

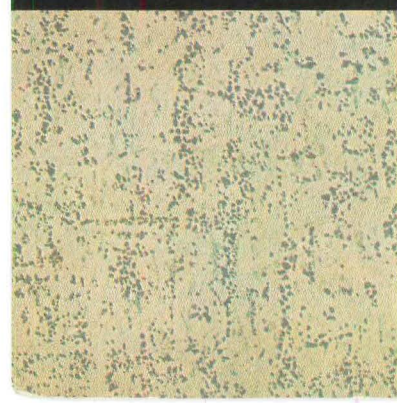
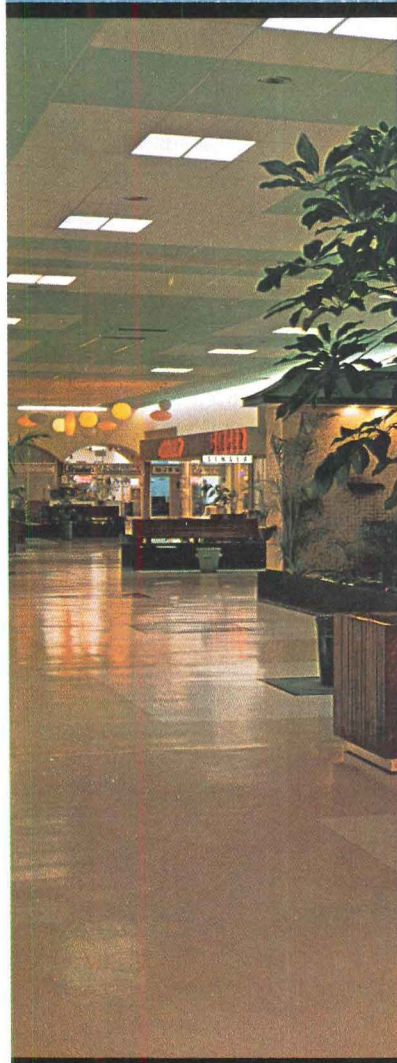
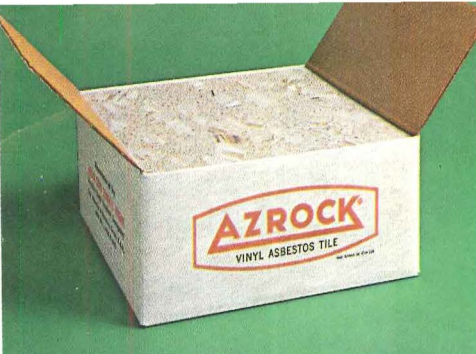
# PROGRESSIVE ARCHITECTURE

A Reinhold Publication • March 1970

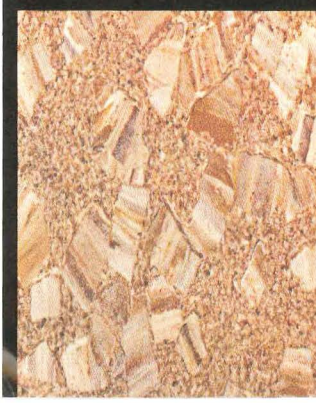
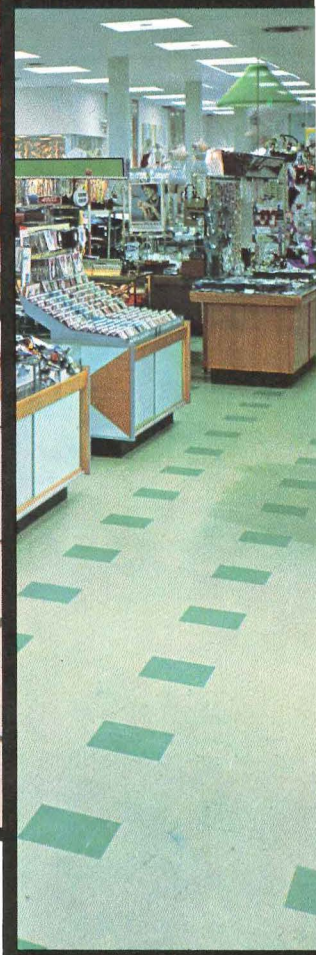


Russia/Finland: An Architectural View





**Carton Full of Miracles**  
**Azrock Vinyl Asbestos Tile.**  
**It's what's happening**  
**in shopping center flooring.**

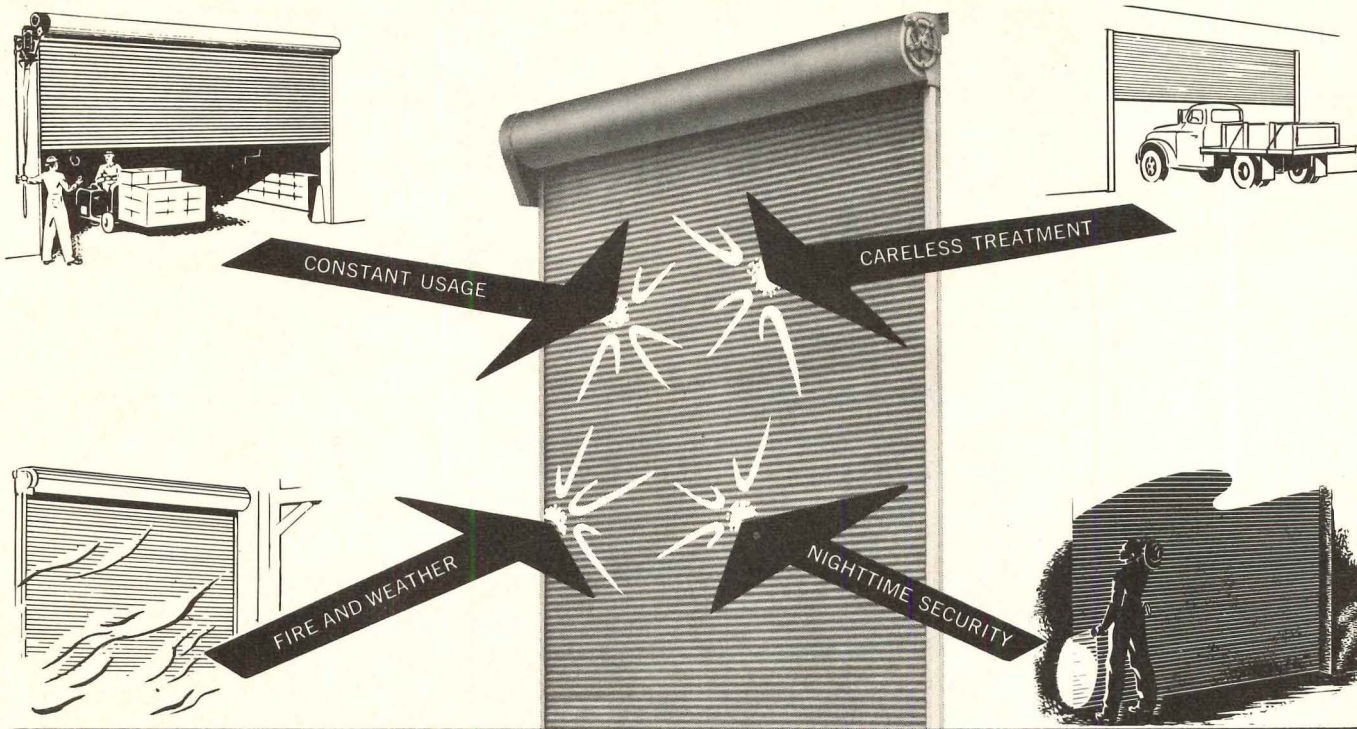


**To shopping center planners and designers who equate value with beauty and performance, floors of Azrock vinyl asbestos tile rate exceptionally high. The designer can look to Azrock's "Carton Full of Miracles" for more than 120 colors and styles with which to create floors that look inviting . . . take the toughest foot and shopping cart traffic in stride . . . and do all this at a low initial cost and low maintenance cost unique among flooring materials. Put Azrock's creative styling and superior value to work on your next store project.**

specify **AZROCK®** with confidence

Consult Sweet's File or write for samples. Azrock Floor Products Division, 524A Frost Building, San Antonio, Texas 78205.  
On Readers' Service Card, Circle No. 327





# KINNEAR ROLLING DOORS

get the **"SHOCK TREATMENT"** night and day...

**and thrive on it.** Between constant ups and downs during heavy traffic, occasional bumps and tormenting weather, a Kinnear Service Door will keep going strong. They are seldom pampered.

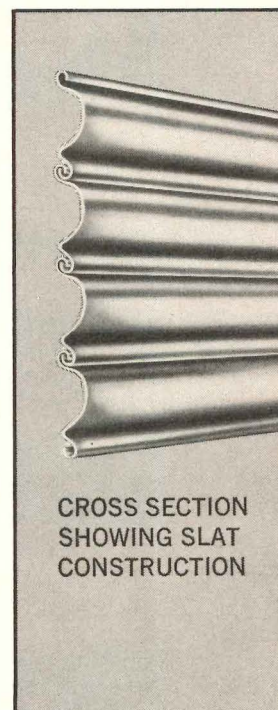
The interlocking slat curtain was developed and perfected by Kinnear to withstand excessive abuse, operate with dependable ease, and store above the door opening completely out of the way without robbing valuable storage or work space. This system has proven itself time and again, and over the years has not been excelled. It also has proved extremely adaptable to a broad range of applications.

The configuration of the steel slats serves several important functions. First, each slat is channeled to add structural strength — second, the interlocking hinge feature is very positive but compact so the curtain rolls and stores in the minimum of space above the door. Each slat is triple protected with Kinnear (1.25 oz. per sq. ft. — per ASTM Standards) zinc and paint-bond finish. Finally, if repair is necessary, only the damaged slats need replacement which is easily accomplished.\*

If you are planning a new building or remodeling an existing one, Kinnear Doors should be considered for both their operational and appearance advantages.

Kinnear has, or can supply, a service door to fit most any requirement, either manually or motor operated. Push button controls for motor operation can be located for convenience at any number of remote or adjacent stations. Ask about Kinnear's "AKBAR" labeled fire doors or Kinnear's Rolling Metal Grilles if you want protection without sacrificing ventilation or vision.

\*Kinnear's nationwide sales, installation and service centers are ready to work with you. Every Kinnear door is "Registered" and complete details are kept in fireproof vaults. Replacement parts are always available with this proved life extension service policy which gives added protection for the Kinnear door owner.



**Write Today**—Kinnear will gladly send complete information on the door to meet your needs. Consult with us on your specific project.



## KINNEAR CORPORATION and Subsidiaries

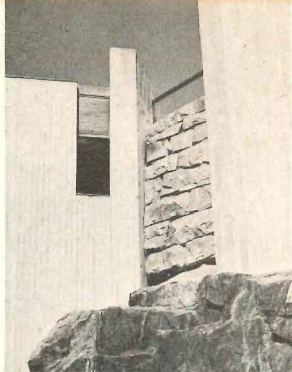
1900 Fields Avenue, Columbus, Ohio 43216

**Factories:**  
Columbus, Ohio 43216 • San Francisco, Calif. 94124  
Centralia, Wash. 98531 • Toronto, Ont. Canada



Offices & Representatives in All Principal Cities — listed in Yellow Pages under "Doors." Also see Sweet's!



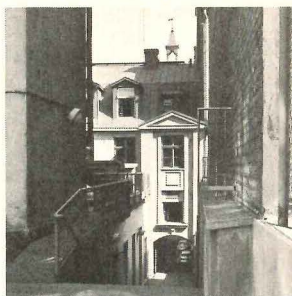


Cover: Temple Aukion Church,  
Helsinki, Finland. Photo:  
Don Raney

# P/A THIS MONTH

Progressive Architecture® March 1970

## FINLAND—RUSSIA: Two Sides of a Gulf



Based on experience gained from a recent editorial junket through Russia and Finland, two P/A editors survey the contemporary architectural scene in those two countries. **72**

### Finland: Export Design

The architectural impressions of Finland that have gained a worldwide reputation for excellence in design are described. **74**

### Russia: Form Follows Tradition

Those tangibles that create the mood of the Russian architectural setting are explored. **80**

### Finland: Where Architecture Outlasts Us

Having studied architecture in Finland for a year, Architect Edward Marc Treib explores the factors that make "a good building a source of pride and accomplishment for all Finns." **84**



### Practicing Finnish Architecture

Article briefly describes common practices in the profession, and describes Finnish architectural education. **86**

### Practicing Russian Architecture

Facts and figures about the practicing Russian architect and his formal education are given. **87**

### What Shapes Soviet Architecture

Architects Peter Brill and Stefan Deer discuss the political-ideological and economic forces that have molded Soviet architecture. **88**



### Russian Building Systems: The Architect Returns

Architect William Caudill, recently returned from a State Department tour of Russia, probes the prefabricated building phenomenon and finds that the architect may soon return to a position of influence in Russia. **90**

### Giant Economy-Size Housing

Following a recent tour of Russia, Robert Mutrux, an architect with Fletcher-Thompson, Inc., describes a labyrinth of surprises and contradiction on the subject of Russian housing. While the American architect's impression of Soviet housing is less than complimentary, the Soviet experience provides us with examples of what can be done, as well as what should not be done on our own terms. **94**

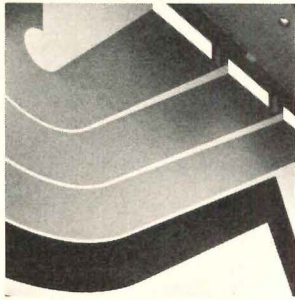


### Inside Russian Architecture

Though interiors in the Soviet Union are generally drab and poorly kept, many public buildings, palaces, and cathedrals provide the exception. Illinois Architect Brock Arms, who traveled in Russia last year, discusses Soviet restorations, furnishings, and interior design education. **96**

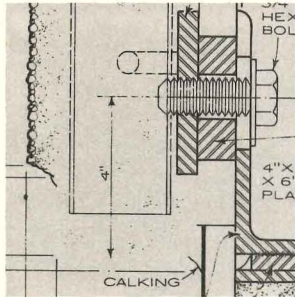


## Sea Ranch Expands



Two resident architects have expanded the now famous Northern California second-home complex to include a gracious lodge for transient visitors. In addition, they have doubled the size of the restaurant, added a bar and solarium, lounge, library, and considerably enlarged sales and office space. Designed in the Sea Ranch wood-sided, slant-roofed idiom, the new complex is planned in a cluster arrangement that further echoes the theme of the surrounding condominiums. *Alfred Boeke And Louis McLane, Architects, with Agora Associates.* **101**

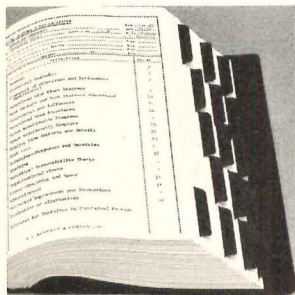
## Selected Details



American Airlines Terminal Building, Washington National Airport. *Giuliani Associates, Washington, D. C., Architect. Detail: Stainless Steel Framed Precast Concrete Panels.* **104**

First National Bank, Chicago, Illinois. *C. F. Murphy Associates, and The Perkins & Will Partnership, Architects. Detail: Stainless Steel Masonry Anchor.* **105**

## Beating The Systems Game



A relatively simple architectural office game, developed by Houston Architects Caudill Rowlett Scott, translates rigorous systems analysis requirements into a program meeting the complex needs of a new hospital. **106**

**Departments** . . . . . Your Point of View **p. 6**, P/A News Report **p. 30**, Products and Literature **p. 55**, Editorial **p. 70**, Specifications Clinic **p. 110**, It's the Law **p. 112**, Book Reviews **p. 114**, Obituaries **p. 144**, Jobs and Men **p. 160**, Directory of Product Advertisers **p. 166**, Readers' Service Card **p. 169**

**Editor**  
Forrest Wilson, AIA, CSI

**Executive Editor**  
Burton H. Holmes, AIA

**Senior Editor**  
C. Ray Smith, AIA

**Associate Editors**  
Don Raney  
Stephen A. Kurtz  
David A. Morton  
Suzanne Stephens (News)  
Esther McCoy (Los Angeles)

**Administrative Assistant**  
Charlotte Van Voorhis

**Copy Editor**  
Joyce Reback

**Assistant to the Editor**  
Rosemary Lacerenza

**Assistant Editors**  
Chet Mantolesky  
Karl Vossbrinck

**Editorial Assistant**  
Rose Calomino

**Graphics**  
Joel Petrower *Art Director*  
George Coderre *Assistant Art Director*  
Anne Marie Sapione *Art & Production*  
Nicholas R. Loscalzo *Architectural Drawings*

**Contributing Editors**  
Norman Coplan *It's The Law*  
Bernard Tomson, Hon. AIA *It's The Law*  
E. E. Halmos, Jr. *Washington/Financial*  
Harold J. Rosen *Specifications Clinic*

**Publisher**  
Philip H. Hubbard, Jr.

**Associate Publisher**  
Harrington A. Rose

Wolcott H. Johnson *Adv. Sales Manager*  
Burchard M. Day *Promotion Director*  
Joseph M. Scanlon *Production Director*  
Daniel H. Desimone *Adv. Production Manager*  
Paul D. Puskas *Circulation Director*  
Sue Feldman *Subscription Manager*

Progressive Architecture, published monthly by Reinhold Publishing Corporation, 600 Summer Street, Stamford, Conn., 06904. A subsidiary of Litton Publications. James F. Mottershead, President; Philip H. Hubbard, Jr., Group Vice President; Harry I. Martin, Group Vice-President; Leonard F. Miraglia, Treasurer; Kathleen A. Starke, Secretary; Robert W. Roose, Vice-Presidents. Executive and editorial offices, 600 Summer Street, Stamford, Conn. 06904.

Subscriptions payable in advance. Publisher reserves right to refuse unqualified subscriptions. Subscription prices to those who, by title, are architects, engineers, specifications writers, estimators, designers, or draftsmen, and to government departments, trade associations, above title groups on temporary military service, architectural schools, architectural students, advertisers and their employees: \$5 for one year; \$8 for two years; \$10 for three years. All others: \$10 a year. Above prices are applicable in U.S., U.S. Possessions, and Canada. All practicing architects and engineers outside these areas: \$10 for one year; \$16 for two years; \$20 for three years. All others: \$20 a year. Single copy \$2, payable in advance.



© Reinhold Publishing Corporation, a subsidiary of Litton Publications. 1970 trade mark registered. All rights reserved. Indexed in Art Index, Architectural Index. Second-class postage paid at Stamford, Conn., and at additional office. Volume LI, No. 3.



# Denver builds for







# its new pioneers. Permalite® helps.

The Denver area... historically famous for miners and cattlemen... is now bustling with scientists and engineers. Federal bureaus and institutes... many of the nation's leading research laboratories and electronic equipment manufacturers... even the Air Force Academy at Colorado Springs... now call this area home. Top-side protection of expensive electronic gear, laboratory devices and sophisticated manufacturing equipment is vital. That is why so many architects specify non-combustible rated, dimensionally-stable Permalite Sealskin rigid roof insulation. Permalite meets Denver's tough building code... is nationally approved for FM Engineering Division Insulated Steel Deck Class 1 construction (fire and wind uplift); Underwriters' Laboratories, Inc., Metal Deck Assemblies Nos. 1 and 2 and others. GREFCO, Inc., Chicago, Los Angeles. A subsidiary of General Refractories Company. ■ 7.

**Permalite®**  
RIGID ROOF INSULATION

On Readers' Service Card, Circle No. 348

No. 3 in a series of illustrations of major American cities. For a reprint of the original rendering by John R. Hollingsworth, suitable for framing, write: GREFCO, Inc., Building Products Division, Dept. B-3, 333 N. Michigan Ave., Chicago, Illinois 60601.



# YOUR POINT OF VIEW

## Author Please

Dear Editor: Would you please identify the author of the article on the Richard Feigen Gallery, titled *Architectural Fabergé* (FEBRUARY 1970 P/A).

Robert West  
Troy, New York

(The author of the article is Associate Editor Stephen A. Kurtz, whose by-line was inadvertently omitted. — Ed.)

## Schools

Dear Editor: I am writing to you in hopes of receiving a reading from at least a few members of the architectural profession. During the seven years that I have been an elementary school teacher, I have been fortunate to teach in new, modern facilities. Our system, being the largest in the country, has a continual building program and my observations are not based on experience in antiquated structures.

Students, be they kindergarteners or seniors in high school, require definite motivation to produce even the initial attention required in the learning process. Due to the bombardment by mass media of all aspects of our daily existence, a teacher can no longer hope to achieve this by pounding on the desk and pointing at the chalkboard. Many of our children arrive in the classroom with such complex and compounded emotional and/or environmental difficulties that we can only hope to help them. It is therefore most desirable that the atmosphere in which the student spends six hours each day be pleasing and conducive to the educational process.

Light is an extremely important factor anywhere and is most certainly a prime consideration in a classroom. I have no complaint at all so far as artificial light is concerned. It has always been excellent. However, natural lighting is also important, not so much for physical reasons as for emotional and psychological ones.

How effectively do you work in a room that is completely blocked off from the outdoors?

Many modern school buildings are designed to be air-conditioned but when the actual building takes place, budgets eliminate this. What is left is a building with fewer windows for ventilation, and a school population that spends some very warm days in the early fall and late spring. I do understand that a complete wall of windows can have much the same effect as a furnace when joined with the beating sun. However, when there are only four windows in a room, I do not think that one of them should be a fire window to be opened only in the case of a conflagration.

Since team teaching and movable walls are much in vogue, much of the teaching day is spent with the wall folded open. Therefore chalkboard space should not be placed so that it folds out of sight along with the wall.

Windows which open outward onto a play area are most definitely a hazard. Brick walls erected for decoration's sake adjacent to elementary playgrounds serve mainly as a climbing device and therefore are an inherent danger. Multipurpose rooms should be large enough to accommodate the entire student body at once. (By some structural freak, our stage has a decided draft that swoops down upon the assembled body with seemingly hurricane force.) Rooms designed so that movable coat closets must be used are unsatisfactory, because the closets live up to their name and move constantly.

On the plus side, I am grateful for wide, high halls, drinking fountains at child level (which for an upper level elementary child is more than fifteen inches from the floor), sinks in every classroom, walls and floors done in cheerful yet soft colors, and schools built on one level.

Anne Doherty  
Olney, Maryland

## Resolutions

Dear Editor: Inasmuch as January — established by a capricious calendar — is regarded by most, (that is to say, the Silent Majority), as an opportune time to express hopes for the future, I might just as well, as a good "conservationist," follow the habit.

Thus I wish to Progressive Architecture, progress in spreading the knowledge that the greatest hindrances and dangers for the human

race lie in PSEUDO-PROGRESS, MISDIRECTED GROWTH, and FALSE GLORY. Wishes, I understand, may still be uttered freely in the U.S. without being "agnewed" with suspicion and one can still "aspiro" towards them. So I wish for less "progress" in many ways. Less progress in new weaponry, in the production of superfluous materials, goods, and the discovery of "Outer Space."

I wish for more emphasis on "Inner Space"; less preoccupation with "horse power" and more with "human power"; less enthusiasm for outer growth and more attention to inner growth; less concern for the "glory" of nations, and more concern for the needs of the people; less admiration for the "mechanical brains" and more for human hearts and minds.

Let us set our hopes on a majority which is NOT silent — but roused to speak out after acquiring the gift and ability to think!

VICTOR GRUEN, F.A.I.A.  
Los Angeles, Calif.

## Design Award Articulators

Dear Editor: Congratulations on your uproarious lampoon of the Design Awards. Vreeland's remarks on commendable banality and "immediate historic retrospection" broke me up. Venturi's comments on the first award scheme are inspired — no "interesting articulations" or "false complexity" for MLTW, all right. If such witty men ever talked seriously about architecture — but then that's what makes P/A so much fun to read. Keep up the good work.

Ralph Bennett, Architect  
Boston, Mass.

## Sealants

Dear Editor: In answer to Mr. Harold J. Rosen's question in your January issue, "Does Anyone Really Know What A Sealant Is?" I would like to propose that a sealant basically is neither a gasket-like thing nor a calk-like thing but is, rather, a small insect well-known throughout the breeding grounds of the walrus and other animals in the Pribilof Islands. I can understand Mr. Rosen's confusion though; in those very same islands there are some Esquimaux who insist that a sealant is the mate of a seal's uncle.

John Wells Murphy, A.I.A.  
Cherry Hill, N. J.





## Don't let this lantern's beauty fool you.

It's a mercury vapor area light—as functional as it is beautiful.

This Hadco lantern leads a double life.

By day, it's a picturesque, charming post light that adds just the right note of welcome and hospitality.

But at night, its mercury vapor lamp transforms this elegant lantern into a highly efficient, functional area light!

Our new lanterns for mercury vapor lamps feature the same superb craftsmanship and authentic designs as all Hadco lanterns. Their distinctive styling lets you select the lantern best suited for any architectural theme. And, they're available in a wide selection of handsome finishes.


So now, if you need ornamental lanterns that have distinctive styling, the outstanding beauty and durability of cast metal construction, **and** the higher light output and economy of mercury vapor lighting, you can get them. From us.

**Get all the facts about Hadco's beautiful new series of mercury vapor lanterns. Just write to Dept. 22A-120!**



Lighting by  
**HADCO®**

P. O. Box 128, Littlestown, Pa. 17340

A Subsidiary of Esquire, Inc. 

On Readers' Service Card, Circle No. 350



# **THE FORTUNE DIRECTORY**

# 500

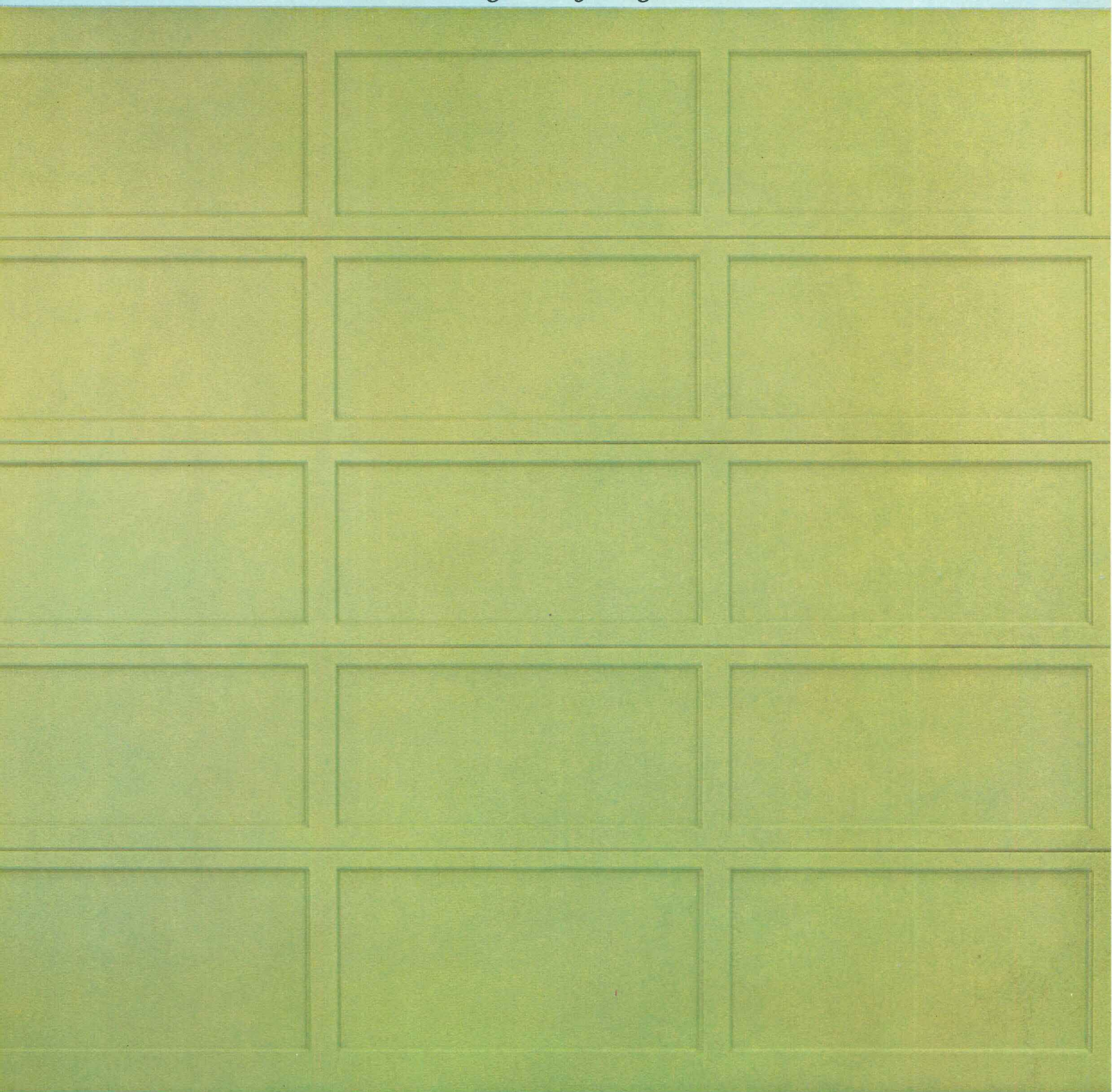
**THE 500 LARGEST U.S. INDUSTRIAL CORPORATIONS**

**and the 50 Largest Banks, Retailing,  
Transportation, Life-Insurance, and Utility Companies.**

On Readers' Service Card, Circle No. 370



...it quality, availability, or service that prompts nearly  
all Fortune 500 companies to choose The "OVERHEAD DOOR"?  
*All three. Plus old-fashioned good judgment.*



These giant industrial complexes didn't just happen. They were planned. Carefully and painstakingly. And, in most instances, the plans included The "OVERHEAD DOOR".

How have we gained the confidence of these goliaths of business and their architects? By offering them the best commercial doors on the market — when they want them, where they want

them. Doors to meet any individual requirement, regardless of style, size, or design. Doors geared to our exclusive electric operators for maximum efficiency. Doors that we not only

install and warrant for a full year, but also back up with dependable service provided by factory-trained crews of experienced door specialists.

One thing we've learned after 48 years of leadership in the door business: to stay Number One you really have to *be* Number One.

And playing second fiddle just isn't our kind of music.

The "OVERHEAD DOOR" distributor nearest you is listed in the white pages of your phone book. Call him. He's a good man to know.

Nationwide  
Sales • Installation • Service



**OVERHEAD DOOR CORPORATION**  
General Offices: Dallas, Texas 75202

Manufacturers of The "OVERHEAD DOOR" and  
electric operators for residential and commercial buildings









# the beautiful world of reinforced concrete is a \$2½ million saving



New York's Co-op City. Building in the Bronx. A complex of thirty-five high-rise apartments. Three shopping centers. One-hundred-eighteen, 3-story townhouses. Six schools. When finished will house some 55,000 residents. It's being sculptured in reinforced concrete. Building fast. Everyday as much as 2,500 cubic yards of concrete hits the forms. Adding some 215,000 sq. ft. of floor area to the project every week.

For Co-op City is building with "ultimate strength design" and Grade 60 steel. Taking full advantage of the most modern concrete construction methods. Saving a pound of steel per sq. ft. of floor area.

Saving over 2½ million in construction dollars.

Think about it. About the many benefits high-strength reinforcing steels offer in modern concrete building design: Economy. Utility. Flexibility. Beauty. It's all here. Everything your mind's eye can imagine builds better in reinforced concrete.

Grade 60 Steels\*. Here's new strength and economy in a one grade package. Ultimate Strength Design (USD) utilizes fully its 50% greater yield strength. Helps achieve slimmer columns. More usable floor space. Lowers overall construction costs. Let Grade 60 help you meet the challenge of the '70's whatever you're building. Write for new Grade 60 Steel Brochure.



*\*\*\*Grade 60\*\* the new term that describes ASTM specs for 60,000 psi reinforcing steels as upgraded in 1968.*

New York's Co-op City  
Project sponsor: United Housing Foundation  
Architect: Herman J. Jessor, New York, N.Y.  
Consulting Engineers: Farkas, Barron & Partners,  
New York, N.Y.  
Contractor: Community Services, Inc., New York, N.Y.  
Concrete Contractor: Dic-Underhill Joint Venture,  
Long Island, N.Y.

CONCRETE REINFORCING STEEL INSTITUTE  
228 North La Salle Street • Chicago, Illinois 60601







# PPG Performance Glass is saving money for the county government in Fairfax, Virginia.

## By reducing heating/cooling equipment and operating costs in the new Administration Building.

PPG Performance Glass enabled the designers of the new high-rise County Administration Building in Fairfax, Virginia, to achieve the exact esthetic effect they desired. It also enabled the building's mechanical engineers to lower the capacity, equipment and operating costs of their specially-designed heating/cooling system.

Design studies indicated that with glass areas exceeding 35%, reflective insulating glass should become an economic probability. And because, in this case, maximum use was to be made of a "heat-of-light" HVAC system, with the lowest possible energy input and without supplementary electric heat input, a high-performance insulating glass was considered strongly desirable.

The unique all-air "Dual Fan-Double Duct" system is shown in the accompanying diagram. Seventy percent of the heat from the lights is picked up by the return air. Interior rooms use ceiling fixture introduction and return grilles. Outside rooms use a perimeter system of sill diffusers.

Study data for the mechanical design was handled by a computer.

It favored PPG *Solarban® Bronze (3) Twindow®* Units and indicated that they would permit a savings of approximately 200 tons of capacity in the heating and cooling system.

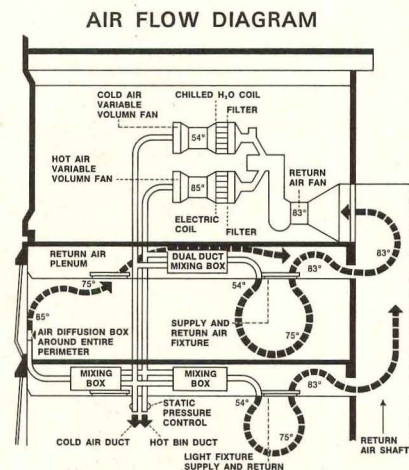
According to Lee Kendrick, Mechanical Engineer, this low energy mechanical system was made possible with Solarban Twindow Units (insulating glass constructions with a low-emissivity coating and a 1/2" air space). He attributes all the savings realized to the U value of 0.35, significantly better than that of the rest of the building's basic wall structure.

The *Solarban Bronze (3) Twindow* Units also implemented all the designers' esthetic considerations for the building. The lower portion of the glass (18%) slants in and picks up the reflection of any objects on grade level. The upper portion (82%) slants out and reflects the sky. This canting of the reflective *Solarban* Units results in a smooth, unbroken-looking surface.

Put the esthetic and cost-saving advantages of a PPG Performance Glass to work for your clients. Contact a PPG Architectural Representative for technical assistance,

or write: PPG INDUSTRIES,  
One Gateway Center, Pittsburgh,  
Pa. 15222.

Architects-Engineers: Vosbeck, Vosbeck,  
Kendrick and Redinger, Alexandria, Virginia.



**PPG**  
INDUSTRIES

PPG is Chemicals, Minerals, Fiber Glass, Paints and Glass. So far.





Durasan Presidential Walnut in floor-to-ceiling Contempo-Wall Demountable Partition System with a choice of batten style.



Monolithic Durasan with butt seams eliminates joints where dirt and germs may lodge. Ideal for hospitals, clinics, nursing homes.

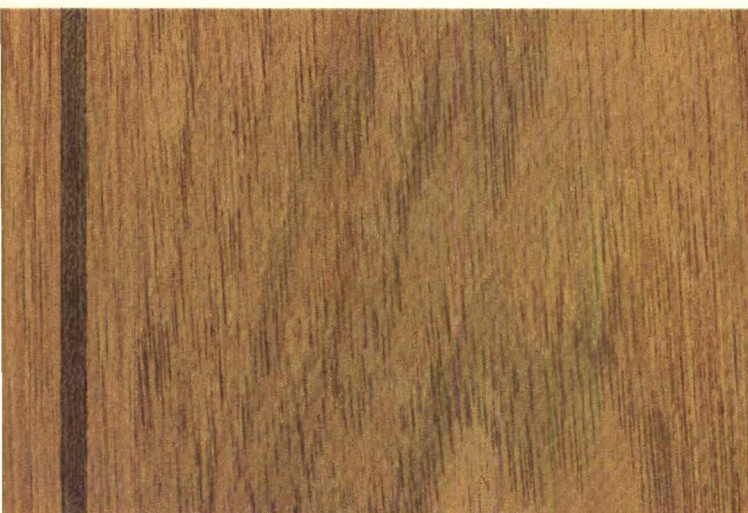
**Think of Durasan  
as background  
music for the eyes.**

Durasan vinyl-surfaced gypsum decorator panels can set the mood for every room in the building.

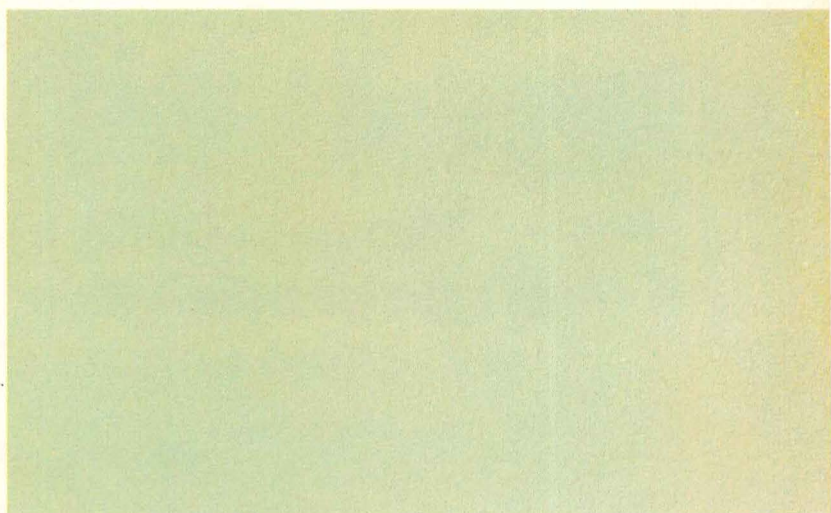
Its 8 patterns and 79 colors give you a free hand to harmonize, contrast or keynote at will. Which makes for beautiful side effects for any decor.

And as if good looks weren't enough, Durasan is practical, too. (It's washable, abrasion resistant and noncombustible.)





Random Planked Durasan creates an intimate atmosphere in specialty stores and boutique shops. Provides easy maintenance.



Stipple Pattern Durasan is so scuff resistant, it is ideal for high-traffic area such as restaurants. 12 beautiful colors.

Application is easy wherever it goes. Durasan can be attached directly to studs, over existing walls or in demountable partition systems (Gold Bond Contempo-Wall®).

Finally, Durasan® is reasonable. In most cases, the cost is less than building a wall and applying a comparable grade of vinyl wall covering.

Your Gold Bond® Dealer or Representative will be happy to start the music.

## Fitting into the scheme of things is a National responsibility.

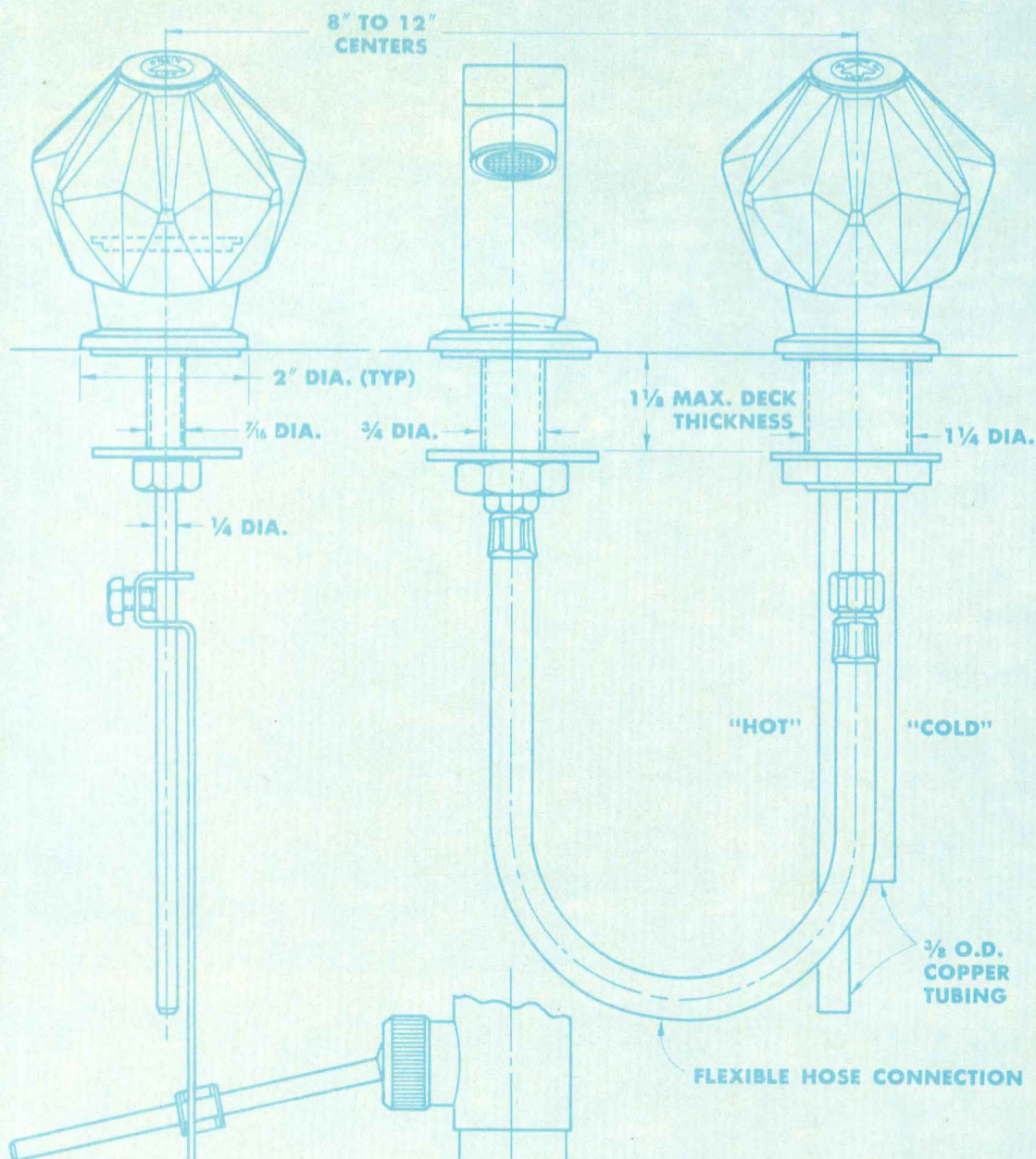
Gypsum Company



The name Gold Bond identifies fine building products from the National Gypsum Company. For new brochure on Durasan colors and patterns, write Dept. PA-30G, Buffalo, New York 14225.

On Readers' Service Card, Circle No. 368





## The new Delta Fjord two-handed single handle valve is so easy to install, you could almost do it single handed.

What more could a profit-minded businessman ask for?

We've designed the Delta Fjord with a flexible attachment for easy installation. And you can spread our widespread anywhere from 6 to 16 inches. Making the Delta Fjord versatile enough to fit virtually any lavatory.

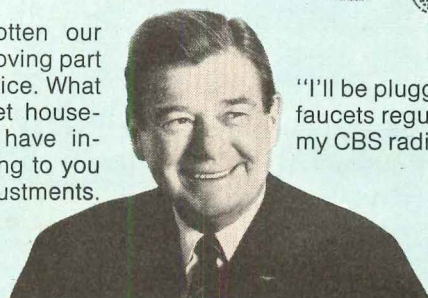
But don't ignore our new valve's looks. We've designed the Delta Fjord with today's fashion-con-

scious housewife in mind. In decorator finishes of chrome, brushed chrome, bright gold or satin gold. In models for the tub, shower and lavatory.

And we haven't forgotten our original concept of one moving part for maintenance-free service. What could be better? A faucet housewives will be crying to have installed . . . and not sobbing to you about return calls for adjustments.

**DELTA**  
Div. of Masco Corp., Greensburg, Ind.

MADE IN U.S.A.  
Good Housekeeping  
APPROVED



"I'll be plugging your faucets regularly on my CBS radio show."



# The desk that gets down to work. Beautifully.

It's planned with work in mind and styled to be highly functional as well as providing a maximum work area. For complete information, look in the yellow pages for the nearest Cosco dealer, consult Sweet's Interior Design File or write for the "Architect's Package" from Cosco Business Furniture, Inc., Dept. PA-30, Gallatin, Tennessee 37066.



***COSCO***



# HERE'S AN ATTRACTIVE / PRACTICAL SOLUTION TO THE WRAPS PROBLEM IN THE MODERN CLASSROOM



## SCHOOLINE SEMI-CONCEALED WARDROBES

do away with the costly, inconvenient nuisance of a cloak room—the slamming, banging, finger pinching of closet doors—the unattractive clutter of open shelving and, instead, give a completely flexible hidden-from-view wraps and storage system.

Each double wardrobe unit accommodates 16 pupils, is constructed to give long trouble-free service and as an extra bonus, provides 21 sq. ft. of colorful tackboard or chalkboard. Matching teacher's closet, storage cabinet, and sink units are available and can be combined to meet your special requirements. For a more complete story write for our catalog SL 510.


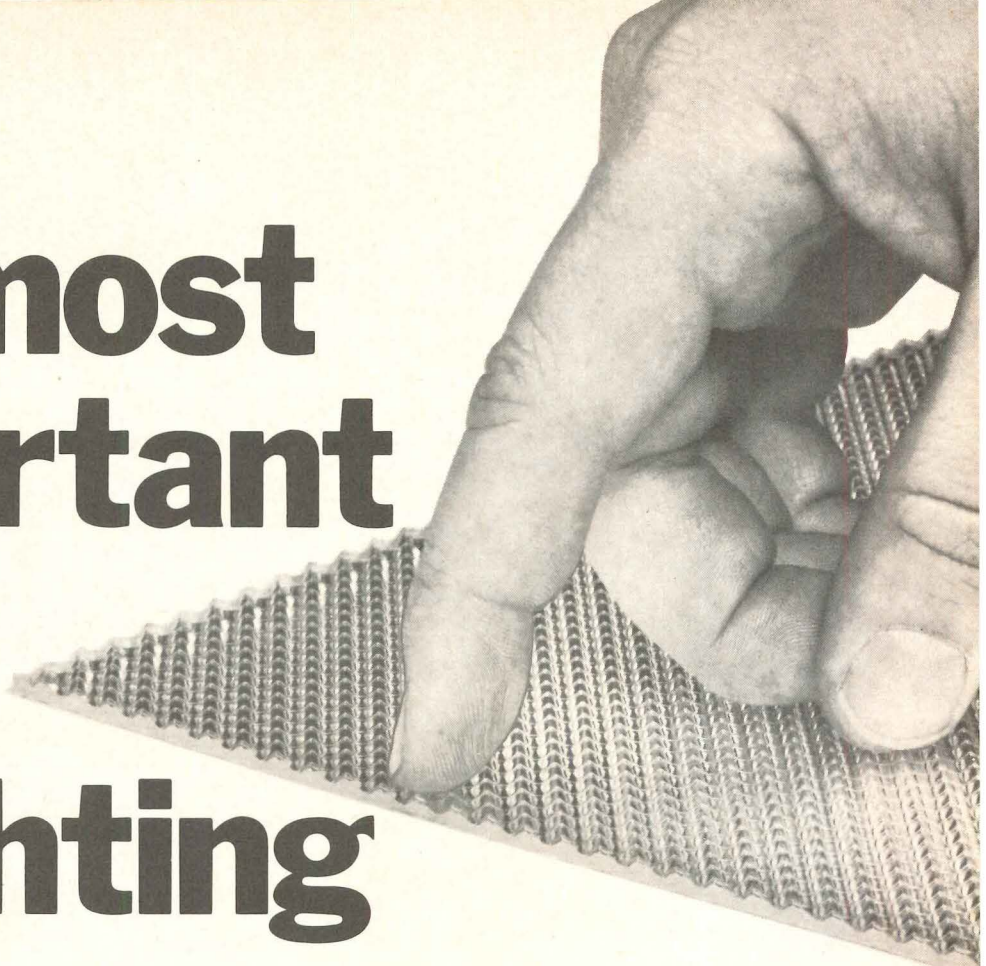
© 1967 V.P. Co.



**Vogel-Peterson COMPANY**  
"The Coat Rack People"  
ELMHURST, ILLINOIS



# The most important $\frac{1}{8}$ " in lighting



**THE GUARANTEED  $\frac{1}{8}$ " THICKNESS OF KSH K-LITE LIGHTING PANELS**

A panel that's less than  $\frac{1}{8}$ " thick gives you nothing but trouble, and unfortunately... the woods are full of people who are selling thin, substandard panels less than  $\frac{1}{8}$ " thick.

They will warp... sag in fixtures... break more easily. And will not meet minimum standards for brightness control!

THE ONLY WAY TO MAKE SURE YOU GET PROFESSIONAL QUALITY PANELS... is by writing a paragraph-long specification that pins down the  $\frac{1}{8}$ " thickness, sag tolerances, minimum specifications for brightness control, etc., or BY SPECIFYING KSH-12, KSH-13 AND OTHER K-LITE PANELS.

THAT'S A FACT!

Write for free 12-page brochure on KSH Quality.



K-S-H, Inc. • 10091 Manchester • St. Louis, Missouri 63122

On Readers' Service Card, Circle No. 396

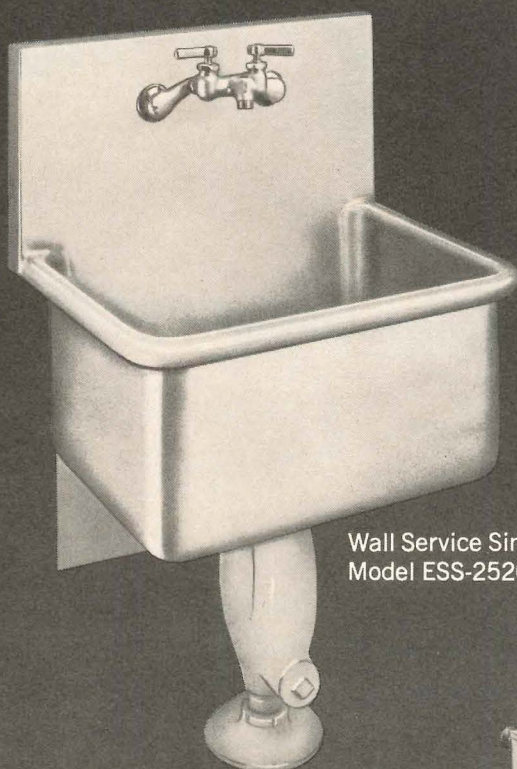


The Elkay institutional sink line reflects long experience in designing and building leadership products of stainless steel. Innovative features that improve function, appearance and service are part of every Elkay institutional product.

## *from the **ELKAY**® family of firsts*

### **SERVICE SINKS**

A full line of floor and wall mounted service and mop sinks. All of stainless steel and designed for today's applications. A flushing rim model service sink is also available and offers unusual convenience and sanitation.



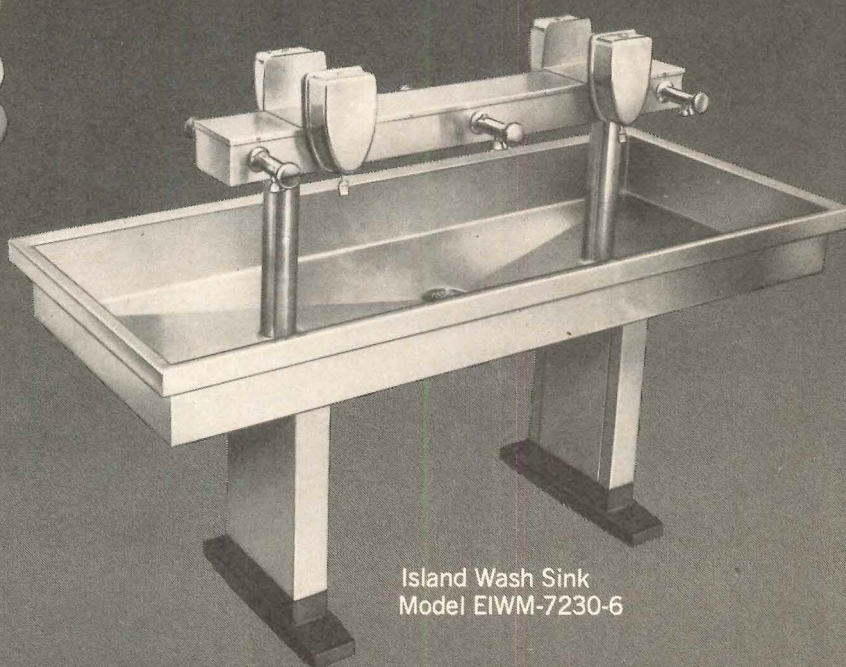
Wall Service Sink  
Model ESS-2520



Floor Service Sink  
Model EFS-2523

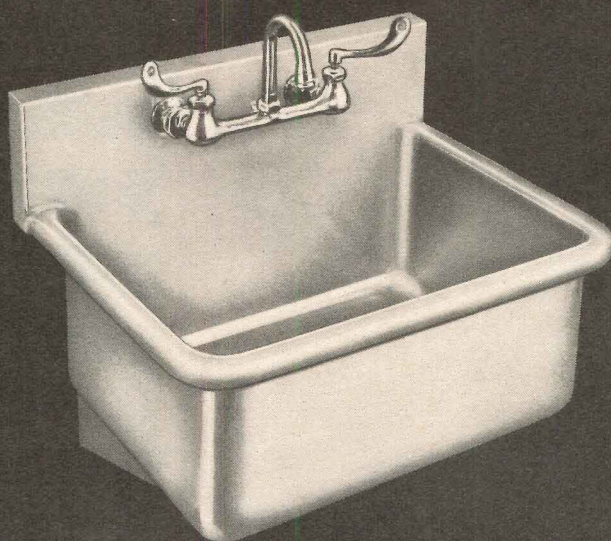
### **WASH-UP SINKS**

A complete line of multiple station wash-up sinks featuring individual station controls, automatic shut-off, positive temperature regulators, soap dispensers. No-drip channel rim design prevents dripping on floors. Made in island and wall multi-station types.



Island Wash Sink  
Model EIWM-7230-6





#### **SURGEON'S WASH-UP SINK**

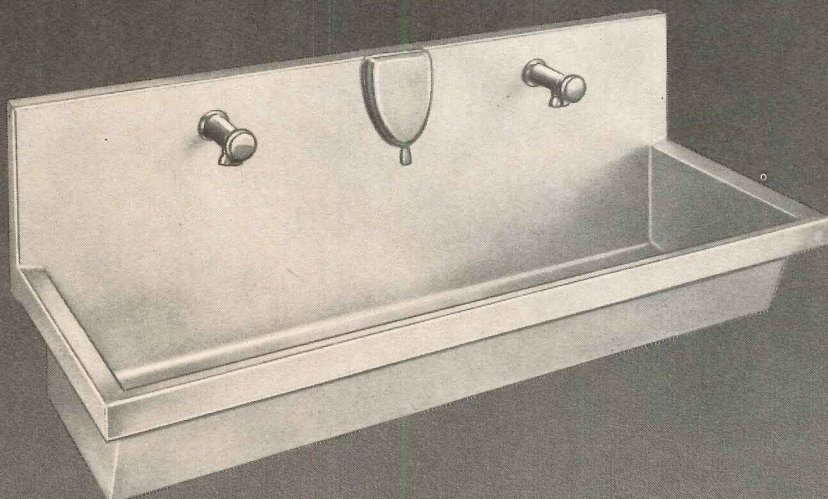
Fine Elkay lustrous finish stainless steel wash-up sink with stainless steel brackets. Equipped with blade type, wrist operated faucet handles. Also available are knee and floor control models and automatic temperature control models.

Model EWS-2520-W

#### **SURGEON'S LAVATORY WITH INSTRUMENT TRAY**

Furnished with built-in instrument trays which drain into center compartment. Equipped with knee action, floor or wrist controlled mixing valves and goose-neck aerator spout as selected.

Model ESLV-2820-F



Wall Wash Sink  
Model ETWM-4820-F



For complete information write for Catalog No. IPC-2 or call Customer Service Dept., Area Code 312-681-1880. ELKAY MANUFACTURING COMPANY, 2700 S. Seventeenth Ave., Broadview, Ill. 60153









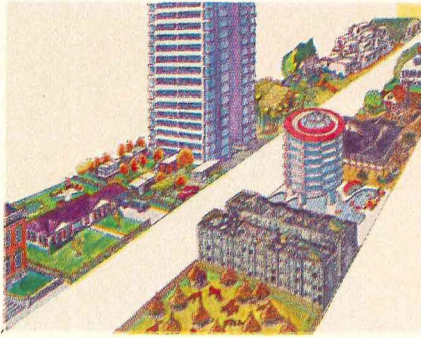
**A street where the  
world lives.**

All kinds of shelter from grass huts to  
glass houses, adobe to aluminum, hovels to  
high rises.

To see one corporation's contributions  
to the economics and design of housing,  
please turn the page.

**KAISER**  
ALUMINUM & CHEMICAL CORPORATION





Shelter serves the same functions for man as do caves, dens, shells and nests for animals. Physiologically for protection. Culturally for communication.

Just as the covering on an animal's body is genetically determined, man's style of shelter is culturally determined. The "proper" style for human-built shelter is almost as rigidly limited by ritual as an animal's outer coating is by genetic code.

That contemporary man has, for the most part, elected to entomb himself in little cubicles is, at least, remarkable—considering the diversity of shapes and variety of materials available to him now.

Recent studies of the interactions between man and his man-made environments suggest that, on a crowded planet, a number of quite different solutions to the shelter "problem" may be explored in the next 20 years. Some of these possibilities are examined in depth in the second of a series of issues of our company magazine this year under the general title, "The Markets of Change."

This new series will become a companion book to "The Dynamics of Change," available from Prentice-Hall, Dept. D, Englewood Cliffs, New Jersey.

For your copy of the issue, "Markets of Change—Shelter", or information about any product shown here, please write: Kaiser Aluminum & Chemical Corp., Dept. L-6, Room 864, Kaiser Center, Oakland, CA 94604.

**KAISER**  
ALUMINUM & CHEMICAL CORPORATION

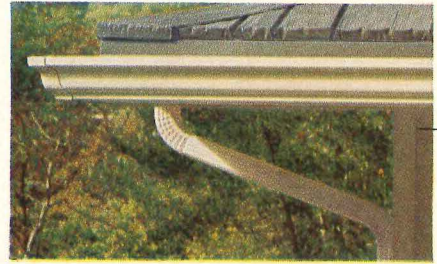
Serving "The Markets of Change" Worldwide. Aluminum, Chemicals, Computing, Specialty Metals, Mining and Exploration, Nickel, Real Estate, Refractories, International Trading.

#### FIVE WAYS YOU CAN LIVE ON A BETTER STREET:

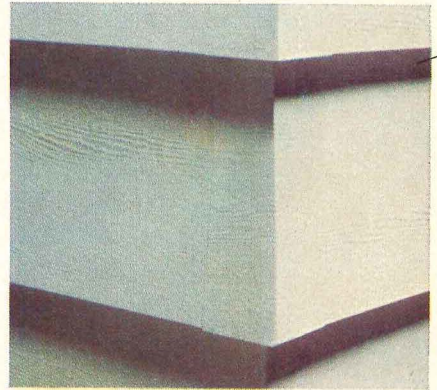
Advances for the shelter market, showing how Kaiser Aluminum & Chemical Corporation is serving the markets of change.



Kaiser Aluminum Rustic Shingle has the look of authentic hand-split shake.

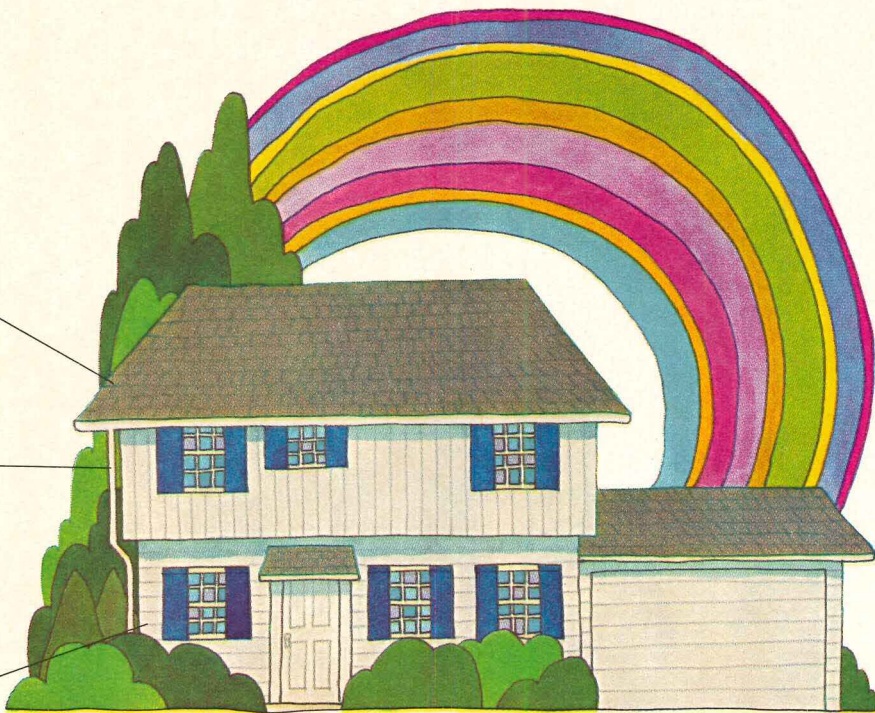


Aluminum rain-carrying systems, soffit & fascia, and shutters add distinctive touches to a truly low maintenance exterior.



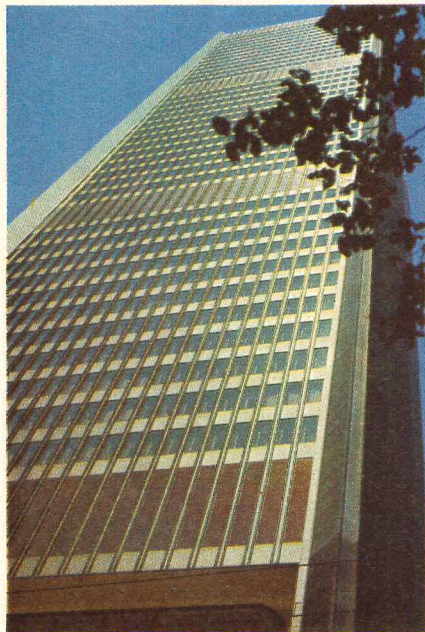
Our Rough Sawn siding looks like freshly painted mill-textured lumber. Patented Sculptured Siding has the quality of expensive handcrafted carpentry.





**1. A home that looks and feels like wood.** Many times longer than freshly painted wood. Kaiser Aluminum "low maintenance exterior" doesn't need painting every few years. It won't rot or peel. A blessing for homeowners and a bargain for homebuilders.

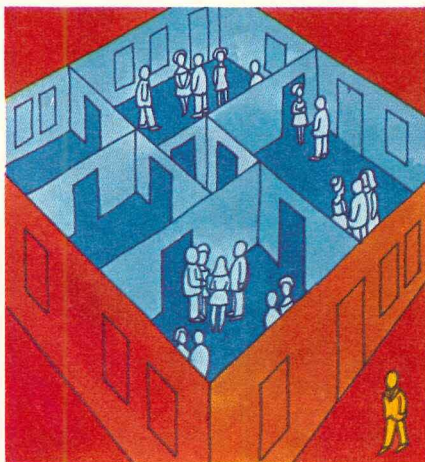
In the future, you'll see quality homes factory-made in modular aluminum units, easy to erect and maintain.



**2. Almost every big new building** now goes up with aluminum windows, aluminum doors, or an aluminum face.

Lightfast gold, amber, grey or black finished parts are Kalcolor® aluminum. The anodizing process that makes these uniform, durable and attractive color finishes possible is a patented Kaiser Aluminum development now licensed worldwide.

For new or renewal projects, still greater visual variety is attainable with our Mirawal® laminated building panels faced with porcelain enamel, aggregate, tile or aluminum.



**3. Get an air conditioner** and you'll have lots of company. Four out of ten U.S. homes now have one.

Our Kaiser Chemicals division produces the refrigerant, fluorocarbon gas that makes new home units comfortable, healthful and clean.

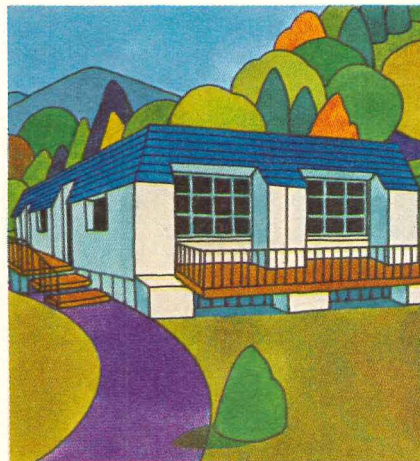
Aluminum sheet used throughout better models keeps them non-rusting.



**4. President Nixon's executive office complex**—at the Western White House at San Clemente, California—was manufactured by our Designed Facilities Corporation. They pioneered the integrated approach to design, manufacture and installation of permanent, code-approved buildings on an assembly-line basis.

Their structures have found wide acceptance as schools, offices (as shown above), motels and in a wide range of other light commercial building applications.

The attractiveness of their designs has been recognized through several architectural design awards.



**5. Mobile homes** attracted 400,000 new owners last year. One out of five new home buyers. To help manufacturers who build them, Kaiser Aluminum has fabricating Service Centers located where they're needed.

Aluminum gives people more of what they want in mobile homes. Residential styling. Minimum maintenance. High resale value.

We supply fabricated panels, accessories, and ideas—like new wood-looking board & batten panels that give a fresh residential look to well-styled mobile homes.

