • Area Code 313/383 5000
May 1973

Progressive Architecture

Places to live

Scattered site hill town
Public housing for UDC in Ithaca, N.Y. derives its form and urbanity from European hill towns; Werner Seligmann & Associates are architects

A non-box for the elderly
Instead of a campus, box or slab, Ulrich Franzen provided a 72-sided sculptural statement to house the elderly in a small New England town

Light from a book
Making the most out of standard items from catalogs, architect Peter Behn met the budget and the owners' requirements for a California house

To save a fabric
Proving that a neighborhood need not be demolished to make room for high density development, architects Diamond & Myers propose infill for Toronto

Some decorated sheds, or Towards an old architecture
Two vacation houses by Venturi & Rauch, one "ugly and ordinary," one "complex and contradictory," express the vernacular of Nantucket Island

Other ways
A portfolio of housing designed, built or improvised by those who prefer to create their shelters as contemporary fold art to suit their lifestyles

Forward through the past
Brunswick Center in London, by architect Patrick Hodgkinson, goes a long way towards solving some low-rise, high-density, in-city housing problems

Interior design: Out of the blue
A new interior for an old shingle-style house both mirrors and contrasts with its facade; one of Charles Moore's finishing touches: a lightning bolt

Departments

<table>
<thead>
<tr>
<th>People in P/A</th>
<th>Products and literature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Views</td>
<td>Books</td>
</tr>
<tr>
<td>News report</td>
<td>Notices</td>
</tr>
<tr>
<td>Editorial</td>
<td>Job mart</td>
</tr>
<tr>
<td>Environmental engineering</td>
<td>Directory of advertisers</td>
</tr>
<tr>
<td>Specifications clinic</td>
<td>Reader service card</td>
</tr>
</tbody>
</table>

It's the law

Cover: UDC Ithaca Scattered Site Housing Project, Elm St. site, designed by Werner Seligman & Associates (p. 64). Photo: Nathaniel Lieberman.
The Wilson Art Look in laminated plastics.

Your ideas and our ideas look great together.

As an architect or interior designer, coordinated control of selected colors and patterns is critical to your design concept. Woodgrains, solid colors and abstract or geometric patterns should look exactly as originally intended.

With Wilson Art laminated plastics for furniture and fixtures, Wilsonwall Paneling Systems and Dor-Surf (Wilson Art high impact door facing material) you can be sure of achieving the design results you originally specified.

WILSON ART LAMINATED PLASTIC

Choose from over 150 woodgrains, solid colors and patterns. And an outstanding selection of true dimensionals that look as great as they feel. Match furniture and fixtures with other Wilson Art covered interior surfaces for total environmental control.

WILSONWALL PANELING SYSTEMS

Coordinate walls with one of four distinctive Wilsonwall panel systems. System #110 is a reveal system; #210, a standard V-groove; #310, a V-groove; with hidden moldings; and #610, a Class 1A fire hazard classification system featuring aluminum moldings. Each is available in the entire line of over 150 Wilson Art woodgrains, solid and patterns.

DOR-SURF (Wilson Art high-impact door facing material).

Doors in high traffic areas need DOR-SURF® 1/8 inch thick Wilson Art door facing material. Exceptionally strong and abrasion resistant, it too, can be coordinated with all other Wilson Art covered surfaces.

Simplify. Get it all together with the one source supplier, Wilson Art. For total interior coordination. You’ll see why we say: Your ideas and our ideas look great together. For more information, contact the Wilson Art Architectural Design Representative nearest you today:

- Atlanta 404-377-0731
- Chicago 312-437-1500
- Denver 303-388-3686
- Los Angeles 213-723-8961
- Miami 305-822-5140
- New Jersey 609-662-4747
- New York 212-933-1035
- San Francisco 415-782-8055
- Seattle 206-228-1300
- Temple, Texas 817-778-2711

WRITE FOR THESE DESIGN AIDS:

Spec Data Sheets for:
Wilson Art laminated plastics, Wilsonwall Panel systems and Dor Surf® (1/8" Wilson Art door facing.)
Bally Walk-Ins belong where special food fare means better health care for young and old

Bally Walk-In Coolers and Freezers belong everywhere mass feeding takes place. They can be assembled in any size for indoor or outdoor use from standard panels insulated with four inches of foamed-in-place urethane, UL 25 low flame spread rated and Factory Mutual research approved. Choice of stainless steel, aluminum or galvanized. Easy to enlarge ... easy to relocate. Refrigeration systems from 35°F. cooling to minus 40°F. freezing. Subject to fast depreciation and investment tax credit. (Ask your accountant.) Write for 28-page book and urethane wall sample. Bally Case & Cooler, Inc., Bally, Pennsylvania 19503.
**People in P/A**

**Venturi & Rauch**

Although their work is inevitably identified with Robert Venturi, this firm is by no means a one-man show. Instead, the office operates, according to long-time associate Steven Izenour, "as a cohesive team, an efficient one in that we all understand each other and can leave a lot unsaid." The team includes the three partners, Venturi, John Rauch and Denise Scott Brown (Venturi's wife), plus a staff of four for architecture, two for planning.

Venturi himself worked for Eero Saarinen and Louis Kahn before forming a partnership with Princeton classmate William Short in 1960. Their major work, in addition to a number of houses, was the Guild House apartments for the elderly in Philadelphia. In 1964, Venturi entered into a partnership with John Rauch, who had worked on Guild House for the associated architects, Cope & Lippincott. Denise Scott Brown joined the partnership in 1967. Venturi & Rauch's largest building to date, the humanities building at the Purchase campus of the State University of New York, is now nearing completion.

All three partners have taught at the Univ. of Penna. (from which Rauch holds a B. Arch. and Scott Brown a M. Arch. in city planning). In addition to short-term appointments, Venturi has been on the architectural faculty at Yale (1966-1970) and Scott Brown at U.C.L.A. (1965-1968). Venturi's greatest impact on architecture has been through his writings, notably *Complexity and Contradiction in Architecture* (Museum of Modern Art, N.Y., 1967). The recent book *Learning from Las Vegas* by Venturi, Scott Brown and Izenour (MIT Press, 1972) is based on studies carried out with Yale students.

**Werner Seligmann**

Shortly after graduating from Cornell in 1955, Werner Seligmann returned to his native Germany for graduate work at the Hochshule in Braunschweig. Back in Europe, he could now see at first hand those prototypical housing schemes that began appearing in the twenties, but whose influence has only recently come to this country through such schemes as his own Ithaca N.Y. project (p. 64).

He went to as many of the early projects as he could—to those of Gropius and Ernst May in Germany, to Oud's in Holland, to Corbu's in France and Switzerland, and many others. "I knew them well from books," he says, "but what really impressed me when I saw them was that they were all overgrown, green and beautiful." And if Seligmann has his way, his Ithaca project will be that way too. To help it along, he's had over 2000 pine, spruce and flowering trees planted on the sloping site, along with wild raspberries, blackberries and sumac.

---

**Our Securiti-Cards are no damn good...**

in the wrong hands.

You fired him yesterday...or perhaps he stole the Securiti-Card" to open your door to do you in. It's worthless to him because you VOIDED it instantly at the Securiti-Card Data System Access Controller"...which prints out a record of who goes in or out and sounds an alarm if a voided card is used.

Reliable...Inexpensive...A 24-Hour-a-Day Automatic Guard from...

**Cardkey Systems**

20339 Nordhoff / Chatsworth, Ca. 91311

---

**SCULPTUREWOOD**

Accent An Entrance - Create a hall or panel a wall with Sculpturewood see-through or solid hardwood panels. Over 20 patterns to choose from, in walnut, birch, ash, oak, poplar and other species. You call the shots on size, framing and finishing. An elegant introduction to any environment. Patterns and applications are presented in our full-color brochure. Write today!

5800 So. Boyle Ave., Los Angeles, Calif. 90035 (213) 583-4511 REPS REPRESENTATIVES IN PRINCIPAL CITIES. COVERED BY PATENT NO. 3859781

---

**Circle No. 336, on Reader Service Card**

---

**Circle No. 401, on Reader Service Card**

5:73 Progressive Architecture 7
Views

Exciting creation
The most exciting creation in your January issue is the book review by Charles Moore of the book Schindler by David Gebhard. I like it even better than the review I wrote of the same book in the September AIA Journal. His review makes the image of himself into that of a human being. I feel his viewpoint is particularly healthy for the profession coming from someone of his reputation. His phrase that Schindler "kept responding all the while" is beautiful. Thanks and keep responding!

John Blanton, AIA
Manhattan Beach, Calif.

Between skepticism and cynicism
I can remember, not so long ago, when, as a student of architecture, hours were spent over state university cups of murky coffee, and discussions were ranging through the equally murky philosophies of architecture and aesthetics. Probably more than once, the major issue was whether architecture reflected a society or a society could reflect its architecture.

Today my personal philosophy has come to ranging between healthy skepticism and unabashed cynicism on this single issue. I point this out after reading your Editorial (Feb. 1973) which lists four basic principles, three of which are in great sympathy with current societal and (yes, folks) political attitudes. The fourth, understandably, is design. Then, after some lengthy discussion of the architect's role, the designs presented are touted for their qualities as they relate to the principles of Progressive Architecture.

Well, if your publication stands for environmental and social concerns, why aren't the designs presented representative of the many genuine efforts by architects, engineers and planners to provide housing for the poor? Why are all the buildings shown the result of corporate or institutional enterprise? Why, also, is your article "Washington report": so glowing in its reports of presidential reorganization, when it is becoming obvious that the small struggling firm is going to bite the dust, as many other small businesses will, if the broader issues of national priorities (where the money will be spent) aren't brought into focus?

I think Progressive Architecture is a fine publication within its real area of concern, but this area of concern does not come off as having much social conscience, environmental awareness or a political clout. What it does come off as is an institution in itself, which provides the average architect a great chance to see what you can design for the big money and entrenched power holders, and little indication of how to move, bend, redirect or in any way alter their present day policies or resources toward your stated principles.

So, while I have always read Progressive Architecture (and always will), for those wonderful glossy full-page pictures and captions, I think you ought to tell it like it is. Progressive Architecture prints good-looking stuff, and provides a valuable service with that. Thanks. And thanks for the opportunity to sound off.

Kenneth L. Austin
Bryan, Tex.

Attention: advertisers
Being a woman trying to obtain an education in a field largely dominated by men, I am rather concerned by the attitude that only men can be professional enough to succeed. Your advertisements are remarkably illustrative of my point. Is it really necessary to show half-nude women to sell such unrelated products as faucets, swimming pools and ceramic tiles? Any worthwhile product should be able to stand on its own merits. Somehow, Knoll does not find it necessary; they let their products display themselves. Someday you will wake up and realize our full worth to the profession. Maybe then we can receive the respect due to us; and Progressive Architecture will stop printing such farces of advertisements.

Ms. Kerry L. Dietz
Kent, Ohio

Attention: ex-GIs
In Britain we are conducting a $130,000 appeal to help complete the inter-denominational Auckland Cathedral in New Zealand, which was started a year ago. It will seat 2500 and replace a small wooden cathedral church.

I think my fellow Americans might like to help, especially ex-GIs with fond furlough memories of New Zealand. Just a couple of bucks will break up the millionaires' monopoly on philanthropy! Donations may be mailed to the Rt. Rev. Bishop of Auckland, Eric A. Gowing, Auckland, N.Z.

Gertrude Holborn
London

In praise of a bridge designer
Since the material in "The architecture of bridges" (P/A, Mar.) is to appear in the book, New Directions in Bridge Building by William Zuk and Wallace McKeel, it is most important to recognize and give due credit to the pertinent contributions of Professor Robert G. LeRicolais at the University of Pennsylvania.

Having worked with him, I join many other architects who are inspired by his search for basic principles of the nature of structure, and his sensitive understanding of experiment and experience. His ideas concerning bridges of great span with minimum supports offer a great vista for practical realization.

In fact, Zuk's pronouncement that the idea of elevated bridges for transportation channels is "novel and innovative" is nothing new—Professor LeRicolais developed and designed such structures some time ago. For example, the Aerial Mass Transit Systems (patented both in France and in the U.S.) known as SKYRAIL, is an application of such new principles for bridges, capable of considerably more economy than conventional suspended bridges. The idea that transportation channels may generate new city form was also discussed by him in "The Trihex: New Pattern for Urban Space" (P/A, Feb. 1968).

Alan Grant's scheme for the Messina Bridge was shown by Zuk. LeRicolais' project for the same competition was comparable, done without knowledge of Grant's proposal.

Alexander Messinger
Philadelphia

The author replies
I, too, highly respect LeRicolais' achievements and assure you that a portion of my forthcoming book is devoted to his works. He and I have been in communication on the matter for some time.

William Zuk
The University of Virginia
Charlottesville
Weyerhaeuser Panel 15 makes beautiful “afters” happen.


Section of downtown Atchison, Kansas, BEFORE and AFTER Weyerhaeuser Prefinished Siding/Panel 15.

And exciting “originals.”


Swope Park Puppet Theater, Kansas City, Missouri, Morton Rotkis, Architect.

Whistle Stop Restaurant, Phoenix, Arizona, Clarke Modular, Inc., Glendale, Colorado.

LaRonde Apartments, Arthur M. Hemlock, Hemlock Associates, Cleveland, Ohio.

From re-creation of nostalgic significance to innovative design concepts, the uses for Weyerhaeuser Prefinished Siding/Panel 15 are virtually limitless.

The 10-mil, pebble-textured aluminum face of Panel 15 is available in 19 stock and special order colors, plus custom colors.

Durable acrylic finished aluminum bonded to rugged Structural I exterior-type Douglas fir plywood means exceptionally low maintenance plus structural strength permitting application to any conventional support system.

Regular panels finished one side for siders and backed with reflective foil insulation. Double-faced panels for balconies or dividers where both faces are exposed.

All Weyerhaeuser Panel 15 guaranteed in writing not to need refinishing for fifteen years. Approved by all building codes and FHA, qualifies for Class II Fire Hazard rating.

For more detailed information on Panel 15’s unique qualities, uses and accessories write to Weyerhaeuser Company, Box B, Tacoma, Washington 98401.
Now, Johnson puts computer-controlled automation within everyone's reach. With the JC/80* System... the first general purpose communications loop with a mini-computer designed for building automation and life safety. Immediately expandable. Ideally suited for leased-line telemetry. Digital transmission, plus!

JC/80 advanced technology delivers all the advantages of computerization—continuous monitoring of all points, with performance matched to programmed ideals—for maximum savings on manpower, energy and overall costs. It employs easily understood English input/output in system format and efficient Management by Exception principles.

The JC/80 breakthrough includes many important advances. Maximum system response time of just 4 seconds, regardless of the number of points. Reports alarms in chronological sequence. Fully compatible with existing digital systems. Operator functions, such as changing alarm limits, programmable on-line. And modular hardware and software are available locally.

Most important, JC/80 automation is fully backed by the Johnson organization—leader in computerized building automation, with more than 75% of all such projects installed or under contract.

Whatever your building automation requirements, the computerized JC/80 System can meet them—better than anything. And it's ready right now. Get complete information. Write today for Pub. 2036R.

*Reg. TM applied for. Circle No. 357, on Reader Service Card

The JC/80 breakthrough.

first building automation system with a mini-computer as standard equipment.
The performance glass that lessens air conditioning requirements. Even in Houston.

The developer of Houston's Ranger Insurance Building went to his architects with two requirements. First, design a marketable building with a distinctly beautiful identity. And then minimize the air conditioning system without sacrificing comfort.

Now, one would think, that in the Houston climate, you need all the air conditioning you can get.

But the architects selected PPG's Solarban 480 Bronze Twindow insulating glass. The reflective glass that would not only satisfy the tough mechanical requirement, but would also be esthetically pleasing.

In this case, the architects chose a muted bronze coverplate, which was heat strengthened to resist thermal stress, to complement the bronze aluminum curtainwall.

On the inside, the pleasing transmitted light of the Solarban 480 Bronze units offers substantial visual comfort and largely eliminates the need for blinds or draperies, despite the bright Texas sun.

And all the while, less air conditioning equipment is working less.

Look into the advantages of Solarban 480 Bronze Twindow insulating glass—or the others in our family of Environmental Glass—for your next building. Write PPG Industries, Inc., One Gateway Center, Pittsburgh, Pa. 15222.

PPG: a Concern for the Future
Twindow® insulating glass.
One Shell Plaza sets a world record in concrete with POZZOLITH admixture.

Houston’s 714-foot-high One Shell Plaza is the tallest reinforced concrete building in the world. And from its massive 8-foot-thick foundation mat to the “tube-in-tube” structural system and concrete floor slabs, the predictable performance of over 100,000 cubic yards of concrete with POZZOLITH polymer-type admixture played an important role.

In the mass concrete, POZZOLITH retarder was used to retard set and reduce thermal stresses from heat generation. POZZOLITH also maintained workability and strength in a mix designed for low water and cement contents.

Structural members for the 50-story office tower also required a high level of concrete performance. POZZOLITH admixture gave needed workability for consolidation around the heavily concentrated reinforcing elements. This great workability plus uniform, high strength helped to achieve a floor placement schedule of one slab every five days. Here again, POZZOLITH helped to create a concrete with superior performance characteristics.

It’s only natural that POZZOLITH admixture was used in all the concrete for One Shell Plaza. Because POZZOLITH delivers its many performance benefits where performance counts — on the job and in the finished structure. That’s why, over the years, POZZOLITH has earned the name “The Performance Admixture.”

POZZOLITH can contribute in many ways to your next concreting job. For information, call your local Master Builders field man or write Master Builders, Cleveland, Ohio 44118.
New life saver

Fire tested, the unique Smok-Chek III™ combines unequaled early detection capabilities with automatic door closing...for optimum protection of patient occupied areas, with two-point hold-open convenience. Smok-Chek III meets the new Model Building Code requirements and has been approved by Underwriters' Laboratories. No better protection is available at comparable cost.

*California State Fire Marshal's "Project Corridor" test data, 1972; available on request.

Ask the specialists in fire/life safety and door control for health care facilities:

RIXSON-FIREFMARK, INC.
9100 W. Belmont Ave., Franklin Park, IL 60131
In Canada: Rixson Firemark, Ltd.

Circle No. 400, on Reader Service Card
She's not crying because her hand's not hurt!

New Amarlite SAFETYLEINE entrance protects people from injury!

A child's hand is priceless. That and safety for all people is the inspiration for this unique, beautiful entrance.

There is no way to injure hands at either stile, thanks to a cylindrical guard at the pivot edge and a vinyl protector at the locking edge. Flush hardware with recessed pull prevents injuries—no projections to catch clothing, purses, packages or jewelry. Safetyline must be glazed with tempered or safety glass only.

The first safe and secure entrance has a 2-point top-and-bottom rod lock. Discourages break-ins and eliminates finger-cutting and ring-catching at keeper for dead bolt-type locks. Available in corrosion-resistant Amanodic hard coat finishes (dark bronze and black) and clear anodized aluminum.

*Patent Pending

MAIN OFFICE:
P.O. BOX 1719, ATLANTA, GEORGIA 30301
PHONE: 404-691-5750
The beauty of Vogel-Peterson PlanScape® screens belies their practical nature. Under the richly-colored, stain-resistant nylon velvet lies a thick foam cushion that literally swallows sound. The brilliant chrome accents mask a light but very strong tubular steel frame that defies bending and twisting. Thoughtful design extends even to the base ... made flush to the floor to keep clear of passing feet.

PlanScape screens are available in a wide variety of sizes, either straight or curved in five dramatic colors.

Write for catalog 510.
The new, antique look in paneling.


Renaissance comes in 4' x 8' x ¼" panels. And it's available with a Class III flame spread rating. For more information, just contact your G-P representative.

Georgia-Pacific
The Growth Company
Portland, Oregon 97204
Bradglas® bowl colors borrowed from nature.

Bradglas® Washfountains. Colorful like nature. Durable like steel. Smooth, nonporous. Resistant to abrasion, acid and corrosion. Won't swell, shrink or warp. Won't chip, peel or flake. Vandal-proof and fire-safe, too.

Reinforced polyester, so they're tough, to take it when the going is rough. Light for easy installation . . . 80% lighter than precast stone. Cut installation costs too . . . because they serve up to eight people with one set of plumbing connections. Save on wall and floor space. More sanitary than lavatories because they're foot operated.

Circular and semi-circular Washfountains. For the places you've never considered putting Washfountains before. See your Bradley washroom systems specialist about them.

Bradley Corporation, 9109 Fountain Boulevard, Menomonee Falls, Wisconsin 53051
Circle No. 334, on Reader Service Card
Furnace fire comparison test at the U.S.G. Research Center resulted in complete disintegration of polyurethane foam insulation within five minutes.

Identical fire testing of glass fiber curtain wall insulation resulted in melting and general deterioration within twenty-six minutes. Same test, dramatically different result. After a 2-hour exposure, THERMAFIBER Curtain Wall insulation remained intact and still afforded protection to the aluminum panel.

New THERMAFIBER® fire-safety system for high-rise construction.

THERMAFIBER Curtain Wall Insulation proved its effectiveness in recent 2 and 3-hour fire tests witnessed and certified by recognized consulting engineers. Temperatures were controlled to follow the ASTM E119 standard time-temperature curve. THERMAFIBER Curtain Wall Insulation protects spandrel panels, exterior column covers, window and track fillers. This quality fire-resistant product is available in regular blankets or foil-faced to eliminate need for separate vapor barrier. Attachment is mechanical using impaling clips or fasteners. See test pictures at left for the revealing results of this highly effective fire-safety system component.

THERMAFIBER Safing Insulation also proved its superior fire-resistance in a separate 3-hour fire test. Furnace temperatures conformed to the ASTM E119 time-temperature curve. Results showed a melt point of over 2000°F. The Fire Hazard Classification for unfaced curtain wall and safing, tested in accordance with ASTM E84, is Flame Spread 15, Fuel Contributed 0, Smoke Developed 0 (foil-faced: 25-0-0).

THERMAFIBER Safing Insulation provides the compressibility to allow it to be installed between the floor and curtain wall; yet it's sufficiently resilient to seal the gap tightly. Insertion on support brackets or impaling clips is recommended. THERMAFIBER is non-corrosive to steel or aluminum, vermin-proof, moisture-resistant and mildew-proof.

Add thermal efficiency and sound control and you'll readily see why this fire-safety system, made up of THERMAFIBER Curtain Wall and THERMAFIBER Safing Insulation, has been so well received. Just a few new buildings now employing this advanced system are Chicago's 110-story Sears Tower, Cleveland's Diamond Shamrock, Detroit's Detroit Edison, and Milwaukee's Wisconsin Center Building. See your U.S.G. representative for specifics. Or write to us at 101 South Wacker Drive, Chicago, Ill. 60606, Dept. PA-53.
AIA announces Honor Awards

A dozen architectural firms will receive Honor Awards at the AIA convention this month, for projects ranging from a monastery to private homes to a corporate headquarters. Winners are John Andrews/Anderson-Baldwin (George Gund Hall, Harvard Graduate School of Design, Cambridge, Mass.); Marcel Breuer and Herbert Beckhard (St. Francis de Sales Church, Muskegon, Mich.); Edward A. Cuetara (Woollen residence, Chilmark, Mass.); Esherick Homsey Dodge & Davis (Julian A. McPhee College Union, California Polytechnic State University, San Luis Obispo); Ronald Gourley/Carleton R. Richmond, Jr. (Faculty Housing, Radcliffe College, Cambridge, Mass.); William Kessler & Associates, Inc. (Public Housing for the Elderly, Wayne, Mich.); Loeb! Schlossman Bennett & Dart (St. Procopius Abbey, Lisle, Ill.); McCue Boone Tomskick (Djerassi vacation residence, San Mateo County, Calif.); MLTW/Moore Turnbull (beach house, Santa Cruz, Calif.); RTKL Associates, Inc. (Fountain Square Plaza, Cincinnati, Ohio); Skidmore, Owings & Merrill (American Can Co., Greenwich, Conn.); Harry Weese & Associates (Time & Life Building, Chicago).

Trendspotters might be intrigued by the thought that some of the projects honored this year are a few years old—the Kessler housing for example, or the Breuer church—and may well have been passed up by previous juries, as might have been the faculty housing at Radcliffe or Fountain Square, were they not relatively new projects. Perhaps this marks an upswing for humility and expressionism.

Jury was Pietro Belluschi, Chairman, James H. Finch, William C. Lukes, David McKinley, Jr. and Gyo Obata.
Progress report

Townhouses by Hercoform, Macon, Ga.

Boise Cascade low-rise, FCE Dillon high-rise, Sacramento

Townland System, Seattle

Shelley Systems, Jersey City
Breakthrough box score

Despite the elimination of some sites for budget reasons, despite local labor problems and other obstacles, and despite a variety of criticisms from a variety of sources, Operation Breakthrough is beginning to look like the success HUD said it would be back in May of 1969. Of 2938 units planned for the nine Breakthrough sites, 1770 are substantially completed. (P/A covered Breakthrough in detail in April 1970.)

Broken down by sites, the figures look like this: Indianapolis, 295 units planned, 226 substantially completed, 295 sold or rented; Jersey City, 486, 0, 486; Kalamazoo, 245, 245, 245; Macon, Ga., 287, 270, 287; Memphis, 518, 317, 518; Sacramento, 497, 379, 261; St. Louis, 464, 161, 464; Seattle, 58, 58, 58; King County, Wash., 178, 124, 40.

Even a quick look at those figures turns up a couple of questions. Two sites, Jersey City and St. Louis, do indeed seem to be lagging behind on completions; in fact, they won't be finished this year. They are, according to HUD, the two sites where construction has been the most difficult: fairly dense urban sites and plagued, in the case of Jersey City, at least, by strikes and "everything else that prevents most builders from building in the city," says a HUD spokesman. In St. Louis, the low-rise units went in almost immediately; the high-rise units are taking longer.

The other obvious question concerns Sacramento and King County, where the sold or rented figure seems way out of line. The reason for the difference is that units are being sold singly at those sites, and there is a wide variety of types and sizes of units. The other Breakthrough sites have been disposed of in large blocks or as whole entities; if HUD has sold the site to a developer, it shows the total number of units as sold or rented. Offsetting the slightly ghostly quality of such sold or rented figures is the fact that the big problem in Jersey City, say, is not going to be finding buyers for units; instead it will be deciding which prospects get into the project—the waiting list is that long.

HUD sees Breakthrough as a program that is changing an industry, but it will be a while before anyone can really say whether the shot in the arm industrialized housing has received is a simple vitamin or a massive dose of growth hormones. In any case, Phase II (the nine sites under construction or nearing completion) is rolling along and Phase III (the volume production part of the program) becomes the one to watch. It has been alive for the past 18 months, and since it is virtually unaffected by the current moratorium on subsidized housing funds (about 70 percent of the Phase III units had already been approved and the rest are under consideration) the projected figure of 25,000 units still looks good. This, says Breakthrough director Joseph Sherman, "indicates a continued commitment to Breakthrough and its goals." The establishment of a HUD Office of Advanced Housing Concepts, he says, is "another strong indication of this commitment." The new Office would promote innovation within the housing industry, even among firms and designers who weren't big enough for Phase II.

Some of the critics, who fault Breakthrough for not providing quantum jumps in technology, or for seeming to favor large manufacturers, may find some of their objections answered by the new Office, once it swings into operation; then again they may not. But a lot of people looking for places to live may be pretty happy.
Second energy conservation awards programs announced

Industrial, commercial, governmental or institutional buildings designed by architects and engineers practicing in the U.S. may be entered in the second annual energy conservation awards program sponsored by Owens-Corning Fiberglas Corp. Jury for this year’s program consists of Walter A. Meisen, James E. Wheeler, Ronald E. Aspgren, Robert B. Hollister, Gifford Albright, Jack Vincent and Frank M. Lebman.

