

# Progressive Architecture



August 1971, A Reinhold publication

28211ZZZWNX79Z7PA 0373 24  
WINECOFF TOOLY INC. ARCH  
BOX 17592  
CHARLOTTE, NC 28211





# One step and it all comes together.

The setting is a bank—where space prevails. The floor is Palestra™ Vinyl Corlon®. And as it stretches from wall to wall, it fills what could have been a design void and brings functional components together elegantly.

Here, Palestra Vinyl Corlon provides a base for relaxation, a base for concentration. It helps coordinate space and function. It adds dimension to the concept of "total architecture."

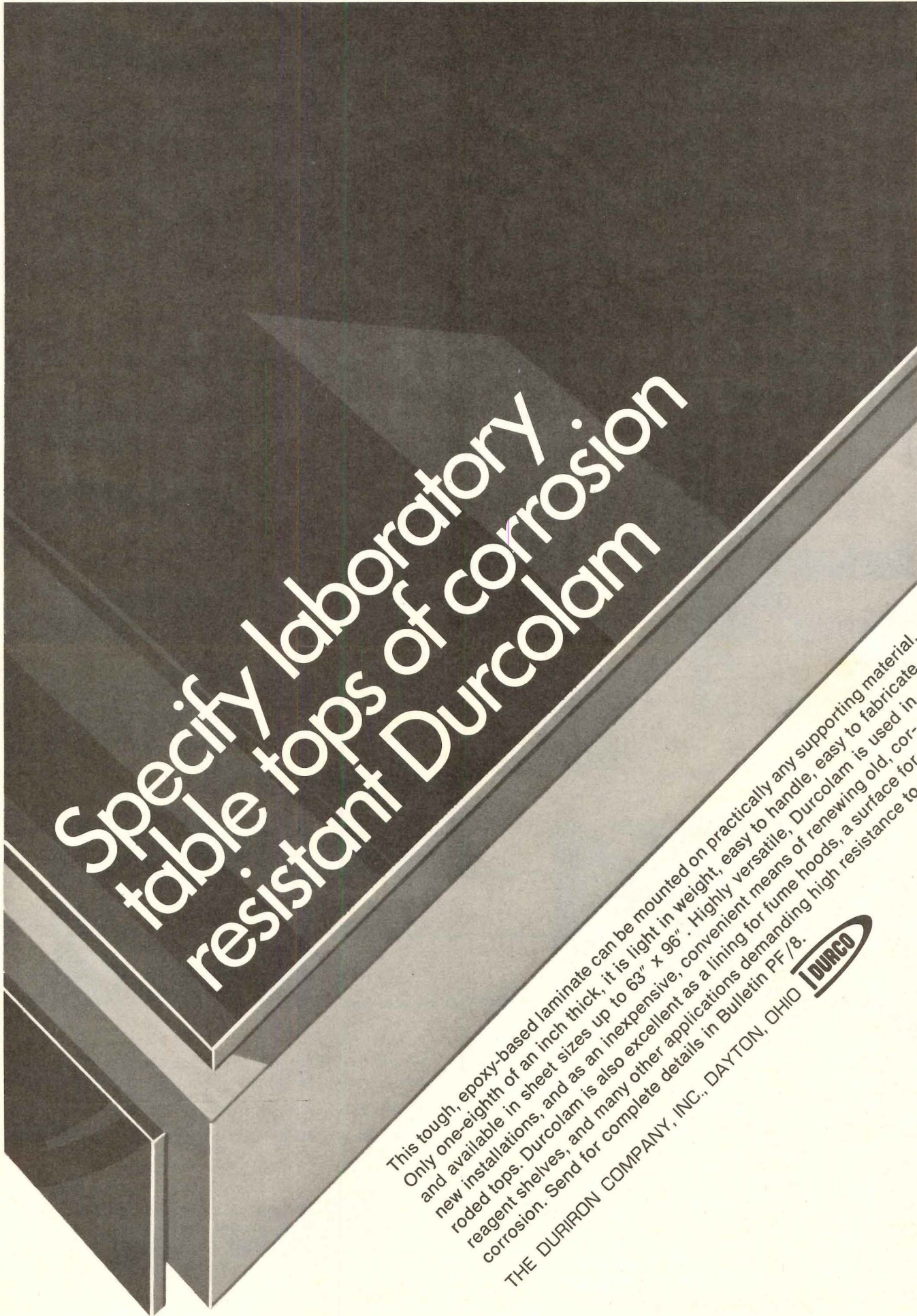
Palestra is just one of many Armstrong floors that can make an idea work.

For assistance or the flooring information you may need, please write us.  
Armstrong, 308 Watson St.,  
Lancaster, Pa. 17604.