**KAISER**  
ALUMINUM & CHEMICAL CORPORATION

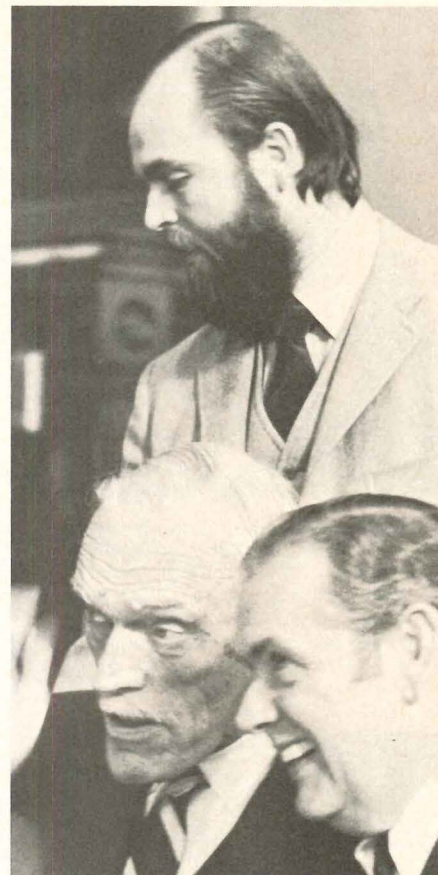


# P/A

## NEWS REPORT



Architects, educators, and P/A staff gathered in stately Sayles Hall for the Seventeenth Annual Design Awards luncheon. Above, view showing organ loft and slide presentations; below, view of main hall and speaker's podium.



## P/A's Seventeenth

Above Photo: John Nicholas Brown, secretary of the corporation of Brown University, James F. Mottershead, president, Reinhold Publishing Co. seated; Donlyn Lyndon, Moore, Lyndon, Turnbull standing.



Above: Alberta Brown, dean of admissions, Pembroke College.



On January 14, winners of P/A's Seventeenth Annual Design Awards were feted at a luncheon on the Brown University campus in Providence, Rhode Island. The luncheon, where winners received commemorative certificates, was held in stately Sayles Hall. The 19th Century eclectic meeting hall is not far from the site of the projected top-award winning dormitories for Pembroke College, the women's division of Brown University.

Gathered at the luncheon were a number of Brown University and Rhode Island School of Design dignitaries, as well as New England architects, designers, and the press. Guests included: Merton Stoltz, acting president of Brown; John Nicholas Brown, secretary of the corporation and senior fellow of the university; Alberta Brown, dean of admissions, Pembroke College; and Charlotte Lowney, associate dean. Also present were: Barnet Fains, chairman of the Rhode Island Council of the Arts; Gerald Howes, head of the Department of Architecture, Rhode Island School of Design; Robert Tiernan, congressional representative from Rhode Island, and Lawrence Anderson, dean of the school of Architecture at MIT.

Visitors entering the baronial hall, with its high hammerbeam ceiling, were greeted by a continuously flashing four-screen slide projection positioned under the organ loft. A large chromed stovepipe sculpture by Alice

Lyndon (wife of Donlyn Lyndon, first award winner) carried projectors for the slides, while traditional 19th Century portraits of former trustees looked down from the walls.

Although program events bore the quiet dignity of traditional ceremonies, awards were presented to 70's minded architects who had designed buildings generally expressing a new approach to architecture. First on the list of ceremonies was a speech by Tim Vreeland, professor of architecture at UCLA and chairman of this year's design award jury. Accompanied by a slide presentation illustrating premiated designs, Vreeland discussed jury attitudes toward each of the winning designs. Comments by juror Robert Venturi further expressed the prevailing mood that distinguished this year's design awards from previous years: Venturi, himself a recognized apologist of the movement toward anti-monumental or "ordinary" architecture, pointed out that the current practice of emphasizing functional or structural elements was in effect reviving ornamentation by the dishonest inclusion of unnecessary physical elements. This year's awards were generally selected because of their simplicity and unassertive quality.

Following Mr. Venturi's speech, P/A's Editor Forrest Wilson presented the citation and award certificates to the recipients. Donlyn Lyndon of Moore, Lyndon, Turnbull

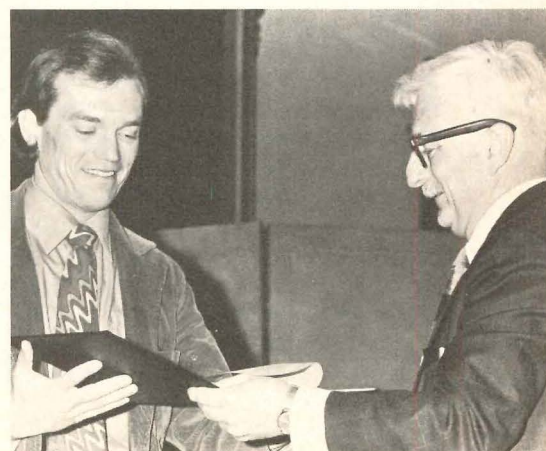
accepted the first award for the Pembroke College dorms, a building complex the jury had described as neutral and anonymous but sensitively designed to meet the programmatic needs of the students. Mr. Lyndon further discussed the problems confronting an architect in designing a university building during a period of student unrest and anti-establishment sentiment. Often, as he explained, the physical environment becomes the focus of rebellion, and any new design must in a strong sense respond to the psychological needs and projections of the people it will shelter. The four simultaneous slide presentations that had been running continuously throughout the luncheon amplified that idea by depicting: 1) groups of people in an institutional situation; 2) how people personally lay claim to spaces; 3) different types of architectural images that were basic to MLTW attitude towards form; and 4) various residential images the college student brings with him to a campus.

P/A's last scheduled event never materialized. Brown and Pembroke students were to seize the hall protesting the new dorms amid the flashing cameras of photographers from the national media. While indeed missing this dramatic fracas to top off an otherwise staid affair, P/A nevertheless hoped this indicated student approval of the establishment's decision to give than an "ordinary" dorm.

## Annual Design Award Luncheon



Above: Seated at head table, left to right, are Harrington A. Rose, associate publisher of P/A; Robert Venturi of Venturi & Rauch; Philip H. Hubbard, Jr., group vice-president of Reinhold Publishing Corp; Charles Moore of Moore, Lyndon, Turnbull; Merton Stoltz, acting president of Brown University.



Above: P/A editor, Forrest Wilson, presents citation to John Clair Miller of Levatich & Miller.

Left: Tim Vreeland professor of architecture, UCLA; Burton Holmes, executive editor, P/A; and C. Ray Smith, senior editor, P/A, seated at head table.



## The Next Vietnam:

### Notes on Environment, Ecology and Conservation

Government and industry seem to be competing to see who can protest more against pollution. One is tempted to suspect that for all the talk there will be little action, as Senator Edmund Muskie has declared, even though press coverage has been formidable. Realizing that it runs the risk, along with the rest of the media, of generating verbiage pollution, P/A nevertheless feels compelled to do its bit. Summarized below are the efforts of the new activists who realize that problems of the environment will not be acted upon by government and industry alone.

#### The Students

This spring a nation-wide teach-in on the environmental crisis will be held April 22. Organized by the non-profit Environmental Teach-in Inc., a specially formed group of graduate students operating out of Washington, the teach-in will be campus-based, but there is hope that communities will also be involved. The idea germinated at the University of Michigan's School of Natural Resources. Senator Gaylord Nelson backed it, and along with Representative Paul McClosky and Sydney Howe (President of the Conservation Foundation), became co-chairman of the Teach-In Committee. The organization wants to spur the establishment of seminars and courses on the environment, local information centers, marches, rallies, picketing, and lobbying against government bodies. Communities are urged to get involved in lawsuits and other legal action to restrain polluters. Another suggestion is the organization of tours to pollution sites.

Meanwhile many colleges are getting into the act. Boston University's Ecology Action group held a two-day conference in the fall on the dangers of pollution, and the University of Washington's (Seattle) Committee on Environmental crisis held a similar seminar. The University of Texas

is especially active with six different ecological organizations (although the University of Hawaii has twenty-two). Texas also plans to launch a statewide environmental newsletter and its law students are investigating courtroom strategy for environmental lawsuits. Student environmental organizations have become so popular that Stanford has created a Student Environmental Confederation to coordinate campus campaigns throughout California for more effective pressuring.

Universities themselves have introduced courses, formed departments and even started schools concerned with ecology. Columbia University has a graduate level program of environmental science, while Williams College created an undergraduate environmental studies major that crosses departmental lines. An interdisciplinary program of medical, biological, and behavioral sciences has been initiated at Stanford. Meanwhile:

Ohio State has established a School of Natural Resources with almost a doubled enrollment since its inception one year ago; California Institute of Technology students have organized an intercollegiate summer research project in environmental problems that already has attracted nearly \$100,000 in foundation financing; and three universities, the University of North Carolina, Duke, and North Carolina State have formed a research consortium to combat air pollution. The universities plan to exchange information and faculty members as well as to offer advanced courses in air pollution and sponsor workshops, seminars, meetings, and conferences.

Gyorgy Kepes has stated the following about his Center for Advanced Visual Studies at MIT: "I see our role as environment creators. To change the environment, one's consciousness has to be opened to these potentials. We need to develop what I call 'ecological consciousness'. There

are tremendous ecological tragedies and possibilities and the artist cannot escape from being a participant for better or for worse."

#### The Courts

While students are investigating legal procedures regarding environmental suits, more and more private citizens are finding lawsuits are the most effective way of dealing with profiteering special interest groups. Joseph Sax, Professor of Law at the University of Michigan reports that the number of lawsuits dealing with environmental interests are doubling every six months. Mr. Sax himself has drafted a bill, up before the Michigan House of Representatives, that would facilitate procedures by which the public could challenge private or governmental projects that lead to spoilage of the state's natural resources.

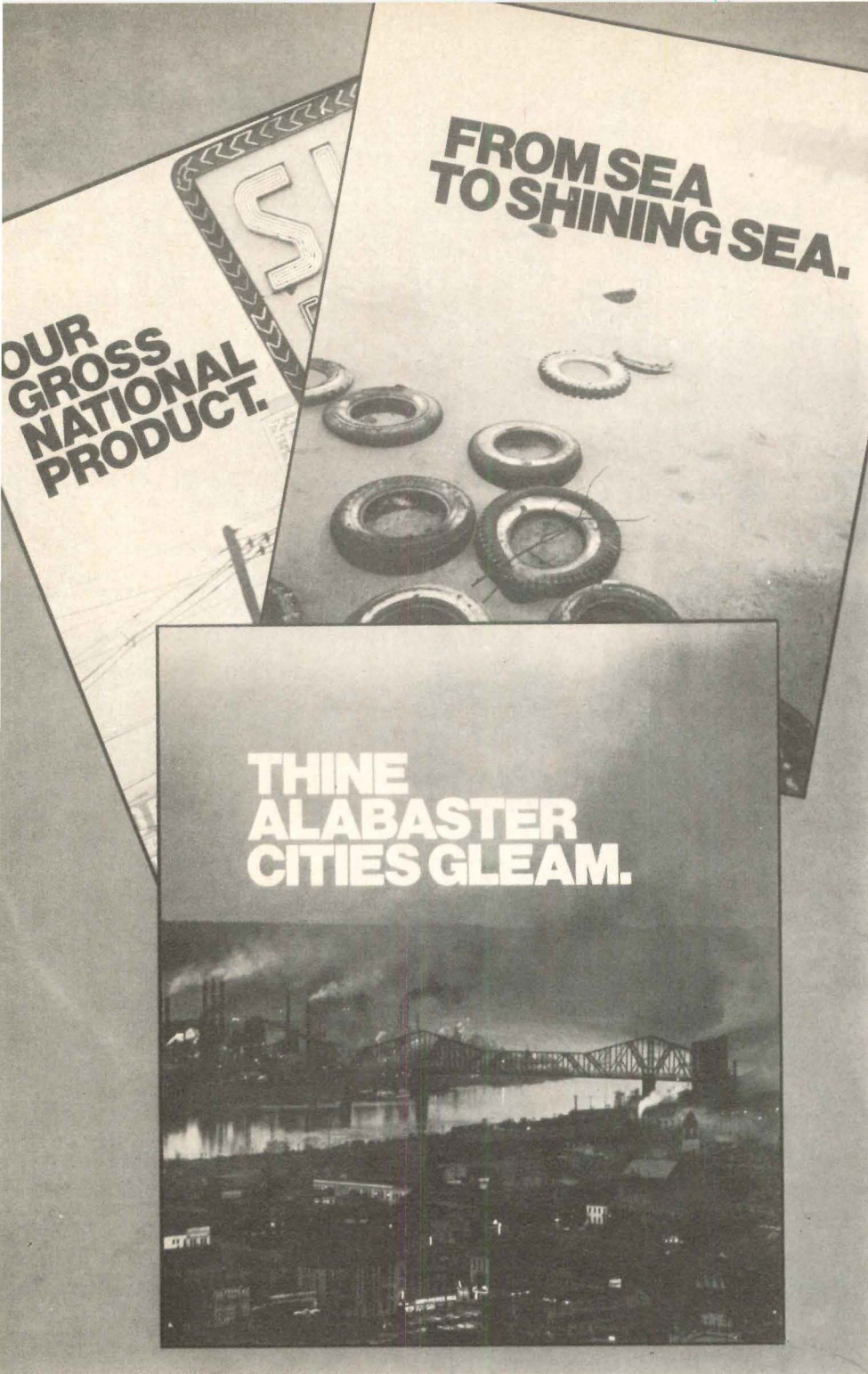
Sax urges the courts to take a more responsible role in preventing powerful organized interest groups from bulldozing their projects through legislative loopholes: Courts can issue injunctions, declare a moratorium until all interest groups are heard, and draw on the expertise of agencies not involved in the decision-making process.

Lawyers, as a group, are becoming interested in this kind of case: the next annual meeting of the Association of American Law Schools will have as its theme, "Man and Nature."

#### The Engineers

The Engineers Joint Council, a federation of engineering societies, has authorized the establishment of a commission of engineers to study problems of air pollution and how technology can best solve them. Called the National Engineers Commission on Air Resources, the group will educate, advise, and work actively with the public and federal





Posters shown on these pages are part of a series of advertisements for safeguarding the environment sponsored by the AIA.

agencies, regional, state, and local governments, industry, and other professions.

### The Scientists

The Scientists Institute for Public Information will issue a series of environmental workbooks, according to its new president, Margaret Mead. The first books cover the problems of air pollution and contamination by pesticides, including specific facts relevant to their solution.

### The Architects

The national headquarters of the AIA in Washington recently held a Consortium on Environmental Awareness and Public Education where spokesmen for twenty-five private organizations and Federal agencies gathered to consider joint action in classroom instruction, testimony before government bodies, and information to the public, all on problems of the environment. Also being considered is cooperation with

the national teach-in April 22.

Meanwhile, the New York Chapter of the AIA is proposing that the following be considered for inclusion in the upcoming revision of the organization's ethical standards: "An architect should act throughout his practice to protect and conserve the natural environment, safeguarding against pollution of air, water, and other natural resources."

### The Museums

The American Museum of Natural History in New York City has mounted a two-year exhibition, "Can Man Survive?" While many of the aspects of the problem are effectively presented through an array of multimedia techniques, the content of the show is aimed at making the spectators aware of the situation rather than presenting specific solutions.

At the St. Louis City Museum a "space place" game has been installed in a portable unit. Children are invited to make decisions about the environment, including land, air, and water use.

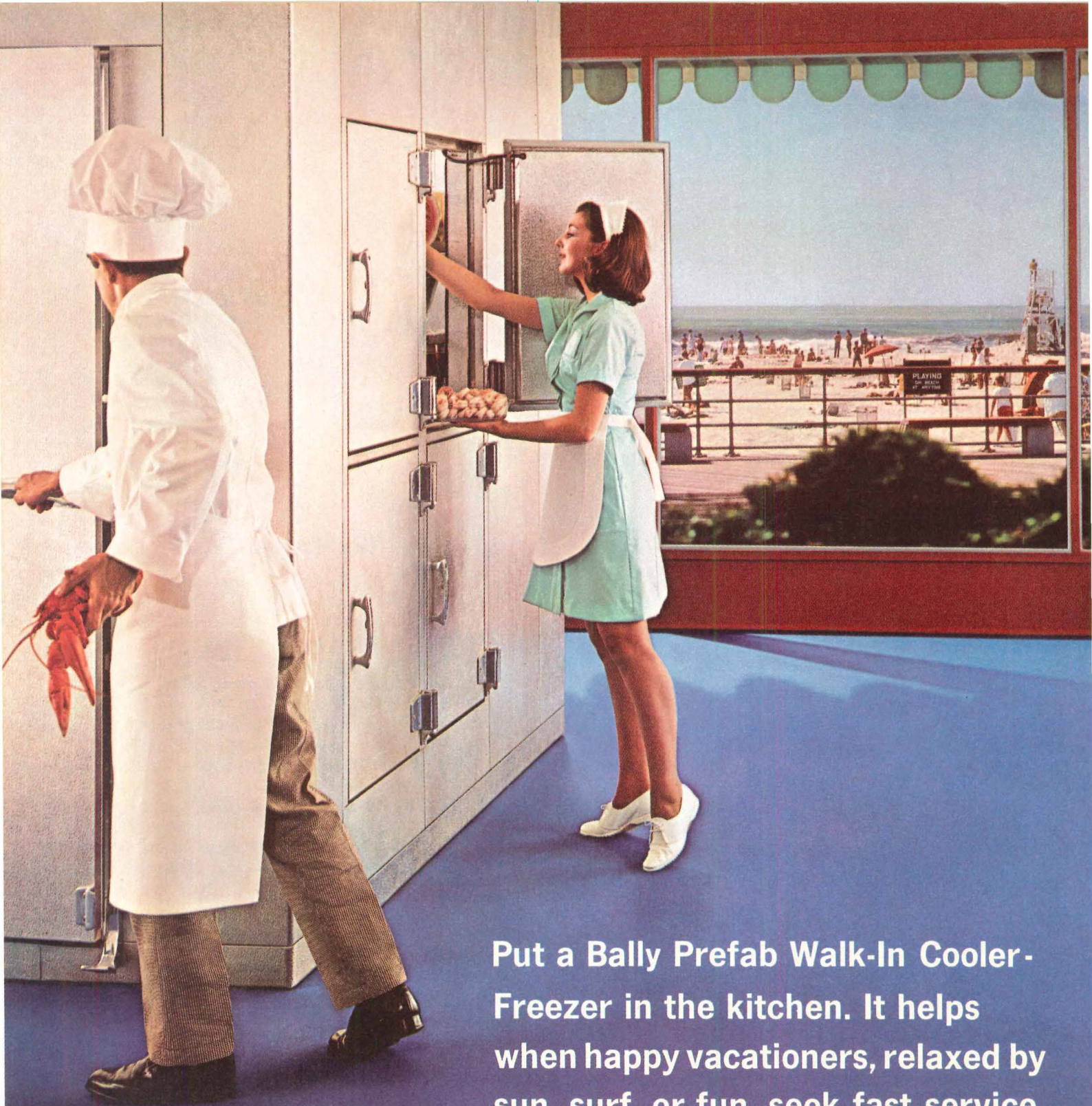
### Who Said that?

*"Is the possible damage to a body of water sufficient to justify the capital expenditure necessary to avoid that damage?"*

In answer to the charge that atomic power plants are dangerous because of radiation and the raising of water temperature to a level harmful to wildlife, came the following circuitous argument: *"In a full-employment capital-scarce economy . . . the expenditures of labor and materials on cooling facilities for power plants inevitably mean there will be much less capital for dedication to new housing, new schools, new treatment plants, etc."*

—Charles Luce, Chairman of the Board of Consolidated Edison. (Con Ed recently pleaded guilty to a Federal Government indictment for polluting New York's East River.)





Put a Bally Prefab Walk-In Cooler-Freezer in the kitchen. It helps when happy vacationers, relaxed by sun, surf, or fun, seek fast service.

With plenty of space it's a breeze to pre-prepare house specialties. If there's an expansion program ahead, it's easy to increase Walk-In size with extra panels. Equally easy to relocate. Write for 32-page booklet and 4 inch thick urethane wall sample.

There's an  
evolution in the  
kitchen



© 1970, ALL RIGHTS RESERVED.



## Los Angeles Salvagable?

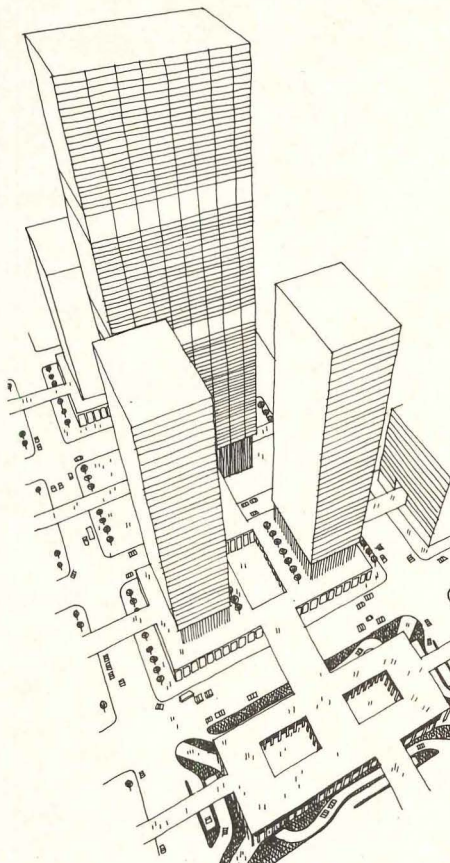
L.A. has perhaps been best characterized as five suburbs in search of a city. With the firm conviction that any effort regarding planning bodes well for the city "where there's no there, there," P/A has asked its West Coast editor Esther McCoy to dig around for nascent stirrings of activity. The results indicate hopeful signs of planning efforts, but with regard to preservation, L.A. still doesn't know where it's at.

### A Central City Plan

Reuben Lovret, city planner with the Urban Design Unit of the Advance Planning Division of the City of Los Angeles, has proposed "A Preliminary Concept in Planning for the Central City," which deals with an area one mile long and two miles wide. The scheme is issued as a staff working paper since a committee of twenty business men has been appointed by Mayor Yorty to select and advise a consultant to develop a plan for downtown. Evidently there is a reluctance on the part of the mayor's committee to turn the job over to local planners and Constantine Doxiades' name frequently crops up as a nominee for the job.

Lovret's plan is the first to treat the downtown area as a physical whole and to bring the edges into the structure. The area is divided into four cells each filled with what is compatible to it. The Plan acknowledges the supremacy of the car in central city by adding a freeway loop on the east which would complete a belt around the heart of downtown. This freeway belt would be snug, but inside it is a tighter belt and between the two are five large parking structures. Transit radials feed traffic from the inner belt to and through the parking structures to the freeway belt. The plan does not reduce the number of cars at the center (80,000), they are only concentrated. However, the present 50 per cent of land devoted to parking would fall to 35 per cent.

Street straightening, widening and closure would speed the move-



ment of cars, and subsidiary transportation systems could speed the car owner to his parking structure. The plan operates independently of a rapid transit system, although Lovret believes one will be ready in the late seventies. In the meantime the elevated malls, stratified to accommodate eventual overhead transit stations (secondary system), and people movers (tertiary system) span the 80,000 cars parked below.

A major concern of the plan is upgrading the east side to stem the flow of the city to the west. The new Bunker Hill development, Music Center and commercial-financial center on the west are proving too successful; unless the east side can attract new office buildings, retail shops, and hotels the city may lose its vast investment in underground utilities and public works; particularly if the booming west side leaps the Santa Ana Freeway and pushes westward.

An aim of the Lovret Plan is to make every block on the east side a

"prime site for a hotel or office building" and bring back the middle class that left after the end of World War II. To raise the cultural level on the east, a complex called University Center (sometimes The Square) is proposed for Skid Row; in it would be a university tower and a new central library with plenty of parking. Skid Row would, according to Lovret, be "phased out"; railroads are also being phased out but it isn't as easy to cover over the quarter square mile of railroad yards left behind.

### Revitalization of El Pueblo

Although the Plaza, birthplace of Los Angeles, is close to the Civic Center and easily accessible, it has none of the tourist appeal of other tourist favorites such as Marineland and Disneyland. (Only 1.5 per cent of out-of-state auto visitors ever visit the Plaza).

Pollak, Barsocchini & Associates' comprehensive development plan for El Pueblo de Los Angeles State Historic Park proposes that the area be named a state park and expanded to cover 44 acres. Parking would be located at the periphery, with the center a pedestrian island patterned with a grid of malls. In addition, re-routing of Sunset Boulevard would allow Olvera Street, the present chief attraction, to flow into the Plaza uninterrupted by traffic.

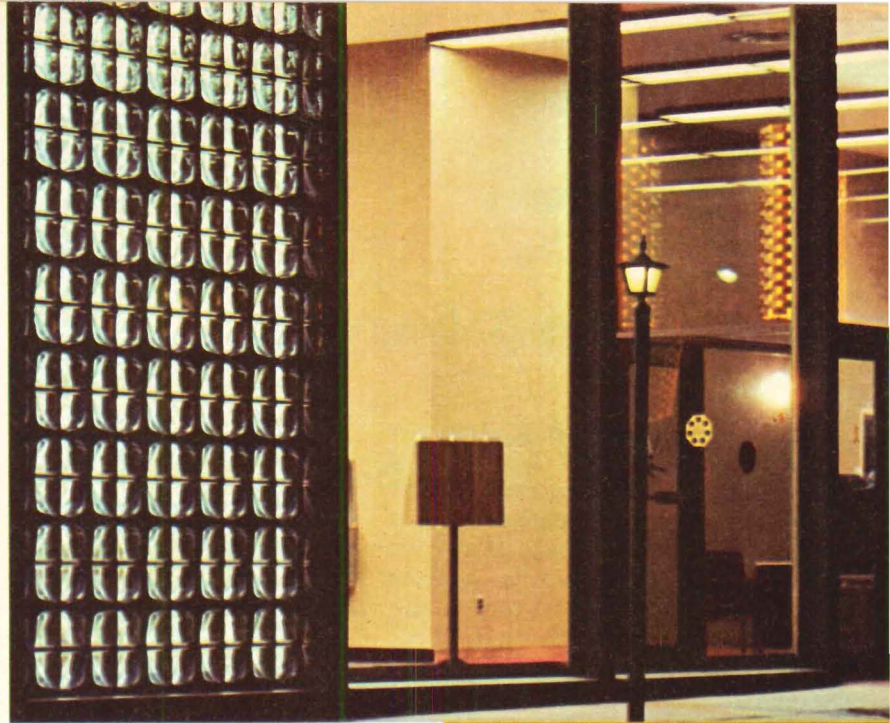
In 1929, Olvera Street was made a pedestrian way, paved, planted, and renamed Paseo de Los Angeles (later dropped). The El Pueblo Plan extends Olvera Street to the north by clearing out deteriorating neighborhoods and bringing in shops offering a greater variety of products of higher quality.

Restoration has also previously been undertaken on two historic buildings, the Avila Adobe, built by an early *alcade* of the Pueblo around 1818, and the two-story Casa la Golondrina, the city's first brick building.

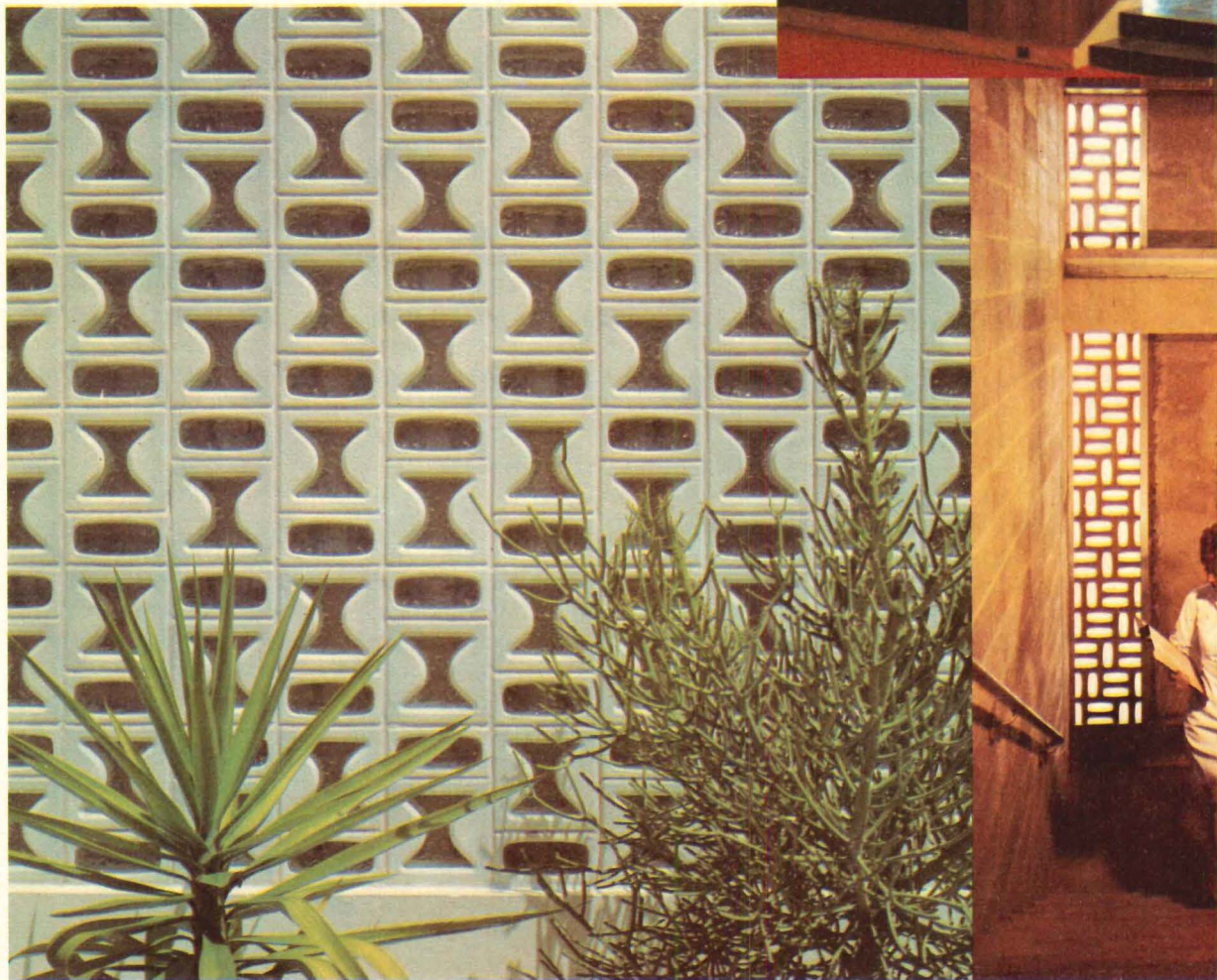
Other restorations around the Plaza will also be undertaken. An es-

(Continued on page 38)

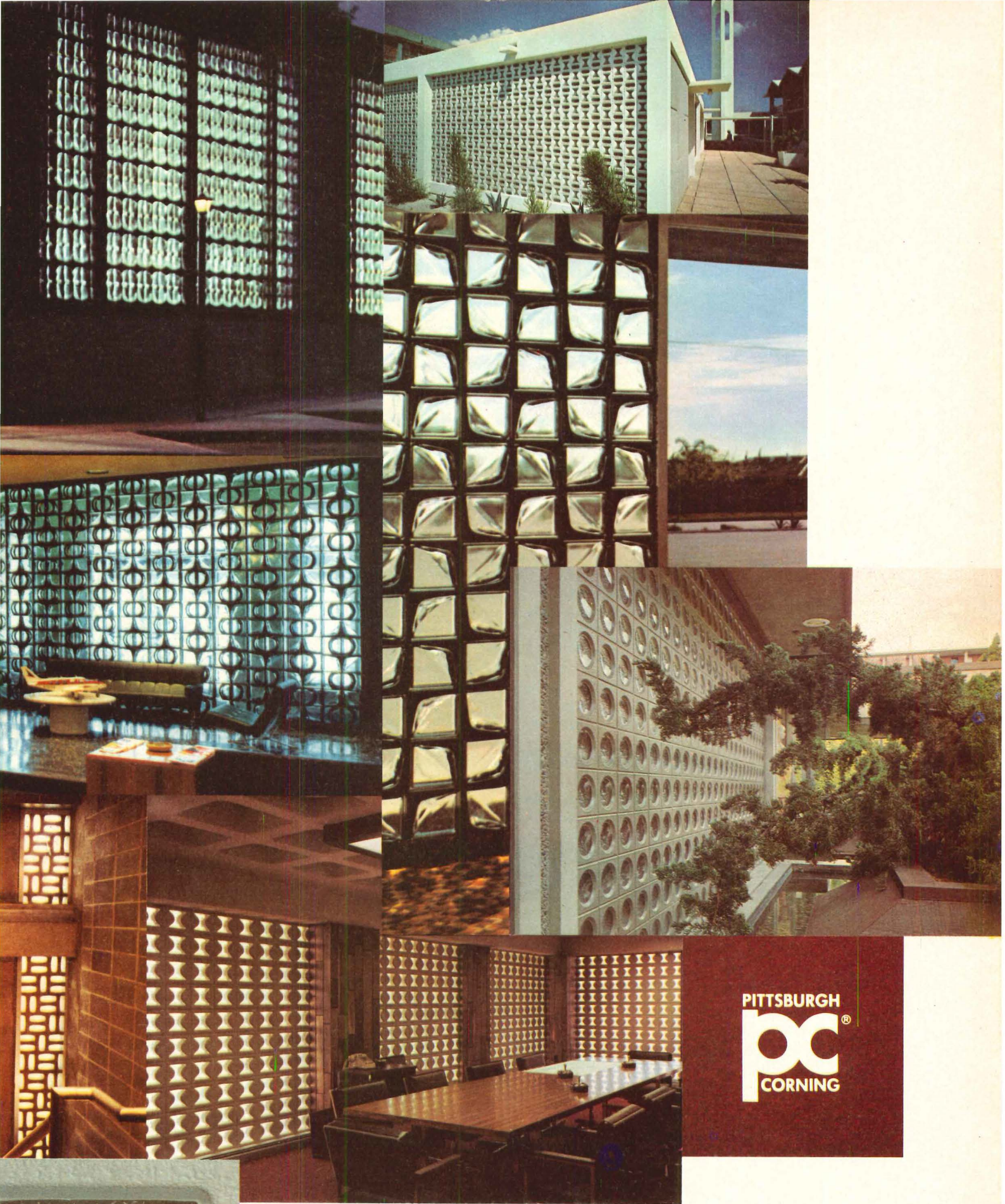




***Glass blocks  
...windows you don't clean,  
walls you don't paint,  
beauty you can't match.***







PITTSBURGH  
**pc**<sup>®</sup>  
 CORNING

More than ever, architects are discovering the functional beauty of glass blocks by Pittsburgh Corning.

Functional, because each glass block contains a hermetically-sealed partial vacuum. Keeps out the winter cold and that blistering summer heat. Heating and air conditioning costs are significantly lower. So are maintenance costs

—glass blocks are virtually self-cleaning!

Beautiful, because of the look and the feel you can achieve using ten different patterns, individually or in combination.

Our catalog will start you thinking. Write for it: Pittsburgh Corning Corporation, Dept. PA-30G, One Gateway Center, Pittsburgh, Pennsylvania 15222.



(Continued from page 35)

timated \$2 million has already been spent on restoring the 1869 Pico House, a Renaissance-inspired plastered-over brick building designed around an open court. This beautiful building now has the sterility typical of restorations in general, and its intended use is still in question, though some suggest it be used as a hotel, its original function.

One critic feels that the plan for the Plaza may have become too commercial: "The Plaza area should become an architectural museum representing the many different cultures coming into Los Angeles over a period of time, which the Pollak and Barsocchini Plan embodies. . . . Ways should be found to fund it without making it a purely commercial venture."

How to keep the inner core of the city from emptying at 6 P.M. and make the high investment in reviving it pay off after six is a problem all planners face; but their planning, like their prose, too often falls into clichés. They call for Ghirardelli-type developments, but unfortunately, there is not a Ghirardelli type; there are only creative speculators who conceive a new kind of use for a city space or structure.

For his own part, planner Reuben Lovret has proposed for the El Pueblo District an International Zone with a Theme Center. It would be a "permanent world's fair" that

would promote foreign trade and understanding by the display and sale of products.

### Difficulties with preserving the valuable: The L.A. Central Library, Pershing Square

● Efforts to save the gardens of the Los Angeles Central Library have failed, with the result that the walks, fountain, and trees have been bulldozed to accommodate 119 cars for the librarians. Still too few car slots to matter much, most of the librarians will continue to walk several blocks from a parking lot to work. A city councilman's proposal to use city-owned property 4000 feet from the library for parking, with two city minibuses running from there to the library, was turned down by the Board of Library Commissioners along with other alternatives. Immediately following the decision a call from the City Librarian to the Board of Public Works cut short the usual 30-day grace period and the contract was summarily awarded to blacktop the park.

The Central Library, designed by Bertram G. Goodhue in 1925, in his late Nebraska State House style, occupies 25 per cent of the ample site and is one of two open spaces in the booming commercial-financial downtown district. Three million square feet of office space is going up to the north, and diagonally across will be

the new Convention Headquarters Hotel. A half block to the south, United California Bank proposes an 80-story office building.

There is little doubt that the dismantling of the library park is the first step in the destruction of the library itself. Robert E. Alexander, president of the Southern California Chapter of the AIA, who had led the fight to save the library and park, says "The value of the library site increases every day from the standpoint of a developer or some organization left out of this complex; its value increases just as much from the standpoint of the public and the general welfare of the Central City."

The most recent attack on the library itself is by the Los Angeles Fire Dept., who finds it "an immediate fire hazard." Alexander accuses them of playing into the hands of a city administration that apparently has made a commitment to a private developer to sell the property. He predicts that earthquake experts will now report that the building is unsafe, that "the vice squad will find perverts in the stacks and the Department of Agriculture will find pests in the trees."

In the new Lovret plan for downtown L.A., the library is gone but the site is called Library Park. Lovret advises solemnly that "the designers of any structure that replaces it (the library) would have a great responsibility to produce an architecturally significant building worthy of the site."

● With the library site up for grabs, the second open space in the financial-commercial core — Pershing Square — fares little better. It was taken apart in the fifties to build a parking garage below and, although poorly re-assembled, remained an open space. Lovret's plan virtually covers it with an art gallery plaza on top which would "feature fountains, sculpture, and one or more open-air restaurants." The elevated plaza becomes a node in the east-west axis — Central Mall — of the four miles of proposed elevated malls; these will later be increased to ten miles of elevated and ground level malls — leaving no doubt that in a Lovret city there is not a tree. (Continued on page 40)

Los Angeles Central Library by Bertram Goodhue 1925







We make a lot of different ceilings.  
To do a lot of different things.  
This one's thing is total accessibility.

You can't see it, but above the monolithic beauty of this ARMSTRONG acoustical tile ceiling is a unique suspension system that provides complete accessibility at any point in the ceiling. The system is called ATS. Short for Accessible Tile System. With ATS, a simple tool is all that's needed to gain access or to change tiles or to rearrange light fixtures. Like all Armstrong Ceiling Systems, ATS was designed to meet a specific set of needs—both functional and esthetic. Because there are so many different Armstrong Systems, your Armstrong Architectural Representative is in the best position to help translate your particular needs into a workable recommendation. For his name, and a copy of our ceiling systems folio, please write. Armstrong, 4207 Watson St., Lancaster, Pa. 17604.

**Armstrong** / **CEILING  
SYSTEMS  
THAT WORK**



(Continued from page 40)

### Dodge House Dismantled

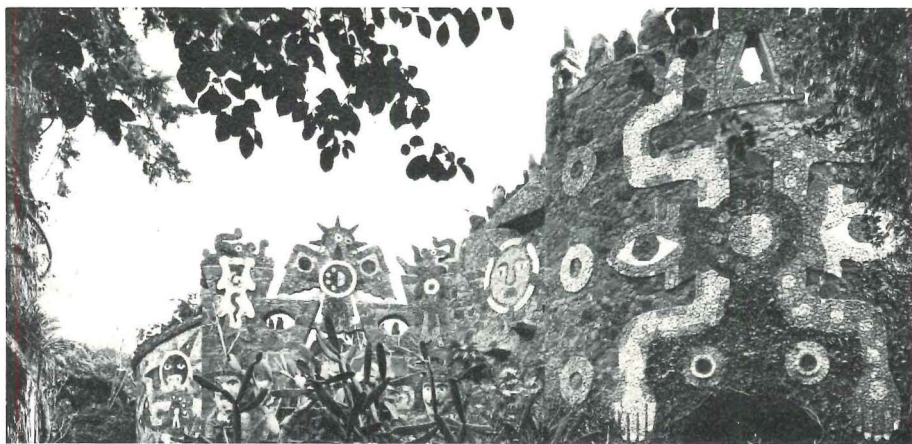
The greatest tragedy of all preservation stories concerns the Dodge House, designed by Irving Gill in 1916. In December, the house and its 2¼ acres of landscaped grounds in West Hollywood was sold by owner Equitable Savings and Loan Association (formerly the Lytton Savings and Loan Association whose president, Bart Lytton, had bought it from the School Board and agreed to preserve it). Purchaser of the Dodge House was Riviera Management Co., a local developer. Prior to the sale, preservationists and the Southern California Chapter of the AIA had been hoping to prevent Equitable from disposing of the property to developers by means of a summary



Walter Luther Dodge house by Irving Gill, 1916

judgment, but it was overturned by Judge Robert W. Kenney. Particularly frustrating to preservationists however was that the December transaction was kept secret until February 1. By then it was too late

to do anything — the house was already being dismantled. Immediately upon hearing of the sale, various parties did try contacting Riviera Management to protest demolition, but to no avail.



### O'Gorman Cave House Disappears

One of the monuments of *fantastic architecture* has been destroyed without a single protest from architects, critics, or the artist-architect himself — the Juan O'Gorman cave house, covered with mosaics, in the Pedregal, Mexico City.

The house was sold last July to sculptor Helen Escobedo without any agreement that it be preserved, but her interest in the O'Gorman work was guarantee enough to him that it would not be destroyed. In November, without warning, it was demolished. Only the natural lava cave form of the living room apparently remains. The mosaics are all gone.

O'Gorman himself worked on the construction of his house, begun in

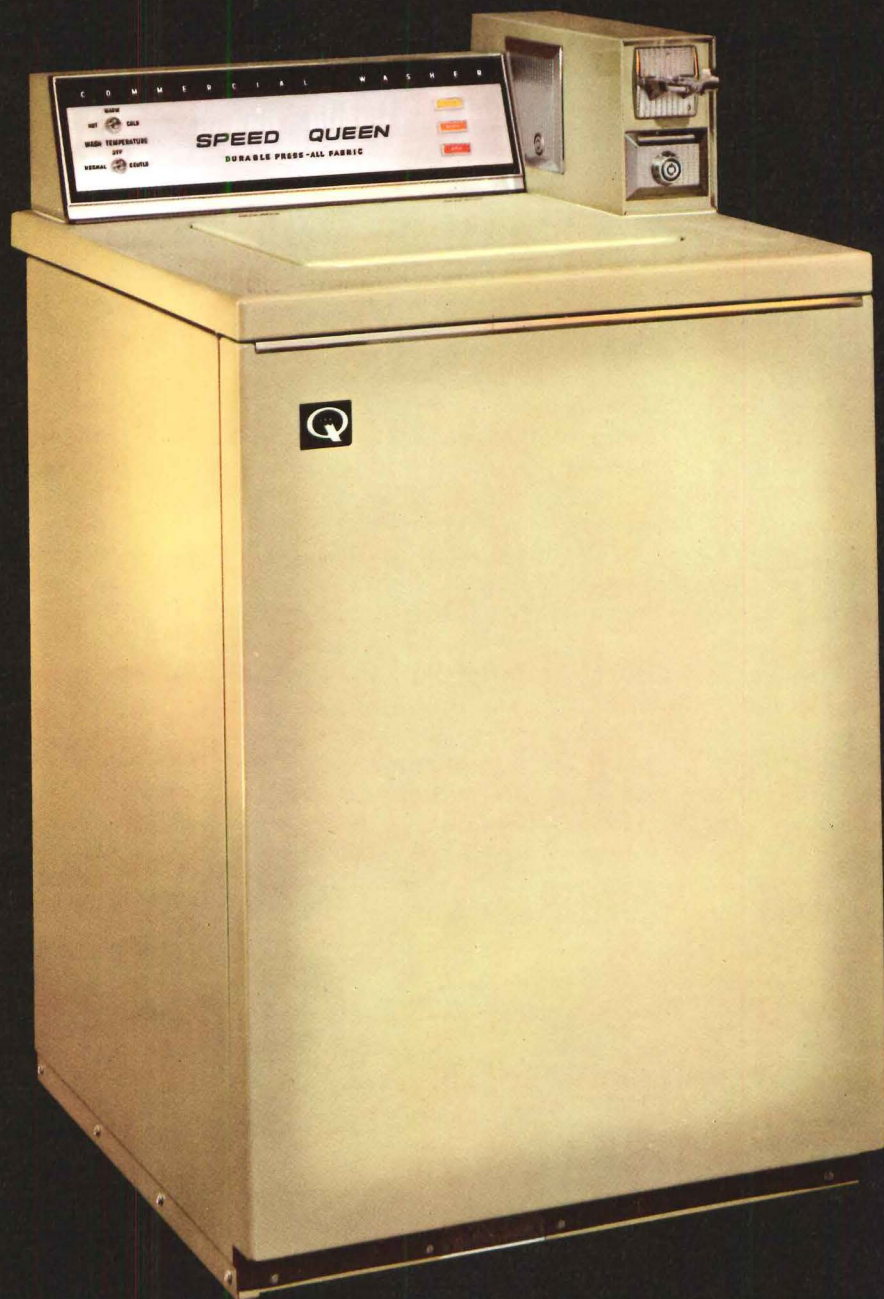
1953 and completed in 1956. The lava stone all came from the site. The core of the house was a circular stone stair, and the spiral continued above the roof line to form a curved face of a Chac Rain God. On the circular core of the house was a diving God (see photo) and a plumed serpent and other Aztec symbols formed the rail of the balcony off the bedrooms. Both the exterior and interior of the house was covered with mosaic figures that sprang from a rich and poetic imagination.

Mrs. Escobedo is quoted as saying, "We bought a piece of property as the deed clearly shows. The house was uninhabitable, particularly in time of rains," — E.M.

### Calendar

The American Institute of Interior Designers' semi annual conference, at the Waldorf-Astoria Hotel, New York City, April 23-26, 1970. Highlights: an all day symposium on "Perception of Interior Environment," with Dr. Bruno Bettelheim, University of Chicago; Normal De Haan, AID; Morton Hoppenfeld, AIA . . . "Networks and Human Settlements: From Man's Movement to his Communications" the theme of 1970 Ekistics Month, organized by the Athens Center of Ekistics, Athens, Greece, June 29-July 24, 1970. . . . On April 4, 1970 the Southern California Edison Company and Los Angeles Dept. of Water and Power will sponsor an Architects & Engineers Forum, "Cities — 70's," Century Plaza Hotel. Speakers: Sir Basil Spence, Dr. Athelstan Spilhaus, Robert McCabe and Ian McHarg. . . . The Metropolitan Association of Urban Designers and Environmental Planners, New York, study and tour program to Paris, Leningrad, Moscow, and London, May 14-31. . . . Massachusetts Institute of Technology summer course in Computer Aided Urban Design, July 6-17. . . . 1970 IEEE International Computer Conference: June 16-18, 1970, Washington Hilton Hotel; Washington, D.C.





Speed Queen can assist you in planning  
a coin-operated laundry room.

**NO OBLIGATION**

**For dormitories, low and high rise apartments.**



**SPEED QUEEN®**

DIVISION OF McGRAW-EDISON COMPANY



Send the coupon for a free brochure which can help you plan a laundry facility. Room layouts, equipment sizes, wiring, venting are discussed.

Mr. E. W. Jess Manager, Commercial Department  
**SPEED QUEEN**, Ripon, Wisconsin 54971

Mr. Jess, please forward your laundry room design brochure.

☐ I would like a Speed Queen representative to call.

Name and title

Firm name

Address

City

State

Zip Code

PA



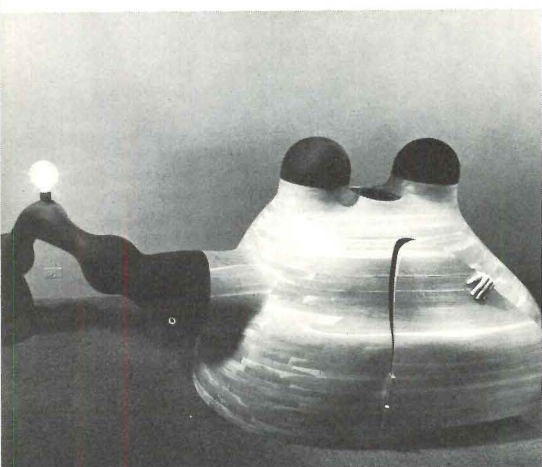
## Architectural Historians Question their Methodology

The large rambling red brick Sheraton Park Hotel in Washington, D.C. contained a packed house in late January with the joint annual meeting of the Society of Architectural Historians and the College Art Association. Sessions ran simultaneously as did trade talk. The theme of the SAH sessions was "The Classic" with such key speakers as Peter Collins, and David Gebhard. As a highlight of the conference, Professor Phylliss Lehmen received the 1969 SAH book award for *Samothrace Vol. III, The Hieron*.

Surprisingly, one of the most interesting sessions concerned architectural historiography. Along with the architectural profession currently examining its role, and architectural schools evaluating design courses, architectural historians are

in the process of questioning the methodology of modern architectural history. Theodore Brown stated that although serious architectural study began in the twenties it has been based on the concept of positivism: the external fact is key to understanding — i.e. the building provides the objective evidence that corresponds to the reality of a particular age. As Norris K. Smith further elaborated, historians have been assuming that architecture reflects its culture, and that architecture is evolutionary in a genetic sense, eventually leading to an architectural utopia. Stanford Anderson declared that historical inevitability is an unnecessary restraint in understanding architecture: the reason for the design of a building may be more the

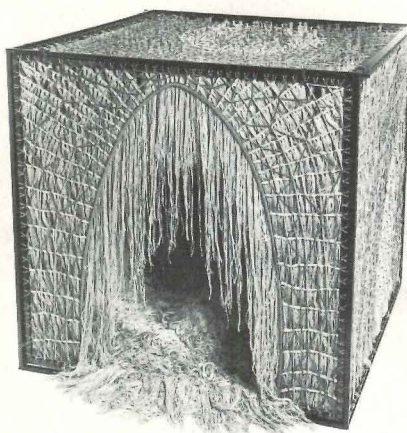
personal decision of the architect or the institutional clients than the product of cultural forces of the particular era. It is important that the architect or the historian be self-critical, aware that he is not forced to move in a particular direction. Meredith Neil called for an architectural history that takes account of the psychology of perception: why people build the way they do at a certain time and place, and the original builder's and subsequent users' sense of space. Each of the speakers generally concluded that historiography must be found that will deal with the full range of architectural effort; a vital issue to architectural magazines, which, by their editorial decisions, run the risk of creating a distorted architectural history.



### Museum Provides Exhibits for Contemplation

Despite its name, the Museum of Contemporary Crafts has been responsible for some of New York's most future-oriented art and design exhibits in recent years. In keeping with this direction, they have recently staged an exhibition, "Contemplation Environments." Composed of a number of art/technological environments, each is isolated from the other in a well organized architectural maze designed by Gamal El Zogby.

The rationale behind the show's se-



lection is the awareness on the part of the museum of the "individual's need for respite from the hectic pace and sensory bombardment of daily life" and the need for architectural environments to provide this mood in place of natural environments. On these terms, only two pieces — works of a craft rather than technological nature — are actually successful. One is a womb-like wood sculpture by Wendell Castle that you crawl into. Lined with wooly rugs and fur pillows, it is completely shut off from the rest of the world except for one aperture for light and air. The other installation, less escapist in nature and more contemplative in the me-

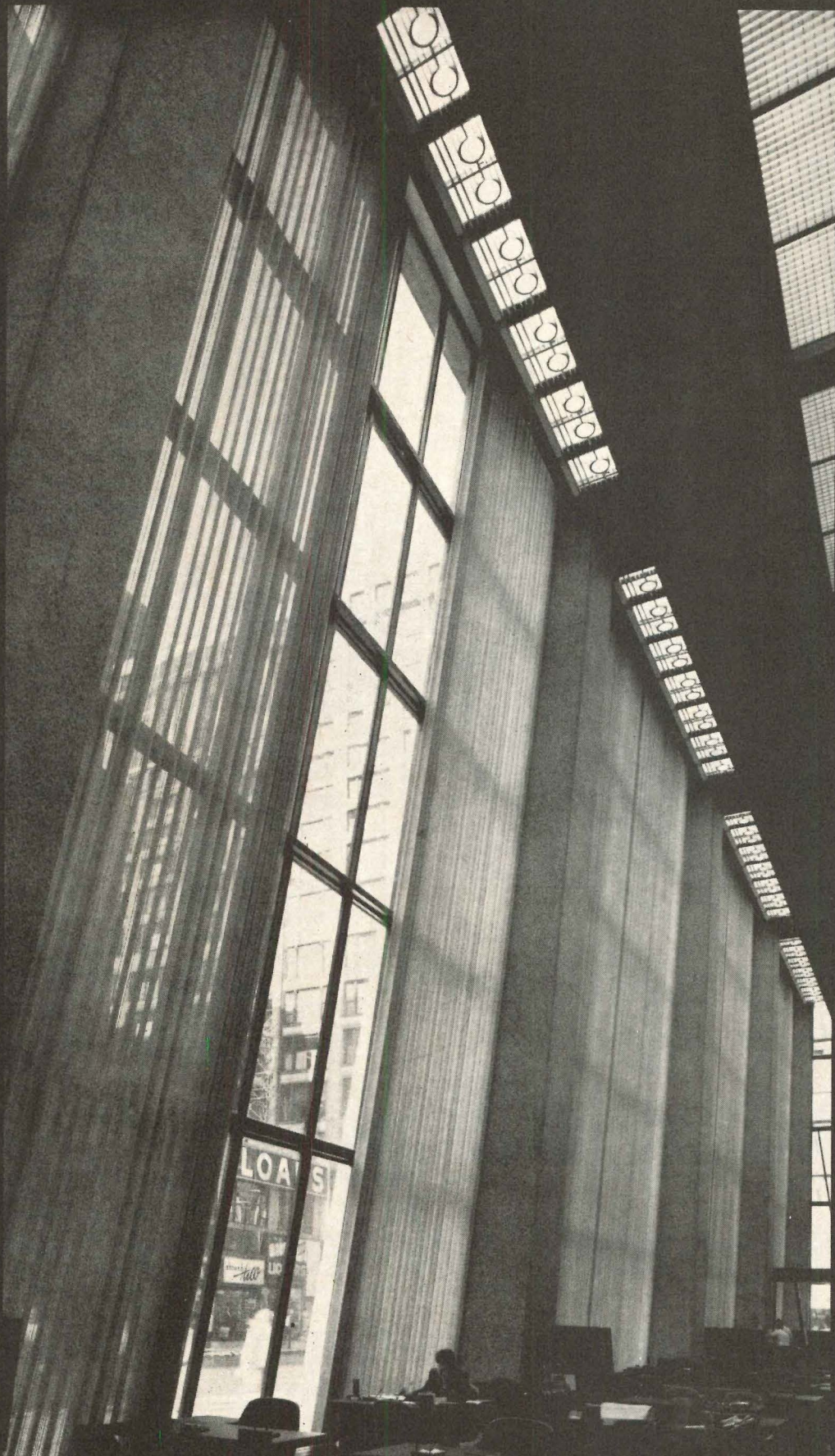
taphysical sense, is Ted Hallman's woven fiber meditation room "for centering the self."

As for the other pieces in the show, most are interesting and often successful uses of technology that explore ranges of perceptual experience and sensory awareness. Although they all share the characteristic of being geared to individual rather than mass audiences, their very participatory nature does not allow a person to contemplate — on his own thoughts at any rate.

### Yale Announces Finalists For Math Building Competition

Five finalists were announced in the competition for the Yale University mathematics building to further develop their designs. Finalists are: John Fowler, John Paul McGowan, New Haven, Conn.; the office of Fitzhugh Scott — Architects, Inc., Milwaukee, Wisc.; Van Slyck, Callison, Nelson, Architects, Seattle, Wash.; Venturi & Rauch, Philadelphia, Pa.; Verman, Lepere, Petit, Philadelphia, Pa. Jury members: Architects Kevin Roche, Romaldo Giurgola, John Christiansen, Edward L. Barnes will announce results in May.





**56 feet high!  
35 feet wide  
on a 9° angle-**

**What is  
your  
problem?**

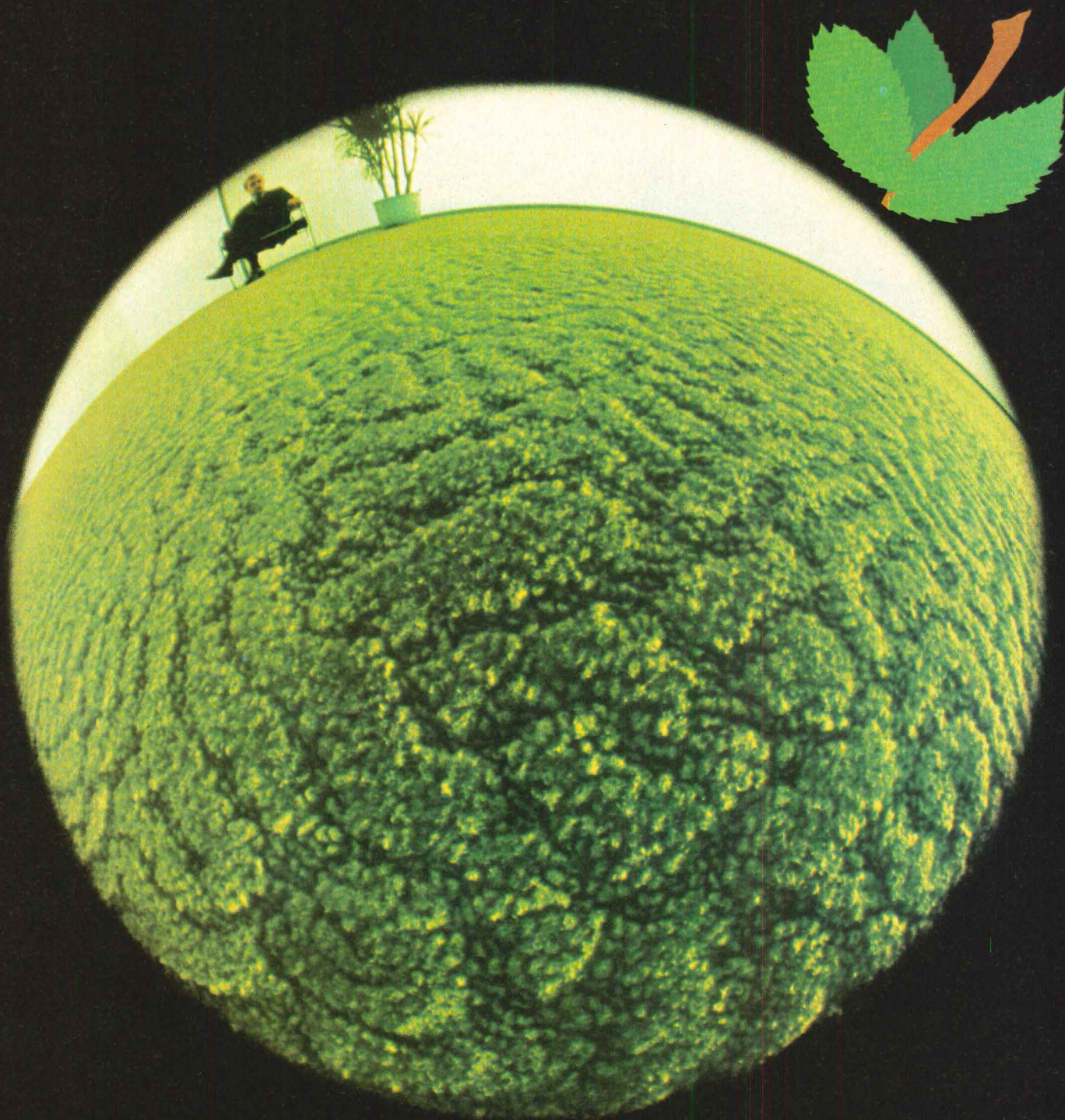
These dimensions are of the Unique Curtain we created for the First National Bank of Chicago. Our experience in solving unusual problems brought these and other designers to us. We furnish a complete window treatment service.

**ads  
aus**

**art drapery studios inc.**

(312) 472-8585    2766 North Lincoln Avenue    Chicago, Illinois 60614





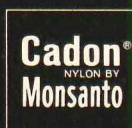
# You can't get juice out of a Cabin Crafts® Cadon®

...because this new nylon pile carpet effectively reduces static electricity build-up. In crackling dry air, or damp, sticky weather. This makes static-resistant Cadon a prime choice for your home office. Or your office at home.

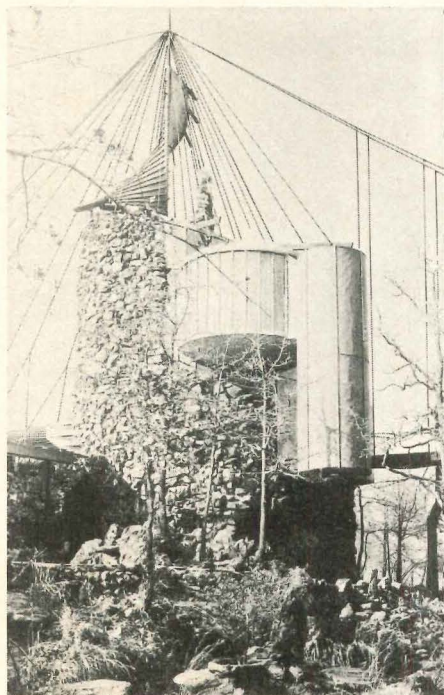
Cabin Crafts carpet of Cadon nylon pile is available in lively geometric design patterns, or lavish solid colorations. All perfect for your skyscraper office suite. And just as right for a hotel, motel, hospital or school.

Wherever you install it, Cadon nylon will give you less static. It'll stay sparkling fresh and new-looking longer than regular nylon. Because its less-transparent, continuous filament fiber camouflages soil. Won't pill or fuzz. And detergent and water lifts out most stains.

When you choose carefree, static-resistant Cadon for the office, you're getting the world's most advanced nylon. So why settle for anything less at home?







*Bavinger House, Bruce Goff, 1950*

### Bruce Goff Exhibition at League

The situation is a familiar one: although Architect Bruce Goff currently enjoys a considerable reputation in Europe and the Far East, in the United States he has been treated merely as an historical incident in the evolution of modern architecture. The Architectural League of New York City has rectified the situation somewhat in an exhibition that ran from January 23 to February 11. In recent years the League has courageously taken upon itself to mount exhibitions more established museums shy from for fear such action will be interpreted as a definitive "stamp of approval" for posterity.

Yet even the Goff show is one of the League's most worthwhile ventures. Not since P/A's article in December 1962 has such intensive coverage of the architect's work appeared publicly. Shown were most of Mr. Goff's numerous house designs including, of course, the Bavinger House, as well as the monumental Crystal Chapel project for the University of Oklahoma. Exhibited too, were some of his more exotic projects for motels and hotels (the Viva Hotel

for Las Vegas undoubtedly would make journalist Tom Wolfe — defender of the Vegas design spirit — change his mind about uptight architects).

There is little expectation that the exhibit is going to bring much of Goff's work into the main stream of

architectural history or cause a revival of neo-Wrightian visionary design. Nevertheless the exhibition's intention of familiarizing the public with the little known body of work of one of America's truly indigenous architects is reason enough to commend the League for the show.

### Personalities

Richard Buckminster Fuller, AIA, FRIBA, will receive the 1970 Gold Medal, the highest honor awarded by the American Institute of Architects. . . . John S. Margolies has been retained by American Federation of Arts as a "resident thinker," assuming the newly created title of "Coordinator, Experimental Programs." He will continue as a free-lance writer on architecture, the arts and mass media. . . .



Richard Buckminster Fuller



John Margolies

The Harvard Graduate School of Design has a new dean: **Maurice D. Kilbridge**, Professor of Urban Systems, who applies analytical techniques to city problems. . . . The NCARB announces that **Samuel T. Balen** will be the Director of Professional Services. He will assist Executive Director Hayden P. Mims. . . . **Leon B. Kromer, Jr.** has been appointed Executive Vice President of the Construction Industry Foundation in New York City, which has recently moved into temporary offices at 211 E. 51 St., New York, N.Y. 10022.