Letters indicating intentions to enter the 1973 competition must be received by June 30; entries themselves are due by August 31. Awards will be presented in the fall.

Further information and detailed entry requirements are available from Energy Conservation Awards Program, Architectural Products Division, Owens-Corning Fiberglas Corp., Fiberglas Tower, Toledo, Ohio 43659.

Houston Energy Control Center; security, visibility

When the Houston Lighting and Power Co. planned its new Energy Control Center they decided to make the building a showcase for advanced computer operations and the complex controls needed to generate and transmit electricity. Designed by Caudill Rowlett Scott, the building includes an elevator that is a gallery, or a gallery that is an elevator. Either way, it contains seats for 28 people, who can see, through its glass walls, the way the power company does its job.

Security is as important as public information, however, so orientation and reception areas are kept on the lower and ground levels of the building, operational spaces on the two upper floors. Besides the ride on the hydraulic elevator, visitors get to see computer controls and monitoring stations.

Students, design, finance, build and sell house

Thirteen students of architecture at Ball State University in Muncie, Ind. are involved in a project that offers a little something for everybody. They are designing and building a house, which is not too unusual for architecture students, but they have also arranged the financing and real estate details; and when the house is sold, the proceeds will go into a scholarship fund, benefiting future architecture students.

Ground was broken in March, but a lot of the work is being done inside at the University’s College of Architecture and Planning. The modular house, says J. Robert Taylor, associate professor of architecture and supervisor of the project, is like “working on a giant, three dimensional puzzle.” The house, of wood frame construction, will have 1000 sq ft of space, and will be completed in about six weeks. Once all the modular components have been assembled, actual erection time will be about four hours. The project was made possible by a $2000 grant and a $10,800 construction loan from a local savings and loan association.

AIA back in business at same old corner

If bringing order out of chaos is one of the things architects are supposed to be good at, the AIA had plenty of practice in mid-March. The occasion was the move from the temporary offices on Massachusetts Ave. back to the same corner on which the Institute has been located since 1902, and the staff was unwrapping chairs and opening cartons while carrying on business as usual. The construction workers were still at their jobs, too: inscriptions were being carved on moving day, and carpet was still being laid a week or so later.

[continued on page 28]
Top corporations top their doors with Corbin closers. Because Corbin's 100/110 Series matches the corporate image in style and strength. Think of it as a piece of metal sculpture beyond its basic closing function. Executive finishes in bronze, brass, aluminum and chrome. Solid rack and pinion construction absorbing busy door-to-door traffic. In short, good looks, long life. Get them into your plans and specs by reaching a Corbin distributor. Or write us direct. Fortune's looking after you.
News report continued from page 26

Designed by The Architects Collaborative, the new headquarters frames and preserves the Octagon House, now a museum and historic site. Three of the seven floors will be used by AIA; the rest will be leased.

Washington report

The West Front and other battles

The valid aesthetic and economic reasons that have prompted architects to oppose extension of the West Front of the U.S. Capitol (the side facing downtown Washington) are unfortunately not understood by the general press, some of the “trade” press and the general public—or by many members of Congress. Hence, AIA’s years-long battle against the idea, and against the very powerful “Committee on Extension of the Capitol” (consisting of the Vice President, Speaker of the House and majority and minority leaders of both Houses of Congress) is often put down to a “history-buff, save-the-old-stones” sort of motivation.

In late March and early April, AIA’s chieftains, led by President Scott Ferebee, opened a new offensive, explaining the reasons for the opposition and offering an alternative: if added space is needed, put it underground and out of sight, at considerably less cost—maybe 25 percent less than an above-ground building or addition; restore and strengthen the existing structure.

The last point could make a lot of sense to a Congress very mindful of economic matters—even if not convinced on aesthetic grounds. So the architects have set themselves to explain the aesthetics:

Plans for the extension of the West Front (the protruding section of the building underneath the great dome, between the House and Senate wings at either end) date back many years, but most notably to the late Architect of the Capitol J. George Stewart, who recommended the idea most forcefully on grounds that (a) the 144-year-old sandstone walls were crumbling and dangerous; (b) Congress needed more space both for its own purposes and for further accommodations for the hordes of visitors—a total of 4½ acres more space, to be exact. Much of AIA’s opposition was ascribed, earlier, to the fact that Stewart was not an architect, despite his title (he had been a construction contractor, a Congressman, held a civil engineering degree). Capitol Architect since 1971, however, has been George White—a Fellow of AIA and a former vice president of that organization.

The real objection is centered elsewhere: plans for the extension include filling in part of the deep indentations between the center and the two wings that give the building a sort of “wasp-waist” appearance from above and accentuate the two-house nature of the government itself. These fill-ins would add greatly to the mass of the structure, and extension outward of the center section (the West Front itself) would also truncate the view of the massive cast-iron dome from the west side, which is sharply lower than the elevation on which the building stands.

In short, say the architects, the symmetry, integrity and...
symbolism of the building would be greatly impaired, if not destroyed.

A better answer (without debating the real need for added working and recreational space) would be to sink a new complex under the parklike space on the south side of the building (nearest House office buildings), connecting it by existing subways and pedestrian tunnels to both office complexes and the Capitol itself, and keeping it entirely out of sight.

Costs, because of lack of need for exterior facings (an extremely expensive item in a monumental one-of-a-kind building of this type), windows and other details, greater ease of heating and air conditioning, etc., should be well under the $58 million now estimated for the originally planned extension (about $360 per sq ft of usable space, according to present estimates).

The idea, said AIA's First Vice President Archibald C. Rogers, is one of great humility. "Imagine architects proposing a building that will never be seen," he added.

One thing more is needed desperately, said AIA: a comprehensive, overall plan for further development of the Capitol Hill Complex, to insure that any further work meshes with what now exists, both in appearance, and in such service matters as roads, tunnels, walkways and the like that may be needed.

The renewed controversy over the Capitol provided a sort of clear point in the confused infighting between Congress and the White House (and within Congress) over the equally long-contested point of which branch of the federal establishment is really dominant. That debate (which started with President Washington) is the real fire beneath the vast clouds of smoke coming out of debates on such measures as highway programs; clean stream and clean air programs; proposed cutbacks and reorganization of much of the government's antipoverty efforts; the crisis over energy, and much else. Lawmakers are fighting for political points, important back home, as to whether highways should be built to the exclusion of rail transit, or hospital programs should be cut, or whether rural electrification and public utility construction should be continued at current rates.

But they're really battling for supremacy: To force the President to spend something like $12 billion in appropriated or authorized funds which he has refused to spend; and to insist that Congress, not the President, should set priorities and national goals.

Chances are excellent that the lawmakers will lose these battles; the Executive has the very great advantage of ease of quick maneuver, as well as interpretations of Constitutional power. Such an outcome wouldn't be all bad as far as the construction industry is concerned this year: the budget message called for expenditures somewhat higher than in the past, for construction purposes. But the fight will certainly delay passage of key legislation long enough to have some effect on the industry's economics.

There were, of course, plenty of professional concerns as spring advanced. Architects and engineers, for instance, appeared before Congressional committees to suggest ways of changing over U.S. measurements to the metric system (the architects wanted a firm, no-nonsense schedule, while engineers favored a slower, more flexible approach); profes...

[continued on page 32]
You now have an opportunity to own reproductions of a series of paintings depicting significant achievements in the History of Man the Builder...commissioned by The Celotex Corporation as a salute to the construction industry, past...present...and future.

Two sets of 5-prints each, in full color, 16" x 20" size for framing, are made available by Celotex. Prints are rolled in a heavy tube, with keyed explanatory text sheet for each painting describing the history of the period and construction methods portrayed.
HOW TO ORDER: You can have one, or both, of these 5-print sets for the nominal reproduction, mailing and handling cost of $3.00 per set, or both sets (10 prints total) for $5.00. Send order with check payable to "Historical Construction Paintings." Specify "Set-I" or "Set-II." Mail order to: Historical Construction Paintings, Box 368, Miami, Florida 33145. Please allow 4 to 6 weeks for delivery.

Set I
The Early Period

Set II
The Later Period

The Anatolian Plateau of Turkey — ca. 6200 B.C. A neolithic shrine at Catal Huyuk.

Tura, Egypt — ca. 2650 B.C. Stone-quarrying for the "Step Pyramid" of Zoser.

The Island of Crete — ca. 1550 B.C. The rebuilding of the Palace of Minos at Knossos.

The Acropolis, Athens, Greece — 469 B.C. Construction is resumed on the Erechtheum.

Sancta Sophia, Istanbul, Turkey — ca. 535 A.D. The classic Byzantine church nears completion.

The Ise Forest, Japan — A.D. 889. The first rebuilding of the Naiku (Inner Shrine) at Ise.


Yucatan, Mexico — ca. A.D. 987. The House of Turtles in the Mayan City of Uxmal nears completion.

The Andes of Peru — ca. A.D. 1470. The rebel Ollantay builds his fortress-city, Ollantaytambo.
News report continued from page 29

As professionals were "challenged" by GSA Administrator Arthur Sampson to meet demands for "better, quicker, more economical" buildings; bills were introduced in Congress to strengthen the "right of control" by permitting regular court challenges to union work rules or local codes that restrict use of new materials or techniques (S.1188), to modify the effect of Occupational Safety legislation by reducing the size of firms affected to change labor laws and to partially unscramble the nightmarish maze of requirements for "environmental impact statements" under provisions of the National Environmental Protection Act (HR 5974); National Academy of Sciences announced a program of reorganization of its working arm the National Science Foundation by establishing three "Assemblies" and five "Commissions" to oversee broad areas, including the natural and social sciences.

And lumber got suddenly prominent in Washington thinking: price rises of as much as 56 percent (in softwoods) within less than two years prompted a couple of bills to limit or prohibit export of logs, and prompted the Cost of Living Council to set up hearings in April, looking to possible repositioning of controls on the entire lumber industry.

[John E. Halmos]

**Awards**

Four architectural firms were honored in the 1973 Plywood Design Awards program sponsored by the American Plywood Association. First award in the Residential/Single Family category went to Huygens & Tappe, Inc.; first award in Residential/Multi-family went to H. Ronald Walker and John D. Bloodgood P.C. (The park at Southern Hills, Des Moines, Iowa). First award in Commercial/Institutional was won by Richard L. Dorman (Placerita Canyon Nature Study Center) and first award in Special Awards went to J.E. McCormack of Locatelli/Deckbar/McCormack, Inc. (The Little Red Barn).


**Personals**

Walter J. Richardson, AIA, Costa Mesa, Calif., has been named to the National Housing Committee of the American Institute of Architects.

David C. Thimgan, AIA has been elected president of the Santa Clara Valley Chapter of the American Institute of Architects.

Robert A.M. Stern, AIA has been elected president of the Architectural League of New York.

Charles H. Burnette, AIA has been appointed dean of the[continued on page 34]
Stanley electric hinges uniquely conceal the switches or wires needed for any door security system you encounter.

Our new CS type hinge, on the left, hides a switch that passes on information about door entry. It can activate alarms, monitoring devices or other sophisticated security equipment. Our CE type hinge, right, has 4 or 8 wires to power any number of devices relating to a door — electric locks, panic bolts, hold-open devices.

This hinge can also transmit signals from a code reader on the door to a remote computer for access control.

Sure, they're just good-looking hinges, once installed. But they can't be tampered with, won't fail you. For full, secret information, write Stanley Hardware, Division of The Stanley Works, New Britain, Conn. 06050. In Canada: The Stanley Works of Canada, Ltd.
School of Architecture at the University of Texas.

William J. Mitchell has been named head of the Architecture/Urban Design Program at the University of California, Los Angeles.

Raymond Reed has been appointed dean of the College of Architecture and Environmental Design at Texas A&M University, College Station, Tex.

Jacques C. Brownson has been named professor-adjunct on the volunteer faculty of the College of Environmental Design of the University of Colorado at Denver.

Frank L. Hope, Sr., FAIA of San Diego has been reappointed to the California State Board of Architectural Examiners in the Department of Consumer Affairs.

Herbert Cuevas, AIA of San Jose, Calif. has been elected chairman of the San Jose Board of Appeals on Public Nuisances.

Richard W. Jones, FNSID, Des Moines, Iowa, has been elected president of the National Society of Interior Designers. Roslyn W. Mallin, FNSID, Chicago, was elected vice president, Lora Albert, Los Angeles, was named secretary and Boyd Loendorf, Mercer Island, Wash., was appointed treasurer.

Calendar


Through June 30. Furniture by Charles Eames exhibition, the Museum of Modern Art, New York City.

May 3-4. Ninth annual meeting of the National Academy of Engineering, Washington, D.C.

May 5-8. Annual meeting of the National Architectural Secretaries Association, Hyatt on Union Square, San Francisco.

May 7-9. International symposium on urban housing, Wayne State University, Detroit, Mich.

May 7-10. AIA national convention and exposition, Brooks Hall, San Francisco (to be reconvened in Honolulu May 11-15).

May 7-10. Thirty-first annual technical conference of the Society of Plastics Engineers, Queen Elizabeth Hotel, Montreal.


May 11-20. Soviet American conference on architecture and urban design sponsored by the American Institute of Architects, Moscow and Leningrad.


May 21-23. Conference on "Environmental Assessments of Transportation Facilities" sponsored by the Illinois chapter of the American Society of Civil Engineers, Regency Hotel, Chicago.

Zero doesn't leave "good enough" alone.

That's how we came up with the Compress-O-Matic™, a revolutionary development in acoustical seals for wood and metal doors.

Series 3000

Two years of testing and development... That's how long it took us to produce the new Compress-O-Matic, the most effective seal you can get where high decibel ratings are required! Here's what makes the Compress-O-Matic so unique:

Other seals merely make contact. The Compress-O-Matic, as the name implies, squeezes so tightly between doors and stops that it even compensates for warped or unevenly hung doors. Positively seals spaces from \( \frac{1}{8} \) " to \( \frac{1}{4} \) ".

You'll find the Compress-O-Matic—along with a host of other one-of-a-kind soundproofing, lightproofing and weatherstripping innovations—in Zero's 1973 catalog. Send for it and see all the "good enough" designs we've made better.

Zero Weatherstripping Co., Inc.
415 Concord Ave., Bronx, N.Y. 10455

GENTLEMEN: Please send me your 1973 catalog.

Name  
Position  
Company  
Address  
City  State/Zip

Zero Weather Stripping Co., Inc.
415 Concord Ave., Bronx, N.Y. 10455  
(212) LUDlow 5-3230

Circle No. 391, on Reader Service Card
an elegant new dimension in framing and entrances

Kawneer’s I-Line narrow profile aluminum framing and entrances have added an aesthetic new refinement to design.

For the first time, the beauty of clean, ultra-trim vertical lines on the drawing board have been transferred directly into construction. Without sacrificing functional considerations.

I-Line framing’s 1” sight line reduces the profile of traditional 1 3/8” framing by nearly one-half. Yet its ingenious design provides the same structural strength and glass bite... with easy “in-line” flush glazing to accommodate thicknesses up to 3/8”.

Framing and complimentary thin stile doors are available in clear anodized aluminum or Permanodic® colors. A free brochure illustrates and describes them all, plus hardware and design options. For your copy, write to the address below or call your representative.

For full information, see your Kawneer representative or contact Kawneer Product Information, 1105 N. Front Street, Dept. C, Niles, Michigan 49120.
Our newly-expanded line now makes it possible for you to get traditional Jamison quality and service in every price range. Jamison completely controls design, materials, and manufacturing to assure maximum quality and performance. Also more technical assistance—from more door specialists—than you can get anywhere else. Write or call for full details on the complete Jamison line.

The one to see in '73 . . .

Fountain and plaza await approval in Detroit.

The fountain has remained essentially the same—a 30-ft-high "engine for water"—but sculptor Isamu Noguchi has made a few revisions in the plaza that will surround the Horace E. Dodge Memorial Fountain at the Detroit Civic Center (P/A, Dec. 1971, p. 30). The Civic Center Plaza now puts strong emphasis on multiple uses: there is a large circular amphitheater, a tourist center, a smaller gathering place, shops, a riverfront restaurant, a riverside promenade, and underground restrooms and service areas. The fountain has been moved closer to Woodward Ave., which satisfies the terms of an agreement with the donors.

Noguchi's firm, Noguchi Fountain & Plaza, Inc., has designed a programmed fountain that uses a complicated array of fountain and fog jets and lights that can go through at least 80 variations. Smith, Hinchman & Grylls Associates, Inc. have been signed on as local architectural, engineering and planning consultants, and design development could go ahead as soon as the plan and financing is approved by the Detroit Common Council. It's possible that the fountain and plaza could be complete and in use by 1976.

[continued on page 42]
Ideal for all interior walls and ceilings.

Eliminates use of moldings.

Destined to revolutionize interior wall finishes. Can be used with any type wall system . . . operable, demountable or permanent.

Maintenance-free. Never requires painting.

Fire-proof and smoke-proof.

Economical. (Costs 60% less than most architects originally estimated).

Write for complete information.

Alliance Wall Corporation
Box 247, Alliance, Ohio 44601

Overseas Factories:
Alliance Europe N. V. Pentagon A/S
Box 19, 3600 Genk Krogagervej 2
Belgium
5310 Seden, Denmark

Circle No. 321, on Reader Service Card
When movement attacks your roof edge, what's going to defend it?

Everybody knows you can't stop the attack. For wherever you find two adjoining structural planes, you'll also find movement. Movement in different directions, at different rates, that makes nails pop, nail holes enlarge, joints open, etc. Any of which can cause leakage.

A free-floating system.
But now there's a beautiful defense against movement: Tremline, a unique free-floating fascia system that takes movement in stride like no other roof edging system can.

For other systems are static and have very little give. But the components in Tremline are free to move independently, without exerting strain on each other. So Tremline can absorb movement between the roof and wall. And keep absorbing it for years and years. There are no exposed fasteners so these potential leak spots are eliminated.

Built-in venting, too.
Tremline also allows perimeter venting of the roof insulation. Other edgings provide only partial venting, if any. And with the neoprene membrane in position, you have an unbroken weatherproof seal around the entire building edge. The membrane also acts as an expansion joint which absorbs roof movement.

A complete modular system.
Tremline is also versatile and adaptable. With its modular design, it can easily be installed on concrete, lightweight concrete and steel decks. And there's also a

Tremline flashing system for parapet walls. Same leakproof security, same easy installation.
And with Tremline, you get the complete system, from one responsible supplier. All necessary components are preassembled to meet conditions at corners, ends and transition points. So there’s little to be detailed on drawings or fabricated on the job. Fascia is packaged in 15' lengths, 6” or 8” facings.

Architecturally beautiful.
Tremline is uniquely beautiful, too.

Gives a clean-line appearance to the roof edge. The extruded aluminum fascia comes in mill, anodized or custom-painted finishes, with slip joints every 15 feet. No ugly exposed fasteners. No oil canning.

Your contractor will appreciate another beautiful feature: its easy installation. It snaps together and self-locks, adjusts up or down in 1/16” increments. Which also makes for easy alignment and compensates for most roof irregularities.

The Tremline/Alwitra Edging System is a patented product that has been proven in performance for more than seven years. It meets insurance wind requirements and is approved by Factory Mutual System. For more details, see your Tremco man.

And if you have any caulking, glazing or waterproofing problems, he can help too. For over 40 years, our business has been solving these problems and providing top-quality leak proof systems and products, such as our job-proven sealants MONO, DYMeric and Lasto-Meric, and liquid polymer Tremproof waterproofing. The Tremco Manufacturing Company, Cleveland, O. 44104, Toronto 17, Ont.

TREMLINE/ALWITRA EDGING SYSTEMS FROM:

TREMCO
The water stoppers

Circle No. 403, on Reader Service Card
Air structure conference set for Columbia, Md.

Columbia, Md. will be the location of a conference, May 23–24, on air structures, co-sponsored by the Educational Facilities Laboratories and the Building Research Institute. Morning meetings are scheduled at Friendship (Airport) Hotel, and will feature three types of case studies. The first will cover the type of structure that shelters the Antioch College campus in Columbia—the low-cost, short-lifespan air structure. The second will concentrate on the more permanent structures exemplified by the work of Dr. David Geiger (P/A, Aug. 1972, p. 81). A third will be given on the applications and implementation of smaller, more conventional structures. The Research and Design Institute (REDE) and others will discuss ways to use existing technologies.

The overall purpose of the event, says Blair Hamilton, consultant to EFL, is to transfer knowledge about "large enclosures for intensive human usage." Representatives of the architectural and engineering communities will be joined by educators, athletic directors and do-it-yourselfers, from the U.S. and Europe to view the latest developments in air structures. Manufacturers, not always the first to initiate ideas, could benefit as well. A running series of "pneu-jams" or rap sessions will go on simultaneously with the regular sessions. Known program participants at press time will include Dr. David Geiger and Horst Berger, PE, Paul Kennon of Caudill Rowlett Scott/Los Angeles and Robert Brown, Memphis architect for several recent air structures.

Sprayed concrete cuts time, cost

A concrete spraying technique tested on high-rise projects in Southern California is expected to save time and money on a condominium project in Ocean City, Md. Known as Con-spray, the concrete placement method is based on a spray machine that can put 20 cu yds of low-slump concrete in place per hour on a continuing basis. A light, single-sided backstop is used instead of conventional double forms. Semidry concrete is delivered by transit-mix trucks and fed into the machine; three hydraulic pistons extrude the concrete through a hose. The structural concrete is sprayed continuously over 8-ft-high backstops, which are leap-frogged as the 5/8-in.-thick wall moves upward. The process, says Hans U. Baumann of Scherrer-Baumann & Associates, structural engineers for the project, might be described as "horizontal single-side slip-forming." The 20-story, $5 million building is the first of three planned for Ocean City by The Farms Co. William Morgan is the architect.

Liberty Harbor: opportunity across the river

Almost within the shadow of New York's twin World Trade Center towers (and silently mocking their sponsor, the Port Authority) is a 2500-acre tract of decaying waterfront in Jersey City, N.J. which may soon come to life as a $2 billion new-town-in-town called Liberty Harbor. While development is already replacing waterfront rail yards in Chicago (Mar. P/A, p. 100) and Toronto (Feb. P/A, p. 75), New York's main railhead, over on the Jersey mainland, has been subjected to years of unrealized planning. This despite its convenient transit links to Manhattan and superior highway connections via a spur of the New Jersey Turnpike (foreground in photo). The big obstacles have been a crazy-quilt pattern of ownership (among several railroads, other private owners, city, state and federal government), the political intricacies—and high tax rates—of
THE ARCHITECT, METALS AND IMAGINATION

Many critics regard Paul Rudolph as one of the logical heirs to the late Frank Lloyd Wright's professional mantle, and his major projects have clearly influenced the whole range and dynamics of contemporary architecture. As Sibyl Moholy-Nagy once wrote, he has "great courage, comprehensiveness of talent, profound faith in the integrity of the architect's mission."

In conceptual felicity and strength of execution, Congregation Beth El is a notable example of Mr. Rudolph's recent work, and we are indeed gratified that in selecting a metal to sheathe and roof this distinguished building, he chose Follansbee Terne.

FOLLANSBEE

FOLLANSBEE STEEL CORPORATION • FOLLANSBEE WEST VIRGINIA
WATERPROOF WITH UNIROYAL

and the carpenters will love you for it.

So will the electricians and the plumbers and any other tradesmen who might otherwise be held up by a waterproofing operation. Because Uniroyal Liquid Membrane goes on quickly and can take pedestrian or vehicular traffic almost immediately after application.

And Uniroyal won’t hold up construction because of the weather, either. It can be applied at temperatures down to 0°F, and it can be left uncovered for up to 30 days without adverse effects. The Uniroyal Liquid Membrane System helps keep the others working and it also works pretty hard itself. It resists corrosion, bonds to almost any surface, even rough ones. Even vertical ones. Since it’s self-healing, it withstands unusual and unexpected damage, fills and seals hairline cracks and bridges moving cracks up to 1/16" without reinforcement. And the total Uniroyal waterproofing system can handle cracks of almost any size.

For more information about Uniroyal’s Liquid Membrane System and the name of the Specialized Approved Applicator nearest you, write:

Uniroyal, Inc.
Engineered Systems Department
312 North Hill St.,
Mishawaka, Indiana 46544.
Phone (219) 255-2181
Since 1881 the Standard Operating Procedure at R-Way has been to build the finest furniture possible. Styling and faultless craftsmanship are blended to create distinctive pieces that will enhance any office. The choicest woods, perfectly matched veneers and flawless finishes are combined to make R-Way a preferred source in the office furniture field. R-Way also produces a complete line of chairs, settees and occasional pieces to complement all desk styles.

S.O.P. at R-Way also means a large inventory for prompt delivery, blanket wrapped in R-Way trucks, plus custom designing in quantity orders. Write R-Way Furniture, Box 718, Sheboygan, Wisconsin 53081, for our catalog.

Circle No. 375, on Reader Service Card
News report continued from page 42

Jersey City and the apathy of just about everyone outside.

The plan unveiled this spring calls for a residential community of 60,000 at the north end and a 12,000-job industrial park to the south. Residential development is concentrated in a 540-acre tract adjoining the existing downtown area and close to existing transit stations. Housing would range up to 60 stories, but half of it would be in low-rise apartments and rowhouses. Of the 20,000 units, 10,800 are to be for middle income, 4,200 moderate income and 5000 luxury. Of the subsidized units, 5000 are earmarked for the elderly (who make up a larger proportion of the population in Jersey City than in any other city except St. Petersburg, Fla.).

A new commercial core, located at the head of an existing channel, is planned to extend the present business district and encourage upgrading, rather than compete with it. The objective has been to introduce a new community of 60,000 residents into an economically depressed city of 261,000 without making it a privileged island.

The housing is sponsored by the United Housing Foundation, who gave us the 50,000-resident Co-op City in the Bronx (in conjunction with the National Kinney Corp.). This time United Housing has seen the need to include a mix of housing types, schools, commercial and community centers, and tentatively, an internal transit system. Liberty Harbor has an eminently reasonable plan, strongly supported by the state government, funded by its sponsors and drawn up by Raymond, Parish & Pine, urban planners; Farkas, Barron & Partners, engineers; Marquis & Stoller, architects; and Zion & Breen, landscape architects. The city seems optimistic about approval for federal support as a new town under the Title Seven program.

GSA's Sampson at Public Affairs Conference

Design professions must modernize: GSA's Sampson

Arthur F. Sampson, administrator of the General Services Administration had the strongest message for the 400 or so architects and engineers that gathered in Washington, D.C. for the AIA/CEC Public Affairs Conference in March. Speaking on the implications of the recently published report of the Commission on Government Procurement, Sampson told the group that they are going to have to modernize their ways of doing business in order to meet demands from building owners to build "better, faster and less expensively."

Pressure on architects and engineers to modernize is going to increase, Sampson said. "I see owners asking several firms for proposals which include a professional fee, a functional design concept, a representation of the aesthetic quality of the proposed project and an analysis of the quality of equipment and other building components on a life-cycle basis."

Owners will be asking for "new services from architects and engineers like value engineering and participation as construction managers . . . private sector owners are turning to those firms which provide the most comprehensive and complete services."

To meet these increased demands, Sampson said, design firms will need new skills and better management and personnel experienced in "procurement, supply, construction, contracting, law. Equally important, you've got to get the cash flow going in your firms to keep these talents on board and to submit the kind of proposals that will be requested."

Sampson also pointed out that while the majority report of the Commission on Government Procurement recommended among other points, that a-e services should be procured on the basis of quality and price and should, on projects over $500,000, include estimated life-cycle costs, a minority report by three Commission members suggested that the procedures of the recently passed Brooks Bill (which puts procurement of a-e services on the basis the professions feel it should be on) be followed instead. However, Sampson cautioned, the Commission report reflects views held by powerful people in the federal government and a growing number of private owners.