 **Armstrong**

On Reader Service Card, circle no. 325





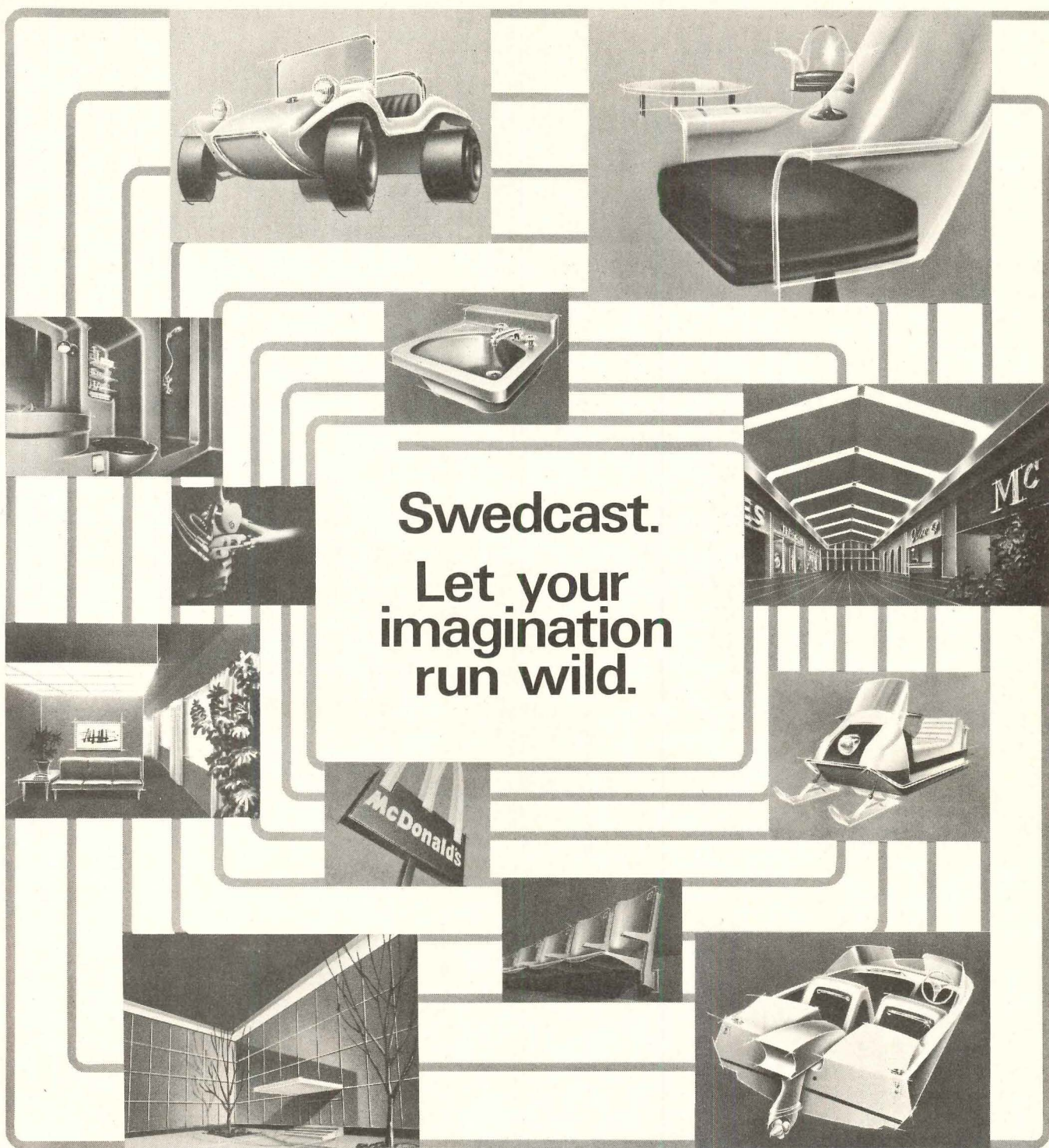
# Specify laboratory table tops of corrosion resistant Durcolam

This tough, epoxy-based laminate can be mounted on practically any supporting material. Only one-eighth of an inch thick, it is light in weight, easy to handle, easy to fabricate and available in sheet sizes up to 63" x 96". Highly versatile, Durcolam is used in new installations, and as an inexpensive, convenient means of renewing old, corroded tops. Durcolam is also excellent as a lining for fume hoods, a surface for reagent shelves, and many other applications demanding high resistance to corrosion. Send for complete details in Bulletin PF/8.

THE DURIRON COMPANY, INC., DAYTON, OHIO







Swedcast acrylic is available in nearly unlimited sheet lengths. Even rolls—which permit greater design freedom because seams are eliminated.

Architects are specifying Swedcast for skylights, lighting panels, glazing. Designers are using fiberglass-bonded Swedcast for sinks, modular bathrooms, chairs and tables, appliance components—even boats and recreational vehicles.

Swedcast resists ultraviolet deterioration that occurs in other plastics. Colors are permanent and practically unlimited—water-clear to brilliant solids. There are several marbled designs.

A patented continuous casting process gives Swedcast

greater formability than ordinary acrylics. Objects form with sharper definition, tighter radii and compound curves. Go ahead. Turn your imagination loose on Swedcast. Circle reader service card to receive product literature.