The Board of Visitors of Virginia Polytechnic Institute has named **Charles Burchard**, dean of the College of Architecture. . . . **Norman Coplan**, P/A's IT'S THE LAW editor, has been appointed counsel to the New York State Assn. of Ar-

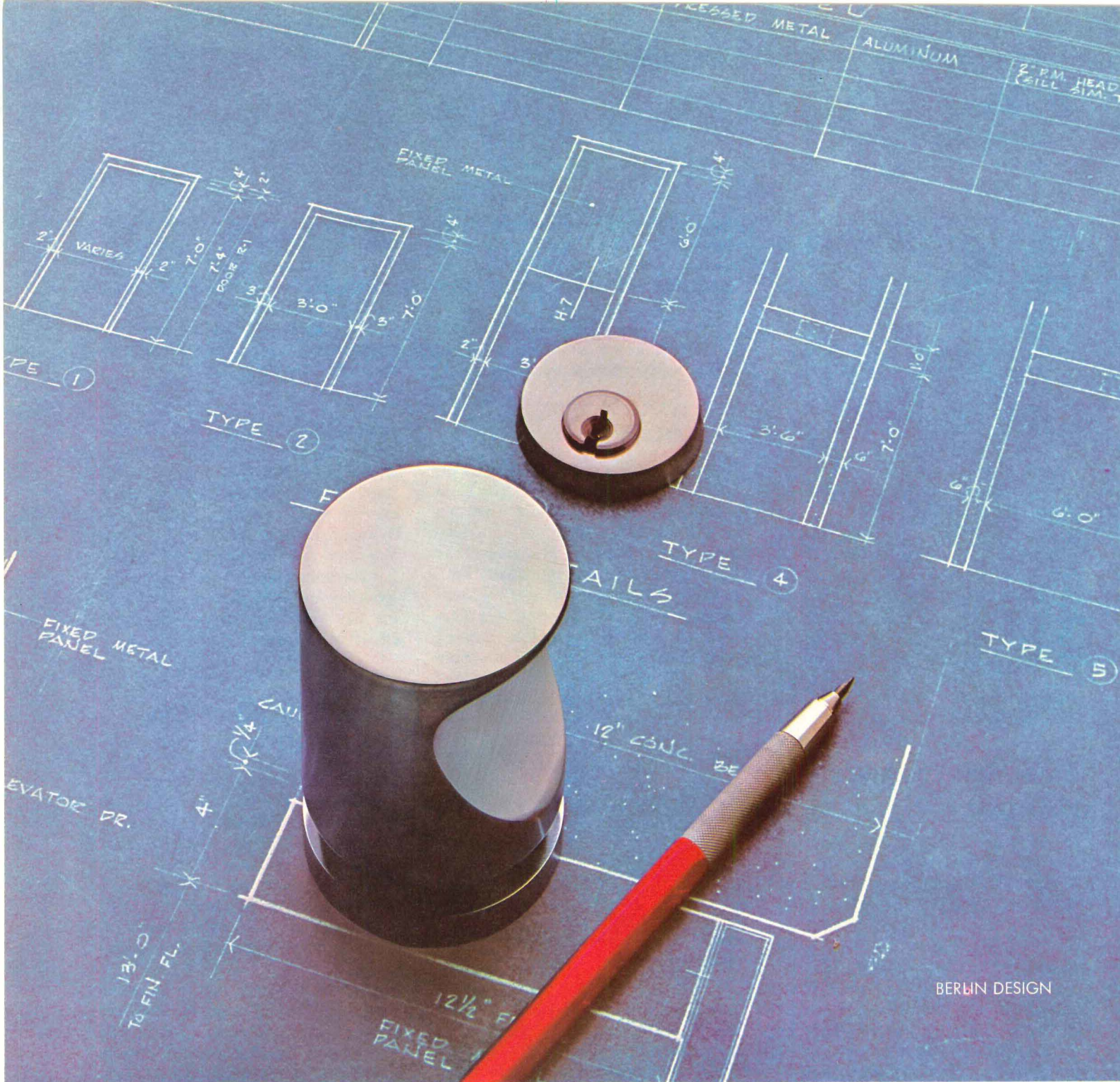
chitects. . . . **George Nelson**, New York architect, has been elected a member of the board of Antioch College. . . . **Gordon Johnson**, member of the Southwest Washington Chapter of the AIA, was elected Mayor of the City of Tacoma, Wash. . . . **Barbara Plumb** has been named Architecture and Environment Editor of American Home magazine, effective January 1.

### Toward Standardizing Specifications

The Construction Specifications Institute has taken the first major step in recognizing the need for an automated system of specifications in the construction industry. Pointing out that a common language software system needs to be established, CSI is having the Stanford Research Institute prepare a performance specification.

A whole software *system* is being researched rather than a standard master specifications text, since CSI sees master specifications as only one component of the necessary total information package. Other components should be accommodated such as cost information for general contractors and an information system for locating products by parameters rather than by names of products or manufacturers. What this performance specification will provide the architect is an open-ended system with wide latitude in the type of text he may use. As CSI explains, the system will ultimately create a total construction communications system network, bridging the gap between specifications, product, cost, and function information. In addition they hope to organize the structure to allow for storage and retrieval from vital companion data banks.





# For security's sake, plan ahead With Russwin Ten Strike\* Mortise Locksets

Help stamp out dull door decor!  
Design the bold beauty of Russwin's  
new Berlin design into all your buildings.  
It's decidedly different . . .  
an exciting excursion from the everyday.  
And there's more to it than meets the eye.  
When you turn it, you'll know you've come  
to grips with truly great knob design!  
Created to cradle the hand comfortably, yet firmly,  
it gives you action you'd expect only with a lever.

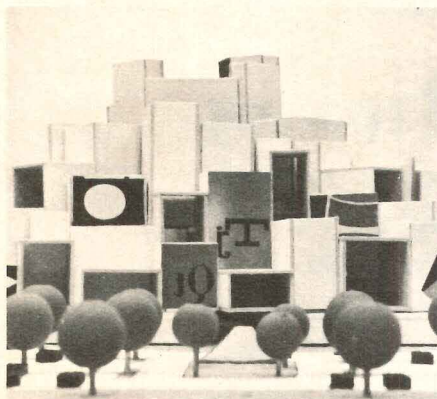
What's more, Universal mounting puts  
the "concave cradle" in any desired position.  
Another top-scoring "Ten Strike" Lockset.  
Available in a wide choice of metals,  
color tones and all desired functions..  
Contact your Russwin distributor or write for  
latest brochure. Russwin, Division of Emhart  
Corporation, Berlin, Conn. 06037.  
In Canada — Russwin Division  
of International Hardware.



\*"Ten Strike" is a trademark of Russwin, Division of Emhart Corporation, New Britain, Conn. 06050.

On Readers' Service Card, Circle No. 377





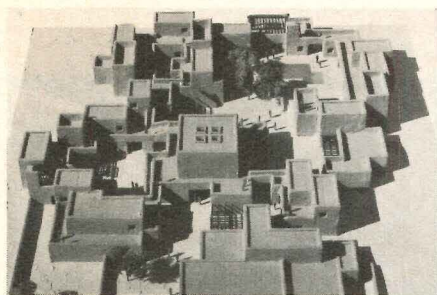
### Restaurant City

*Houston, Texas*  
*Bang-Scheyer Associates, Architects*  
*(Dave Barker, C. Jackson Green,*  
*Jerol Springborn, Vano T. Wilson,*  
*project architects)*

For motoring food-freaks, this restaurant franchise cluster represents a new concept in dining and in restaurant architecture. On a triangu-

## Buildings on the Way Up

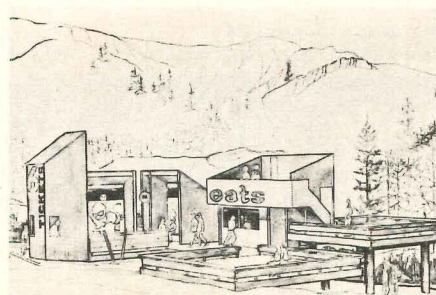
lar 10-acre site at the intersection of a major street and freeway, seventeen restaurants and six shops will be contained in a pile of cube-like units arranged corbel-fashion around a central triangular open area. This arrangement permits not only an open outdoor dining area, but a covered outdoor dining area as well, on the edge of the atrium underneath zig-zag overhangs of the cubes cantilevering above. 15,000 sq ft of indoor dining is at a further remove inside. The 100 ft high pyramidal arrangement of light weight, space frame construction employs three main trusses and a number of plastic or stretched canvas panels on which advertising graphics may be boldly emblazoned. McDonald's, S&W, HoJo's, Carvel's, Unite!



### Hopi Cultural Center

*Second Mesa, Hopi Reservation,*  
*Gonzalez Associates, Architects*  
*Arizona*

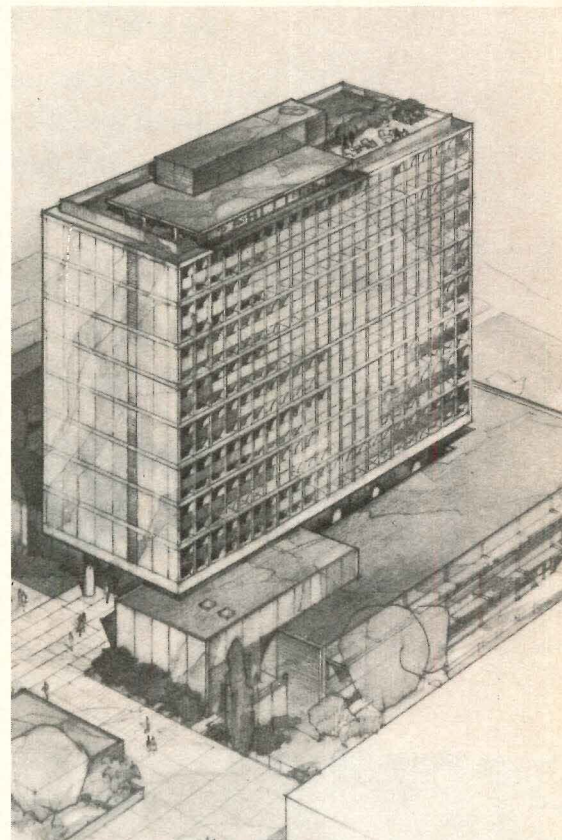
This complex, designated for a remote site in a growing tourist region with no hotel facilities includes a 40-unit motel and a restaurant, as well as a museum and crafts center for the Hopi tribe. The architects wanted to provide a center that natives would use and would be a source of income, at the same time maintaining the scale and character of the true Hopi village. The museum is at the center of the complex; arranged around it is the craft center (left), the hotel with a pool (rear), and the restaurant (rt. front). Materials were kept appropriately simple: bearing walls are concrete with a mortar wash surface; interiors are painted white with exposed beams; floors are crushed granite. Construction is expected to begin in 1970.



### The Stump Snowmass-at-Aspen

*Aspen, Colorado*  
*University of Colorado*  
*Architecture Students*

"America's first totally master-planned resort community," Snowmass-at-Aspen will have one of its facilities designed and built by several architecture students from the University of Colorado. The students, Chuck Raleigh, David Kelty, Gregg Snowden, Steve Franek, Andy Yates and Joe van Sant projected a simple scheme consisting of a ticket booth, restroom facilities, and a snack bar for the base of a ski-lift. Directed by architecture professor Richard Whitaker, they had the opportunity to build it themselves over the summer months, under the supervision of a construction engineer. The Snowmass clients have been so pleased with the scheme that they plan to involve more students in future Snowmass facilities.



### Tower Addition to Administration Building

*California State College at Los Angeles*  
*Architect: Maynard Lyndon, FAIA*

This booming 17,000 student State College in Los Angeles County is so pressed for space by unexpected enrollments that a nine-story tower was built over a one- and two-story building that was occupied throughout construction. The new administrative building, almost ready for occupancy, is a 90,000 sq ft buff concrete tower lifted on piloti above the existing building and an internal court. The entrance to the building is now through the court, where there is an information center, map table, and display cases. On the south façade precise sun control is achieved by frameless slabs of glass supported between deep thin columns free of the window wall. The glass heat shield is slipped in slots in the 3-ft deep by 10-in. wide columns, leaving 3 ft between the outer glass and the windows. An aluminum baffle at the window heads screens out the high sun.



# FOLLANSBEE TERNE

## ...and the revival of metal roofing

While most architects have only recently discovered in the traditional metal roof a building element superbly adapted to the special idiom of contemporary design, roofers themselves have been aware for generations that no other roofing system can provide equivalent protection against the relentless attack of wind and weather. And Follansbee Terne is unique among metals in combining a natural affinity for color with unexcelled durability and relatively modest cost. May we send you the substantiating evidence?

# FOLLANSBEE

FOLLANSBEE STEEL CORPORATION • FOLLANSBEE, WEST VIRGINIA

On Readers' Service Card, Circle No. 404

Des Moines, Iowa Residence Featured in Record Houses  
Architect: John D. Bloodgood  
Roofer: Iowa Sheet Metal Contractors, Inc., Des Moines, Iowa

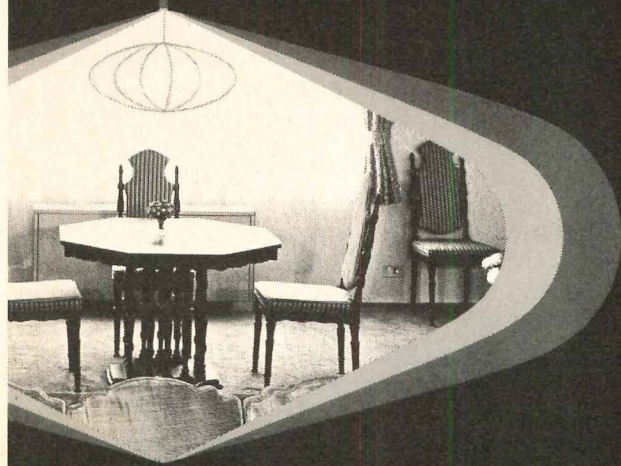




GL

# 1970 TOKYO INTERNATIONAL GOOD LIVING SHOW

oct. 7-20



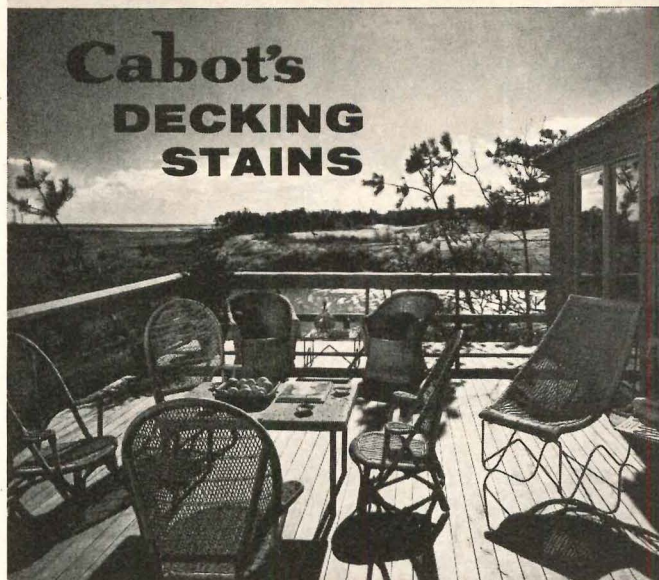
Tokyo is calling . . . to buyers, designers, manufacturers and users of everything connected with houses and homes all over the world. The Tokyo Show is going to be a gala emporium for all the products and ideas originating in Asia, Europe, North and South Americas, Africa, Oceania . . . Peoples in Asia are increasingly aspiring to good living, and their energy is more and more directed to this aspiration now. For buying or selling, the Show has to be worth your visiting . . . no matter where you are.

**RANGE OF EXHIBITS:** Building materials; interior decorating materials and fixtures; annex and outdoor facilities; prefabricated and conventional houses; housing-site developing and building equipment; home appliances and tools; utility and comfort equipment; entertainment and recreational equipment; good-living design information and literatures, etc.

**Dates for Application:** April 1~10

TOKYO INTERNATIONAL TRADE FAIR COMMISSION  
C.P.O. Box 1201, Tokyo, Japan. Cable: TOFAIR TOKYO Tel: 531-3371

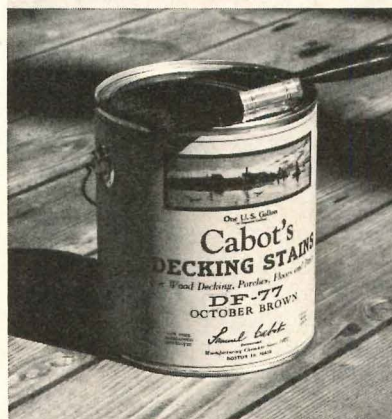
## New . . . for Wood Decking



Home at New Seabury, Cape Cod, Mass.; architect: Royal Barry Wills & Associates, Boston, Mass.; developer: Emil Hanslin Associates, Melrose, Mass. Cabot's Stains used on Interior and Exterior.

**A finish that stands up to heavy foot traffic and severe weathering.**

The popularity of wood decking, in demand now as never before for porches, sun decks, patios, etc., requires a finish both durable and decorative. Samuel Cabot Inc. answers this pressing need with a new product, Cabot's Decking Stains. It is a product with a specific purpose . . . protecting, preserving, and beautifying wood surfaces under difficult conditions. Now, for the first time, it is possible to obtain a durable stain finish for wood decking.



- Economical: easy to apply and maintain.
- Will not rub off or track off.
- Alcohol and detergent resistant.
- Suitable for all types of wood.
- Resists cracking, peeling, and blistering.

Available in ten colors: Bark Brown, Smoke Gray, Chelsea Gray, October Brown, Forest Green, Farallon Gray, Presidio Red, Cordovan, Redwood, and Black.

### SAMUEL CABOT INC.

328 S. Terminal Trust Bldg., Boston 10, Mass. 02210  
Please send color card and information on Cabot's Decking Stains.

---



---



---



# Government Makes Moves on Environment and Minority Hiring

## Putting Your Money Where Your Mouth Is

The enthusiastic espousal of conservation and cleanup of natural resources — both by the President and Congress — will have a side effect that will be a big boost for the construction industry and for architects.

It will be used as a chief spur behind moves to direct the U.S. population back to more rural areas — through creation of “new towns,” new types of housing and new business developments. President Nixon touched upon this idea in his state of the union message and later statements.

Obviously, if the burgeoning U.S. population can be prevented from gathering itself completely into a few major urban corridors, the problems of air pollution, sewage disposal, water supply, and in-city transit will be eased. In addition, there will be more reason to push rapid interurban communications, and governments can be held to a more human scale.

This is a sound political gambit in a political year. The only real contest (after all, who can be in favor of destroying the environment?) will be over which political party will get most of the credit for real legislative work this session on protecting ecological values.

Likewise there is no question of bipartisan support for: 1) Housing and Urban Development's push for its “Operation Breakthrough” plans to produce cheaper, better housing in outlying areas; 2) other moves (detailed in the budget message) to manipulate financing to increase the amount of housing built (it fell, as predicted, to just over the one million mark in 1969 — mostly because of tight credit, high costs); 3) pushing further experimentation in high-speed ground transportation (acceptance of a 30,000-acre site near Pueblo, Colorado for construction of two 20-mile test tracks for linear-driven — electrical — vehicles); 4) tighter controls on industry con-

cerning air or water pollution, and for a renewed push to force local jurisdictions into better over-all planning and regulation of damage to the environment. (Incidentally, industry — which had hoped for some sort of federal help in the form of tax concessions to help pay for needed pollution-control work — apparently saw its hopes glimmering, both in the State of the Union speech and further remarks by Cabinet-level officials. The Administration feels that the cost of pollution cleanup will have to be absorbed as a cost of doing business by the firm that produces the pollution).

AIA's new President Rex Whitaker Allen added some push of his own in this direction. In a recent speech in Washington he insisted that architects “may have to reject some projects and criticize others if they are to help the public determine what development will not harm the world's delicate balance of resources.”

Over-all, the budget (\$200.8 billion, with a modest surplus of \$1.3 billion) reflected this thinking: military, space, veterans and foreign-aid spending were marked for drops — but spending for health, education, conservation-related public works stayed the same or were marked for slight increases. This year — again, with an eye on elections — chances are good that Congress won't exceed the overall Nixon total and may even cut a little.

HUD's reluctant move to raise allowable interest rates on FHA-insured home mortgages from 7½ to 8½ per cent in early January could have some beneficial effect on the sagging housing market, luring back venture money that has been straying to other and more lucrative areas. But it could have an adverse effect too — total costs of new homes can be shoved out of sight for many middle-income buyers.

The furor over the Labor Department's “Philadelphia Plan” (which

sets up virtual quotas for hiring minority-group workers on federal construction projects) is a long way from over, despite the Senate's last-minute refusal to go along with a scheme to kill the “plan” completely.

At least two court actions (in Philadelphia and Newark) have been filed challenging the plan as unconstitutional; the Comptroller General insists on his ruling that the idea violates Congressional intent, and that he won't okay vouchers submitted by federal departments enforcing the plan; construction labor — with added muscle in view of the upcoming elections — continues adamantly opposed; and the Administration seems just as adamantly determined to enforce the plan.

But there's a lot of sophisticated maneuvering going on, in an attempt to head off a full-fledged Executive-Legislative confrontation in the courts. One such move was the announcement by the plumbers' union that it would cooperate with the small but economically powerful National Constructors Association to train some 500 blacks in the trade; another was the announcement that the Associated General Contractors had signed a \$500,000 agreement with the Labor Department to “promote and develop” construction jobs for disadvantaged persons, working through its 127 chapters, with eight full-time specialists as counselors.

These moves might head off the kind of demand made by Washington's loosely organized “Black United Front” which threatened to block construction of the city's long-needed subway system unless 74 per cent of the jobs (the proportion of black to white residents of the Capital) went to blacks.

---

pages 30 and 31 Photos: Michael St. A. Boyer

page 38 Photo: Julius Shulman

page 40 Photos: Marvin Rand

page 42 Photos: Ferdinand Boesch

page 49 Photo: Koppes (Hopi Center)

---



## ***X-5: THE MOST VERSATILE DOOR CLOSER EVER INTRODUCED***

Shallow depth...removable without removing the door...for stock doors and frames...butt hinge, offset or center pivotal hanging...including "Quick Spotter" installation fixture. For all interior doors. Install it in a prepared floor in 7 minutes...replace it in 3 minutes...and make most repairs in 2 minutes. Full control panel adjustments. Proven: Extremely reliable.

**\*Details? Just ask.**



A **CENTURY 2000** product from:

**RIXSON CLOSERS**  
A DIVISION OF RIXSON INC.  
FRANKLIN PARK, ILLINOIS  
In Canada: Rixson of Canada, Ltd.





## *It's all a matter of degree...*

*especially in a drawing lead. Sunny-side-up beach beauties come pale, pink, or pow! That's only three degrees.*

*Eagle Turquoise is the drawing lead that uses 17 separate formulas to make 17 perfectly graded degrees! Each degree so distinct its difference in shading is clearly visible to the naked eye.*

*Each grade is also consistently uniform within itself. That's why every 2H Turquoise lead makes exactly the same line today, tomorrow or even a year from now.*

# **EAGLE TURQUOISE**

*The nation's largest-selling drafting pencils and leads*



Eagle Pencil Company, Danbury, Connecticut

On Readers' Service Card, Circle No. 341



# PRODUCTS & LITERATURE



## Infrared Snow Removal

Fostoria Fannon, Inc. recently installed an infrared heating-snow melting system under the entrance canopy at Clarkson Memorial Hospital in Omaha, Nebr. 120 recess-type 1600 watt 227 volt infrared lamps provide 200 watts per sq ft heating.

*Circle 100 on Readers' Service Card*

## Vaportight Lighting

Appleton Electric Co. is distributing its bulletin of vapor tight and explosion proof lighting for industrial and commercial use. The 40 page booklet includes drawings, specifications, lighting curves, and accessory information.

*Circle 101 on Readers' Service Card*

## Rust Penetrant

Ace Chemical Co. recently developed a truly effective rust penetrant and remover which can be brushed or sprayed on. Suitable for pre-painting industrial applications, the jelly when washed off leaves a thin residue which serves as a paint primer.

*Circle 102 on Readers' Service Card*

## Rolling Doors

The Crawford Door Co. recently published a 16 page brochure on their complete line of overhead doors. Included in the catalog are pictures, specs, and diagrammatic installations of rolling doors, grilles, and shutters.

*Circle 103 on Readers' Service Card*

## Handcrafted Doors

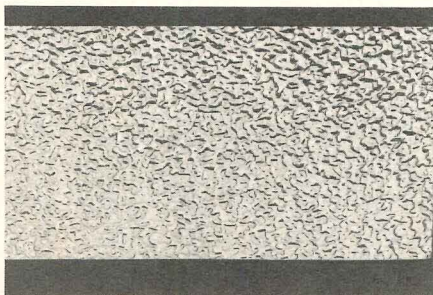
J. Zeluck Inc. has compiled a digest of their interior and exterior doors to be distributed to the trade. Included in the brochure are window treatment material and sliding panels.

*Circle 104 on Readers' Service Card*

## Pre-Fab Walk-In Refrigeration

Bally Case and Cooler Inc., has recently completed their Working Data Catalog. The hard-bound looseleaf catalog has five separate sections including general design information, walk-in coolers and freezers, refrigerated warehouses, refrigeration and electrical components, and miscellaneous information including existing installations. Requests for the catalog should be made on letterhead to Bally Case and Cooler Inc., Bally, Pa. 19503

*Circle 105 on Readers' Service Card*



## Textured Copper

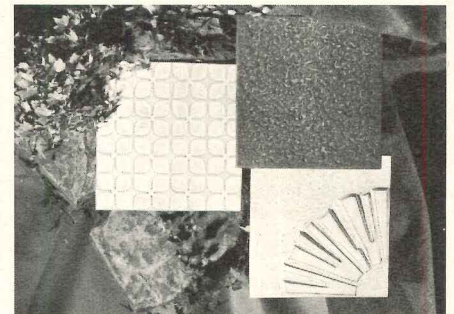
The Metallurgical Materials Division of Texas Instruments has successfully bonded copper to stainless steel in a sheet which allows itself to be greatly deformed with no signs of fatigue. This fabrication has induced the manufacture of bi-metallic sheets of great texture, copper color, and 20 per cent reduction of cost over solid copper.

*Circle 106 on Readers' Service Card*

## Urethane Foam Board

A rigid urethane foam board with a UL flame-spread rating of 25 and designed for use in metal skin industrial buildings was announced by the Celotex Corp. Technifoam-25 metal building insulation is a  $\frac{1}{16}$ " foam core with aluminum foil facer sheets on both sides. Able to span up to 5', Technifoam-25 is white embossed on the inner side to provide an attractive interior.

*Circle 107 on Readers' Service Card*



## Large Ceramic Tiles

The American Olean Tile Co. now offers both high and low relief 1 ft sq ceramic tiles for wall and floor applications. The American Tile Co. has included four new colors in their selection making a total of 12 available glazes.

*Circle 108 on Readers' Service Card*

## Waterproof Deck Surface

The Miracle Adhesive Corp. has successfully tested its Promenard deck protecting system and is currently making a spec and data sheet available to the public. The system is basically a neoprene and Hypalon surface which comes with a five year guarantee.

*Circle 109 on Readers' Service Card*

## PVC Engineering Data Book

The Borg-Warner Co. has recently issued a new book of engineering data on PVC piping. The 64-page hard cover volume is described as a general guide for designing, specifying, and installing PVC piping.

*Circle 110 on Readers' Service Card*

*(More products on page 57)*





# Presenting The Horizontal Chandelier.

Looks suspiciously like a lighting louver, you say? Can't be.

Who ever heard of a louver polished like Sunday silverware?

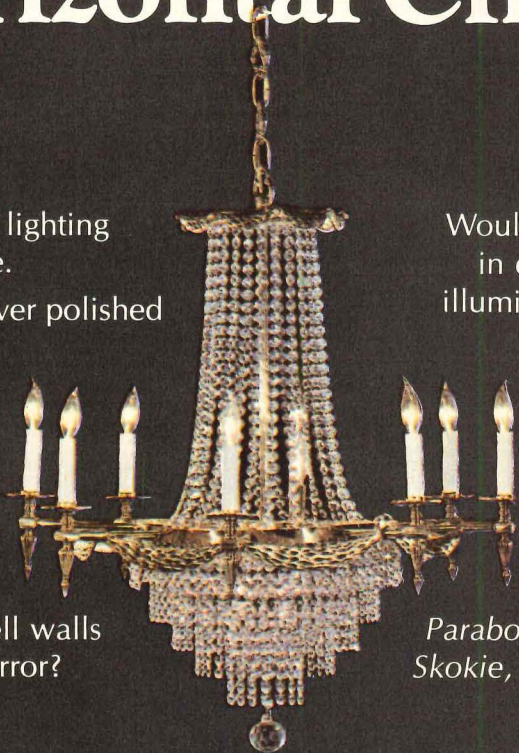
Since when will a louver permit you to raise foot candle levels without increasing glare?

What louver is so precisely molded that each of its parabola-shaped cell walls is an optically perfect mirror?

Would a louver look as beautiful in daylight as it does when it's illuminated?

It's a horizontal chandelier, that's what it is. Available with either silver or gold metalized finish, it's injection molded in a single 2' x 4' piece. Send for a sample:

*Parabolic 2020, 7700 Austin Ave., Skokie, Illinois 60076*



This is it in cross section.

*The Parabolic 2020*  
by American Louver Company

On Readers' Service Card, Circle No. 321



## PRODUCTS & LITERATURE

(Continued from page 55)

### Eames' Latest Designs

Charles Eames has designed a new group of chairs for Herman Miller Inc. The new Soft Pad Group includes six chairs and a chaise all covered with Best Aucht Leather. The furniture is well suited for office use.  
*Circle 111 on Readers' Service Card*

### Sound Conditioning With Carpet

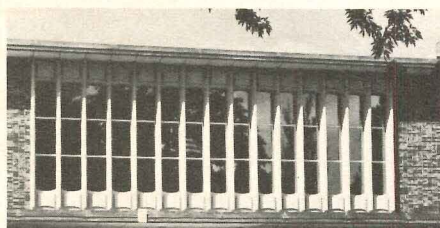
The Carpet and Rug Institute has done a study of the acoustical properties of carpet including sound absorption, impact and surface noise reduction. The 30-page color brochure includes charts, graphs, and government specifications.

*Circle 112 on Readers' Service Card*

### Guaranteed Waterproof Deck

The A-H Products Division of Anti-Hydro Waterproofing Co. announces a new material and service for waterproofing parking decks, malls, and other two course construction. A-H seamless deck membrane, a liquid urethane, is applied under supervision by the manufacturer, who offers a five year maintenance guarantee.

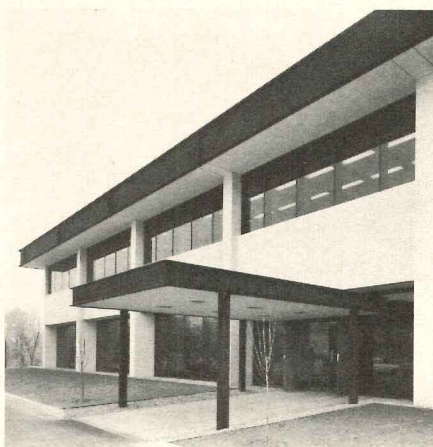
*Circle 113 on Readers' Service Card*



### Reflective Thermal Glass

Excessive glare and lack of privacy in the Divine Savior Chapel in Portage, Wis., led to the installation of Libbey-Owens-Ford Vari-Tran/Chrome 114 Thermopane glass. The thermopane unit consists of two glass panels separated by sealed-in air for insulation purposes. The inner surface of one of the panels has been coated with a microthin layer of reflective coating which reduces daylight transmittance to 8 per cent.

*Circle 114 on Readers' Service Card*



### Oxidizing Steel

Since its introduction little more than ten years ago, Bethlehem Steels' Mayari R steel has found its way into every phase of exposed structural construction. Mayari R takes on a deep-brown hue after being exposed to the weather. Applications vary from the Currigan Exhibition Hall in Denver to the Weathering Steel Bridge in Franklin, Pa.

*Circle 115 on Readers' Service Card*

### Suspended Sound Barrier

A sound and vibration barrier has been developed by Target Enterprises for suspended ceilings. The 4" long unit is 95 per cent efficient at 1750 cpm and will hold up to 120 lbs.

*Circle 116 on Readers' Service Card*

### Solderable Galvanized Pipe

United States Steel Corp. has announced the fabrications of a galvanized steel pipe which can be soldered in much the same way as copper tubing. The pipe has just been used on an experimental house at substantial savings over conventional piping.

*Circle 117 on Readers' Service Card*

### Sculptured Laminates

Formica Corp. is introducing 22 new patterns and colors into its 1970 line of laminates. The new patterns include sculptured slate in natural and black which represent Formica's entry into the production of dimensional laminates.

*Circle 118 on Readers' Service Card*

### Variable Depth Pools

Aqua Lift Pools, a division of Aquatic Industries, has made it possible for the conventional swimming pool to be more than just that. The Aqua Life Pool has a moving bottom which allows the pool to be used as a patio or dancing deck, a shallow wading pool, a sloping bottom pool, or a uniformly deep olympic type pool.

*Circle 119 on Readers' Service Card*

### Rubber Matting

The Mitchell Division of Royal Industries introduced a new line of molded rubber mats and matting. The new Airstrip II incorporates several distinctive features including an easy sweep surface and air pocket cushion underside. Suitable for restaurant and industrial application.

*Circle 120 on Readers' Service Card*

### Hardboard Wall Paneling

Evans Products Co. has recently added two patterns to its line of hardboard wall paneling. A durable melamine surface protects flecked or gold-laced patterns on a wide variety of color backgrounds.

*Circle 121 on Readers' Service Card*

### Porcelain-On Steel Panels

A 12-page brochure by Alliance Wall Corp. features specifications for porcelain-on steel and aluminum building panels including available colors for three dimensional Belgrano finish.

*Circle 122 on Readers' Service Card*

### Air Distribution

A new 28-page engineering manual is available from Connor Engineering Corp. covering their new CV-74 air distribution system. The manual contains a description of the system, components, performance data, dimensional information, rating tables, typical system layouts, typical floor plans, selection procedures, and specifications.

*Circle 123 on Readers' Service Card*

(More products on page 59)





## Mo-Sai follows acoustical design

Center for Graduate Study, University of Washington / Richland, Washington / Architects: Culler, Gale, Martell, Ericson, Norrie / General Contractor: Hanford Piping,

Structural Mo-Sai wall panels, 8 x 25 feet, follow the acoustical design of the auditorium, imparting the unique shape of the building. The Mo-Sai units support a steel truss roof system and provide the complete auditorium wall. An acoustical material was applied to the interior side of the Mo-Sai units with a steel furring. Plates cast in the Mo-Sai were welded together at the vertical joints. Steel dowels align the walls and hold them into concrete footings. Laboratory and classroom areas have a matching Mo-Sai curtain wall and fascia. Exposed buff quartzite and tan pebbles provide the distinctive Mo-Sai surface.

*Mo-Sai*<sup>®</sup>

PRECAST, PRESTRESSED CONCRETE  
WITH EXPOSED AGGREGATE



For more information,  
write or call any of the  
Institute members listed below:

### MO-SAI INSTITUTE, INC.



110 Social Hall Ave.,  
Salt Lake City, Utah 84111  
Members, Producers' Council

### ALLIED BUILDING SYSTEM, INC.

260 Tolland Turnpike  
Manchester, Connecticut 06040

A wholly owned subsidiary of  
**PLASTICRETE CORPORATION**

1883 Dixwell Avenue  
Hamden, Connecticut 06514

### BADGER CONCRETE COMPANY

P. O. Box 1068  
437 Marion Road  
Oshkosh, Wisconsin 54902

### BEER PRECAST CONCRETE LIMITED

110 Manville Road  
Scarborough, Ontario, Canada

### CAMBRIDGE CEMENT STONE COMPANY

P. O. Box 41  
156 Lincoln Street  
Allston, Massachusetts 02134

### ECONOMY CAST STONE COMPANY

P. O. Box 3-P  
100 E. Franklin Street  
Richmond, Virginia 23207

### FORMIGLI CORPORATION

1700 Market Street  
Philadelphia, Pennsylvania 19103  
81 East Foothill Boulevard  
Upland, California 91786

### GOODSTONE MANUFACTURING CO., INC.

470 Hollenbeck Street  
Rochester, New York 14621

### HAMILTON CONCRETE PRODUCTS COMPANY

1401 East 39th Street  
Chattanooga, Tennessee 37407

### HARTER CONCRETE PRODUCTS, INC.

1628 West Main Street  
Oklahoma City, Oklahoma 73106

### JACKSON STONE COMPANY, INC.

P. O. Box 4355  
Fondren Station  
Jackson, Mississippi 39216

### OLYMPIAN STONE COMPANY, INC.

P. O. Box 685  
192nd N.E. and Union Hill Road  
Redmond, Washington 98052

### OOLITE INDUSTRIES, INC.

P. O. Box 877, Ojus Br.  
18851 N.E. 29th Avenue  
Miami, Florida 33163

### THE GEO. RACKLE & SONS CO.

Newburg Station  
Cleveland, Ohio 44105

### READY-TO-POUR CONCRETE COMPANY

P. O. Box 5025  
Boise, Idaho 83702

### SEKIGAHARA STONE CO., LTD.

2-11-1 Takara-Cho, Chuo-Ku  
Tokyo, Japan

### SOUTHERN CAST STONE COMPANY, INC.

P. O. Box 1669  
Sutherland Avenue & Concord Street  
Knoxville, Tennessee 37901

### TERRACON CORPORATION

1906 West Winton Avenue  
Hayward, California 94545

### TEXAS INDUSTRIES, INC.

P. O. Box 400  
Arlington, Texas 76010  
P. O. Box 2672  
Houston, Texas 77001

### WILSON CONCRETE COMPANY

P. O. Box 56  
Red Oak, Iowa 51566  
P. O. Box 7208  
South Omaha Station  
Highway 75 Avery Road  
Omaha, Nebraska 68107

## PRODUCTS & LITERATURE

(Continued from page 57)

### Concrete Sealer

The Coatings and Adhesives Corporation is announcing the production of their acrylic concrete and masonry sealer White Roc M650. The sealer imparts no discoloration or stain of its own and is compatible with paints and other sealers.

*Circle 124 on Readers' Service Card*

### Roof Ventilators

Aerovent Fan Co. has assembled a catalog on its new line of roof ventilators. Contained are specs and detail drawings of the most recent innovations in roof ventilation including lightweight fiberglass units.

*Circle 125 on Readers' Service Card*

### Landscape Power

The Wiremold Co. offers a new catalog that clearly illustrates their solution for getting power and telephone wires to islands of desks in the office landscape scheme. Included in the brochure are photographs, drawings, and technical information.

*Circle 126 on Readers' Service Card*

### Steel Joist Data

The Steel Joist Institute has just published the 1970 edition of Standard Specifications and Load Tables. The 32 page manual includes all information needed for fast, accurate specifications of joists to carry uniform loads on spans up to 96 ft.

*Circle 127 on Readers' Service Card*

### Accent on Bathrooms

The Eljer Plumbingware's 36-page catalog of contemporary bathrooms features their latest bathroom designs and fixtures. The catalog serves as a reference source and makes a fine idea file for designers.

*Circle 128 on Readers' Service Card*

### Multi Vapor Lamps

General Electric's Lucalox lamps have recently been installed as the exterior lighting at the Baha'i House of Worship in Wilmette, Illinois. The lamps are high pressure alkali metal vapor (primarily ionized sodium).

*Circle 129 on Readers' Service Card*



### Desk-Top Communication

The AVC-10 desk-top audio-video communicator, a new concept for inter-office communication, has been introduced by Concord Electronics Corporation. The operator of the AVC-10 can communicate with as many as five different locations simultaneously.

*Circle 130 on Readers' Service Card*

### Apartment Communication

The NuTone Co. announces the distribution and production of Direct-A-Com, a communication system for apartment house installation. Also available is a coordinated mail box system similar in design to the Direct-A-Com.

*Circle 131 on Readers' Service Card*

### Contoured Cylinder Chair

Enfield Designs has created an executive and conference room chair with a swivel and tilting mechanism container within a stainless steel base. Bases are available in other metal finishes as well as fabric covered and wood.

*Circle 132 on Readers' Service Card*

### Movable Partitions

War Steel Products Co. has begun production of its Adaptawall partition system for use in both large and small offices. The system includes features not found in other partition arranging designs.

*Circle 133 on Readers' Service Card*

### Ceramic Wall Tile

Amsterdam Corp. is offering an 8-page brochure illustrating more than 75 different ceramic wall patterns, textures, sizes, and hues offered in the new "Serie Exquisit" line manufactured by Villeroy & Boch.

*Circle 134 on Readers' Service Card*

(More products on page 66)

On Readers' Service Card, Circle No. 399



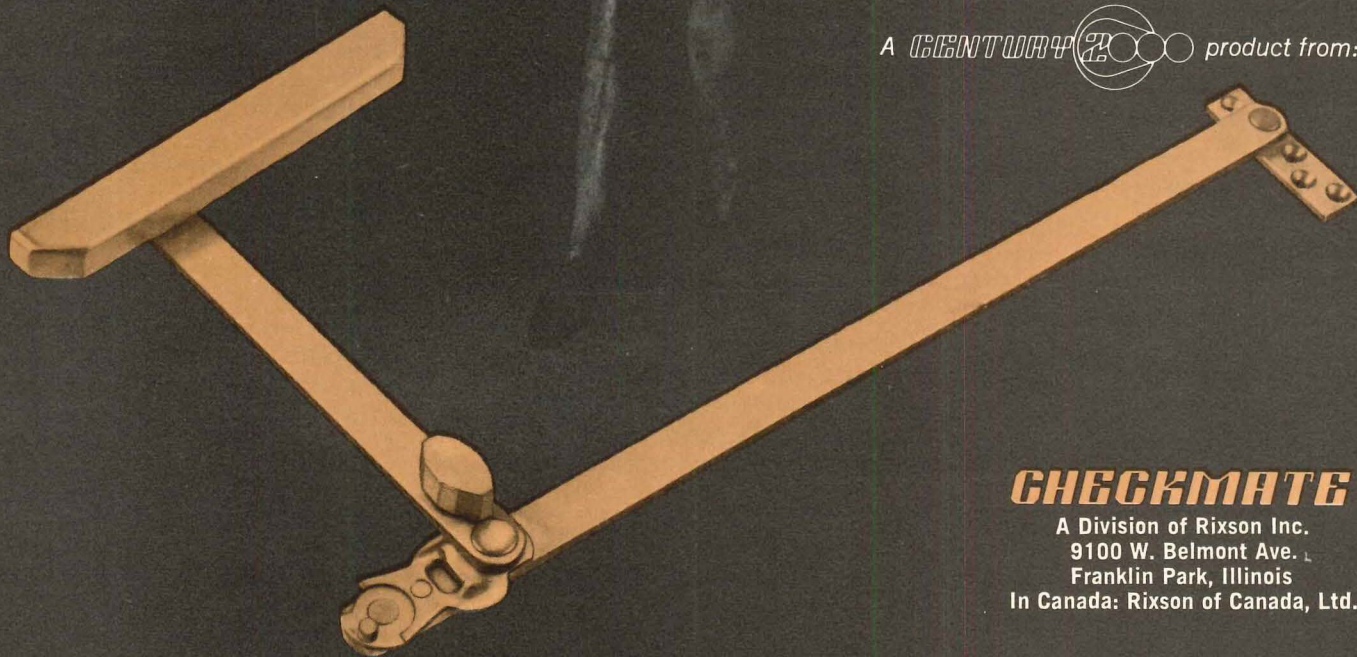
*A New RIXSON Company:*  
**CHECKMATE**

with a complete line of overhead door holders, stops and specialty hardware; designed, engineered and manufactured for superiority.

**8 SERIES HOLDER-STOPS**  
(heavy duty or regular)

Contemporary design . . . exceptional service . . . fingertip hold-open control . . . powerful shock absorber installed beyond halfway point on door . . . optional decorative cover . . . surface mounted and **non-handed**. At highly competitive cost.

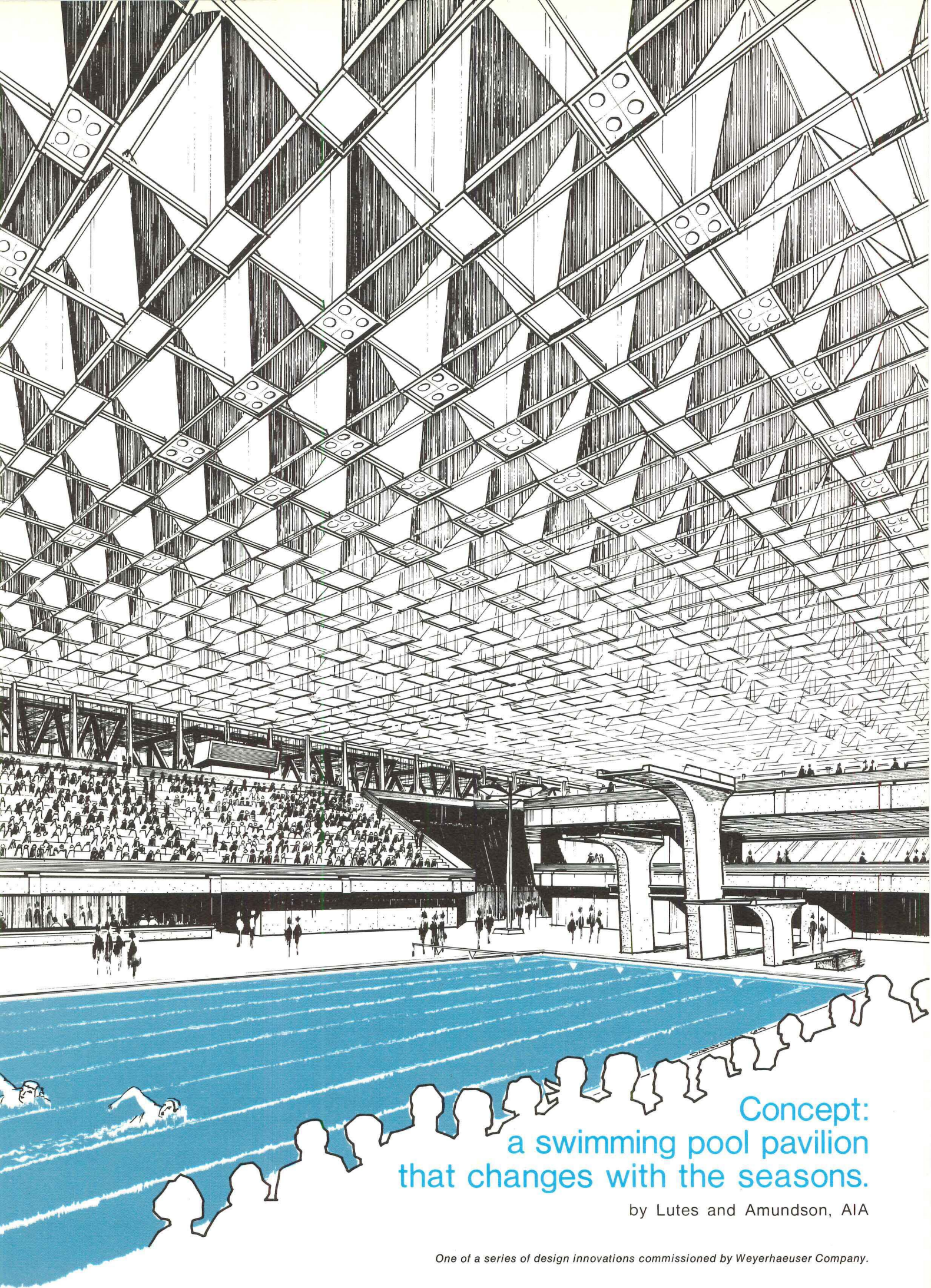
A *CENTURY*  product from:



**CHECKMATE**

A Division of Rixson Inc.  
9100 W. Belmont Ave.  
Franklin Park, Illinois  
In Canada: Rixson of Canada, Ltd.





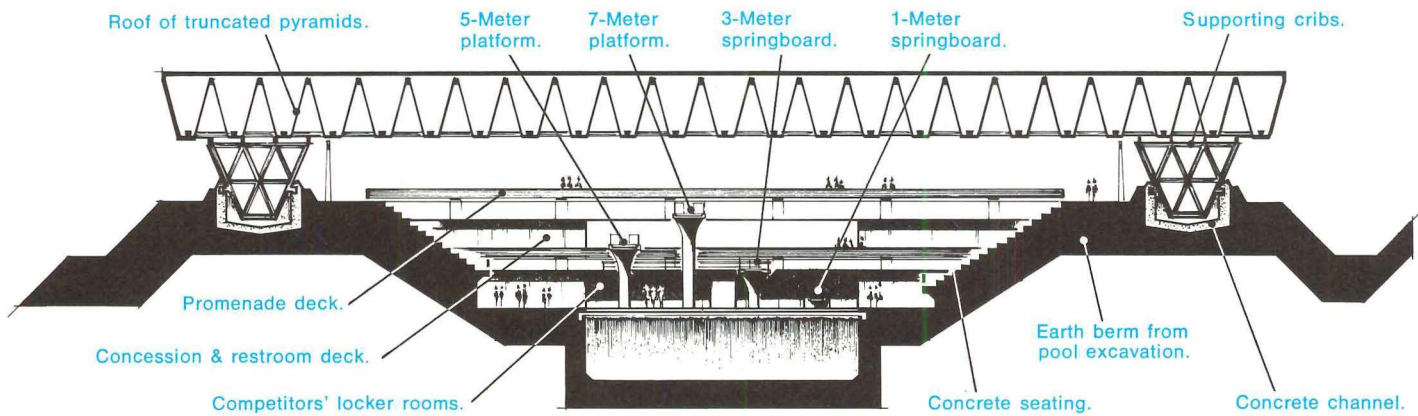
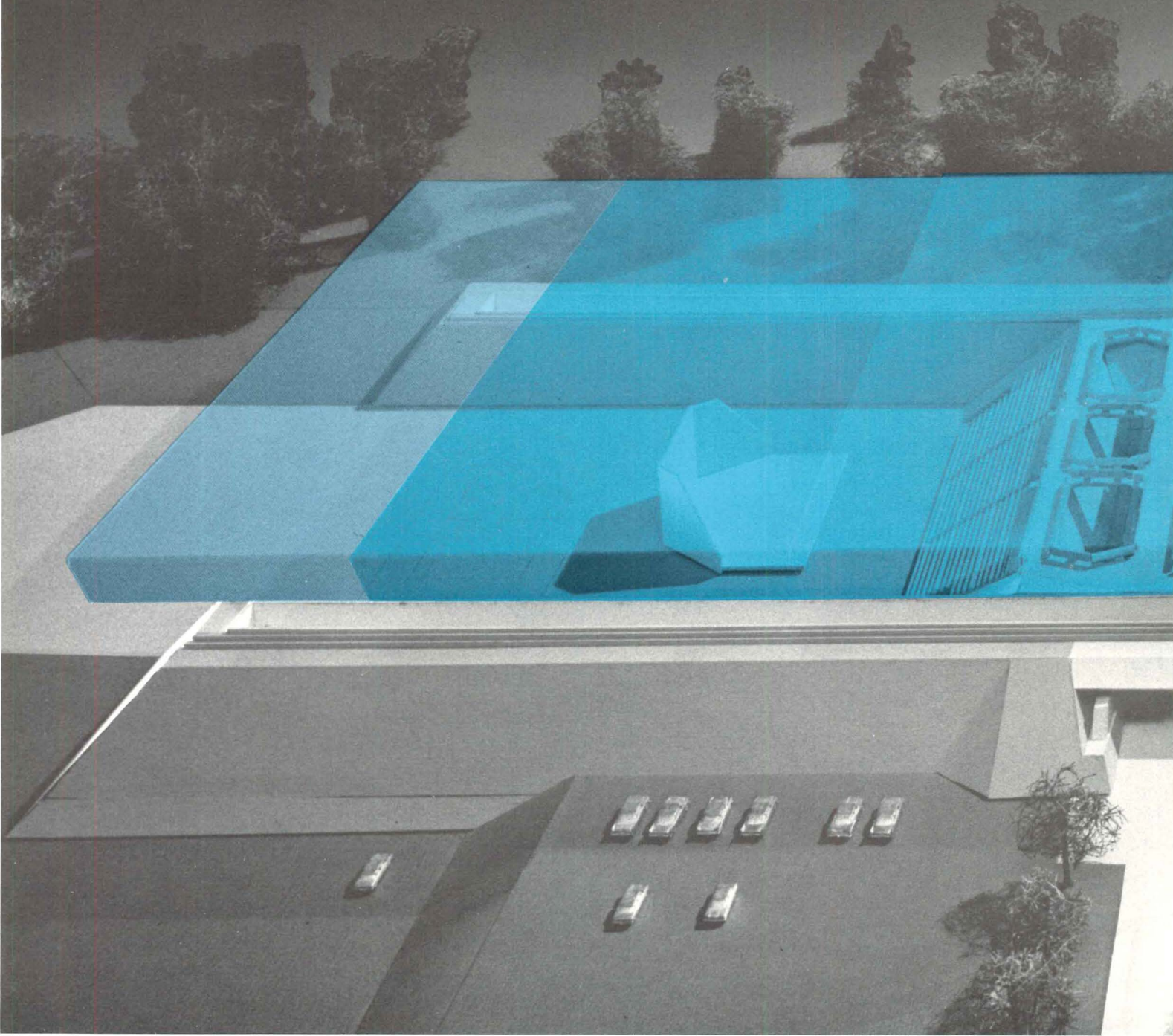
Concept:  
a swimming pool pavilion  
that changes with the seasons.

by Lutes and Amundson, AIA

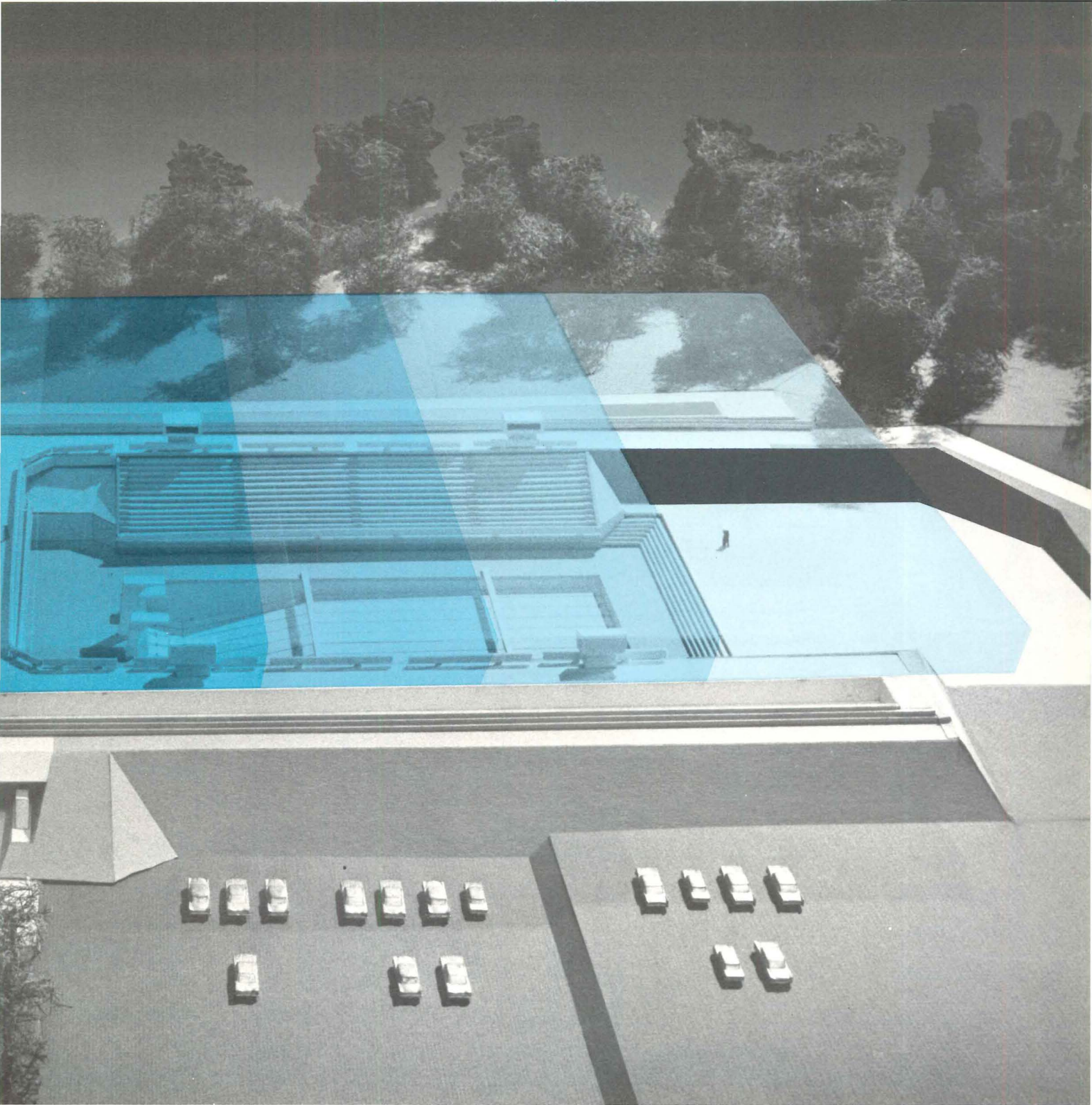
*One of a series of design innovations commissioned by Weyerhaeuser Company.*



Weyerhaeuser Company has commissioned a number of leading architectural firms to create design innovations highlighting the potential of wood in public and commercial buildings. This original design by Lutes and Amundson, AIA, of Springfield, Oregon, is the twentieth in the series.







## Wood and water combine to create a movable roof.

This Olympic Swimming Pool Pavilion and Activity Center is envisioned for a community that has an interest in developing a year-around aquatic sports program in conjunction with other group recreation activities.

Focal point is the pool area, which covers half of the 3-1/2 acre space. The other half consists of a multipurpose activity pavilion for ice skating, hockey, tennis, theatrical and musical events.

The lightweight plywood roof moves easily back and forth, allowing the pool to be open and sunny in the summer; covered and protected in the winter.

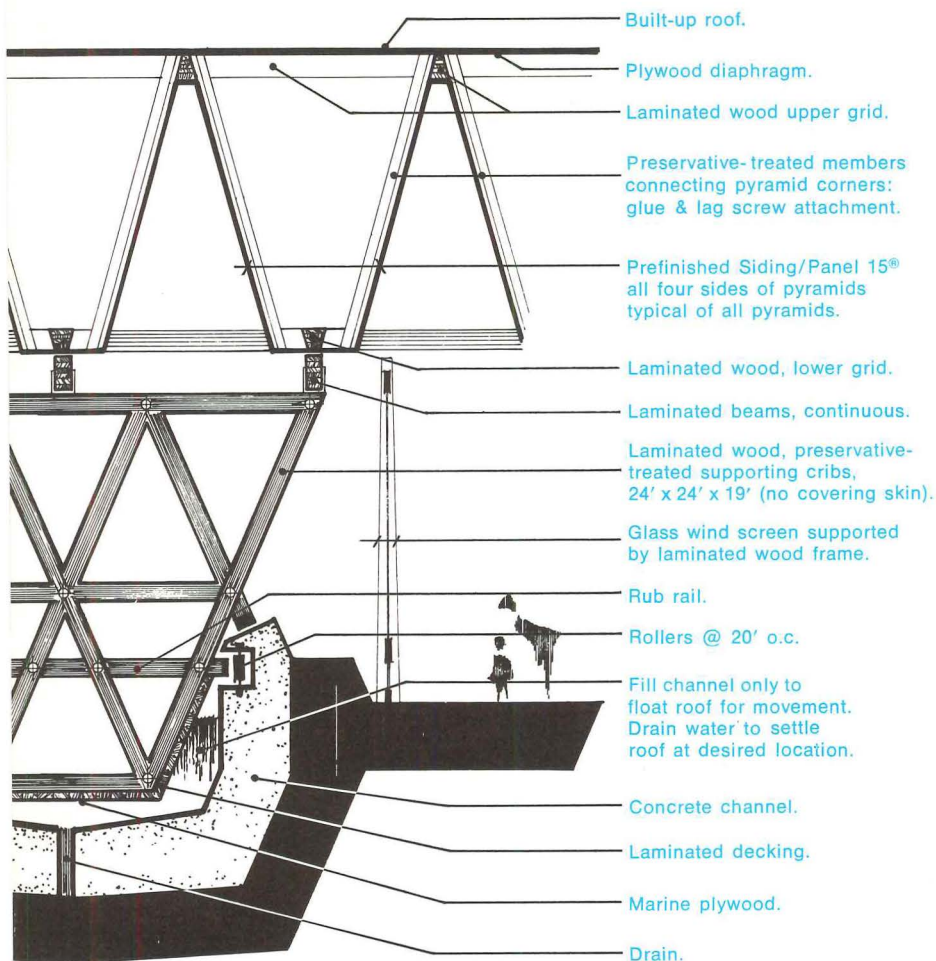
Movability of the roof is achieved through the major functional medium of the facility—water. A simple hydraulic system, employing roof floats in linear channels, floats the roof and supports it when moving. By filling

the channels, the roof is floated from over the pool to cover the multipurpose sports pavilion. Then the water is released and the roof returns to rest. Only a small force is required to move the huge roof.

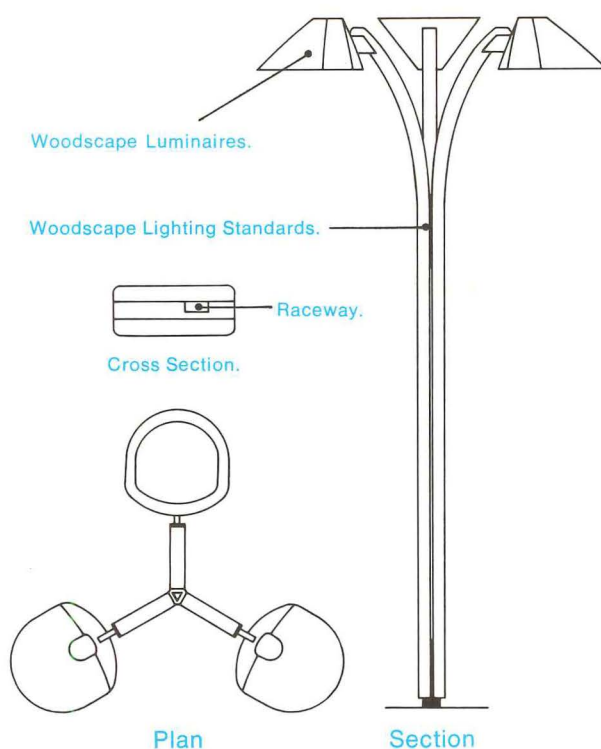
This concept becomes feasible in a wood structure because of its low weight-to-span ratio, rigidity of structure and economy of construction. Wood in its various forms becomes the most logical building medium to solve the technical problem while still adapting to an exciting architectural solution.

*John M. Amundson*

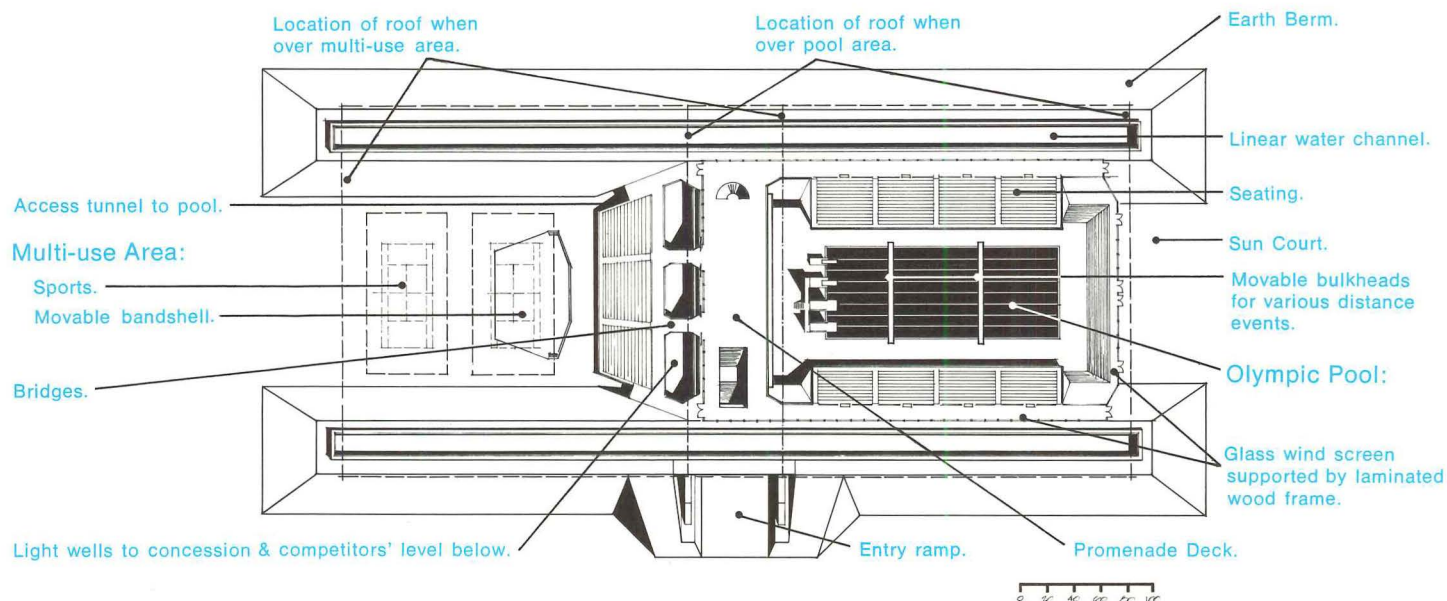




Depending upon climatic conditions, consideration should be given to water preservative treatment of all the wood members in this pavilion concept.



Weyerhaeuser Woodscape™ Lighting System



## "The light weight of the plywood structure provides its most dynamic potential."

Out of the floating roof idea, uniquely conceived by Lutes & Amundson, emerges the light-weight feature of wood as a major design consideration.

The pool cover is a stressed skin structure of truncated plywood pyramids and laminated wood chords acting as a box beam truss. Two faces of the pyramids are shear panels carrying horizontal and vertical shear forces;

of the remaining panels, one carries a compressive force and the other a tensile force. The shop fabricated pyramids are Weyerhaeuser Prefinished Siding/Panel 15® aluminum faced plywood, which resists the high humidity environment of the pool. Plywood decking in continuous lengths of 36 feet provides the top skin.

Weyerhaeuser believes that a whole new world of ideas is open

to architects who can ingeniously extend the principal features of wood products.

To help you make the most of wood, we maintain the largest single source of technical data in the wood products industry.

For information of any kind pertaining to wood, call on your Weyerhaeuser Architectural Representative. Or write to Box B-6743, Tacoma, Washington 98401.