Sampson's talk accompanied luncheon; the morning and afternoon were devoted to talks and seminars outlining the status of a variety of legislative programs affecting architects and engineers. The professions were challenged by Rep. William A. Steiger (R.Wis.) to help clarify provisions (which he helped write) of the Occupational Safety and Health Act of 1970. Another session covered the difficulties ("jurisdictional and ideological") in developing a coherent national growth and land-use policy and the rest of the program was devoted to housing, pensions, federal spending, timber supply, transportation, energy and other problems.

Conspicuous consumption—and conservation

Consumption and conservation of energy were made conspicuous in an exhibition in New York last month. For three weeks, the Owens-Corning Fiberglas Exhibit Center played host to an exhibit mounted by the New York Chapter AIA Natural Environment Committee. In photos and text the exhibit highlighted buildings that do and do not conserve energy: the Museum of Modern Art was cited for its trees, shrubs and plantings that improve the micro-climate, and the Guggenheim Museum for its use of natural light; the entire New York night skyline was mentioned as a "beautiful example" of energy waste.

The exhibit was designed by Arnold Saks, and supported by Carrier Air Conditioning Co., Con Edison, The General Services Administration, the J. M. Kaplan Fund, Mobil Oil Corp., Owens-Corning Fiberglas Exhibit Center, the AIA Research Corp. and one anonymous donor.

GSA awards giant systems contract

What Arthur F. Sampson, administrator of the General Services Administration, describes as the "first application of an integrated building systems approach to high-rise office construction" is a step closer to reality. GSA has awarded the $29,660,000 contract to a joint venture of Owens-Corning Fiberglas Corp. and Wolff & Munier, Inc. to design, fabricate, install and maintain for nine years a building system for three Social Security buildings.

The three buildings, located in San Francisco, Chicago and Philadelphia will range in height from 6 to 10 stories and con-

[continued on page 50]
How to flash roof to wall:

HICKMAN REGLETS.
Three types — (1) thru-wall for unit masonry, (2) in-wall for cast-in-place concrete and (3) to-wall fastens to existing wall. All utilize the permanent protection principles of the Hickman Gravel Stop to completely and positively seal the edges of a roof to a wall.

Hickman quality products... Gravel Stops, Roof Expansion Joints, Fascia Panel Systems, Reglets, Convextor Enclosures, Grilles.

NEW from Hickman...

SERIES 100 FASCIA
with “Snap-Tab” Installation

It takes a minimum of labor to install the Series 100 the quick and simple “snap-tab” way. This means economy in a narrowly-spaced fascia panel. But this doesn’t mean you sacrifice selection. The Series 100 comes in all the regular Hickman finishes and colors with a big variety of extruded battens. Perfect for use as vertical or mansard fascia, spandrels, and interior and exterior wall accents.

And something else... we cut the panels to the size you tell us. It’s narrowly-spaced yet rugged. It’s Hickman.

NEW from Hickman...

the GUARANTEED COPING COVER SYSTEM

We guarantee our new PERMASNAP COPING SYSTEM against water leakage. Period. The secret is a styrene gutter chair at each joint that quietly carries water away.

We also make sure the system stays in place. Without expensive imbedded anchor bolts. A special adhesive replaces them. And it sticks against 60 lbs per square foot of uplift.

Permasnap Coping Covers are also simple to install. (It has to do with the “snap” in the name, but it’s simpler if you see it for yourself.)

All in all, it’s a pretty simple system. Only three parts. And we guarantee all of them. Specify Hickman.

Put on a happy fascia

One that stays happy, too. Because Hickman Modu-Line fascia panel systems completely eliminate oil-canning. Modu-Line is a custom system.

So it’s available in any spacing you need from 4 to 24 inches. And comes in lengths up to 24 feet.

You select from a big variety of battens, and a bunch of colors and finishes.

The result is a handsome, custom system. And one that lasts.

Hickman. The flexible system that never flexes once you put it up.
**JUTE'S stick-to-itiveness makes carpet glue-down work like nothing else**

Compare all attached no-pad carpet backings offered for glue-down. Check their ability to absorb adhesive, for tight and lasting floor seal. Unlike synthetics, adhesive won't slide off jute and loosen the carpet. It goes deep into the open mesh and fibrous pores, providing secure bond to any subfloor or old hard surface flooring.

You know glue-down's many "bonuses." Lower initial cost, protection for seams, easy mobility for casters and wheels, and many more. To capitalize on them fully, remember jute's additional benefits, listed below.

- Jute is over twice as thick as other no-pad backings. Cracks in old flooring aren't felt underfoot or outlined in the pile. Seam edge sealing area is doubled.
- Unmatched dimensional stability, vital for floor cut-outs.
- Carpet comes up cleanly, intact for re-installation.
- When carpet is rolled out, some floor adhesive penetrates the jute mesh to the primary backing, for greater tuft bind and protection against delamination.
- Helps carpets otherwise qualified meet fire safety codes.
- Same carpet can be used for standard installation over underlayment in executive areas. Only jute among glue-down backings can be hooked safely over tackless gripper pins.

**WRITE FOR FREE ARCHITECTURAL GUIDE SPECIFICATION AND CASE HISTORIES**

25 Broadway • New York, NY 10004

JUTE CARPET BACKING COUNCIL, INC. • American Industries, Inc. • BMT Commodity Corp. • C. G. Trading Corp. • Cosmic International, Inc. • Del'ca International Corp. • Demand & Pritchard Co., Ltd. • A de Swaan, Inc. • Robert F. Fitzpatrick & Co. • Gillespie & Co. of N. Y., Inc. • Guthrie Industries, Inc. • Hanson & Orth, Inc. • O. G. Innes Corp. • Jute Industries Div., Sidlaw Industries Ltd. • Lou Meltzer Co. • William E. Peck & Co. of N. Y., Inc. • R. L. Pritchard & Co. • Revonah Spinning Mills • Stein, Hall & Co., Inc. • White Lamb Finlay Inc. • Wilcox Enterprises, Inc. • WLF Inc.

Circle No. 358, on Reader Service Card
When it comes to flat glass, the only name you have to remember is ASG. Because from product to packaging to delivery, ASG does it all. It's your one-source glass company. And that includes everything from float glass to plate glass, tinted and clear, to patterned and insulating glass, lighting glass, reflective glass and safety glass. In short, any kind of flat glass you'll ever need.

And, ASG delivers the goods. Where you want it and when you want it. In some of the most advanced package designs in the industry. Packaging systems that reduce handling to a bare minimum. And make breakage a rare occurrence, indeed.

So, when it comes to glass, come to The Glass Company...ASG.
tain nearly 1.9 million sq ft of floor area. Total cost for the project is put at around $110 million. The system will include structural elements above the foundation; a floor/ceiling sandwich consisting of HVAC, electrical and lighting systems along with finished floor and ceiling; and a partition system. The building system itself will account for $26,960,000 of the total contract; the remaining $2.7 million will cover the nine-year maintenance program.

**Building Team: the name of the game is costs**

The Third National Conference for the Building Team, meeting apart from the AIA convention for the first time, drew more than 200 persons to Chicago for three days of shop talk in April. The talk itself indicated where the design team is going. To the terms CPM, construction management, performance specs, fast-track scheduling, systems approaches and the design team, add value analysis, life cycle costing and retrofit (adding new items to existing buildings).

Two other firsts marked the conference: owners and mortgage bankers were heavily represented on the speakers' platforms as well as in the audience, and a new member of the building team, the general automation contractor, was introduced. The GAC, according to speaker John B. Phillips of the Engineering Supervision Company, integrates control and monitoring of all functional systems of a building into a single, computer-controlled system.

Since the unwritten goal of the organizations sponsoring the "building team" theme is that everybody be on board first, most sessions were devoted to reasons why. Speakers from all sides—cost planners, construction managers, owners, investors, fire safety experts, contractors, labor, engineers and even some architects—repeated their call to be included "from day one." Two sessions were given over to case histories of successful team projects. One session reviewed the General Services Administration's systems approach to three Social Security Payment Centers, a hospital for the University of Cologne, and LaSalle Plaza, designed by Harry Weese & Associates. Another session dealt with negotiated contracts as the answer to the owner's desire for a guaranteed price; it was illustrated by the Bryan Street Office Tower, Neuhaus & Taylor, architects.

A panel of owners aired gripes about almost all other team members, but couldn't agree whether the owner should be the "leader." Opinions ranged from the fact that the owner is not really in the building business, to the bottom-line fact that he is, since he has to pay for everything. The most popular session covered legal liability and responsibility, where agreements between owner, design professionals and contractors of limitation of liability were discussed as a means to curb increasingly expensive litigation. But no matter which topic was being discussed by whom, the pervading theme of the conference was costs. Architects, by and large, were given short shrift as "not understanding" or "not caring" about costs. It was not until the final session, on ideas for reducing project costs without reducing quality, that Calvin B. Dalton of Dalton, Dalton, Little & Newport (himself a civil engineer) spoke out, saying that architects do understand and do care about reducing costs, proving it with specific examples.

**Design: necessity even for government**

One way or another, just about every speaker at the First Federal Design Assembly, held April 2-3 in Washington, delivered the same basic message: design is a necessity, not a luxury, and good design costs less, all told, than bad design. And as Bill Lacy, Director of the Architecture and Environmental Arts program of the National Endowment of the Arts, pointed out by quoting from Design Canada, "Everything that doesn't happen by accident... happens by design."

The speakers and participants were stellar: Ivan Chermayeff and Richard Saul Wurman served as co-chairmen and co-moderators for the program, and the guest speakers were top-level designers from a variety of fields. Among them: designer and film-maker Saul Bass, industrial designers, Niels Diffrient, Robert Probst, Eliot Noyes, Gerald McCue, Robert Marquis, M. Paul Friedberg. And if the speakers were stars, the first event fairly glittered: it was an evening session, held in the gold-leaved Interdepartmental Auditorium, and it consisted of a tape-recorded message from the President, a talk by Nancy Hanks, Chairman of the National Endowment for the Arts, a preliminary version of a film by Charles Eames, a finished film by Chermayeff and Wurman called "What do You Mean by Design?" and a keynote speech by Rawleigh Warner, Jr., chairman of the board of Mobil Oil Corp.

That message was echoed and amplified on the second day as speakers outlined the results of other programs to improve design or insist on good design, in graphics, products and furniture, housing, parks and landscape architecture. Along with the talks, the program included an exhibit of well-designed federal projects of all kinds, based on, and taking its title from) a book called The Design Necessity, again by Chermayeff and Wurman, along with Ralph Coplan and designer Peter Bradford.

The films, the book, the exhibit and the talks were the attention-getters; if there is significant improvement in quality of design in the federal government, it will be the result of some dedicated work behind the scenes. The visible part of this effort is the government Design Improvement Program, of which the Assembly itself is a part. The other three parts include a review and expansion of the Guiding Principles for Federal Architecture, drawn up in 1962; a program to improve the effectiveness of federal graphics and publications; and a study of civil service procedures for recruiting, hiring and training design professionals for federal jobs.

The study of the 1962 Guiding Principles will be done by a task force directed by Bill Lacy and including Sen. Howard H. Baker, Jr., Florence Knoll Bassett, Edward T. Hall, Lawrence Halprin, Jerome W. Lindsey, Eliot Noyes, I.M. Pei, Richard Ravitch, Chloethiel W. Smith, Franklin A. Thomas, Congressman Frank Thompson, Jr., Walter Wagner and Harry Weese; special advisors are Charles Eames and O'Neil Ford, and Nancy Hanks is the chairman. The graphics improvement effort, which grew out of a study made in 1970, is already underway, with seven agencies already participating. Part of the effort involves a number of panels charged with reviewing graphics from federal agencies: the list of panelists includes Bradbury Thompson, P/A's graphics consultant.

The civil service review also involves a task force, which will look into such matters as setting up expert rating panels to review credentials and portfolios of applicants for design positions, training programs for designers and "design awareness" programs for federal administrators.
You're only looking at one side of the cost saving story of Exide Building Systems.

That means maximum economy can be obtained by designing your building to include Exide Building Systems. There's a wide selection of factory-applied interior and exterior finishes...including exposed aggregates, stuccos, and decorative vinyls...to suit all types of buildings. Exide Building Systems are total wall units having a cross section of less than 4 inches. Available as infills, curtain walls, spandrels, interior partitions and individual panels providing maximum architectural and construction flexibility, reduced field installation costs with minimum trade involvement.

An attractive, functional wall system that offers custom architectural concepts at modular prices. Excellent insulation and fire rating values.

Whatever your building story is, call Atlas to find out how Exide Building Systems can work for your project.
Two major laboratory buildings are going up in the heart of the Mayo Clinic Campus in Rochester, Minn., both designed by Ellerbe. The Guggenheim Life Sciences Facility will provide 200,000 sq ft of education and research space, and the Conrad N. Hilton Laboratory and Research Center will include 160,000 sq ft for diagnostic functions and behavioral research. Total cost for the two structures will be approximately $28 million; they will share a central elevator core and a court that serves also as an entry lobby and waiting area for clinic patients.

High-rise office tower highlights plans for a 20-acre office development in the heart of Troy, Mich.; the complex will also include shops and restaurants in its 400,000 sq ft of space. The 25-story tower is one of two buildings planned; the other is a five-story structure. Parking for about 1800 cars will be provided in a three-story garage. Windows on both buildings will be arranged in an irregular pattern while the band midway around the tower will mark the mechanical equipment core. Architect for the complex is Louis G. Redstone associates. Interesting note: the land was purchased from Minoru Yamasaki, whose headquarters is adjacent to the site. First tenants are expected to move in during the fall of 1974.

What’s more appropriate for the headquarters of the Automobile Club of Michigan than a community called Fairlane developed by a subsidiary of Ford Motor Company? The $13.5 million, 360,000-sq-ft building was designed by Giffels Associates, Inc. and is set to be completed early in 1974. Its 600-ft length is uninterrupted inside except for two escalators serving the three office floors; stairs, elevators and services are to be in five towers outside the rectangular building. Perimeter towers and end walls will be fractured ribbed masonry units, sun screens will be poured-in-place concrete, and the curtain walls will be glass and aluminum.

Designed to complement a new town proposed for a nearby site, the regional service center for Metropolitan Life Insurance Co. in Aurora, Ill., will be a four-story structure with a steel frame and precast concrete exterior, providing about 192,000 sq ft of office space. Windows will be gray solar glass in gray anodized aluminum frame. Architects for the building are Eggers Partnership.

Student plaza is the center of campus designed for Seward County Community Junior College at Liberal, Kan. by Schaefer, Schirmer & Associates. Surrounded by a circular road and peripheral parking, the campus proper will be kept free for pedestrians. Building program starts with academic, humanities and activities buildings, with the academic building being the largest. It includes classrooms, faculty and administration offices and a central library. The complex is designed for 1000 to 1200 students; project cost is estimated at $3.1 million.
Our stone facing goes up as easy as

Stone wall cladding that installs with ordinary carpenter’s tools? That’s Sanspray, the great stone facing from U.S. Plywood. On top, a handsome natural stone aggregate. Bonded beneath, a sturdy panel of exterior plywood.

The result: a distinctive cladding that does great things for residential and light commercial exteriors.

At a far lower cost than conventional stone and masonry treatments.

Sanspray panels cut with a power saw. They can be nailed or glued to wood, masonry or steel frame constructions. They are relatively light and easy to handle. So installation costs are cut way down. Once in place, Sanspray is virtually maintenance-free, in all climates.

Sanspray comes in two aggregates — large and regular, both of which are shown below. And a wide selection of natural stone colors — like Tangerine, Gaelic Green, Northern White, Pearl Gray and Monterey Sand, to name a few. But to really appreciate Sanspray, you ought to see and feel the real thing. We’ll be happy to supply you with hand-sized samples, as pictured, if you’ll call your local U.S. Plywood Branch Office. Or, if you prefer, write directly to our New York office.
Reports of work now on the boards of architectural offices show an increase over 1972 figures—as much as 46 percent for some types of residential buildings, according to P/A’s research director, Walter Benz.

Nineteen seventy-two was a record-breaking year in building construction. In housing, the number of total starts exceeded the all-time record of 1971, which followed declines in 1969 and 1970. Some of this was due to stimulation by government subsidy which, beginning in 1970, has accounted for about twice as many units as in previous years. Last year about 16 percent of all housing units started were so subsidized, a somewhat lower percentage than in the previous two years, but still more than twice the 1967 proportion. Construction of state and local government public-owned housing, however, has remained more or less constant since 1967, accounting for only about 1 percent of units constructed in 1972.

The Dec. 1971 P/A Business Survey predicted a total of $45.57 billion for residential construction for 1972, close to a third of all new building construction [1]. That forecast corresponds closely to early figures from the Department of Commerce which showed the actual 1972 residential figures to be a little more than $44 billion, including public housing. An improving general economy and more accommodating monetary conditions, plus the federal subsidies, helped stimulate the 1971 and 1972 totals. In 1973 the total may be off by as much as 9 percent below the 1972...
record, but this is seen by many as a stabilization prior to a period of renewed growth.

As 1973 began, 22 of 25 primary economic indicators reflected an expanding national economy. The lagging indicator of labor cost/unit of output was just a bit more positive than negative. Two leading indicators were questionable, though again, not actually negative. One of these was new business formations, and the other was housing permits. In mid-February, all primary leading, roughly coincident, and lagging indicators were appraised as expanding cyclically. Barring excessive inflation, this indicates that this year and next will be economically comfortable.

Thus growth in housing is expected to gain momentum. Total employment in manufacturing has continued to increase. Spendable earnings have continued to be well over 1971 levels, as has commercial bank credit. Interest rates will probably increase, but within reason. Considering the current economic trends, investment in residential building can be expected to fairly well overcome whatever slack is created by the moratorium in federal funding.

The full significance of the moratorium, however, is yet to be determined. Early reactions vary from the outright anger displayed at the NAHB convention when it was announced, to optimistic hopes that the end result will be an improvement in meeting the nation’s housing needs. Similarly, the effects of the federal revenue sharing plan are in doubt. Much depends on whether the states will apply the revenue towards housing rather than to other things that might be more politically expedient. It is likely, though, that federal funding of housing will be earmarked specifically for that purpose as special funding, rather than put into the general funding category. Chances are that federal funding assistance programs will be established by the end of this year, and this will be reflected in some increases in 1974 residential construction.

Architectural offices this year are at work on next year’s construction. The volume has increased for each type of housing [2].

The work in architectural offices signals what short-term future construction may be expected, while actual construction takes place according to anticipated economic environment. The difference between the architectural work done one year and its construction the second year depends on the economic situation of the second year. Based on all economic indicators, 1974 may be expected to set a new record [3].

Architectural offices represented by P/A subscribers will account for the design and specifications for 87.5 percent of 1974 residential construction [4]. Because so many factors influence the general economy, any forecast beyond a very short term must be considered with a certain amount of restraint. While building permits and construction starts are most sensitive to economic cycles, serving notice of change a year at most in advance, work in architectural offices indicates longer-term expectations. Experience shows that adequate restraint has been exercised in developing P/A forecasts based on these advance indicators. For the current forecast, responses from architectural offices are likely to be conservative, where increases were anticipated, because of the less-than-exhilarating economic environment at the time the survey was made. Considering all economic factors prevailing during the last quarter of 1972 and the first quarter of this year, there are strong reasons for expecting this forecast to be close to actual developments.

### Table: 1. P/A’s 1971 forecast of residential new building construction for 1972 ($billion)

<table>
<thead>
<tr>
<th>Type of Construction</th>
<th>Forecasted Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private, single homes (architect designed)</td>
<td>$8.00</td>
</tr>
<tr>
<td>Low-rise buildings (private)</td>
<td>$20.45</td>
</tr>
<tr>
<td>High-rise buildings (private)</td>
<td>$7.77</td>
</tr>
<tr>
<td>Urban redevelopment housing</td>
<td>$7.79</td>
</tr>
<tr>
<td>Other housing construction,</td>
<td>$1.56</td>
</tr>
<tr>
<td>including public-owned</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>$45.57</td>
</tr>
</tbody>
</table>

### Table: 2. Change in architectural work 1972–73

<table>
<thead>
<tr>
<th>Type of Construction</th>
<th>Change Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private, single homes</td>
<td>Up 24.3%</td>
</tr>
<tr>
<td>Low-rise buildings (private)</td>
<td>Up 24.3%</td>
</tr>
<tr>
<td>High-rise buildings (private)</td>
<td>Up 46.7%</td>
</tr>
<tr>
<td>Urban redevelopment housing</td>
<td>Up 9.4%</td>
</tr>
<tr>
<td>Other housing construction,</td>
<td>Up 7.2%</td>
</tr>
<tr>
<td>including public-owned</td>
<td></td>
</tr>
</tbody>
</table>

### Table: 3. Residential new construction for 1974 ($millions)

<table>
<thead>
<tr>
<th>Type of Construction</th>
<th>Forecasted Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private, single homes</td>
<td>$7,382.20</td>
</tr>
<tr>
<td>Low-rise buildings</td>
<td>$21,561.41</td>
</tr>
<tr>
<td>High-rise buildings</td>
<td>$11,936.98</td>
</tr>
<tr>
<td>Urban redevelopment housing</td>
<td>$8,998.28</td>
</tr>
<tr>
<td>Other residential building</td>
<td>$1,497.39</td>
</tr>
<tr>
<td>Total</td>
<td>$51,376.26</td>
</tr>
</tbody>
</table>

### Table: 4. 1974 construction designed by P/A architectural offices ($million) and proportion of total residential construction

<table>
<thead>
<tr>
<th>Type of Construction</th>
<th>Forecasted Value</th>
<th>Proportion</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private, single homes</td>
<td>$4,317.21</td>
<td>58.5%</td>
</tr>
<tr>
<td>Low-rise buildings</td>
<td>$19,363.71</td>
<td>89.9%</td>
</tr>
<tr>
<td>High-rise buildings</td>
<td>$11,173.01</td>
<td>93.6%</td>
</tr>
<tr>
<td>Urban redevelopment housing</td>
<td>$8,748.39</td>
<td>97.2%</td>
</tr>
<tr>
<td>Other residential building</td>
<td>$1,356.47</td>
<td>90.6%</td>
</tr>
<tr>
<td>Total</td>
<td>$44,978.79</td>
<td>87.5%</td>
</tr>
</tbody>
</table>

5:73 Progressive Architecture 55
Two pieces of good news out of Santa Monica—reprieving the municipal pier and saving Irving Gill's cottage court. The municipal pier is really two piers, the 1921 pier which is a haven for young and old anglers and an adjoining amusement pier built in 1909. The City Council voted in February to destroy them—without reckoning the mood of the users. The outcry from all age groups was so swift that the council reversed itself; members up for re-election and new aspirants to office promised the voters to preserve the pier. Throughout the summer at least, cyclists and walkers can bait up and cast a line, enjoy cotton candy or a corn dog, ride the merry-go-round to strains from the 1900 Wurlitzer organ, buy shells, have their palms read, eat a plate of clams or sand dabs. Nothing much changes at the pier. My husband left his glasses in a restaurant in 1941, and in 1946 he recognized them on the carved face of a coconut decorating the bar. When he claimed them the bartender said, "We knew you'd come back after the war." Onion domes once crowned the turrets of the merry-go-round house, and among the succession of people who have occupied the turret apartments was architect Kenneth Dillon at whose table you might meet Claes Oldenburg, Juan O'Gorman or any of the Los Angeles' Pop School.

The threat to the pier started on the day a proposed 35-acre, man-made pleasure island for Santa Monica was abandoned by a council vote. The $90 million scheme included a 30-story hotel, world trade and environmental center, convention center, theaters, retail complex, sports pavilion, ice-skating rink, bicycle paths, heliport, boat docks, fishing piazas and underground parking. Originally the council approved it 6-0, but the determined Save the Bay committee forced a second vote, this time 4-2. After the protestors left the council chambers that body quietly voted to raze the piers. Then Save the Bay changed its hat and became Save the Pier.

The hope for an all-purpose island is not altogether dead, despite the city engineer's warning that it would increase the accretion of sand in the harbor; nor is the life of the pier guaranteed for long. But there is abundant proof that a high value is placed on simple pleasures that cost no more than a fishing line—and you can even rent one of those at the pier.

Rescued, too, in Santa Monica is Irving Gill's 1919 reinforced concrete low-cost cottage court. After the destruction of Gill's famous Dodge house in West Hollywood (the site is now filling with apartments designed by Kanitzer and Marks) it was reassuring to hear that Horatio West Court had been bought by three architects, a resident physician in psychiatry at a VA hospital, a screen writer and a documentary filmmaker. Their average age is 33. They paid $125,000 for the 75-ft-wide court and an adjoining lot.

The 6-in. concrete shell is intact, but during the last 10 years, while the property has been under siege by the counter culture, the interiors have deteriorated. The group will share the cost of sandblasting interiors and exteriors, new roof, doors and sash; the owners will take care of their own plumbing and electrical costs.

The moving force in the group is Glen Small, a faculty member at the Southern California Institute of Architecture (SCI-ARC) the new freely structured school in Santa Monica founded by Raymond Kappe, former chairman of architecture at Cal Poly Pomona. Small intends to camp out in his unit while restoring the interiors. Margaret Bach, the youngest of the group, is documenting the restoration on film. Stephen Schmid!, designer at Gruen Associates, reported at the pre-restoration party last month that he had come up with an unexpected problem: a woman breaks into his living room every night to sleep.

In 1968, the Historic American Buildings Survey documented Horatio West Court, and the bird's-eye view shown here is from the collection of HABS drawings on file at the Library of Congress. [Esther McCoy]
New... from Eljer—62 pages of modern hospital/institutional plumbingware

You won’t notice much change from the hospital fixtures of yesterday unless you look at this Eljer catalog. The Eljer line is different, modern. Smooth, flowing contours provide generally unbroken surfaces, remarkably free of difficult-to-clean nooks and crannies. From every standpoint — appearance, functional design and highest quality, the Eljer line of hospital and commercial fixtures is in keeping with any modern building, from a corner gas station to a large medical center.

Don’t specify another commercial job until you have the full Eljer story. Eljer’s new 62-page Hospital/Institutional catalog contains all you need to know about hundreds of modern, freshly-styled and easily-installed specialized fixtures and fittings.

Sitz baths and scrub-up sinks... specimen toilets and instrument trays... and much more, including wrist-, knee-, and pedal-control valves. Like the rest of the complete Eljer commercial line, they are available through independent plumbing supply wholesalers.

So, before you specify your next commercial job, ask your Eljer wholesaler for information on the complete Eljer line, or write today for the new Hospital/Institutional catalog: Eljer, Dept. PA, 3 Gateway Center, Pittsburgh, Pa. 15222.

Eljer Plumbingware Division
Wallace-Murray Corporation
When the New Albany, Indiana, Senior High School was remodeled recently, Andersen Perma-Shield Windows fit right in. Not only did they fit the character of the building, they also fit into the structure without alteration to frame or masonry. In fact, the architect was able to use standard window units with only small auxiliary trim members to fit existing openings. On the interior the head, jamb and sill trim of the original windows was retained. Other windows considered would have called for extensive installation work.

This wasn't the only way in which Andersen Perma-Shield saved the taxpayer's money.

One of the objects in renovat-
ing this 1929 school was to reduce heating and cooling costs. So the superior insulating properties of Andersen Windows was another reason for their selection. Their stabilized wood construction, double-pane welded insulating glass, and close-fitting tolerances, all help to reduce heating and cooling losses and condensation.