 *New dimensions in acrylic technology.*  
**SWEDLOW, INC.**  
 ACRYLIC SHEET DIVISION

7350 Empire Drive, Florence, Kentucky 41042



**Managing Editor**  
Rita Robison

**Associate Editors**  
David A. Morton, Features  
James A. Murphy, AIA, Features  
Clinton A. Page, News Report  
Sharon Lee Ryder, Interior Design  
Joyce Reback, Products, Book Reviews

**Copy Editor**  
Charlotte Van Voorhis

**Assistant to the Editor**  
Rosemary Lacerenza

**Editorial Assistant**  
Rose Calomino

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

**Contributing Editors**  
Esther McCoy, Architecture West  
Norman Coplan, It's the law  
Bernard Tomson, Hon. AIA, It's the law  
E. E. Halmos, Jr., Washington report  
Harold J. Rosen, PE, FCSI, Specification clinic  
Syska & Hennessy, Inc., Environmental engineering

**Publisher**  
Harrington A. Rose

William F. Bondlow, Jr., Adv. Sales Manager  
Burchard M. Day, Promotion Director  
Joseph M. Scanlon, Production Director  
Daniel H. Desimone, Production Manager  
Janice Carmichael, Assistant Production Manager  
Richard H. Di Vecchio, Circulation Director  
Walter L. Benz, Research Director  
E. M. Wolfe, Reader Service Manager

## Departments

Views  
News Report  
Products and literature  
Editorial  
Selected details  
Environmental engineering  
Specifications clinic  
It's the law

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

For subscription or change of address write Progressive Architecture, 25 Sullivan St., Westwood, N.J. 07695, giving former as well as new address, zip codes, recent address label if possible. Allow two months for change.

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: \$6 for one year; \$9 for two years; \$12 for three years. All others, and those professionals outside the U.S., U.S. Possessions and Canada: \$12 for one year; \$18 for two years; \$24 for three years. Foreign non-professionals: \$24 for one year. Single copy \$3, payable in advance. Indexed in Art Index, Architectural Index, Engineering Index. Second-class postage paid at Stamford, Conn. and additional offices. Volume LII, No. 8, Printed in U.S.A. Reinhold Publishing Corporation © 1971. All rights reserved.

# Progressive Architecture

50 **Designing for a dry climate**

Portfolio of three works by Mexico's Luís Barragán, who uses massive planes of color to deal with the effects of intense sun and shadows.

58 **Continuing a romantic tradition**

A fanciful façade carries on a tradition of romantic architecture at a county judicial building designed by Anderson-Johnson-Henry-Parrish in St. Petersburg.

64 **Materials and methods: The house that Walt built**

Among the fantasy spectaculars rising at the soon-to-open Disney World is a technical one: a hotel comprised of prefabricated rooms in a supersize A-frame.

66 **Challenge to the rectangular**

In developing the theory of the double grid system, architect Clovis Heimsath notes a change in the ways people perceive space and form.

72 **Interior design: Broken space**

Slipformed construction left no space for a traditional lobby, so architects Curtis and Rasmussen turned the constraints to advantage in an unusual Hilton.

74 **Interior design: Interior shells**

Two projects with vastly different solutions to the same problem of negating the existing space; James Terrell and Sim van der Ryn, architects.

**Cover:** Watering pond for horses at the Egerstrom house by Mexican architect Luís Barragán, photographed by Armando Salas Portugal.





## SHRINKS after installation

Precision-cut Condulite® not only dissipates electrostatic charges, but it also guards against bacterial contamination between tiles. Even after years of cleaning with harsh chemicals and heavy traffic, you still have a smooth, sanitary floor.

The secret is our special formulation that resists shrinking. In addition, it resists dents . . . prevents chipping and cracking . . . provides quiet underfoot comfort . . . stays good looking years longer.

What's more, Condulite is faster and easier to install. There's no need for added labor and materials costs for copper stripping. Our special adhesive is both an adhesive and a conductor.

When installed according to directions, Condulite meets the requirements of the NFPA Standard 56, Section 252

and Federal Specifications SS-T-312. Listed by Underwriters' Laboratories, Inc., each Condulite installation is backed by a five year written guarantee.

Available in six colors, Condulite is ideal for operating rooms, intensive care units, and laboratories . . . wherever maximum safety, minimum maintenance, and lasting durability are mandatory.