**Weyerhaeuser**

(On reader service card: Circle No. 308.)





## New concept for special-care facilities — a home-like atmosphere.

*Haws drinking fountains were specified because they look better... and they last.)*

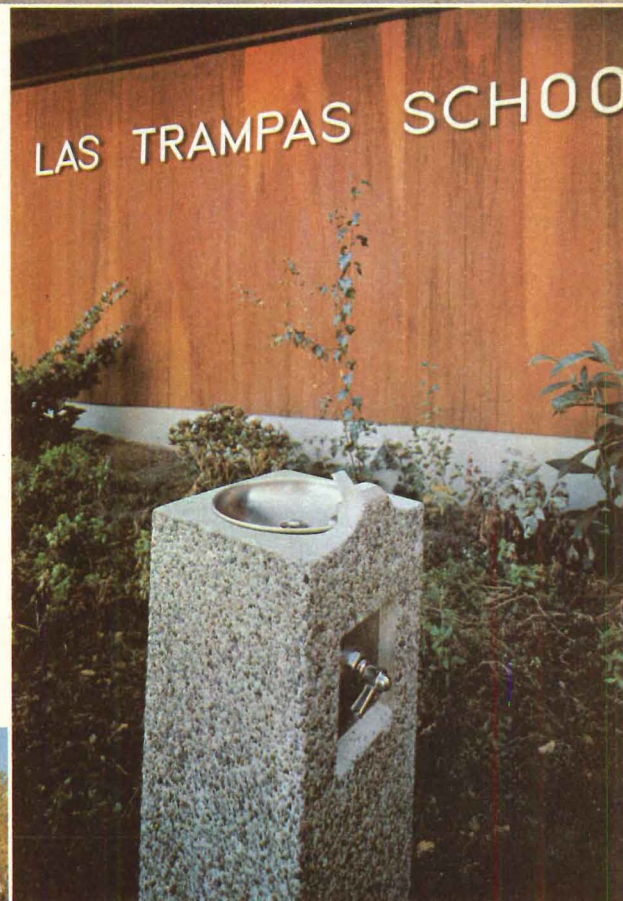
The Las Trampas School for the Mentally Retarded features extensive use of maintenance-saving materials—redwood siding, copper flashings and downspouts, and concrete shakes on the mansard roof for long wear and fire resistance.

Up-to-date facilities are embodied within a home-like atmosphere. The 2½-acre campus in Lafayette, California, includes four buildings on different site levels, which harmonize with the country setting.

First impressions are important. As you approach Las Trampas the feeling is one of welcome, of progress and happiness. First impressions are important with Haws fountains, too. The new Model 3120 square pedestal design is rugged, handsome, and built to last. For details write **Haws Drinking Faucet Company, 1441 Fourth Street, Berkeley, California 94710.**



**DRINKING FOUNTAINS**



**Architects:**  
Perata and Sylvester A.I.A., Lafayette, California  
On Readers' Service Card, Circle No. 353





## PRODUCTS & LITERATURE

(Continued from page 59)

### Engineering In Wood

Timber Structures Inc. is distributing a 24-page catalog illustrating contemporary applications of laminated beams, trim trusses, rigid frames, and domes, all of which are constructed of wood. Catalog includes specifications and information concerning quality control in the factory.

Circle 135 on Readers' Service Card

### American Sauna Bath

Am-Finn Sauna, Inc., a division of Urethane Fabricators, Inc., is marketing its Mark 64 American-styled Finnish sauna. The unit is entirely redwood on the inside, mahogany veneer on the outside with 1 3/4" of polyurethane foam in between. Also included in the package is an Underwriters approved electric heater which warms up to capacity in 14 to 30 minutes.

Circle 136 on Readers' Service Card

### Weslock Keylock

A full color, 4-page brochure has been prepared by Weslock Co. on its complete line of one piece entry handle keylocks. The units are available in seven designs in a total of 28 finishes providing a broad array of exterior keylocks and doorpulls.

Circle 137 on Readers' Service Card

### Translucent Walls and Ceilings

Kalwall Corp. is now offering a series of brochures on their various series of translucent wall and ceiling panel sections. The brochures contain various applications of the Kalwall system in both commercial and residential situations.

Circle 138 on Readers' Service Card

### "Woven" Ceramic Tile

Wenczel Tile Co. is distributing their brochure of ceramic tile that features a complete selection of their Wenczel Weave, a ceramic tile with a woven texture. Illustrated in the brochure are various kitchen and bathroom applications.

Circle 139 on Readers' Service Card

### Seamless Floors

Allied Chemical Corp. has just installed one of their Florock seamless floors in the new Daniel J. Flood Elementary School. Florock is a process by which a liquid polymeric coating is applied to a surface that dries to a hard glaze resembling marble or terrazzo.

Circle 140 on Readers' Service Card

### Fire Retardant Paint

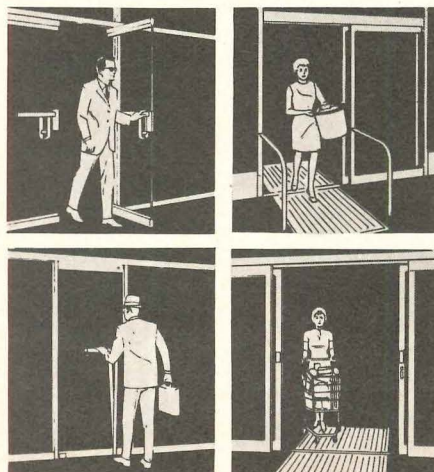
Seagrave Corp. is marketing a new paint called Firehold 10, which has been listed 10 by Underwriters Laboratories, the lowest rating ever granted a paint. The .0006" paint film foams to 200 times its applied thickness to provide a 30 minute safety margin at 350 degrees.

Circle 141 on Readers' Service Card

### Laboratory Paints

Fisher Scientific Co. offers a catalog on a line of finishes that provides maximum resistance to chemical and mechanical attack. The epoxy-based paint protects critical surfaces in manufacturing plant or laboratory. Included is a table of resistance.

Circle 142 on Readers' Service Card



**People come  
and people go.  
That's why we're  
always working  
on better ways  
to open doors.**

- HYDRA-SLIDE®
- ELECTRA-SLIDE
- HYDRA-SWING®
- CONCEALED OVERHEAD CLOSERS
- R&K PITTCOMATIC®  
Reg. T.M., PPG Industries
- R&K SERIES 10 CHECKING FLOOR HINGES.

More efficient, more dependable ways of opening and closing doors... more attractively. That's our ever-present goal. But we don't stop there. We insist on making sure there's always instant service available... just in case. Door controls by Ronan & Kunzl, you can be sure, will meet your needs for design, safety and function. Let us tell you more.



*fine door controls for over 20 years*

**RONAN & KUNZL, Inc.**

1225 S. Kalamazoo Ave., Marshall, Michigan 49068

On Readers' Service Card, Circle No. 408



# Spectra...

## Lighting has never looked better!

There are beautiful new lines throughout Wide-Lite's beautiful new line! Crisp, clean modern lines that make Spectra the obvious choice where high lighting levels and attractive luminaires are essential.


Dramatic Spectra models usher in a new dimension of beauty—and better visibility—for shopping centers, parking lots and other outdoor areas. They offer efficient night lighting, and in the daytime become a new, exciting element of architectural design.

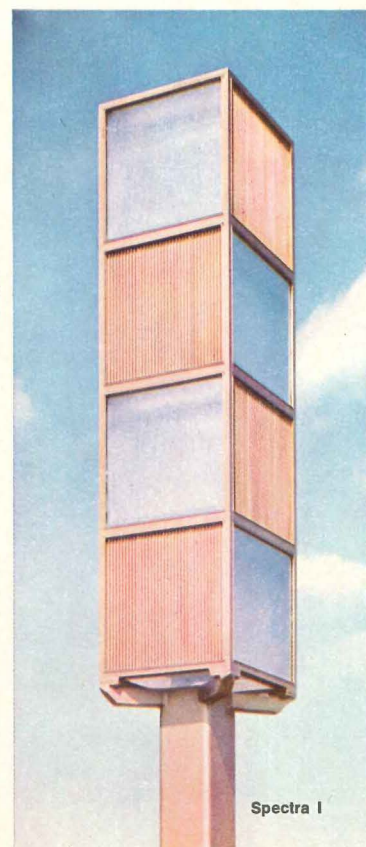
The Spectra Series makes something wonderful happen to indoor

lighting, too—it provides higher lighting levels than any other practical system, and combines this increased lighting with clean, uncluttered, decorative ceilings.

Want more facts on the exciting Spectra Series? Just write Wide-Lite Corporation, Dept. PA-3/70-1020, P. O. Box 191, Houston, Texas 77001.

### WideLite®

P. O. Box 191, Houston, Texas 77001  
Also Manufactured in Australia,  
Belgium, Canada, Great Britain, Mexico.  
A Division of  Esquire, Inc.









# Architect John A. Benya must love All-Electric design. It gave him the freedom to design a heart-shaped bank.



John A. Benya won't build anything unless it's All-Electric—the most flexible approach to total environmental control.

The people at the Creve Coeur Bank in Creve Coeur, Missouri, bought this concept when they asked him to design a new bank. Now the town of Creve Coeur (French for broken heart) has an All-Electric bank in the shape of a heart. Two years ago Mr. Benya used the freedom of All-Electric design to build a football-shaped bank.

For the Creve Coeur Bank,

Mr. Benya used electric baseboard units plus supplemental heating units in the environmental control system. This system allows the bank to heat one area while cooling another. The system is totally flexible and it gives the freedom to expand the building when necessary.

Electric heat is clean. And there's no loss of energy because the source of heat is right in the room. So you don't lose heat transporting it down the line.

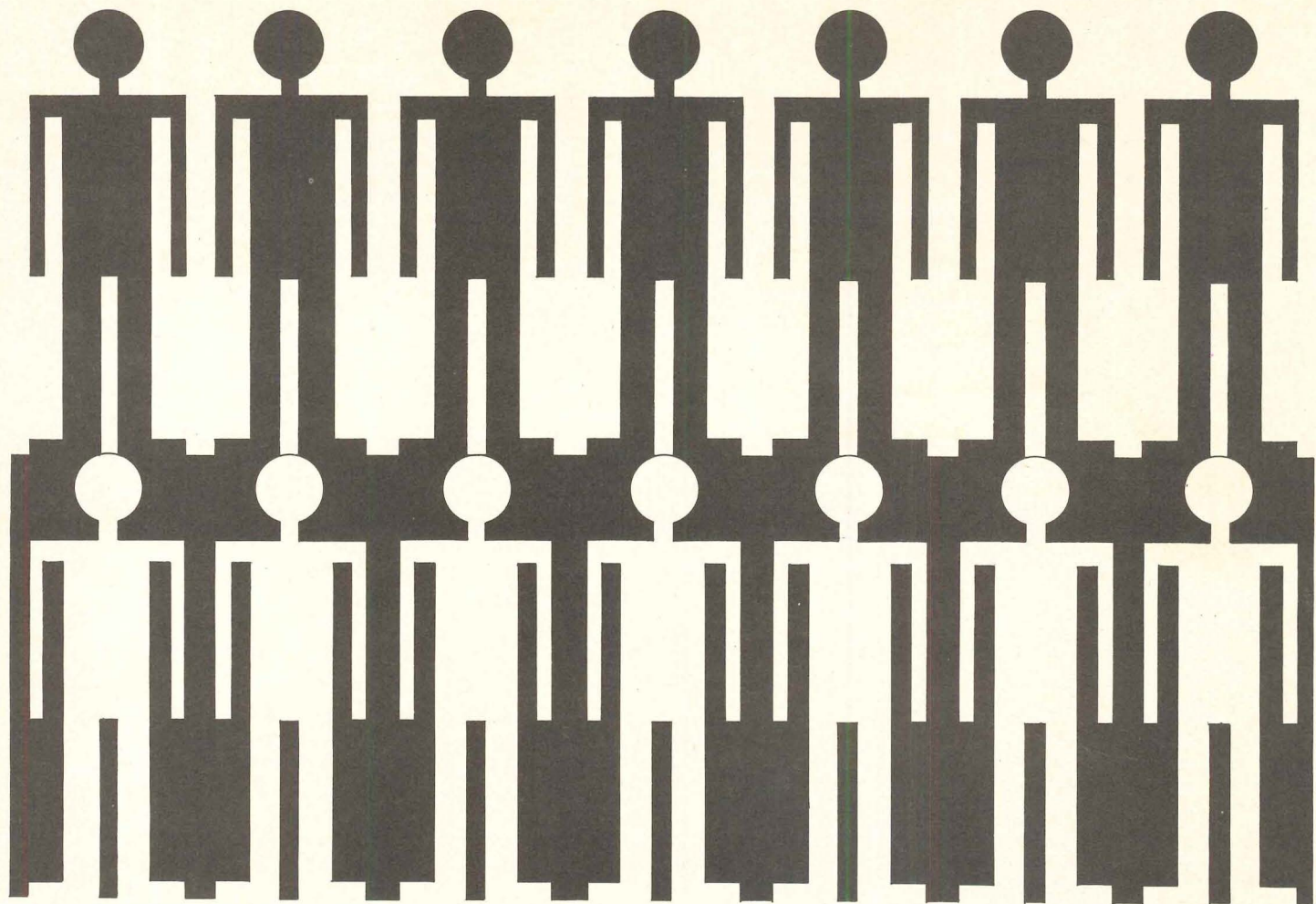
With these advantages, you can understand why so many commercial buildings are going All-Electric. Talk to your electric utility company today.



## Live Better Electrically

Edison Electric Institute, 750 Third Ave., New York, N.Y. 10017







# EDITORIAL

Comparisons are never more apparent nor quickly drawn than when, thrust into a foreign environment we strain every fiber of our being to absorb and order alien impressions. During a brief period we are capable of rapid intuitive assimilation. Paradoxically, lack of knowledge seems to enhance our perceptions. The contributors to the first article in this month's P/A are writing, for the most part, with a traveler's assurance.

The border between Finland and Russia is one of more than historic friendships and antagonisms. It is a division of two conflicting priority systems, mirroring, in a sense, the causes and contradictions that beset us. We can see in these two countries the split between individual freedom and institutional freedom, social responsibility as law and social responsibility as individual whim, of the individual state and the individual within a state, of the right to be different but not to be old and the right to be free but not to be different. To the traveler each country seems to polarize the contradictions within our borders.

The contrast between the sensual and social revolutions seems typified in the cities of Leningrad and Helsinki. The streets of Leningrad, arranged in unflinching grandiloquent fashion preclude neighborhoods. Each is a pretentious statement where the single human figure stands amid converging lines of limitless perspective, excluding the smaller scale of modest buildings, for simple tradesmen or simple people.

The restoration of this autocratic city by a socialist people can only be explained as an act of cultural affirmation. The Russian culture appears a pretentious way of life. Long lines of people queue before neoclassic buildings to tramp through endless corridors crammed with bric-a-brac. This nationalist reverence is paid to acres of kitsch lovingly accumulated by feudal landowners who were ashamed to speak their native Russian language.

The streets of Leningrad seem deserted. Yet 300 feet below the surface of this museum city of the past, Soviet men and women of today ride what must be one of the finest subways in the world. Trains run frequently and on time. They depart from spotless platforms and travel through immaculate tunnels. Traffic patterns are intelligently channeled — each station individually designed.

Helsinki on the other hand, despite its sedate Empire façades seems to be a "happening." Mini skirts bob, long hair blows, Marimekko fabrics mingle with beards, jeans and bare feet in a mind-blown world of personal freedom and self concern. The downtown streets of Helsinki are often crowded, boisterous, impassible because of beautiful young people. It gives the impression of the world of the "easy rider"

where getting there is all the fun.

One can walk in Helsinki's narrow winding streets all day without tiring. A third the distance afoot on the grandiose Leningrad boulevards is exhausting.

Architecture has always been the primary art of Finland — "Good Design," her major export. Yet Finnish architecture, like that of much of the western world, is beginning to depart from its absolute serious functionalism and show signs of formal fun fantasy.

As a poor outpost of both east and west for most of her history, vicissitude paved the way for good Finnish design. Its richness was gleaned from a poverty of developed national resources. Finnish cities were made of wood, and they burned frequently. The Finns became the world's most adept town planners by necessity.

The characteristic of most periods of intense change, sensual, sexual, or social is that contrasts are easily drawn but values impossible to ascertain. In a very short period of time in our own country we have watched, the ugly become beautiful and the beautiful a cliché, the profound trivial and the trivial esoteric, the monumental mundane and the mundane high art.

The contributors to this month's lead article are assessing contradictory cultures. What are the values implied when the artifacts of an autocratic feudal regime become the national art treasures of a socialist state, when a totalitarian city is restored by a collectivist people, when a supreme effort made toward the ideal of universal housing results in ugly buildings? On the other hand how seriously can we take "good design" as a major export item? How profound is the major art of a serious people when it becomes fun?

Travel has become a form of research for environmental designers. All societies have contradictions inherent in their priorities. Historically when contradictions cannot be contained within existing frameworks, systems rupture. A major concern of American travelers is searching out and contrasting other cultures with their own.

Our authors, including editor Don Raney and myself, reported spontaneous impressions, rapidly assimilated and intuitively judged, trying to fit them into a framework of objective truth that may not be very important at all. What is important is that we found people living successfully and happily within a context of greater contradictions than our society seems willing to allow. The lesson to be learned from this is that perhaps the rupture of social systems is not due to contradictions, but instead occurs when the attempt is made to eliminate them.

*Forrest Wilson*





# FINLAND



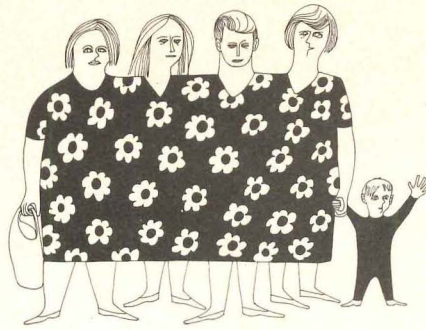
The Gulf of Finland separates Russia from Finland. Often in the past, cultural influences have traversed this gulf, traveling from Russia to Finland. But now the direction is reversed. Vibrant, mini-skirted Finnish

girls and long-haired young men, able to travel to Leningrad in great numbers, are influencing the more somber Russians. In response, the Russians are becoming more design conscious. However, this influence is new. As can



# RUSSIA:

## Two Sides of a Gulf



be seen in these two photos, Russian streets (right) frequently lack those “extras” which, in Finland (left), help public spaces to function humanely. This article deals with many of those “extras.” It is the result of a tour by

editors Forrest Wilson and Don Raney, and also contains five contributed papers, offering views on architecture, architectural practice, and the education of the architect in Finland and Russia.





# Finland: Export Design

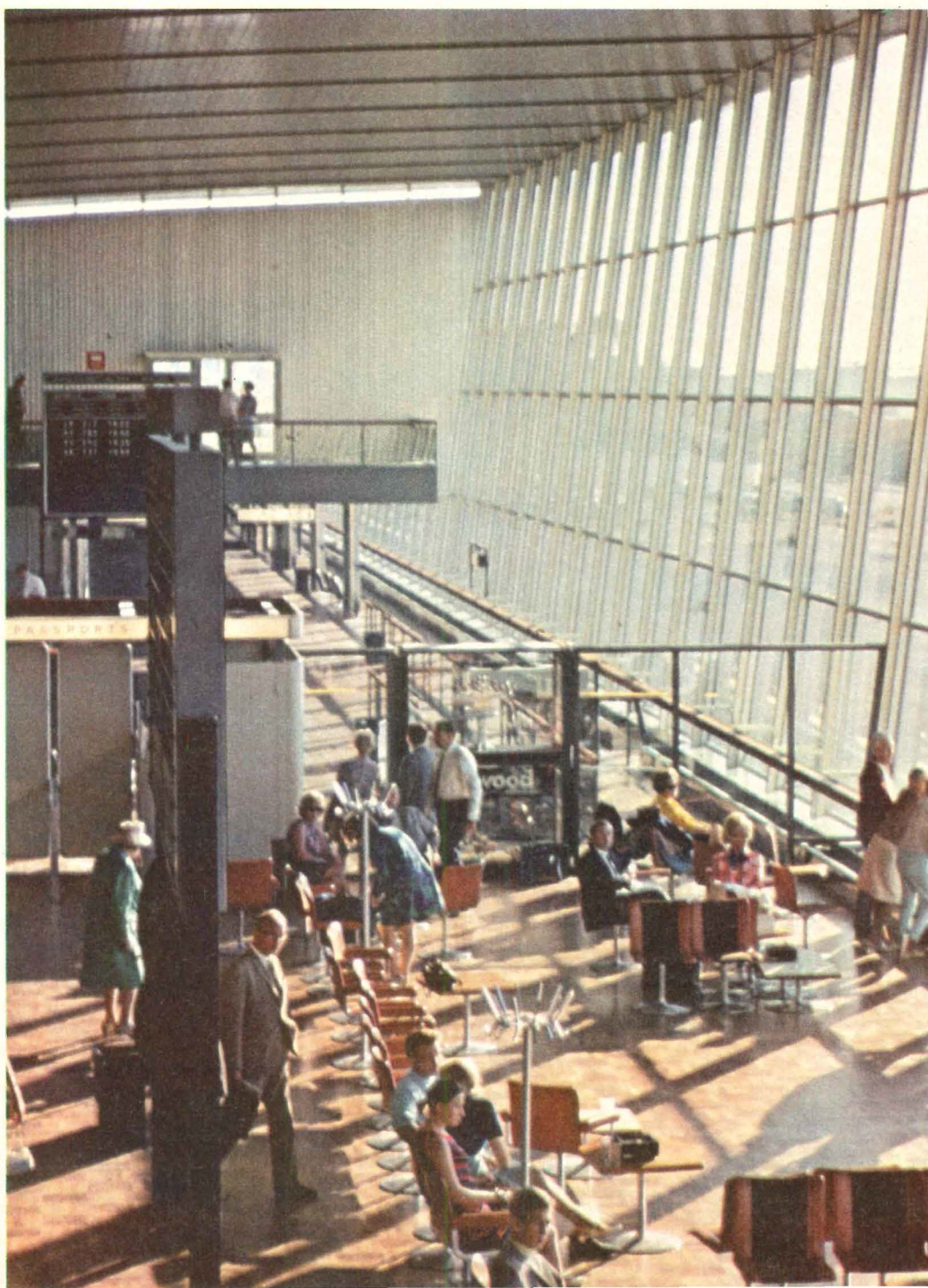
**F**irst impressions of Helsinki airport, from the parquet-wood floors to the no-nonsense directness of the design, create a valid introduction to contemporary Finland.

Architecturally, Finland is unique in that permanence is relatively new. Compared to the Continent, Finland has few extant examples of its architectural heritage. Buildings in the past were wooden, and they burned often. Those that did not burn by

accident, such as many churches, which may well have represented the most genuine architectural contribution made by Finland, were razed in a "war of extermination" against wooden churches at the end of the 19th Century. Only a few remain.

## Russia Is an Early Influence

Urban culture was formed late, during the 18th Cen-



*Interior view of Finnair's Helsinki airport, reflects the care and attention that the Finns expend upon design.*



tury, and most of the wooden buildings of the early cities were also eradicated by fire. Consequently, the rebuilding of the oldest major cities, Helsinki and Turku, date from 1808 and 1827 respectively. Both of these cities were strongly influenced by the Leningrad Empire style with its characteristic straight streets and extensive squares. Having been completely replanned so recently, the center of Helsinki, designed by German architect Carl Engel, stands as one of the last great examples of the traditional ideal of "the city as a work of art."

Two and three story monumental stone buildings were constructed only in the city center. Their brick façades, plastered and painted yellow ochre with white details, glisten against the dappled blue waters of the bay. Surrounding the Senate Square are residential districts comprised of wooden flats detailed to imitate the stone Empire buildings. They were planned to the neoclassical ideal of blocks of detached buildings in order to meet the prescribed fire regulations.

As has always been the case with Finnish architecture, the detailing of the Empire style is austere compared to the flourished detailing found in Leningrad. In many ways this austerity befits the shy, quiet character of the Finnish people. When compared to the ornate Russian Orthodox Church, the trappings of Finland's national Lutheran Church appear minimal.

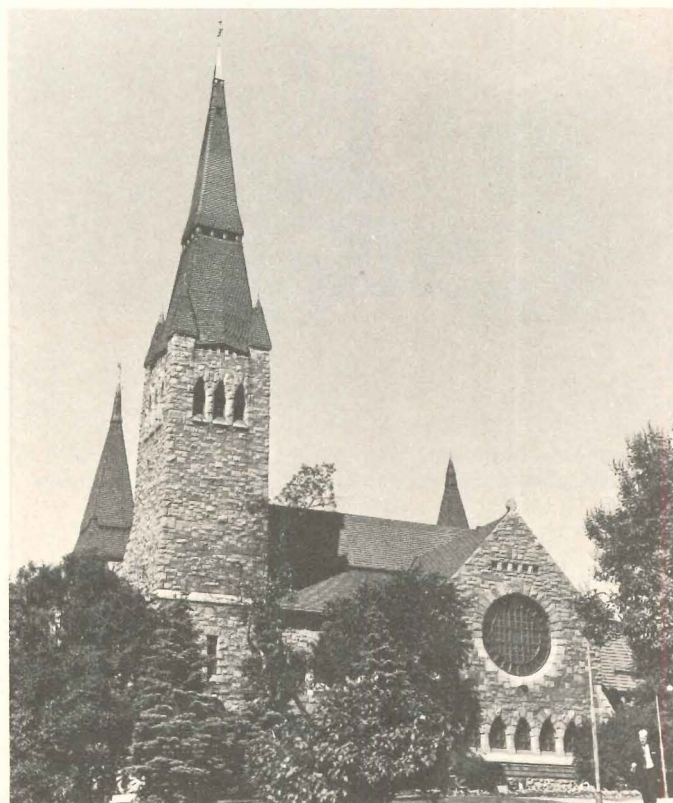
## Nationalism in the Arts

Concurrent with the rebuilding of Helsinki and Turku, Finnish literature developed in the early part of the 19th Century when Elias Lönnroth collected and published the ancient *Kalevala*, the national epic poem which inspired the rhythms of Longfellow's *Hiawatha*. But it was late in the century before Finnish nationalism in the arts began to outweigh the efforts towards Russification by the Czar of the then Grand Duchy of Finland.

In the 1800s a group of artists seeking a truly Finnish expression came together. Included were composer Jean Sibelius, artist-designer Aleksis Gallen-Kalela, and architects Eliel Saarinen, Herman Gessellius, Armas Lindgren, and Lars Sonck. Members of the group were inspired by Carelian log-house architecture, still found on the eastern borders of the country, and images from the *Kalevala*. A characteristic feature of this period is the tendency to make



*Set high above Senate Square, Frederick Engel's Empire styled Helsinki Cathedral commands the space with its austere lines.*



*Lars Sonck's Tampere Cathedral represents the high point of the Finnish National Romantic Movement, which harked back to the design of Finland's original wooden buildings.*

the buildings integrated works of art. Craftsmen, artists, and architects cooperated to assure harmony of all details.

As the National Romantic Movement accelerated, the sharp-featured hunting owl (drawn from the *Kalevala*) proliferated in detailing on the masonry buildings that replaced the Empire wooden structures throughout Helsinki. Today, few of the old wooden residential buildings are left on their original sites. Some have been moved to an island museum, but most have perished.

While the Helsinki center which Engel conceived and built in 25 years (a feat few architect-planners ever achieve) has been restored to its original condition, the rest of the city has changed drastically over

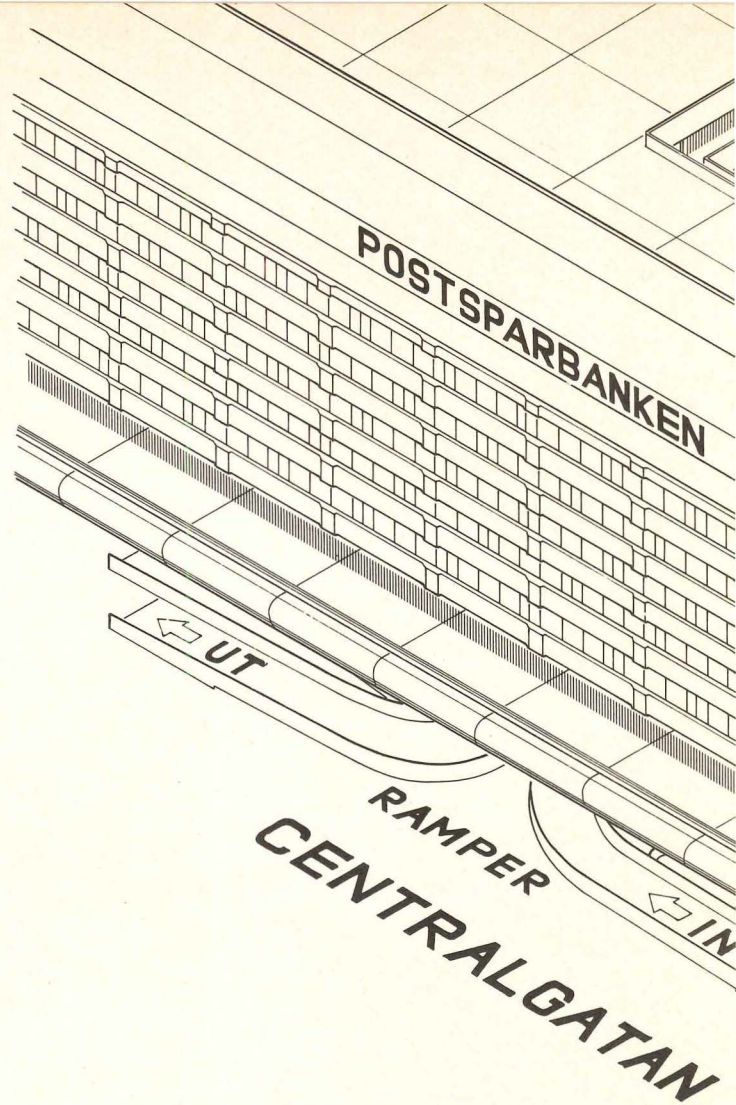




*Many levels of interpenetrating walkways add excitement to a casual stroll.*



*The concrete band around City Center's façade, at right in photo, has caused many Helsinkians to call it "sausage center."*



the last 162 years. The short-lived National Romantic Movement, which reached its high point with Sonck's St. John's Church in Tampere (1894) and ended with the completion of Saarinen's Helsinki Railway Station in 1916, left its mark on the city. But most of present-day Helsinki postdates Finland's international reputation for architecture (which began with the recognition of the Helsinki Railway Station). Many buildings date from the building boom of the thirties when Finland wholeheartedly embraced functionalism.

### A Humanly-Scaled City

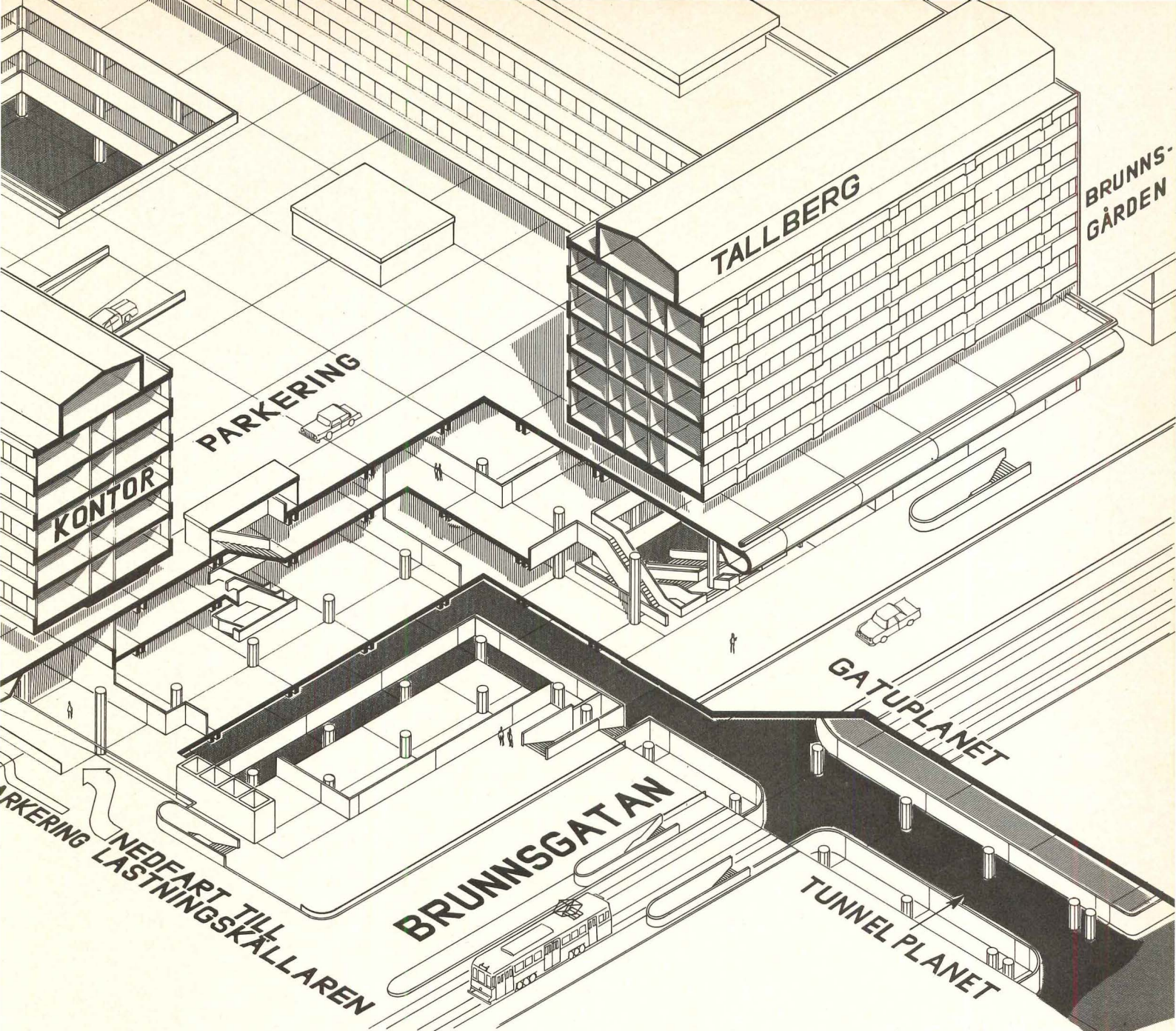
In plan, modern Helsinki is an excellent compromise between neoclassical formalism and humane sensibilities. The streets are generally straight and at right angles to each other, but the grid is frequently softened by alleyways around, through, and under buildings, affording the kind of suprising views one expects from a medieval town. While the center of the city is primarily for business, people still live in flats clustered around courtyards off the tree-lined streets. In the summer, balconies projecting into the courtyards are covered with red geraniums, morning glories, and green plants. Flower stalls and icecream stands, at least every two blocks, are an integral part of the street scene. In the center of town, beside the

wharf area, is the market — colorful Marimekko fabric stretched over the cobblestoned horizon.

To walk through the city is to experience miles of flowing blond hair; mini-protected, masterfully-created legs; and architecture which never fights, but complements the scene. Helsinki is certainly one of the most underrated and humane of the major cities in Europe. And everyone seems so young. Perhaps this is due to the traffic situation. There are too many cars, and almost no traffic lights. It is possible that when one reaches the stage of lethargy, he either starves at the curb waiting a break in traffic, or gives it a fatal try.

Traffic, every city's choke-collar, is viewed by the Helsinki Planning Department as the priority problem. A subway is planned to alleviate most of the congestion, but it is not yet under construction. As more and more people from all over the country are attached to the suburbs (like famous Tapiola) in search of jobs in nearby cities, the situation worsens. For example, the slowness of the Planning Department to act on the problem recently prompted young, committed planners within the department (80 per cent of these planners are under age 35) to threaten a mass walkout unless the department heads used their influence to stop the petty political bickering that has held up subway construction because of con-





Heikki Castren's "City Center Building" preserves Helsinki's characteristic "preforations," passages which allow one to walk through the city "behind" the streets.

stant route changes and station location alterations.

In one case, a subway station was built near the railway station at a cost of about \$2 million. It was completed because a building was being constructed above it. Now the route has been changed, and the city has no idea what to do with a subway station that has no subway. One suggestion was to make it into an underground swimming pool.

A future, major-road system is being planned by the National Planning Office. Fully realizing the implications this system holds for the development of the country, the problem is being studied in conjunction with United States consultants Wilber Smith & Associates. The National Planning Office is still suffering from a miscalculation in the national school building program, which caused far too many schools to be constructed in rural areas where population was declining because of migration to the

cities. Now many rural districts have excellent schools with hardly any students.

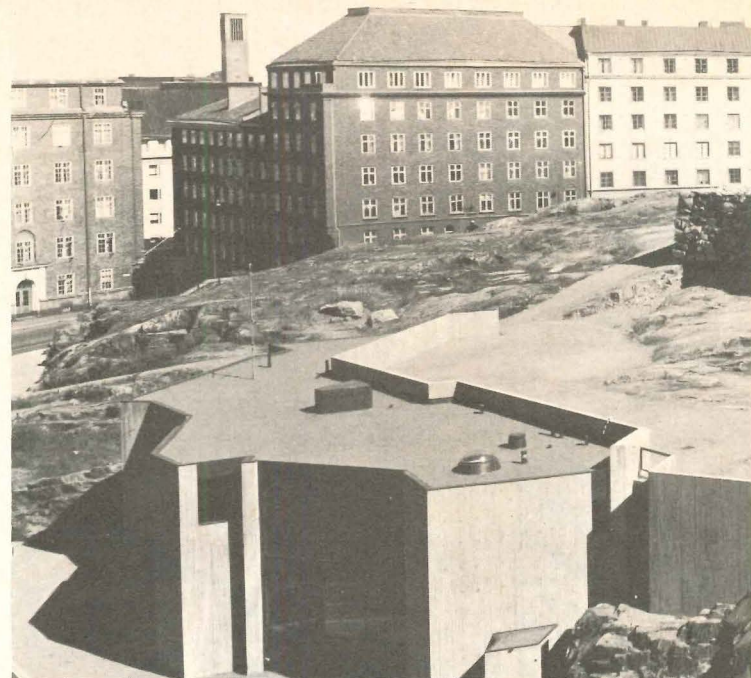
### The Busiest Corner in the Country

Another problem Helsinki faces is the growth of business within the city. Space is needed, but the city cannot expand because it is on a peninsula blocked on all sides by natural barriers. It is difficult to amass land because owners will not sell. As one solution, the planning office is relocating all heavy industry outside the city limits as quickly as sites can be prepared. This is being done according to the City Plan for Helsinki prepared by Alvar Aalto. But another brilliant solution, conceived by the late architect Viljo Revell and carried out by his partner Heikki Castren, involves tearing down some old structures (in itself a feat because all buildings are protected by a





*Timo Suomalainen's Tempelaukion Church was built into the granite outcropping in order to preserve a park which neighbors had enjoyed for years.*



landmarks preservation law) and allowing the individual plot owners to retain title. The land owners then form a corporation to construct a building on the whole site. It could not be done in any other way since the lot sizes are always too small for a major office building.

The first building constructed in this manner is across the street from Saarinen's railway station. Because of its location, it has become the most important and most used building in Finland. The busiest corner in the country is now a building. Before this City Center building was constructed (because of the shape of its railing some call it Sausage Center), thousands of people going to and from work were forced to cross the wide, heavily trafficked boulevard in front of the railway station. Architect Castren envisioned a natural underground circulation path through the building to the station. The city did not have funds for this project, but agreed to allow shops in the underpass to stay open two hours past the 8 P.M. curfew if the passage could be privately financed. Not only were all shops in the underpass immediately successful, but because of the pedestrian traffic drawn through City Center, all shops in the building profited.

The City Center works magnificently. Shops and

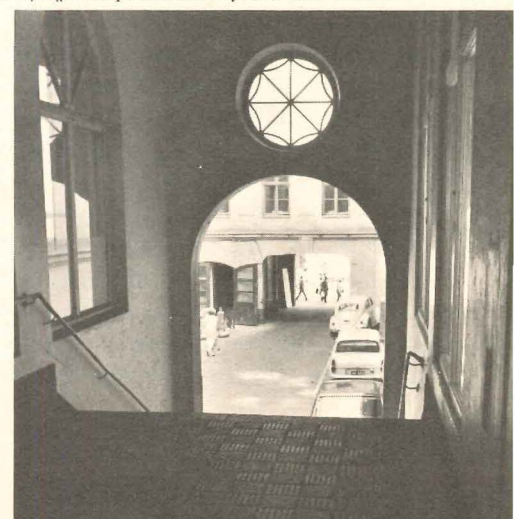
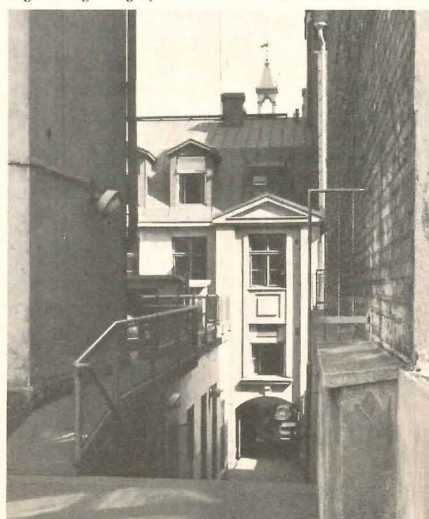
restaurants are on three levels, with offices and a parking garage above. And the building has done much to preserve the pedestrian quality of the city.

Such functional approaches to design are well within the Finnish architectural image — an image begun by Saarinen but expanded greatly by Finland's prince of architecture, Alvar Aalto. Recently, Aalto has been at work on plans for the new building at Technical University of Helsinki at Otaneemi, which has been criticized as a summer school because of the long distances students must walk between buildings in the winter snow. Another building which has caused some controversy because of its siting is an office building for Helsinki, sited at the water's edge, aside the market place. Many Finns feel the crisp white marble structure clashes with the old waterfront buildings, and does a disservice to an old onion-domed church by blocking it from view. Rather, the building seems to enhance the site and works better with the clean lines of the Empire style, waterfront façades.

## Religion in Rock

The Finnish compulsion to preserve nature at all costs is well known. It is said that roads frequently

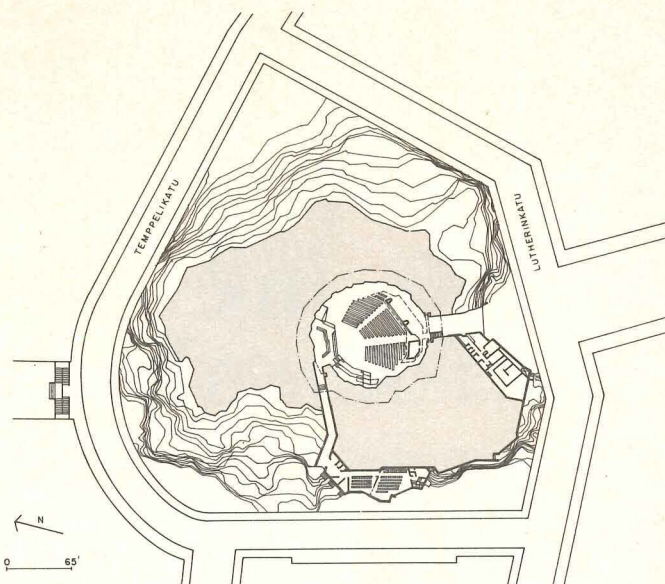
*Entering and walking through one of the many alleyways, which in Helsinki's cold winters, afford protection from the winds.*







Photos: A. Fethulla



*The plan shows how the church's interior was hollowed out of the solid granite outcropping, leaving exposed, blasted granite walls, topped by a translucent dome.*

make hairpin changes in direction to avoid a tree. The Finns will go to great lengths to save an open space, as in the case of a private park in Helsinki.

This church-owned land, a large section of which was a granite outcropping, had served the area as a park. The park's owner announced an architectural competition to place a church on the site, to the distress of the people. The competition was won by architect Timo Suomalainen because his design pleased all concerned. It placed the church in the granite rock and left the park on top. Like building a road around a tree, the resulting church is an expensive technical answer to a natural problem. Some younger Finns, angered by the cost of this solution, spend their evenings painting "Biafra" in large white letters on the solid granite walls of the church. In the morning the police scrub the letters off. But this does not detract from the architecture. In fact the solution is beautiful as well as unique. Placing religion in rock lends solidity to both the material and the concept.

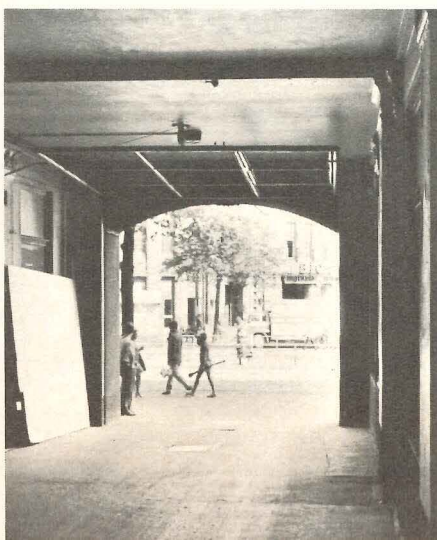
## Design Is a National Interest

Design is of great public concern in this country, where often all of its citizens are invited to participate in architectural competitions. To our knowledge

a non-architect has never won a major competition, yet the idea that one could must do much to peak public interest in architecture and the environment.

Within the normal historical scheme of thesis, antithesis, synthesis, it seems that the young designers of Finland are entering an era of antithesis, an antithesis to the Bauhaus-white functionalism which is very much a part of the Finnish architectural image.

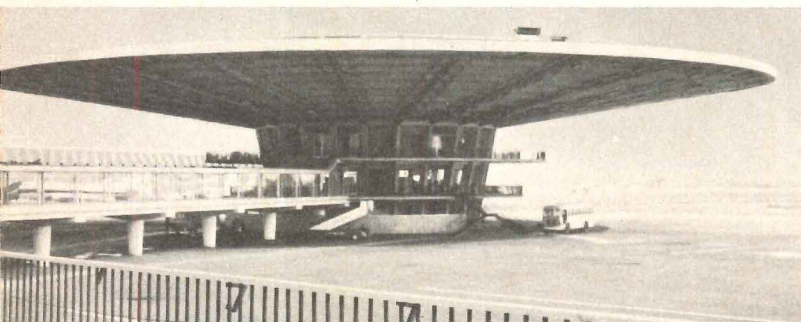
One of the most brilliant of these new young designers is architect Reima Pietila. His student union building Dipoli, and his Kaleva Cathedral at Tampere have received international attention. While these buildings function excellently for those who use them, each contains disconcerting elements that, although extraneous to function, are essential to tone: in Dipoli, a marvelously proportioned and lighted stairway leading to nowhere, in Kaleva, certain odd shapes that crop up in unexpected places. The architecture is witty, but never out of control. In form, the plan of Kaleva is related to the elevation of Pietila's chairs for a small coffee shop in Tampere, and also to the elevation of Dipoli. The line is jerky, hesitant, almost in direct opposition to Aalto's flowing rhythms, or the long land-hugging horizontal of the white housing blocks. Pietila lives in a less graceful era.







# Russia: Form Follows Tradition



A short one hour and forty-five minute flight across the Gulf of Finland brought us to Leningrad. Like the Finns, the Russians, through the medium of airport architecture, have expressed what lies beyond. In Moscow for example the holdroom structure is an impressive, round, steel pavilion; massive in scale. However, in Leningrad the terminal consists of two buildings; one a neat steel and glass structure which serves as an international departures building, the

*Moscow Airport's hold-room structure, photo above, is one of few exposed-steel structures the Russians have built recently. More typical, is the precast-concrete structure next to Moscow University, shown below.*





other, a poured-in-place concrete structure painted with murals depicting Soviet scientific achievement.

Incidentally, all public toilets are in the newer of the structures, and had probably existed on the site from some ancient structure around which the new building was constructed. As an aside, (they had probably been cleaned only when new) Russian graffiti parallels our own.

## Two Lines of Tradition

There are two lines of tradition in Russia — pre-and-post-revolution. The form most architecture takes is definitely post; solid, serious, and structurally systematic. Yet the mood of the architectural setting is almost always prerevolution; neoclassic, only expanded — pulled apart, with spaces between structures based upon some ideal gargantuan scale. Because of budget problems, the “spaces between” are frequently left unfinished.

But the mood of the architectural setting is based upon more than distance between buildings. It seems to be something ingrained in the character of the nation and in the land. The mood of each of the more than 800 new cities and towns constructed since the revolution appear almost predestined, perhaps by Peter the Great when he founded St. Petersburg (now Leningrad) in 1703.

Sited on the marshes between Lake Ladoga and the Gulf of Finland, St. Petersburg attracted little at first, except mosquitoes and wolves. Since people did not flock to his new swamp creation, Czar Peter ordered Russians from all over the country, including nobles, to move their homes to St. Petersburg. They came, as did the convicts from all of the country's prisons — the people to populate the new capitol of Russia, the convicts to build it.

Life for the inhabitants was miserable. Not only did they have to put up with putrid water and mosquitoes; they had to fight off wolves as well as the convicts. In order to protect themselves, barriers were constructed at each end of every street. Aside from serving guard duty at the barriers, the townsmen never left their houses, unless it was absolutely necessary.

Although the barriers no longer exist, the street



*One of the many churches that the Russians have totally re-conditioned to give their people a sense of their traditional past.*



*The apple trees and flowers represent tenant beautification efforts. Both apples and flowers grow undisturbed until they are given to first-year school children.*

vitality of most Russian cities, especially those constructed after the revolution, is on a par with old St. Petersburg. Of course life exists, especially in the business districts of Leningrad and Moscow and around certain government monuments. Outside of these areas the quiet treeless streets, devoid of cars, people, and advertising, are like deserted museums containing remnants of a culture about which no one cares.

## No One Picks the Apples

The four- and five-story housing blocks of the fifties and early sixties contain people of all age groups.



From the outside these old buildings appear cared for largely because of the flowers which hang from the balconies and grow in narrow plots along the buildings. Between the buildings, the tenants grow apples. No one picks either the flowers or the apples. On their first day of school, new students are each given a handful of flowers and an apple, which they carry to school in a colorful procession.

The interiors of the flats are drab by comparison to the West, but in most cases, adequate. Frequently a television is among the furnishings (perhaps due to its propaganda potential). Homes of divorced women with children are most poorly furnished, often without refrigerators (they are expensive and still hard to obtain). Divorce is a growing problem for the Russians; since it costs only about \$80, the Russian divorce rate exceeds our own.

The only place life exists on a vibrant scale comparable to the West is in the famous subways of Leningrad and Moscow. It seems an inversion of social values to have more going on underground than on the streets. On-grade potential is rarely realized.

As architect Morris Ketchum saw it during his trip to Russia, "Even new parks and boulevards — the lungs of the city — are not fully developed. The housing environment is the loser. Cultural, educational, and sports centers found in the urban core are seldom related to new housing communities. Variety of scale, the mingling of high- and low-rise units, the contrast value of closed and landscaped areas, lighting and graphics, are not fully realized."

### Preservation Is a Priority

Long gone is the excitement of the constructivist

*Far below the Moscow streets, the famous subways, immaculate and on time, carry four million passengers each working day.*





movement, the last vital surge of Russian architecture. While some constructivist buildings still exist, they are in disrepair, unlike the churches, many of which have been brilliantly restored as part of a move by the government to preserve Russian tradition and give the people a sense of continuity with the past. Many palaces also have been restored in this program. Pushkin, one such palace, almost totally destroyed in World War II, has been perfectly restored along with its splendid parks.

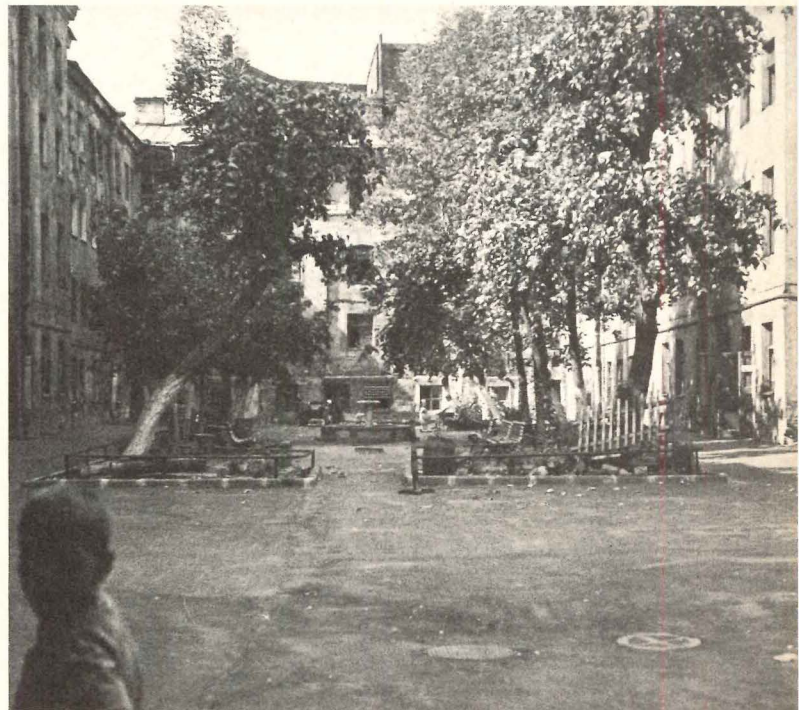
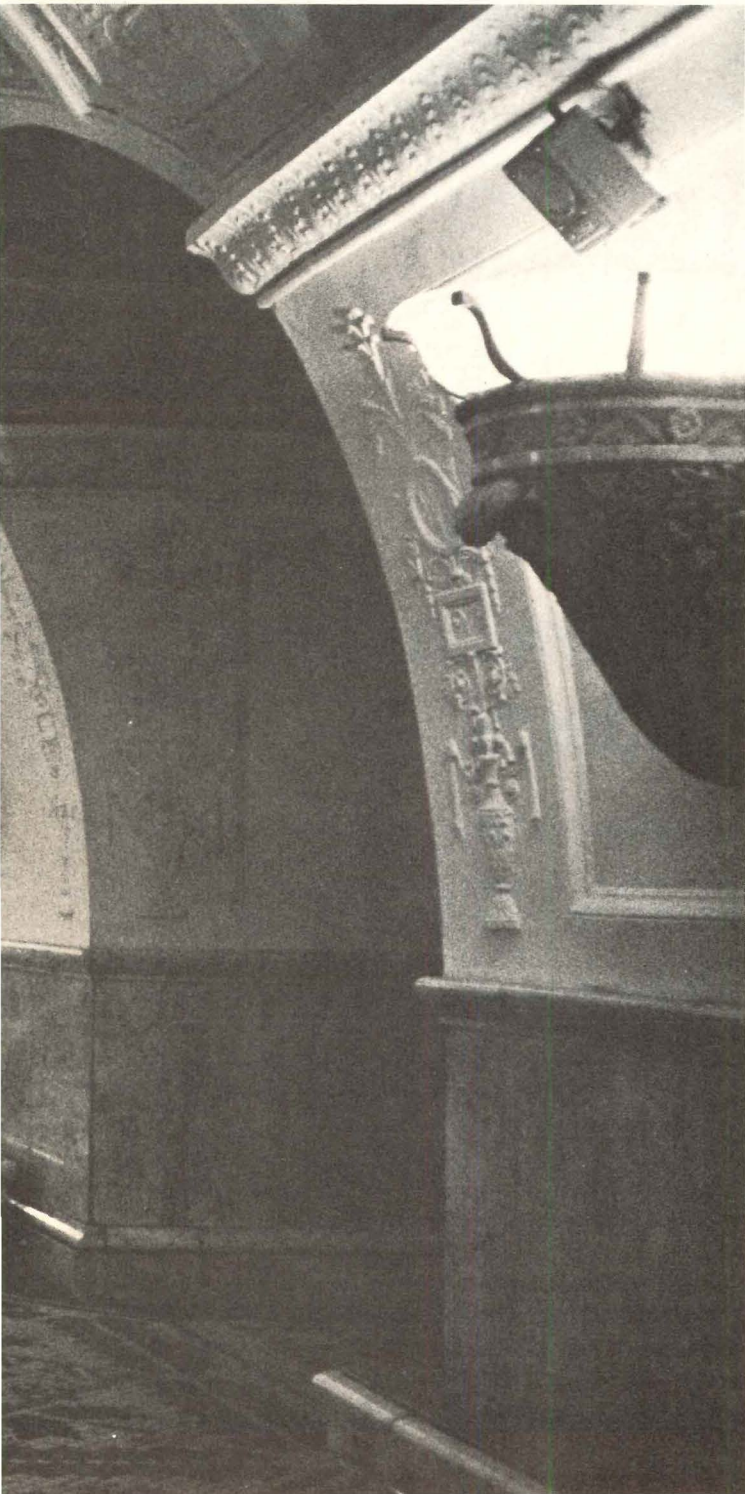
Although 80 per cent of buildings are constructed by prefabricated methods, certain buildings like the new sports center or the Communist Trade Center, both in Moscow, have received individualized design attention, and are first rate.

When asked how he felt about new nonsystems buildings, consulting engineer Lev Zetlin, recently

returned from Russia, told us, "When a team of designers is assigned to a nonsystems building, such as a public theater, because of a lack of competitiveness, and because they generally must work with available concepts, there is no encouragement to search out new ideas. In general, the nonsystems building construction is on the same technical level as our construction of thirty years ago. I found no advanced engineering techniques being applied to structure."

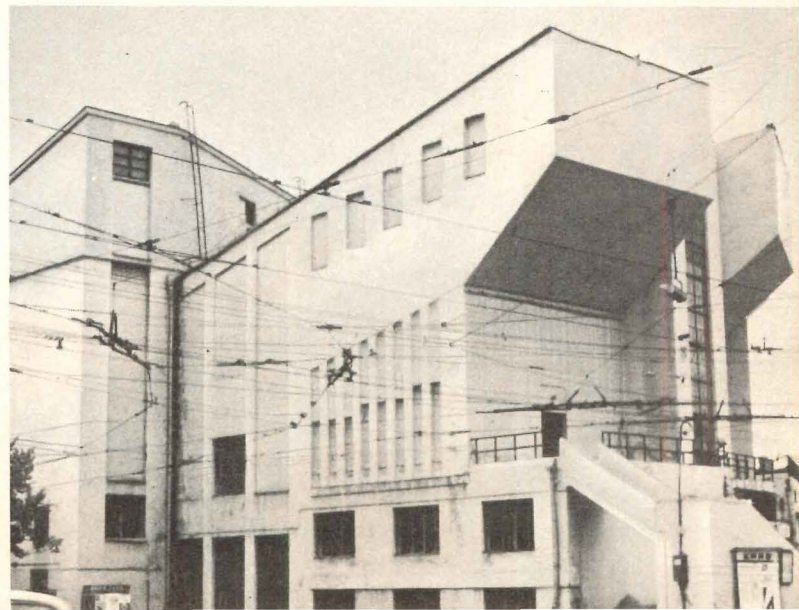
However, the Russian architect no longer lives in isolation from the world. As more and more architects and bureaucrats travel outside Russia, the demand for a better living environment no doubt will increase inside Russia.

The articles that follow will discuss these demands, and some of the initial steps on the road to that environmental ideal.



*Life in the old cities, like Leningrad, goes on behind the streets, in charming courtyards such as this, where children play within their mothers' watch.*

*A Constructivist theater preserved from the last highpoint of Russian architecture, the 1920s.*







*The entrance hall of the Helsinki Theater. Fine materials, used sparingly, contribute a solid, lasting quality to the space.*



## Finland: Where architecture outlasts us

photos: Marc Treib



by Edward Marc Treib

*An architect who teaches at the University of California, Berkeley, Mr. Treib studied at Finland.*

Although Finland is a small, not very rich country, the Finns build to last. Fortunately, the American concept of a building as a largely economic product has not had much influence. The Finnish basic desire is to build a good building. Clients identify with their projects; it is not enough merely to have a building and to make money from it. A good building is a source of pride and accomplishment.

*The interior passage onto which all stores front in Henry's Market in Tapiola makes winter shopping more comfortable.*



In general, in the post-war years, Scandinavia has been noted as the land of good design. Like the other northern countries, Finland must export to exist, and export products must, of course, be better (or cheaper) than those found in the countries that import. Corporate management has realized that good design is cheap in the long run if it sells, and Finnish-designed glass and cloth sells.

Since the Finnish economy depends so heavily on design, the public has a design consciousness which carries over to their architecture. It is difficult to argue with their architecture. Although at times it may seem conservative, it looks and acts like architecture for people. And, it will last.

### Export Design and Nature Influence Architecture

While "export design" has been a subtle educator for the Finns, nature has had the strongest influence on architecture. Even the simplest structure is built so solidly and so well that people have been colder in California than in Finland. Double glazing is the rule, as is central heating, and has been for many years. Aalto, for example, has made use of a variation of the two-panel system of glazing (a narrow ventilation panel, and a wider, key-operated, semi-fixed sash), building the narrow panel of an opaque material related to the façade materials, while sandwiching venetian blinds between the two panels of glass.

Typical Finnish site planning strives to disturb as little of the land and natural environment as possible, and to insure that there is sufficient landscape surrounding the building after construction.

Natural materials still reign supreme, challenged only by the pristine painted white of the newer buildings — the "natural" color during the winter months. Finland is rather unique in its use of white buildings; seldom are any seen in Sweden, just across the water. Although Finland and Sweden have similar natural climates, the aesthetic climate of the two countries varies greatly. In their search to build good and substantial buildings, the Finns are not as concerned with being up-to-the-minute-modern as are the Swedes. It seems Sweden has never passed the diagrammatic level, while Finland produces often less striking, but more substantial results.

Light, an important and critical consideration in the design of artificial environments, is of utmost importance to a country which lies one third above the Arctic Circle. One section of the standard building code requires that each working and living space must be provided with a natural light source or it may be ruled unfit by the local building commission.

If, by chance, a variance is granted, employees are paid an increased "hazard fee."

### Changing Urban Patterns

The Finns build for winter, but they live for summer. Finland, it is said, has nine months of winter, and six months of summer. Almost everyone, no matter what his social position, has a summer house with sauna in the country. In the summer, Helsinki is almost deserted — everyone is in the country. One senses that the Finns still find "urban" conditions nearly intolerable. But as everywhere else, more and more people are city bound.

Helsinki, the capital and largest city has a population of 450,000 people — about ten per cent of the country's total. Presently, there are unusual amounts of green space, with a park or square every few blocks. But architects fear this must change as the housing shortage, resulting from migration to the city, increases.

Apartments are bought as living places and investments, usually in one of the new developments in the growing Helsinki suburbs. There is no reluctance to buy since Finnish society is not "mobile," and because housing is expected to last at least eighty years. Also, there is pressure to buy, rather than rent dwellings, exerted by the state tax structure. Consequently, it is said that only the very rich can afford to rent an apartment.

The essential concern for design in Finland is seen in almost every city. Each has its city architect and perhaps, a façade committee. Both, especially in Helsinki, exert a much stronger influence on policy than American planning boards, since Finns are more partial to personal rather than corporate structuring. Not too long ago a national law was passed which provided subsidy to towns with a plan and planning body; as a result, even small towns have a plan for growth. In architectural design, Finnish architects are beginning to react against the pristine days of functionalism. Tired of simple, geometric shapes, they are finding a need for curvilinear, living, even playful design. Marimekko, perhaps, began the trend with their textile designs. Now Finnish printed textiles are alive with bold colors and large scale prints. Glass has turned from simple crystalline cylinders to designs in color or is decorated with pressed flowers. And plastics add more.

In architecture, the change is just beginning, and will no doubt increase in keeping with the slowly growing population and growing community problems. But it is difficult to believe that there will be any radical change in the near future. The Finns change slowly.



# Practicing Finnish Architecture

New architectural talent in Finland usually emerges through the competition system. Winning a competition enables a young architect to open his own office or, in some cases, provides a student with enough money to complete his education comfortably. At the turn of the century, architect Lars Sonck won an important competition for a church, while still a student.

The juries for the ten to fifteen yearly competitions always include two members of SAFA (The Society of Finnish Architects) and depending on the project involved, the mayor, councilman, or corporate representative.

Once a young architect begins to practice (unlike the United States almost all graduate architects practice), he enters into the highest rank of professional society. Finns speak of architects with the same reverence applied to doctors and ministers.

Eight hundred and fifty of Finland's 950 practicing architects belong to SAFA which is the only architectural association, although there is a branch of the association called "Architecta" for the over 200 women architects.

Finnish architects may not advertise, but they may copyright their designs. A copyright law was established in 1961 and infringements of the law are rare.

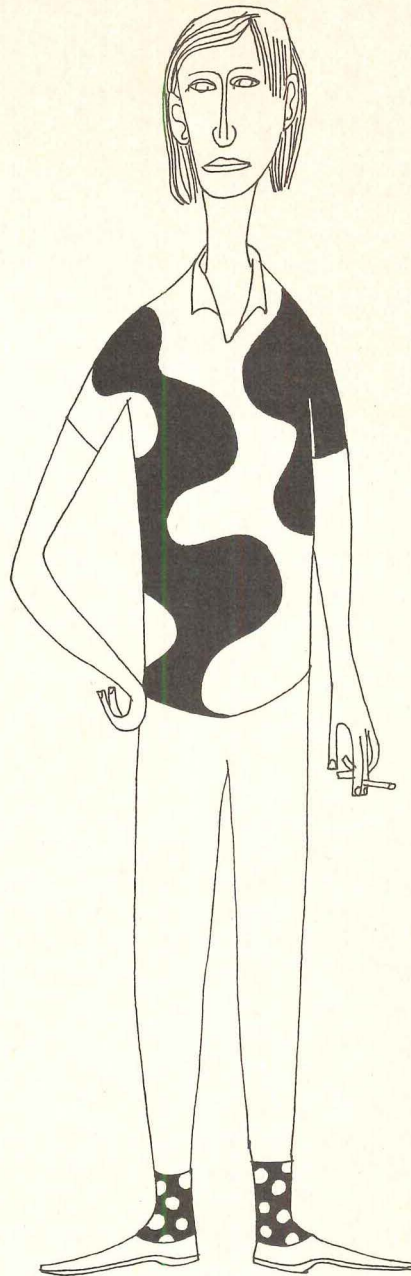
The team concept of architecture has come to Finland. The recent trend has been for architects to set up bigger offices which include engineers, sociologists, and community planners. But the trend is just beginning; in 1969 the average size office had 5.8 professionals.