The low maintenance features of Perma-Shield will save the school money year after year. They will not need painting—the exterior vinyl sheath does not fade, crack or corrode—and they call for minimal cleaning.

Faculty and students like the new windows, too. No longer do they have to sit in cold drafts; Andersen has made the building snug.

In any school renovation, Andersen Windows can make important contributions toward holding down costs. For details on all Andersen Windows and Doors, see Sweet’s File (Sections 8.16/An and 8.6/An), your Andersen distributor, or write us direct.

Job site service.  
Your clients get it when you specify General Electric Zoneline™ air conditioners.

When you specify packaged terminal air conditioners to your clients, it's a major investment for them.

So if anything should go wrong later on, we believe they're entitled to have repairs made promptly and expertly. And if it's at all possible, repairs should be made right at the job site.

This is exactly what happens with General Electric's Customer Care... Service Everywhere." Which means that wherever your project is in the continental U.S.A., there'll be a qualified GE serviceman nearby.

GE has a network of Factory Service Centers in 100 major cities plus 5,000 franchised servicers throughout the country.

Our service trucks and experienced servicemen can take care of most problems right at the site. Should a major component such as the compressor be involved, however, we remove it, repair it, replace it, and, during the warranty period we pay for it. GE Zoneline Air Conditioners carry a one year parts and service-labor repair warranty against failure due to manufacturing defects with an additional four year parts and service-labor repair warranty on the sealed refrigerating system.

So when you specify packaged terminal air conditioners, remember General Electric provides what you want—factory authorized job site service, everywhere in the continental U.S.A.

For more information call your GE Contract Sales Representative or write to: Air Conditioning Contract Products Operation, General Electric Company, Building 53, Louisville, Kentucky 40225.
American Olean announces the easiest ceramic mosaic floor ever installed.

With new Redi-Set® Systems 200, there's no grouting on the job. Each 2' x 2' sheet of tile is pregrouted (even around the edges!) with tough, flexible polyurethane. When applied over the special adhesive, a continuous, permanent surface is formed that's comfortable underfoot. Needs sealing only along joints at wall and around fixtures.

Great for remodeling, the flexible sheets go easily over vinyl, plywood, concrete slabs—any interior floor or wall. Since tiles are factory-aligned, you always get a beautiful job. Floors are ready for residential or light-duty commercial traffic in 24 hours.

Tell new owners how easy the colored Redi-Set polyurethane grout is to maintain. Resists stains, mildew, punctures; won't crack from minor movements of the building; is not affected by the heat of a sauna or the cold of a deep-freeze room.

Redi-Set ceramic mosaic tile. It's the natural thing to use.
Since 1937, the U.S. Government has accepted an obligation to ensure sound housing for low-income families. In the 1960s we heard much rhetoric about the "sixth of the nation" that was still inadequately housed, and in 1968 Congress set a goal of 2.6 million housing units per year (subsidized and unsubsidized) to relieve this shameful situation. Although production has fallen far short of this goal in terms of numbers, we have seen development of some superb models in terms of quality and economy (see following pages).

Early this year, the Nixon Administration imposed a moratorium (of 18 months) on funds for housing and urban development. This step is widely seen as the opening play in a contest with Congress over reform of existing programs. The Administration portrays itself as crusading against waste and delay by switching to the concept of "New Federalism"—a system of revenue-sharing grants to states and cities, returning more self-determination to "grass roots government." Congressional misgivings about responsibility of government at lower levels can be readily dismissed as obstructionist.

The main issue separating them is the question of Federal control over the use of Federal funds. (Housing and urban development programs together, incidentally, accounted for a whopping 1.6 percent of the fiscal 1973 budget.) In principle, New Federalism would allocate funds on the basis of statistical measures of need, not on Federal evaluation of individual proposals; and local needs would carry more weight than national objectives. But our problems of housing and poverty are national, not local. Their severity and distribution are direct outgrowths of Federal income tax provisions, of home loan and highway programs, of agriculture and labor policies; their impact clearly extends across city and state boundaries.

Conceivably, the outcome of this contest could be a more effective system of delivering housing and related community services, more sensitive to local needs. But two aspects of the situation must gravely trouble any of us who see adequate housing as essential to American society:
1. The outcome is ominously unpredictable.
2. The moratorium itself will be a devastating setback to parties involved in producing subsidized housing—one from which many agencies, sponsors, planners, builders and even cities may never recover.

When the moratorium on subsidized housing was announced, the government gave assurances that funding already "in the pipeline" would keep construction going until new mechanisms were established. As it turns out, much of this "pipeline" money is earmarked for construction already in place, and some projects that had proceeded into construction on verbal commitments have had to be halted. Since subsidized housing has recently accounted for 16 percent of all housing, the effect on construction activity as a whole will be a mild decline (p. 54). Planning is, of course, pointless for the time being, and agencies all over the country have told architects to lay down their pencils.

Except for specific exemptions involving favored programs (such as new communities, which the Administration cor-

"Don't expect nothin' from nobody, especially the Government."

Archie Bunker, "All in the Family," CBS TV, 1973

rectly recognizes as having overriding national priority) subsidized housing programs in the U.S. are likely to remain stalled for many months to come. Most of us will be waiting anxiously for the outcome of the contest in Washington, but we can be doing more. Those of us who understand the design, financing, construction and administration of housing have an obligation to speak out for real advances over previous programs. New programs could, for instance, confront the inordinate costs of construction, financing and land; they should reflect recent findings on these constraints to development by the AIA’s National Policy Task Force. (The report of the AIA’s national “Constraints Conference” should be in chapter hands by now and is available from AIA headquarters in Washington.) New programs could introduce more advanced ways of judging cost—in terms of life cost rather than first cost; they could (probably will) make it easier to incorporate shops, schools and other services within housing developments, and to plan for stronger relationships between new development and existing context.

This current disruption of the status quo—severe as it is—can be an opportunity for architects, engineers and builders to apply their specific expertise to improving housing and development programs.
A long, mid-rise building at the top of the hill is essentially "closed" in the front, but the rear is largely glazed to give views across the valley.

Near the end of the site a row of town house units opens directly to picnic and playing areas before the wooded hill drops away to the canal below.
Scattered site hill town

This public housing on a hillside overlooking downtown Ithaca, N.Y. looks like an immense megastructure from the opposite side of the valley. But as in European hill towns, here the site was also the main influence on design in producing a feeling of intimacy and privacy.

The UDC Ithaca Scattered Site Housing Project, designed by Werner Seligmann & Associates, is not the most ideal housing ever built. Bear in mind, however, that it is publicly assisted housing that was constructed within severe budget limitations for just under $25 a sq ft. Within walking distance of down-

Atrium units between the mid-rise building and townhouses occupy most of the site. Each has an enclosed courtyard and private entry off stepped street.
Scattered site hill town
town Ithaca, every family unit has a private outdoor living/play area, every unit has its own private entrance, no residents can see into any other’s living area and, because there are no double-loaded corridors, all 235 units, except for the 37 one-bedroom lower-level units, have cross ventilation (an important consideration for families who may not be able to afford the luxury of air conditioning). Every unit is carpeted and has well-sized, handsomely appointed kitchens and bathrooms, and every apartment has several views, including at least one panoramic vista across the wide, open valley. That this has been accomplished at a density of 15 units per acre, with 120 percent on-site parking, is no small feat. It is, in fact, additional proof which should no longer come as a surprise to anyone, that through its sponsorship of well-designed housing the New York State Urban Development Corporation continues as perhaps the country’s most enlightened public housing authority.

How does the UDC do it? Their Chief of Architecture, Ted Liebman, answers quite simply: “We hire good architects.” But he’s quick to admit there is more to it than that. “We have to juggle a complicated formula,” he says. “We work from what we can afford to pay for a project, to what people can afford to pay in rent, or, put another way, our real problem is how to build housing for those who need it most, at a rent they can comfortably afford.” The UDC, which was created by State Legislature only four years ago, has been doing just that at a rate of $1 million a day.

While the Corporation has been given extraordinary powers and resources to do the processing and “packaging” of housing developments, it has no subsidies of its own; it must seek these at the state and federal levels. Through a combination of programs that permit low interest rates on bonds and mortgages and also allow rent subsidies to be paid to housing owners or to local public housing authorities, the UDC has been able to provide housing at rents substantially below that of equivalent privately financed housing. But even with these subsidies, the budget limitations remain severe.

When discussing the Ithaca project, Ted Liebman stresses that it is important to acknowledge what it is not. It is not, he reminds us, high-rise or even clustered housing, either of which, at this density, could not have provided the obvious benefits of privacy, ventilation and views found in this particular scheme. It is, he points out, “an experimental ex-

Although rare in the U.S., high-density low-rise housing of this type is more common in Europe. Atelier 5’s Halen housing (right) near Bern, Switzerland, completed in 1961, was an influence on Seligmann’s scheme.
Budget limitations caused open spaces and a green fissure running through the site to be omitted (top left). The intimate, human scale of the project is belied by its megastructure appearance (above) when seen from afar.

Photo: Lyoretto
Atrium units (this page) are organized around private, outdoor spaces overlooking the valley. In both one- and three-bedroom plans, entry to atrium is through living room or bedroom. Wherever possible, as in the three-bedroom unit (above), interiors are designed for largest possible visual dimension to increase sense of spaciousness.
Scattered site hill town

amination of the aggregations of the single house.""

In this project, the likeness to single-family housing is fos-
tered by a system of pedestrian streets connected directly to
the private entrance of each unit. At the top of the sloping site
there is a long, five-story building of two-bedroom duplex
units at grade level; similar units above them are reached ei-
ther by a bridge extending from the upper parking area or by
stairs toward the other end of the building, which lead directly
to the elevated "street" serving those units. This mid-rise
building is a gateway to the whole complex, and after passing
through its main portal one comes to the rear, where one-
bedroom units occupy the lower-grade level. Farther down
the hill there is a dense grouping of one-story atrium units
aligned on a steep, grid system of streets, where each of the
one- and three-bedroom family units has a private entrance
and private outdoor living area. In a line of three-story build-
ings at the bottom of the site there are four-bedroom duplex
family units with private outdoor balconies. The lower-level
one-bedroom units below them have private entrances on the
rear sides of the buildings. Throughout the complex, the inte-
riors of the FHA minimum-standard dwellings have been care-
fully designed for the largest possible visual dimension to in-
crease the feeling of spaciousness.

When Seligmann talks of the project he becomes his own
severest critic; he remembers many of the niceties that had to
be eliminated because of the stringent budget limitations. He
is the first to admit that the whole project is rigid and lacks ad-
equately developed communal outdoor play and gathering
areas. But to loosen the present configuration, while main-
taining the same density, would have resulted either in high-
rise construction or in fewer units. In one case this could
bring the problems commonly associated with high-rise build-
ings and would negate some of the advantages of this
scheme, and in the other case, it would have resulted in a

In the four-bedroom duplex units at the bottom of the hill, sliding glass
doors open onto outdoor balconies. Originally, the two-bedroom units in
the mid-rise building were to have inset balconies but budget restrictions
eliminated them; the living room wall was brought flush to the exterior
plane and glazed (photo). Under the mid-rise building and the townhouses,
lower-level one-bedroom units extend into the ground through half a floor.
Scattered site hill town

The steel-frame and plywood atrium unit modules were factory assembled and shipped over 200 miles to the site where they were crane-lifted onto concrete piles. Diagram shows erection procedure of three-bedroom unit.

Main portal through mid-rise building (above) leads to lower-level units, to management office, community rooms and laundries. The openings on the side of the atrium units (right) go to utility and mechanical spaces.
higher per-unit cost. Other things had to go, too. The duplex units in the mid-rise building were originally designed to have outdoor terraces. The private courtyards in the atrium units were designed to be at grade so the tenants could plant or pave them as they wished; but for economy the garden became a deck. In the very first schemes, when the atrium units were conceived as concrete rather than steel-frame and plywood units, their roofs were to be earthed over and planted with grass. The vertical access streets were to have glazed roofs. In addition, there was to be a green fissure running from the water tower at the top of the hill to the canal at the bottom. It was to be the central east-west connection and to have along it a playground, a green space for toddlers and elderly farther on, then a large playground and multi-purpose space, culminating in a spacious lawn and picnic area.

It is unfortunate that budget limitations do not allow more amenities in publicly assisted housing. There is a lesson to be learned here though, because even with the restrictions, the combination of Seligmann's overall concept and individual-unit plans results in a surprisingly satisfying urbanistic housing scheme. And as the years go by one suspects that it will mellow quite nicely. One of the things that will contribute toward that is the vast amount of new landscaping and planting that has been put in recently. On what was originally a barren site—a pig farm in fact—each pedestrian street has been lined with a different kind of blossoming tree; around the site and along the main streets 2000 pine and spruce seedlings have been planted. A playground with a wading pool is anticipated at the center of the atrium units, and the picnic grounds at the bottom of the site overlooking the valley have recently been terraced and planted. If all of this will not be enough, there is the consolation that vast woodlands surround the site in every direction.

Although this project may not be the most ideal housing ever built, the direction it takes must surely rank it among the most encouraging public housing one is apt to see. And one thing seems certain: that due to its emphasis on the idea of the single house, with its sensitivity to and respect for the individual's privacy, one suspects that the project could not encourage the crime, delinquency and vandalism common to so many public housing projects. If there is a direct relationship between housing type and incidence of social unrest—and evidence increasingly seems to indicate that there is—it seems unlikely that it will ever be seen here. [DM]

Data

Project: UDC Ithaca Scattered Site Housing Project, Elm Street site.
Program: A scattered-site-housing, high-density community where communal spaces are scaled to pedestrians and where family units have private outdoor living areas; for low-, moderate- and middle-income renters. The emphasis, similar to that of a European hill town, is on dwellings of maximum privacy and view, without sacrificing the inherent urbanity of a tightly grouped site organization.
Site: The site, selected by UDC, is on West Hill, a prominent hillside within walking distance of downtown Ithaca, N.Y. Originally a pig farm without trees, the slope of the site and the view from it were the primary influences on the design. At the top of the hill, a five-story mid-rise building contains 80 two-bedroom duplexes and 20 one-bedroom units; descending the hill below it are 28 one-story one-bedroom units in combination with 72 one-story three-bedroom units; and near the end of the site a line of three-story buildings contains 18 four-bedroom duplex units and 17 one-bedroom units directly under them.

Structural systems: The mid-rise building consists of 21 bays between expansion joints off identical structural units. Each gang-formed, poured-in-place concrete bay is 36' x 24'-8" x 16' and contains two duplex units. Within each bay, a center, wood-stud load-bearing wall separates units and, with other first-floor load-bearing wood-frame walls, supports the second-level wood-panel floor; second-floor wood partitions are nonload bearing. All other units, except for the one-bedroom lower grade units, are factory-assembled modules with steel-frame chassis, plywood skin.

Major materials: Mid-rise building; concrete bays with wood-stud and gypsum walls, plywood exterior end walls. Modular units; steel-frame chassis of plywood skin with metal-stud and gypsum walls. Carpeting throughout, with vinyl tile in appropriate areas.

Mechanical systems: The mid-rise building is equipped with a central hot water boiler, each atrium unit has individual water heating system, four-bedroom duplexes have hot water boiler for each block; utility runs are buried under the pedestrian streets.

Consultants: Galson & Galson, mechanical; Severud-Perrone-Strum-Conin-Bandel, structural; Dr. Donald P. Greenberg, structural consultant.
Client: The New York State Urban Development Corporation.
Costs: $7,098,141; $24.53/sq ft.
Photography: Nathaniel Lieberman; except pp. 64, 65; Bruce Coleman; pp. 68, 69.
Torrington Tower

A non-box for the elderly

Built on the site of an abandoned factory, a 14-story public housing tower for the elderly serves as a new focal point for an old New England industrial town.

As if to prove that public housing needn't be stripped of "design," Ulrich Franzen & Associates have provided Torrington, Conn. with a 200-unit tower that is definitely not a "box for old people." Instead, it is a sculptural statement with 72 sides (true vertical planes) and two semicircular projections that house, on one side, stairs, and on the other, solariums that serve as gathering places for the residents of each floor.

Franzen chose the tower shape rather than a low-rise townhouse concept because, he reasons, it is easier for residents to visit each other via elevator than via wet or icy sidewalks and stairs. He also intended the building to read as a point structure marking the downtown area, now in the process of renewal. The scale of the surrounding buildings is mixed, with small buildings and large old factory structures. One of these, a long-abandoned-and-reduced-to-an-eyesore pile of rubble, provided the site itself. What was once ideal for manufacturing is now ideal for housing the elderly; tenants are close to downtown shops and activities, and the grounds have, in effect, become a riverside park.

Although the project is large, especially for Torrington (population 31,952), efforts were made to break up the interior spaces for both privacy and informality. Living units are small, but the corridors, which are bent to prevent their seeming "institutional," lead to the solariums on each floor which are intended to be extensions of individual living rooms.

The site itself proved difficult to prepare. Once the rubble had been removed, the rock elevations, which varied between 5 ft and 32 ft below grade, called for a two-step foundation system. Concrete piers were used in the high rock areas, and steel piles were driven elsewhere. A conventional flat plate floor structure was chosen not only for economy and its minimum construction depth, but because it permits irregular column arrangements that could conform to the architectural space layout.

Exterior walls are warm gray concrete block scored 4 in. o.c. Interior public areas are the same block, while partitions in the living units are gypsum board, movable if necessary to change the room layouts. Windows are sliding aluminum sash...
Solariums overlook grounds and town.
A non-box for the elderly

and the entire building is carpeted.

A total energy system supplies all light and power, space heating, domestic hot water heating and cooking; provision has been made for future air conditioning by means of self-contained units in all apartments and public spaces.

The apartments are equipped with several safety features: emergency pulls automatically set off a flashing light and unlock the apartment door; bathroom doors can open both ways; clotheslines above the tub are retractable; intercom systems in each apartment and telephones in the elevators keep tenants in touch with the main office; venetian blinds open by rotating, not by pulling. Each apartment, has two exposures, giving different views from the angled-in windows.

The ground floor houses a meeting room, clinic, laundry room, craft workshops and offices for the housing authority, in addition to the lobby and mail rooms. Outside, walkways lead to a promenade along the riverbank; a pond, a fountain and much of the planting have been privately donated. [RR]

Data

Project: Torrington Towers, Torrington, Conn.
Program: 178 efficiency and 22 one-bedroom units for the elderly, federally subsidized.
Site: formerly occupied by an industrial plant, at riverside near central business district; difficult subsoil conditions.
Structural system: poured concrete, flat plate floor system.
Mechanical system: total energy system supplies all light and power for space heating, ventilation, domestic hot water, cooking; apartment heating is by baseboard units; provision has been made for future air conditioning. Plumbing includes Sovent single-stack copper drainage and vent system.
Major materials: poured concrete, scored concrete block, gypsum board partitions, carpet, black aluminum sliding sash.
Costs: $4,285,000, or $27.88/sq ft, including abnormal site conditions but excluding site development and building equipment.
Consultants: Aaron Garfinkel & Associates, structural engineers; Aaron Zicherman, mechanical engineers.
Photography: George Cserna.
Solarium lights are reflected in the pond at night; scored concrete block gives texture to exterior (below) and to lobby (top left). Solarium is shown before addition of plants. One-bedroom units have different views from bed and living rooms; efficiency (bottom) has angled windows.
California house design makes the most of standard pieces to give architectural expression and satisfy the owners’ requirements for less than twenty percent of project cost.

Catalog design? Not exactly, but the most prominent elements of a house near Los Gatos, Calif., are from the Lord & Burnham catalog. Bob and Judy Lozano, graphic artists and high school art teachers, asked architect Peter Behn of Behn & Gavin to design a house for them that incorporated wood, a greenhouse, light and views. Starting with the greenhouse request, Behn proposed the use of similar standard units to provide light-filled living spaces as well. Resawn cedar plywood, left to weather to a silver color, was chosen as the
Greenhouse components and resawn cedar plywood, used in large sheets, are the major elements of the house. Interior detailing was done without trim to enhance the impact of the owners' works of art to be displayed there.
Light from a book

wood, and the site, seven acres surrounded by redwoods on the north slope of the Santa Cruz Mountains, provided the views.

However, the owners' budget and contractors' prices did not quite meet. When bids came in too high, the traditional owner/architect.builder roles were abandoned. The owner became owner, contractor and builder; the architect became a builder as well. With one additional carpenter from Berkeley, "we went to the site, pitched tents and started building," Behn says. "In four months Bob, the carpenter and I had the house closed in, and then Bob and Judy finished the interior on weekends and evenings during the winter." The owners did, however, subcontract the plumbing, electrical and sheet metal work. With the addition of some shades that Judy is designing for the bedrooms and some corrective measures for a stubborn leak, the house seems to have settled in very nicely. [JM]

Data

Project: house for Robert and Judy Lozano, in the Santa Cruz Mountains near Los Gatos, Calif.
Architect: Peter Behn of Behn & Gavin.
Program: design a year-round house for graphic artist/teacher couple, incorporating wood, a greenhouse and as much light as possible.
Site: seven acres on the north slope of the Santa Cruz Mountains, bordered by redwoods.
Structural system: standard wood frame, on reinforced concrete foundations.
Mechanical system: forced warm air.
Major materials: exterior, ¾" resawn cedar plywood and standard greenhouse units; interior, ¾" resawn cedar plywood without trim, white oak and vinyl asbestos tile floors.
Costs: approximately $40,000 ($19/sq ft).
To save a fabric

An impressive series of analyses has given residents of some aging sections of Toronto new tools with which to halt a steady high-rise march while preserving a heritage.

There are only a few metropolitan areas in North America that still have large old residential sections within walking distance of the city core. Architects A.J. Diamond and Barton Myers have set out to prove that those in Toronto need not be displaced by high-rise apartments. In addition to their social concern, they are using the developers' own weapons: hard-headed cost/use analyses.

Their fight is based on a number of premises aimed at the way development has proceeded in Toronto.

First, say the architects, "We have to challenge the notion that land in these areas has some finite, intrinsic value. Revenue expectations give it a value, but as a commodity, there
are three orders of value: potential, allowable and 'what can I get?' Developers scream about costs, then buy land, get it up-zoned and make their profits." Further, city by-laws encourage (in fact, almost mandate) certain building configurations, land-use figures and parking quotas that all but assure high-rise apartment developments. Setback, open space and density figures, liberally applied, will supplant existing housing patterns almost by definition.

Parking allocations, based on general assumptions, often fail to take into account an important aspect of the areas in question: the proximity of the neighborhoods to the city has historically drawn people because an automobile was unnecessary. Over the years, various ethnic groups, immigrant groups to Toronto—not able or anxious to have a car—have settled as close to their work downtown as possible. Rules for parking, which might be prudent for apartment units farther away, are a paradox when applied in these neighborhoods (unless resident displacement is assumed).

Accepting the notion that density must increase to stave off economic pressures, Diamond & Myers have set out to prove that destroying the neighborhood fabric is not a prerequisite. In their first study, the architects chose a block near downtown that they considered a prime target for development. Like many of the surrounding blocks, it is made up of single-family houses 60 years or more old, but structurally sound. There are alleys, or lanes, through the centers of the blocks, serving adjacent garages and open parking. Standard procedure would dictate that a developer acquire the block, level the existing buildings and build apartment towers conforming to city open space, setback and parking rules. Diamond & Myers see three possible counterproposals, all aimed at keeping scale down, privacy, social amenities and density up. Two of the schemes would provide the 70 to 80 dwelling units per acre that developers would want, and the other could reach
To save a fabric

56. The two with the higher density would require that the block be cleared for new construction, but the third proposal would not. A low scale, however, is common to all three.

One of the two new-construction schemes would combine low stacked townhouses with medium-rise (10 story) apartments. In the other, “arcade” housing in two six-story blocks would produce the same 80-dwelling-unit-per-acre capacity. Shopping facilities could be located along the enclosed arcade spaces, sharing the first floor with two-story family townhouses. Parking, in all three schemes, would be below grade. Above the townhouses, the third and fourth levels would be for two-story apartments and the fifth and sixth levels would contain bachelor and one-bedroom apartments. Each ground floor unit includes private garden space, and upper units gain a private courtyard through the stepped-back building configuration. An apartment developer, because of open space incentives, would be forced to put up one 40-story building on the site to achieve the same density and a satisfactory investment return.

Although the third alternative cannot reach the same densities, it does offer a different kind of benefit for a block with sound existing housing. It is an infill and renovation scheme...
that would keep the integrity of the residential streets intact. The key to getting the proposal going is joint participation by block residents. Property owners would form a cooperative corporation, investing about $2000 to establish equity financing. In addition, they would pool the existing laneway with that portion of their backyards that now generally serves for parking or garages. Stacked townhouses could then be constructed in the center of the block, with new parking underground. At ground level, a central walkway would give access to shopping facilities. Above that level would be townhouses and apartments with separate entrances and patios. The central space would be glazed at the roof, bringing light to the walkway between the two halves of the building. Owners could expect to receive a $1000 yearly income from the rents paid on the structures.

While the infill housing would bring the density up from 11 dwelling units per acre to 34, additional units could be gained within the existing houses. By converting these large structures into duplexes or triplexes, densities of 45 to 56 dwelling units per acre are possible. With an average floor area of 3000 sq ft, the houses would be ample, even when subdivided.

Diamond & Myers began the first study, of course, with a proposal for arcade housing. Although it would be better suited for blocks where existing buildings are in poor condition, the concept would keep scale down and yield as many as 80 dwelling units per acre. Still another alternative would be a combination of stacked townhouses with medium rise (up to 10 stories) apartment buildings.
To save a fabric

care for the quality of life in Toronto's old neighborhoods. They were not out to knock either developers or high-rise buildings, per se. Developers, they say, are merely doing what codes allow, and high-rise construction is appropriate in some situations. Still, it is becoming more and more apparent that sacred axioms, both aesthetic/social (lots of shared open space) and economic (compress apartments into tall buildings) are seriously flawed. Obviously, the pilot scheme(s) for the Toronto neighborhoods will demand a re-evaluation of by-laws in order to succeed. The architects have advanced several hypotheses, backed by a thorough cost breakdown. What that analysis shows is that, regardless of how the housing is built, the total project cost does not differ significantly. "Production costs," says Jack Diamond, "are not a variable, as some people contend. Revenue, rent structures and land costs are linked and variable. Parking is also a variable." Having shown the economic feasibility of their schemes, Diamond & Myers can now concentrate on the things that prompted them. "Once we've shown that density can increase without the need to destroy, we can go on to make decisions based on more important considerations—the neighborhood fabric and the people that live there," says Barton Myers.

Publicity resulting from the first study has generated two subsequent feasibility reports, for clients, based on similar comprehensive investigations. Diamond & Myers retain an enthusiastic optimism about saving the old neighborhoods and getting by-laws changed. They have developed convincing arguments that deserve action. [JM]

The Dundas-Sherbourne feasibility study was carried out to show development alternatives for a half-block site, ranging from new infill (far left) to all new construction (right). Numbers indicate story heights of new buildings. Buildings on the opposite page are also part of the Dundas Street area.
Two vacation houses

Some decorated sheds or Towards an old architecture

Two vacation houses by Venturi & Rauch on Nantucket Island, one "ugly and ordinary," one "complex and contradictory" demonstrate the process of learning from the local vernacular.

Robert Venturi and his writing associates, Denise Scott Brown and Steven Izenour, have a way of summing up many-sided issues with terse, two-part titles. The head for this article is assembled from parts of two different chapter titles in their recent book *Learning from Las Vegas*. These phrases could be applied quite literally to the Trubek and Wislocki vacation houses, since they might be mistaken, at first glance, for old fishing shacks. In fact, the houses demonstrate very well the special meanings the author/architects assign to these phrases: they are simple volumes with applied superficial symbolism and they reinterpret the symbolism of a preceding tradition.