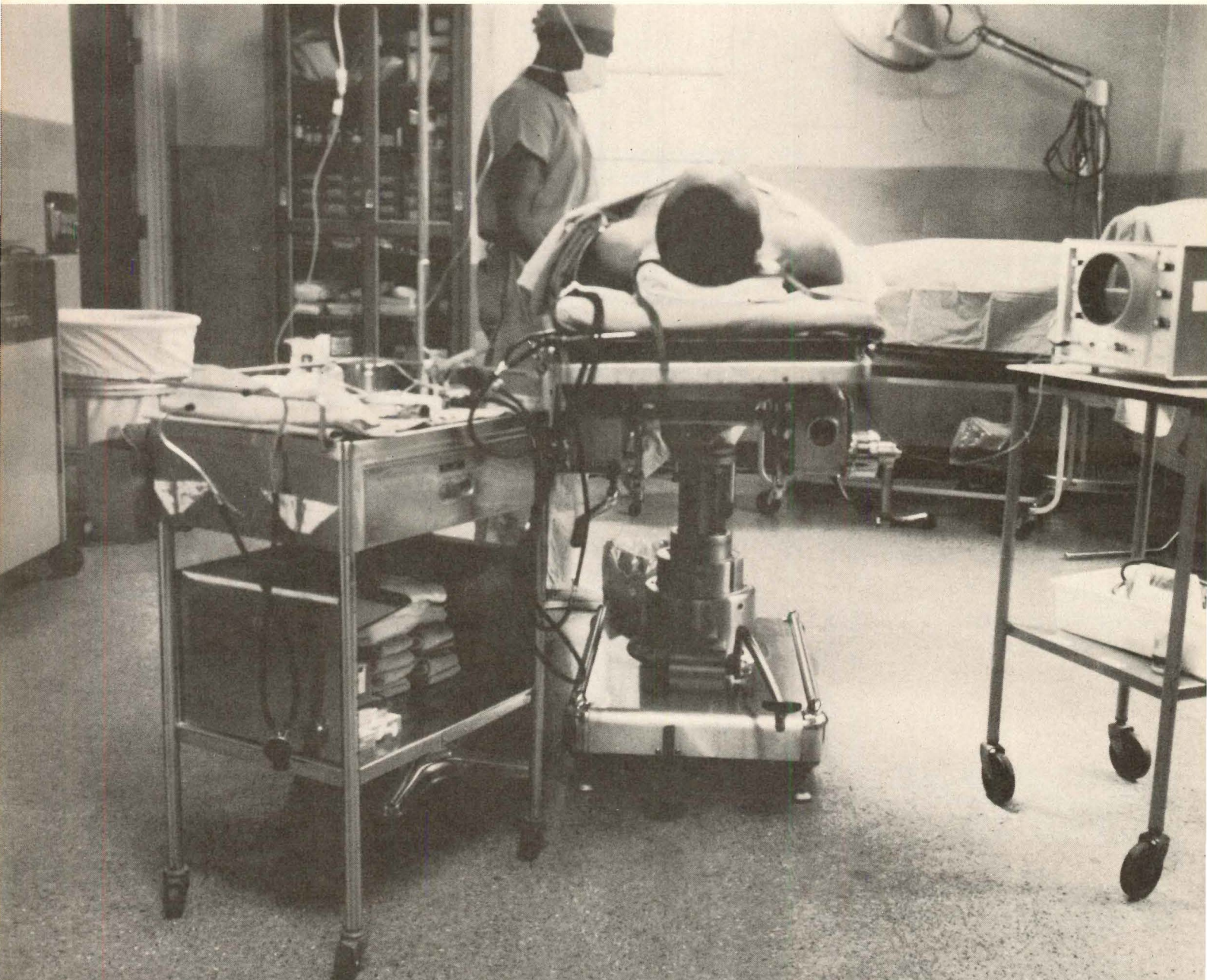
For more information and samples of the conductive tile that won't shrink, call or write the Burke Floor Covering Division, or your local Burke Representative.



### **BURKE RUBBER COMPANY**

2250 South Tenth St. / San Jose, Calif. 95112 / (408) 297-3500

On Reader Service Card, circle no. 329



## There's Condulite, for example.



# This is building automation.



## So is this.



Robertshaw will customize the control system you need, from the basic units to a sophisticated computerized center.

For economical control of heating, cooling, ventilating, humidity (and other building functions) choose the Robertshaw system that fits your building . . . and your budget.

Get modular designs with standard, proven pneumatic and electronic components. Systems that can be easily expanded as plans and buildings change. One console can operate any Robertshaw control center with substantial manpower savings, year after year.

See Robertshaw options:

**Basic Controls**—From the simplest to the most complex.

**Compact Center**—MLS 50 console (2'x2'x6') controls up to 500 separate functions. Offers programmed on/off/stop, with high speed priority alarms.

**Computer Automation**—MLS 400 will automatically execute the optimum control decision for fuel and energy economy. Tells the operator what is happening in a whole system or a single point with clearly-stated words and numbers. Preventive maintenance as well as daily operations can be programmed.

**Multi-Building Control**—Using existing wiring (such as telephone lines) Robertshaw systems provide low-cost central control over complexes or citywide building groups. Especially adaptable to existing installations.

**Budgeted Maintenance**—For total responsibility, Robertshaw's skilled specialists will service your control system under a planned maintenance program that fits your budget.

Robertshaw works with architects and consulting engineers from initial planning to "turn-key" satisfaction. For more details, contact your nearest Robertshaw office.

**Robertshaw** 



## Views

### Value of practical experience

Dear Editor: In your May '71 issue, page 6, you published a letter written by Dr. Chern, who expounded on the uselessness of practical experience before architectural registration and the architect's desire to retain his "slave laborers."

For your information, the California Board of Architectural Examiners indicates that Dr. Chern is not licensed to practice architecture in California, his state of resi-

dence. Further, the NCARB indicates Dr. Chern does not have an NCARB certificate. What are Dr. Chern's qualifications for passing judgment on such an important part of our profession? Since I am in private architectural practice, licensed to practice in several states, have an NCARB certificate and am a member of the AIA, I feel that I am more qualified to express realistic views concerning the practice of architecture, as I am actively engaged therein.

Dr. Chern's references to "cheap labor" and "slave laborers" indicate to me his limited experience or bitter attitude toward the architects in private practice. All of the architects that I know pay their employees what they are worth, and usu-

ally more. If Dr. Chern had been in private practice, he would realize this.