Except in 1968, when there was a general business recession, the architects-to-work ratio is good. Unlike the United States, almost all buildings are designed by architects, further explanation for the fine quality and excellent reputation of Finnish architecture.

## Education of the Finnish Architect

Finnish architects are educated at one of three universities, which are regulated by the Finnish Society of Architects (SAFA is the equivalent of the AIA). Curriculum is such that examinations similar to our state boards are unnecessary. Entrance examinations are difficult since there are only about 100 openings a year and generally about 600 applicants.

Although tuition is free, most students work part-



time in architectural offices for the seven or eight years it takes to complete a degree. This on-the-job training roots the young graduate firmly in the practicalities of architecture. In fact, many design courses require relatively complete working drawings for presentations.

Reflecting the Finnish motto, "Things take Time," schools rarely place fixed deadlines on projects. Instead, a project is submitted when it is complete. One instructor remarked that in this way things were more likely to be on time, and because of decreased pressure on the student done more thoroughly.

Actually, this is a fairly new attitude for the Finns, and it may be the result of a recent student revolution that changed the architectural curriculum practically overnight. Once a completely specified course curriculum, students now have the option of electives, in a more American-like system of credits.

After graduation, the typical student will either continue to work at the office in which he trained, or go abroad for postgraduate work.





## Practicing Russian Architecture

**T**here are no private architects in the Soviet Union. All architects work in one of the State design offices located around the country. The Moscow office has 2500 architects designing major projects for the whole country, and also for foreign countries like Cuba and some African Nations.

The average wage is the equivalent of \$200 per month. Small bonuses, not based on building cost, are given for building designs.

While eighty per cent of building is pre-fab, the remaining twenty per cent is designed by teams consisting of ten to fifteen architects. Lately, social scientists and economists have been added to some of these teams.

Once housing goals are set by the Municipal Councils, either architects are brought in to design the buildings, or building trusts (page 90 "Russian Building Systems") take over.

The Union of Architects is the professional organization representing all architects. One is invited to join as an honor, after a few years of successful practice or after winning a competition. Most of the 13,000 Soviet architects belong to the Union. Forty per cent of architects are women.

The Union is funded by dues (\$13-\$18 per year), and by the State (seven per cent of the combined wages of all architects). With this money the Union

provides a variety of services to its architect-members: it builds cooperative housing, operates four resorts, aids in case of illness, sponsors research trips, and runs architectural competitions.

Talented architects gain their reputations by winning a competition. Two competitions were run in Leningrad recently, one for a sculpture park to mark the harbor entrance, the other a poster contest with the theme, "Save the Churches." Entries in both competitions were highly imaginative: a mixture of abstract as well as representational approaches was evident in both.

### Education of the Russian Architect

In Russian society, both architects and engineers share the same social level, somewhere below scientists. Among architects there are three sublevels, depending on type of education. However, all 1500 yearly graduates spend the same amount of time — six years — working for their degrees.

The most prestigious architects are graduated from the Academy of Fine Arts in Leningrad, where drawing and design are stressed. It is a Beaux Arts education which, turns out 30 architects a year. Most of these architects stay on to do graduate work at the Academy, and eventually teach there. Some specialize in restoration work.

All other architects come from technical institutes. The largest number graduate from the Institute of Construction Engineering which, as the name implies, orients its students toward structure. In Leningrad there are approximately 150 students in each grade. The other institute is for design, but is more practically oriented than the Academy. The Leningrad Design Institute produces 50 architects annually; landscape architecture and interior design (page 96 "Inside Russian Architecture") are not stressed. Planning is a graduate specialization.

Students begin specializing in industrial facility, housing, hospital, or public office design in their fourth year. They have access to many foreign books and periodicals, and respect for American architects especially Louis Kahn and Robert Venturi both of whom have visited Russia.

Recently, students have begun to push for more realistic design projects. In response to this demand, teachers have been assigning projects for the rebuilding of North Vietnam.

Graduates (forty per cent are women) are considered full-fledged architects who, according to one Russian architect, are sometimes given responsibilities beyond their experience and knowledge. But most architects enter one of the vast design offices in Leningrad and Moscow.

For the past few years many young architects have been requesting work at the Siberian frontier where they can gain more varied experience, under slightly less bureaucratic conditions. Graduate architects are in such demand they can usually choose where they want to work.



# What Shapes Soviet Architecture



by Peter B. Brill and Stefan Deer

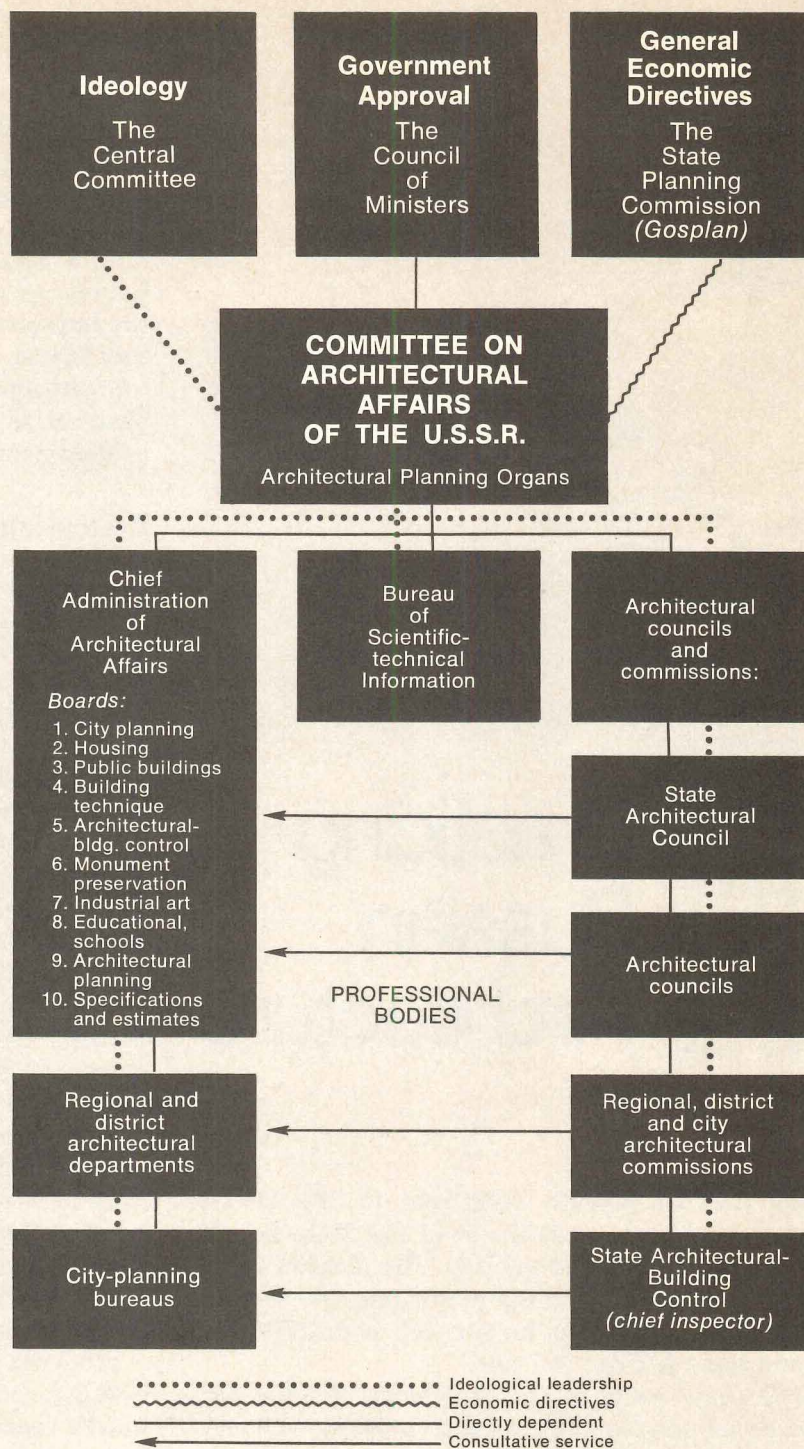
*Peter Brill, a former assistant editor of P/A, is an architect who studied in Russia for one year. Stefan Deer, a graduate of the Swiss Federal Institute of Technology, is an architect with Walker, Sander, Ford & Keer, Princeton, New Jersey.*

The Soviet phenomenon in architecture and planning is a direct result of the dramatic interaction between political-ideological and economic forces. It is unique in many respects and cannot be measured against the architecture of capitalistic countries without taking into account these shaping forces.

The post-Revolutionary period with its policy of collectivization and industrialization, brought the problems of Soviet urban conditions into sharp focus by forcing the government to cope with the relocation of millions of peasants who poured into the rapidly growing cities. The problem of reconstructing and modernizing existing cities after the Revolution and building new cities after World War II became

a matter of extreme urgency.

Out of the chaos a Soviet bureaucracy evolved as a control device and as an instrument for the management of modernization. It is necessary to understand the role of this bureaucracy in the building process because it illustrates the interaction between political-ideological and economic forces in the creation of a new type of bureaucracy — a politicized one. The development of Soviet bureaucracy was not a gradual response to technological or demographic change. It was rapid and revolutionary, based on ideological propositions that required the control of the people, rather than on administration. Hence, the scope and functions of Soviet bureaucracy have not



The structure of the Committee on Architectural Affairs in the USSR.



been entirely rational: it was a means to an end, but to an essentially unrealized end, the *total* remolding and control of society.

Soviet bureaucracy is comparatively new. Traditions of bureaucratic government and management such as existed in pre-Soviet Russia rendered no help in the development of efficiency; rather they established the precedent of proverbial bureaucratic indifference toward the needs of the individual. The major charge against all bureaucracies, unresponsiveness to the human needs they are supposed to serve, is particularly applicable to the Soviet institutions of architecture and planning. The striving for predictability, expressed in detailed planning of the collective aims of the masses, not only multiplies the functions of the bureaucracy, it also enhances uniformity and regimentation. The official outlook, the Party and its leadership, puts little value on the individual and prefers to stress aggregations of people — classes, strata, groups, or collectives. But this type of bureaucratic unresponsiveness cannot be viewed as inefficiency, but as the ideological standpoint of the Party.

Inefficiency can be carried to another source within the bureaucratic structure; the high level of insecurity associated with responsibility. In a society that is supposedly engaged in creating the best of all possible societies that ever existed, it is understandable if poor performance is viewed with unusual sternness. A drop in the production of housing units may seem to endanger the structure of Communism. Political sanctions against non-political errors create a sense of insecurity that has a variety of negative effects on administrative efficiency — meticulous overcompliance — with bureaucratic procedures regardless of circumstance and the paralysis of initiative. For example, if one plan for a new housing complex comes within the prescribed budget and is highly praised, the same plan will be repeated regardless of environmental factors. Soviet bureaucracy shares forms of inefficiency with other bureaucracies, yet many of them do not share the magnitude of the responsibilities and complexities of synchronization of Party-State relations.

## New Models of Architecture

Decisions made by the Central Committee of the Communist Party have completely transformed the mode of living. The emphasis has shifted to community affairs; to use all the energies of the individual for community purposes, during and after work. This enables the Party to increase the working potential and manpower in industry and agriculture, besides indoctrinating the population with the Communist ideology at an early age.

This new mode of living requires new forms and new models of architecture and planning. After recognizing the impracticality of the extremes of pure socialistic conceptions in the years following the Revolution, the Party has made many compromises

between the needs of reality and the Communist ideals expressed by Marx, Engels, and Lenin. Many idealistic city planning theories have evolved but have been scrapped as they trickled down the pyramids of decision-making in the Soviet hierarchy.

## Housing

The interpretations of Communistic ideals have produced the most important type of construction — the communal dwelling, a multiapartment unit with up to 6000 apartments. The aim of the communal dwelling is to collectivize private living as much as possible. This type of housing has become the basic unit for new town construction. Within the basic unit there is a communal kitchen, some private kitchens, a cafeteria, a “club” which provides cultural and entertainment facilities, nurseries for children, shops, and elementary schools. Besides the communal dwelling, there are two other types of urban housing: individually occupied apartments and communal apartments. The first type, with ample room and modern conveniences is restricted to those individuals deemed most useful to the State. The second and most economical, the communal apartment, is usually a three-room apartment occupied by three families, one family per room with a common kitchen and bath.

## Industrialization

The Soviet government has been making a determined effort to overcome the persistent housing shortage through large-scale industrialization of the building process. Standardization, a by-product of industrialization, is a natural architectural expression of the collective aims of the masses; every element must exist only when it is useful and economical and only when it can be manufactured in mass quantities. In the Soviet view, architecture must serve as an image of the State, consequently little recognition is given to personal architectural expressions. Again, it is important to stress the political premises of Soviet industrialization because they are often passed over too lightly. The Soviet regime which carried out and is still carrying out forced draft industrialization is a one party dictatorship which tolerates no opposition, maintains a monopoly of the media of mass communications, and mobilizes and allocates resources with only incidental concern for the wishes of the individual. It does not have to bother about a critical press, opposition parties, independent trade unions, or the prospect of being ousted in the next election. The decision-making process is dominated by a narrow ruling group, and its deliberations are decisive.

Unfortunately, because of this ruling group, Soviet investment in military armament, at the expense of housing, has not undergone any major change in recent years. Both the United States and the Soviet Union should re-evaluate their priorities and set new ones.





# Russian Building Systems: The Architect Returns





by William Caudill, FAIA

*Mr. Caudill, traveled to Russia as a member of an exchange group sponsored by the State Department. He practices architecture with Caudill, Rowlett & Scott, Houston, Texas.*

Russia is producing housing for the masses with unusual speed and at a high level of technology. But Russia has not been providing her people with high-quality, low-cost housing.

Russian architects have taken a back seat during the past decade. Except in rare cases, they are never employed by the factories, which produce about ninety per cent of all buildings. (When architects are used, they are relegated to the minor roles of interior and exterior decorators). Soviet officials blame this on a shortage of architects, but there seem to be other reasons.

Soviet architects are starving intellectually and professionally. Standard plans, standard construction methods, and standard materials tend to stifle creativity, but that is not all. There is a deterioration in design talents simply because architects are not being used often enough.

Compare the typical United States architect with the Russian architect. The American will have designed at least five to ten buildings a year and sometimes more. On the other hand, the Soviet architect is lucky if he works on one building in two years. There is good reason for this. A combine manufacturing a 16-story apartment block, cannot afford to retool every time an architect decides he can design a better building.

### Catalogue System — Architectural Hope

There is hope that in the future Soviet architects can flex their architectural muscles and give life to the monotonous typical multistory "house." Hope lies in the so-called "Catalogue System." The State Committee on civil Construction and Architecture, one of the committees of Gosstroy (overseer of design and construction) has developed a series of catalogues for prefabricated building elements that have mandatory use both for designing and manufacturing. Theoretically the system will provide for interchangeable components and will allow options of choice that will free the Soviet architects from unreasonable restraints. It is a great idea — there are all the benefits of mass production and the opportunities for choice. The architects have hopes of a brighter future; a return to the busy construction scene, particularly to housing, where the human values related to architecture may be part of a building's plan. Even more important, they will have the chance to provide the masses with spatial amenities and pleasant places to live — a far step beyond just "giving them a roof over their heads."

Just when the catalogue system will begin to operate is another question. One official was very pessimistic. He said that "such a system is still just a dream and far from reality." Others were optimistic and felt that if this system didn't work, then other

means would be found to relieve the awesome sameness of the typical neighborhood unit. In the main office of Gosstroy in Moscow, an official summarized the situation. "We readily admit," he said "that there are too many buildings of the same type and the districts are looking too much alike. The government is taking action so that the factories can function more flexibly. One target is to create new factories, each of which will be able to manufacture more than one type of house. We are also seeking ways for the various factories to build interchangeable components that will encourage cooperation among the various combines and specialized trusts. We see the need and are taking steps to create conditions that will allow architects, engineers, manufacturers, and builders to provide dwelling blocks that will vary in character, size, and height."

### The Present Systems: Panel vs. Box

The Soviets should be credited with developing building systems that are technologically advanced and that keep on-site labor to a minimum. Their various systems must be classified as "closed systems," in fact, they could not be more "closed." A typical combine trust, an organization that manufactures the concrete components and erects the building to a turnkey situation, generally builds only one "model" every three or four years. And it is a stock plan house, pure and simple. Regardless of where the house is built it is the same; when 50 are built, each is the same height, has exactly the same floor plan, with varying lengths and external appearance. The crying need for housing makes this kind of design acceptable, when people move in they are happy to have that roof over their heads.

### The Panel System

The Soviets have demonstrated that they can stack large concrete panels in place with considerable speed. To erect a nine-story apartment house (15,000 to 20,000 cubic meters), designed with large panels, takes about nine months from site preparation to turnkey. It should be remembered, however, that combines or building trusts have a running start since they receive a year's advance notice about the building. Nevertheless, the panel system can be classified as one that permits a building to go up in a hurry.

Combine No. 2, Leningrad, has some ingenious answers to problems inherent in the panel system, particularly to the temporary connection of the panels until grouting sets. A steel sprocket link, somewhat like a screen door hook and eye, holds the panels in place temporarily until the joints are grouted. After grouting sets, the steel then serves as reinforcement





*A prefabricated concrete-box being trucked to its site. Boxes such as these are just now going into mass production.*

to strengthen the corners. There was no attempt to hide the joints between the panels, and about an inch of space was deliberately left to articulate the connections. In this groove a rubber-like waterproof gasket is installed. Aesthetically this frank expression of the panels is far more successful than attempts to make the joints flush, which generally result in indecisive form.

### The Kiev Box: An Architectural Opportunity

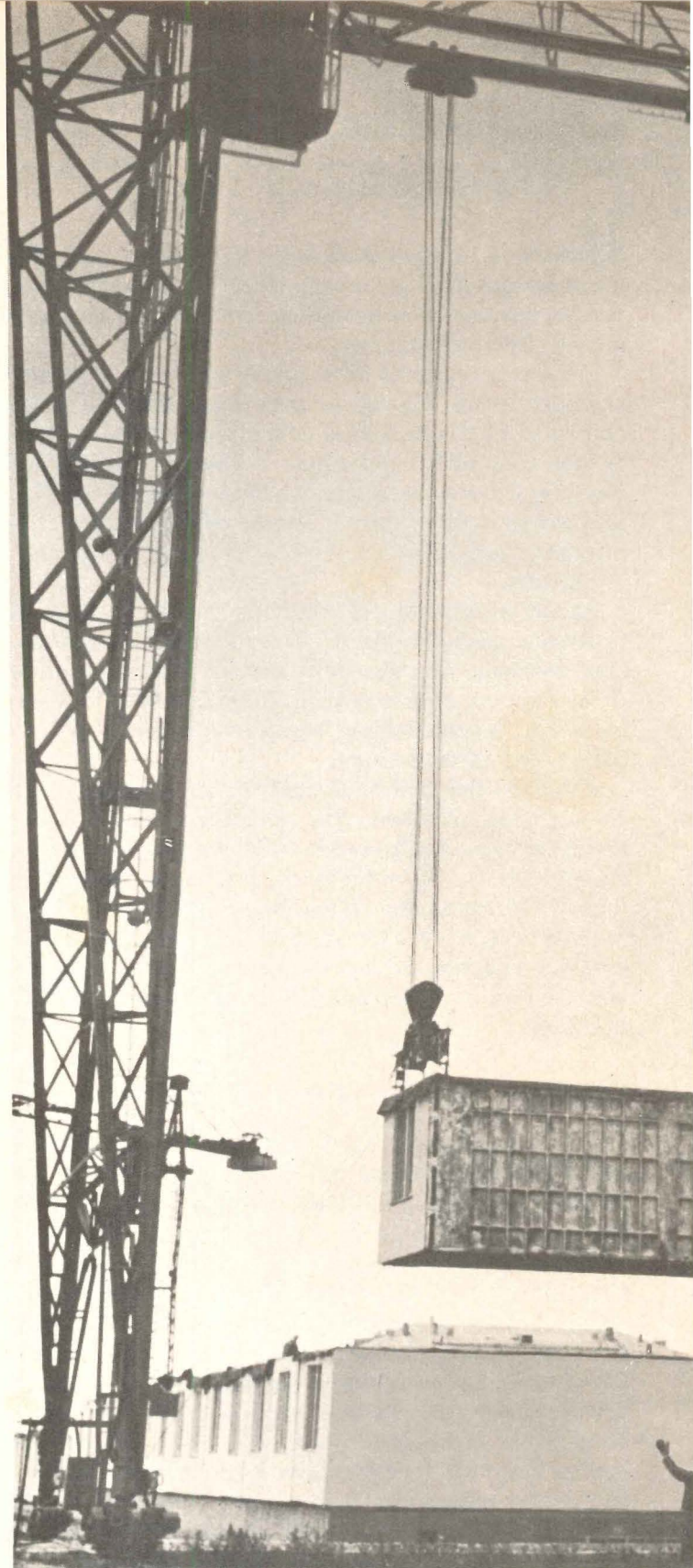
The great disadvantage of the usual box system — something like Moshe Safdie's "Habitat" — is its inflexibility. Rooms are generally too small by our standards and they can't be changed; the box walls are load bearing.

The experimental box system developed in Kiev was designed by an architect to allow architects more latitude in interior spaces. Essentially, he "busted the box." The unit is not a load-bearing boxwall, but more like a structural frame cage. Vertical loads are carried at the heavily reinforced corners of the "box." This permits large openings in the walls, when needed to open the interior space. In this way architects have more freedom. Interior walls, for example, are only about 2½ in. thick. In addition to the opportunity for a certain degree of open planning, large areas of the walls may be knocked out during renovation, in itself a feature. Exterior walls are only 3½ in. thick, counting insulation, that also allows more fenestration opportunities. Such a structural system carries both the advantages of the box system and the structural frame.

An experimental house, although relatively small (four stories), had all of its boxes in place in ten days. One apartment had a large opening between two boxes — the living room and supposedly the dining room — which gave a spacious appearance never found in the other box system apartments.

Another feature of the Kiev box system is the opportunity to provide cantilever balconies, bay windows or extensions of certain interior spaces. The so-called box is factory-built, without a bottom. Where extensions are desired, the precast floor slabs are simply made larger. (Incidentally, factories run 24 hours a day).

"The Case of the Busted Box" opens up the highly restricted box system figuratively and physically and



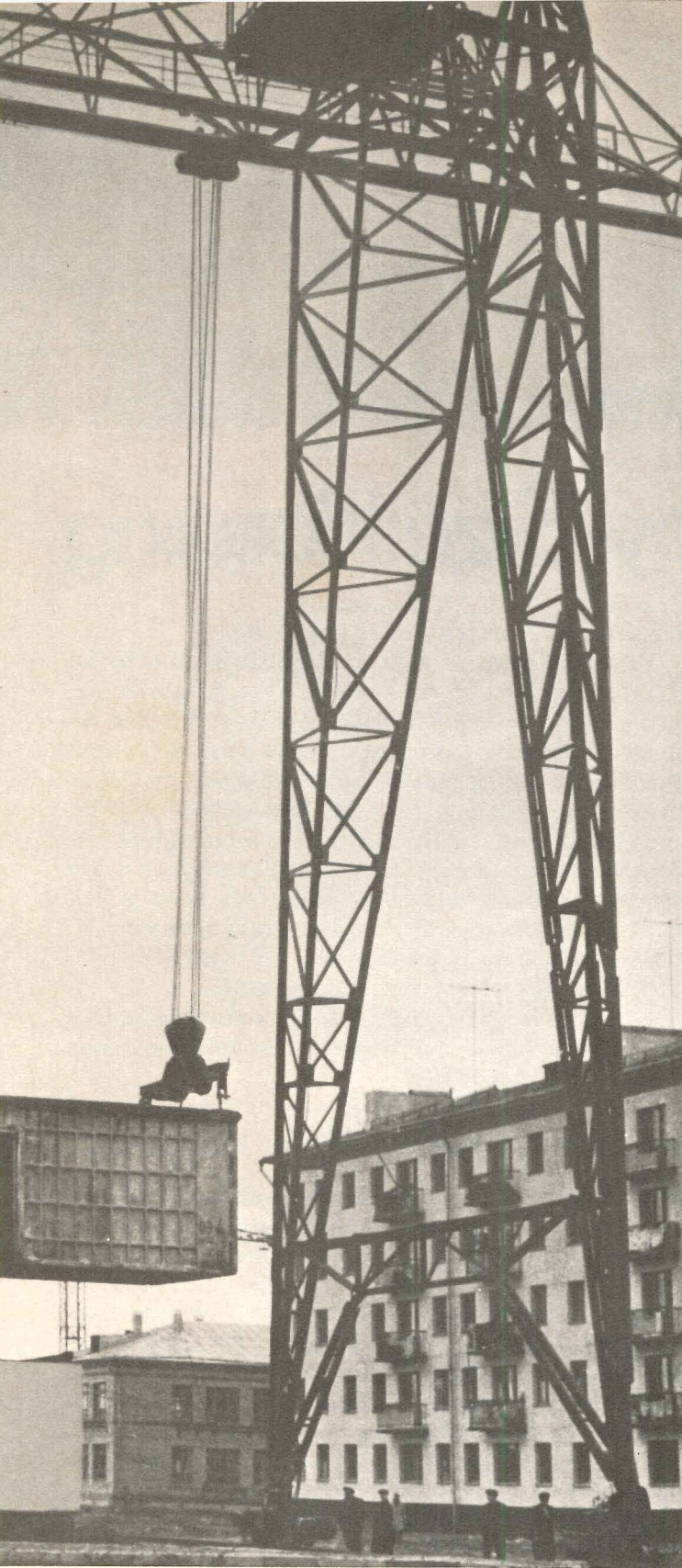
*The much disputed Kiev box, considered by many Russian experts*

offers many more architectural opportunities than either the panel system or the usual box system. But the problem of manufacturing the thin walls still exists.

What's more, it is a complicated and expensive box. A "suspended ceiling" must be contended with, and it is larger than boxes previously produced — 5.8 meters long, 3.4 meters wide, and 2.7 meters high.

Apparently the box system does have a future. Re-





*to be too bulky to transport, being lowered onto its site.*

cently a law was passed authorizing 27 factories throughout the USSR to make five-story and nine-story houses from "3-D components." That puts the box "in."

One very enthusiastic Russian official, a proponent of the box system said, "Boxes are better than panels. And cheaper. At present the cost of labor to build a 3-D house is 2½ per cent less than conventional construction. We have a target to raise that to 10 per

cent cheaper using half the labor." He went on to say that the box system total cost could be broken down to 15 per cent labor, 60 per cent materials, and 25 per cent other items such as transportation cost and equipment. It is not clear whether these figures represented a target or a fact.

### Putting the Pieces Together

Another problem being faced by Russian housing officials, and one of interest to us, is whether the combine trust (manufacturer-contractor) or specialized trusts (similar to general contractors) should do the building. One official came out very strongly against combines. He said, "Let the builders build. A builder is always a builder. Let the manufacturer make things. He should not build. We manufacture everything except bird's milk, and this includes machines to manufacture machines not to mention large houses." He argued that when the manufacturer tried to build he would be tempted to put the "rejects" into the buildings so that the factory would show a greater profit. He emphasized, "We believe in specialization. Our job is to manufacture the elements. Let other specialists build the building. When we deliver an element to the job, it has to be good. If not, it will be rejected by the builder and that is the way it should be."

These views are not shared by many other officials. Most believe that the combine solves the problem in a much more efficient manner than the specialized building trusts. It provides total construction — materials, manufacture of structural components, erection, and finish — and it is under one authority, allowing standardization of building and construction methods. Also, this system is faster with less need for extensive communication.

Feedback is another virtue of combine trusts. For example, the large housing project located on the right bank, Niva River, District 13, Leningrad, House 39 had a very spacious stair well, but very small kitchens. Because of current pressure for larger kitchens the combine decided to "change the model" and make the kitchen larger. By the first of the year the factory will be retooled to produce a modified model which provides for larger kitchens and a smaller stair well. The building will remain the same length and square footage. This is viewed as a major change and will take one year and two months. Minor changes such as improving a connection detail, moving an electrical outlet, or changing the color of trim or pattern of wallpaper obviously would not take as long. At the main Gosstroy office one high official said, "We have found that the best system is to combine the manufacturers and the erectors."

While the Russians continue to produce a "below-standard" housing product, they are looking to the future and are aware of the need to change. Hopefully, they will allow architecture to help in making the changes.





# Giant Economy-Size Housing

by Robert H. Mutrux, AIA

*An architect with Fletcher-Thompson, Inc., Bridgeport, Connecticut, Mr. Mutrux spent last summer touring Russia and Western Europe studying housing.*

**T**he subject of housing in the Soviet Union is a labyrinth of surprises and contradictions overlaid with a layer of confusing data and a dense cloud of preconceptions. Our innate ignorance of the social and historic context and our impatience with the time-and-space perspective of the over-all plan combine to leave an impression which is decidedly superficial and less than complimentary. Architects, however, respect the Soviet effort and its results. They are becoming aware, too, that the Soviet experience is a showcase of what can be done, as well as what should not be done, on our own terms. Three aspects of this professional reaction to Soviet housing are worth noting.

## Production Figures Are Staggering

Housing was placed high on the agenda in the days of the boisterous Chairman Khrushchev, in the period between 1959 and 1965 one-third of the entire population of 220 million received either new apartments or improved accommodations. In the last decade half of Moscow's population of six and one-half million has been rehoused.

These statistics are reflected in buildings varying between 9, 12, 16, 19 and 25 stories, and which dominate the horizon in every direction. (The five-story "Khrushchobi" walk-up plan has been abandoned). According to Sergei Kulikoff, architect on the planning staff of the City of Moscow, some 120,000 "flats" were erected last year; this amounts to approximately eight times the population of Co-op City which contains almost all of the housing built in New York last year. Leningrad meanwhile boasts of completing an average of 130 apartments per day. The end is envisioned in the year 2000, when every citizen will enjoy not only his legal minimum of shelter

but 22 square meters of greenery as well.

From the point of view of the planner, the Soviet approach to housing is enviably direct. It is a fundamental claim of the Soviet ideology that the land belongs to the people, and cynics have pointed out that this simply means that all land belongs to the State. They ignore the fact, however, that without impinging in any sense on the rights of the individual, the State has overcome an obstacle which plagues every community the world over. There are none of the maddening "zoning laws" which grant autonomy to the tiniest suburban locality with no regard for metropolitan needs. Nor are there any vested private interests who cling tenaciously to their interpretations of property values, and there are no suburban areas that must be demolished.

## The State Is Its Own Building Contractor

Mr. Michael V. Pasokhin heads an architectural staff of 11,000 (of which one-half are women); Mr. Vladimir Promyslov, chairman of the municipal council of Moscow (in other words, Mayor) is also in complete charge of the *Glov Mostroi*, the city construction force of 1.2 million that is responsible for 80 per cent of all building in the Moscow area. The State also operates the world's first and largest automatic concrete-prefabricating plant. The "Vibro-Rolling" process, invented by Engineer N. J. Koslov, produces concrete panels in 170 types on an assembly-line basis at the rate of 9 million square feet per year. The production of panels, as well as paving slabs, ducts, piles, and related products, is fully automatic, with the exception of the placing of reinforcement and the removal and storage of the finished product.

Complete floor, wall, and partition panels are produced on huge moving platforms on a 10-hour cycle and in three shifts. The entire operation is controlled by a staff of four, in a plant where 20 per cent of the labor force, including crane operators and welders, are women.

According to chief plant engineer Evgen Surat, a single-rolling assembly line can provide all the ele-





photos: Novosti Press

*In Moscow alone, about 120,000 units such as these were constructed last year.*

ments of 1300 fully assembled dwelling units annually.

The principle of continuous mechanized operation is less significant for its application in this context than for the fact that two plants with four lines each have been in existence in Moscow since 1963, all built and operated at government expense.

## Russian "Breakthrough"

The same centralized authority has developed an experimental branch which has already produced two significant pilot projects. One project consists of a 25-story apartment building, one of the first of its kind to be designed entirely with the use of preset slab concrete. In addition to the novelty of construction, its appearance is ample evidence that Moscow architects are keenly interested in the visual aspect of multi-story apartment buildings, as well as in improved engineering and construction techniques.

The other project, headed by architect Nathan Osterman, is the background for a novel experiment in living. It consists of two 16-story blocks with two wings each, connected at ground level by a host of community facilities, and is called "The House of The New Life." Apartments, totaling 800, are one, two, three and four room, and are provided with kitchenettes in place of full kitchens. In theory residents may eat their major meals in the small dining rooms serving individual floors or enjoy the group facilities at ground level where the cultural and health centers are located. The money saved on kitchens alone, according to the architect, is spent on a great variety of health and cultural facilities; the time saved by eliminating the drudgery of housework is measured in free hours per day and improved health throughout the year.

As with every experiment so closely associated with everyday life, the plan and the building both have aroused much discussion, centering largely, however, on the extent of cooking facilities. Since the large majority of Russian women work, it is likely that more than enough families at the professional level will apply, not necessarily to profit by the elimination of housework but to enjoy the swimming



*New planning techniques place the apartment structures of varying heights around community facilities.*

pool, the cinema, and the exceptionally well-finished surroundings, even at the extra price. The "Dom Novovo Vita" may, on the other hand, be more of an experiment than the housing authorities intended.

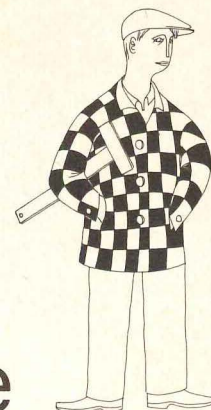
In any case, it is an experiment which costs 6 million rubles, or approximately 6.6 million dollars, and it is significant in our terms because it illustrates an attitude toward pioneering in domestic living with full awareness of the psychological as well as the financial pitfalls.

The average Muscovite earns \$125 per month, and pays approximately five per cent of his salary for a three-bedroom apartment (as compared to the average of 20 per cent that prevails in the United States). He pays 18 cents per person per month for gas and water, and 4½ cents per KW for electricity, and that is all. Repairs are free; Mayor-Engineer Promyslov pays out \$77 million of state funds annually for maintenance.

If the worker prefers, he can join a cooperative group and own a two-room apartment costing \$4500, by making a 40 per cent down payment — and paying interest on the remainder at ½ of one per cent. The "average" apartment in the United States, by FHA standards costs a minimum of \$17,500 with interest at 7½ per cent.

In the final analysis the eventual standard of housing conditions in the USSR, as in all countries, is a matter of emphasis. A regime that is capable of producing the Palace of the Soviets, where design, structure, and realization leave nothing to be desired, and the legendary subway, whose taste may be challenged but whose performance, along with those giant high-speed escalators, is a marvel of engineering, is fully capable of producing a top-notch dwelling place.





# Inside Russian Architecture

by Brock Arms, AIA, AID

*Mr. Arms traveled to Russia in 1969 with the American Institute of Designers. His own design office is in Glencoe, Illinois.*

Interiors in the Soviet Union generally are drab and poorly kept when measured by the *Ladies Home Journal*, *House Beautiful*, and manufacturers' product mock-ups in America. There are some exceptions: buildings that are in themselves a matter of national pride, such as the palaces and cathedrals of Czarist days; public buildings used for entertainment, cultural events, or sports and the apartments of a few gifted persons who generate income from outside Russia.

In the first group, St. Isaac's Cathedral is an excellent example, with its columns of lapis lazuli and malachite, and its splendid mosaics so fine in execution that the surface gradation is mistaken for painting.

October Hall in Leningrad is viewed by many sophisticated travelers as an unequaled concert hall in its degree of interior finish, its audio visual and stage effects, and its facilities for artists as well as comfort for the audience. It is newer (and somewhat smaller) than the Palace of Congresses in Leningrad that seats 6000, and is also superbly built and equipped. The interiors of such buildings are however, basically architectural; October Hall and the Palace of Congresses are unequivocally contemporary by international standards.

What happens on the stage is perhaps a greater reflection of public taste; it is not startlingly contemporary, although it is startling. Russian stages are built for stage effects so thrillingly illusionary that theater as thrill reaches its peak. The sets, while often breathtaking, are almost always traditional in effect. And so is much of the public taste.

## Restorations Are Magnificent

While World War II was still in progress restoration

*A room in Pushkin Palace which was totally reconstructed after it was bombed in World War II. Russian architects are expert in the reconstruction of palaces and churches.*







*The three-story gallery of GUM Department Store. Originally, like the Galleria in Milan, many small shops open onto this long central space.*

teams were being trained: wood carvers, gilders, and fine artists began their work recapturing the magnificence of Czarist life by sorting the shards and splinters, collecting the drawings, renderings and photographs, and assembling, in incredible splendor, the glory of a vanished way of life.

Despite the question of whether so much money should be spent on palaces when other social needs were pressing, by emphasizing historical restorations the Soviet Government apparently filled two needs. One was to provide a war-weary, devastated people with a source of pride in their heritage as a measure of future aspirations; the other was to keep alive the arts, crafts, and culture for which these projects were a training ground.

It is necessary to keep in mind that Russia, like the United States, is a huge country with special regional characteristics. There are as many differences in taste between the Crimea, Leningrad, and Moscow as between Savannah, San Francisco, and New York City.

In Leningrad the heritage of old St. Petersburg is so great that present laws forbid changing the appearance of the city from its Czarist days. If a building is about to collapse, a crane plucks out its innards and a new building is built behind the old façade. The finest of the old palaces and town houses are for government use, the best of these are used as "Friendship Houses" and cultural centers.

The problem of the general state of interior design in the Soviet Union, as one might suspect, is one of official policies. Since the government controls what will be produced and often how much, and since the Soviets are trying to balance their manpower against their social needs, private option in interior design is limited. The home is furnished with those few products available on the market.

### A Word About Products

Ceiling lights are the principal lighting in most rooms in Soviet apartments regardless of the purpose of the room. Many of these fixtures are quite



unattractive. It is amazing the number of crystal chandeliers produced for the market, and they are used not only in apartments, but in bakeries, shops, and other places with pretensions to quality.

You can buy household products, especially plastic articles for the kitchen, well made, well designed, and reasonably priced, everywhere. You can buy good high-fidelity and television sets, cameras, and sporting goods. But furniture is not yet a prestigious enough consumer product to receive much attention. The models available are rather poorly made copies of early Swedish modern.

The Soviet Union has several design-conscious countries on its borders and within its economic sphere of influence. First and foremost is Finland. In Leningrad one constantly sees mod young Finns in bell bottom trousers and mini-skirts, exerting a tremendous influence on the Russians. Their Finnish elders are equally influential, busily selling chairs, tables, lamps, and such other products as theater seating — not so much to be distributed for purchase by the Soviet citizen, but for the hotels, theaters, and government buildings that are being built.

Incidentally, the most important new hotel, the Rossia in Moscow, was originally carpeted with an unlikely mismatched assortment of carpeting. Before it had been open a year this carpet was threadbare. In places there is threadbare carpeting lying over even more threadbare carpeting. There is no contract carpeting such as we know it.

Generally, fabrics in the Soviet Union are cheaply made. The stores are jammed with what we would consider "bargain basement stuff." However, for the restored palaces, exact duplicates of the original silks, damasks, and velvets have been made, using shreds from the original. They are not available to the public.

## Ingenious Use of Interior Space

The Soviets are ingenious about their needs. Socially useless buildings which are sound nonetheless, are not torn down. They are converted. Nowhere is this more disarmingly evidenced than by the churches.

For example, less than two blocks from each other in Leningrad are two fine old churches. One is the old Kazan Cathedral, designed by a former serf educated in architecture in Italy. It is now the museum of atheism, dedicated to leading the visitor to the inescapable conclusion that all religion is superstitious and harmful to man.

Another church is a golden ochre building on the opposite side of the street with a forecourt reached between two other buildings. One is simply told that the church is closed, although people are streaming in and out. The narthex doors to the nave have been eliminated. All routes seem cul-de-sacs. By climbing the stairs to the balcony one can regard the full length of the nave and the apse. Where the altar stood are diving boards, and the nave has been dug out for an Olympic swimming pool.

photo: Brock Arms



*A prerevolutionary grocery store in Moscow. Many old shops contain*

## Education of the Interior Designer

Historically, interior design in the Soviet Union was the collaboration of architects, artists, artisans and craftsmen. Since the Revolution, it has been limited by manpower allocation and pushed aside by social needs. Interior designers do not exist in Russia in the same sense that they do in the United States.

Two schools in Moscow do train students to perform this function, however. The School of Archi-





*exquisite bits of architectural detailing which the Russians have been careful to preserve.*

ecture and The School of Arts and Crafts are staffed by candid, well-trained, dedicated men who are eager to improve Soviet education, Soviet design, and Soviet life. Each school has become aware of interior design in its "contract" sense. And, there is talk of beginning specialized departments in interior design at each of these schools, since each sees the field as an extension of its own specialty.

The development of interior design as a specialty would seem to be dependent upon greater buying

power of the masses, broader response of production to public demand for design variety and availability, and an awareness on the part of the Soviet government that interior environment is important enough to warrant special development of an interior design profession. This is not yet the case, although dedicated architect-educators in Russia seem aware of the great gap between current practice and the ideal.

Photography: Except as noted all photos by Forrest Wilson and Don Raney.



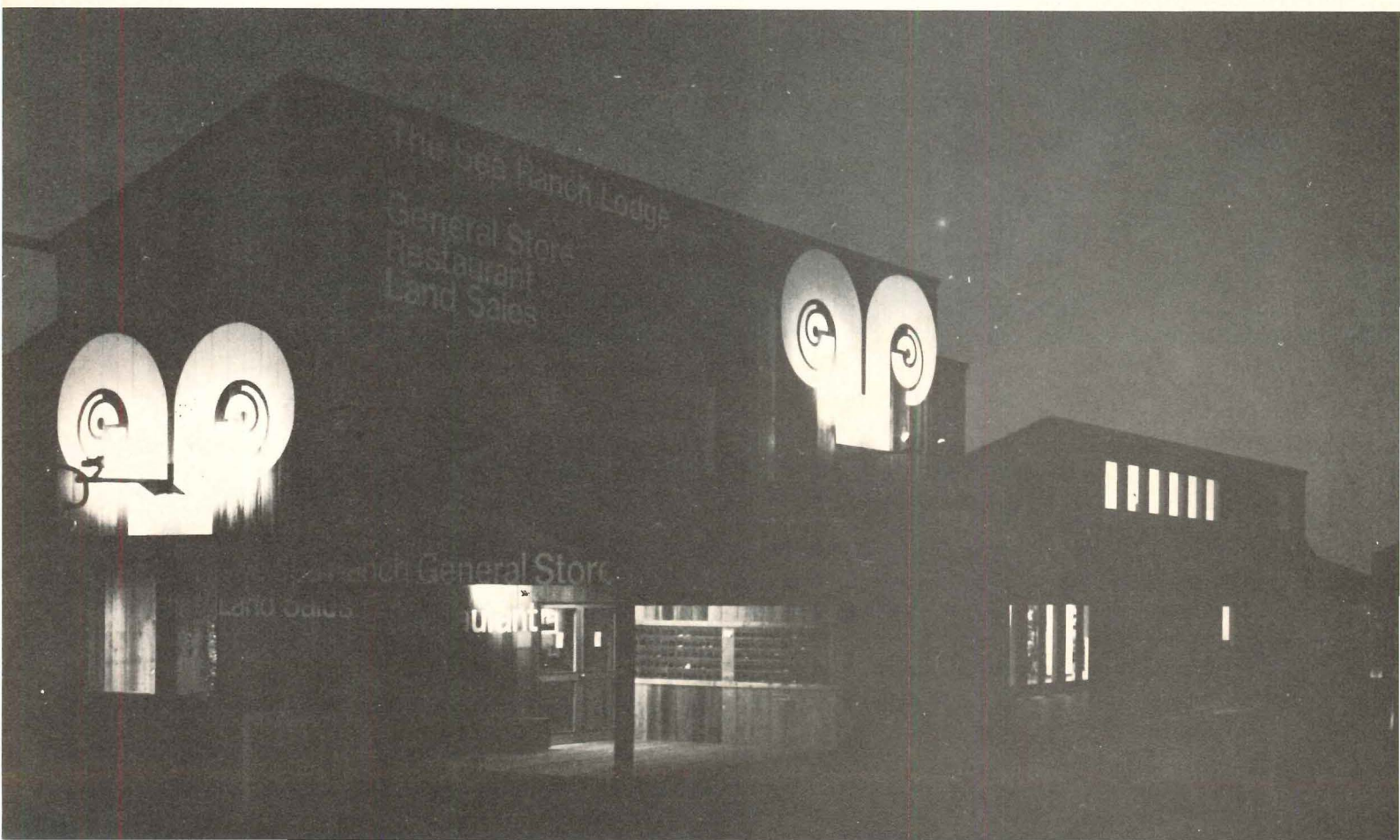


# SEA RANCH EXPANDS

**Resident Architects Faithful to  
Sea Ranch Design Idiom**

The mist rising up the sea cliffs and drifting inland across the ocean meadows at Sea Ranch discovers that something new has been added these days. When P/A published the definitive examination of this now-famous northern California second-home complex in (pp. 120–137, MAY 1966 P/A) the central building was a small wooden structure by Joseph Esherick housing sales offices, a “general store,” and a restaurant seating 50 diners. Now, Alfred Boeke, who is an architect as well as being Vice-President of Operations for Oceanic Properties, Inc., a subsidiary of Castle & Cooke, Inc., owner of Sea Ranch, and Louis McLane, planning director of Sea Ranch, have doubled the size of the original building and also provided what Sea Ranch desperately needed before, a lodge for transient visitors.

Heretofore, vacationers in this vicinity, if they were not lucky enough to have a friend with a house or condominium apartment at Sea Ranch, were com-





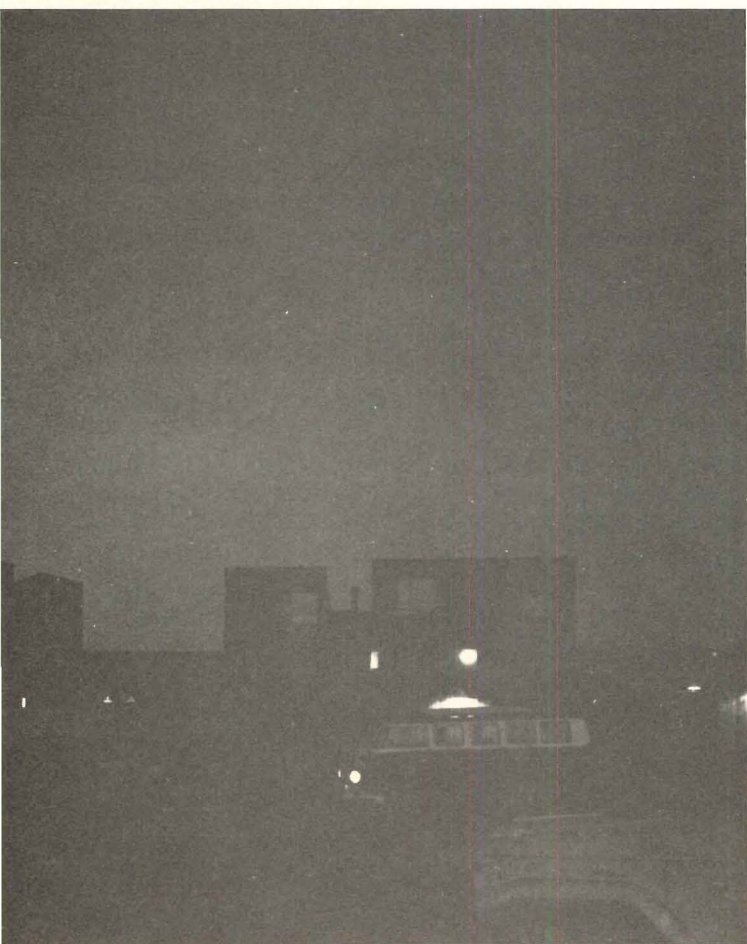


pelled either to move on or find shelter at an old hotel in nearby Gualala, a former logging town not noted for being hospitable to hippy, jet set, or mod types. Boeke and McLane have relieved that unfortunate condition with a gracious lodge in the Sea Ranch wood-sided, slant-roofed idiom that furnishes 18 single rooms and two two-bedroom units. In addition, they have doubled the size of the restaurant, added a supergraphiced bar and solarium, a lounge, a library, and enlarged sales and office spaces considerably. Facing the entrance to Sea Ranch from the coast highway is a long wooden and shingle front porch that extends the length of the restaurant-store building and connects with the boardwalk leading to the lodge. The architects note that the inspiration for the porch is from the old Western-style buildings that can be seen in ghost towns and on "Gunsmoke."

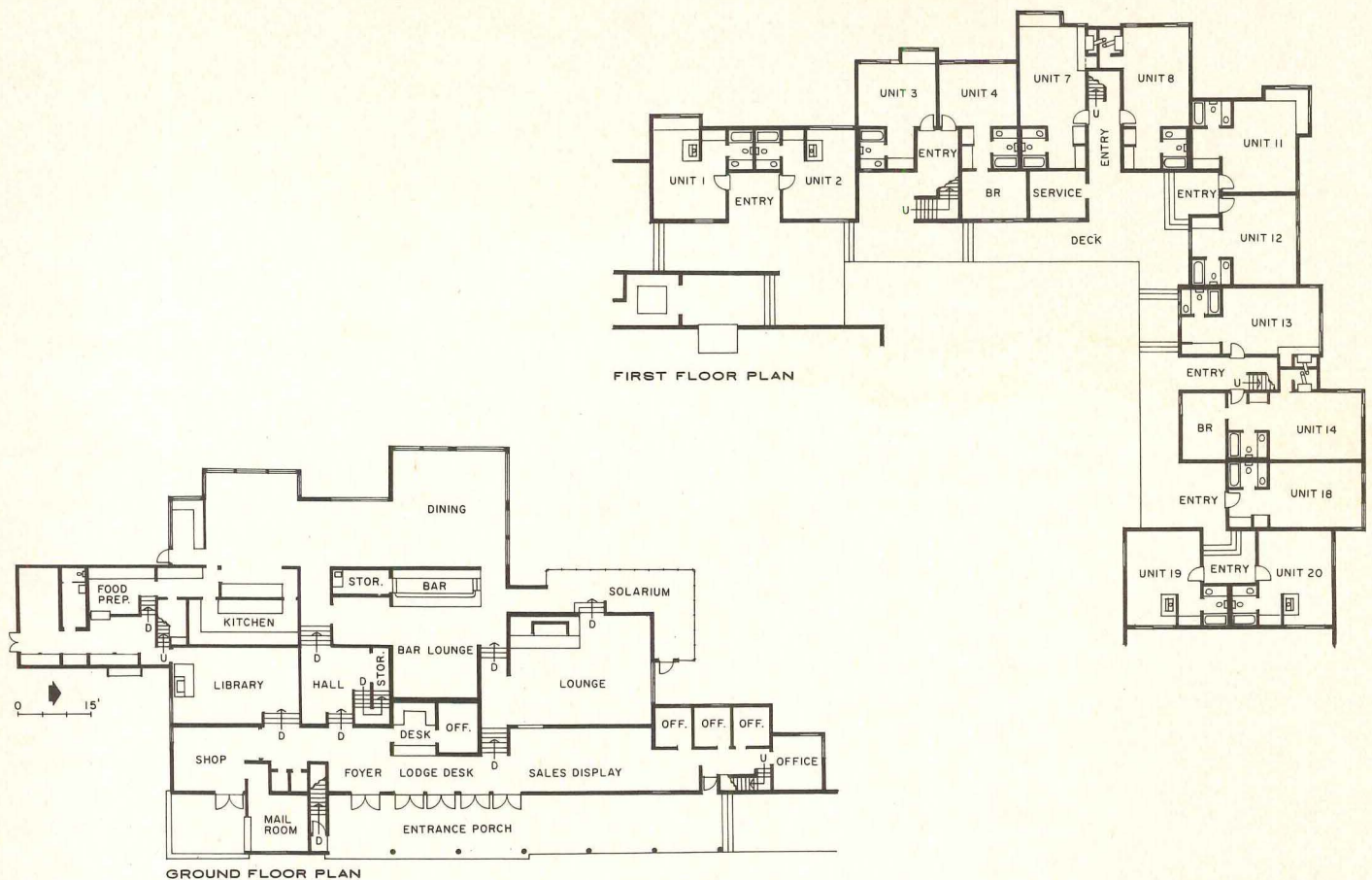
Following another Sea Ranch practice, the lodge

is planned in a cluster arrangement that echoes the theme of the nearby condominiums by MLTW/Moore-Turnbull. The interconnected buildings are both single- and two-story to capitalize on spectacular views and at the same time provide maximum privacy for each unit. There are 11 single bedrooms on the ground floor and two double bedroom suites for larger groups. Seven single bedrooms are on the second floor levels. No two units have exactly the same plan. Rooms have either fireplaces or deep corner window seats. Interior furnishings, which were designed by McLane with the Design Group of Portland, Oregon, are intended to complement the ruggedness of the exposed wooden structure. Rich textures and warm colors are used, such as bedspreads of Haitian fabric, colorful throw rugs, sailcloth window hangings, sisal matting as floor cover, upholstered window seats. The rooms are enlivened by an occasional shaft of light or unexpected view from an overhead scoop or an eccentrically placed slit window. A number of bentwood pieces were designed for the lodge to soften the angular lines of the structure. In the future, Oceanic plans to build another 20 units to the south and west of the present building.

A somewhat difficult assignment faced the architects in designing the new elements of the store-restaurant. In just the few years since its completion, the original building, together with Moore-Turnbull's condominiums and Esherick's hedgerow houses, had become quite a familiar architectural symbol of Sea Ranch and the kind of angular, warm, relaxed architecture it represented. Inside, they have succeeded admirably, with an extremely pleasant and invigorating series of levels and spaces, punctuated by visual and spatial events such as framed sky views, glimpses of the supergraphics in an adjoining room, an airily suspended exhibition of Ernest Braun's exciting color photographs of the Sea Ranch terrain, and a splendid glassed-in conservatory-type space off the bar from which to watch an overwhelming view of cliffs and the Pacific while putting away a few sun-downers. The dining room is a generously proportioned space overlooking the ocean, while the bar and lounge are appropriately turned inward for social conviviality and sitting by the fire. Barbara Stauff-







facher's enormous Supergraphic in the bar is a curvilinear reflection of the ram's horn logo she did for Sea Ranch's logo four years ago, and which she redid on the façade to conform to the increased scale of the building.

Speaking of the exterior this writer takes mild exception to the "western style" front porch. Although it observes all the rules for "Sea Ranch style," it just seems obtrusive, inappropriate, and unfortunately heavy handed in treatment. There does not seem any strong need for a huge porch here; the visible interplay of the building's main forms and volumes would have been far more interesting, as they are in the condominiums and even the new lodge. Perhaps it was an attempt on the part of the designers to use a simple technique to tie the old and new structures together. If so, it cannot be called notably successful (the ocean side of the store-restaurant is much more convincing than the more-often-seen land side).

Another cavil is in order for the lodge rooms. Though interestingly planned, with the quirks and surprises mentioned earlier, they seem a bit mean as far as space is concerned. This is emphasized by the necessarily vertical feeling given by exposed siding and structural members. Weather at Sea Ranch is often nasty enough to make one stay inside and look out at it, so that spatial amenities in interiors become quite important. Still, the over-all ambiance of Sea

Ranch is so splendid that we would gladly overlook this slight annoyance.

Following the pacemaking methods of "dynamic conservation" established by Lawrence Halprin & Associates and the Sea Ranch staff for the 14 miles of coastline, the much more modest landscaping at the lodge and store-restaurant succeeds in respecting the unharmed grandeur of the larger site. The architects state, "It was our objective, as in the past, to retain the natural rugged character of the existing landscape around the exterior areas adjoining the structure. In patio and court areas we used flowering plants and trees as these areas are more intimate spaces and, hence, appropriately designed in a more playful way."

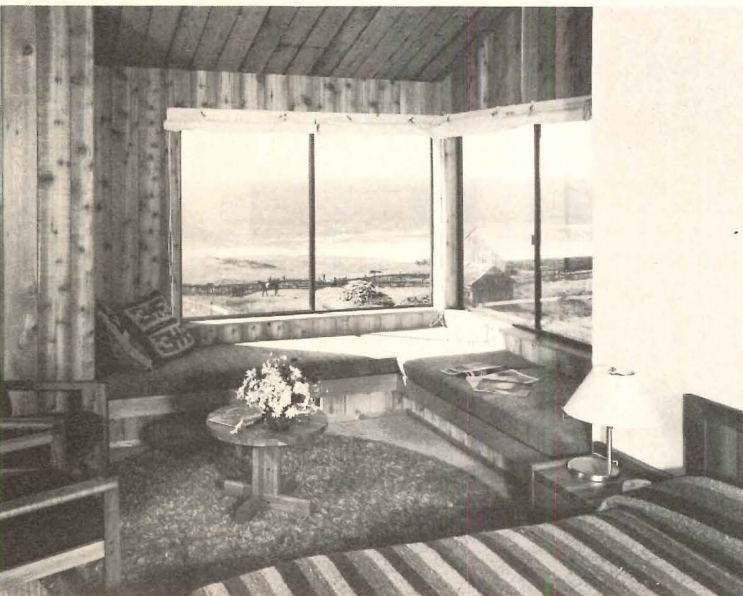
In some instances, just after the main buildings at Sea Ranch were finished and private houses were going up in different portions of the site, a few designs slipped in that repudiate all the careful and admirable planning that went into the original concept. Fortunately, McLane reports that design control is more effective now, and that the appearance of a typical suburban-type house at Sea Ranch in the future will be most unlikely. In the meantime, he and Al Boeke have faithfully fashioned a commendable exercise in *le style du pays* in the lodge and commercial building.

By James C. Burns Jr.





*An emphatic verticality of design is evident in this living unit of the new Lodge.*



*Interior furnishings complement the ruggedness of the exposed wooden structure.*

*The dining room, which faces the sea and the north coast, has been doubled in size and can accommodate 100 to 150 persons.*

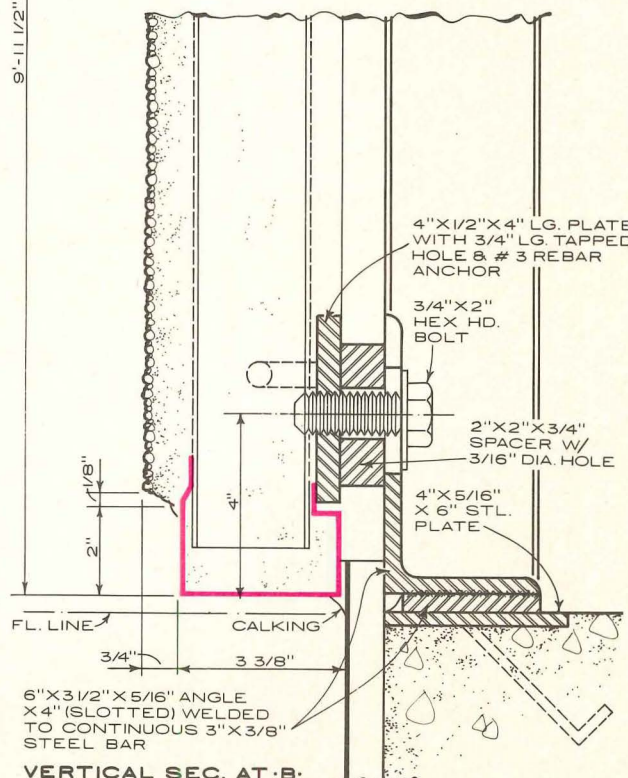


*In the glass-enclosed Solarium Bar, which is north of the dining room, Barbara Stauffacher's Supergraphics are strikingly evident.*

SEA RANCH LODGE AND STORE-RESTAURANT BUILDING EXPANSION, Sonoma County, Calif. **Architects:** Alfred Boeke and Louis McLane. **Associated Architects:** Agora Associates. **Site:** The Sea Ranch, a second-home development on 14 miles of Pacific coastline. **Program:** Design 20 overnight units in order to give transient guests an idea of what it might be like to have a Sea Ranch home; provide 20 enclosed parking spaces. Enlarge existing bar and front service facility to seat 100 in dining room, 50-80 in bar. Provide lounge with fireplace, enlarge sales display and sales closing office, enlarge toilet facilities. **Structural System:** Wood frame construction, studs, and joists with exposed beam and decking roofs on the lodge units. **Mechanical System:** residential units, electric unit heaters. Main building, central forced air heating and ventilation. **Major Materials:** Natural finished redwood siding and roof shingles; cedar and fir; reliance on painted interior spaces and brightly colored furnishings and decor for warmth. **Cost:** \$500,000. **Consultants:** Lawrence Halprin & Associates, landscape architect; Rutherford & Chekene, structural; Yanow & Bauer, mechanical; Barbara Stauffacher, graphics; Matthew Sylvia, general contractor. **Photography:** Leland Y. Lee.



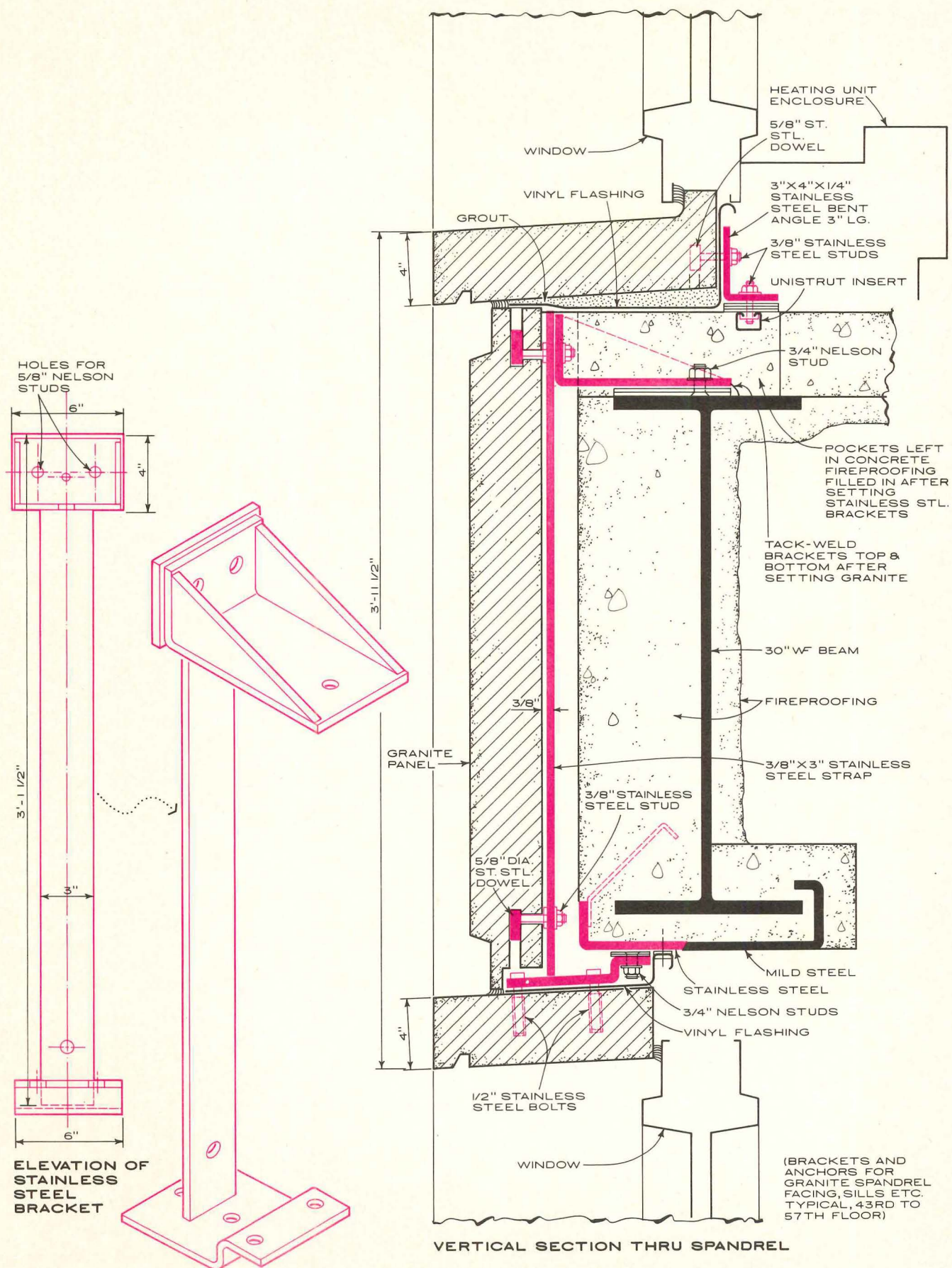
# STAINLESS STEEL ELEMENTS



## SELECTED DETAIL

### Stainless Steel Framed Precast Concrete Panels



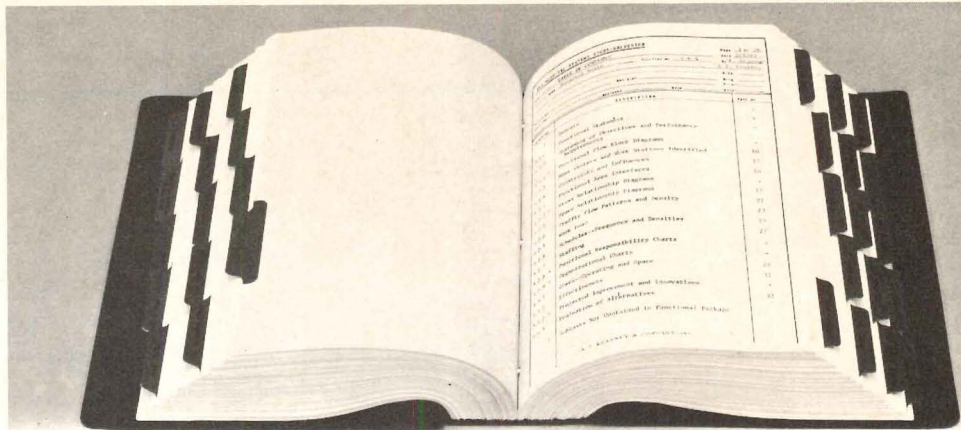


**FIRST NATIONAL BANK: Chicago, Ill.**  
**ARCHITECTS: C. F. Murphy Associates and the Perkins & Will Partnership**

**SELECTED DETAIL**  
**Stainless Steel Masonry Anchor**



# Beating the Systems Game



*Tome of 12 lbs was systems analysis "Bible" for programming new hospital in Galveston.*

**A simple game translates rigorous systems analysis requirements into a program meeting the complex needs of a new hospital.**

On a warm and sticky Monday morning last spring in Galveston, a team of architects, programmers from Caudill Rowlett Scott met with their clients to turn a "long and nearly impenetrable maze of tasks, sub-tasks, and sub-sub-tasks" into a hospital program. From systems game to end game — or the agonies of simplification.