Individually, the houses represent two different, but related qualities. In the eyes of their designers: "The larger house is complex and contradictory; the smaller house is ugly and ordinary." In fact, one house is larger and more complex because the Trubeks had a larger family and a larger budget; both houses are quite basic.

The Wislockis know what Venturi means by "ugly and ordinary," and are pleased that their house demonstrates the concept with such finesse. Of the two, their house looks more like a 19th-Century fisherman's cottage—a simple rectangle, with its gabled roof pulled down to leave just enough headroom under the eaves. Concessions to the modern vacationer: porch steps extend all across the waterside as sitting places; windows are bigger (4'-3" wide) than the originals they are patterned after. Because the shapes of the windows and their casual, interior-dictated placement are familiar, the outsized windows raise questions about scale: they make the house as a whole look deceptively small, its shingles and window frames unusually fine-scaled, its walls extra thin.

The larger Trubek house recalls—at least from the land side—the complexities and allusions of more sophisticated 19th-Century resort cottages. Its long side faces the sea and its gable spans the long dimension, exaggerating its slightly greater size and making room for usable third-floor spaces. Where the forms of the Wislocki house are simply additive, the porch here is partly swallowed into the volume of the
Wislocki house (left) is basic cottage; Trubek (above) shows Queen Anne flourishes. Together, (below) they form a single, extended composition.
Facing the water, Trubek house (foreground) has porch similar to Wislocki; west side of Trubek (inset) has super-sized stairwell window.

house. All of these devices were common in the shingled houses of 1890s seashore and suburbia.

In the handling of the main stairs, the Trubek house is firmly established as 1970s Venturi rather than 1890s builder's companion. Springing from an enlarged window seat, which is all curves and angles in plan, the stairs cut diagonally across their own well and bump into the wall at the top. Outside, a corner of the house is lopped off to show where all this happens. The stairwell makes possible an extra-large window, a traditional four-paned image blown up to more than three times customary scale, with sill height to match. "The great Palladian window on the north façade of Mount Vernon is not quite the same thing," say the architects, "but we were thinking of it." George Washington's big window, of course, took the form of a recognized status symbol, while the Trubek window is a blown-up symbol of ordinariness. And Washington added a well-known portico at the same superscale as his window, while the porch here remains stubbornly human-scaled—giving away the whole game.

The Trubeks and Wislockis decided to call in the Venturi office because they liked Robert Venturi's approach to the small house, in particular his mother's house (P/A, May 1965). "We were intrigued to know what he could do for us," Trubek recalls. They wondered, of course, whether Venturi might turn out to be "just a crazy theoretician." Instead they found architects "who could build reasonable houses in a reasonable time, with real attention to detail." Once both clients and architects adjusted to the high cost of building on Nantucket, the relationship was not only smooth, but warm. The houses were completed within 3 percent of budget and within three weeks of schedule.

While Venturi & Rauch had strong convictions about details, they were wise enough to take advice from the island contractor and local architect, Christopher Holland, on flashing and other details to withstand the steady winds and driving rains of exposed Nantucket sites. After a year of use, the houses remain perfectly weathertight.

"In terms of living accommodations we wanted," reports Trubek, "the houses couldn't be better." The clients did question the value of the porches, compared to interior space they could have had for the same money. Venturi defended them, partly for the sake of the seashore cottage image and partly because he thought they would be useful. As it turns out, they are used whenever the weather is warm enough ("You can just hose them down after lunch") and the full-width steps are popular seating places, as intended.

Reminiscent as they are of older island architecture, the houses did not win quick approval from the Nantucket Historic District Commission, which took them up just after its jurisdiction had been extended beyond older, built-up zones to include the whole island. Here they had to decide whether the designs preserved the "historic character" of an area developed only in the past 20 years, largely with vacation A-frame and pseudo-saltboxes. The overall massing and materials of the houses were immediately approved, but the unorthodox composition of openings was accepted only after much lengthy discussion.

The Venturi office has shown here that it can learn from the vernacular of the American seacoast, applying the lessons with both hard-nosed practicality and subtle wit. On one level, these houses meet real user needs and fit almost imperceptibly into an existing pattern of development; on another level, they are revealing comments on the most basic American building traditions. [JMD]
Trubek living room

Wislocki living room

Data

Project: Trubek and Wislocki Houses, Nantucket Island, Mass.

Architects: Venturi & Rauch, with the assistance of Terry Vaughn. Project architect: Christopher Holland.

Program: vacation houses for one family with three children and a related family with two children.

Site: 300 ft of beach front at the northeast extremity of the island.

Structural system: standard wood frame on concrete block foundations.

Mechanical system: electric heating units installed in floors.

Major materials: white cedar shingle exterior walls and roofs; gypsum board interior partitions.

Consultants: structural engineers, Keast & Hood Co.; mechanical-electrical engineers, Vinokur-Pace Engineering Services; interiors (Trubek house), Diane Boone.

Costs: withheld; island construction costs not representative.

Photographs: Steven Izenour.
Alternate housing

Other ways

Some people, usually out of conviction as much as out of necessity, prefer to create their own kinds of housing, using familiar materials in a form of contemporary folk art.

For whatever reasons, and in whatever manner, “lifestyle” means a great deal to most people. Despite its generalized use, however, the term is more descriptive when preceded by “alternate.” In that form, it usually alludes to living patterns, and shelters to house them, that are established by the people they serve. The actual enclosures are, in fact, alternatives to standards set by others, and reactions range from bitter condemnation through interest to frantic praise. Are they communist-inspired symbols of moral decay? Or maybe the outward manifestation of the I Ching? Are they hedonistic or religious in origin? Don’t laugh—believers can be found for all of the above, and then some. To some observers, the living patterns expressed conjure up a specter of rebellion or disregard for established social or legal norms. For others, the housing shown on the following pages represents the very highest form of respect, not only for self, but for land and resources as well.

Reasons for going this route are numerous, as are the actual forms that result. Most share the advantages of self-expressive living styles and reduced cost. Most are assembled, or at least rearranged, by the owners. Some, such as the houseboats and the van/ bus housing, use no land at all. Some reclaim building materials and/or existing resources, such as a boat hull, lumber, windows or existing space.

Still another category, overlapping the others, is a do-it-yourself movement linking technology and craft. The variety of shelters at Whiz-Bang Quick City 2, and packaged domes from Woodstock are cases in point. In almost all of the results, there is an unmistakable sense of the owners’ joy at having built their own place in a manner and out of materials that are uniquely theirs.
Workshop dome

Few building forms have become so identified with the search for alternatives as has the dome. People have been transposing R. Buckminster Fuller's principles into self-built enclosures all over the world, for all kinds of reasons. Architect Les Walker, at the request of Popular Science Magazine (where plans are available), designed, fabricated and erected a dome in Woodstock, N.Y., documenting his process along the way. Walker's structure, a ½ sphere 24 ft in diameter, was built for a total cost of $1400 (fully insulated) and about 550 manhours of labor. Electrical conduit was used to build components of the dome's exoskeleton. Insulated stressed skin plywood panels, like the frame, were made up during the winter in Walker's workshop.

After the conduit frame was assembled, foundation holes were sunk and the 6x6 foundation posts were attached to the frame. Fifteen 2x10 joists were then set on a center post and fastened to the foundation posts with joist hangers. Concrete pads encasing the bottoms of the foundation posts were poured after leveling operations. Through adjustable hub assemblies, the panels were suspended inside the frame and connected. To ensure weather tightness, Walker selected four important materials: polyurethane marine enamel for the panels, foam tape along the edges of each panel, silicone caulking and aluminum tape after panel placement. The hubs were tightened, drawing the assembly together before the final caulking and taping. With ½-in. plywood fastened to the bottoms of the joists, 6 in. of fiberglass insulation was placed between the joists. Tongue and groove 2x6 spruce flooring finished off the space. Five panels at the top of the dome may be opened for ventilation, using a small winch and nylon cords. Completed just before Hurricane Agnes, the dome made it through 10 days of rain and wind without a leak.
Mobility used to be thought of as a mobile home, fixed in one place, but easily moved to another. Obviously these homes weren’t mobile enough for some people, as these trucks and buses converted to housing will attest. While not offering all the amenities of the mobile home, many converted vehicles acquire the image of house through their additions or decorations.

Crazy Pete, often parked at a bus stop on Second Ave. in New York City, advertises that he is going on a world tour. Appended to the bus, for further mobility, are a bicycle, a canoe and two motorcycles.
Whiz-Bang Quick City 2

Early last June, 250 students from 30 schools gathered near Woodstock, N.Y. under the direction of Robert Mangurian and Les Walker of Works East to build for two days and live together for five more. Structures of various sorts—domes, inflatables, tensioned and post tensioned membranes—were plopped down on the land as minimal shelters. Besides providing an opportunity for building experimental structures, the WBQC2 program also explored aspects of community design. Last year’s planning efforts, however, hampered by several days of rain, soon gave way to the sheer instinct for survival in knee-deep mud.

The finished community provided shelter for nearly 500 residents on 180 acres of land which the owner had lent for the week. Funds came from the Educational Facilities Laboratory and the New York State Council on the Arts, and several manufacturers donated building materials. Not deterred by the elements, WBQC3 will make its appearance somewhere, sometime soon.
Other ways

Homes on the bay
Houseboats are an old form of alternative housing and, at least in areas like the orient, are recognized as low-income dwellings. These examples in Sausalito, Calif. run a broad gamut from trashy and minimal to something resembling a floating suburban house. Most of the harbor dwellers base their choice on economy of investment, as well as the immediacy of being able to realize one’s thoughts and ideas. Some of the expressions such as the “Madonna” (opposite page) by Chris Robins approach sculptural qualities, both inside and out. Others are fanciful (right), homey and lived-in (lower right) or even just a little bit forlorn (below). Not all are owned by the occupants, but rent for prices comparable to apartments.
Other ways

Woodbutcher's art
The photographs and captions on these two pages are excerpts from a new book *Hand-Made Houses—A Guide to the Woodbutchers Art* by Arthur Boericke (Scrimshaw Press, San Francisco $12.95). The author, some eight years ago, began building a house for himself which he describes as "not a design that the bank or a contractor would consider prudent or reasonable, but a place salvaged from remodeling and demolition jobs, flea markets and country dumps... In short, a solid little shed that has some of the spirit and personality of the builder..."

Some five years later, what the author had considered an eccentric hobby has become a serious movement, and in searching out similar examples, he had to admit that the ingenuity of these newcomers surpassed his own. "In fact, almost overnight it seemed, sturdy little places had started up; there were woodbutchers making do with salvaged lumber, hand-hewn beams, barn shakes and redwood bark along upland creeks and steep ravines. For no mistaking it, like organic farming, building your own place has become the four-square gospel..."

Besides compiling a book of thoughts and pictures on these hand-built houses, Boericke is teaching a course on the handmade house at the California College of Arts and Crafts. In his own words, "A well-built place reflects all the activities and the commotion in it, the changing seasons, the passing clouds, the time of day."
Other ways

The hills are alive

California, for whatever else "outsiders" may think, has a special call for individualists. (Consult your ouija board, tarot cards, local shrink or chamber of commerce definitions of outsider.) Its climate and natural resources have always been kind to its inhabitants. The fact that people have not always been kind to California has even further separated the ideals of concerned individuals from those of developers bent on financial exploitation. This, among others, is a generating rationale for the forms expressed in this section. For the owner/builder of each, there are probably common points of agreement with the others. A re-awakening has taken place in their minds. (Detractors would call it a regression.) For all of man's abilities in technology, the computer and systems housing, no solution has touched their lives. Their choices were made willingly, based on their decisions about life, with its dues and finances, the meaning of "progress," and values of self. Those are the choices that can be read in these accomplishments—including the desire to build for oneself, with friends, a place. What that place is depends on how its owner(s) see it, and build it. Little can be added in two dimensions; three or more are needed. Notes are added to the photos to give credit where it is due, or quotes to bring out a point. Beyond that, explanations are either redundant or inadequate.

At the very least, these housing solutions serve somebody. It doesn't stop there, of course, because a plaintive (but not helpless) voice carries a message from each one. In uncomplicated generalized terms, the housing speaks of a choice of lifestyles, from individual standards, not from mass solutions. They do not represent the majority, either silent or vocal, of homeowners; they wouldn't want to. There are, however, lessons in each type that are neither liberal nor conservative. Like other forms of education, they can be ridiculed, ignored, accepted or loved—that's our choice. The people living there have made theirs. [JM/SLR]
There is no fussiness or pretense, but a spirit of genuine response to need pervades them—
from *The Craftsman*, vol. 13, 1907-8.

It is taking a long time to accept the simple satisfaction of doing what I am doing, living in the present
Sym Van der Ryn
Conceived as a reaction against the slabs of urban renewal, Brunswick Center emerges as London's contribution to the low-rise, high-density, in-city housing problem. Brunswick Center, in London's Bloomsbury district, stands only half-realized some 12 years after the initial scheme was drawn up, and it seems that not enough political pressure can be brought to bear to ensure its completion. Over these years, the program has remained relatively constant: 560 units of housing, 80 shops, offices and 925 parking spaces. But to delineate the history of sponsoring agencies, contractor and client difficulties would in no way increase our understanding of the building. The process has little value in analyzing what has been built, in this case, as the design concept has remained remarkably constant.

London is a city rich in the Georgian tradition, full of endless diversity of rowhouse and street. One marvels not only at the variety of these pieces, but also at the manner in which they were assembled. Nash’s crescent is one invention of urban form built when speculative building didn’t have the cheapness now associated with it. Nash did not just create a crescent as urban housing, he also created a city space, a "room" proclaiming the end of the Regent Street axis and the
Brunswick Center (above and below) relates the lower mass of the perimeter block to the scale of the existing housing. The abruptness of the building's end—or beginning—leaves one with the feeling that it might well have continued if the street had not intervened. Section (left) shows the original concept of glass roofs over the commercial areas on the ground level.
At the end of the living spaces, a floor-to-ceiling glass cage allows sunlight to flood the room. Bedrooms are set back and the space outside becomes a balcony.
beginning of another urban element, Regents Park.

According to Patrick Hodgkinson, architect of the project, there are two important aspects to consider in housing: its capacity for homemaking and its urban capabilities. Brunswick Center, in its urban capabilities, incorporates this well-known notion of solid/void, city "room." To build low-rise housing in a city abundant with historical precedent and to choose a historical form is to leave oneself vulnerable to criticism.

Brunswick Center, on the site of the former Foundling Hospital, is partly bounded on one side by Brunswick Square and on the other three primarily by low-scaled housing. The two main blocks of housing maintain the street line as it existed, an important consideration particularly where the building touches the square. Housing units are oriented both toward the external streets and toward the internal court. Since very little commercial use exists in the immediate neighborhood, the addition of the ground-floor shopping space adds much needed amenities. All of these commercial spaces are oriented along the internal street to encourage pedestrian movement through Brunswick Center, to make a social meeting space and to provide a focus for future growth.

There are other aspects of the site planning, however, that do not resolve existing external circumstances. A major axis through the center establishes a strong linear movement along a now extinct minor street. While this linearity respects the existing grid pattern, it in no way acknowledges the primary diagonal points of arrival, dictated by the proximity of several major transportation centers—the Russell Square Station of the underground to the south, Euston, St. Pancras and King's Cross railroad stations to the north and west. While the prime movement is through the internal court, there is little articulation of entrance from the street except for a minor setback of the elevated plaza and a set of stairs. This minimal gesture tends to be overwhelmed by the mass of the housing, which ends in a manner that suggests it might well have continued if the street had not intervened. The only major gesture of entry occurs perpendicular to the major axis of movement,
as a very formal response to the axis of Brunswick Square. The anticipation of arrival, however, is not fulfilled, as once through the portal, the axis is interrupted by the internal court, and the monumental set of stairs opposite leads one rather grandly to an ignominious concrete plaza above. By responding to such formal site conditions, the development misses the opportunity to make a unique place, resolving the various external and internal constraints.

Within the project there are also numerous points for discussion, mostly revolving around the issue of scale and aesthetic: the perfectly inconsistent finish of the concrete that was to be painted a glossy, cream white; the glass roofs that were not built over the court to provide enclosure for the commercial spaces and to relieve the barrenness of the upper plaza; the internal pedestrian access to apartments that resembles a parking garage more than an entrance to a house. These are all matters of concern for residents.

While the public spaces seem to suffer through omission, there are some thoughtful additions in living units. The typical studio, one- and two-bedroom flats are very straightforward in plan. But, unlike most of our own recluse, urban dwellings, the living rooms of these flats end in a flood of sunlight through a glass cage. Adjacent to this is a terrace entered from the bedroom. The step-back profile of the buildings allows the maximum amount of light to penetrate the interior and assures that the terraces, oriented east or west, receive maximum exposure to the sun. A central pedestrian space with open balconies for access to the living units is created inside each pyramidal block. Elevator access to each balcony level occurs at frequent intervals articulated on the exterior by the regular rhythms of the large rectangular towers. The perimeter housing, lower in height, maintains the existing street scale; the taller interior blocks face a raised plaza and form a grander enclosure to the “room.”

Even though the whole development has that not-quite-finished feeling, window boxes full of geraniums and petunias have appeared on the terraces and colorful curtains hang in the glass enclosures. The variety of textures, patterns and colors give a sense of life, of activity, of response. Despite its apparent weaknesses, Brunswick Center presents a clear and strong alternative model for high density housing, both in form and materials. And as such it must be taken apart so that the pieces may fit together more snugly the next time. [SLR]

Data

Architect: Patrick Hodgkinson (early proposals prepared with Sir Leslie Martin).
Site: 13.2 acres in the Bloomsbury district of London.
Program: first phase (now completed) includes housing for 1300 residents, shops, offices and parking.
Structural system: two-way reinforced concrete slabs supported on cast-in-place columns, 18 ft on center.
Mechanical system: central boilerhouse with warm air exchanger in each unit.
Major materials: concrete, hard-burnt, dark brown brick facing on columns, metal-framed glass enclosures.
Photography: courtesy of architect except as noted.
Working within the shell of a shingle-style house, architect Charles Moore designed a new interior that both mirrors and contrasts with the original façade.

With its stalwart shingle-style façade facing on a crowded street in Cambridge, Mass., the Murray house gives little clue to what happened inside during remodeling. Floors were removed to make two-story spaces; new walls have cutouts that repeat the openings in the new back façade that now lets light penetrate the interior. With much of the interior painted white, the spaces have a lofty quality very unlike the usual interiors of shingle-style houses. In other respects, the pattern of the window openings in the new rear façade, the cutouts in the interior walls and the assemblage of objects-as-design on the walls reflect much of the same eclectic quality present in the original style.

Renovating the three-story-plus-basement house was a fairly straightforward job in terms of program. The first two floors are a duplex for the owners, and the basement and third floors are income-producing apartments. Architect Charles Moore also recalls that the clients wanted something on the order of a Corbusian-style interior. While the spatial requirements were successfully fulfilled, the style in which they were executed bears little resemblance to Le Corbusier—which in the end didn’t seem to concern the clients.

The first floor of the duplex contains the living room, dining room, kitchen and, somewhat removed from the house proper, a home for a cheetah; the second floor has bedrooms, baths and a study. Inserted into the duplex is a grand, two-story, circular entry hall. Faced with the problem of providing access to the third-floor apartment, Moore designed an enclosed stairwell tumbling down through the two-story hall. Having conveniently solved this problem, Moore was faced with another: What does one do with this strange shape that crashes through the circular space?

There is not much to say about why a thunderbolt was painted on the underside of the stairwell. After making such a pompous and extravagant gesture as the circular entry hall, Moore felt that the solution to the stairwell problem should also be a put-down for the space. Among the group from Moore’s office assembled to solve this dilemma, someone suggested painting clouds in the stairwell, but no one felt qualified as a cloud-painter. One thing leading to another, the idea of the cartoon-style thunderbolt was not long in coming.

Compared to the traditional mode of drawing board decision-making, this process of design may seem like a lack of forethought on the part of the designer who does not have his solution in hand before the opportunity arises. What is unique, however, is that leaving things to chance gives one the opportunity to do something so relevant and so irrelevant at the same time. No amount of forethought six months prior to construction could have produced this solution.

And of course the only reasonable thing to do, given the bolt of lightning, was to finish off the room with a rainbow, completing the marriage of nature and art. [SLR]

Data

Project: Murray house.
Site: Cambridge, Mass.
Major materials: wood framing, plaster, paint.
Cost: not available.
Consultants: structural, Herman D.J.Spiegel.
Photography: Robert Perron.
"WE KNEW WE'D CUT OWNING AND OPERATING COSTS WITH LOF GLASS..."
"BUT WINNING THAT ENERGY CONSERVATION AWARD WAS A VERY SATISFYING SURPRISE!"

RAY BORING
Building Manager
Avco Financial Center

The Avco Financial Tower at Newport Beach soars into the California skies in everchanging beauty. Many things about the building are gratifyingly predictable, however.

The engineering consultants—James A. Knowles & Associates—predicted that the use of Thermopane® insulating units made with Vari-Tran® coated glass from LOF would save Avco almost $20,000 annually in owning and operating costs when compared to conventional bronze plate glass. Additionally, LOF reflective glass enabled the owner to install smaller fan-coil machinery on the upper 15 floors, thereby gaining more than 6,000 square feet of rental area for the owner.

Now, the Avco Financial Tower has won the 1972 Utilization of Energy Award in Southern California, a tribute to sound design and selection of materials that is made more meaningful by the energy crisis that afflicts many parts of the country.

An LOF architectural representative can't guarantee that yours will be an award winning building, but he can show you how building owners can conserve on operating costs. For the entire story, send for our brochure, "Reach for a Rainbow." Libbey-Owens-Ford Company, Dept. P-573, Toledo, Ohio 43695.
Incineration of hospital solid wastes

Lawrence G. Doucet

Solid waste generated daily in hospitals is ever increasing. How to evaluate and select an incinerator system that will handle this problem efficiently is discussed below.

Increased use of disposable items has caused the quantities of solid waste generated at hospitals to have increased tremendously in recent years. Proper waste handling plays an important role in the control of infection, whereas improper collection or disposal methods may create health and safety hazards for patients, staff or visitors. On-site incineration has proved to be the most effective and, in many cases, the only legal method for disposing of these continually generated wastes.

Incinerator systems, however, vary widely according to type and method of operation, and their selection and performance evaluation is important to owners, architects, engineers, constructors, government agencies and others with varied interests. As a result, differing opinions often exist about what constitutes acceptable incinerator performance. However, of common interest are six factors that apply to all types of systems. It is through these factors that individual systems can be evaluated. They are:

1. **Capacity.** This is the weight of refuse per hr that an incinerator can burn. Selecting the proper capacity is probably the most important factor in planning and designing any installation. It affects equipment type and size, space and utility requirements, site selection, costs, and staffing requirements.

The actual selection of capacity is based on empirical data and on-site waste surveys; however, careful consideration must be given to daily and weekly peaks and frequencies, legal requirements, potential downtime and projected increases in waste loads.

Capacity should be selected in close conjunction with planning the total solid waste handling system. For the successful performance of overall waste handling operations it is imperative for the incinerator to burn satisfactorily at its design capacity.

2. **Reduction.** A properly designed and operated incinerator system can reduce hospital type of waste by as much as 90 to 98 percent of its original volume and, in addition, convert it to an easily handled, noncontaminated ash. When it does not, unburned combustible items are evident in the ash residue, and the increase in the quantity of residue can be substantial.

The most common causes of poor reduction are: inadequate capacity; burning waste other than that for which it was designed, especially excessively wet material; improper operating procedures; improper operation or adjustment of incinerator equipment or auxiliary components. Poor reduction usually results in serious overloading of ash removal systems, significant increases in operating costs, and unsanitary and noxious conditions.

3. **Adaptability.** Hospital incinerators, except those specifically designed for pathological waste, must burn a heterogeneous mixture of many types of wastes. Usually, the average composition of this mixture is highly variable in moisture content, calorific value, specific volume, and quantities of glass, metals and plastics. Therefore, in order to be adaptable to this diversity, the installation must be designed for the most difficult burning conditions. Failure to do so often results in an installation of inadequate capability.

4. **Reliability.** This is the predictable availability of the incinerator for operation. A high degree of reliability is essential to the efficient operation of the entire waste handling system; excess outage can be disastrous in many ways. A reliable installation can be achieved by providing multiple units for stand-by capabilities; using materials of highest quality and durability; employing regular preventive maintenance programs; providing adequate inventory of spare parts for repairs; anticipating and providing for expansion of facilities and waste loads. Installed capacity must be increased as reliability decreases.

5. **Operation.** Incinerator operation should be as automatic as possible and require minimal special technique or training. In addition, installations must provide sufficient devices and alarms to assure maximum protection to personnel and equipment from any possible hazardous conditions.

6. **Pollution.** Incinerators have long been stigmatized as sources of malodorous, black clouds of smoke. However, this need no longer be so, since proper applications of the latest technology in furnace designs, operating techniques and air pollution control devices can assure that any installation will pass even the most stringent air pollution codes.

Pollution immediate to the site, including odors, dirt, dust, noise and contaminated water run-off, often proves more serious. These must be anticipated and eliminated in design, if possible, or otherwise kept to a minimum by proper operating procedures.

The above six factors provide a common basis for comparing the design and operation of the many available systems. A thorough understanding of these factors is essential in order to evaluate and select the system that will provide the best possible performance.

**Author:** Lawrence G. Doucet is a member of the Central Utilities Group at Syska & Hennessy, engineers, New York City.
A jewel of a library in porcelain-enameled steel

The Tuckahoe Branch is one of five in the Henrico County, Virginia, Public Library system serving the suburban county neighbor of Richmond, Virginia.

The architects created a refreshing expression in clean, crisp planes of matte-finish white porcelain-enameled panels. Any tinge of sterility was forestalled by the skillful introduction of highly reflective glass over large areas of the structure.

Architects are making increasing use of porcelain-enameled steel for aesthetic as well as for practical reasons. The development of Nature-tone finishes adds a new dimension to the use of porcelain-on-steel panels, and designers can choose from a palette of twenty-four low-chroma hues. Porcelain-enameled panels, regardless of color or finish, are sturdy, light, corrosion-resistant, colorfast, and clean.

Bethlehem supplies enameling sheets to fabricators who form and coat architectural panels. Write us for information on Nature-tone finishes. Bethlehem Steel Corporation, Bethlehem, PA 18016.

Mechanical Engineers: Hankins and Anderson, Richmond, Va.
Specifications clinic

Curtain wall inspection

Harold J. Rosen, PE, FCSI

Failures occurring in curtain walls prompts these suggested guidelines and procedures to implement a quality control inspection program covering design, fabrication and erection.

"Specifications clinic," in Nov. and Dec. 1972 dealt with the need for a contractor quality control program to insure proper execution of the work by means of thorough inspection. Those articles set the ground rules for the mechanics of such a program. The requirements detailing the specific items to be inspected should generally be specified within each of the technical sections that require inspection.

A case in point is the growing concern with the failures that occur in curtain walls; one, the loss of glass and metal panels during windstorms, which affects public safety; and two, the water infiltration which disturbs the occupants and the building owner. To assure curtain walls relatively free of defects that lead to failures requires proper design and construction. The Jan. 1973 "Specification clinic" reported on the design consideration explored at a joint ASTM/CSI/NBS symposium. It is the construction process involving fabrication erection that now merits attention and inspection.