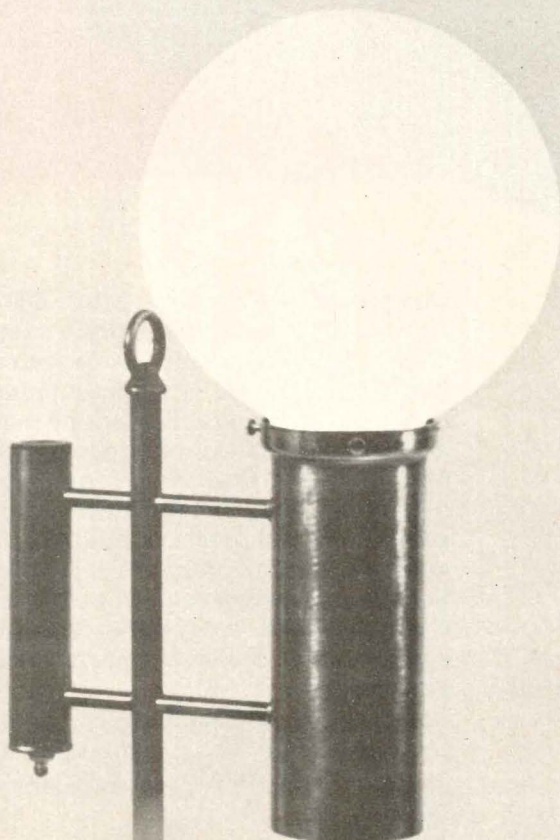
Dr. Chern's attitude concerning the value of practical experience reflects a limited knowledge of the workings of an architectural firm. There is more to the practice of architecture than can be learned from textbooks and college professors. I have a Bachelor of Architecture degree from the University of Illinois. I value my practical experience prior to registration just as much as my college training. There are too many facets of the profession that can only be learned by actually working in an architect's office.

I am concerned with all of the architects being as competent as possible. When an architect performs his professional services poorly, it reflects on all members of the profession. The practice of architecture should be governed by those actively engaged therein, and not by those "sitting on the sideline," with much to gain and nothing to lose.

Glen H. Isaacs, AIA  
Nashville, Tenn.

## The Robert Long Taste Test No. 2

If you like Ben Shahn, Tanqueray, Jean-Paul Belmondo, Sam Spade, Cootie, Brooks Robinson, Stephen Sondheim, and 21, you'll like the character of Robert Long lamps and lighting.



ROBERT LONG, INC., 90B Gate 5 Road, Sausalito, California 94965  
Brochure on Request. A Division of Metropolitan Furniture Corp. Showrooms: New York, Chicago, Atlanta, Dallas, Los Angeles, San Francisco



### Info please

Dear Editor: I am writing a dissertation on "Charrettes"—a citizen participation concept developed to help solve architectural and planning problems by the Office of Federally Assisted Construction, Dept. of HEW—and their possible adoption for use in the United Kingdom.

I should be interested to hear from any of your readers who have any experience of this process.

Alan Mossman  
5-140  
Upper Parliament St.  
Liverpool L8 7LG  
United Kingdom

### Images

Dear Editor: "Psychic or metaphorical cues," "an ecology of the mind," "contextual relevance,"—re: the Herb Greene house in the May issue of P/A (p. 80)—is this really Herb Greene speaking?

I have a past acquaintance with Herb and my recollection of the rare occasion when we were able to get him to speak at length about his work is that he had an outstanding ability of expressing himself succinctly in words not requiring access to a dictionary.

John M. Mattingly  
Jackson, Miss.

[Yes, this is Herb Greene. See forthcoming book *Images in Architecture* 25d1]



# City-escape: Glaverbel Bronze

Keeps the outside out. Makes the inside in.  
Glaverbel makes the city a great place to live.

The difference in glass is Glaverbel —  
whether you look through it, or at it!

## Glaverbel

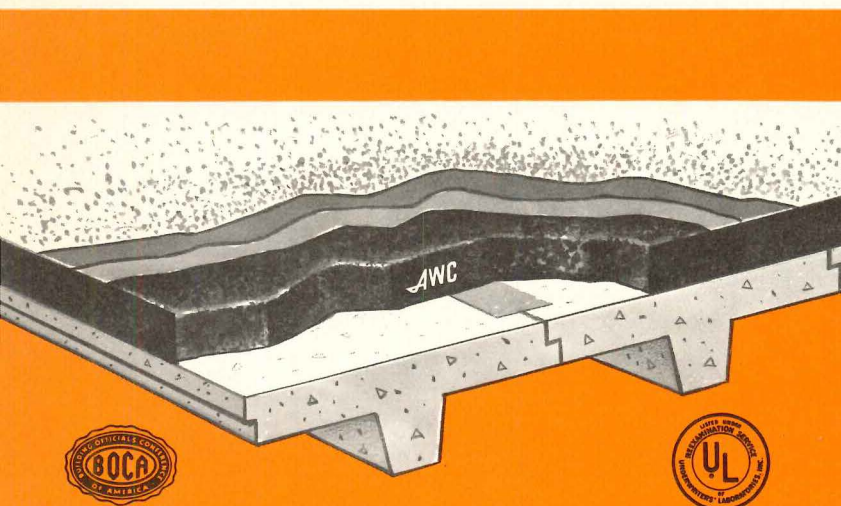


(USA) Inc., 75 Plandome Road, Manhasset, New York 11030  
Canada Ltd., 1550 Maisonneuve Blvd. W., Montreal 107, P.Q.