The prime contractor was a Chicago management consulting firm, A. T. Kearney Company, whose systems study had been exhaustive; the physical evidence of their efforts was "the Bible" — a 12-lb volume of 28 parts, or Functional Packages. The job at hand was to program and plan a new Public Health Service hospital for merchant seamen. The clients were the PHS and administrators of the existing hospital.

With ATK's work in hand, the architects' problem was to reverse the highly sophisticated iterative process, and translate an intricate conceptual system into a workable scheme for a physical system.

Caudill Rowlett Scott, therefore, proposed a week-long charette. A specialty of the house, it was developed to speed up planning processes for clients at inconvenient distances from home base in Houston. Dubbed "squatters" by a crusty, and apparently chauvinistic, Oklahoma client, the crash teams have been transferred from Caudill Rowlett Scott's usual school work to more complex hospital planning — a relatively new field for CRS. At the Galveston squatters, however, a new team tool emerged. The story of its spontaneous invention is related in the following firsthand account taken from an informal report by Bob Douglass, co-captain with Bill Cannady of the squatter team.

"Time was running out and the Functional Packages were not complete. We persuaded ATK to bring the entire team together with the PHS Hospital team in Galveston for a CRS-type squatters to try to wrap up the entire systems integration task in one week of concentrated effort. The study had been going me-

thodically along for almost a year and we were proposing to make-or-break it in one week, so it was not without some apprehension that ATK agreed. The conference was held in Galveston the week of March 28 [1969].

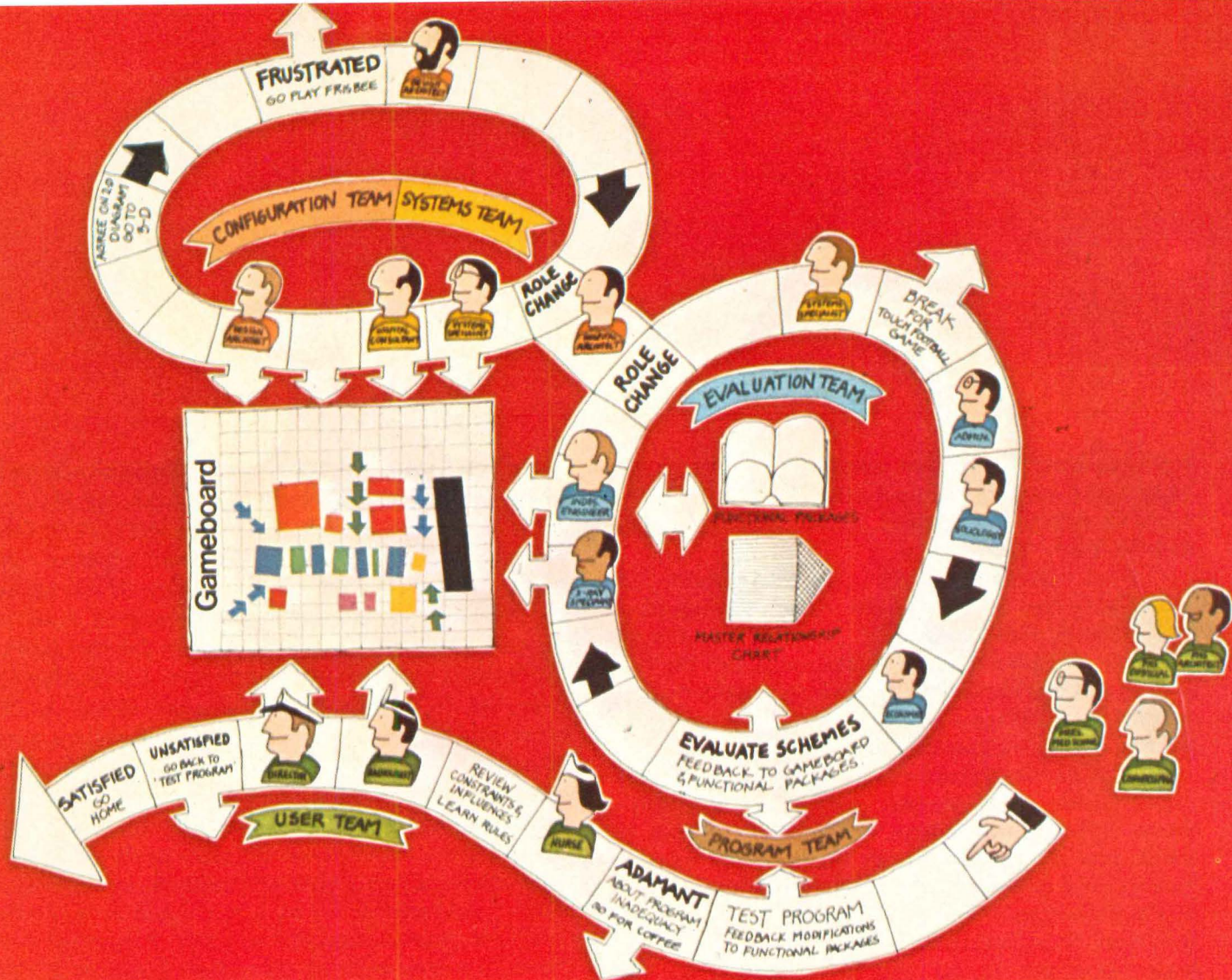
"CRS & ATK met for breakfast early Monday morning in Galveston, and then went to the hospital where we set up to go to work in a complex of trailers on the hospital grounds.

There was a big communication problem right away. The ATK team was put off because the architects hadn't studied the Functional Packages, though more put off, I suspect, because our team was young and loose and didn't seem to be taking it all seriously enough. Our team was frustrated because even if the packages had been complete, the language and tone were all but impossible for non-industrial engineers to absorb. When our team would ask a question, the answer was always, 'It's in the book.' Also, the ATK guys kept their coats on. They went to one end of the room and started doing their own thing, and we went to the other end and started doing ours.

"At their end of the room the industrial engineers started to use their standard techniques to diagram the procedural flows and functional relationships of all areas to all others, as per contract requirement. They soon discovered that the industrial engineering techniques were far too detailed and that the results were totally uncommunicative because of their complexity.

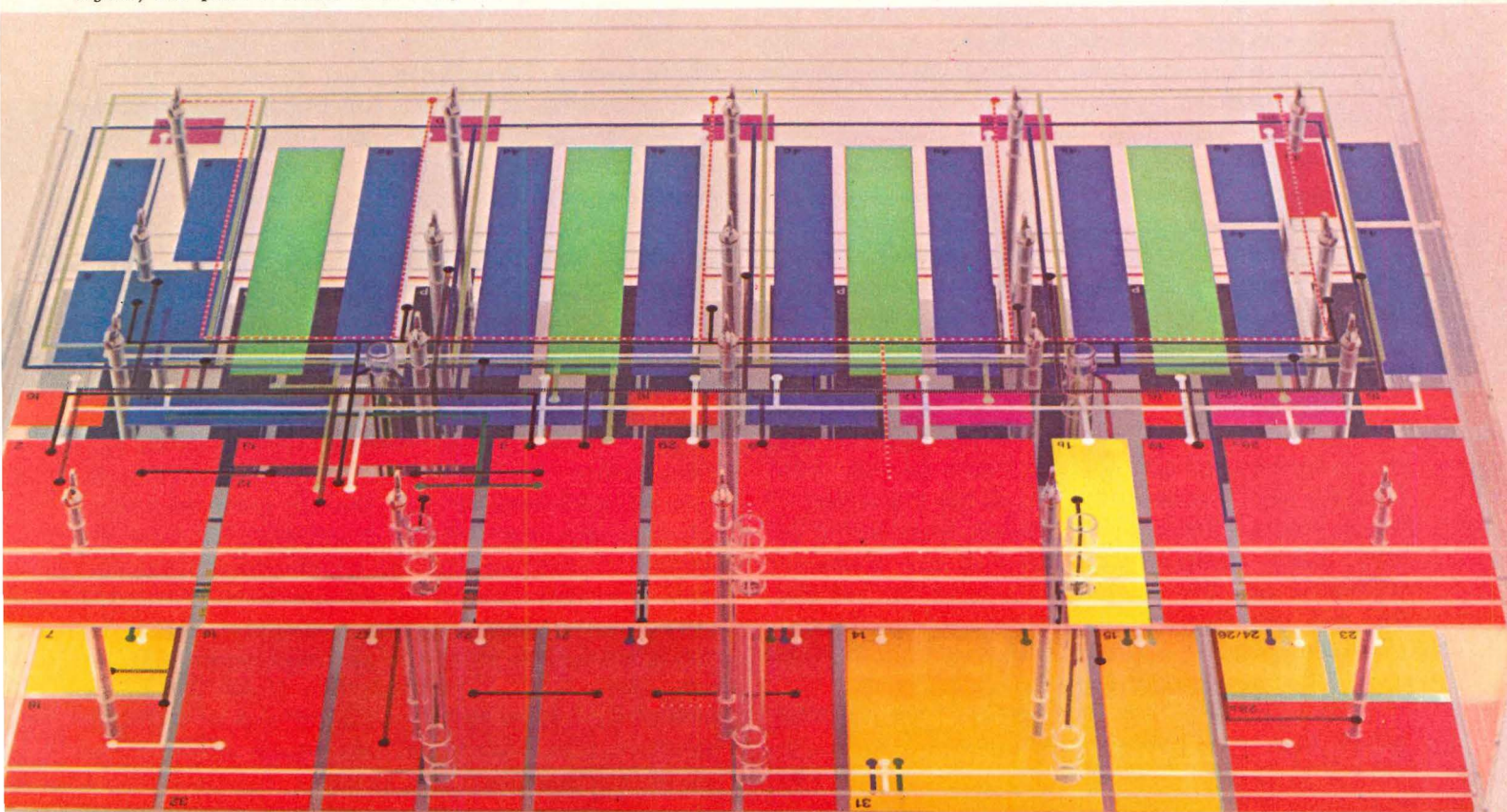
"In the meantime the CRS team had been trying to get a handle on the problem by simplifying and generalizing the total hospital package. Zones of like activities and like spaces were identified and color coded, colored squares were cut to scale to represent the various functional areas, different movement systems were represented by color coded cut-out arrows, etc. I think I was using them to conduct a quick course in hospital design when the flashes of color caught the engineers' eyes and they came to see what





Movement of people and things was the organizing concept of the game played. See next spread for list of players.

Transition from game board to final program for two-story hospital (Plexiglas model below) called for several changes in layout, but plan remains essentially the same.





was up. They stayed and became intrigued at the clarity and ease of manipulating the elements, the spark of communication and respect jumped the gap and the 'game' was on.

"It had taken most of the day. That night, Bill [Cannady] and I talked about what had happened and realized that it was the game-like quality of what we had been doing that had catalyzed the two groups and had started them working together — we decided to try to keep the momentum by structuring the rest of our week around the game idea.

"The game we devised was not a sophisticated theory-of-games game. It was more like a real kid's game with a game board, simple rules, pieces to move, and different positions or roles for various players. The game was scored by all the information in the Functional Packages, but mainly by the Master Cross Relationship Diagram. This diagram had been developed as an abstract, quantitative expression of the idealized proximities and reasons for the desired proximity for the total hospital. The more relationships on the game board that agreed with the Master Cross Relationship Diagram, the more points that particular scheme received. The areas that lost points were identified, the scheme was modified if possible or abandoned if not.

"The game board rules were based on the idea that the thing that makes a building different from a totally abstract system is that people and things get into it and move around. These concepts — access and movement — were the ordering elements around which the squares of colored paper began to organize themselves. By simplifying our process into the most elementary terms that anyone could understand, and into a format that didn't intimidate by looking like DESIGN, anyone could play and become a designer.

"Through the week the players included not only the programming team (ATK/CRS) and the PHS Hospital staff, but the president of the University of Texas Medical Branch in Galveston, members of his staff, PHS headquarters personnel, the Mayor of Galveston and the Congressman from the District. The way the gameboard catalyzed communication, the spontaneous and furious ricocheting of ideas around the gaming table, was fascinating.

"The ATK/CRS team became four teams with rotating and overlapping assignments. Two teams worked in parallel. The Gameboard Team tested alternative configurations, and the Functional Systems

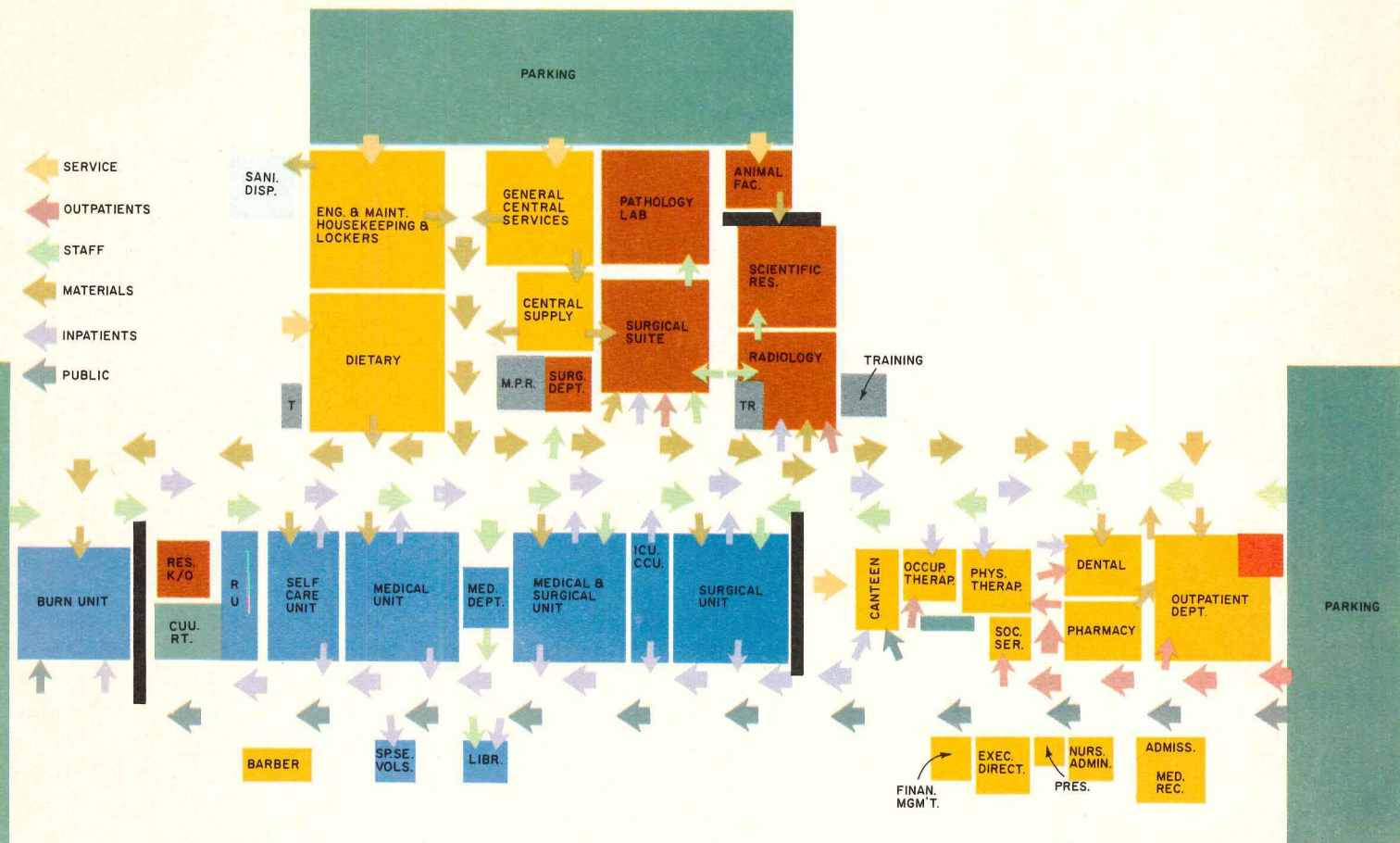
Team developed and tested organizational concepts and support systems, each team influencing the output of the other. A third team concentrated on Cost Benefit/Cost Effectiveness, testing systems and configurations. The fourth team refined the program and researched information, interviewed hospital personnel, and prepared new players for the game.

"The early stages of the game were a little chaotic. Everyone was the authority on everything. As the broad issues were defined, we assigned various team members who were expert in the various functional areas and their PHS Hospital counterparts the job of advocating only the interests of their own area, without special regard for the other parts of the hospital. This started a cycle of idealized arrangements of the total hospital for each functional area. As the cycle was repeated again and again it spiraled ever closer to a consensus at the center. Eventually, consensus on the two-dimensional layout was achieved and the pieces were pasted down. The 2-D gameboard was then hung on the wall as the basic guide to developing alternative functional configurations in 3-D. At this point, the Systems Team and the Configuration Team became one team.

"To develop alternative functional configurations in 3-D, we simply transformed the gameboard into three dimensions. Some panes of glass were borrowed from the hospital shop and stacked in layers to form a three dimensional planning matrix. The relationships from the 2-D layout were translated into 3-D by distinguishing between requirements for vertical and horizontal contiguity, available area on the site, the implications of mechanical movement systems, etc.

"In the process of developing candidate alternatives, we tested the basic concepts that dominate hospital design today: One maintains that a vertical-core-centered hospital will operate more economically than any other because it permits maximum utilization of labor saving and automated support systems; the other claims that only a horizontal hospital can deliver the best in patient care, but sacrifices the operating economies of the vertical hospital. Out of our evaluation, influenced by these seemingly conflicting philosophies, we developed a third alternative that seemed to incorporate most of the pluses from both concepts, as well as our own subjective preferences. It may be a basic flaw in the system,





**Diagram of Functional Space Relationships**

*The importance of fast, direct traffic flow determined the proximity of functional areas. Weighted chart above, developed by ATK, formed the basis for scoring the game.*

but it is hard to imagine an approach that would not require that the final decision be based on human judgment. To no one's surprise, the solution we liked the best won — but the decision was not uncontested.

"The final task was constructing a plexiglass model that recorded and dressed up the 3-D result that tested out most favorably. Construction of this final model started around 3 AM Friday and was presented to PHS and UTMB [University of Texas Medical Branch] staff and officials just after lunch.

"After the conference, there was some wrapping up to do, and we still must "interfere" with the A/E contractor who finishes the job. The problem-solving episode, however, was over when we left Galveston." Which all goes to prove that fun and games can be serious business. And the simple board game that expedited the Galveston job is now being refined and expanded by CRS in their latest hospital project.

— Allis Runge

#### LIST OF PLAYERS

Besides the ATK/CRS team, the cast included:

1) All medical, paramedical and administrative and technical support personnel from the PHS Hospital in Galveston. (About 40)

2) Personnel from several divisions of the U. S. Public Health Service headquarters in Silver Spring, Maryland. (About 10) Project Director: Lisa Weil. Disciplines represented among the PHS personnel included architects, architectural engineers, industrial and systems engineers, and medical and paramedical personnel.

3) The President of the University of the Texas Medical Branch (in Galveston) and members of his staff. (About 5)

4) The City Manager of Galveston.

5) The Mayor of Galveston.

6) The Congressman from the Galveston District.



# Selecting Building Materials

**Considerations of function and service life of materials that are to be specified for a structure are discussed by the Chief Specifications Writer of Skidmore, Owings & Merrill, New York City.**

There are many factors to be considered when selecting building materials. Not only must materials serve their intended function, but also they must last over some acceptable service life. For function, materials are chosen to provide sound reduction, thermal efficiency, fire safety, weatherproofing, and other similar requirements. For service life, materials should be selected to resist wear, corrosion, degradation, chemical interaction, and other hazards.

The initial determination in the selection of a material must of necessity deal with function. If sound absorption is required in a particular area, there are a host of acoustical materials from which to choose. If fire prevention is essential, there are again numerous materials and methods of construction that can be employed to accomplish this end result. Where heat loss or gain is to be reduced or minimized, there are certain insulating materials or details of design that can be selected or followed that will accommodate this requirement. However, in each instance where a functional requirement is achieved in the selection of a material, one must then take into account the other variables that are concerned with the useful life of the material in place. The service life of a material is related to a combination of environmental factors which influence its durability.

For example, a function involving sound control in an enclosed swimming pool area would require the use of an acoustical material. However, because of the significant amount of moisture present in the space, the durability of the acoustical materials selected to withstand the effect of moisture is of prime significance. A gypsum or wood-fiber product would be susceptible to swelling and dam-

age. A ferrous metal-suspension system would be subject to corrosion. The search for an acceptable system would be narrowed to the selection of a corrosion-resistant and moisture-resistant material.

The environmental factor for exterior materials is their relationship to weather conditions. Weather factors that interact with materials are water, ozone, ultraviolet light, temperature variation, and combinations of these elements. The environment for materials inside a structure is composed primarily of people usage or industrial processes. In public schools, materials are subjected to vandalism and rough usage. In industrial plants, materials are exposed to industrial fumes, fork-lift trucks, and skids.

A good deal of experience has been amassed with the use of traditional materials for specific functions. Their service life can almost be predicted based upon similar conditions of use. However, there are no universal materials and there is a constant search for new manmade materials to attempt to overcome the deficiencies of the traditional materials. But the materials derived from chemistry are not a panacea. Great strides have been made, but not always with immediate success. It is difficult to predict the behavior of manmade materials based on laboratory tests. These tests, in many instances, are empirical, and do not necessarily simulate true environmental conditions. Test methods and procedures usually undergo considerable change based upon familiarization with problems, and eventually these tests can predict more truly the behavior of the materials under conditions of use. Test methods for elastomeric sealants and for water infiltration of curtain walls have undergone considerable change

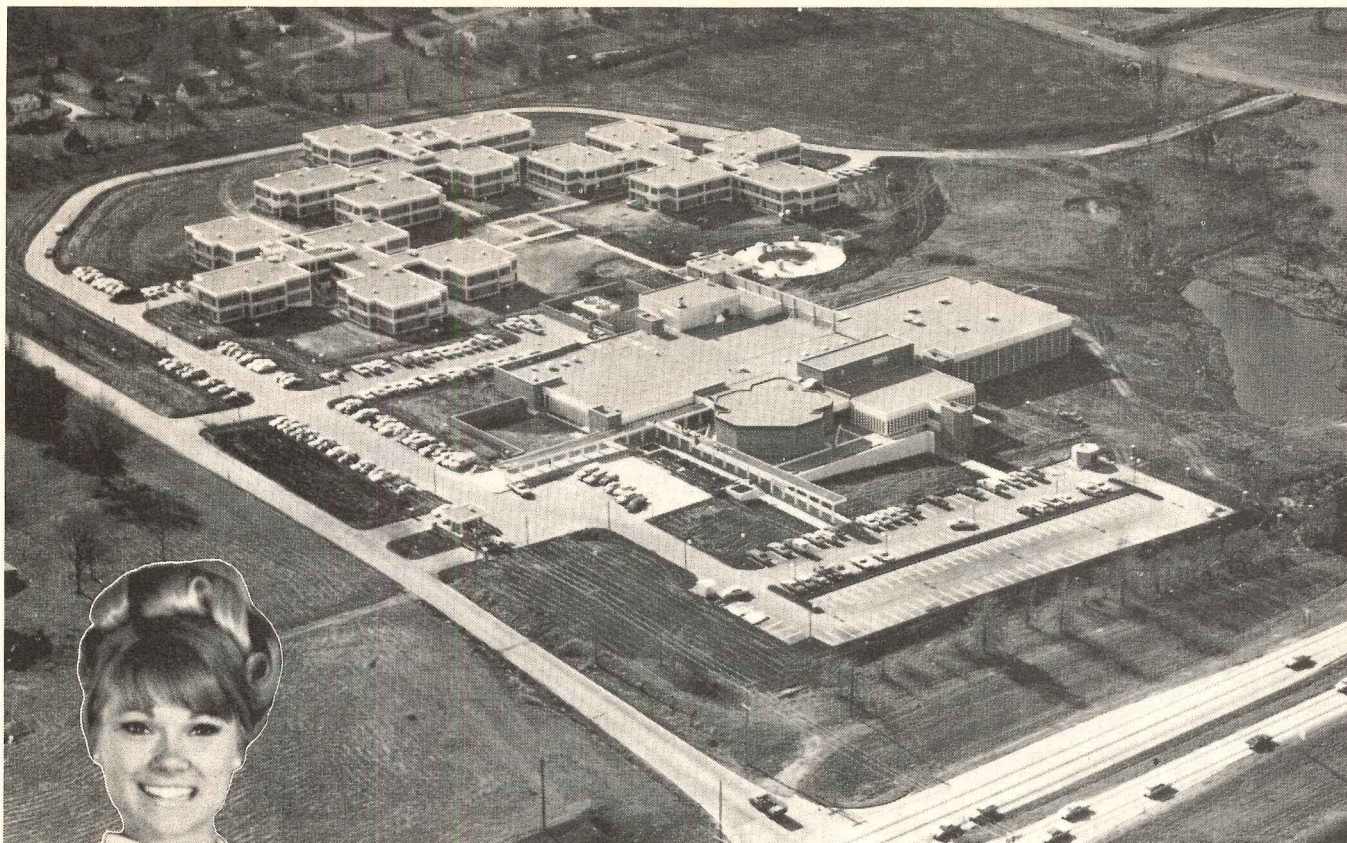
since these methods were first promulgated. The changes are obviously the result of a better field understanding of the behavior of materials which are then reflected in the updating of the test procedures.

Although we can predict the behavior of individual materials based upon laboratory tests and field usage, we are bound to encounter chemical reactivity of one material upon another when they are placed in juxtaposition. This is because, first, the specifier or user is not completely cognizant of the chemical nature of materials, and, second, the manufacturer does not necessarily test the interaction of his material with every other building material that may come in contact with his material. For example, through field use and not the laboratory, it was learned that polysulfide sealants and bituminous-saturated, preformed expansion-joint materials interacted and caused a softening of the sealant.

It is probably easier to forecast low service life based upon physical deterioration than it is upon chemical degradation. We can measure abrasion due to wear. We can replace glass with plastic in school buildings to reduce breakage. But it requires a knowledge of chemistry to forecast interaction and degradation of manmade materials due to water, temperature, and solar radiation. Moisture can cause galvanic action in metals that will cause one of the metals to corrode. Ultraviolet light can cause the deterioration of certain organic materials. Temperature increases can cause materials to hasten their chemical attack upon one another.

The designer and specifier must take into account function and environment so that the material selected will provide the optimum solution.





ARCHITECT, *Folger and Pearson* • MECHANICAL ENGINEERS, *Burns and McDonnell Engineering Co.*  
 PLUMBING WHOLESALER, *Grinnell Company* • PLUMBING CONTRACTOR, *A. D. Jacobson Company, Inc.*  
 FIXTURE MANUFACTURER, *Kohler Company*

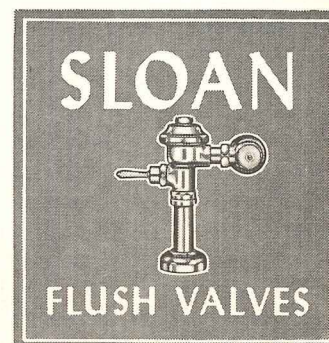
## TWA built this \$10,000,000 Academy to train Million Dollar Smiles

■ Over 2,000 airline hostesses a year will be trained by Trans World Airlines at the new Breech Training Academy said to be the most advanced facility of its kind in the world. The campus-like complex is located on 34 acres of rolling countryside in Overland Park, a Kansas City suburb.

Hostess training encompasses all phases of in-flight service with emphasis on efficiency, customer orientation and charm. The quality atmosphere that TWA strives to convey assures the trainee that her presence as a hostess on the Company's aircraft is very important to its prestige and passenger satisfaction. Full scale mock-ups of cabins, simulating galleys, seats and other equipment found on all types of TWA planes, including the new Boeing 747, implement the learning process.

Three uniquely designed two-story residence buildings, each with sunken living rooms and five wings of bedroom-bath studio apartments provide luxurious living for 600 girls.

The facilities of the Academy complex comprise the most modern equipment for utmost comfort and convenience—including Sloan Quiet-Flush II flush valves. Renowned for their quality, quietness, dependability and low maintenance costs, Sloan Flush Valves are a mark of excellence. Your new building can have this same Sloan quality. Specify and insist on Sloan Quiet-Flush II flush valves.



SLOAN VALVE COMPANY • 4300 WEST LAKE STREET • CHICAGO, ILLINOIS 60624



## Corporate Involvement in Architecture and Engineering—Part II

This second of a two-part article further discusses the legalities of corporate involvement in the practice of architecture and engineering.

In January, we discussed the case of Food Management Inc. v. Blue Ribbon Beef Packing Inc. (U. S. Circuit Court of Appeals), which considered the lawfulness of the practice of architecture and engineering by a corporation in Iowa. Under the Iowa Registration and Licensing Law a corporation is permitted to practice architecture if all the architectural services that are performed are "by or under the responsible supervision of an architect or architects qualified by registration." The court held that the corporation had violated the statute because ultimate responsibility for the work was in the corporation rather than in the architects retained to perform the services. The court further held that in collecting data in connection with the building project, the corporation was exercising a professional function in violation of the Iowa law.

The corporation had argued that any services it rendered, as distinguished from the architectural and engineering firm it retained, constituted an isolated transaction and therefore did not constitute a violation of the statute. In support of this argument, the corporation relied upon a New Jersey decision in which the court concluded that its licensing statute was directed against the engaging in or pursuing the profession of architecture and professional engineering as opposed to a single isolated incident arising from unusual circumstances. The U. S. Circuit Court of Appeals concluded that this legal precedent was not applicable, stating:

*"One instance of untrained, unqualified, or unauthorized practice of architecture or professional engineering — be it an isolated transaction or one act in a continuing series of transactions — may be devastating to life, health, or property. To exclude an isolated transaction from the proscription of the registration*

*laws would seriously weaken the purpose of such laws at a point where their prohibition of professional services may be most needed. It is therefore clear to this court that the Iowa Legislature intended to require registration as a prerequisite in all cases to the practice of engineering or architecture. We therefore agree with the obvious holding of the trial court that one instance of rendering unlicensed engineering or architectural services is sufficient to bring the act within the ambit of the Iowa registration statutes."*

The corporation sought to recover from the owner in this case not only a fee for professional services but for other nonprofessional services as well. The Federal court ruled that although architecture and professional engineering contracts which violate licensing statutes are generally unenforceable, it did not necessarily follow that the corporation would be denied recovery for services it had rendered which did not violate the licensing and registration laws of Iowa. The court said:

*"In an attempt to harmonize the public policy of the registration statutes with the policy of the law to sustain contracts where to do so would work no violence, and in view of a court's natural aversion to unjust enrichment, we encounter no difficulty in concluding that the contract here is divisible into two parts — legal and illegal. This illegal portion of the contract relates to the architectural and engineering service which Food Management agreed to perform in violation of the Iowa registration statutes. The legal portion of the agreement relates to those services which are neither architectural nor engineering services."*

The owner in this case had sought restitution of the moneys it had paid to the corporation for professional services prior to the termination of the corporation's contract. The court

concluded that it would not be equitable to allow the owner the benefit of the services and at the same time a recovery back of the moneys paid. The court stated:

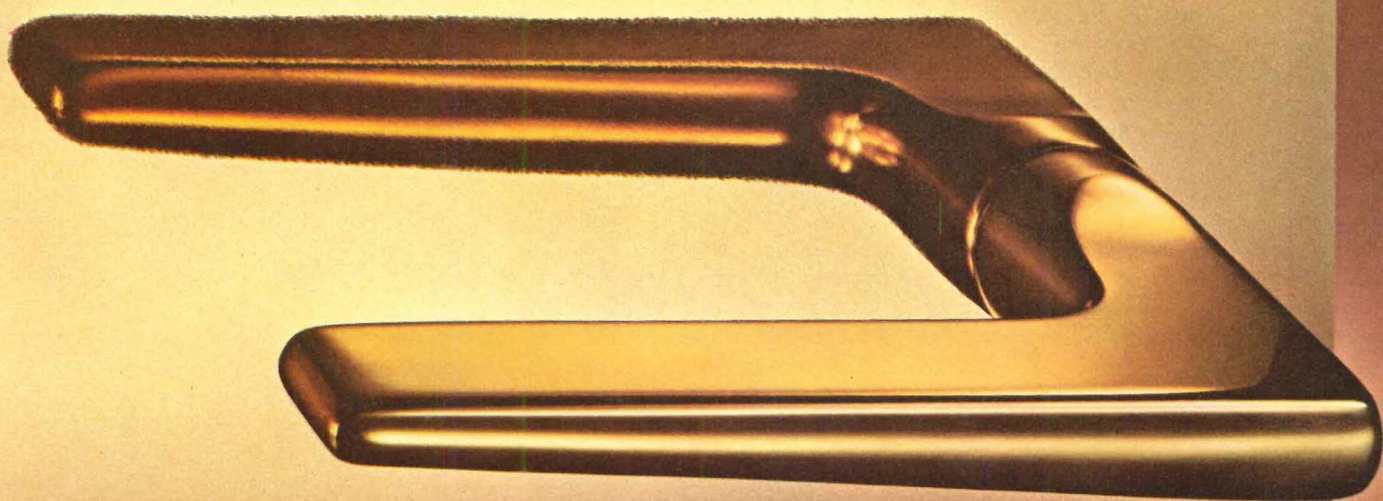
*"We now turn to Blue Ribbon's counterclaim seeking restitution of the \$24,000 it paid to Food Management prior to termination of the contract. There is no provision under the Iowa registration statutes for the recovery back of money voluntarily paid under an architectural or engineering contract to an unlicensed party. To allow both retainment of services and recovery back of money paid is not necessary to effectuate the public policy of the licensing statutes, and there would be no inequitable harm to Blue Ribbon in not invoking restitution because, as found by the trial court, it obtained the service it had bargained for."*

The owner further sought to recoup the fee he had paid by contending that the corporation had guaranteed the costs of the project which had been exceeded. No such guarantee or limitation was contained in the written contract. In this connection, the court stated:

*"It is the general rule that an oral cost limitation imposed upon an architectural or engineering design, where not contradictory to the express terms of the written contract may be admitted into evidence. . . . It is also the general rule that there may be no recovery for engineering or architectural services where the actual cost of the structure substantially or unreasonably exceeds the estimated cost limitation, unless the cost excess is attributable to the owner's action."*

The court concluded that the owner could not recover back the moneys paid on this ground as the owner had not in fact established that a cost limitation had been imposed upon and accepted by the corporation at the time the agreement was made.





 **SARGENT®**

*A complete line of advanced architectural hardware, including the Sargent Maximum Security System  
New Haven, Connecticut • Ontario, Canada*



# Artworks and Packages

By Harold Rosenberg

*Horizon Press, New York, N. Y. 231 pp., 8 color illustrations, 171 black and white illustrations. \$17.50*

**Reviewed by Dore Ashton.** *The reviewer, a well-known critic and historian, is head of the Department of Art-Architecture-History at Cooper Union, and author of the recently published A Reading of Modern Art.*

Here is the irony of the situation: A serious cultural commentary on the packaged nature of current aesthetic experience issues forth in the form of a package. If an essayist as intelligent and civilized as Rosenberg were published in France, for instance, he would probably still be between the thin yellow covers of a small, sparsely illustrated book, a reading book. Here, in large format with 171 illustrations, is a frank admission that the packaging mentality has gone so far in our country that commentary itself must be packaged, or will not be.

These essays were once packaged in the back pages of the *New Yorker Magazine* (with the exception of the lead essay, "Art and its Double" which, having been first published in France, shows a bit of French culture in its play on Artaud in the title.) They are consequently diverse, and often the direct response to what happened to be around for comment. And though Rosenberg resolutely opposes the artificial production of historical labels rampant in New York, he has had to resort to them extensively in these essays which were once, after all, monthly reviews.

The high value of Rosenberg as a reviewer resides in his being, like Baudelaire on whom he comments in this book, partial, passionate, and political. He is partial to cultural rather than technical and art historical analysis; he is passionate about those artists whom he best understands (chiefly deKooning), and he is political in his shrewd distinctions between the true and the less true modes of presenting works of art. Rosenberg's forte is still his fundamentally political assessment of culture — political in the sense that he is interested always in the social organism as a whole.

Within the organism lies the realm of art which, he tells us in the provocative title of his book, is being subverted by that other much more powerful presence in society, the media. No matter how specific some of these essays are (those on individual artists such as Pollock, Gottlieb, Cornell, Klee) Rosenberg is able to broach his general urgent themes with impressive skill. They are: the changing nature of art in a technological society; the pernicious influence of art history and, implicit rather than clearly enounced, the superiority of the "action" painter as defined by Harold Rosenberg, and redefined and redefined.

He sounds his warning note in "Art and Its Double" when he rhetorically asks how, given the similarities between works of art and the art products of the media, can art be distinguished. The answer is: through art history, and its main perpetuator, the museum. By its reference to itself and to its putative future, art today distinguishes itself (barely, Rosenberg implies) from those other packages dealt out by the media. "The sum of it is that the history of art as a distinct category of artifacts seems to have reached a dead end. If art is to survive as an activity different from that of media craftsmanship it will have to find a more fruitful basis than mere interest in itself and its past."

Otherwise, as he points out in "Time in the Museum," a review of a Museum of Modern Art exhibition purporting to summarize the 1960s, serious misrepresentations occur, and they occur because of the packaging collective mentality of art-history entrepreneurs in the museum. "That living artists were being expelled from the present . . . was hardly to be taken lightly." They were expelled, Rosenberg observes, because "Time in the Museum is a grocery list of the most actively publicized names, labels and events." He notes the tendency to approve middle-class values ("the aesthetic of cleanliness has a political dimension;

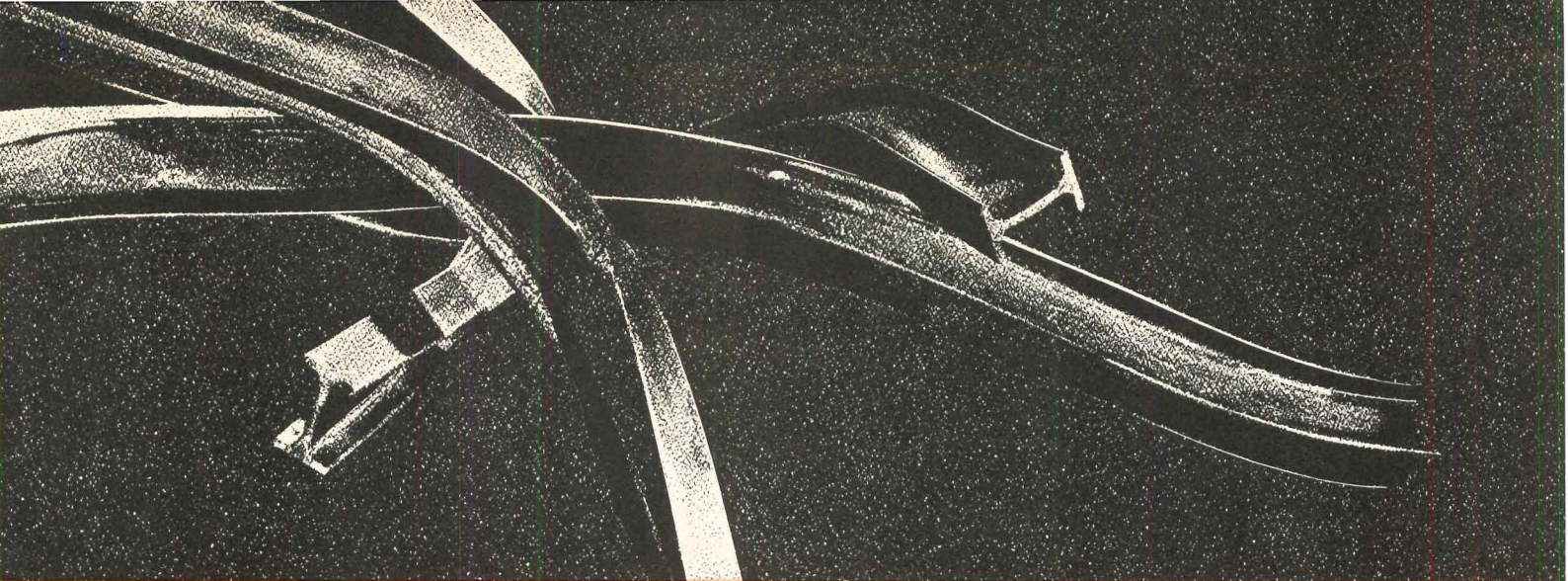
the fuss about banning thick paint . . . derives from the wish to affirm middle-class tidiness and security") and to welcome the tendency to curtail individuals in favor of objects. All of this, in his view, is a clear manifestation of the encroachment of the media. Museum entrepreneurs, as he points out repeatedly, are no longer the keepers of tradition, or the chroniclers of periods and styles in art, but are handmaidens to the media, using media techniques throughout, including even the old advertising trick of producing a new vogue by dint of handy slogans and subliminal repetitions.

Although Rosenberg never prescribes an antidote, it is clear that he regards the attitudes of those artists whom he once dubbed "action painters" as healthy buttresses against media mentalities. Theirs is the most openly Bohemian, seeking "a recasting of life" that extends painting into the issues of politics, ethics, psychology, and the future of culture. They are best able to live up to Rosenberg's definition of art as "an activity that engages the entire being of individuals." Because of their interest in ethics (the action of their action on the canvas is, by his earliest definition, ethical), they are best geared to the vital act that will remove them from the art-history-college-outline package. That act is psychologically established as metaphysical and not merely the exercise of a set of skills, or a knowledge of the stages of modern art.

The one problem with Rosenberg's reassessments of his original doctrine of the action painter is that he has failed to see that aspect of Pollock and deKooning which resists best the history makers—their form-making originality. Since Rosenberg's appreciation of these two outstanding practitioners of action painting is based on his admiration for the principle of process, and since he sees them as incantatory rather than formal, it is natural enough that he avoids close analysis that

*(Continued on page 128)*





## Before fire makes it too hot for steel, talk to Zonolite about the kind of fire insurance you spray on.

It's Zonolite® Mono-Kote, the compound that fireproofs steel and concrete. And does it so well that its fire-resistance ratings range up to 5 hours, depending on the structural system it's part of.

Mono-Kote comes ready to use. Just add water. And spray. It pumps easily—as high as

50 stories. Goes on fast. Delivers a bond strength of more than 500 pounds per square foot.

Other features? Indeed! Like zero erosion, after being tested in 100 m.p.h. winds for 87 hours. Result: no "dusting" in air-conditioning and ventilating systems. Also, its use permits

reduction in the thickness of concrete floors. Cost? Very little.

Want all the facts and figures from the Zonolite fireproofing experts? Say the word.

### ZONOLITE

W. R. GRACE & CO.  
62 Whittemore Avenue  
Cambridge, Mass. 02140



# Just say Grace.



**From the radical  
and the daring  
comes the  
revolutionary.**



They're here to revolutionize treatment of walls and ceilings. To give interiors a radically different look. To break traditional paneling barriers.

**Element I™** from U.S. Plywood. Five exclusive concepts in which veneers of a wide variety of wood species are used as they've never been used before.

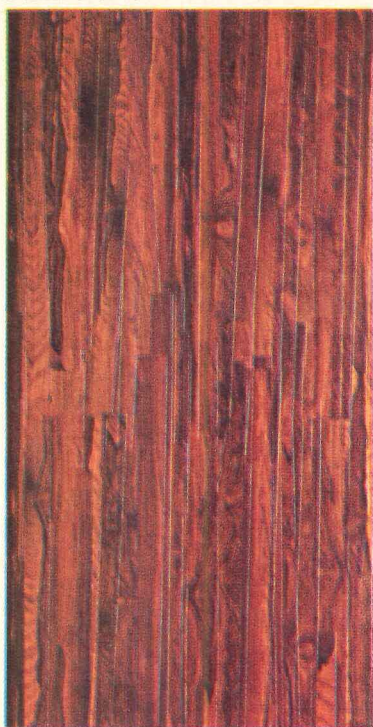
Panels of mismatched or random-matched veneers. Panels which retain the rough natural textural beauty of wood. Panels joined in new ways with plastic or built-in reveals. Panels or battens that are available in many widths to vary surface treatment.

For a breakthrough in the use of wood for interior design, U.S. Plywood's Element I includes:

**Butcherbloc™**—a paneling of dramatic impact inspired by the counter of the neighborhood



butcher shop. Cedar veneers are laid end-to-end in vertical rows to reproduce the handsome look of heavy board inlay. Veneers are random length, in a variety of natural color tones and grainings. The overall effect is solid and audacious—in keeping with the paneling's namesake.



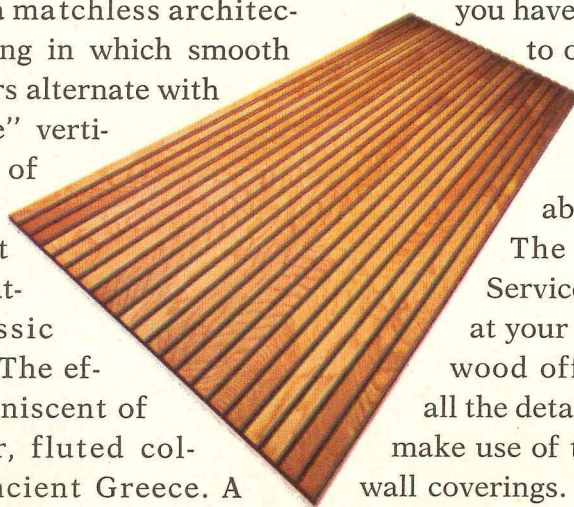
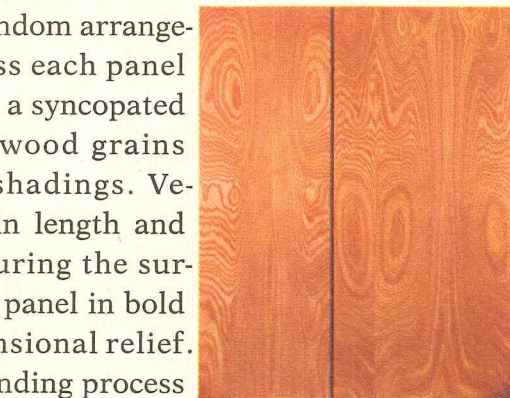
**Collage™**—choice wood veneers of birch, elm, oak, walnut, pecan, teak and rosewood are over-

lapped in random arrangements across each panel face to form a syncopated pattern of wood grains and color shadings. Veneers vary in length and width, texturing the surface of each panel in bold three-dimensional relief.

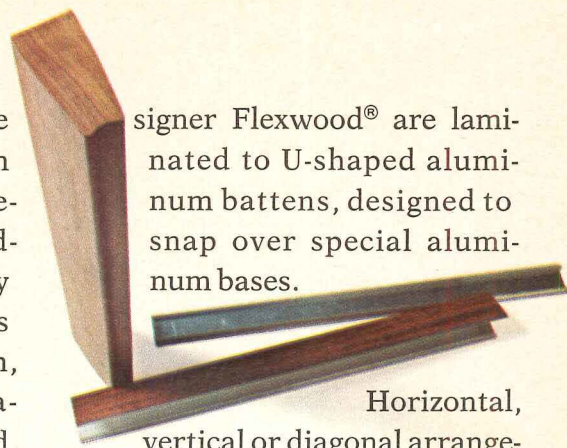
A special bonding process has been devised to retain this unique and strikingly beautiful sculptured appearance.

**Ionic®**—a matchless architectural paneling in which smooth wood veneers alternate with "black olive" vertical reveals of plastic. This arrangement creates a pattern of classic simplicity. The effect is reminiscent of the slender, fluted columns of ancient Greece. A masterpiece of graceful paneling.

**Palisade™** batten & trim—an unconventional decorating material in which veneers of De-



signer Flexwood® are laminated to U-shaped aluminum battens, designed to snap over special aluminum bases.



Horizontal, vertical or diagonal arrangements produce a limitless range of arresting visual effects. A novel, versatile, unique decorating material.

**Concept 32™**—a stark, beautifully basic interior paneling in which natural grain patterns of walnut, ash, teak and rosewood swirl unfettered across 32-inch wide panel faces, accented by charcoal black or deep chestnut

brown reveals. Faces are mismatched and flush. The look is modern, symmetrical, fundamental.

**Element I.** Because of its radical departure from tradition, it may be the

kind of wholly different wall or ceiling treatment you've always wanted to specify, but one that you have never been able to obtain until now.

So why not get more complete information about Element I? The Architectural Service Representative at your nearest U.S. Plywood office can supply all the details you'll need to make use of these innovative wall coverings. Or, if you'd prefer, simply write to U.S. Plywood, 777 Third Ave., N.Y., N.Y. 10017.



**U.S. Plywood**

A Division of U.S. Plywood-Champion Papers Inc.  
777 Third Avenue, New York, New York 10017

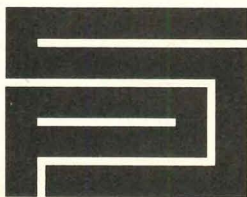


# Put some strength in your specs

with the wiring devices that can take it

## P&S

You know *what* the devices will have to take. P&S knows *how* to meet that need . . . with the broadest line of top quality wiring devices in the industry. Specify P&S devices all the way, from residential to industrial. For devices that can really take it, rely on P&S . . . the *specialists* in wiring devices. For more information write Dept. PA-370



PASS & SEYMOUR, INC. | SYRACUSE, N.Y. | 13209  
CHICAGO | LOS ANGELES | SAN FRANCISCO | In Canada: RENFREW ELECTRIC CO., LTD.



# MIRAWAL

## JUST NATURALLY ATTRACTIVE.

The quiet appeal of natural rock. Your choice. Your next building design can have it with Mirawal's aggregate facing—Miraroc. Miraroc faced panels are extremely lightweight. Tough. Versatile enough to fit anywhere. And cost considerably less than pre-cast panels. The aggregate is permanently bonded to asbestos board by a special epoxy formula.

Choose your Miraroc facing on either non-insulated veneer or insulated panels. Choose a standard or specify the aggregate you want. For more details on Mirawal, see Sweet's Architectural File, Section 20b, or write Kaiser Aluminum—Mirawal Products, P.O. Box 38 A, Port Carbon, PA 17965.

On Readers' Service Card, Circle No. 358

**MIRAWAL PRODUCTS**

**KAISER  
ALUMINUM**

MIRAWAL with aggregate MIRAROC facing is now being used to handsome advantage on the L. M. Berry and Company Building ("B" Addition) in Dayton, Ohio. Architect: David Titsch and Associates.





# Before you look into anything else in a carpet

## ask if it has Zefstat

Dow Badische introduces

# ZEFSTAT™

anti-static yarn for the carpet of shock-free performance

Here comes carpet with an enlightened new performance. Anti-static, anti-shock comfort made possible with a new yarn technology from Dow Badische Company. In the form of a new anti-static yarn called Zefstat.

Blended into a carpet, Zefstat dissipates static to one of the lowest levels achieved by any similar (but not equal) product on the market. It gives carpet the important new advantage that makes it ideal for schools, hospitals, hotels, business buildings and all public areas where static-control is a priority requirement.

Zefstat blends so subtly that it does not affect the aesthetics of the carpet. It works in any construction,

and is compatible with any fiber. It doesn't change the character or cleanability of the carpet. It does make maintenance easier because it practically eliminates electrostatic attraction of dust and dirt particles and permits soil to vacuum out more freely.

A guarantee goes with Zefstat. Static control for human comfort for the life of the carpet (or five years). So before you check colors, construction and other features, ask if the carpet is made with Zefstat. You will be specifying the complete carpet.

For further information call or write Dow Badische Company, 350 Fifth Avenue, New York, N.Y. 10001 (212) 244-6000.

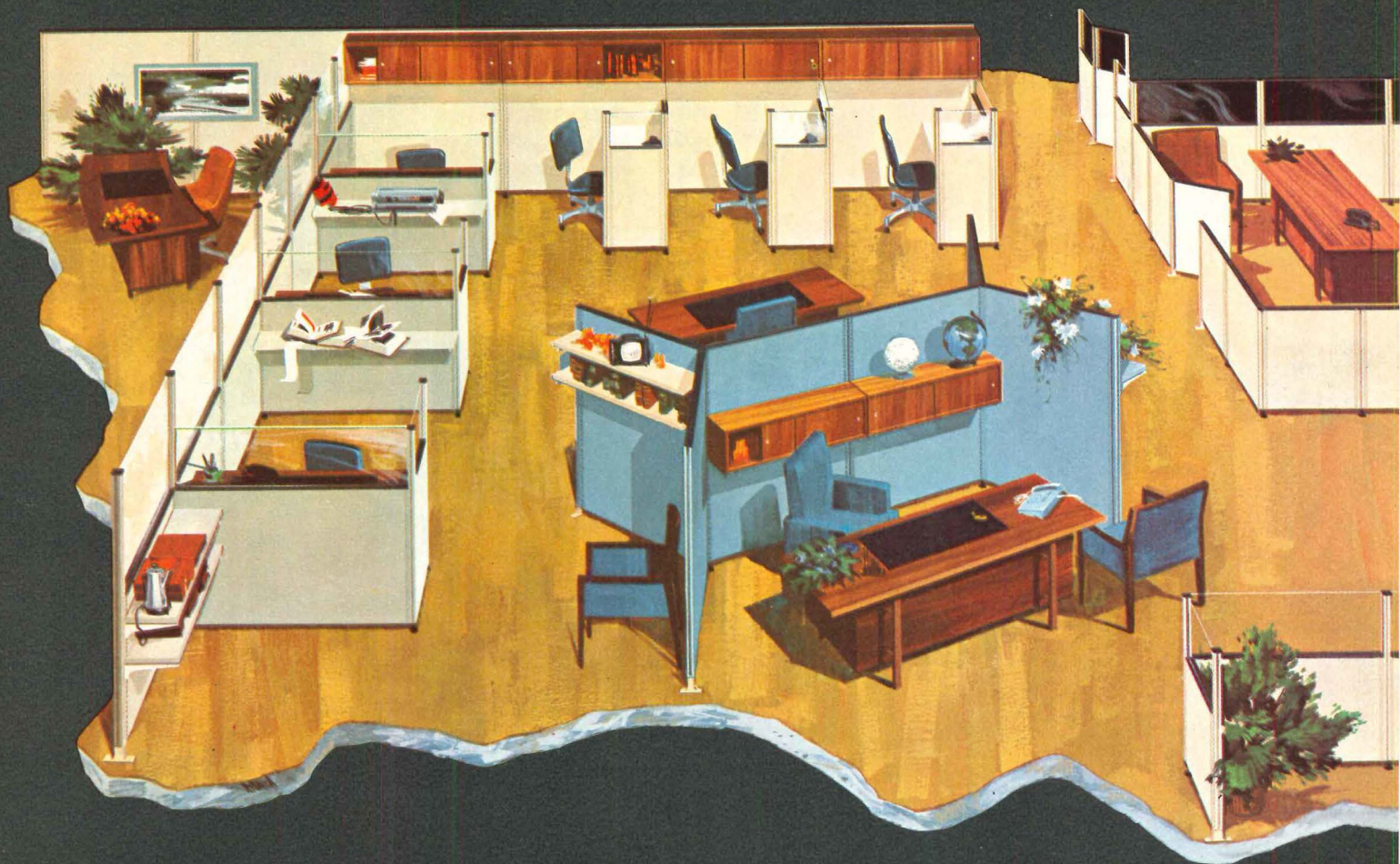


Zefstat is a trademark of Dow Badische Company, 350 Fifth Avenue, New York, New York 10001.

Patents Pending



# Your ideas about office walls are in for a lot of changes.



Think what you can do with your imagination and our new Hauserman Divider Wall. Surely more than you ever thought possible with conventional office walls.

Divider Wall provides a setting that stimulates productivity. Increases efficiency. Gives an open feeling. And allows you to keep up with and manage change in everything from technology to personnel arrangement.

It's simple. Convertible. Economical. Attractive. Each panel has grooves to receive slotted standards which support a full range of accessories. So now you can design entire work situations with components that naturally complement one another.

The 120° posts and square posts allow you to create a greater variety of semi-private surroundings to meet the needs of offices today . . . and tomorrow!

If you'd like to know all about our economical office walls that are built for change, ask for our Divider Wall brochure. It tells in detail how our new wall system can work for you. Write: Wall Systems Division, E. F. Hauserman Company, 5711 Grant Avenue, Cleveland, Ohio 44105.

All it will cost you is your old ideas.

**Hauserman  
Divider Wall:**  
Wall systems you can change  
as your needs change.

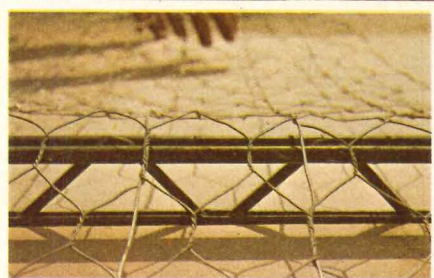


## Inner strength reinforcements make roofs, walls and floors stronger with less weight.

**Fire-rated roof decks are made lighter, stronger,  
truly monolithic with Keydeck Truss-T Subpurlins  
and Keydeck Reinforcement.**

The cast-in-place material flows through the open webs of Keydeck Truss-T subpurlins. Result: a truly monolithic deck with the material bonded *through* the subpurlins. This makes the total deck section stronger. It is also lighter because there is less dead steel weight in the subpurlin. Keydeck reinforcement unrolls flat and the twist weave construction gives maximum bond with the deck materials. Keystone Steel & Wire also supplies the popular bulb-T subpurlins.

Oakland Coliseum, Oakland, Calif.  
Architects: Skidmore, Owings & Merrill.  
General Contractors: Guy F. Atkinson.  
Roof Deck Contractor: Anning-Johnson.  
Roof Deck System: Cast in place gypsum reinforced,  
with Keydeck Truss-T subpurlins and Keydeck reinforcement.

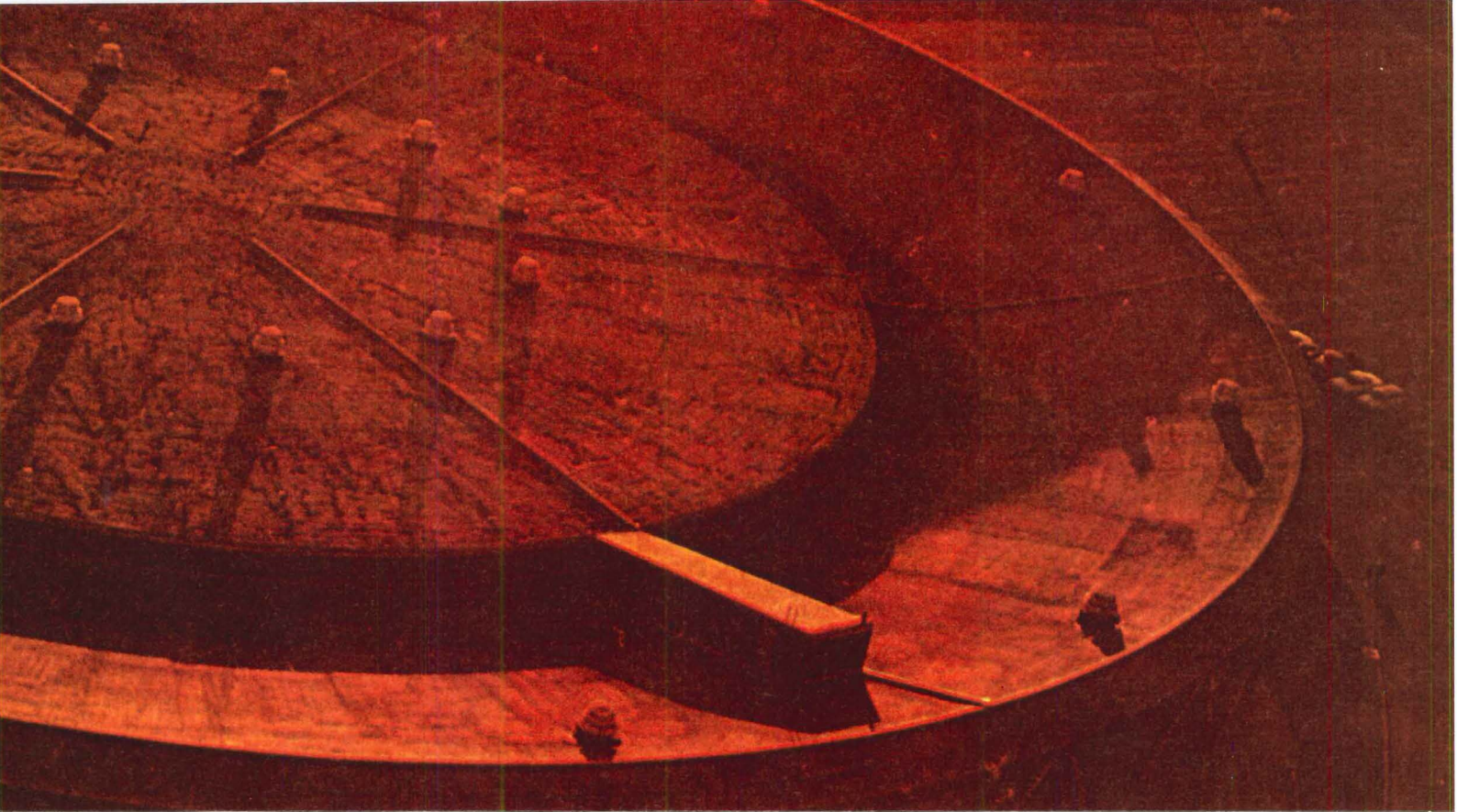


**Keyweld reinforcement sheets save  
on steel; cut construction time,  
inspection time and labor costs  
with mechanical handling and placement.**

Improvements in welded fabric equipment now make it possible to weld large steel sizes into large sheets to meet the reinforcing requirements of individual jobs. Steel sizes to  $\frac{5}{8}$ " diameter with 2" to 16" spacing in sheet-sizes up to 16' wide and 36' long. Just supply the floor plan and the concrete and steel reinforcing specifications. We will recommend the Keyweld weight, spacing and sheet size.

Addition to Finished Products Warehouse,  
Weirton Steel Division of National Steel Corporation  
at Weirton, West Virginia. Designers: Weirton Steel  
Engineers, J. W. Martt, Chief Engineer. Construction  
by Weirton Steel Construction Department,  
F. W. Schmidt, Superintendent.





**Keywall masonry reinforcements are matched to the mortar strengths for better, stronger, walls.**

Conventional mortars need the extra bonding surface, mortar locks and mechanical anchors provided only by Keywall Multibond. Together they work to better control thermal movement and cracking in masonry walls bonded with conventional mortar. The lightweight rolls are easy to handle; the mesh easy to cut with a pair of snips for lapping, making accurate cutouts, etc.

Truss-type Keywall, which is matched to the strength of high strength mortar, is also available from Keystone Steel & Wire.

Columbian Elementary School, Kokomo, Indiana. Three additional school buildings in Kokomo by same architect, general contractor and masonry contractor: Maple Crest School, Haworth High School and Sycamore Jr. High School Addition. Architect: Everett I. Brown & Co., Indianapolis. General Contractor: Modern Structures, Inc., Indianapolis. Masonry Contractor: B. E. C. T. Co., Indianapolis. Construction: Concrete block and brick cavity walls alternate courses of blocks reinforced with Keywall Multibond (Roll-Type) Reinforcement.



For complete information, call your Keystone representative or write Keystone Steel & Wire Division of Keystone Consolidated Industries, Inc., Peoria, Illinois 61607.

On Readers' Service Card, Circle No. 360







# For Hartford's 60 Washington Street

## PPG puts the walls up and the costs down with Pittco® Seventy-Five.

The new Pittco Seventy-Five Curtain-wall System let the designers of Hartford's 60 Washington Street build in more beauty for less money.

The Seventy-Five system offered them the esthetic effect they wanted. Strong vertical thrust and shadow-line accents. And color control. Russell & Dawson chose light amber from the standard Pittco colors. It complements the *Solarbronze*® Plate Glass and warm-toned *Spandrelite*® Panels and achieves the uniform tonality they desired.

This striking effect was created with exceptional economy, because the Pittco Seventy-Five system was specifically designed for great erection efficiency. Framing is prefabricated and delivered largely preassembled. All erection of this twin-span "stick" system proceeds from indoors at floor level—as does the glazing. No staging is necessary. Dry glazing techniques are employed, and positive uniform glazing pressure is applied on all edges of vision glass or infill components. No supplementary sealing of the wall is required.