The Architectural Aluminum Manufacturers Association (AAMA) has published a timely article on "Installation of the Aluminum Curtain Wall," Volume 7 dated Jan. 1973. The article outlines the need for proper installation to prevent even a well-designed system from being degraded by faulty workmanship. The key to a successful installation is recognizing that the curtain wall is a highly engineered factory-fabricated product whose components are manufactured to very close tolerances. Its installation, however, requires that precision components be applied to a field-built structure of a much lower degree of dimensional accuracy. The interrelationship of these widely divergent elements requires good teamwork by the architect, the general contractor and the curtain wall subcontractor.

To implement a quality control inspection program that will monitor all the aspects of design, fabrication and erection, the following guidelines and procedures are suggested.

Design phase
1 Review of design drawings and specifications by professional consultants versed in curtain wall design and construction. (At the present writing, there are no more than a half dozen such qualified consultants.)
2 This review should include assumed wind loads, glass thickness selection, mullion anchorages, glazing system, structural adequacy, thermal expansion and contraction.

Shop drawing and mock-up phase
1 The review of shop drawings for structural adequacy, glazing system, thermal movement by the engineer and the architect of record and by a professional consultant.
2 Submission of necessary calculation for design of structural elements by the fabricator and checking by the engineer and the consultant.
3 Observation of tests of curtain wall mock-up for structural performance and water infiltration.
4 Recommendations for changes to design based on test of mock-up.
5 Review of all materials submitted for approval, including glass, gaskets, sealants, metals, flashing, for compliance with specifications.

Fabrication phase
1 Inspection of shop welding and bolting by a certified laboratory, the engineer of record or the curtain wall consultant.
2 Checking tolerances of metal components.

Erection phase
1 Metal component installation
   a. Check erection tolerances.
   b. Check clearances for proper installation.
   c. Check alignment.
   d. Check structural connections and fastening systems.
   e. Check flashing and drainage systems.
2 Glass installation
   a. Check glass for thickness, nicks and abrasions, edge conditions, tolerances.
   b. Check actual installation procedures such as handling, wedging, forcing, etc.
3 Sealant application and glazing techniques
   a. Check weather conditions.
   b. Check cleaning and preparation of glazing rabbet.
   c. Check installation of setting blocks.
   d. Check application of primer.
   e. Check mixing of sealant.
   f. Check sealant applications, joint configuration and tooled appearance.
4 Field check for water leakage
   a. Observation of selected areas subjected to field hose tests performed in accordance with NAAMM tests method FC-1-69.
5 Report on failures and recommend corrective measures by curtain wall consultant.

Author: Harold J. Rosen is Chief Specifications Writer of Skidmore, Owings & Merrill, New York City.
In the carpet world, Anso® Nylon's five year guarantee is on top of the pile.

Two Shell Plaza is Houston's new pride. So in the public areas and hallways, this building has "TXR-10" carpeting from Commercial Carpet Corporation.

It comes with Guarantee—the guarantee with teeth. Allied Chemical's assurance that the carpet is guaranteed not to wear more than 10% in five years, or Allied Chemical will replace it, installation included. Promise.

Allied makes this promise because we make ANSO nylon—the second-generation soil-hiding nylon. And, we test every carpet made of ANSO nylon 10 different ways to be sure it can take it.

So look for the label with the fierce little animal who symbolizes our Guarantee. And get the carpet with the five year wear guarantee.

For your free copy of our Contract Carpet Manual, write to: Allied Chemical Corporation, Fibers Division, Contract Department PA, One Times Square, N.Y. N.Y.10036. Phone: (212) 736-7000.

Guarantee. The guarantee with teeth.
Settling negligence claims

Bernard Tomson and Norman Coplan

Does an insurance company's unreasonable delay in acting on a negligence claim justify its insured in settling without the insurer's consent? Two courts have said no.

Despite the fact that an architect carries liability insurance, an owner may attempt to withhold payment of his fee because of alleged errors or omissions. The architect who finds himself in such a situation is in a very difficult position. If he settles the owner's claim, he may jeopardize his insurance coverage. If the insurance carrier delays in resolving the dispute or takes the position that there is no liability, the architect is subject to a hardship arising from the withholding of his fee until the matter can be resolved through litigation or otherwise.

Although an insurance carrier is not obligated to settle a claim asserted against an architect, or other person, it must act with reasonable expedition in processing and dealing with such claim. If it fails to do so, the claim may be settled by the architect without loss of coverage under the policy, and despite a specific provision in the policy that settlement may not be so effected. This was pointed out by the Supreme Court of Nebraska (Otteman v. Interstate Fire & Cas. Co.) which had before it a situation where the insurer failed to act over a period of seven months on a claim asserted against its insured and the insured settled the claim without the insurance carrier's consent. The Court, in that case, stated:

"We have no hesitancy in finding that the evidence amply discloses an unreasonable delay on the part of the defendant in processing the plaintiff's claim. We further find that such delay amounted to a denial of coverage and constituted a waiver of any right to insist on the policy provision regarding defense or settlement."

The New York Court of Appeals, in a recent decision (Rosen & Sons, Inc. v. Security Mutual Ins. Co., 31 N.Y. 2d 343) had occasion to consider similar issues in a suit instituted by a building subcontractor against a liability insurance carrier under a "wrap-up" policy which had been secured by the general contractor and under which the subcontractor was named as a party insured. In this case, the general contractor had asserted a claim against his subcontractor arising out of damage to the roof installation allegedly caused by the negligence of said subcontractor. At the time of such claim, there was owing by the general contractor to the subcon-tractor the sum of $80,000 for work performed. The general contractor refused to make payment unless it was reimbursed for the damages which it claimed.

After a period of time the subcontractor made a settlement with the general contractor so that he could be paid the balance of his fee. The subcontractor then instituted suit against the insurer for reimbursement of the loss under the terms of the policy. The insurance company resisted the legal action on the ground that the policy of insurance, by its express terms, provides that the insured shall not "voluntarily make any payment" on any risk within the obligation of the policy, and that no action shall lie against the insurer until the amount of the insurance obligation "shall have been finally determined either by judgment . . . or by written agreement of the insured, the claimant and company."

In this litigation, the subcontractor took the position that when the claim was made against him, he had notified the insurance carrier, but that the carrier had done absolutely nothing to adjust or otherwise process the claim. He asserted that the insurance company would neither assert nor deny its coverage and that he was placed in an untenable position due to the large amount of money being withheld because the insurance company remained completely inactive under its insurance policy.

The New York Court of Appeals, in considering the rule of law to be applied to the issues presented, said:

"The New York rule is that where an insurer 'unjustifiably refuses to defend a suit, the insured may make a reasonable settlement or compromise of the injured party's claim, and is then entitled to reimbursement from the insurer, even though the policy purports to avoid liability for settlements made without the insurer's consent.' . . . But the insurer's obligation to act in good faith for the insured's interests may be breached in other ways than by refusing or neglecting to defend a suit. It may be breached by neglect and failure to act protectively when the insured is compelled to make settlement at his peril; and unreasonable delay by the insurer, in dealing with a claim, may be one form of refusal to perform which could justify settlement by the insured."

In response to the insurance company's motion to summarily dismiss the action, the Court concluded that a triable issue of fact was presented as to whether the insurance company had unreasonably delayed taking action on the negligence claim. Where the company had notice of the claim and knew, or ought to have known, of the economic pressures for settlement exerted by the general contractor, the Court ruled that a waiver resulted of the provision of the policy which prohibited settlement by the insured without its permission in writing.

Authors: Bernard Tomson is a County Court Judge, Nassau County, N.Y., Hon. AIA. Norman Coplan, Attorney, is Counsel to the New York State Association of Architects, Inc./ AIA.
Mo-Sai color and texture versatility is demonstrated well in this distinctive St. Louis office tower. Four different Mo-Sai colors and textures, in exposed black and pink granite and crushed white limestone, were used to coordinate building and plaza areas. Mo-Sai panels on the main building, paving for the plaza, Mo-Sai railings on observation balcony and surrounding the plaza all complement the architectural design. White concrete sunscreens, also supplied by the Mo-Sai manufacturer, provide a contrasting texture-color.

Clip angles cast in the Mo-Sai units were used to bolt them to poured-in-place concrete structural members.

PET PLAZA / St. Louis, Missouri
Architects: A. L. Aydelott & Associates
Structural Engineers: Severud-Perrons-Sturm-Connk-Bandel
General Contractor: G. L. Tarlton Contracting Co.

Mo-Sai color and texture versatility is demonstrated well in this distinctive St. Louis office tower. Four different Mo-Sai colors and textures, in exposed black and pink granite and crushed white limestone, were used to coordinate building and plaza areas. Mo-Sai panels on the main building, paving for the plaza, Mo-Sai railings on observation balcony and surrounding the plaza all complement the architectural design. White concrete sunscreens, also supplied by the Mo-Sai manufacturer, provide a contrasting texture-color.

Clip angles cast in the Mo-Sai units were used to bolt them to poured-in-place concrete structural members.

PET PLAZA / St. Louis, Missouri
Architects: A. L. Aydelott & Associates
Structural Engineers: Severud-Perrons-Sturm-Connk-Bandel
General Contractor: G. L. Tarlton Contracting Co.
1. Around cold outside walls.
Singer electric baseboard heating goes where the cold comes from. No fuss to install, no mess to clean up. Sell its cleanliness, quietness, its flamelessness. Talk up room-to-room thermostatic control.

2. In the wall.
Combined with proper insulation, Singer wall heaters provide good supplemental heating economically. They are as easy to install as wall outlets, maintenance-free and quiet. Ideal for dens, entry-ways, and other hard-to-heat areas.

3. In the bathroom.
This Singer heater circulates ample warmth throughout any standard bathroom area in an instant. Useful, too, for drying stockings and light garments.

4. Instead of a big boiler.
Big enough to heat a whole house, yet small enough to enclose in a closet or some other out-of-the-way place, our electric hydronic unit is ideal for a new or existing hot water heating system.

8 out-of-the-way places where you
5. Under cabinets.
Be sure to include Singer kickspace heaters in out-of-the-way places. Kitchens, baths, utility rooms can all be drafty; but these heaters gently warm the floor area and are barely noticeable.

6. In a laundry area.
An extra added attraction for any new home: Singer infra-red heaters to keep people warm in laundry rooms, workshops, even on patios and pool decks. Everyone appreciates a little extra warmth in unexpected places.

7. For ceilings and walls.
It’s easier to sell a house that already has a heated basement, garage or workshop! For these areas, think about our electric suspension unit heater. It warms up the whole place in a hurry, yet stays out of the way.

8. The ceiling.
The perfect heating for a new home is Singer radiant cable heating. Hidden in the ceiling, it’s totally silent, totally invisible. Controlled room-by-room thermostatically, radiant cable heating could be one of your major features.

should specify Singer electric heaters.

Plus the one place you can get all the facts from.

Whatever the place you want to heat, we have a Singer heater for it. A Singer heater that’s the result of over thirty years of experience in the design and manufacture of electric heating equipment. A Singer heater that’s so well made, you’ll never get a callback once it’s in. There are enough things to worry about in building homes. Specify Singer heaters and you’re minus one worry.

Just send us the coupon and we’ll send our nearest representative out to talk to you. Even if you’re in some out-of-the-way place.

Please send a representative to talk to me about the Singer line of out-of-the-way heaters. The best time to contact me is:

Name

Address

City

State

Zip

Send me product information as checked below:

- Baseboard Heaters . . . EC-390
- Large Wall Heaters . . . EC-394
- Bathroom Heater . . . EC-395
- Kickspace Heater . . . EC-392
- Infra-red Heater . . . EC-388
- Suspension Heater . . . EC-382
- Hydronic Heating Unit EC-389
- Radiant Heating Cable EC-357

The Singer Company
Climate Control Division
62 Columbus Street
Auburn, New York 13021

SINGER ELECTRIC HEATING PRODUCTS
Architects specify Z·loy™ zinc-copper-titanium alloy for roofs... for its aesthetics... especially the pleasing charcoal-gray patina it acquires

Engineers specify Z·loy for roofs... for its corrosion resistance

Spec Writers specify Z·loy for roofs... for its low cost

Roofing Contractors specify Z·loy for roofs... for its handling ease

Owners specify Z·loy for roofs... as it's maintenance free

(Check our Z·loy brochure in Sweet's Architectural Catalog File 7.2 and/or CSI Spec-Data Sheet 7, Metal Roofing.)

For more information on Z·loy (designated formerly as Zilloy®), contact THE NEW JERSEY ZINC COMPANY, Communications Department, 2045 City Line Road, Bethlehem, Pa. 18017. Phone: (215) 691-5000

The New Jersey Zinc Company
A GULF & WESTERN COMPANY
Designers can specify Carlstadt Railing for its wide selection of moulding shapes and fittings that allow custom designs for all building types and traffic exposures.

Carlstadt's rugged, engineered system is well-suited for floor, fascia or wall-mounted installations that emphasize function and durability. Its crisp styling makes it ideal for a variety of ornamental applications.

Components are available in stainless steel, bronze and aluminum from local fabricators everywhere. For a complete listing write for catalog, special bulletins, or see Sweet's Architectural or Industrial File.
Chairs. Designed for the Straessle Intercollection of Switzerland, swivel armchair of molded urethane has a steel internal structure in the base, seat and arms. Upholstered seat and back are available in either leather, vinyl or fabric. On casters. Also part of this collection, a chair with a bar stock steel base, chrome plated, with leather cushions on back and seat. Thonet Industries, Inc.

Circle 101 on reader service card

Roofing system. Steel-framed, seamless particle board panels 8 ft wide and up to 30 ft long, supported by tapered steel girders, are said to be competitive in cost and quality with conventional industrial roofing systems. Panels are made using a fabricated steel "C" channel frame and are fastened to the frame using specially designed self-drilling, self-tapping screws. Kaiser Steel Corporation.

Circle 102 on reader service card

Wet-look drum tables. Designed by Paul Mayén, these tables are said to have a high sheen, porcelain enamel finish that is unscratchable, be heat resistant and easily cleaned. For use indoors and outdoors as coffee tables, end tables, occasional tables. Available in white, red, black, special colors on contract orders. Sizes are 18" x 18" and 22" x 22". Habitat Inc.

Circle 103 on reader service card

Seating. Arm and low-arm capsule chairs are available in high-back and standard height back models. Swivel-tilt and swivel bases can be either fixed or adjustable. A full range of upholstery options are available: all vinyl, all fabric, vinyl with fabric seat, and vinyl with fabric seat and back. Urethane shell. Meridian Incorporated.

Circle 104 on reader service card

Acousti-pad. A layer of mastic sandwiched between kraft paper and resinated cotton padding, sound control material is described as economical, easy to cut, handle and install. Globe Industries, Inc.

Circle 105 on reader service card
[continued on page 124]
Whether it's original drafting film or a reproduction you want to change, Du Pont's complete line of CRONAFLEX® drafting and reproduction films is designed to meet your drafting needs.

You want to use the same drafting technique whether you're working on original or reproduction film. With Du Pont CRONAFLEX films, you can. Lines show up sharp and clear against the clean, pleasant whiteness of the carefully engineered surface. And you can make multiple erasures without damaging that surface.

The tough polyester base of all Du Pont films resists damage from handling and aging in storage, so the films are easy to handle and work on even if drawings are old.

Because the Du Pont line is so complete, your reproduction people can provide clean, sharp reproductions, same size, reduced or enlarged, on the same fine drafting surface as the original. And your reproductions come back fast because all Du Pont films can be automatically processed. You choose either conventional or moist-erasable wash-off reproductions.

For free samples and more information on what you get from Du Pont reproduction and drafting films, write: Du Pont Company, Photo Products, N-23299, Wilmington, Delaware 19898.
Luminaire

Safety doors. Designed to prevent hand injuries, aluminum framed glass doors have a cylindrical guard at the pivot edge, a vinyl protector at the leading edge, flush mounted hardware with recessed pulls and a locking system which eliminates the keeper for dead bolt type locks. Each leaf has its own top and bottom bolt lock for maximum security. Must be glazed with tempered or safety glass only. Applications include schools, offices, banks, hospitals, apartments, hotels, commercial shopping centers. Amarlite / Anaconda.

Circle 106 on reader service card

Exterior luminaire. Interchangeable dual reflectors permit a choice of beam spreads and a variety of beam patterns to illuminate buildings and signs. Mounting distance is 35 percent closer than normal, according to the manufacturer. Accepts up to 400 w. metal halide, mercury vapor and high pressure sodium lamps, has heat- and impact-resistant tempered glass lens. Marine grade, copper-free aluminum alloy housing and nonmagnetic stainless steel hardware with 360 degree aiming scale. J. H. Spaulding Co.

Circle 107 on reader service card

Space-saving blinds. One-inch louvers with one-inch housing that can be mounted between the narrowest mullions protrude only one-inch into the room when open, one-half inch when closed. Lightweight with window shade type of brackets that permit quick installation, removal. Steel-tempered aluminum, the louvers are coated in baked enamel and are available in choice of colors. Alcan Aluminum Corporation.

Circle 108 on reader service card

Pneumacel carpet cushion. Individual polyester fibers, made up of microscopic closed cells that are permanently inflated with an inert fluorinated hydrocarbon and air, are bonded with thermoplastic to form seamless cushion. It is said to resist breaking or tearing during installation and the service life of the carpet, provide excellent load support and reduce impact sound transmission as well as sound reverberation within a room. It also has thermal insulation properties and can be installed over almost any surface, interior or exterior. The cushion meets applicable government tests for flammability and smoke generation, and comes in commercial and residential weights. E. I. du Pont de Nemours & Co.

Circle 109 on reader service card

Automated specification system. Said to increase accuracy, be time-saving, cost-saving and easily modified, this architectural and engineering specification system requires no in-house equipment or staff. It can be used by any size office, can load any specification, in any format for any type of construction technique or government regulation, and provide editing, updating, typing and printing services. Omnidata Services, Inc.

Circle 110 on reader service card

Trash handling. Small size trash compactors which are said to handle as much as 550 cu ft per hr of refuse need as little as 70 sq ft of space, reduce refuse volume by more than 5 to 1. Available in two sizes, maker states they are suitable for incinerator conversion and new installations in high rises and institutions. Both models operate automatically and an alarm indicates when container is full. Standard refuse bags, cans or barrels may be chute-fed, hand-fed or both. Auto Pak.

Circle 111 on reader service card

Electronic security. Control panel of electronic security system monitors and/or locks and unlocks doors of office buildings, schools, hospitals, plants or warehouses. Composed of modified standard hardware, the system has electric hinges and locks wired directly to a central control panel. Audible and visual alarms, which can be wired into off-premises alarm systems, can be deactivated only by a keyed reset switch near the door itself, which forces security guards to investigate every incident. All circuitry is solid state, and the manufacturer provides several options to meet various security requirements. Hager Hinge Co.

Circle 112 on reader service card

Health-care plumbingware. Hospital/institutional plumbing fixtures for use by patients as well as professional and service staffs are described in detail in this catalog. Eljer.

Circle 113 on reader service card

Lighting. A complete line (37 basic units) of fluorescent, incandescent and HID recessed lighting fixtures that are identical in design and appearance allows uniform lighting applications regardless of illumination requirements. Included are fluorescent troffers, both static and air moving models, in grid or flange mounting types in sizes 6" x 4' to 4' x 4'; incandescent and HID square modules in static and damp location units are available in 12-, 16- or 24-in. sizes. Guth Lighting.

Circle 114 on reader service card

[continued on page 128]
...is the hard worker you don’t often see. Our top ranked lines of bath and kitchen fittings are well backed up by hundreds of precision engineered rough brass items—from gate valves to log lighters and everything in between. No wonder Price Pfister products lead the way—from start to finish!
Andrew Ivar Morrison and Bruce R. Hannah design for Knoll

Two new additions to their suspension seating system are now available. The Reversible Pad group offers practical, removable upholstery cushions, while the plastic shell provides a neat solution to the problem of seating in high use applications.

Knoll International operates in 25 countries.
Minimum .5 Footcandles, 50' Centers, 250 W Mercury Vapor, 14' High.

All that and character too?

Welsbach provides you with an outstanding selection of character lighting fixtures. True architectural lighting to add an element of interest while still meeting your basic area lighting requirements.

We have been manufacturing quality lighting since 1877. Welsbach gaslights lined the streets of New York, Philadelphia, Baltimore, San Francisco and many smaller towns.

Custom designs and fabrication to your design with incandescent, mercury vapor and gas light sources are all part of our service.

Send for our new illustrated catalog.

Welsbach Lighting Products Company, Inc.
3001 E. Madison Street
Baltimore, Md. 21205

Agent Inquiries Invited. Territories Available.

Products continued from page 124

Porcelain panels. Brochure details Vitriform 90, a new porcelain-on-steel building material that can be formed with the porcelain already on it at angles up to 90 degrees without spalling, chipping or crazing. It can be used without moldings. Brochure states product is competitive in price with other partition and wall coverings and can be used with any type of wall system. AllianceWall Corp.
Circle 115 on reader service card

Long-life lamps. Designed to reduce ceiling maintenance and replacement costs, these long-burning lamps are for use in large ceiling areas where lighting is more for effect than for function. Available in either 25 or 75 w., they are said to approximate light output of standard 15 and 75 w. incandescent bulbs. Integrated Ceilings Inc.
Circle 116 on reader service card

Literature

Timber. Redwood and plywood sidings are illustrated in an eight-page brochure. Pattern illustrations with panel characteristics and other technical data are shown. One section features Ruf-Sawn 316, a textured woodgrain medium density overlay plywood siding. Simpson Timber Co.
Circle 117 on reader service card

Glass. Brochure includes a selection guide to performance and appearance characteristics of clear, tinted and reflective glass in single and double glazing, ceramic-coated and reflective spandrel glass. Separate sections are devoted to integrated system of doors, stiles and rails and safety glass doors. PPG Industries, Inc.
Circle 118 on reader service card

Skylights, translucent walls. One brochure shows ways translucent panel system can be used as skylights and skyr- roofs, provides technical data, detail drawings and specs. A second gives design details and specs for both the translucent wall system and the Panel-Unit Wall System. Kalwall Corporation.
Circle 119 on reader service card

Expansion joint seals, covers. Details, tables and engineering data in this 24-page brochure give the architect and engineer a system approach to expansion joint selection. Construction Specialties, Inc.
Circle 120 on reader service card

Washroom equipment. An actual installation of recessed stainless steel equipment and laminated plastic toilet compartments are shown in 1973 catalog. Updated guide specifications and a complete list of units that conform to U.S. government specifications are also given. One section is devoted to stainless steel equipment for hospitals, nursing homes and other medical facilities. A four-page numerical product index is available as a supplement to the catalog. Bobrick Washroom Equipment Co.
Circle 121 on reader service card

[continued on page 133]
Collectors Choice
From the Contract Carpet Pros

What every commercial interior designer should know: Gulistan® Carpet offers seven different carpet patterns especially engineered to take heavy duty wear. Design your own color combination from a group of 42 yarn colors. All in anti-static, Zefran® Blend CR-4 from Dow Badische. For an appointment to choose your specific needs, contact Ed Cassinelli, Contract Manager, at (212) 575-2298.

GULISTAN® CARPETs
by
J.P. Stevens
Do you have a building design that helps conserve our nation's fuel?

Show our Awards Jury a building design that helps conserve energy—and you could win one of the Energy Conservation Awards Owens-Corning will present this year.

The Awards Jury will be looking for three things: Creativity. Originality. And most important—*designs that save energy.*

Too many buildings waste fuel and contribute to environmental pollution.

By offering Energy Conservation Awards, Owens-Corning hopes to stimulate new ways to conserve energy. It also lets us honor the architects and engineers who do the best job of designing buildings and mechanical systems that conserve fuel.

**Who can enter.**

Any registered architect or professional engineer practicing in the U.S. is eligible. As an individual. Or in a team. But to qualify, your entry must be a commissioned building project—in the design.

---

The Owens-Corning 1973 Energy Conservation Award: “Triangles,” a Steuben Crystal sculpture that captures and reflects light from multiple triangular planes.

*T.M. Reg. O.-C. F.*
process, under construction, or a completed structure.

Although Fiberglas\* products are an excellent way to conserve energy, their use is not a requirement.

Four entry categories.

A winner will be selected in each of these categories:
- Institutional—schools and hospitals, for example.
- Commercial—office buildings, shopping centers, retail stores, and similar structures.
- Industrial—including manufacturing plants, research centers, warehouses.
- Governmental—post offices, administrative buildings, and military structures to name a few.

The Awards.

Winning architects and/or engineers will receive the Steuben Crystal sculpture "Triangles." Owners or clients associated with winning entries will receive other Steuben Crystal awards.

Send for entry details now.

Completed entries must be submitted by August 31, 1973. Winners will be selected in September and notified in early October.

For a brochure giving complete details, contact your local Owens-Corning representative. Or write H. M. Meeks, Owens-Corning Fiberglas Corporation, Fiberglas Tower, Toledo, Ohio 43659.

---

The distinguished Awards Jury.

Winners will be selected by:

Walter A. Maissen, Assistant Commissioner Public Buildings Service, General Service Administration, Washington, D.C.

James E. Wheeler, President, Wheeler and Stefoniak, Inc., Dallas.

Ronald E. Aspgren, Chief Corporate Architect, Montgomery Ward, Chicago.

Robert B. Hollister, Vice President, Turner Construction Co., Cincinnati.

Professor Gifford Albright, Dept. of Architectural Engineering, Pennsylvania State University.


Frank M. Lebman, President, Synergo Co., Philadelphia.
A beautiful way to end paint failure.

Paint puts a film over wood. With time, it can crack, peel or blister. When you stain with Olympic, the finish goes into the wood. Lets it breathe. Never cracks, peels or blisters—brings out wood's texture instead of smothering it. If your home is painted, you may still be able to refinish with Olympic Solid Color Stain. They're so rich in pigment, you can stain light over dark.

For your dealer's name call 800-242-6000, toll-free. In Connecticut dial 1-800-882-8500. For a free color folder, write 1148 NW Leary Way, Seattle, Wa. 98107. Olympic Stain. A division of COMERCO, INC.
Lighting with plastics. First of a series, publication covers plastics commonly used in lighting: acrylic, polystyrene, vinyl, polyethylene, polycarbonate, butyrate and impact acrylic. Each is analyzed for its use in lighting and its optical and physical characteristics. Subscription is free to all who design or specify lighting. Plaskolite Inc.

Lighting poles. Octagonal and round poles of spun prestressed hollow concrete described in brochure are available in lengths from 13 to 49 ft, in plain or colored concrete or terrazzo finishes. Said to be maintenance-free, they are suitable for street, park and area lighting. Centrecon, Inc.

Insulating concrete. Booklet details lightweight insulating concrete for roof-deck applications. It contains a density selection guide, physical properties data as well as information on its use over steel form units, structural or precast concrete roof slabs and form boards. Perlite Institute, Inc.

Diaphragm design. Guide for diaphragm design including load tables is available in a 26-page booklet. Also available is the 1973 edition of Steel Roof Deck Design Manual which shows fire resistance ratings obtainable with steel roof decking. Includes detail drawings of sump pans and other accessories and contains revised basic Design Specifications. Steel Deck Institute.

Masonry reinforcing. Guide is a handy tool for architects and engineers. A complete line of wire masonry wall reinforcing is described with detailed specifications. Correct reinforcing is illustrated for all types of masonry walls. Complete information on sizes, finishes and packaging is included. AA Wire

Permasnap coping. A gutter/chair system consisting of a perforated cleat, a molded styrene chair, heavy gauge .063 coping in 10-ft length is described in 1973 catalog. A special adhesive bonds the cleat to the parapet eliminating costly imbedded anchor bolts. System withstands wind uplift of 60 lbs per sq ft. No nails, screws or other fasteners are required; coping snaps onto the cleat. W.P. Hickman Co.