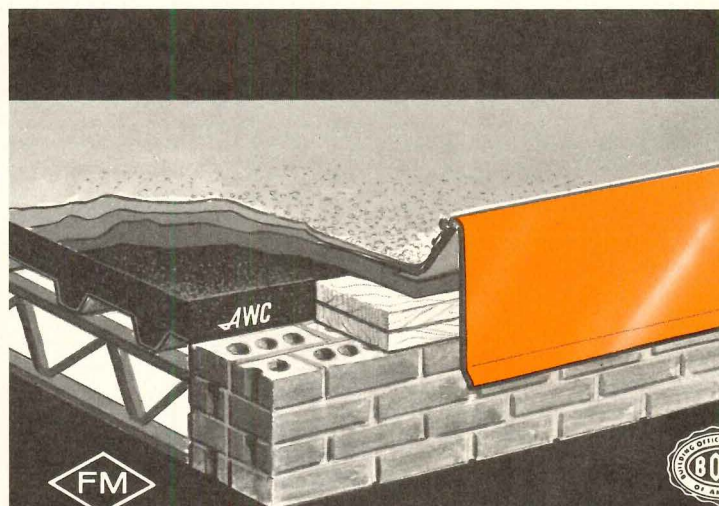


# All-weather Crete's multi-functional capabilities.



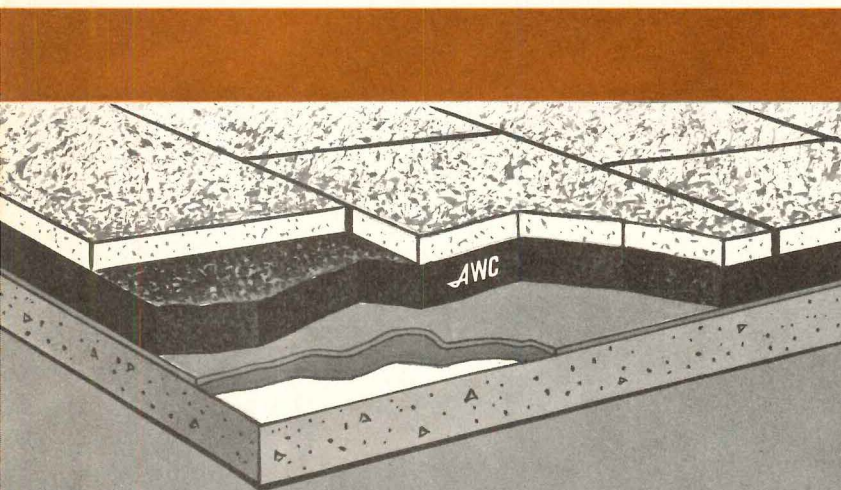
## 2 HOUR FIRE RATED ROOF DECK

All-weather Crete seamless insulation (K factor .40) is applied over pre-tensioned concrete units. U/L Design No. RC19. It can be sloped to drains, eliminates camber and uneven joints. This provides a smooth even surface for immediate conventional built-up roofing.



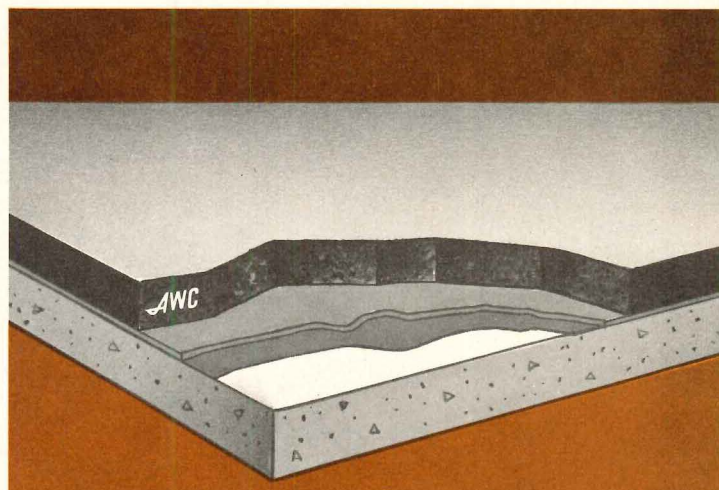
## CLASS 1 METAL DECK CONSTRUCTION

This tested roof deck insulation system meets Factory Mutual requirements for fire hazard and wind resistance. With special Silbrico adhesive, it is an approved U/L deck (No. 360 R 13). The Silbrico Fascia System shown above also meets Factory Mutual roof perimeter flashing requirements of Data Sheet 1-49 to resist wind uplift of 60/Lin. Ft. of wall. The perfect combination for maximum protection.



## PLAZA DECK

There are eight widely used All-weather Crete plaza systems. Not only does AWC provide the most effective available insulation, but it protects the water proofing membrane keeping it ductile and active for the life of the system.



## ROOF DECK OF THE FUTURE

Over a decade of designing, testing and practical application have produced this new Silbrico system. All-weather Crete placed over the water proofing membrane protecting it from severe thermal change and climatic elements which are major causes of roof failure. All-weather Crete insulation has the properties of being unaffected by these severe conditions. Consult Silbrico Corporation regarding this new construction.

For complete information, specifications and detail diagrams regarding these and many other successful AWC systems, write Silbrico Corporation, 6300 River Road, Hodgkins, Illinois 60525. References: Sweets catalog and Spec Data.