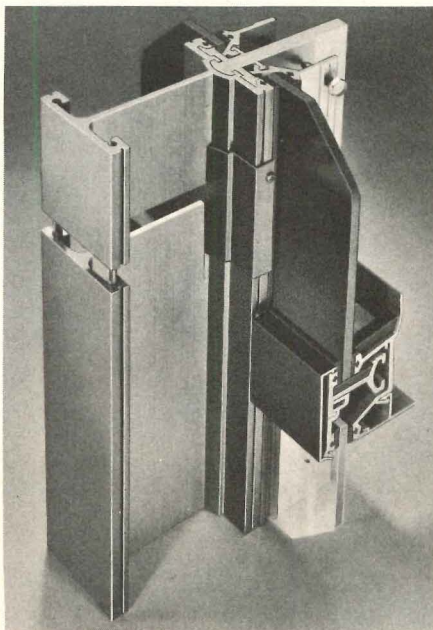
Once installed, this Pittco curtainwall gives great performance. Its capacity for expansion and contraction is extraordinary. So is its ability to compensate for out-of-dimension, out-of-plumb building frameworks. It is unusually well weeped and vented and is unaffected by high winds, heavy rains

or extremes in temperature and humidity.

The Pittco Seventy-Five Curtain-wall System: now a proved, workable, beautiful way to save money. For more details, check Sweet's Architectural File 20a/Pp, or write: Pittco Architectural Metals, Box 920, Kokomo, Indiana 46901.

Owner: Gam-Beck Savin Realty Company, Hartford  
Architect and Engineer: Russell & Dawson, Hartford.

**PPG is Chemicals, Minerals,  
Fiber Glass, Paints and Glass.  
So far.**



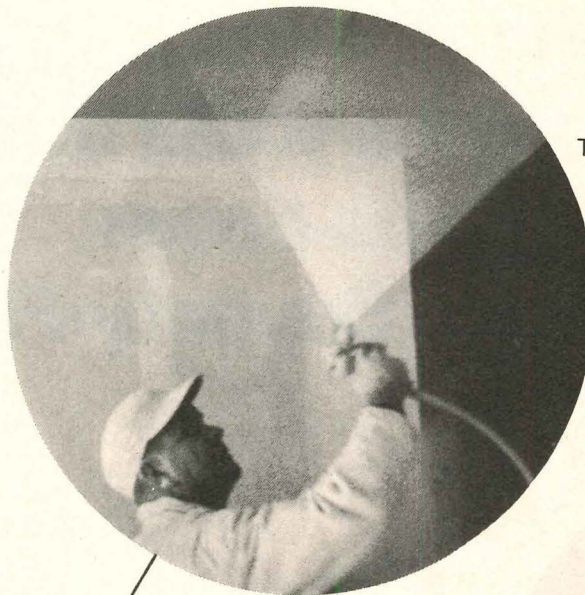
**PPG**  
INDUSTRIES



# New Glidden Solo Spray



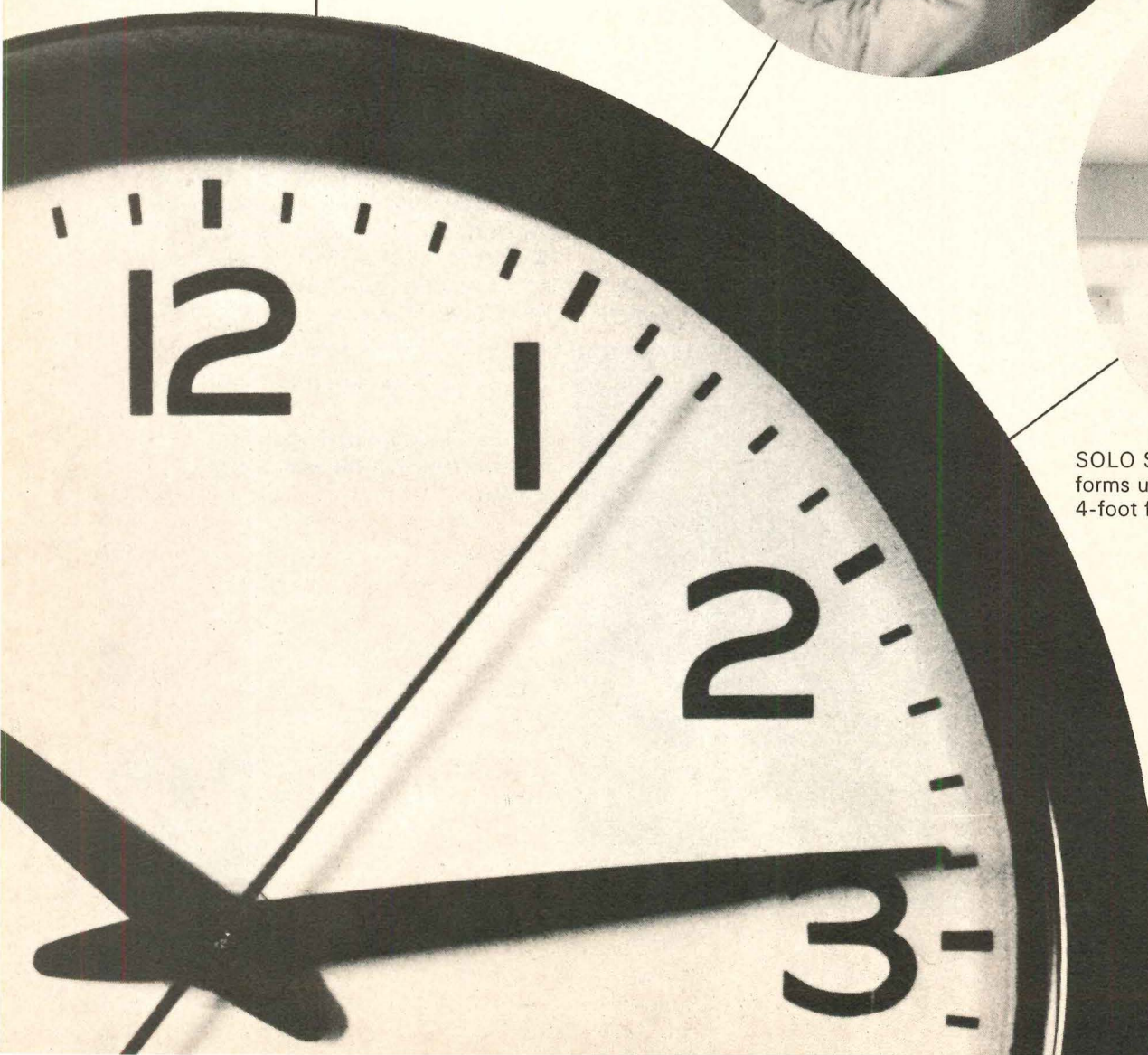
After drywall (walls and ceilings) is taped and lightly sanded, glass is masked. No other preparation.



Timed apartment unit used 16 gallons of SOLO SPRAY at 215 square feet per gallon (included closet interiors, ceilings, *all* drywall surfaces, and trim).



SOLO SPRAY forms up to 4-foot fan.



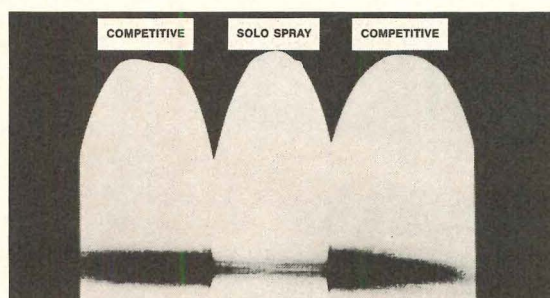


# turns days into minutes.

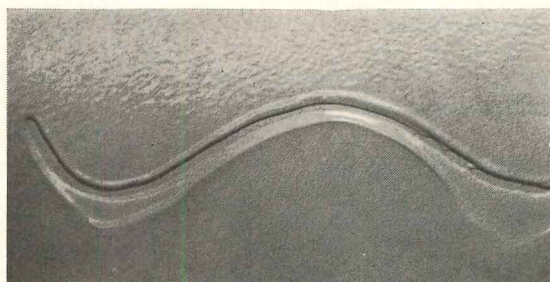
## Gets apartments, offices ready for occupancy weeks to months sooner!

In the timed demonstration, using SOLO SPRAY, a 3,500-square-foot apartment (two bedrooms, large closets, bath, kitchen, storage area) was entirely finished, including walls, ceilings, and closet interiors, by one painter in *only 14 minutes!*

SOLO SPRAY latex is something special—special for those big contracts where quality must meet the pressure of time and price: the high rises, condominiums, tracts, schools, nursing homes.



LAB SCRUB TEST, performed according to Federal Specification 141a Method 6142, proves SOLO SPRAY washability equals, or exceeds, competitive materials — whether latex, acrylic, or oil base.



UP TO 40 MILS THICK (if needed) with no sag. Finger grooving reveals coating thickness—match it to job requirements.

### ***And SOLO SPRAY is super scrubbable!***

Airless spray application socks on SOLO SPRAY at 5-to-6 times the thickness of ordinary brush or roller jobs. Up to 40 mils thick without sag! It's why building maintenance personnel can scrub and re-scrub SOLO SPRAY year after year. Beauty and color will last and look fresh without the cost and difficulty of repainting.

Your Glidden representative has complete specifications or he can arrange a demonstration, on new SOLO SPRAY.

SOLO SPRAY hides most defects — tape joints, patches, etc. Covers drywall, wood, metal, plaster. Finishes doors, shelves, cupboards, and all trim in one operation.

**GLIDDEN COATINGS & RESINS • ARCHITECTURAL & MAINTENANCE FINISHES  
CLEVELAND, OHIO 44115**

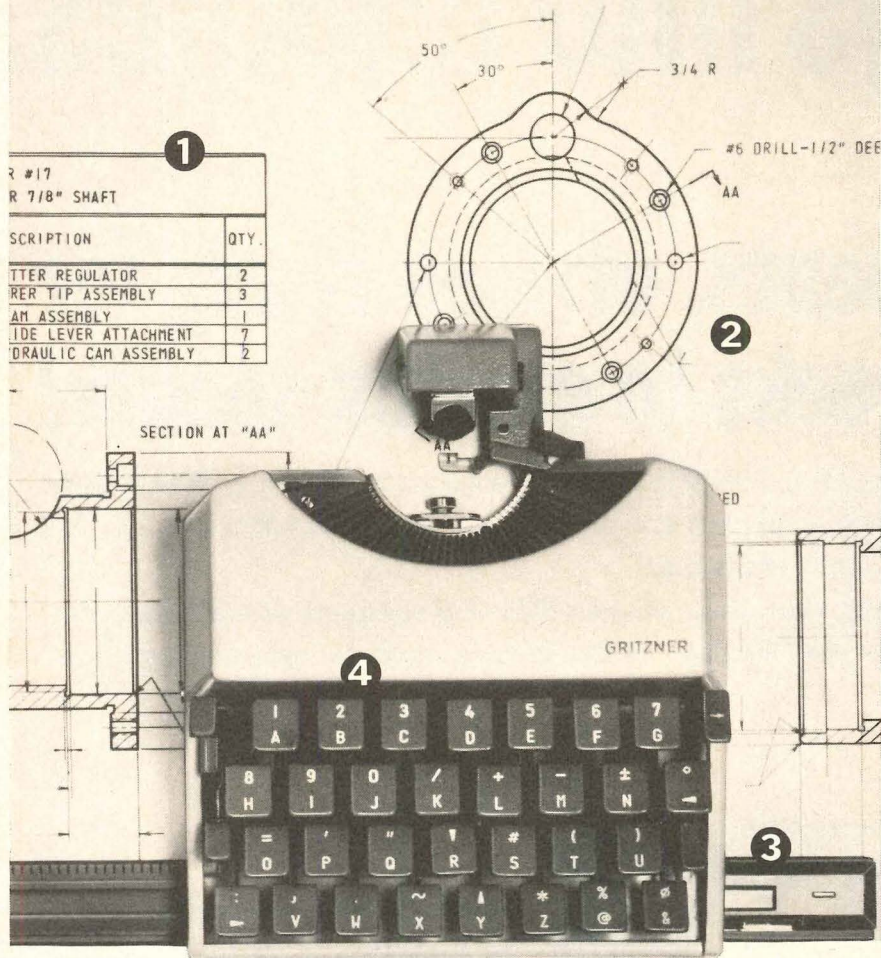
**SCM** SCM CORPORATION



On Readers' Service Card, Circle No. 347



**Twice as fast as hand lettering!**



## New GRITZNER Precision DRAWING BOARD TYPEWRITER

Types uniform nomenclature and dimensions with typewriter-quality letters, numerals and symbols. Block letters comply with Mil. Spec. 100-A, erase easily, reproduce well in microfilming, diazo and other reproduction methods. Speeds fill-in work, allows more time for drawing. Tested averages show the Gritzner lettering technique is 1.75 times faster than hand lettering, 3.5 times faster than stenciling.

- ① Sets up quickly right on your drawing board, types directly on all drafting surfaces, including film . . . horizontally or at any angle.
- ② Spaces automatically along indexing rail. Each strike of a key shifts typewriter to next precise letter position. Indexing rail fits standard drafting machines or can be held against T square or parallel bar.
- ③ Letters are in alphabetical order. With brief orientation, any draftsman can easily use the Gritzner typewriter without conventional typing skills. Special symbols available. Typewriter is 6" x 7" x 3" overall. Suggested retail price, \$300.00.
- ④

Write or phone today for comprehensive brochure and name of your Gritzner dealer.

## GRITZNER GRAPHICS

### East of the Mississippi

3127 Colvin St.  
Alexandria, Va. 22314  
(703) 549-3434

### West of the Mississippi

620 South 7th St.  
Renton, Wash. 98055  
(206) AL 5-8656

On Readers' Service Card, Circle No. 349

(Continued from page 114)

could be called formal. But he leaves us with only a fragment of the story (as he says deKooning's paintings are fragments in the great modern tradition). The story of Pollock and deKooning as painters — not action painters but painters — must be told in its full dimension, and that includes the struggle with form both men undertook. Late Pollock paintings and recent deKoonings clearly indicate that they had worked toward an articulation of form which was, precisely, modern. These new forms, which require different kinds of measurement by the eye, and which determine differences in space apprehension, and which have a lot to do with the accurate description of surfaces not perceived by previous artists, have to be identified and discussed by the critic who wishes to understand "the activity that engages the entire being of individuals." Rosenberg wills action painting to be open, but the painter in deKooning wills a closure, a definition that takes its meaning from the way he dispels the forms in his paintings.

Rosenberg's oversights though are never important. His perceptions of the whole organism are what mark him as the outstanding cultural critic addressing himself to the problems of the visual arts. I would say that there could be no balanced view of the past twenty years of painting, sculpture and their offshoots, without the prominent presence of Rosenberg's criticism. The narrow confines of most art criticism renders it useful only when added to the broader genre of cultural criticism in which Rosenberg is the indisputable master.

## Gothic Europe

By Sacheverell Sitwell

Holt, Rinehart and Winston, New York, N.Y. 192 pp., 8 color illustrations, 160 black-and-white illustrations. \$11.95.

Reviewed by Walter Kidney,

The reviewer is a former Associate Editor of P/A.

It is not really unkind to say that from a Sacheverell Sitwell book one seems to learn as much about Sitwell as about his subject. True, his personality tints, and for that matter distorts, his theme. He is not pretending, however, to "cover" the sub-

(Continued on page 133)



(Continued from page 128)

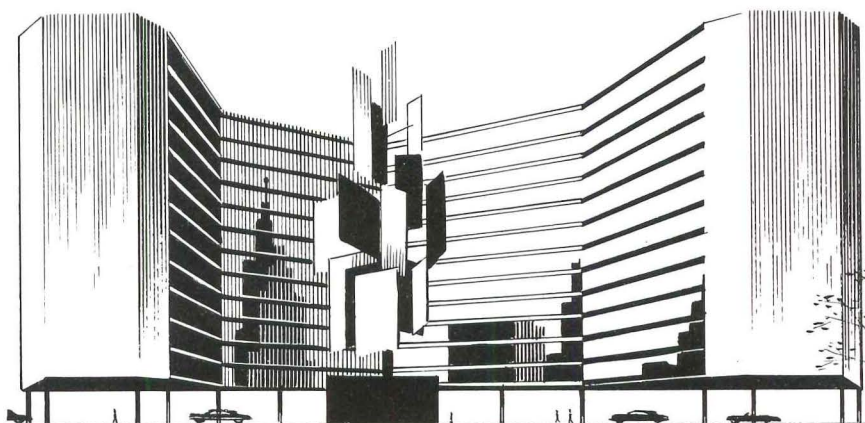
ject; his method, rather, is to freshen it up by bringing to it his experiences, his mental associations (sometimes very personal ones), and the fragments of knowledge he has gathered here and there. Since his range of experience is a very rich one, and since he writes remarkably well, his public willingly does without a complete coverage of the subject, which after all can be found, often with greater accuracy, in other books.

Anyone who wants to know all about Gothic architecture, then, had better go elsewhere: to the appropriate Pelican history, or to John Harvey's *The Gothic World*, or even to Viollet-le-Duc's *Dictionnaire* of a century ago. Sitwell's Gothic is old-fashioned aesthete's Gothic—not ethical and rational construction, not a jungle gym of forms and symbols for art historians to clamber nimbly over, not even a crystallization of and witness to the True Faith, though structure, symbolism, and religious feeling have a part in his account—but an affair of lively silhouettes and forms in the sunlight, of motifs, and patterns, and colors, creating wonder and delight in the Here and Now and inviting empathy with the natives of the There and Then that had the spirit to contrive these things. The choice of monuments is personal and subjective, just as it is, for instance, in the guides that Ian Nairn is writing, but the presentation is done in a gentler manner, one that might be termed neo-Victorian. The words flow comfortably and a little oddly, now describing a detail in a perfectly objective way, now comparing, for instance, a red sandstone cathedral\* to the dark red engines of the Midland Railway running from St. Pancras in the Edwardian period. The odd bits of knowledge and the fragments of personal reminiscence crop up constantly. Seeing a medieval Arcadia in southwest England, he remembers reading about "the Kingston 'black apple', from which a dark or even blood-red cider was produced; 'and it was the custom till within the last few years for rustics on Christmas eve to go to every orchard and sing to the apple-trees to make them abundantly fruitful.' " And he relays to us that, at All Saints Pavement, York, a "lamp was hung at nightfall as a beacon for travelers on their way to the city through the for-

(Continued on page 136)

Coming soon:

## Weath·R·Proof



### A New Name in Insulating Glass

**A New Product** in the insulating glass field, Weath-R-Proof has been under extensive research, development and testing by Thermoproof Glass Company since 1965.

**A 20 Year Warranty** stands behind each Weath-R-Proof unit . . . an expression of our confidence in a product manufactured with innovative techniques and the finest materials.

**An Established Company** in the insulating glass field, Thermoproof Glass Company is large enough to handle monumental glazing jobs . . . small enough to be personal.



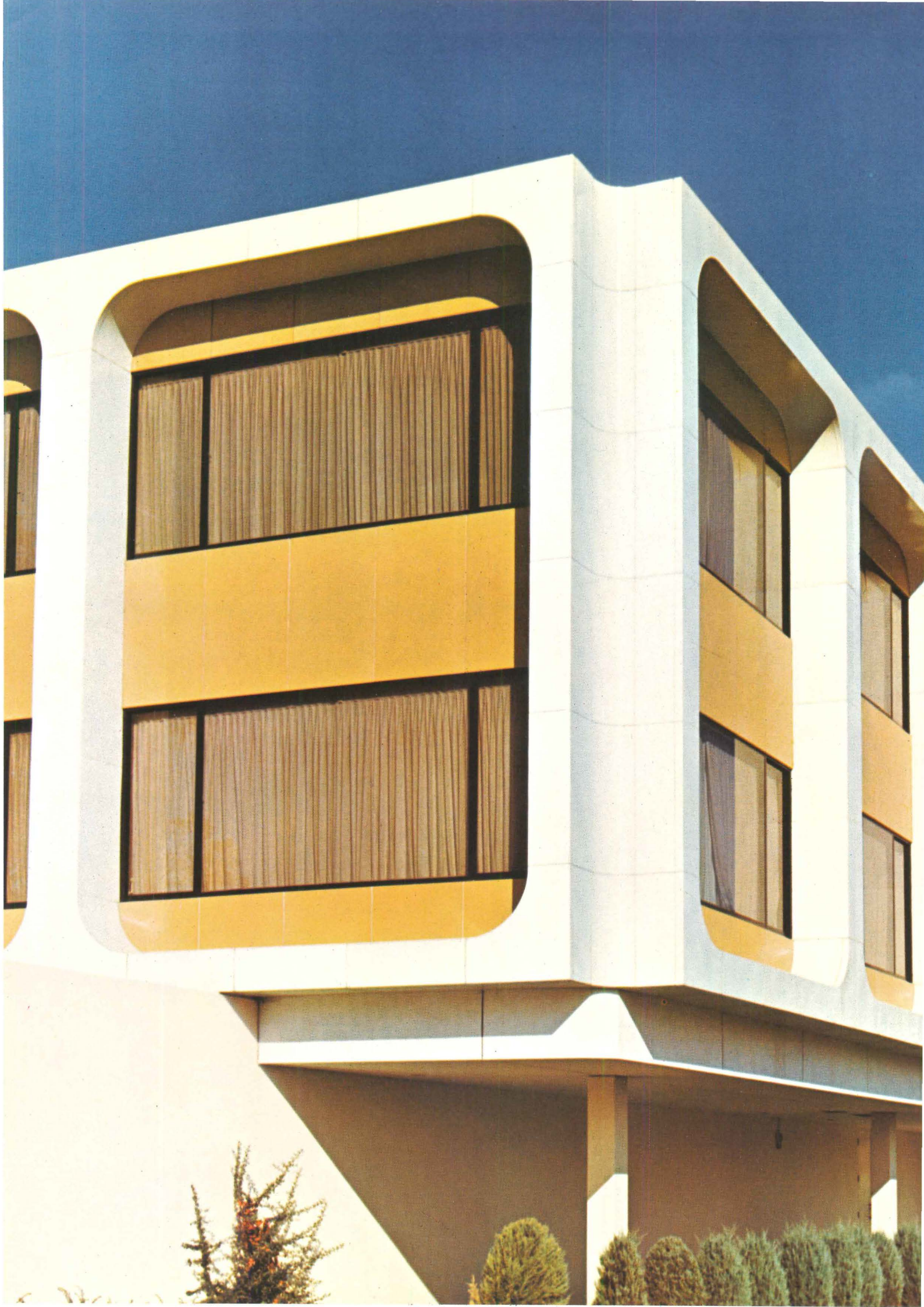
**Weath·R·Proof** made more ways to fit more ideas  
INSULATING GLASS

Full color insert in Sweet's <sup>4a</sup>/<sub>Th</sub>


Thermoproof Glass Company—4815 Cabot Avenue—Detroit, Mich. 48210  
Subsidiary of Shatterproof Glass Corporation

On Readers' Service Card, Circle No. 383









# can this really be porcelain-enameled steel?

every graceful square foot of it.

This entire facade (except of course for the glazing) was created in porcelain-on-steel panels. Notice how steel's versatility permitted graceful contouring and sculpturing to carry out the desired architectural expression.

Porcelain-enameled steel panels can be designed in a wide variety of embossments, textures, and shapes. On the practical side, they offer rigidity, light weight, corrosion resistance, cleanliness, and long-range economy.

Bethlehem furnishes special enameling sheets to fabricators who form and coat architectural panels. Colors run the full range of hues, including the new matte-finish Nature-tones which harmonize with the soft understatement of Nature herself. Let us send you a copy of the Porcelain Enamel Institute's brochure on Nature-tone finishes. Bethlehem Steel Corporation, Bethlehem, PA 18016.

**BETHLEHEM STEEL**



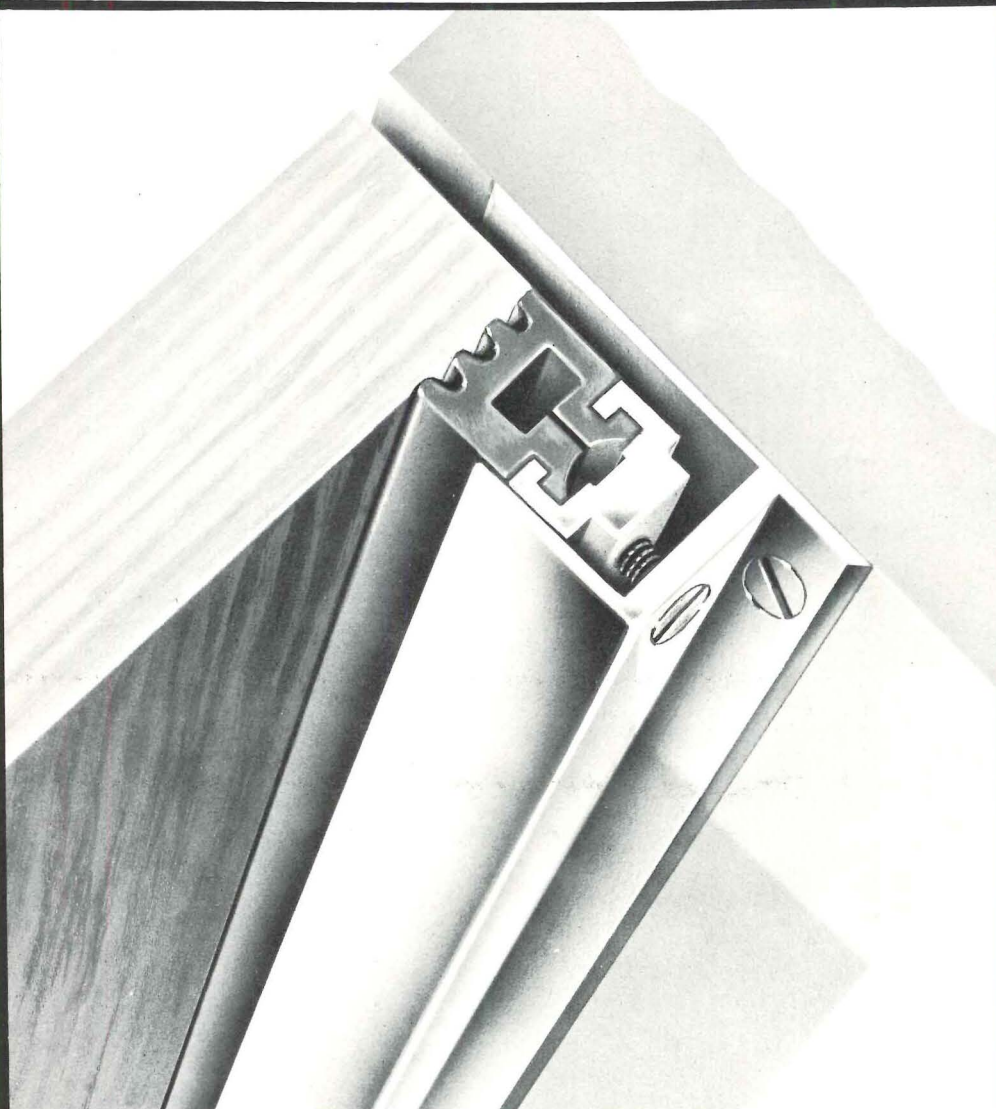
Office Building, Manchester Insurance Group, Creve Coeur, Mo.  
Architect: Jerome Samuel Peters, Brentwood, Mo.  
Structural Engineers: Lapin-Ellis-Dabler, Inc., St. Louis, Mo.  
Porcelain Enamel Manufacturer:  
Rittiner Industrial Enameling, Bay St. Louis, Miss.







## Weather-Stripping Sound-Proofing Light-Proofing Thresholds



Adjustable Sound Proof Door Stop #170

ZERO #170 Adjustable Door Stop shown above is only one of 177 full size drawings to be found in the new 1970 catalog. Write for your copy today.

Our 46th year of service to architects.

**ZERO WEATHER STRIPPING CO., INC.**

415 Concord Avenue, Bronx, N. Y. 10455

(212) LUdlow 5-3230

(Continued from page 133)

est of Galtres.'” Again: “Twice in my life I have heard the *hejnat* — the fanfare from the high tower, blown at every hour in the four cardinal directions, and stopping in the middle where the Tartar arrow killed the trumpeter — in Cracow where Dr. Faustus studied in the schools of magic.” Or of Seville: “Perhaps in this city of the *sequidilla* and the *sevillana* it is only to be expected that there should be dancing with castanets before the high altar.” One intriguing side issue that crops up here and there is the symbiotic relation of the nineteenth century to the Gothic as we know it. Victor Hugo (in *Notre-Dame de Paris*), Balzac and Dore (in the *Contes Drolatiques*), and Viollet-le-Duc in his writings, sketches, and restorations, created a Gothic that was at least partly illusionary but that had a wonderful vitality of its own and that has perhaps conditioned our view of the “real” thing. Indeed, Sitwell cites an article asserting that the famous grotesques of Notre Dame (including the pouting Stryge, shown on the jacket) were made up out of whole cloth by Viollet-le-Duc around 1850: accepted by almost everybody as true Gothic, they are really magnificent pieces of pastiche art replacing the originals that had been destroyed a hundred years before.

More specifically, the book is divided into halves. The first of these deals with English Gothic — towers, cloisters, fan vaults, roofs, flushwork, etc. Characteristically, Sitwell approaches the theme of the tower in a leisurely manner, with references to medieval England and medieval building, and a tour through the landscape of one of Breughel’s impressions of the Tower of Babel.

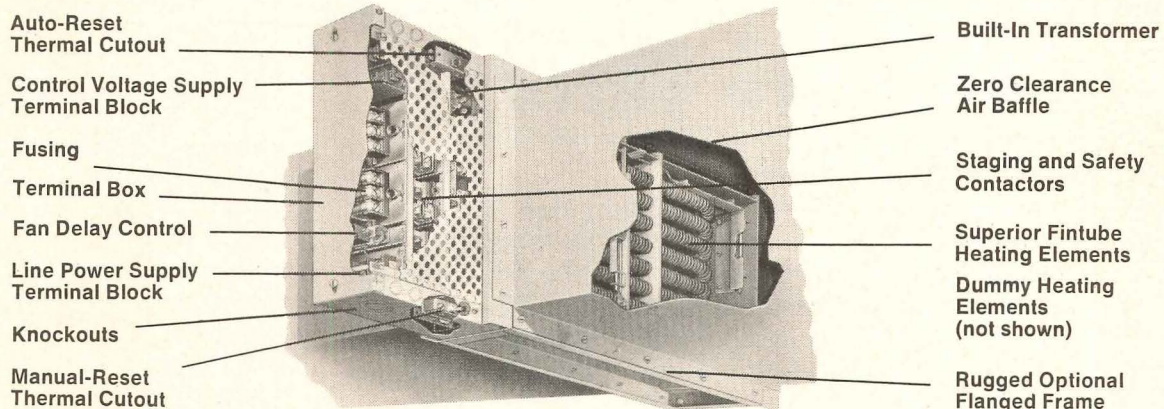
Most of this first part concerns architecture, but it ends with a chapter on *opus anglicanum*, the rich appliqué work on ecclesiastical vestments that was highly prized all over Europe. The second section begins with a “fantasia on the Gothic,” then goes on to describe the Gothic of Germany, France, Italy, Spain, and Portugal, with a chapter on Tapestries, and ends with a “charivari of the Gothic,” which deals, surprisingly, with architecture in North Africa and the Near East.

*\*He abominates red sandstone, which puts him at odds, more or less, with cathedrals of Worcester, Lichfield, Freiburg-in-Breisgau, and Strasbourg, as well as with the Lorenzkirche in Nuremberg.*

(More Book Reviews on page 138)



# The most versatile line of electric duct heaters



**Chromalox® electric air duct heaters** meet your precise requirements for frame sizes, heating capacities, power needs and duct variations. You have over 10,400 standard models to select from.

Use Chromalox electric duct heaters for primary heating, supplementary heating, preheating or reheating in a central trunk duct or in branch ducts of forced air systems.

All Chromalox duct heaters are factory assembled and use fast-acting Chromalox Fintube® metal sheath heating elements. All units are equipped with built-in, automatic-reset and manual-reset thermal cutouts that meet U.L. and N.E.C. requirements. Full line of optional factory-installed controls available.

Ask your Chromalox representative about these versatile duct heaters. Or write directly for our 24-page Design Manual F40102.



**EDWIN L. WIEGAND DIVISION**  
EMERSON ELECTRIC CO  
7748 THOMAS BLVD. PITTSBURGH, PA 15208

WSP-111





Need Labeled Rolling Fire Shutters to protect service counter openings in Fire Walls? Just build the walls around

## CORNELL LABELED SHUTTER PACKAGED UNITS

- Carries Underwriters' Laboratories 1½ Hour "B" Label
- Equipped with automatic closing

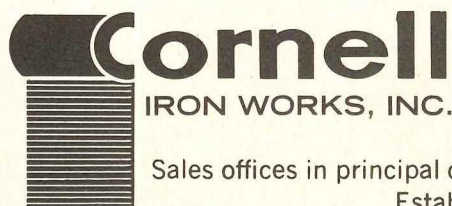
Save time, money and assure yourself first class installations. Units are completely factory assembled, with all members rigidly welded in a rugged unitized frame, ready to be built into the wall at the jobsite. They are custom fabricated to exact wall thickness, making a tight, one-piece installation permanently anchored into the wall by masonry anchors. The one-piece construction eliminates all separate sheet metal frame members which may loosen in service.

Attractive 1¼" flatslat curtains in a choice of stainless steel #302/304, ground and polished to a satin finish, or galvanized steel with standard baked enamel finish.

Installation and service throughout 50 states and Canada.

Rolling Metal Doors and Shutters / Rolling Metal Fire Doors /  
Rolling Metal Grilles / Flexible Sliding Grilles / Pass Windows

Write for illustrated catalog.



Crestwood Industrial Park  
Wilkes-Barre, Pa. 18707

Sales offices in principal cities in United States and Canada  
Established 1828

On Readers' Service Card, Circle No. 398

(Continued from page 136)

### Towns and Buildings

By Steen Eiler Rasmussen

*The MIT Press, Cambridge, Mass.,  
203 pages, \$2.95.*

Reviewed by Walter Creese

*The reviewer is Professor of Architecture at the University of Illinois (Urbana).*

This is a serious and hopefully lasting essay, delineated by charm. The MIT Press has for some while been reprinting "modern classics" and surely here there is no misnomer. The date of first publication in Danish of 1949 signifies its earliest motivation. It embodies one of those rare moments in the 20th Century where there is open acknowledgement that architecture and planning are affirmative representations of the impulses of human intellect, and this process should not be drudgery. Coming after the hurt and stress of World War II, the mood is not only retrospective, but expansive. Professor Rasmussen never lets us forget that the finest manifestations in a city, whether a huge square or a single building, arise from many and diverse factors — art, science, climate and politics — yet he never ignores the necessary ties of custom and place, and the unique nostalgia and fragrance of memory that arise from that specific condition.

We roam through Peking, as well as Rome, Paris, London, Turin, Copenhagen and Amsterdam; he goes as he pleases; we visit the ideal cities of the Renaissance, the villa, the banlieues, and our guide is ever willing. He understands the British so well, as was also demonstrated in that earlier Rasmussen masterpiece, *London: The Unique City*. In *Towns and Buildings*, in the chapter entitled "A Tale of Two Cities," comparing and contrasting London and Paris, in its own place, indeed we welcome the experience. In the same manner, we are not offended but pleased that a description of European cities begins with a description of Peking. It is this slight offbeat that captures the attention in exposition and illustration. The reprint gives a richer and blacker tone to the many line drawings than even the original edition. One senses this, especially in the tiny marginal vignettes, such as "Etched sketch by Claude Lorrain," or "The medal struck to commemorate the laying of the corner-stone of Charlott-

(Continued on page 144)



# BURKE-ACTON

## THE ACTON SLED

Polished and chrome plated runners glide with ease on all carpets. A torsion-bar structure allows tilting motion for seating comfort. The discipline and restraint basic to Hugh Acton designs promote order and harmony. The sled base chair is an evolutionary response to carpet and human requirements.



DIVISION, TARTAN CORPORATION

5140 N. WESTMORELAND • DALLAS, TEXAS 75247 • (214) 631-2880

On Reader Service Card circle No. 310



Natural beauty and rugged strength—  
heightened by concrete with **POZZOLITH**







The Blue Cross-Blue Shield Building on Chicago's Wacker Drive stands as a striking contribution to the city's famed skyline. Imaginative

forming, exposed aggregate textures, and coloring to earth tones add architectural interest inside and out.

The cast-in-place concrete structure is a nearly-square 15-story tower. Its dominant horizontal lines are bonded by twin pilasters rising from ground to above roof level on all four faces. Fluted walls and waffle slabs punctuate the surfaces and blend the warm concrete with the wood, tile and floral accents.

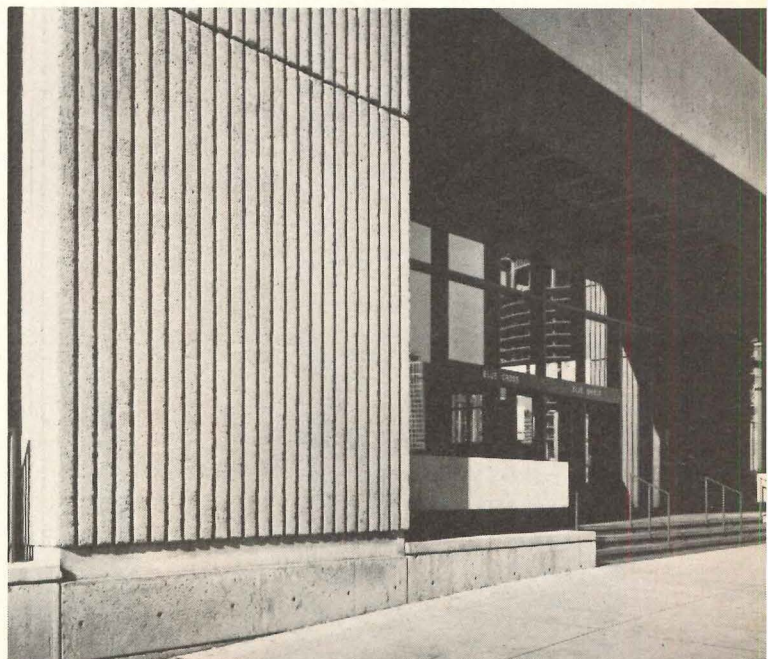
As in most major concrete structures, *POZZOLITH* was the admixture specified and used. It aided in rapid strength development for fast reuse of forms. By improving workability, *POZZOLITH* helped achieve better consolidation in the forms. The result is a virtually blemish-free surface of outstanding appearance.

Once again, *POZZOLITH* delivered its many benefits where performance counts — on the job. That's why, over the years, *POZZOLITH* has earned the name "The Performance Admixture." Your local Master Builders field man can show you how *POZZOLITH* can enhance the concrete for your next job. Call him, or write Master Builders, Cleveland, Ohio 44118.

***POZZOLITH***\*  
manufactured by  
***MASTER BUILDERS***

\**POZZOLITH* is a registered trademark for *MASTER BUILDERS'* water-reducing, set-controlling admixture for concrete.

Owner: Hospital Services Corporation. Architect & Engineer: C. F. Murphy Associates. General Contractor: Paschen Contractors, Inc. *POZZOLITH* Ready-Mixed Concrete: Vulcan Materials Co., Mid-West Division.





# BREAKAGE and SUNLIGHT... a DISPLAY WINDOW'S TWO WORST ENEMIES!

## Conquer Both Hazards With Protectopane U-V!

Breakage and sunlight, a display window's two worst enemies, leave store owners vulnerable to property destruction. Breakage can result in expensive window replacement and loss of merchandise; sunlight can fade expensive display material making it worthless for re-sale. Either way, destruction cuts into profits and store owners lose money!

This needless waste can be avoided with Protectopane U-V! This new glass, specially created for store front windows, provides break-through protection *and* prevents fading due to ultra-violet light!

Protectopane U-V features a clear vinyl interlayer which acts as a repellent to ultra-violet light—lets through only 1% of the ultra-violet rays in the critical region of 380 millimicrons and below; whereas  $\frac{1}{4}$ " clear plate glass transmits about 52% of these harmful rays! Protectopane U-V provides color fast protection for draperies, paint, furniture, clothing and other articles behind the glass.

Protectopane U-V is almost totally impervious to break-through. Repeated heavy blows may break or crack the glass, but will not cause it to easily shatter or fall out.

Provide a double shield against display window property destruction! Write Dearborn today for complete details and specifications on Protectopane U-V!

**DEARBORN GLASS COMPANY**  
6600 South Harlem Avenue • Argo, Illinois 60501



*When It Comes To Glass — Come To Dearborn!*

**Protectopane®**



LISTED  
BURGLAR  
RESISTING  
GLASS



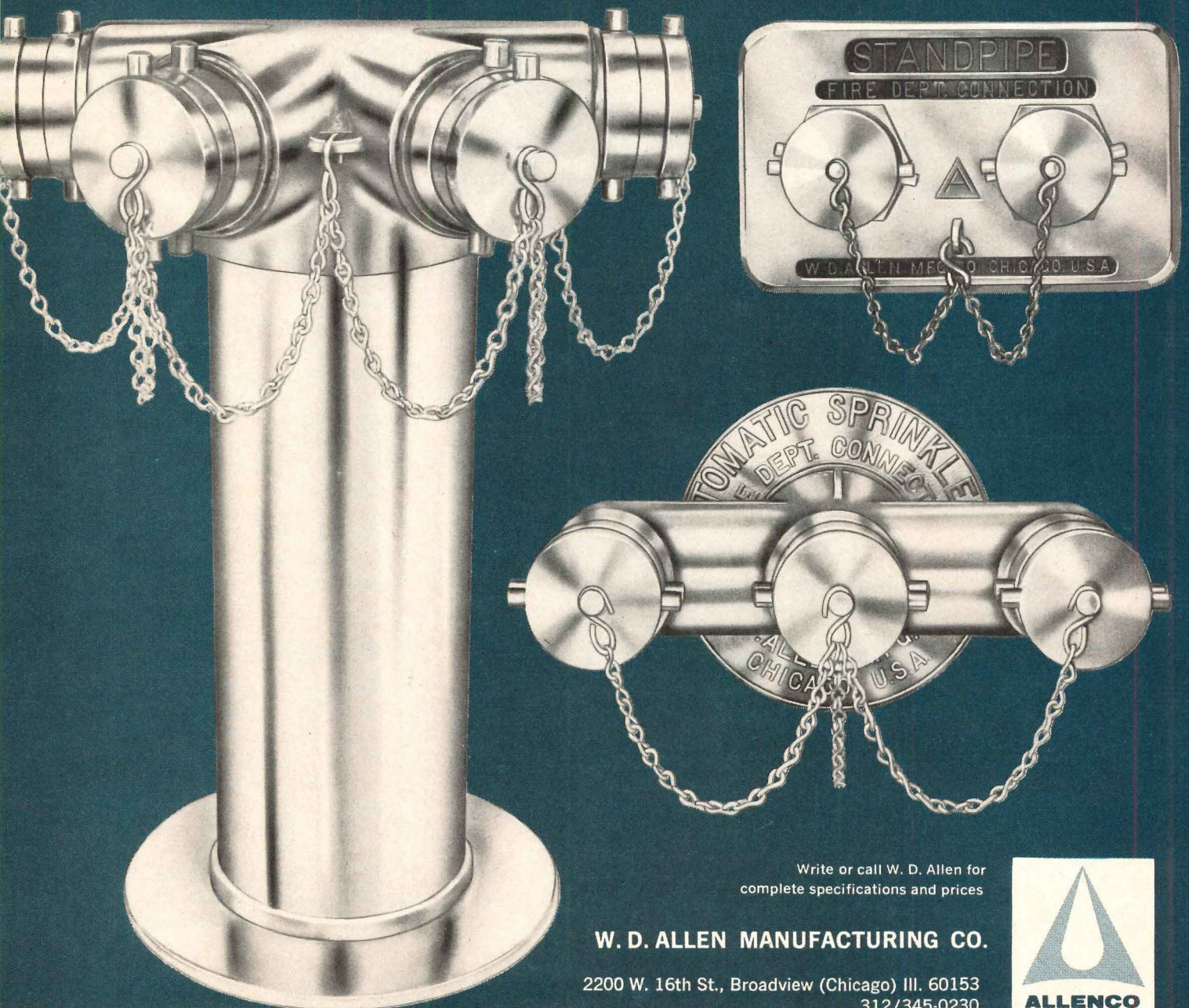


Strange in shape...distinct in design...diverse in size, but all are called siamese. Those pictured below are representative of 21 different models manufactured by W. D. Allen.

Siamese connections come in rough or polished brass and chrome plated finish. Designs for sidewalk and wall installation...available with 2-way, 3-way and 4-way connections.

You can specify the 4-way connection only from W. D. Allen. There is no type siamese that we do not make.

Specify W. D. Allen siamese and be safe.



Write or call W. D. Allen for complete specifications and prices

**W. D. ALLEN MANUFACTURING CO.**

2200 W. 16th St., Broadview (Chicago) Ill. 60153  
312/345-0230







# WILL YOUR CLIENT'S ROOF BECOME ONE BIG SPONGE?

**NOT  
IF YOU  
SPECIFY  
FOAMGLAS  
INSULATION**

FOAMGLAS is waterproof. It can't get wet from roof leaks or vapor inside the building. It provides a solid base for built-up roofing, too, because it's dimensionally stable and has high compressive strength. And FOAMGLAS is the only insulation guaranteed for 20 years.

Write for more information and a copy of the guarantee. Pittsburgh Corning Corporation, Dept. PP-30, One Gateway Center, Pittsburgh, Pa. 15222.



On Readers' Service Card, Circle No. 373

(Continued from page 138)

tenburg, ca. 1672," (an antiquarian delight?), or "Paris restaurant. It is located in one of the old buildings in the Place Dauphine from the time of Henri IV. The restaurant is tiny but in its almost microscopic kitchen a long list of delectable dishes are conjured forth. . ." Has anyone ever been so historically cavalier with visual footnotes? The point of the author seems to be that unless the reader can take time and indulge a passing delight in things, he should not bother.

The delight is juvenile only in that it is glad and joyful. The author puts it best himself in explaining the novel illustrative effect he is seeking. He normally employs the elevation, the section and plan, observed in perspective projection, on a single page at 1:2000 scale for each building, 1:20,000 for whole cities. He assures us that, "Even children like it. They love to see 'what is inside' and can imagine themselves walking about the rooms of the building." It presents itself like "a doll's house." The doll-like precision and splendor of the many illustrations, the interrelation of all plans, outdoor and in, the very title, "Towns and Buildings," make it obvious at last what the book is chiefly about. It is an integrated thesis on the Baroque outlook, open-ended enough to include the Renaissance beforehand and the 19th and 20th Centuries thereafter. It is therefore a coordinated pleasure, while cleverly avoiding the distasteful artificiality and exclusiveness that the baroque period sometimes invokes. When Professor Rasmussen takes up the monuments and palaces of the smaller countries such as Holland and Denmark, or the city of Stockholm, the Baroque becomes even slightly humane. Few can write as well of architecture, beginning for the high school student really, and carrying on ever after.

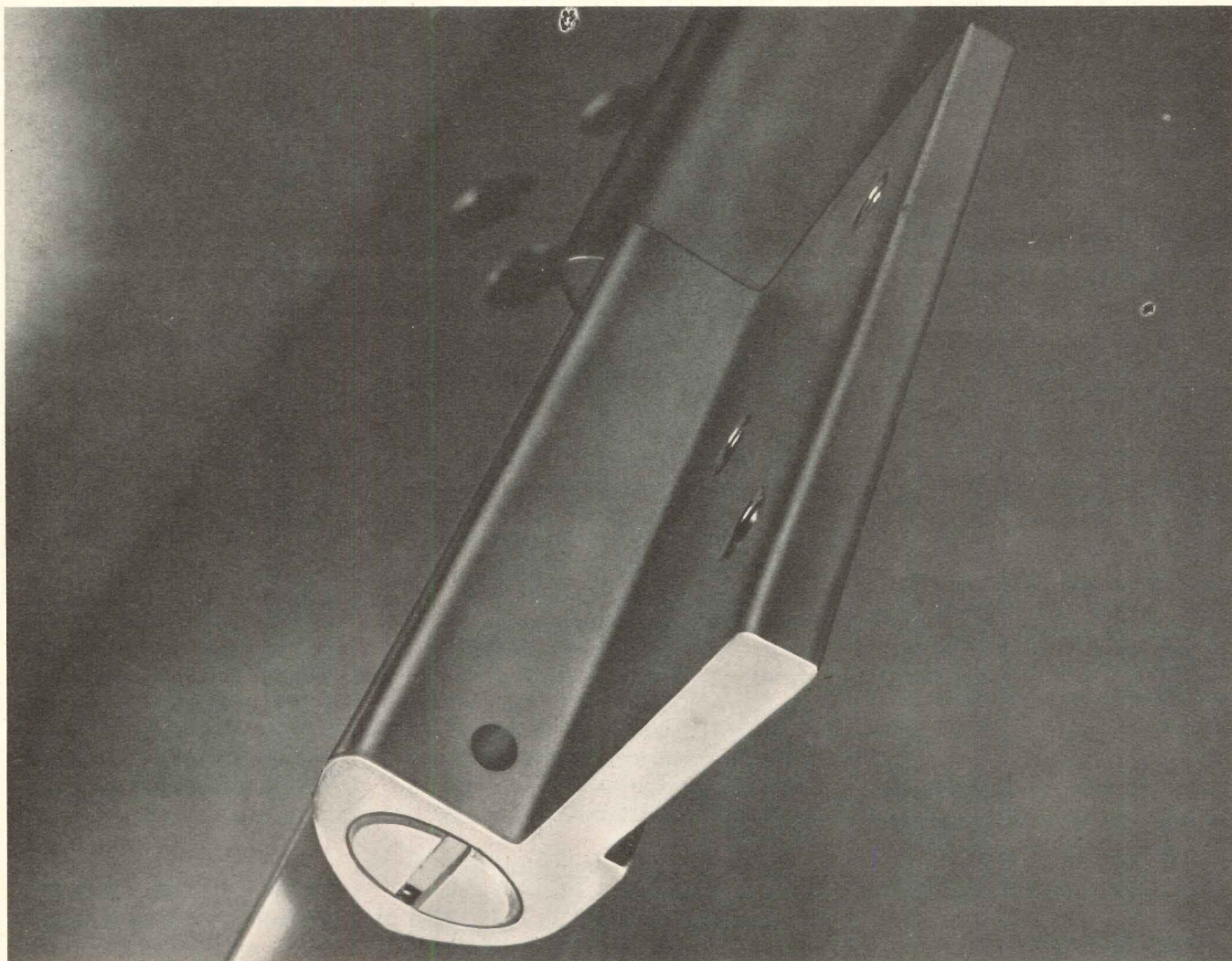
## Obituaries

Architect Ernesto Rogers died near Milan on November 7, 1969. He was best known as the reviver and editor of the distinguished Italian journal *Casabella*, a post he held since 1954, and was one of the foremost leaders of the architectural *risorgimento* in postwar Italy. Born in Trieste in 1909, Rogers graduated from the University of Milan in 1932, at the

(Continued on page 146)



# Confidential.



## The secret of Natcor's patented Adjustable Butt Hinge is just a little thing.

But little things do mean a lot. Case in point: This beautifully designed patented, ball bearing hinge has a little something extra that means *quite* a lot: the set screw in the lower half of the hinge.

Natcor doors come to the job site with the hinges adjusted for perfect clearance and alignment in normal installations. If, however, the installer should run into any kind of special installation problems, he can change the clearances by simply loosening the set screw and raising or lowering the door as required.

We put a little something extra into everything we make. That's the secret of Natcor *quality* . . . and *quality* is never a little thing at Natcor.

For full information on Natcor's complete line of doors and entrances, see our catalog in Sweets, or write:



**THE NATCOR COMPANY**

SINCE 1920

P.O. BOX 9321, NASHVILLE, TENNESSEE 37204

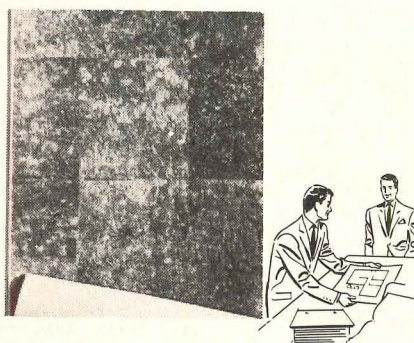


# The "or" in "or equal" usually ends up in... "inferior"

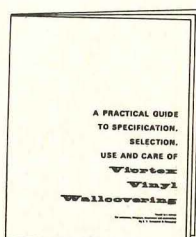
Those two words — "or equal" — in your specifications section can lead to considerable disappointment in a finished project. Particularly in vinyl wallcoverings. A moment of inattention, a persuasive salesman, a rash attempt to save a few dollars and you agree to a substitute for Vicrtex. Sometimes, the substitution is even made without your knowledge.

There's only one way to guarantee that you get superior stain-resistant finishes, attractive textures, unique patterns and lustrous colors of Vicrtex vinyl wallcoverings. By tight specs and double-checking along the way.

✱ If you know enough  
about vinyl wallcoverings  
to specify VICRTEX,  
make sure you get Vicrtex.



Write today for our helpful booklet: "A Practical Guide to Specifications, Selection and Use of Vinyl Wallcoverings."



**L E CARPENTER  
AND COMPANY**



**A DAYCO  
COMPANY**

964 Third Avenue, New York 22 • (212) 355-3080

On Readers' Service Card, Circle No. 339

(Continued from page 144)

height of Mussolini's power. The modern movement was not yet officially impeded there when Rogers, as a member of the BBPR Group (including Banfi, Belgioioso, and Peressutti) won universal acclaim for the Sanatorium at Legnano (completed 1938), designed as a sun treatment center for Milanese children. Rogers continued to work in Milan with the same group, which undertook a "Monument to Those Fallen in Germany" as one of their first projects after the war. This understated open-frame cube (a Greek Cross in plan, sections, and elevations) combined the Italian Renaissance genius for mathematical order with a thoroughly modern aesthetic. Black and white marble panels were disposed neoplastically around the outside perimeter, while a glass box containing a prisoner's bowl of earth from the notorious camp at Mauthausen occupied the center, framed irregularly in a tangle of barbed wire. The group's later work included interior remodeling for the museum at Castello Sforzesco (1952-56), the circular United States Pavilion and the children's maze for the 1954 Milan Triennale, and the well-known, medievalizing Torre Velasca, also in Milan (1957).

Rogers was an active participant in CIAM, serving as an editor of the 8th Congress publication on *The Heart of the City*. His comments during this conference reflected an *als ob* philosophy toward the architect's role. "I don't think the discussion is between eternal art and temporary art," he claimed. "We must always work as the Latins said — as though our work will be eternal. Never mind if it is not. I, myself, think it should not be. But each time we draw a line, we ought to do it as though it were forever."

His great pride in the architectural heritage of his country was tempered by an intelligent flexibility. "Blind destruction and passive conservation," he felt, "... are the results of an equally arid mentality. They are moral sins."

Rogers was a strong proponent of the public plaza as a "center where liberty consummates itself and explains itself. The mistake has often been made of destroying old centers, rich in spiritual tension, in order to resolve banal traffic problems; because the intensity of traffic has been

(Continued on page 156)

# A Research of Open Stage Design



**AVAILABLE NOW, WITHOUT  
CHARGE, TO INTERESTED  
ARCHITECTS**

This research report, a 68 page illustrated booklet, is the result of over two years of exploration of Open Stage elements—overall size, platforms, wall, floors, ceilings, seating slopes, lighting distribution and lighting control.

This is how we became experts in the design of stage lighting and lighting control systems, by knowing all of the factors unique to this type of school, restaurant and community theatre staging. Write today for this helpful report, our Bulletin 126.

# HUB

ELECTRIC COMPANY, INC.

940 INDUSTRIAL DRIVE  
ELMHURST, ILL. 60126

On Readers' Service Card, Circle No. 355





*Marquette Manor, Cincinnati, Ohio; H. M. Garriott & Assoc., Arch.; Frank Messer & Sons, Inc., Gen'l Cont.; The Nurre Co., Dist.  
(all in Cincinnati, Ohio)*

There's no secret to the benefits builders everywhere are discovering about the time-and-money saving qualities of Thoroseal plus Acryl 60. Brush on two coats of this cement-base coating (as they did in this Cincinnati apartment) and the rough, concrete surfaces are filled and sealed, decorated and waterproofed for as long as the building stands—and in a beautiful color choice, too. Write for further details and specifications about Thoroseal and its uses.

# STOP RUBBING CONCRETE!

***THOROSEAL finishes and waterproofs masonry with amazing speed at a fraction of the cost!***



S T A N D A R D   D R Y   W A L L   P R O D U C T S ,   I N C .

DEPT. 70-PA-1 • 7800 N.W. 38TH ST. MIAMI, FLA. 33166

On Readers' Service Card, Circle No. 409

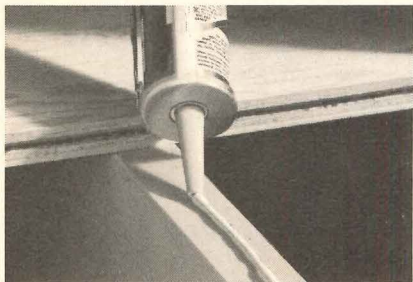






# Shhh.

## American Plywood Association quietly announces the no-squeak floor for commercial buildings.



The APA Glued Floor System began in the home.

Now it's being specified for townhouses, apartments, schools, and all kinds of commercial buildings.

The system consists, simply, of glue-nailing a single layer of tongue and groove plywood to wood joists.

Floor and joists are fused into a T-beam unit. The entire floor is stiffer, and joist size can often be reduced.

Properly constructed, the system can eliminate squeaks because the glue rather than nails carries the stress. That keeps floors quiet.

### Other advantages:

No nail pops.

No callbacks.

Single-layer construction.

Longer spans with the same size joist.

All-weather application capabilities.

Reduced nailing schedule (by 25 percent).

Less deflection.

Big savings in labor and materials.

Quite a set of claims? Yes.

But we've got the facts, figures and APA test results to back them up. New how-to photos. Diagrams. Span tables and charts. Case histories. DFPA plywood grade-use guides. Glue recommendations and supplier lists. And a new laboratory report from APA Technical Services Division. Send the coupon.

The no-squeak floor is just one more example of the dozens of timesaving, efficient building systems developed by American Plywood Association. You can depend

on it. Just as you can depend on the DFPA grade-trademark on plywood. That means it meets the rigid standards of the oldest quality-testing program in the forest products industry. American Plywood Association.

**American Plywood Association, Dept. CM  
Tacoma, Washington 98401**

☐ Can you really keep floors from squeaking? Prove it. Please send me all the facts, including lab report 118.

Name \_\_\_\_\_

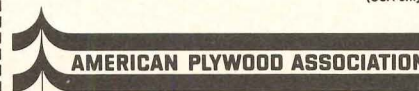
Title \_\_\_\_\_

Firm \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_ (USA only)



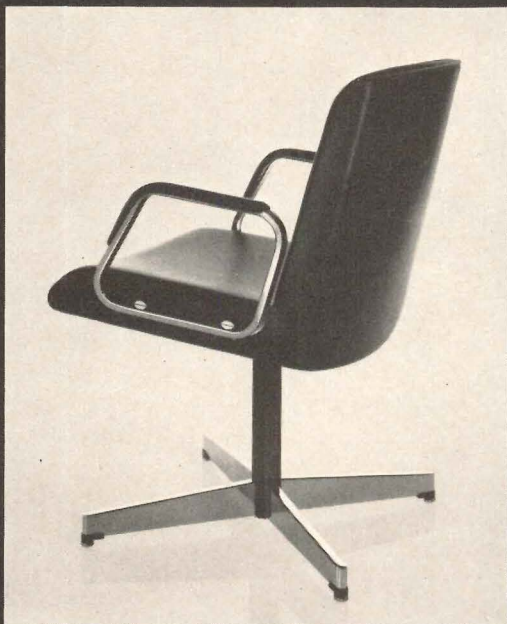
Plywood quality-tested by the Division for Product Approval.

PA-030





**HARTER**  
**MSH**  
**900 SERIES**



New MSH seating by Harter. Superbly crafted yet modestly priced. (And even more comfortable than they look!) Available in 6 swivel and conference models. Now on display at Harter showrooms in New York, Chicago, Denver and Los Angeles. Send today for MSH brochure.

Model MSH 911 Swivel Chair: 1st Award, 1969 IBD Honors Awards  
Design: Wayne W. Good, Stuart John Gilbert, IBD/IDSA



**HARTER CORPORATION**

317 Prairie Avenue  
Sturgis, Michigan 49091

Please send me the MSH 900 Series seating brochure.

Name \_\_\_\_\_

Firm \_\_\_\_\_

Address \_\_\_\_\_

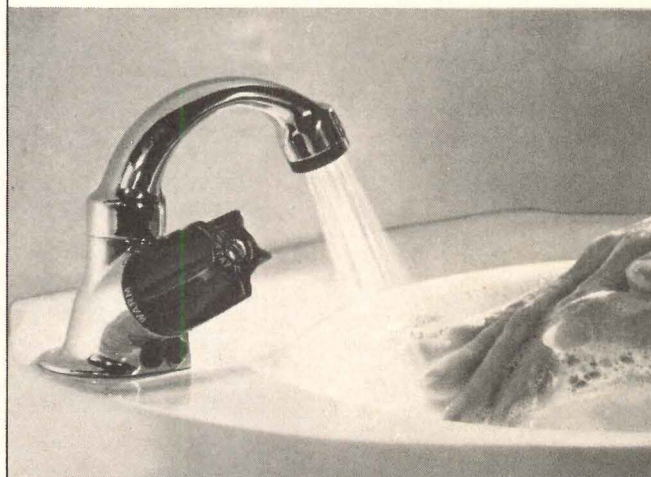
City \_\_\_\_\_

State \_\_\_\_\_

Zip \_\_\_\_\_

On Readers' Service Card, Circle No. 351

**Unatap uses its head  
to get your hands  
hygienically clean.**



**And saves hot water  
in the process.**

Unatap was scientifically designed to wash hands with a hygienic spray of water. A spray that is steady, concentrated. Yet Unatap does something else—it conserves water. In one test, it actually reduced hot water usage by 60%.

Unatap is a single tap which mixes hot and cold water and delivers a constant spray at the temperature you select. Result: more efficient hand washing. No waste of hot water.

Unatap is operated with the flick of a wrist. Its single control knob permits the user to operate the faucet and set the temperature simultaneously.

Don't leave the faucets to chance. Make a point of specifying Unatap. Made by Richard Fife, Inc. The company that's made a big business out of controlling water beautifully.

**Also specify Rada thermostatic mixing valves—  
another way to control water beautifully.**

**Richard Fife, Inc.**

1140 Broadway, New York, N.Y. 10001  
Phone: (212) 683-0745

On Readers' Service Card, Circle No. 345



# If you can add convenience without compromising design, Why Not?

For Openers, Ask Stanley . . .  
Leaders in Doorway Automation!

What could be more pleasing to your client if you designed convenience plus long range savings into his building? If you reduced his pilferage? If you reduced his air-conditioning and heating costs? If you made his traffic flow more convenient? If you made his building more friendly? If you made it safer? If you made it easier for our physically handicapped and senior citizens?

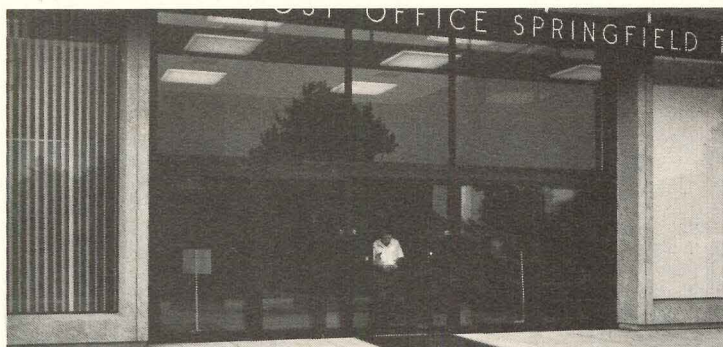
Stanley Automatic Doorways can make all these good things happen with the most complete line of automatic sliding, swinging and invisible air curtain doorways. And the new concealed proximity control eliminates any visible carpets. There is no need to compromise design!

Call your Stanley Distributor listed in the "Yellow Pages" or check "Sweet's Architectural File." Write for "Magic in Your Doorways," Folder No. M-78, The Stanley Works, Door Operating Equipment Division, Farmington, Connecticut 06032.

**STANLEY**

helps you do things right

Door Operating Equipment Division  
Farmington, Connecticut 06032



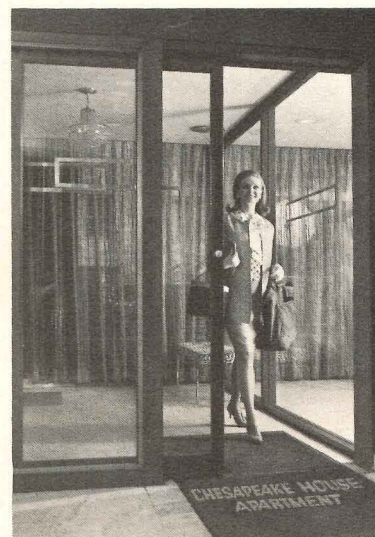
Bi-parting Sliding Entrance



Dual Single Sliding Entrance



Air Curtain Entrance



Single Sliding Entrance



# Prestressed concrete adapts to a variety of forms

**OWNER:** Marion County Board of Public Instruction. **ARCHITECT:** J. C. (Berry) Walker, Ocala, Fla. **GENERAL CONTRACTOR:** Drake Construction Co., Ocala, Fla. **PRECAST & PRESTRESSED STRUCTURAL UNITS:** Dura-Stress Inc., Leesburg, Fla. **PRECAST LINTELS AND SILLS:** Wekiwa Concrete Products, Zellwood, Fla. **READY MIX CONCRETE:** Thomas Concrete Co., Ocala, Fla. **CONCRETE MASONRY UNITS:** Cummer Inc., Kendrick, Fla.