Sovent drainage system. A 12-page brochure contains information on design features, typical costs and cost savings, applications and how and where to order. This system uses a design concept that permits drainage installation without separate venting stacks. Said to offer advantages such as space-saving design, nonclogging, quieter operation, and use of lightweight corrosion-resistant material over traditional two-pipe installations to mechanical engineers, contractors, architects, building and plumbing officials, building owners. Phelps Dodge Industries, Inc.

Tamper-proof hinges that hide

Soss Invisible Hinges can't be seen or tampered with when a door is closed. Hinge bodies are mortised into the door and jamb to discourage any intruder. Specify Soss invisibility for beauty and security. Our new catalog includes application and installation ideas on all 20 models. Look for it in Sweet's, or write to Soss Mfg. Co., Div. of SOS Consolidated Inc., P. O. Box 8200, Detroit, Mich. 48213.

Circle No. 368, on Reader Service Card

Circle No. 368, on Reader Service Card
Recent titles


This thoroughly beautiful, large book of extraordinary color and black and white photographs documents surviving Christian churches and chapels built during the Moslem occupation of Spain, which began with the conquest in 711 A.D. Although many Christians retained their faith, they were assimilated into the Moslem culture and given the name Mozarab, which meant Arabized, by their conquerors. While this Mozarabic culture created by Hispano-Gothic Christians existed under varying conditions in different geographical regions for four centuries, it achieved a well-defined character that was clearly differentiated from the Visigothic and Romanesque style of art and architecture.

In this book the author examines ground plans, structural elements and uses of materials characteristic of Mozarabic architecture, and he discusses its wide influence over the entire Iberian peninsula and beyond the Pyrenees.

The book is printed in four languages, and the English translation, unfortunately, reads like a translation. The sections dealing with the historical and cultural context of this architecture of an embattled period of Christianity could be clearer. In fact, if you want to get the most out of what is otherwise a most interesting, and certainly beautiful book, it might be wise to brush up on your Spanish history first.


This graphic history of the origin and development of the computer begins with the tabulating and sorting devices used in the 1890 U.S. census and culminates in the intricacies of the modern, problem-solving computer. A continuing pictorial display, the book's decade-by-decade format is illustrated with photographs and drawings of inventions, documents, memorabilia and artifacts collected from around the world. The book, which was inspired by the Eameses' show A Computer Perspective which has run at the IBM Exhibit Center in New York City since 1971, presents a different and most human perspective for the history of the computer.


Lost London, like Lost New York of a few years ago, is an awfully hard book to look at for anyone who loves the riches of old buildings and old places. It's sad to look at hundreds of photographs of things gone and realize that in each case a way of life has disappeared with them. Some of the buildings shown in this volume were damaged beyond repair during World War II, but most have been demolished stone by stone in the name of "progress."

Buildings are conveniently divided into building-type groups, which makes it easy to find things like the 22 demolished Wren churches. And the recent demolition of the Euston Arch, the Coal Exchange and Carlton Mews bring a sense of immediacy to this catalog of destruction, which ends with a depressing array of threatened buildings: St. Pancras and King's Cross Stations, Holy Trinity, Albert Bridge and others. The volume is abundantly illustrated, but that doesn't make it a good coffee-table book. It isn't. And it would be even worse bedtime reading.


This book is especially welcome in view of the increasing growth of interest in the performing arts. It brings together an enormous amount of information, not only on the design of performance and auditorium spaces and their ancillaries, but also on such matters as acoustics, sight lines, heating and ventilating and the comparative economics of various design solutions. It stresses that theater design should not only be technologically up-to-date, but that it should also be alive to the numerous changes that have occurred in the way performances are staged.


[continued on page 140]
Efficient building idea: Recent report tells how to solve the acoustical problems of open offices.

Tests by an independent acoustical testing agency show you can get excellent open office acoustics by using these three things (with the help of an acoustical consultant):

1) An acoustically non-reflective ceiling—so the sound won’t bounce off to other areas.
2) Sound-controlling screens—to stop sound from going directly from one area to another.
3) A masking sound system—so personal conversations can be held in a normal voice without being overheard.

Of all the ceilings tested for Owens-Corning Fiberglas—including expensive coffered and baffled systems—the best was Owens-Corning’s Nubby II Fiberglas* Ceiling Board in a standard grid suspension system.

If you’d like the whole story, send for our free design guide, “Achieving Acoustical Privacy in the Open Office.”

Write to Mr. P. I. Meeks, Owens-Corning Fiberglas Corp., Fiberglas Tower, Toledo, Ohio 43659.

Energy Conservation Award. Owens-Corning is offering awards to stimulate new designs and ideas for conserving energy. See our advertisement in this magazine for details.

Owens-Corning is Fiberglas
Anywhere you'd like the texture of stone or aggregate, you can put EPOXI/MATE over Woodrock. Full facade. Interior paneling. Overhead panels. Even 'gardens' of color and texture.

And one of the reasons to design with stone is the price of Woodrock plus EPOXI/MATE.

You start with Woodrock, National Gypsum's substrate panel, a natural base for any aggregate. Properly applied, Woodrock holds its size; won't check, crack or delaminate even under severe weather conditions.

Over the Woodrock goes the coating of EPOXI/MATE. Waterproof and chemical resistant, EPOXI/MATE becomes an integral part of the substrate. And because it's available in a variety of colors, it blends with any choice of stone.

And your choice of stone can range from colored hard marble, to quartz chips to crushed granite. There's even a special EPOXI/MATE formulation available for aggregate as big as your fist. And another that's self-leveling for horizontal application in the shop.

Try Woodrock with EPOXI/MATE. And see what a little constructive thinking can do.

Your Gold Bond man can give you more constructive suggestions about EPOXI/MATE. Or write Gold Bond Building Products Division, National Gypsum Division, Dept. PA-53MF, Buffalo, New York 14225.

The WOODROCK-EPOXI/MATE System weighs only a fraction as much as pre-cast concrete. It goes on curved, angular or flat surfaces. Even soffit areas. Won't pit, peel or spall. Holds its color and stays virtually maintenance-free.

To prepare EPOXI-MATE for application, the hardener (catalyst) is poured into the resin container.

After resin and hardener are mixed, sand is blended into the mixture which is trowelled onto unprimed Woodrock substrate.

Aggregate can be hand-seeded in the field or mechanically applied in the shop.
the 'M' chair

Scope Furniture Inc.
407 West 13th Street
New York, New York 10014
Tel. 212 243-0488
Exclusive Nevamar woven dimensionals.

New ...and improved.

The new is Mini-Weave. The improved is Natural Cane, Nevamar's original woven dimensional with finish and detail made even more realistic. What a bold, dramatic departure they are. With the look of cane, the color of cane... with deep weaves you can feel. Yet both meet or exceed all N.E.M.A. standards for high-pressure plastic laminates. Call on the toll-free Nevamar HOT LINE for samples: 800-638-4380. Or write: Nevamar Division, Exxon Chemical Company U.S.A., Odenton, Maryland 21113. Mini-Weave. Natural Cane. Two more of the uncommon dimensional collection that makes Nevamar the leader... the uncommon plastic laminate.

EXXON CHEMICAL COMPANY U.S.A.
Odenton, Maryland 21113
Some current examples of

LOAD BEARING
CONCRETE MASONRY
HIGH RISE STRUCTURES

Featuring fast low cost construction and early return on investment

Connecticut
Trade Union Plaza
77 Unit/9 Building Low Income Housing Project
New Haven, Connecticut
Structural Cost: $3.42 P.S.F.
(including "In-Block" bearing walls, roof and floor slabs, footings, foundation and beams).

Florida
The Royale Riviera/7-story apartments
Vero Beach, Florida
Structural Cost: $1.73 P.S.F.
(not including foundation cost).

Minnesota
Clamor Manor/4-story apartment
Structural Cost: $3.00 S.F.
(Includes appliances, carpet, loan costs and overhead)

Ohio
Kent Way, Kent, Ohio/7-story apartment
Structural Cost: $5.45 S.F.
(Includes: concrete, masonry, steel, general requirements, profit).

Need more evidence? Just send this coupon for a free brochure and information on our computer feasibility study for load-bearing high-rise structures.

Books continued from page 134

Because the continuing development of new materials, techniques and methods of construction increases the number of possible solutions to any architectural problem, there is always something fresh to be learned about detailing. In this fifth volume of the successful series, four main sections are devoted to building details, consistency in detailing, details of outdoor installations and inside detailing. Numerous examples are given from countries as far apart as Japan, Australia, Britain and the United States.


Plastic theory, which is used as the basis of design for the majority of single-story rigid frames, is being increasingly applied to multistory frames. An important feature of the theory is the extent to which intuitive ideas of structural behavior can be used to solve problems. In this text the author explains the principles of the intuitive approach and backs up his method by formal statements and proofs of theorems. Relevant problems are given at the end of each chapter, and answers are provided at the end of the book.


For those who like their architectural history specialized, there is John Linley’s Architecture of Middle Georgia: The Oconee Area. It covers, in words and pictures (all of them well chosen) the surprisingly diverse architectural heritage of seven Georgia counties surrounding Milledgeville, the state’s Civil War capital.

The historical and architectural documentation is there, as might be expected of an associate professor of architecture at the University of Georgia, and the book should be of interest to old building buffs anywhere, even though it deals with such a localized topic.


New Orleans, a city that intrigues just about everybody, is being celebrated ar-[continued on page 146]
When you build with a modern loadbearing masonry system, you can save as much as 10% on construction costs.

Because masonry lets you save on the two biggest expenses of building: Time and materials.

Instead of building separate structural systems and enclosure walls, you can have them both in one step. Masonry walls work together with roof and floor systems to create one solid structural shell. Complete with enclosure walls and inside partitions. And you can begin finish work on each floor as soon as the masons begin erecting the floor above it. So your building is finished faster. And you can stop paying interim interest and start charging rent.

You save on maintenance costs too. Because masonry doesn't warp, dent, bend, buckle or rot. It gives superior fireproofing and sound control. And with its inherent beauty, it never needs painting.

When you add all these savings up, you can save enough money to add that eleventh story. If that sounds like an interesting prospect to you, mail this coupon. We'll send you the complete story.

International Masonry Institute
Suite 1001 823 15th Street, N. W.
Washington, D. C. 20005

Send me information on the modern loadbearing masonry building system.

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>Company</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

City State Zip

Nature of Business

Circle No. 354, on Reader Service Card
our
cover
story is
even
better
this year...
Nothing mysterious about it, really. Now you have a choice of 222 standard Milcor access doors, roof hatches, skylights, heat & smoke vents, floor doors and sidewalk doors—up 23 from our last report.

We've made improvements, too. Added automatic closers on our fire rated access doors. Increased the light penetration area of our skylights. Moved the springs on our popular 3' x 2'6" roof hatch so the opening is completely clear. And according to intelligence dispatches, other new developments are in the works. Milcor standard units come in such a wide range of sizes that they'll cover almost any rectangular opening you might have. Most are readily available from a stocking point near you. (On the off chance that none of the 222 meet your needs, our long experience in designing special units may accomplish your mission.)

For a dossier on Milcor access doors, see Sweet's 8.12/InL or write for Catalog 33-1. Milcor roof hatches and floor doors are in Sweet's 7.7/InL, or Catalog 34-1. Your contact is: Milcor Division, Inland-Ryerson Construction Products Co., E4069 West Burnham St., Milwaukee, Wis. 53201.
When your building project calls for sprinklers...

You can save important time and energy by putting to work the experience, professional training and helpful cooperation of your local VIKING team.

These men are qualified experts in the technology of sprinkler protection against fire. They're equipped to work with both the architect and the contractor, to help design and then install the most efficient sprinkler system your budget will permit.

Equally important, your Viking team employs Viking-made equipment and hardware throughout, to assure you the finest fire-protection system obtainable.

Your local VIKING team can make the next step easier for you

Write for this helpful 32-page book "Viking Sprinkler System Guide". It's packed with information every building owner, architect and contractor should have.

Call the Viking Sales Department for immediate information. (616) 945-9501.
The Mansards, Griffith, Indiana

"The whole idea of "The Mansards" is to provide gracious living accommodations in a natural setting of trees and water. The convenience of city living is combined with the graciousness of country living here. We have put top quality into "The Mansards" and that extends to our coin-operated laundry equipment. We chose Speed Queen for one simple over-riding reason—it's the best we could get."

Duane J. Hicks, Jr., General Manager

Lake Point Tower, Chicago, Illinois

"Lake Point Tower represents a new kind of urban life—a completely self-contained city at the edge of Lake Michigan. We appeal to individuals and families of middle and upper income. They expect and get the best at Lake Point Tower. That's why we chose Speed Queen equipment for our laundry facility. Speed Queen represents quality which will be on the job—not out of order. And I understand the Stainless Steel feature is a real plus when laundering durable press fabrics."

Robert E. DeCelles, Building Manager

"We chose Speed Queen laundry equipment for one simple reason—it's the best we could get."

Let SPEED QUEEN and your SPEED QUEEN COMMERCIAL ROUTE OPERATOR help you plan coin-operated laundry facilities

SPEED QUEEN®
Ripon, Wisconsin 54971

a McGraw-Edison Company Division

Mr. E. W. Jess,
Manager, Commercial Department
Speed Queen, Ripon, Wisconsin 54971

Gene, please forward your laundry room design brochure.

☐ Please send me name of the Speed Queen Route Operator nearest me.

☐ I would like a Speed Queen representative to call.

Name and title ____________________

Firm name _____________________

Address----------------------

City ____________ State _____

Zip: __________________
Books continued from page 140

architecturally in a five-volume series of books. Volume I, which came out two years ago, covered the Lower Garden District; Volume II focuses on the American Sector, which is now the city’s central business district.

There is a good amount of history, there is a good map, and there is an extensive architectural inventory of the area. Material for the book was drawn from the New Orleans Notarial Archives, and the book is intended as a handbook for restoration and renovation.

The entire series, when complete, will likely be the most extensive architectural survey of any American city, and the Friends of the Cabildo, a New Orleans preservation organization, deserves extensive praise for compiling it.

Documents
(The documents listed below are available from the associations and agencies cited. Request for such documents should be directed accordingly.)

New Patterns: Transportation Options for Model City Residents. A technical assistance report prepared for the Minneapolis Model City program. Minneapolis Planning and Development Dept., 501 City Hall, Minneapolis, Minn. 55415. 126 pp. $5.

This report offers comprehensive planning guidelines for model cities, with the major emphasis on developing immediate transportation improvements within and outside of the area in order to provide employment opportunities.

Transportation problems in the Minneapolis Model City area cover a wide range with the lack of an adequate public transit system probably the most important. New patterns suggested to improve the quality of life for model city residents include land use and economic, living, environmental and transportation factors.


A comprehensive reference guide to the architectural use of marble, this manual incorporates material from three Marble Institute of America’s books: “Marble Engineering Handbook,” “Interior Specifications” and “Exterior Specifications.” There are 18 product use sections which include details, guide specifications, CSI spec data sheets and a glossary of terms.

DOORWAY NOTES...
HERE TALL, GLAZED, EXTERIOR DOORS ARE CONTROLLED BY LCN 4110 SERIES SMOOTHEE® HEAVY DUTY DOOR CLOSERS.
FULL HYDRAULIC CONTROL OF OPENING AND CLOSING SWINGS.
PERFORMANCE UNDER HEAVY TRAFFIC, WIND AND WEATHER.
ADJUSTABLE SPRING POWER AND OPTIONAL HOLD-OPEN ARM.
LCN AFFORDS THE WIDEST CHOICE OF CLOSERS. CATALOG ON REQUEST. SWEET’S, SEC 8.

LCN CLOSERS, Princeton, Illinois 61356

Circle No. 361, on Reader Service Card
ZONOLITE® Masonry Fill Insulation, poured into cores or cavities of masonry walls, usually reduces heat loss by 50%—and more in some cases.

To the owner, this means his insulation cost is paid back to him in two or three years. Then savings continue year after year. A fact that should be of importance to every specifier or builder.

Heating and cooling savings are impressive in every area. Example:

<table>
<thead>
<tr>
<th>City</th>
<th>Combined Heating/ Cooling Savings*</th>
<th>Installed Cost of Insulation</th>
<th>Average Annual Return on Insulation Investment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chicago</td>
<td>$6400</td>
<td>1700</td>
<td>38%</td>
</tr>
<tr>
<td>Atlanta</td>
<td>$5300</td>
<td>1700</td>
<td>21%</td>
</tr>
<tr>
<td>N.Y.</td>
<td>$8150</td>
<td>1700</td>
<td>48%</td>
</tr>
<tr>
<td>Phila.</td>
<td>$6450</td>
<td>1700</td>
<td>38%</td>
</tr>
<tr>
<td>Denver</td>
<td>$5400</td>
<td>1700</td>
<td>32%</td>
</tr>
</tbody>
</table>

The new FHA standards for multi-family housing require masonry walls to have a heat loss factor ("U" value) no higher than .17. ZONOLITE Masonry Fill is the most economical way to bring block walls into conformance—as low as 17 cents per square foot installed, for 8" block.

In addition to cost savings, consider these important features:

- **Improves comfort**—Inside wall temperatures are increased up to 13°F. in winter. Body-to-wall radiant heat loss is reduced. Greater comfort results. Summer conditions are improved, too.

- **Increases fire resistance**—Adding ZONOLITE Masonry Fill to a 2-hour fire-rated lightweight block gives more than four hours extra protection—earns 4-hour UL rating.

- **Cuts sound transmission**—Users report that Masonry Fill in exterior or party walls improves the sound resistance.

Beautiful, tough, lasting DURCON® worktops... now in lightweight half-inch thickness!

Durability now costs less than ever before, with the introduction of lightweight, half-inch DURCON laboratory service tops.

The outstanding toughness, chemical resistance, and heat-and-shock resistance of DURCON modified epoxy material have been proven through years of actual service. In standard one-inch-thick form, DURCON work surfaces have withstood the action of boiling corrosives, the direct heat from overturned burners, and the impact of falling objects, with no deleterious effect.

Now, the thinner but equally durable half-inch form of DURCON offers the same degree of lasting serviceability, at substantially reduced cost.

In designing facilities or specifying materials for laboratory service, consider the outstanding combination of appearance, durability and cost factors that DURCON worktops offer. To get the full facts, write.

THE DURIRON COMPANY, INC., DAYTON, OHIO 45401
INTRODUCING
GAFSTAT.

GAF's better way to make carpet completely shock-free.

Built-in shockproofing without wires.

Until now there were only two ways to make an anti-static carpet. With a non-conductive coating. Or with wire core fibers. A non-conductive coating wears out quickly. Wires affect carpet beauty and limit your choice of fabrics and patterns. GAFSTAT® from GAF eliminates these problems because it is a totally new way to make anti-static carpeting.

Here's how we do it.

The conductive GAFSTAT component is sealed between the backing layers of the carpet. So it can’t be washed or cleaned out. And because no wires are used the fibers are untouched. So you can specify any pattern and color you like. Carpet with GAFSTAT is the first anti-static carpet that's truly satisfactory for residential use.

In addition to this, its ability to disperse static-electricity below shock levels has been confirmed by independent laboratories using the American Association of Textile Chemists and Colorists static test methods. Even under extremely dry conditions.

GAFSTAT – for their own good.

Aside from discomfort, there are other good reasons for specifying carpeting with GAFSTAT anti-static component. Static electricity can cause malfunction of delicate electronic instruments. Imagine the dangers in a hospital. And a build-up of static electricity can cause fire or explosion. So when your clients ask for anti-static carpeting specify GAFSTAT. Because the facts speak for themselves.

GAFSTAT A better way to end carpet static.

Carpet with G A F GAFSTAT is available from:

Eagle Carpets, Inc.  Sikes Corporation  Wellico Carpet Corp.
Williams-East, Inc.  Wunda Weve Carpets
coming in June:  
20 years of Design Awards

For two decades, the P/A Design Awards Program has been showing where architecture is heading – before it gets there. Over the years, some of the winning designs have seemed far-out, yet a respectable 75 percent have been constructed in their award-winning form. And the wisdom of over 100 distinguished jurors has been confirmed as the far-out has become the accepted – in terms of design and in the sphere of architectural practice. In June, P/A will bring you a fascinating review of these years, of the awards program, and of its impact on American Architecture.

A Time Line by the editors will plot changes in winning entries and jury criteria against other developments since the Eisenhower era.

Wolf Von Eckardt, award-winning critic of the Washington Post, will provide a penetrating commentary on the program as both a reflection of changing standards and an active influence on them. Other well-known contributors will initiate a new series of Follow-Up studies with current, in-use evaluations of several landmark P/A winners: SOM's Manufacturer's Trust bank, Ernest Kump's Foothill College, I.M. Pei's Society Hill Towers, Eliot Noyes' own house, Carl Koch's systems housing.

Several recent P/A winners will be shown in completed form, with thoughtful analyses of their place at the cutting edge of architecture. Winners on the way up and completed projects recently updated will be covered in News Report. Even the Specifications column will take up these 20 years of crucial change in architecture and building.

The whole issue will be a revealing record of where we have just been – with indications about where we are now heading. It will give you a lot to think about. You'll want to keep it a long time.

coming in July:  
Cost Data, Interior Design, and a P/A Profile

In this issue, P/A introduces a system for analyzing and maintaining Building Cost Information, in a form usable for architects in the crucial early stages of design. An introduction to methods of extracting and recycling cost information, by renowned quantity surveyors Hanscomb Roy Associates, will be followed by their first in a four-times-a-year series of analyses of individual buildings. This first example, an exceptional high school in Missouri by Hoffmann/Saur & Associates, Architects, will be covered in detail as a fine work of architecture and interior design, as well as a lesson in cost analysis.

Another innovative series beginning in this issue will analyze important Interior Design problems, by type. The first subject to be taken up will be furniture and furnishings for open office planning - with both analyses of existing systems and forecasting of hypothetical systems to meet imminent changes in business practices and equipment.

July's installment in our established series of P/A Profiles will look into the office of Arthur Cotton Moore, an architect noted for initiating imaginative planning-with-preservation projects in that most bureaucratic of cities, Washington, D.C. Along with insights into Moore's thoughts and methods, the article will show some of his encouraging schemes for such diverse situations as a block in Brooklyn's Bedford-Stuyvesant area and the old Post Office in Washington's Federal Triangle.
Haws HWC-6 water cooler is designed for persons in wheelchairs. It extends out from the wall and is mounted at a convenient height from the floor so that a person can easily wheel up to it. A compound-action bubbler valve actuates the cooler from a push on the side or top, making it easy to operate by handicapped persons.

Model HWC-6 helps you comply with public law 90-480 which states that buildings constructed, leased, or financed by the federal government must provide facilities suitable for use by the physically handicapped.

Available in stainless steel at extra cost. Dual height water cooler fountains also available. Write for detailed information.


Appointments
Tidio Piirimae and Gerald I. Schiff have been named associates of Harrison & Abramovitz, New York City.

The following have been appointed associates in the firm of Dalton Dalton Little Newport, Cleveland, Ohio: Les M. Bolstad, John C. Cass, Joseph K. Ferenczy, Krishan K. Saigal, William R. Gauch, Vernon Kauflman, John E. Storm, Herbert C. Steffensen and James L. Swartz.

Lee Rogers Kirk has been named senior associate of Haines Lundberg & Waehler, New York City. Harry E. Christian has been appointed an associate.

Leonard S. Notkin, AIA and Allison P. Goodwin were appointed senior associates of The Architects Collaborative Inc., Cambridge, Mass. Robert deWolfe, Basli Hassan, Edward Malick, John Scott, Kenneth Taylor and Robert Wilson have been named associates.

Frederick R. Shenk—Lee V. Seibert—Architects is now Shenk Seibert Smithgall Architects, Wyomissing, Pa., with the appointment of James J. Smithgall, AIA as partner.

Murray Sput, AIA has been named a partner of Nikita Zukov & Partners, Architects, New York City.

Norman S. Baier, AIA has been appointed a partner in Galliher & Schoenhartd, Simsbury, Conn.

E. Stuart Baxter, AIA has been named an associate of Carlin, Pozzi & Associates, Architects, New Haven, Conn.

Merrill M. Bush, PE was elected to the board of directors of Smith, Hinchman & Grylls Associates Inc., Detroit.

Richard B. Lenchus has been appointed vice president of Environmental Research & Development Inc., New York City and Beverly Hills, Calif.

[continued on page 158]
Roof gardens that are gentle on the roof.

You can now reduce the weight of planter mix at least 60%. Because instead of soil, you can specify a mixture of Permalite horticultural perlite and peat moss. The difference? Soil fully watered weighs as much as 100 to 125 pounds per cubic foot. Permalite horticultural perlite and peat moss well wetted with water weigh a mere 40 pounds.

And the end result is better. Consider the fact that 12 inches of soil add 100 pounds or more per square foot to the roof load, and that small trees usually require a depth of three feet of soil or planter mix. That's why lightweight perlite-peat moss mixes are so ideally suited for rooftop planting. And you can reduce weight even more by specifying that planters themselves be constructed of Permalite perlite aggregate concrete! Preformed fiberglass planters may also be used to save weight.

Permalite perlite aggregates can provide lightweight solutions to many weighty problems: from slope-to-drain roof decks, fire-rated curtain walls, fireproof plaster for walls and ceilings to fire-rated masonry fill. Write for Roof Garden data sheet and Permalite technical bulletin.

PERMALITE®
Horticultural Perlite
THINK OF IT AS A WEIGHT SAVER!

GREFCO, Inc./Building Products Division
3450 Wilshire Blvd., Los Angeles, CA. 90010

Permalite
—the world's leading perlite.

Circle No. 414, on Reader Service Card
Special introductory offer to new members of the
ARCHITECTS’ BOOK CLUB

ANY ONE
of these great professional books
for $1.00
only
VALUES FROM $8.95 TO $29.75

SAVE TIME AND MONEY
BY JOINING McGRAW-HILL’S NEW
ARCHITECTS’ BOOK CLUB

This new professional club is designed to meet your day-to-day needs by providing practical books in your field on a regular basis at below publisher prices. If you’re missing out on important technical literature—if today’s high cost of reading curbs the growth of your library—here’s the solution to your problem.

The Architects’ Book Club was organized for you, to provide an economical reading program that cannot fail to be of value. Administered by the McGraw-Hill Book Company, all books are chosen by qualified editors and consultants. Their understanding of the standards and values of the literature in your field guarantees the appropriateness of the selections.

How the Club operates: Every month you receive free of charge The Architects’ Book Club Bulletin. This announces and describes the Club’s featured book of the month as well as alternate selections available at special members’ prices. If you want to examine the Club’s feature of the month, you do nothing. If you prefer one of the alternate selections—or if you want no book at all—you notify the Club by returning the card enclosed with each Bulletin.

As a Club Member, you agree only to the purchase of four books (including your first selection) over a two-year period. Considering the many books published annually, there will surely be at least four you would want to own anyway. By joining the club, you save both money and the trouble of searching for the best books.

MAIL ATTACHED POSTPAID CARD
(IF card removed, send coupon below)

ARCHITECTS’ BOOK CLUB
1221 Avenue of the Americas, New York, N.Y. 10020
Please enroll me as a member of the Architects’ Book Club and send me the two books indicated below. I am to receive the higher priced of the two for just $1, and my first selection at the special Club price. These books are to be shipped on approval, and I may return them both without cost or further obligation. If I decide to keep the books, I agree to purchase as few as four additional books (including this first selection) during the next two years at special Club prices (minimum: 15% discount, often more).

Write Code # of higher priced selection here
Write Code # of lower priced selection here

NAME __________________________
ADDRESS ________________________
CITY ____________________________
STATE __________ ZIP ____________

A36112
New from the dependability people

Multi-load

Maytag

DIAL-A-FABRIC

Gas Dryers

Now your customers can set a scientifically programmed cycle for practically any fabric.