**All-weather Crete®**



Never in carpet history, has so little been guaranteed to do so much.

We guarantee that a carpet made with as little as 2% Zefstat® anti-static yarn will reduce static below the level of human sensitivity for the useful life of the carpet or five years.

Or else we replace the entire carpet, free of all charges, including the cost of installation.

No other anti-static carpet yarn is backed by a guarantee of any kind, let alone a five year guarantee. Which means either we know something no other fiber producer knows or else we're crazy.

We're not crazy.

We originated and developed the concept of turning metal into soft textile yarns more than 20 years ago.

We knew how to blend acrylic-modacrylic or nylon with Zefstat anti-static metallic yarn during yarn production so that you wouldn't see it or feel it.

In fact, the best way to see if Zefstat is there is to look at the back of the carpet and see our guarantee.

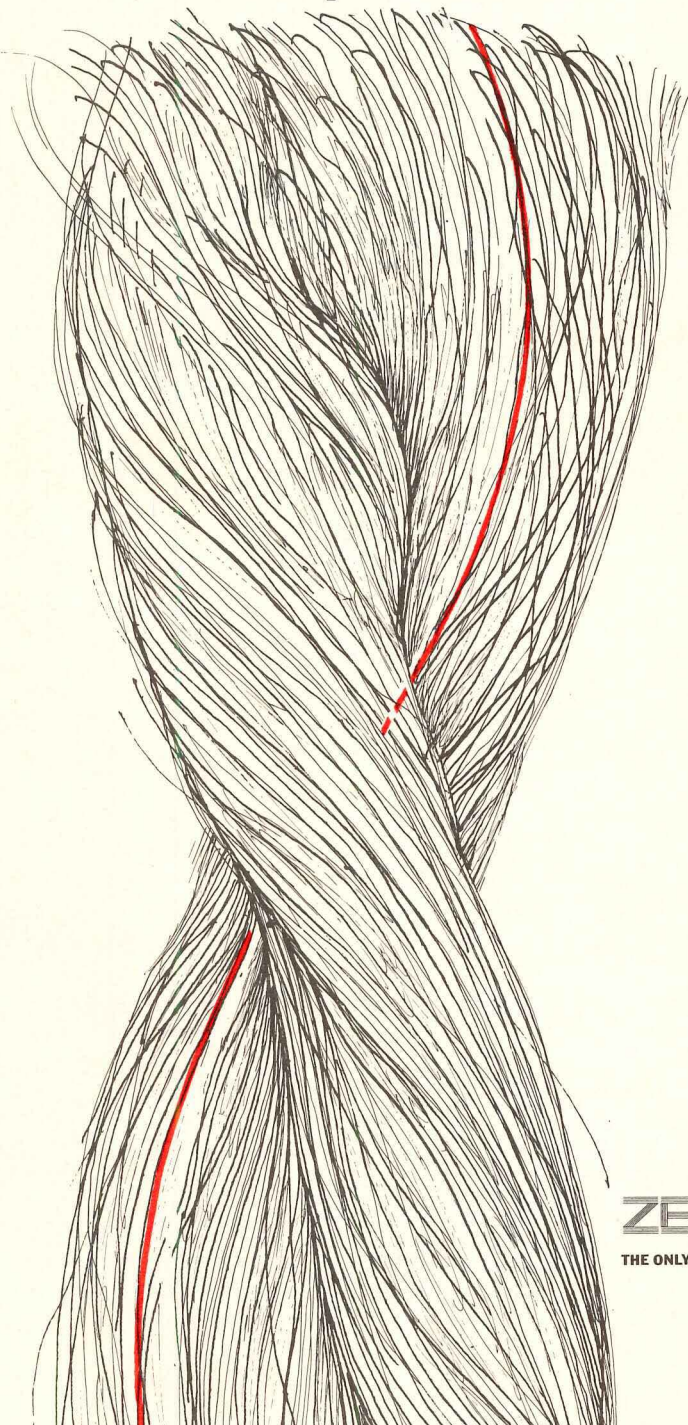
Dow Badische Company, 350 Fifth Avenue, N.Y., N.Y. 10001.

Zefstat is a registered trademark of Dow Badische Company.

Dow Badische Company guarantees to the original purchaser that a carpet made with Zefstat will not generate static in excess of 2,500 volts down to a relative humidity of 20% at 70°F. (The threshold of average human sensitivity is considered to be 3,000 volts.) This anti-shock feature is guaranteed for the useful life of the carpet or five years, whichever is sooner.

If the anti-shock performance fails to meet the above standard and if human comfort is adversely affected by static generation, the purchaser must notify the manufacturer and make the carpet available for testing by Dow Badische Company. If failure is verified by our tests, the carpet will be replaced, free of all charges, including the cost of installation.

**If 2% of the carpet doesn't work  
we'll replace 100%**



**ZEFSTAT** DOW BADISCHE  
THE ONLY ANTI-STATIC YARN GUARANTEED FOR 5 YEARS



Wasps protect their living communities by building a structure of a closed-cell material around the living cells where life, food, production and community existence depends on the insulation that protects the larvae from violent extremes in temperature.

Large apartments and commercial structures can accomplish the same ends by using insulating panels made of Styropor® expandable polystyrene beads from BASF Wyandotte.