Students began attending classes in this new Ocala High School in January of this year. It is designed to accommodate 1200 students.

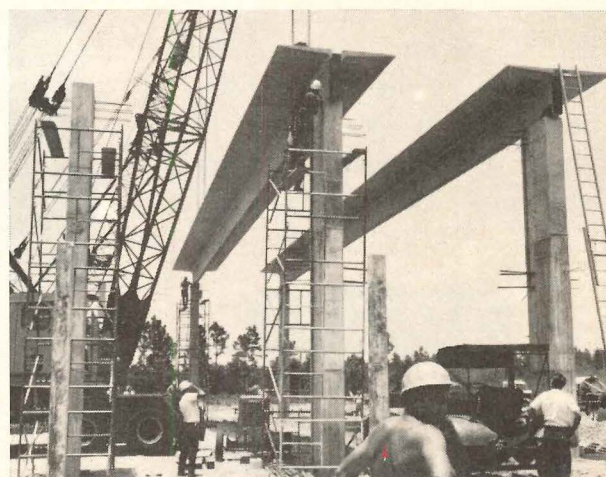


This new high school in Ocala, Florida, is another example of how prestressed and precast concrete can serve both functionally and esthetically. The unusual circular classroom and adjacent gymnasium show the excellent adaptability of this material.

Dura-Stress, Inc. used Lehigh Early Strength Cement in the manufacture of the precast and prestressed structural units in this school. Here, as in almost any precast work, this cement benefits precaster, erector, and architect alike. Quicker re-use of forms. Earlier delivery of units. Orderly on-time construction scheduling. Lehigh Portland Cement Company, Allentown, Pa.

**LEHIGH**

The circular structure is 232' in diameter and 27' high. In addition to the huge single T's in the gym, the project has 113,464 sq. ft. of double T's; 4594 sq. ft. of 8" flat slabs; and 3673 lineal ft. of structural beams.



Eight Lin T prestressed beams compose the roof structure of the center portion of the gym. Beams are 106'8" long, 8' wide.



# HOPE'S

*At Yale Since 1912*

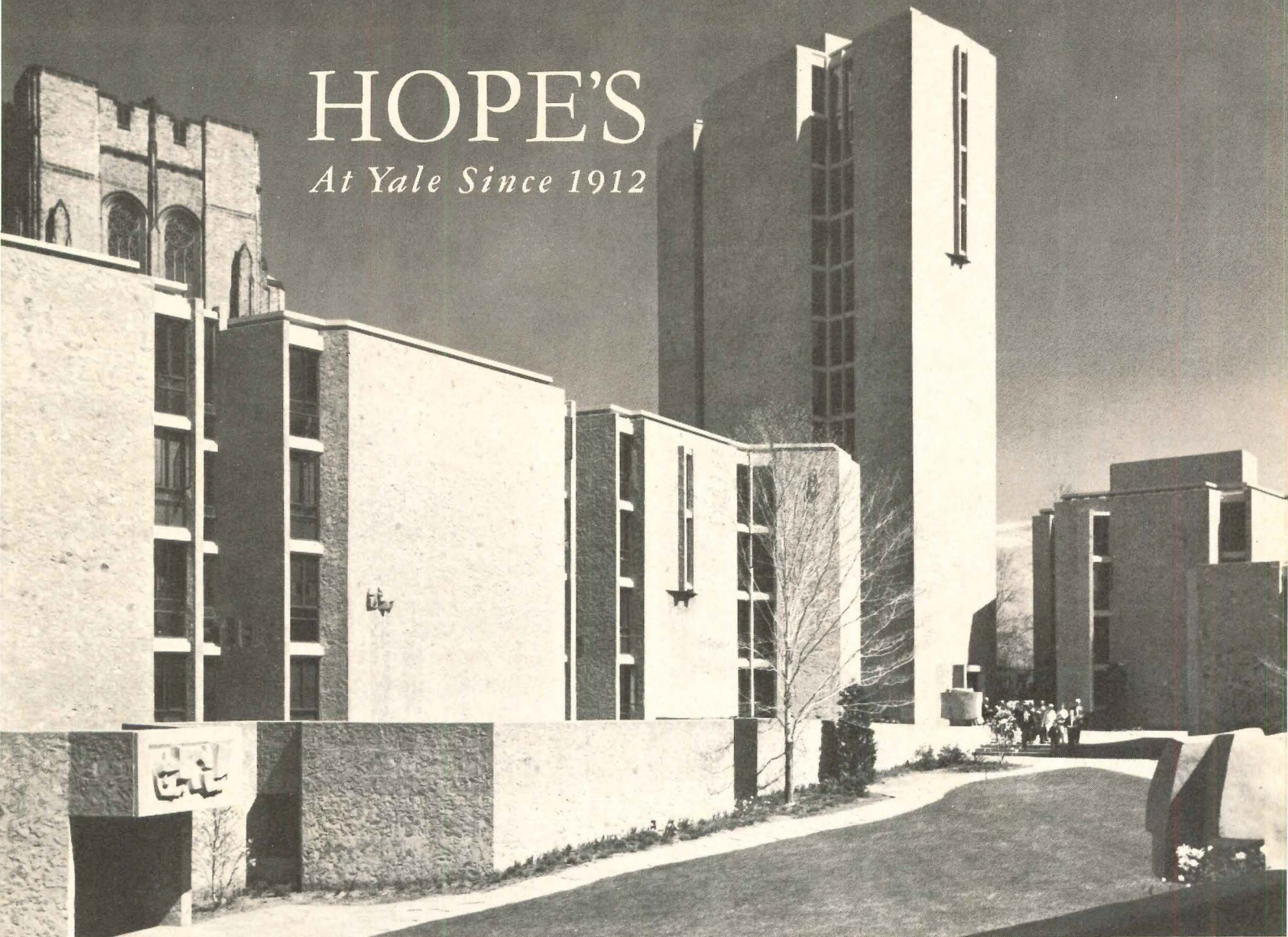


Photo by ©Ezra Stoller (ESTO)

*1960 Ezra Stiles College and Samuel F. B. Morse College, Yale University, New Haven, Connecticut*

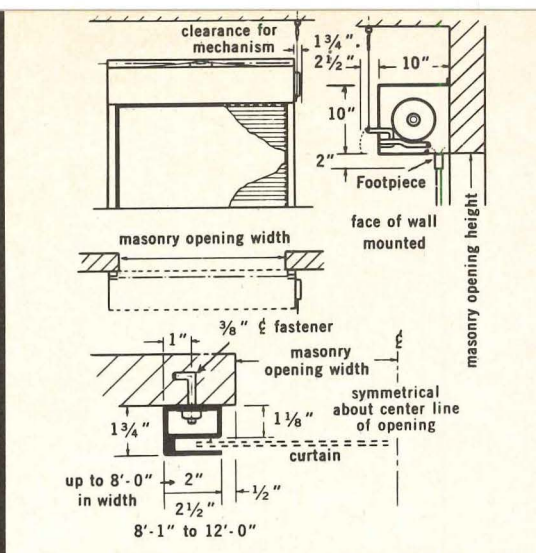
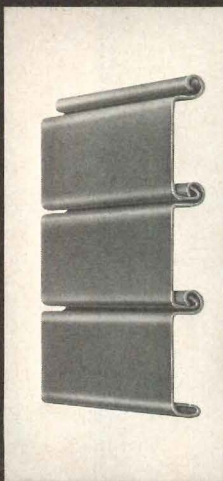
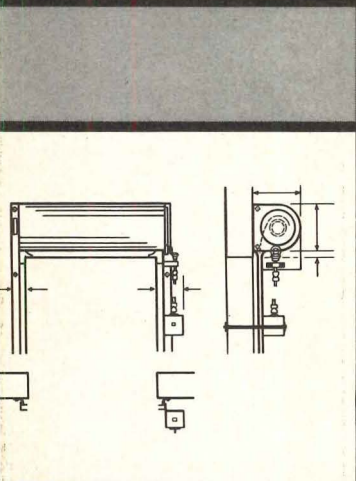
For nearly sixty years leading architects and architectural firms have specified Hope's windows for the many styles of buildings at Yale University. A partial list of buildings at Yale in which Hope's windows were specified and installed is recorded below. We are proud of this record of continued confidence.

- |      |  |      |  |
|------|--|------|--|
| 1912 | Sloane Laboratory<br><i>Architect: Charles Haight</i>  | 1934 | Berkely College<br><i>Architect: James Gamble Rogers</i>   |
| 1912 | Wright Dormitory<br><i>Architects: Delano &amp; Aldrich</i>  | 1939 | Sterling Hall of Medicine Ext.<br><i>Architect: Grosvenor Atterbury</i>  |
| 1913 | St. Anthony's Hall<br><i>Architect: Charles Haight</i>   | 1952 | Art Gallery & Design Laboratory<br><i>Architects: Douglas Orr and L. I. Kahn, Associates</i>                       |
| 1923 | Sterling Chemistry Laboratory<br><i>Architects: Delano &amp; Aldrich</i>   | 1952 | Accelerator Laboratories<br><i>Architects: Saarinen &amp; Saarinen, Douglas Orr, Assoc. Architect</i>              |
| 1924 | School of Medicine<br><i>Architects: Day &amp; Klauder</i>   | 1954 | Edw. S. Harkness Memorial Hall<br><i>Douglas Orr, Architect, Gugler, Kimball &amp; Husted, Assoc. Architects</i>   |
| 1924 | School of Forestry<br><i>Architects: Delano &amp; Aldrich</i>  | 1955 | Josiah Willard Gibbs Labs.<br><i>Architects: Douglas Orr and Paul Schweiker, Associated Architects</i>             |
| 1928 | Yale Record Building<br><i>Architect: Lorenzo Hamilton</i>   | 1957 | University Theatre Library<br><i>Architects: Davis Cochran &amp; Miller</i>  |
| 1930 | School of Medicine<br><i>Architect: Henry C. Pelton</i>  | 1957 | Helen Hadley Hall<br><i>Architect: Douglas Orr</i>   |
| 1931 | Sheffield-Sterling-Strathcona Hall<br><i>Architects: Zantzinger, Borie and Medary</i>  | 1960 | Mansfield St. Apartments<br><i>Architect: Paul Rudolph</i>   |
| 1932 | Payne Whitney Gymnasium<br><i>Architects: Office of John Russell Pope — Otto R. Eggers &amp; Daniel T. Higgins, Associates</i> | 1962 | School of Art and Architecture<br><i>Architect: Paul Rudolph</i>   |
| 1932 | Library & York Dormitories<br><i>Architect: James Gamble Rogers</i>  | 1963 | Kline Geology Laboratory<br><i>Architect: Philip Johnson, Assoc.</i>   |
|      |  | 1967 | Josiah Willard Gibbs Labs (Addition)<br><i>Architects: Office of Douglas Orr, deCossy, Winder &amp; Associates</i> |

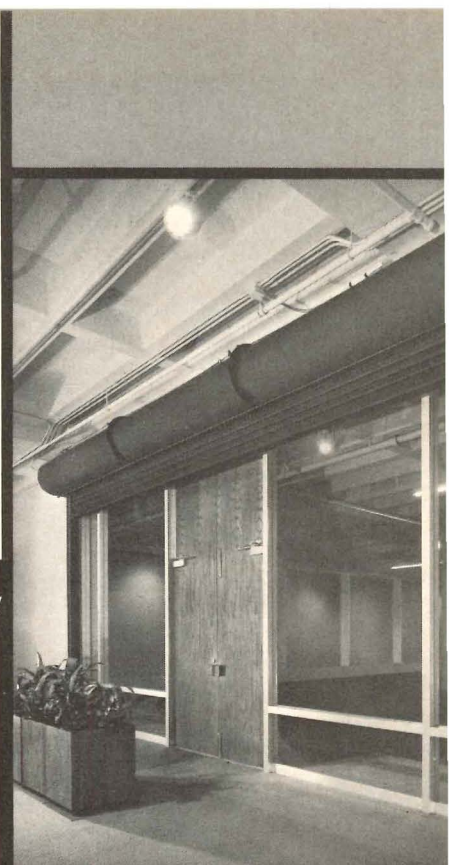
## HOPE'S WINDOWS, INC. *Jamestown, N.Y.*

THE FINEST BUILDINGS THROUGHOUT THE WORLD ARE FITTED WITH HOPE'S WINDOWS





## Out-of-the-way Solutions to Fire Protection.



Out-of-the-way not only because Cookson "Servire" Fire Doors and Counter Fire Doors are engineered to save space and present an attractive appearance, but also because they provide a number of special protection features. Included is a fully automatic drop mechanism—with an adjustable governor to regulate the speed of descent—instantly activated by a link that fuses at 165 degrees F.

Cookson "Servire" Automatic Drop Fire Doors and Counter Fire Doors are listed by Underwriters' Laboratories and Factory Mutual Laboratories, of course. Their installation usually results in an important reduction of insurance premiums.

For more complete information on Cookson "Servire" Fire Doors and Counter Fire Doors, Rolling Grilles, Side Coiling Grilles, and Steel Rolling Doors and Counter Doors, write for Bulletin 6901, or see us in Sweet's.

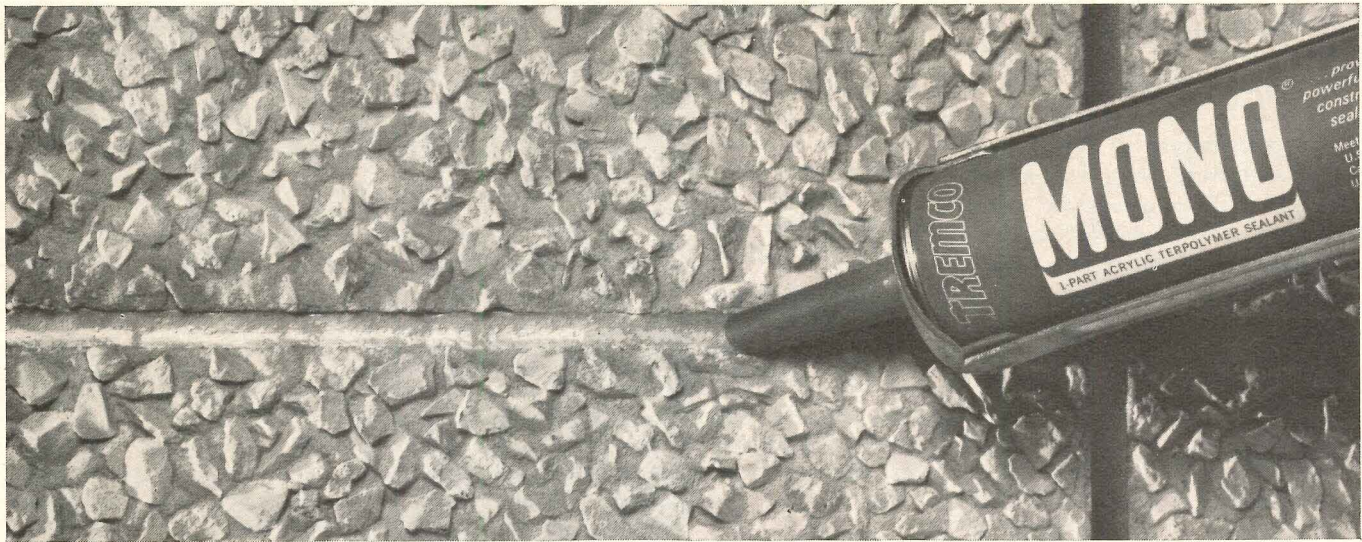


"Best way to close an opening"

The COOKSON Company, 700 Pennsylvania Ave., San Francisco, California 94107

On Readers' Service Card, Circle No. 335





**Nine times out of ten, MONO fills the sealant gap.**

**When it can't, he can.**



We know you'd like an all-purpose trouble-free construction joint sealant. □ So would we. But right now, MONO's as close as we can come . . . and it won't do everything, any more than any other types and brands we've tested. □ Sure, MONO's good and works so well under the kind of adverse conditions (dust and moisture) that are common to the job site, that we suspect many construction people actually look on it as an all-purpose sealant. □ But actually Tremco's business isn't based on selling *any* all-purpose sealant. Instead we're a single-purpose company. We're The Water Stoppers and we want to give you leakproof security in every joint on the job. □ So we make not one, but fourteen other sealants besides MONO, like a very good polysulfide (Lasto-Meric), a highly-regarded preformed tape (440) as well as a dozen others with special purposes. □ The only all-purpose item in our catalog is the Tremco Representative. He has been thoroughly trained to provide you the proper sealant for each application and is ready to give job-site assistance before, during and after each project. □ Why not give him a call next time you run into the sealant gap? He'll get you across every time. □

**Tremco**  
The water stoppers

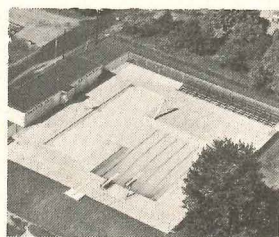
The Tremco Manufacturing Company,  
Cleveland, Ohio 44104; Toronto 17, Ont.



With  
Paddock's  
"pipeless pool"  
you can design  
a pool...

## YOUR WAY!

The Paddock IFRS System® of recirculation eliminates all perimeter pool piping, the need for pipe tunnels and the necessity of exact equipment location. You have complete design freedom to do it — "your way". Investigate the Paddock Systems of design for your next project. From enclosures to filters these Paddock systems are found on today's most modern swimming pool projects and are available to you without obligation.



For detailed brochure and list of installations write:

**Paddock®**  
OF CALIFORNIA, INC.

Our  
50th  
Year!

118 Railroad Ave. Extension, Albany, New York 12205.

On Readers' Service Card, Circle No. 414

## SPECIALTY TILE FROM

**Latco®**

VENEZICO • GRANADA  
AZULEJOS • JEWELS  
WATERWAVE • FACET  
CANDYSTICKS • VALENCIA  
OSTARA • WELSH PAVER

Latco is a specialist in tile! With unique designs from all over the world and an inventory from all the great tile centers, Latco offers a treasurehouse of dramatic textures, special configurations, unusual motifs and rich colors. Interior or exterior, commercial or residential... Latco provides out-of-the-ordinary tiles for every purpose.

**Latco® PRODUCTS**  
3371 GLENDALE BOULEVARD • LOS ANGELES, CALIF. 90039  
TELEPHONE: (213) 664-1171

On Readers' Service Card, Circle No. 394

I can take the delay  
out of your day...

with my handy  
**Blu-Ray Whiteprinter.**



I can make quick check prints for you all day long—at a mere 1½¢ per sq. ft. It's fast and easy—I simply insert your translucent original and diazo paper into my table-top Blu-Ray, and your clear, sharp copy is ready in seconds.

This Workhorse Model 842 has a 42" throat—and variable speeds to 12 fpm. Quick warm-up, easy to move, no hangups over special wiring or plumbing. Set it up anywhere and it's on go.

I can save you time and money—and delete the delay from your day. Two other models to choose from. Hurry, and send for free brochure.

The ones with the one-year warranty.

600 Dealers Coast to Coast


**BLU-RAY**

INCORPORATED

5370 Westbrook Rd., Essex, Conn. 06426  
Phone (203) 767-0141

On Readers' Service Card, Circle No. 331





**Temperature  $\pm 2^{\circ}\text{F}$   
Humidity  $\pm 5\%$   
24 hours a day  
365 days a year**

### **Site Environment Systems**

Site Environment Systems (SES®), the most precise, most reliable packaged environmental control units you can buy, can operate constantly. Dual systems\* operate alternately under normal loads, work together should an overload occur. Each unit controls temperatures within  $\pm 2^{\circ}\text{F}$ . with an extra-sensitive thermostat, dual compressors, five rows of cooling coils and reheat coil. A sensitive humidistat holds relative humidity levels within  $\pm 5\%$ .

Each unit has a malfunction alarm, filter clog indicator, high temperature alarm, and indicating panel for full, constant monitoring of unit.

SES units are available in 3, 5, 7.5, 10 and 15 ton sizes, in air-cooled and water-cooled models with indoor or outdoor condensers, and in computer matched colors.

### **Floating Floors Systems**

Floating Floors® infinite access floor systems create an air plenum for efficient, duct-free distribution of conditioned air. Strong, corrosion-resistant and completely interchangeable panels are available in die cast aluminum or continuous bonded steel.

Write for our new full color brochure. It contains pictures and specs on the complete line.

**FLOATING FLOORS, INC.**

Floating Floors, Inc.  
Subsidiary of National Lead Company  
5400 N. Detroit Avenue/Toledo, Ohio 43612  
Telephone (419) 479-0721/TWX 442-1709

\*on the 7.5, 10 and 15 ton units

On Readers' Service Card, Circle No. 344



# JOBS AND MEN

## SITUATIONS OPEN

**ARCHITECT**—Experienced in all phases of architecture. Responsibilities involve: The review of plans & specifications in terms of accuracy and adequacy; The supervision of the construction of major and diversified projects. Send resume to Frederic A. Nas-saux, 309 Trust Bldg., Chambersburg, Pa., 17201. (717) 263-5605.

**ARCHITECT**—Major midwestern architectural firm has opening for a project manager with proven administrative and design ability. The position involves supervision of project teams, client contact, and co-ordination of engineering and other disciplines through to project completion. Diversified, nationwide practice includes highest quality educational, industrial, institutional and urban projects. Superior opportunity to progress with the firm and move into key position. Moving expenses paid. Salary open, but commensurate with qualifications. Send resume in confidence to Box #1361-910, PROGRESSIVE ARCHITECTURE.

**ARCHITECT**—20 years independent practice, 25 design awards and numerous published works, seeks association with medium sized office in charge of design and production. Medium sized southern city preferred. Box #1361-960 PROGRESSIVE ARCHITECTURE.

**ARCHITECT**—Something new, original & unique. Successful and well established real estate developer welcomes collaboration with an imaginative architect having an idea and plan for something new, original & unique. Box #1361-961 PROGRESSIVE ARCHITECTURE.

**ARCHITECT OR ARCHITECTURAL GRADUATE**—Three years experience. Position open in small expanding office in central Connecticut. Must be able to design and produce working drawings. Qualified man will work directly with clients and supervise construction. Send complete resume and salary expected. Box #1361-962 PROGRESSIVE ARCHITECTURE.

**ARCHITECTS**—Challenge - Opportunity - Security with the State of New York. Junior Architect \$8,866-\$9,925; Assistant Architect \$10,195-\$12,325; Senior Architect \$12,585-\$15,110; Associate Architect \$15,590-\$18,540. Openings now throughout the state. Requirements vary depending on the position. Write: NYS Dept. of Civil Service, R-888C, Albany, N.Y. 12226 or Phone (518) 457-5475.

**ARCHITECTS**—Facilities planning consultants. International planning and design consulting firm headquartered in New York City seeks professionals for top level client contact, facilities requirements pro-

gramming and problem solving, and report writing. Primary responsibilities will concern defining and solving client problems related to corporate headquarters and governmental office space. We offer opportunities for personal growth, salaries commensurate with qualifications, increases based on merit, and a comprehensive benefit program including deferred profit sharing. Liberal relocation policy. Please submit confidential resume of experience and earnings to: Becker and Becker Associates, Inc., Seagram Building, 375 Park Avenue, New York, New York 10022.

**ARCHITECTURAL ACOUSTICS**—Positions open in growing firm for people with architectural acoustics experience of strong desire to learn. Challenging work in an expanding and exciting field with firm on outskirts of metropolitan area. Contact: Goodfriend-Ostergaard Associates, 7 Saddle Road, Cedar Knolls, New Jersey 07927.

**ARCHITECTURAL DELINEATOR**—One of the nation's finest architectural rendering firms seeking nation's top talent in field. Key personnel required in all phases, cars, figures, landscaping, interiors and perspective layout draftsman. Send samples, resume, wage requirements. (All replies acknowledged.) Art Associates, 4041 W. Central Ave., Toledo, Ohio 43606.

**ARCHITECTURAL DESIGNER**—Design oriented, West Coast Architectural and Planning Firm has opening for a creative designer to develop concepts, work with clients, and control design development through production phases. Diversified and expanding nationwide practice. Send confidential resume including salary requirements to: Walter Richardson Associates A. I. A., 230 E. 17th Street, Suite 200, Costa Mesa, California 92627.

**ARCHITECTURAL DESIGNER**—Design oriented, medium-size architectural and planning firm, located in the midwest area, has opening for a creative designer to develop outstanding concepts, work with clients, direct design teams and control design development through production phases. Diversified and expanding nationwide practice includes significant educational, industrial, institutional, housing and urban projects. The position offers excellent opportunity for professional development and associateship. Liberal salary based on talent, capability and experience. Replies will be handled confidentially and should contain sufficient information to establish a basis for further discussion. Box #1361-913, PROGRESSIVE ARCHITECTURE. An equal opportunity employer.

**ARCHITECTURAL DRAFTSMAN**—Individual needed with three to five years experience

in production of working drawings for shopping centers. To work for one of nation's largest developers, designers, and builders of shopping centers. Send resume to: Raymond B. Johnston, Personnel Department, P.O. Box 879, Johnstown, Pennsylvania, 15907.

**DRAFTSMEN**—Association of long established architect firms has openings of two to three years for six experienced draftsmen for producing working drawings for new state medical school and other public projects. Write giving full information regarding experience. Address AMSA, 820 Commercial National Bank Building or phone "Architect" 318-423-0538, Shreveport, Louisiana.

**EXECUTIVE ARCHITECT**—This senior position will be challenging and rewarding to the professional who is mature in experience and in ability to communicate his creative design concepts. He will provide design leadership for a growth oriented firm that enjoys a diverse project practice. He will assume the primary role in presentations to major clients. Compensation package will be attractive to the qualified candidate. Midwest location. Send resume in confidence to Box #1361-963 PROGRESSIVE ARCHITECTURE. An Equal Opportunity Employer.

**LANDSCAPE ARCHITECTS**—Opportunities with New York State, starting salary \$10,195, \$12,325 or \$15,590 depending on experience. New York State residence required. Write: N.Y.S. Dept. of Civil Service, R-897C, Albany, New York, 12226.

**PROJECT ARCHITECT**—A design orientated young progressive and expanding firm engaged in architecture and planning, located in Toronto, Canada, has a permanent opening for a Project Architect with proven administrative and design experiences and abilities in North America to control all projects through production phases. The position also involves supervision of project teams, client contact and co-ordination of engineering and other disciplines through to completion. Diversified practice involves highest quality cultural, institutional, educational and commercial projects. Please send confidential resume including anticipated salary to: Mr. G. Kinoshita, Moffat Moffat & Kinoshita, 55 Eglinton Avenue East, Toronto 315, Ontario, Canada.

**PROJECT ARCHITECT**—A leading midwest architectural firm with a nationwide practice needs imaginative and ambitious architect to direct and coordinate project design teams on a wide variety of large-scale institutional, industrial, educational, housing and urban design projects. Excellent salary and meaningful opportunity for advancement. Applicant must possess high professional standards and leadership capability. Send confidential resume to Box #1361-915, PROGRESSIVE ARCHITECTURE.

**PROJECT ARCHITECT**—Expanding Architectural/Engineering firm has opening for "talented" Project Designers and Draftsmen. Located in Western New York and maintaining a regional practice through the states of New York, Pennsylvania, Vermont, New Hampshire and Connecticut,

*Continued on page 162*

### 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 Jobs & Men 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.



# Prestressed concrete offers many advantages and Newport Towers Apartments feature most of them

When Nicholas Pollaro, President of Danpolgo Corporation, started planning his 238-unit Newport Towers apartment complex, several 'musts' were stipulated: All units must be soundproof and fireproof.

Construction must move rapidly. Good aesthetics must be evident. Shoring must be eliminated to enable all trades to work quickly. And the job site must remain relatively clean during construction.

Mr. Pollaro's list of 'musts' made his development a natural for prestressed concrete construction. Prestressed concrete provided Newport Towers with the strength, safety, economy and good looks demanded by Mr. Pollaro . . . and by many of today's architects and developers of residential, educational, transportation and business construction projects.

Buried within the beams and slabs supporting Newport Towers is nearly a quarter of a million feet of Armco's TUFWIRE® Strand. TUFWIRE provides the uniform physical properties, excellent bonding characteristics and the stress-relieved advantage that have made it a favorite with prestressors all over the country.

If you're an architect, developer or engineer and would like more information on TUFWIRE Strand and prestressing in general, write for our booklet *Prestressed Concrete: a Growing Concept in Construction*. It's free. TUFWIRE Strand is another quality Union Wire Rope product made by Armco Steel Corporation, Dept. K-150, 7000 Roberts Street, Kansas City, Missouri 64125.

**ARMCO STEEL**



Owner: Danpolgo Corporation, Harrison, New York  
Architect: Lee Perry, New Rochelle, New York  
Engineer: William P. Widulski, Scarsdale, New York  
Prestressor: Spancrete Northeast, South Bethlehem, New York

Newport Towers Apartments in Harrison, New York

On Readers' Service Card, Circle No. 325





## **JOBS AND MEN**

*Continued from page 160*

this firm can provide exciting challenges to architects orientated to the design of medical, educational, commercial and industrial facilities. License and/or degree helpful, but not mandatory. Please send confidential resume, including salary requirements to: Mr. Franklin D. Guidone, AIA, Director of Design, The Cannon Partnership, 2637 Main Street, Niagara Falls, New York 14305.

**SMALL**—expanding firm with varied practice has opening for experienced production personnel including draftsmen, architectural graduates, specifications writing, etc. Pay scale commensurate with ability, supplemented with benefits of our beautiful Florida Gulf Coast community. Twitchell, Allen, Gulak, & Collins, Architects-Planners, 25 North School Avenue, Sarasota, Florida 33577.

**SPECIFICATION WRITER**—Opportunity for person with practical experience and general knowledge of building construction, building materials and construction techniques—to prepare complete architectural and structural specifications for an expanding medium size A/E consultant or general contractor highly desirable. Responsibility for implementation of automated specifications on in-house computer can be available to qualified person. Liberal fringe benefits including major medical, life insurance, bonus and retirement plans. Salary based on talent and capability. Submit resume and salary requirements in complete confidence to Samborn, Stexetee, Otis and Evans, Inc., 600 LOF Building, Toledo, Ohio 43624. Telephone (419) 248-6271. An Equal Opportunity Employer.

**URBAN DESIGNER**—Recent architectural graduate. Excellent opportunity to gain valuable municipal planning experience. Current projects include site planning, park and open space planning, architectural prototype, design review and research. Salary starts at \$9,800 per year. Send resume to: Director of Personnel, City of La Crosse, Wisconsin 54601.

**URBAN DESIGNER**—We are looking for a young, creative designer to join our interdisciplinary team of architects, planners, and engineers. You must be trained as an architect or landscape architect and will work on land planning, site planning and architectural schematics. Our office is young, progressive, medium size, and located in the new city of Columbia, between Baltimore and Washington. We are presently providing full planning and design services for the development of several large and small new communities on the east coast. Send resume to: R. Tennenbaum, AIA, AIP. Richard P. Browne Associates. The American City Building. Winopin Circle. Columbia, Maryland 21043.

**YOUNG**, expanding professionally oriented engineering firm has openings offering unusual challenge, responsibility, diversity, and career advancement potential. Opening in home office, Springfield, Illinois; and in new office being organized in Chicago, Illinois, Mechanical engineer (HVAC),

Mechanical engineer (Plant and Layout), Electrical engineer (Power and Lighting), Structural engineer (Bridges & Buildings). Applicants must be highly competent, responsible and personable with high standards of professional conduct. Send resume of education, experience, technical or professional activities, and references to: Ralph Hahn & Associates, Consulting and Design Engineers, 1320 South State Street, Springfield, Illinois 62704.

### **SITUATIONS WANTED**

**ARCHITECT**—25 years with national prominent architectural and architectural engineering firms. 3 years international experience. Project manager for production of plans and specifications, after establishing program with clients. Associated with research, academic and industrial facility projects involving design, coordination and construction supervision. Box #1361-964 PROGRESSIVE ARCHITECTURE.

**ARCHITECT**—M. Arch. N.Y. registration 11 years varied experience in school, sports stadiums, hospitals, shopping centers and interior space planning. Offer to check and coordinate architectural, mechanical and electrical drawings for overburdened offices. P. O. Box 793 FDR Station, New York, N. Y. 10022.

**ARCHITECT**—AIA-NCARB—20 years experience in all phases of work. Present duties as Project Architect, client contact through supervision, in multi-million dollar range. Desire position of responsibility and opportunity. USA or abroad. Married with family. Resume and references upon request. Box #1361-965 PROGRESSIVE ARCHITECTURE.

**ARCHITECT**—AIA, NCARB, M. Arch, 32, family, design oriented, rendering ability, over eight years comprehensive experience. Desire position offering diversity and professional growth with associateship or partnership potential. Resume upon request. Box #1361-966. PROGRESSIVE ARCHITECTURE.

**ARCHITECT**, AIA, Ohio license since 1957, Age 37, family, last 10 years as associate in Architectural & Engineering firm as Architectural Department Head and specifications writer in medium size firm, industrial and commercial work. Box #1361-967 PROGRESSIVE ARCHITECTURE.

**ARCHITECT**—AIA, registered several New England states, married, 30, family. 10 years diversified experience all phases of practice. I am presently a project manager in a New Jersey office and would sincerely like to move to a New England office offering equally sincere growth and responsibility. Box #1361-968. PROGRESSIVE ARCHITECTURE.

**ARCHITECT**—AIA, CSI, NCARB, 44, family. Phasing our fourteen successful years of own practice including wide range of building types and experience. Seeking position as project architect with major firm or staff architect with institution or corporation. Preferably west coast or abroad. Resume, references on request. Box #1361-941 PROGRESSIVE ARCHITECTURE.

**ARCHITECT**—Interior Designer—8 years experience functioning as architect and/or interior designer. Seek association with creative organization involved in contemporary space planning. Prefer south or east location. Resume upon request. Box #1361-969. PROGRESSIVE ARCHITECTURE.

**ARCHITECT**—Job captain, architect graduated in Europe, working in one of the top offices in New York. Desires to work part time in New York. Detailing, precast, 15 years of diversified experience. Box #1361-970 PROGRESSIVE ARCHITECTURE.

**ARCHITECT**—married w/family. Desires to relocate in southern California, 18 years experience in widely varied types of buildings: highrise banks, department stores, shopping centers, housing, hospitals, business interiors, educational, public and recreational facilities. Mostly in development of working drawings, coordination and supervision. Resume on request. Box #1361-971 PROGRESSIVE ARCHITECTURE.

**ARCHITECT**—Registered, Illinois, Michigan, Indiana, Florida, NCARB. Desires associate status in progressive architectural firm. Will invest towards partnership. Fourteen years experience in multi-million dollar project and down, as project architect job captain, designer, specification writer, inspection. Age 36, married, willing to travel. Resume available upon request. Box #1361-972 PROGRESSIVE ARCHITECTURE.

**ARCHITECT/DESIGNER**—AIA, NCARB—28, Six years as designer and production coordinator. Nationwide projects include university housing complexes, highrise commercial, schools, churches. Seek permanent position in growing, design oriented firm. Southwest/South/Midwest. Resume and slides on request. Box #1361-973 PROGRESSIVE ARCHITECTURE.

**CANADIAN ARCHITECT** (McGill University), married, seeks western location, preferably Vancouver or Calgary, with progressive firm upon conferral of master of science degree in architecture June '70 (Cornell University: computer applications and environmental systems analysis; industrialized building, structural design). Two years' experience. Please reply to: M.A. Ernest, 114 Summit Ave., #14, Ithaca, N.Y., 14850.

**MECHANICAL ENGINEER**—36, registered in several midwest, east and southern states. Will affiliate or represent Manufacturing, Contracting, Engineering or Architectural firm. Geographical area is no barrier. Box #1361-948, PROGRESSIVE ARCHITECTURE.

**LIBRARIAN**, M.L.S., highly experienced in special libraries, available to establish or maintain architectural library. N.Y.C. Box #1361-974 PROGRESSIVE ARCHITECTURE.

**PROJECT ARCHITECT**—Seeking overseas employment. Graduate, five years experience in all phases of architectural service. Projects include: hospital facilities, industrial and commercial, highrise complexes, multi-residential, military facilities. Resume on request. Frederick Gans, 14929 Dickens #14, Sherman Oaks, California 91403.

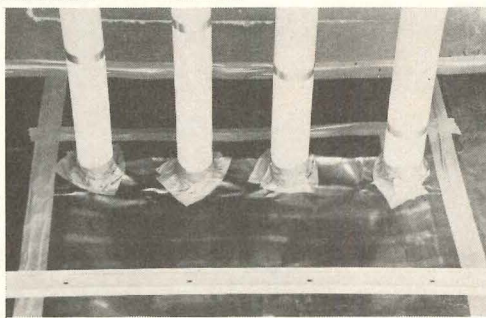
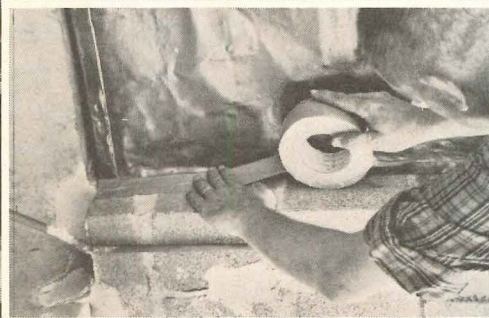
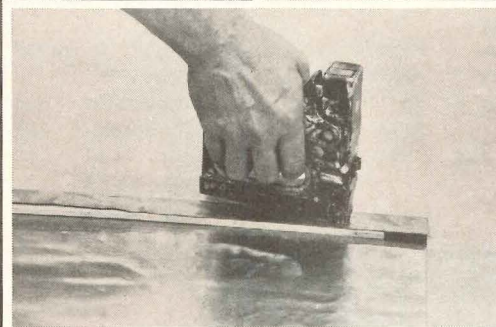
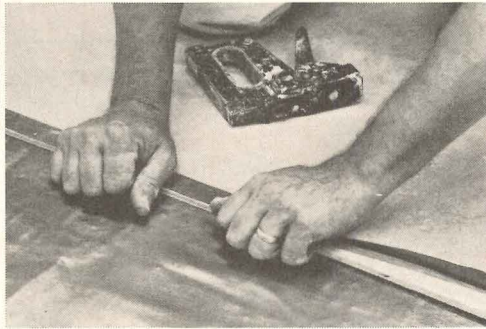
**PROJECT COORDINATOR**—Age 35, ambitious and energetic having a diversified and comprehensive experience in all phases of the

*Continued on page 164*



# soundproof a library?

YOU CAN, WITH A  
HAMMER, STAPLE GUN,  
TAPE AND 1/64" SHEET LEAD

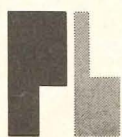


That's the beauty of sheet lead. You can fold it, bend it (even around ducts and piping), form a tight, sound-proof seal — easily and economically.

Lead provided the answer for the special problems offered by the Newark College of Engineering's new library. In addition to the essential quiet needed for the main reading room, the Newark College library has a number of special adjoining study rooms that needed sound protection from the outside world for proper student concentration. Architects Eppler & Seaman of Newark specified sheet lead plenum bar-

riers above the hung ceiling for the entire area. The sheet lead is only 1/64" thick and weighs one pound per square foot; but it stops noise more effectively than other thicker, more difficult to manage materials.

Solve your noise problems with lead: metallic sheet, leaded plastics, bulk damping compounds and other lead products. For additional information on the use of lead for sound insulation write for your copy of "Acoustical Plenum Barriers and How To Install Them," Lead Industries Association, Inc., Dept. MM-1, 292 Madison Avenue, New York, N. Y. 10017.



## Lead Industries Association, Inc.

On Readers' Service Card, Circle No. 364



## JOBS AND MEN

Continued from page 162

architectural practice with institutional, educational, ecclesiastic, industrial and residential projects. Also having administrative ability, specification writing, client contact through supervision of projects, complete coordination and follow through of all engineering disciplines to project completion. Seeking associateship and/or business arrangement with a progressive contemporary oriented architectural firm to participate in the growing process of the firm at the project architectural level with full responsibility and to achieve growth with highly motivated architectural environmental oriented team. Location confined to the Boston area. Reply to: Box #1361-975 PROGRESSIVE ARCHITECTURE.

REGISTERED ARCHITECT—17 years experience. Seeks associateship with eventual partnership in small design oriented office. Can run production team efficiently, write specs CSI format, contract administration; Or Corporate architect position, with large manufacturing firm, real estate developer. Family needs warm dry climate, West or Southwest. Box #1361-976 PROGRESSIVE ARCHITECTURE.

REGISTERED ARCHITECT—37, married, family, top experience all phases diversified practice desires relocation from Mass. to more temperate climate, prefers Florida, Texas, California. Needs to be totally involved in small or medium size office aware of change. Requires pleasant community living and excellent schools. Box #1361-977 PROGRESSIVE ARCHITECTURE.

STRUCTURAL ENGINEER, building designer, MSCE, 31, married. Seeks opportunity on broad scale in conceptual planning and/or project coordination. Six years of carefully programmed experience. Resume available. Box #1361-978 PROGRESSIVE ARCHITECTURE.

YOUNG progressive AE & P firm seeks ongoing association with established architectural firms to provide either project assistance or to act as associated representative for expanding practice in geographic areas not now accessible. Contact Box #1361-979 PROGRESSIVE ARCHITECTURE.

### MISCELLANEOUS


ARCHITECTS' & DESIGNERS' PERSONNEL AGY—667 Madison Avenue, N.Y.C. (61st St.) TEmpleton 8-3722 Muriel Feder maintains close contact with the entire archi-

tectural & design fields, for the past 22 years. The "professional" job consultant for New York City and the nation, at all levels in the areas of architecture, planning, construction, engineering, interior design, space utilization, product and industrial design and exhibition design. Office personnel for the above fields. Confidential interviews by appointment.

CAREER BUILDERS AGENCY—Complete range of Architectural and Interior Design placement under the direction of Ruth Hirsch. Apprentices to Senior Designers and Project Architects. Professional screening and personalized service. References checked, 501 Madison Ave., New York, N.Y. 10022, PL 2-7640.

HELEN HUTCHINS PERSONNEL AGENCY—Specialist: Architecture, Industrial Design-Interior Design and Home Furnishing. Interviews by appointment. 767 Lexington Avenue, New York, N.Y. 10021, TE 8-3070.

LORD-HILL PERSONNEL, LTD.—An agency that is sensitive to the needs of Architectural and Interior personnel, at all levels. Call Bill Shepard for a personal interview and portfolio review by appointment. 565 Fifth Avenue, New York, New York 10017—986-9365.



**Spectra-Glaze®**  
GLAZED CONCRETE  
BLOCK ...

**THE  
INHERENT  
ECONOMIES  
OF BLOCK...**

**COMBINED WITH THE PERFORMANCE  
OF GLAZE...**

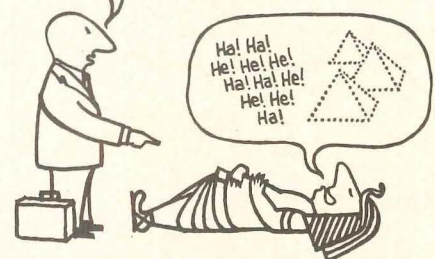
- Loadbearing units eliminate expense of back-up wall
- Thru-wall units in 4", 6", 8", 10" & 12" thicknesses
- Fire rating of block construction: 1, 2 or 4 hr.
- Re-inforced or non-reinforced walls
- Excellent sound loss and insulation
- Modular dimensions

® Reg. U.S. Pat. Off., Can. & other countries by  
**THE BURNS & RUSSELL CO.,** Box 6063 (P), Baltimore, Md. 21231

© Cataloged  
in SWEET'S

(Scored and Design faces also available ...  
Local delivery, world-wide)

**"U.S." chemical  
porcelain lab sinks  
will last as long  
as your lab  
building!**



It's no joke—even if your lab's "built like an Egyptian pyramid!" Industry's longest and strongest guarantee stands behind every "U. S." Chemical Porcelain Laboratory Sink. Many "U. S." Lab Sinks installed 50 years ago are still in service!

**WE ALSO MANUFACTURE A COMPLETE LINE OF NEUTRALIZING SUMP TANKS (NEUTRALIZING BASINS).**

Ask your lab furniture manufacturer for a copy of Bulletin L-11 and a copy of industry's longest and strongest guarantee, or write us today.

34-006

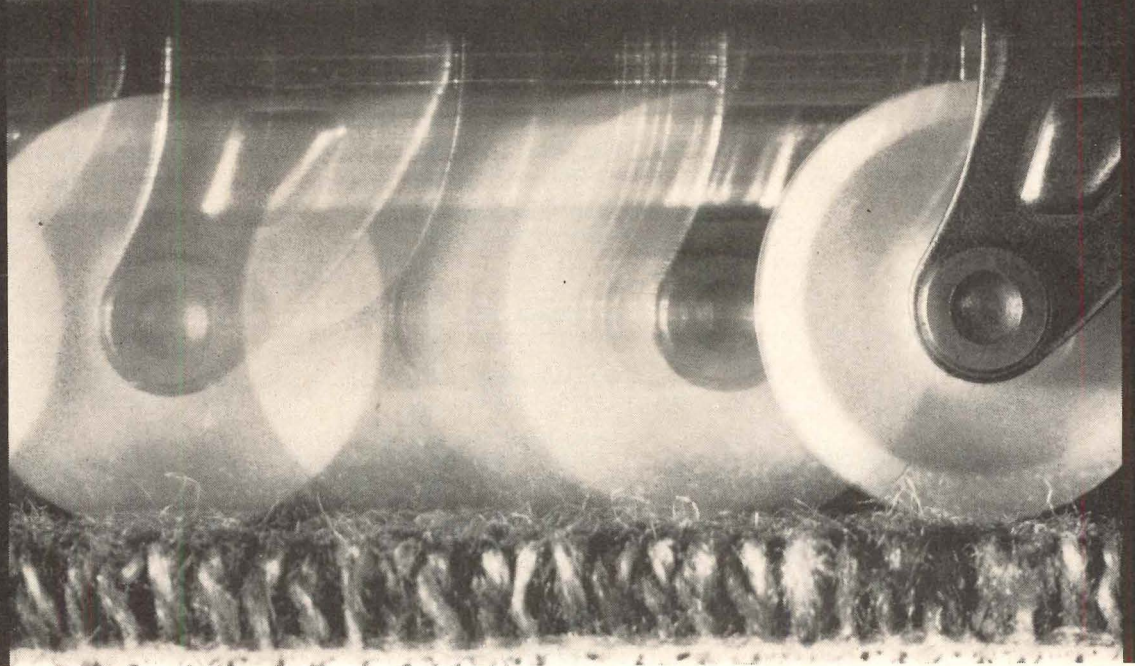
**NORTON** **PLASTICS AND SYNTHETICS DIVISION**  
LABORATORY EQUIPMENT PRODUCTS  
FORMERLY U.S. STONEWARE INC. AKRON, OHIO 44308

On Readers' Service Card, Circle No. 369

MARCH 1970 P/A



# NON-STOP CARPET.



**Now wheels roll  
easily on carpet...  
if the carpet  
is backed by Jute!**

**Direct glue-down installation does it.**

Now—specify carpet where you couldn't specify carpet. Glued directly to the floor, double Jute-backed carpet eliminates mushy cushions or pads that bog down conventional wheels and casters. Bonds securely to any floor, to resist shifting and delamination. But comes up cleanly so the carpet can be reinstalled elsewhere.

And the cost is less. Less than foam-backed carpets with equal pile specifications. Less than equivalent carpets, plus separate underlayment. But still gives all the advantages of carpet. Low maintenance cost. Luxury looks. Good sound absorption. High employee morale. Less heat loss in many cases.

Shouldn't *you* be specifying it? Especially since it works so well in all the general office, computer, cafeteria areas (carpeted in the past 3 years) at Ford Motor Co., Dearborn—and many other demanding installations of a variety of types.

## JUTE

Jute Carpet Backing  
Council, Inc., 25 Broadway,  
New York, N.Y. 10004

WRITE FOR ARCHITECTURAL  
GUIDE SPECIFICATION

Prepared by William E. Lunt, Jr., C. S. I.



## DIRECTORY OF PRODUCT ADVERTISERS

<b>Allen, W.D., Mfg. Co.</b> ..... 143 <i>Marketing Communications</i>	<b>Elkay Manufacturing Co.</b> ..... 24, 25 <i>The Biddle Advertising Co.</i>	<b>Lehigh Portland Cement</b> ..... 152 <i>Lewis &amp; Gilman, Inc.</i>
<b>Alma Desk Company</b> ..... 3rd Cover <i>Bennett Advertising, Inc.</i>	<b>Emhart Corporation</b> ..... 48 <i>Norton, Church &amp; Goff, Inc.</i>	<b>Libbey Owens Ford Company</b> ..... 19-22 <i>Fuller &amp; Smith &amp; Ross, Inc.</i>
<b>American Louver Company</b> ..... 56 <i>Zylke &amp; Associates</i>	<b>Fife, Richard, Co.</b> ..... 150 <i>Reach, McClinton &amp; Co.</i>	<b>Master Builders</b> ..... 140, 141 <i>The Jayme Organization, Inc.</i>
<b>American Plywood Association</b> ..... 148, 149 <i>Cole &amp; Weber, Inc.</i>	<b>Flintkote Company, The</b> ..... 168 <i>Philip J. Meany Company</i>	<b>Mo-Sai Institute</b> ..... 58, 59 <i>David W. Evans &amp; Associates</i>
<b>Armco Steel Corporation</b> ..... 161 <i>Marsteller, Inc.</i>	<b>Floating Floors, Inc., Sub. of</b> <b>National Lead Company</b> ..... 159 <i>W/S Adv. Div. of Widerschein/Strandberg Corp.</i>	<b>Natcor Company</b> ..... 145 <i>Buntin, Crook, Harmon, Smith, Inc.</i>
<b>Armstrong Cork Company, Ceiling Systems</b> .. 39 <i>Batten, Barton, Durstine &amp; Osborn, Inc.</i>	<b>Follansbee Steel Corp.</b> ..... 50 <i>George Hill Company</i>	<b>National Gypsum Company</b> ..... 14, 15 <i>Fuller &amp; Smith &amp; Ross, Inc.</i>
<b>Art Drapery Studio</b> ..... 45 <i>Ted Weber Advertising &amp; Public Relations</i>	<b>Gaco Western</b> ..... 22Wd, 22We <i>Kraft, Smith &amp; Lowe</i>	<b>Norton Plastics &amp; Synthetics Div.</b> ..... 164 <i>Northlich, Stolley, Gross, Inc.</i>
<b>Azrock Floor Products Div.</b> ..... 2nd Cover <i>Glenn Advertising, Inc.</i>	<b>Glidden Durkee Div. of SCM Corp.</b> ..... 126, 127 <i>Meldrum &amp; Fewsmith, Inc.</i>	<b>Overhead Door Corporation</b> ..... 8, 9 <i>Glenn Advertising, Inc.</i>
<b>Bally Case &amp; Cooler, Inc.</b> ..... 34 <i>Beaumont, Heller &amp; Sperling, Inc.</i>	<b>Grefco, Inc.</b> ..... 4, 5 <i>Boylhart, Lovett &amp; Dean, Inc.</i>	<b>Paddock of California</b> ..... 158 <i>Halpin Associates</i>
<b>Bethlehem Steel Corporation</b> ..... 134, 135 <i>Van Brunt &amp; Company</i>	<b>Gritzner Graphics</b> ..... 128 <i>Persons Advertising, Inc.</i>	<b>Pass &amp; Seymour, Inc.</b> ..... 118 <i>Conklin, Labs &amp; Bebee, Inc.</i>
<b>Blu-Ray, Inc.</b> ..... 158 <i>William Schaller Company</i>	<b>Hadco Products, Inc., Subsidiary of</b> <b>Esquire, Inc.</b> ..... 7 <i>Ritchie Advertising Agency</i>	<b>Pella Rolscreen</b> ..... 43, 44 <i>L. W. Ramsey Advertising</i>
<b>Burke Div., Brunswick Corp.</b> ..... 139 <i>Creative Graphic Communications</i>	<b>Harter Corporation</b> ..... 150 <i>J. G. Sullivan Advertising, Inc.</i>	<b>Pittsburgh Corning Corp. — Foamglas</b> ..... 144 <i>Ketchum, MacLeod &amp; Grove, Inc.</i>
<b>Burns &amp; Russell Company</b> ..... 164 <i>Marc Smith Company</i>	<b>Hauserman, E. F., Company</b> ..... 121 <i>Wyse Advertising</i>	<b>Pittsburgh Corning Corp. — Glass Block</b> .. 36, 37 <i>Marsteller, Inc.</i>
<b>Cabin Crafts</b> ..... 46 <i>Liller, Neal, Battle &amp; Lindsey, Inc.</i>	<b>Haws Drinking Faucet Company</b> ..... 65 <i>Pacific Advertising Staff</i>	<b>PPG Industries, Inc.</b> ..... 12, 13, 124, 125 <i>Ketchum, MacLeod &amp; Grove, Inc.</i>
<b>Cabot, Samuel, Inc.</b> ..... 51 <i>Donald W. Gardner Advertising, Inc.</i>	<b>Hickman, W. P., Company, Inc.</b> ..... 156 <i>John H. Rosen Advertising</i>	<b>Rixson Closers</b> ..... 53 <i>Motivation Dynamics</i>
<b>Carpenter, L. E. &amp; Co., Inc.</b> ..... 146 <i>Harold Marshall Advertising Co.</i>	<b>Hope's Windows, Inc.</b> ..... 153 <i>Addison Busch-Moss Chase, Inc.</i>	<b>Ronan &amp; Kunzl, Inc.</b> ..... 66 <i>Columbia Advertising, Inc.</i>
<b>Celotex Corporation</b> ..... 129-132 <i>Bishopric/Green/Fielden, Inc.</i>	<b>Hub Electric Company</b> ..... 146 <i>Robert L. Schwarz Advertising</i>	<b>Russwin Div.</b> ..... 48 <i>Horton, Church &amp; Goff, Inc.</i>
<b>Checkmate Div.</b> ..... 60 <i>Motivation Dynamics</i>	<b>Jute Carpet Backing Council, Inc.</b> ..... 165 <i>Bauer/Tripp/Hening &amp; Bresler, Inc.</i>	<b>Sargent &amp; Company</b> ..... 113 <i>Hepler &amp; Gibney, Inc.</i>
<b>Concrete Reinforcing Steel Institute</b> ..... 10, 11 <i>Fensholt Advertising, Inc.</i>	<b>Kaiser Companies</b> ..... 26, 27, 28, 29, 119 <i>Young &amp; Rubicam, Inc.</i>	<b>Sloan Valve Company</b> ..... 111 <i>Reincke, Meyer &amp; Finn, Inc.</i>
<b>Cookson Company</b> ..... 154 <i>Botsford, Ketchum, Inc.</i>	<b>Kentile Floors, Inc.</b> ..... 4th Cover <i>Benton &amp; Bowles, Inc.</i>	<b>Southern California Edison Company 22Wb, 22Wc</b> <i>Doyle-Dane-Bernbach, Inc.</i>
<b>Cornell Iron Works</b> ..... 138 <i>Greenspon Advertising Agency</i>	<b>Keystone Steel &amp; Wire</b> ..... 122, 123 <i>Fuller &amp; Smith &amp; Ross, Inc.</i>	<b>Speed Queen</b> ..... 41 <i>The Harpham Company</i>
<b>Cosco Business Furniture</b> ..... 17 <i>Noble-Dury &amp; Associates, Inc.</i>	<b>Kinnear Corporation</b> ..... 1 <i>Wheeler, Kight &amp; Gainey</i>	<b>Sta-Crete</b> ..... 167
<b>Dearborn Glass Company</b> ..... 142 <i>Harry F. Port Advertising</i>	<b>KSH, Inc.</b> ..... 23 <i>Winfield Advertising Agency, Inc.</i>	<b>Standard Dry Wall Products</b> ..... 147 <i>Owens &amp; Clark</i>
<b>Delta Faucets Div. of Masco Corp.</b> ..... 16 <i>Burton Sohigian, Inc.</i>	<b>Latco Products</b> ..... 158 <i>Albert Frank-Guenther Law</i>	<b>Stanley Door Operating Equipment</b> <b>Div. of the Stanley Works</b> ..... 151 <i>Marketing Motivators, Inc.</i>
<b>Dow Badische Company</b> ..... 120 <i>Norman Craig &amp; Kummell, Inc.</i>	<b>Lead Industries Association</b> ..... 163 <i>Bishopric/Lieberman, Inc.</i>	<b>Thermoproof Glass Company</b> ..... 133 <i>Film Associates of Michigan, Inc.</i>
<b>Eagle Pencil Company</b> ..... 54 <i>Shaller-Rubin Company, Inc.</i>		<b>Tokyo International Trade Fair Commission</b> .. 51 <i>Asian Advertising, Inc.</i>
<b>Edison Electric Institute</b> ..... 68, 69 <i>Compton Advertising, Inc.</i>		



Tremco Manufacturing Co. .... 155  
Carr Liggett Advertising, Inc.

United States Plywood Corporation .... 116, 117  
Young & Rubicam, Inc.

Uvalde Rock Asphalt Company ..... 2nd Cover  
Glenn Advertising Company

Vogel Peterson Company ..... 18  
Ross, Llewellyn, Inc.

Von Duprin, Inc. .... 157  
Caldwell-Van Riper, Inc.

Weyerhaeuser Company ..... 61-64  
Cole & Weber, Inc.

Wiegand, Edwin L., Div. of  
Emerson Electric Co. .... 137  
Griswold-Eshleman Company

Wide-Lite Corp. Div. of Esquire, Inc. .... 67  
Weekly & Valenti, Inc.

Zero Weatherstripping Co., Inc. .... 136  
Harvard/Peskin/Edrick, Inc.

Zonolite Div., W. R. Grace Co. .... 115  
Fuller & Smith & Ross, Inc.

## ADVERTISING SALES OFFICES

Progressive Architecture

Reinhold Publishing Corp.

Wolcott H. Johnson, Advertising Sales Manager

<b>New York Office</b>	600 Summer Street, Stamford, Conn. 203-348-7531	<b>District Managers</b> William F. Bondlow Michael J. Hanley
<b>Philadelphia Office</b>	12 So. 12th Street 215-922-0346	<b>District Manager</b> John A. Teefy
<b>Pittsburgh Office</b>	601 Grant Street 412-281-9421	<b>District Manager</b> Albert E. McClimans
<b>Chicago Office</b>	10 So. LaSalle Street 312-726-1282	<b>District Managers</b> Charles E. Durham, Jr. James J. Hoverman
<b>Cleveland Office</b>	1717 E. 9th Street 216-771-4011-12-13	<b>District Manager</b> John F. Kelly
<b>San Francisco Office</b>	Jobson, Jordan, Harrison & Schulz, Inc. 57 Post Street 415-392-6794	<b>Representatives</b> Charles S. Harrison Cyril B. Jobson
<b>Los Angeles Office</b>	Jobson, Jordan, Harrison & Schulz, Inc. 1901 W. 8th Street 213-483-8530	<b>Representatives</b> Kenneth E. Jordan Peter Schulz
<b>Atlanta Office</b>	Robert L. Watkins Associates 505-805 Peachtree Bldg. 404-874-6427	<b>Representative</b> Harmon L. Proctor
<b>Tokyo Office</b>	International Media Representatives, Ltd. 2-4, 6-Chome Akasaka, Minatoku	<b>Representative</b> Sumio Oka

# STA CRETE

*"Experienced"*  
**EPOXIES**  
for maintenance

*surfaces ready for traffic  
within hours*

**Now** *"experienced" formulas  
for specific problems...*  
**CONCRETE TO CONCRETE TO  
WOOD TO METAL**

For renewing old  
concrete surfaces



Outstanding results — designed for Canneries, Public  
Buildings and Factories — allowing covering thin as 1/8 inch

For patching  
and grouting



Can be feather-edged  
sets overnight

Grout Stronger than Steel

For spalled or  
cracked concrete



STA-CRETE Epoxy held when beam rebroken

For bonding new  
concrete to old



No chipping or ruffing necessary

### COLOR

14 decorator colors in stock. Match color available in quantity.

### ALSO IN COLORS

Synthetic rubber caulking compounds for  
expansion joints and window glazing.

### RELIABLE

Test Patch—you'll be convinced. Trial kit \$2.00  
to cover handling.

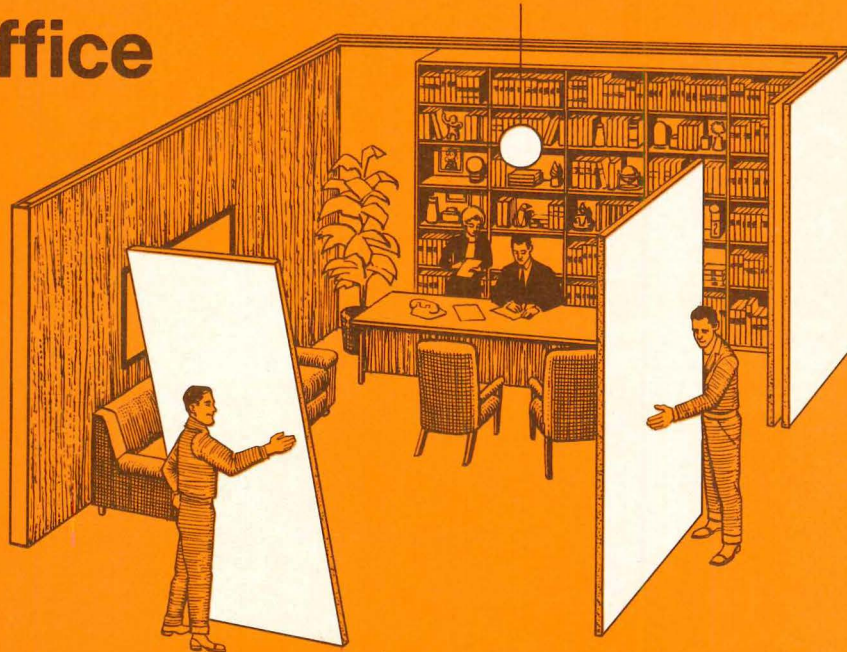
### FREE

Brochure and specific data information available  
upon request.

**STA-CRETE, INC.**  
893 Folsom St., San Francisco, Calif. 94107  
On Readers' Service Card, Circle No. 420



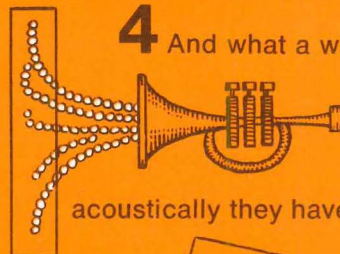
# Meet FLINTKOTE® TRIMWALL™... the fastest knock-down/drag-out partition that ever beautified an office



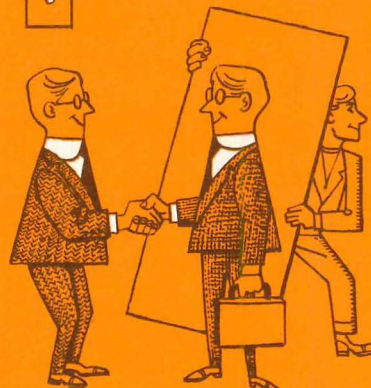
**1** Nothing to it. TRIMWALL movable partitions merely snap together like this.

**2** Then you hide the joints with an easily inserted batten strip.

**3** And you have a handsome wall, pre-decorated in simulated wood grain, a pattern, a texture, or other dramatic effects.



**4** And what a wall! The panels are FLINTKOTE® Gypsum Wallboard. Solid. Strong. Fireproof. And acoustically they have sound control to an estimated STC 40.



**5** TRIMWALL partitions look like they're built for the ages. You'd never guess you can take them down and set them up again at the drop of a vice president.

*Get the facts now about TRIMWALL movable partitions.*

## GYPSUM PRODUCTS DIVISION • REGIONAL SALES OFFICES:



- EAST RUTHERFORD, NEW JERSEY 07073 • 480 CENTRAL AVENUE
- LOS ANGELES, CALIFORNIA 90054 • 1650 SOUTH ALAMEDA STREET
- DALLAS, TEXAS 75207 • STEMMONS TOWER NORTH
- CHICAGO HEIGHTS, ILLINOIS 60411 • 17TH & WENTWORTH AVENUES





## Series 8100

*Architectural simplicity is enriched with the warmth of tone and texture. Char Bronze, Mirror Chrome . . . walnut, rosewood, teak . . . mix the finishes as you will to complement the crispness of this design. The options are yours; so are the opportunities.*

**alma**

See the Alma Series 8100 in our showrooms in High Point and Chicago (Space 1140, Merchandise Mart). For a full-color brochure illustrating this and several other Alma Series, write Alma Desk Company, Dept. PA-02, Box 271, High Point, N.C. 27261.

On Readers' Service Card, Circle No. 320

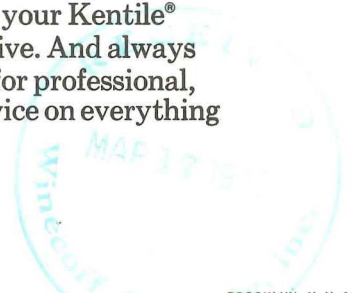


## Blairwood solid vinyl: for that custom-floor look.

Ready...set...go! Now, Kentile invites you to be as daring and diverse as your imagination allows. By combining Blairwood® Solid Vinyl tiles and planks, you can custom-design one luxury floor after another...and never

repeat the same design twice! Start with Blairwood tiles as your elegant, traditional parquet base. Then add Blairwood plank borders to create intriguing checkerboard, basket-weave, bold horizontal effects...and more. Both tiles and planks are available in four handsomely contrasting colors: English Walnut, Weathered Cypress, Silver Teak, and

Royal Pecan (shown below). Thickness:  $\frac{1}{8}$ ". Tile size: 12" x 12". Plank size: 4" x 36". For a complete set of Blairwood samples, call your Kentile® Representative. And always consult him for professional, unbiased advice on everything we make.



BROOKLYN, N. Y. 11215

# KENTILE FLOORS