Built rugged to keep working for you, keep making money for you.

Backed by prompt, dependable Maytag service.

Multi-load Maytag DIAL-A-FABRIC Dryers
2. Dual coin control. Uses 25¢ or 10¢ or both. 25¢ gives triple time of 10¢.
6. AGA design certified for safety, durability and performance.
CALL FOR ENTRIES

2ND Mobile Home Design Competition sponsored by Reynolds Metals Company.

First Prize—$7,500.

An awards program that gives designers the opportunity to test their inventiveness and originality in the exciting field of mobile homes. And there are some healthy rewards. There's a $7,500 first prize and many other cash prizes.

All winners will be displayed at the 1973 All-Industry Suppliers Show in September.

The competition is open to architects and architectural firms, industrial designers and design firms and students in accredited architecture or design schools.

Entries should concentrate on designs of low-income, single-family units that can be mass produced and transported to the site. All entries must be postmarked on or before August 1, 1973...so mail the coupon today for complete details and contest registration forms.

REYNOLDS ALUMINUM TRANSFERENT PRODUCTS

Mobile Home Design Competition
Reynolds Metals Company
P.O. Box 27003 Dept. PR
Richmond, Virginia 23261

Please send me all the information on the 2nd Reynolds Mobile Home Design Competition.

Name______________________________
Firm or School________________________
Address_____________________________
City________________ State________ Zip__

James T. Lile and Irving J. Maitin have been appointed partners of Ewing Cole Erdman & Eubank, Philadelphia. Stuart R. Guba and Joseph G. Klemmay have been named associates of the firm.

Richard J. Dimit, AIA has been named president and chief executive officer of Adrian Wilson Associates, Los Angeles. He succeeds Adrian Wilson, FAIA who is retiring as president and chairman of the board.

Joanne Horgan has been named an associate of Johnson Hotvedt & Associates, Inc., Boston, Mass.

Otho E. Craft, Jr., has been appointed an associate of Wiley & Wilson, Inc., Lynchburg, Richmond and Virginia Beach, Va.

John L. Graham, III and George K. Miles have been named partners of George, Miles & Buhr, Salisbury, Md.

Robert M. Suckling has been admitted as a partner in the firm of Campbell, Rea, Hayes & Large, Altoona and Johnstown, Pa.

Kilroe P. Ferretti, Eugene Chorny, PE, and Eliezer Dubinsky, PE, have been named associates of Farkas, Barron & Partners, New York City.

Ralph Leon, PE, has been appointed electrical department head of the industrial division of Diaz, Seckinger & Associates, Inc., Tampa, Fla.

Anne Overlin, NSID, has been named senior associate and director for interior design of MeLeod Ferrara Ensign, chartered architects, Washington, D.C. E. Kenneth Jaquith, Jr., Nelson Spoto and Joseph Tarrody have been appointed senior associates, and Brian W. Henning, John E. Moyer and A. John Shimek have been named associates of the firm.

Burt J. Saymon has joined Bertram S. Warshaw & Associates, Miami, Fla., as vice president in charge of mechanical, electrical and sanitary engineering.

Thor H. Andersen, Alexander Busch, Fred L. Elsasser and Murray Feldman have been appointed associates of Weiskopf & Pickworth, consulting engineers, New York City, San Francisco and White Plains, N.Y.

Donald C. Brockman, PE, has been named assistant manager of the industrial department and James H. Jones has been named project manager for Ellis/Naeyaert Associates, Inc., Detroit.

Edward C. Jackson has been named vice president and Beusse Whitworth, Jr., has been appointed project director of Stevens & Wilkinson, Architects Engineers Planners, Inc., Atlanta, Ga.

...and how they're HANDLED THE T&S WAY

To further assure rugged and safe service life, the T & S line of Laboratory Fittings are now available with the all NEW VIKING Handles. Produced of LEXAN*, an indestructable polycarbonate resin which is imperious to most chemicals, they are exceptionally strong, low heat conductors, and can be color coded for quick service identification. VIKING Handles discourage vandalization yet allow for normal maintenance. The working parts of all LAB-FLO Fittings are self-contained in the ETERNA cartridge and can easily be removed — handles and all — and just as easily reinserted. The addition of VIKING Handles to the LAB-FLO Line is just one more step in the continuing T & S improvement program to meet the severe demands of Laboratory use...another good reason for specifying LAB-FLO.

*TM of General Electric Co.
If you're doing a school job, you can create your own specifications for the carpet you want. And we can make it for you.

However, Bigelow has another practical suggestion: specify carpeting that has already proven it can take the hard use (not to mention abuse) youngsters deal out. Carpet that has repeatedly demonstrated it can take a beating year after year after year.

Bigelow has that kind of proven in actual school use carpeting ready for you in a wide selection of carpet styles and patterns. Carpet that is the result of research and development combined with the realistic experience gained in hundreds of school installations. And Bigelow will do more than just sell you proven carpet. We'll give you expert counselling in installation and through our Karpet Kare Division, we'll give you the best advice available on maintenance. It's a total package designed to assure you that you can specify Bigelow with total confidence.

Bigelow-Sanford, Inc. Dept. B
140 Madison Avenue, New York, N.Y. 10016
I'd like to hear the proof on Bigelow's proven carpets for schools.

NAME ____________________________
TITLE ____________________________
ADDRESS ____________________________
CITY ____________________________
STATE ____________________________ ZIP

Print Clearly
Rinkmaster®
is a pipe dream...

come true!

NEW, PATENTED REFRIGERATION SYSTEM COSTS LESS TO BUILD, OPERATE, MAINTAIN — MAKES BETTER ICE! Dozens of new “Rinkmaster” systems all over the U.S. are proving it. The cold, hard facts: unlike the traditional brine system, the Rinkmaster direct system sends the refrigerant, Freon or ammonia, straight to the floor. It circulates constantly and responds instantly to any change in surface temperature, guaranteeing a better sheet of ice always. Major savings: smaller pipe, less equipment, less horsepower (saving up to 30% in surface temperature, guaranteeing a pipe dream...)

Whatever size rink you plan to build — small studio, full-size, or multi-purpose arena — Holmsten has the know-how you need from planning through completion. May we help with your pipe dream?

WRITE FOR FREE BROCHURE
14 PAGES ON RINKS, TRENDS, COSTS & HINTS
(PLEASE PRINT)

NAME

TITLE

FIRM

ADDRESS

CITY

STATE / ZIP

TO:

HOLMSTEN
ICE RINKS
Div. of Drake Construction Co.
Dept. D
6311 Wayzata Blvd.
Minneapolis, Minnesota 55416

---

Notices continued from page 158

Expansions, reorganizations and mergers
Perpiana Associates, a subsidiary of William L. Pereira Associates specializing in planning services, has been formed in Los Angeles with Michael M. Mitchell as president.

Marvin Hatami & Associates, and Arthur B. Wise III, Denver, Colo., have formed a partnership and will continue to practice under the name Marvin Hatami & Associates.


New addresses


Bruce & Hansen, AIA, 3380 14 St., Standard Insurance Blvd., Riverside, Calif.

Hutchins Evans & Jefferts, 155 E. 44 St., New York City 10017.

Smart & Whitehead Architects AIA, 2630 Richmond, Houston, Tex. 77006.


Peter J.M. Trozze, AIA, 1117 Front St., Binghamton, N.Y. 13905.

Welton Becket & Associates, 2150 Parklake Drive, N.E., Atlanta, Ga. 30345.

Foster-O'Neill Architecture and Planning, Saddlesack Plaza, 17581 Irvine Ave., Tustin, Calif.

New firms

Ergo Designs, Inc., interior designers and space planners, 420 Lexington Ave., New York City 10017.

Barr A. Goldberg, structural engineer, 3925 W. Fargo Ave., Skokie, Ill. 60076.

Leonard Hirsch Construction Consultants, 5338 Fountain Ave., Los Angeles, Calif. 90028.

George Mattson, 109 E. Main, Bozeman, Mont. 59715.

Ted F. Chilless and Donald E. Nielsen have formed Chilless Nielsen Architects and Planners AIA, 800 N.W. 6 Ave., Portland, Ore. 97209.


---

How to ship small packages in a big hurry.

Delta guarantees delivery on the flight or routing you specify between most Delta cities.

Packages accepted up to 50 lbs. with length plus width plus height not to exceed 90” total, with only one dimension exceeding 30”.

Delivery to Delta’s passenger counter or air freight terminal at the airport at least 30 minutes prior to scheduled departure time.

Pick-up at DASH Claim Area next to airport baggage claim area 30 minutes after flight arrival at destination.

Charges for DASH shipments are nominal. Delta reservations will be pleased to quote actual charges between specific points.

Payments accepted in cash, by company check, most general-purpose credit cards, special credit arrangements or on government shipments by GBL.

Rate examples (Tax included)
Atlanta-Washington $21.00
Boston-Miami $26.25
Cincinnati-Louisville $21.00
Cleveland-Phoenix $26.25
Los Angeles-New Orleans $31.50
Dallas-Los Angeles $26.25
San Francisco-Atlanta $31.50
Philadelphia-Houston $26.25
New York-Tampa $26.25

For full details, call Delta reservations.

Delta is ready when you are!

Circle No. 351, on Reader Service Card

---

Deltadash
DELTA AIRLINES SPECIAL HANDLING

Circle No. 340, on Reader Service Card
**description**

4-Way® Floor Decking is a structural, noise-deadening sub-floor and insulating, resilient underlayment. It consists of multiple plies of Homasote insulation board permanently bonded together to form easy handling 2' x 8' (nominal) panels. Panels are made in two thicknesses for application to joists spaced 16" to 24" oc.

**uses**

Floor Decking is used as a structural sub-flooring in low-rise condominium and apartment developments, motels, nursing homes, professional buildings and private homes, especially where control of noise is a prime consideration.

**results**

4-Way Floor Decking has been laboratory tested for acoustical ratings using ISO R140 and HUD test methods. Depending on the type of construction, Impact Noise Ratings of +13 and +21 (IIC 64 & 72) and Sound Transmission Class of 50 have been achieved. Test results available on request.

more than 64 years of technology for building and ecology

Circle No. 352, on Reader Service Card
Juneau, Alaska

Volunteer overseas and U.S. Low-income quarters office in Omaha; nationally known to Box

Professional registration required. Send resume with major course work in architecture or

Architects: Rapidly developing architectural

Schmidt, Henningson, Durham & Richardson, Architects-Engineers, 8404 Indian Hills Drive, Omaha, Nebraska 68114. An equal opportunity employer.

Architects (R.A.) and architectural lead
draftsmen: If you have been involved in archi-
tectural planning of educational, institutional and industrial facilities for more than 5 years and feel that you have not received the recognition you deserve, then you will want to investigate this ad today. Comprehensive hospitalization, life and disability insurance, vacation, sick leave and profit sharing plan all company paid. Credit Union privileges. Send resume or contact: Personnel Director, Buchart Associates, 611 West Market Street, York, Penna. 17405. Phone: 717-843-3654. An equal opportunity employer.

Architectural designer: Immediate opening. Quality, medium size office has immediate opportunity for degree, design-oriented, professional, capable of sketching and producing working drawings. Send educational background resume to Shenk Seibert Smithgall Architects, Old Mill Road, Wyomissing, Pa. 19601. Phone 215-376-1571.


Architectural illustrators: Nationally known architectural presentation consulting firm offering opportunity for qualified personnel. Relocate in warm climate with top pay plus benefits. Salaries open for qualified artists with extensive professional experience in any of the following categories; background, structural, finishing, cars & figures. Send resumes with samples to: Prelim., Inc., 3618 Noble Ave., Dallas, Texas 75204. All samples will be returned promptly.

Assistant professor: Montana State University, an equal opportunity employer, has a position in the area of design, beginning September 1973 at the level of assistant professor. Applicants should be interested in architecture as fine art. Expertise should be in areas of innovative as well as traditional methods of communication, product design as well as plastics and fiberglass uses. Applicants should possess Masters degree, some teaching and professional experience and preferably, professional registration. Contact Ilmar Reinvold, Director, School of Architecture, Montana State University, Bozeman, Montana 59715.

Design architect with management ability: Challenging opportunities exist at large west-
ern New York firm for top professional with strong management and design emphasis. Professional license required. Partnership status is open for the right man. Expanding architectural-engineering firm is active in the design of significant educational, medical, and industrial facilities throughout northeastern U.S.A. Send confidential resume including salary requirements. Reply to Box #1361-516, Progressive Architecture.

Draftsmen/Intermediate and senior: Progres-
sive growing architectural firm involved in Type I, III, and V projects seeking persons with production ability. Top wages, company benefits. Located in Orange County, 15 minutes from ocean, 50 miles south of Los Angeles. Swank Gesler-Partners, 105 Town & Country, Orange, California 92668.

Experienced designer: Growing Florida archi-
tectural corporation has senior design position available. Experience, registration and Master's Degree preferred. Career potential. Profit sharing. Send complete confidential resume to: Stewart-Richmond Architects, Inc., 308 East Madison Street, Tampa, Florida 33602.


Interior designer: Progressive architectural

Land planner: Large national development corporation headquartered in Dallas is looking for a design oriented, qualified land planner to start up and to be in charge of our in-house land planning staff. Excellent opportunity for th right person. Staff advised about this ad. Centex Homes Corporation, a subsidiary of Centex Corporation. Please send resume and samples of your work. Reply to Box #1361-500, Progressive Architecture.

Project architect: Large western New York firm has challenging opportunities for tal-
ented professionals as project architects and project designers. License and/or degree helpful, but not mandatory. This rapidly expanding architectural/engineering firm is active in the design of significant educational, medical, and industrial facilities throughout New York, Pennsylvania, Vermont, New Hampshire, and Connecticut. Send confidential resume, including salary requirements to: Mr. David E. Eberl, AIA, The

continued on page 164]
Sleek, modern design—here's where we really shine.

Once you've seen our new stainless steel sinks, all the others seem dull as dishwater.

But that sculptured contemporary look does more than win feminine hearts. It helps control splashes, too. The bead around the bowl drains water back into the sink to keep the counter dry.

And check the off-center drain. If you've ever been dragooned into doing dishes, you know how a stack of plates in the bowl can stop water from going down the drain. Our off-center design allows the water to keep on draining.

These new self-rimming sinks have the kind of beautiful practicality American-Standard is famous for. But then we've had a lot of practice. Over 100 years of making water behave. Our sinks show it.

Every kitchen needs one work of art.
Job mart continued from page 162

Cannon Partnership, 2170 Whitehaven Road, Grand Island, New York 14072.

Project architects: Architectural job captains and architectural draftsmen. Expanding 200-man A/E/P firm with openings in both Toledo, Ohio and Flint, Michigan offices, challenges those experienced, ambitious, decision-making individuals who desire responsibility to match their talents. Degree or registration is fine, but not necessarily required, as performance is the name of the game. What you can do is what counts! Complete fringe benefit package including a vested retirement program. Send resume, salary requirement and technical references to: Samborn, Steketee, Otis and Evans, Inc., 600 LOF Building, Toledo, Ohio 43624 (419) 248-6271. An equal opportunity employer male/female.

Registered Architect: Small architectural office involved in housing, commercial, churches, landscape architecture, planning and campus work needs young registered architect interested in all phases of work. Three years experience required. Partnership possibilities open. Office is in Asheville, Western North Carolina mountains. Send resume. Reply to Box #1361-517, Progressive Architecture.

Senior/intermediate architectural draftsmen: Medium-sized firm in Palm Beach, Florida needs draftsmen. Prefer growth-oriented individuals thinking long term. Environmental and design orientation; multi-family, commercial, industrial, marinas. Hospitalization plan, life insurance, vacation, sick leave company paid. Send complete resume to Lawrence-Irwin Chartered Architects, 205 Worth Avenue, Palm Beach, Florida 33480.

Situations wanted

Architect: American, 31, multilingual with wide, all-round experience as project manager on major European project, seeks to contact U.S. firm with practice in Europe or interest in establishing such. Reply to Box #1361-518, Progressive Architecture.

Architect: 39, A.I.A., NCARB. 13 years experience in design and planning of wide range of major projects with emphasis on hospitals, related facilities. Experienced with clients. Seeks opportunity with aggressive group dedicated to good architecture and willing to share in accomplishments and profits.

Notice

Please address all correspondence to box numbered advertisements as follows:

Progressive Architecture

600 Summer Street
Stamford, Connecticut 06904

[continued on page 166]

At last! A wall system that can match your imagination!

Solid hardwood prefinished wall planks

Random width, random length genuine solid hardwood wall planks, lovingly prefinished, in a choice of 13 woods with the full natural beauty and richness that no imitation can match. Send today for Designer's Sample Kit containing 13 full-size sample species, textures and finishes.

Thousands of happy Blu-Ray owners must be right!

As the long time innovator in tabletop whiteprinters, we've made machines so good, so reliable, that thousands of people have invested in them. They like the low cost of our whiteprinters, the ease in operation. They like the sharp copies, the speed and performance. They like having 3 models to choose from — to fit their need and budget. And do they like the minimal service required!


Circle No. 417, on Reader Service Card

Circle No. 333, on Reader Service Card
Don't let 75% of waterproofing cost walk off the job!

Specify Gacoflex UWM-28 . . .
Keep the value on the job!

You'll keep the value on the job when you specify Gacoflex liquid applied urethane rubber membrane.

Conventional 5-ply built-up membrane installations also build up labor costs—and labor walks away when the job is done!

The installed cost of the Gacoflex system is comparable to that of the built-up system, and the cost stays on the job in the form of a tough, seamless waterproof membrane.

Gacoflex liquid urethane rubber is available in two forms. Specify UWM-28 between slabs and for waterproofing kitchens, showers, and mechanical room floors. For planters and below grade applications, specify UWM-29T.

Get all the details. Write for the UWM-28 Catalog or see the current issue of Sweets, Section 7.9/Gat.
Job mart continued from page 164

Architect: Massachusetts registration, AIA, NCARB certificate, married. 26 years diversified experience all phases of commercial, educational and municipal facilities. Present staff architect with administrative responsibilities, client and contractor liaison. Seeking position as architectural representative for your firm, salary negotiable. Will consider association. Resume and references on request. Reply to Box #1361-520, Progressive Architecture.

Architect: Registered, NCARB, age 39, family, seeking challenging responsible design and/or production management position with equity potential. Fourteen years experience in all phases of practice including client contact, specifications, and construction administration as project architect for institutional, educational, commercial, industrial projects. Midwest location preferred. Resume available. Reply to Box #1361-521, Progressive Architecture.

Architect/designer: NCARB, AIA, 42, family, Illinois graduate, principal of firm. Sixteen years diversified, comprehensive experience. Organizational ability. Desire position (with partnership potential) directing design and production in ethical, progressive, medium to small firm interested in producing best contemporary architecture. Prefer Rocky Mountain area—will consider others. Reply to Box #1361-522, Progressive Architecture.

Architecture grad: Will graduate with Bachelor of architecture, June '73. Seeking employment in metropolitan New York/Long Island area. Married, one child. Resume upon request; reply to: Jeffrey Kanner, 2511 Newkirk Avenue, Brooklyn, N. Y., 11226.

Mechanical engineer: P. E., HVAC and plumbing specialty. Will accept short term or long term contract. Geographical area no barrier. Reply to Box #1 — Fern Hill, Tacoma, Washington 98412.

Registered architect: 48, B.S. Arch. Degree, A.I.A., 23 years continuous experience, 14 years private practice—all phases, desires position of director of design/ planning/ development with state, county, city, university or firm located in southwest U.S.A., personal resume and projects upon request. Reply to Box #1361-523, Progressive Architecture.

Architectural services

Acquisitions desired: Major architectural/ engineering firm based in the East seeks similar firms interested in joining forces for common cause, expanded activity and increased challenges. Preferences are for firms with revenues of $500,000.00 and over. All replies confidential. Reply to Box #1361-509, Progressive Architecture.

Affiliation: Successful, multi-discipline interior/graphic/industrial design and planning firm wishes to affiliate with design oriented architectural offices, who desire New York City representation, for mutual growth and benefits. Reply to Box #1361-524, Progressive Architecture.

Architectural partnership: High level design and construction oriented architect in small expanding private practice (New York state capital district) is seeking a partnership or joint venture with another architect of complementary skills. Architect must be thoroughly professional individual with N. Y. S. registration. All replies answered in strict confidence. Reply to Box #1361-510, Progressive Architecture.

Architectural representation: Florida architect with office in Miami seeks representing firms in projects throughout the state of Florida. Wide diversified practice includes high and low rise apartments, townhouses, single

New Pro-Hide Textured Masonry Coating for age old problems.

PRATT & LAMBERT

Box 22/Dept. PA-5, Buffalo, N. Y. 14240

Circle No. 373, on Reader Service Card
homes, modulars, FHA and HUD projects, offices, shopping centers, warehouses, industrial buildings, schools, etc. Reply to Box #1361-511, Progressive Architecture.


ComTex Industries: Distributors, representatives wanted. Woodsticks — Dramatic new three dimensional wooden wall paneling consisting of strips of exotic Brazilian Pau Ferro of varying lengths and thicknesses glued to hardboard backing. Two foot sections interlock forming perfect surface ready for nailing. Free brochure: ComTex Industries, P.O. Box 355, Miami, Florida 33138 Tel: (305)751-5563.

 Edwards & Shepard Agency: We are a design and architectural placement service uniquely equipped to locate and appraise the qualifications, experience and effectiveness of architectural and interior designers, urban planners, systems and space planners, construction specialists, exhibit, lighting and environmental designers. We know (1) what positions are available (2) who the best prospects are (3) the right approach (4) how to break negotiating gaps (5) how to save money, time and effort (6) how to simplify procedures and appointments (7) the day to day state of the market. Contact Bill Shepard at (212) 725-1280. Interviews by appointment in our “dome on the roof” at 1170 Broadway, N. Y. C., N. Y. 10001.


Real Estate Financing: For architect-developers contact Paul B. Farrell, Jr., 517 East 75th Street, New York, N. Y. 10021.

Rita Sue Siegel Agency: Ms. Woody Gibson introduces people with superior skills in architecture, interior, landscape, urban design, planning, programming and management to our consultant and corporate clients seeking genuine problem solvers throughout the U. S. A. Rita Sue Siegel identifies and evaluates industrial and graphic designers. You are invited to submit resumes in confidence. Our clients pay all fees. 60 W. 55th St., N. Y. C. 10019, (212) 586-4750.

Roddy & Associates Personnel Services: Architectural division of Roddy & Associates Personnel Services: working with the entire growth area of the Southwest. Our professional placement directors are trained architects who can staff and recruit for every discipline of the architectural/construction-engineering office. We speak your language. All fees are assumed by our client companies. Send resumes to 2001 Kirby Drive, Suite 400, Houston, Texas 77024, or phone 713/526-8261.

Advertising Rates
Standard charge for each unit is Fifteen Dollars, with a maximum of 50 words. In counting words your complete address (any address) counts as five words, a box number as three words. Two units may be purchased for thirty dollars, with a maximum of 100 words. Check or money order should accompany advertisement and be mailed to Job Mart c/o Progressive Architecture, 600 Summer Street, Stamford, Conn. 06904. Insertions will be accepted not 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.
### Advertisers

#### Advertising Sales Offices

**Stamford, Connecticut 06904:**
- **600 Summer Street**
  - 203-348-7531

**William F. Bondlow, Jr.**
Advertising Sales Manager

**Thomas J. Denver, Donald C. Stanley,**
District Managers

**Philadelphia, Pennsylvania 19107:**
- **12 So. 12th Street**
  - 215-922-0346

**John A. Teefy,** District Manager

**Pittsburgh, Pennsylvania 15222:**
- **Three Gateway Center—Room 1827**
  - 412-281-9421

**Charles W. Van Eman,** District Manager

**Chicago, Illinois 60603**
- **10 So. LaSalle Street**
  - 312-726-1282

Dean E. Greener, Daniel G. Prisble

District Managers

**Cleveland, Ohio 44116:**
- **21010 Center Ridge Rd.**
  - 216-331-7997

**John F. Kelly,** District Manager

**San Francisco, California 94104:**
- **Jobson, Jordan, Harrison & Schulz, Inc.**
  - 415-392-6794

Charles S. Harrison, Cyril B. Jobson

Representatives

**Los Angeles, California 90057:**
- **Jobson, Jordan, Harrison & Schulz, Inc.**
  - 213-483-8530

Kenneth E. Jordan, Peter Schulz

Representatives

**Atlanta, Georgia 30308:**
- **H. Proctor Co.**
  - 404-874-6427

Harmon L. Proctor, Representative

**Tokyo, Japan:**
International Media Representatives, Ltd.
- **1, Shiba-Kotohriacho, Minatoku**
  - Sumio Oka, Representative

---

### Advertisers

Art is a fundamental necessity in the human state. J. Maritain

From delicate sweeping lines to strong angular statements, building design is the self-expression of an artist.

We at Acme Plastics, sensitive to the spirit of form and the moods it generates, have sought to create art forms in our diversified line of quality plastic letters.

Write for our catalog...we have the letters to punctuate your artistic comment.

ACME PLASTICS
P.O. BOX 23665 / 401 N.E. 5th TERR FT. LAUDERDALE, FLA. 33307
TEL: (305) 563-1146
Circle No. 320, on Reader Service Card
A roof contract has to be strong to protect you for ten years.

Whether it's a Philip Carey or Barrett Inspection & Service Contract, what you're getting, in writing, is the assurance that Celotex will back up specific built-up roofing systems and services. With pre-installation planning, periodic inspections during and after installation, and the finest roofing materials. That's a pretty strong promise. But we know we can keep it. That's why we give it to you in writing.

Celotex understands the man who builds.

The Celotex Corporation, Tampa, Florida 33622  A subsidiary of Jim Walter Corporation

For an actual copy of the Celotex Inspection & Service Contract and all the details of the program, see your Celotex BUR Approved Roofer, or Celotex field representative, write us direct, or consult Sweet's Architectural Files.

Circle No. 337, on Reader Service Card
Kalcolor® aluminum brings lasting value to beautifully changing scenes.

Each day you can see Kalcolor aluminum reflect the change of the hour. Coolness at dawn. Richness at noon. Warmth at sunset. This is the unique character of Kalcolor aluminum. And you will see it harmonize well with other materials and colors.

Yet the extremely hard, smooth, dense surface of Kalcolor aluminum will keep its own freshness virtually unchanging. It will bring lasting value to your new horizon. In Gold. Champagne. Ambers. Bronze. Three shades of gray. Black. Each color is an integral, inorganic part of the anodized coating—color fast, and enduring.

Our new catalog—"Aluminum in Architecture"—will show you the complete selection of colors you can specify in Kalcolor sheet, extrusions and castings for both exterior and interior design.

Write for your copy:
Room 2142, Kaiser Center, Oakland, California 94604.
Amid the graceful Mission decor of the Tia Maria restaurant in Burlingame, California—even the floor lends an air of 19th-century warmth and enchantment. (See unretouched photo below.) In Kentile Colonial Brick Solid Vinyl Tile, all the robust, dimensional beauty of natural brick greets the eye—at a fraction of true brick’s cost and bother. Touch this tile’s textured surface and you’d swear it’s kiln-fired brick.

Colonial Brick is a tiger for traffic because its tough, non-porous surface locks out grease, and stains. Colors: Bennington Green, Potomac Gold, Woodstock White, and (shown) Georgetown Red. Colonial Brick, with special adhesive, is recommended for outdoor use, too. Your Kentile® Representative will show you our entire line of Colonial Brick Solid Vinyl Tile. And provide you with samples.

ARCHITECTS AND PLANNERS: WALKER & MOODY, SAN FRANCISCO. FLOORING CONTRACTOR: STUART FLOOR CO., REDWOOD CITY, CALIFORNIA.