Panels made from Styropor are tougher, longer lasting and easier to use than even a wasp could dream of. Styropor insulation is . . . chemically inert; water resistant; non-rotting; non-dusting; non-warping; rigid and strong; light weight; easy to apply; readily available; low in original and installed

cost; contains no irritating fibers . . . and superior in thermal resistance to glass, cotton, or rock wool batts.



Send the coupon below and find out how to improve on nature with Styropor insulation panels.

**BASF**



**BASF Wyandotte Corporation**

Advertising Dept. 144H3  
100 Cherry Hill Rd., P.O. Box 181  
Parsippany, New Jersey 07054

Send data on Styropor® to:

Name \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

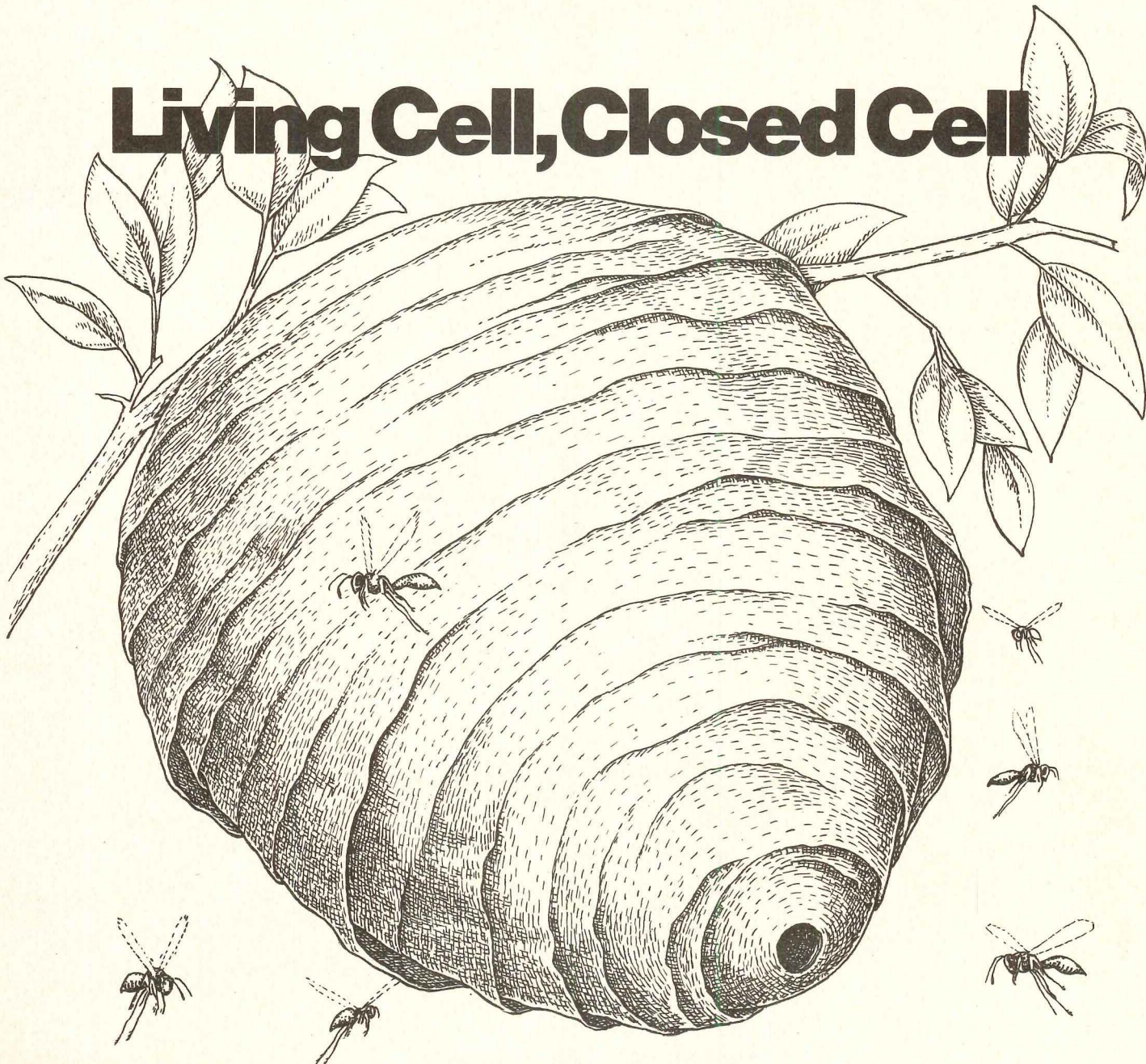
City \_\_\_\_\_

State \_\_\_\_\_ Zip \_\_\_\_\_

Phone: (\_\_\_\_) \_\_\_\_\_ Ext. \_\_\_\_\_

**Styropor® EXPANDABLE  
POLYSTYRENE**

# Living Cell, Closed Cell





One never gives a damn  
about hinges...



## Until one doesn't work!

When you specify a hinge, be sure it's the one that ALWAYS does its job . . . Moderne, by McKinney. Moderne's exclusive two-knuckle design eliminates troublesome intermeshing of knuckles. Its integrated heavy-gauge non-rising, non-removable pin means easier, time- and labor-saving installation. This unique hinge, with oil-impregnated stainless steel bearing, assures years of quiet, self-maintaining heavy duty service.

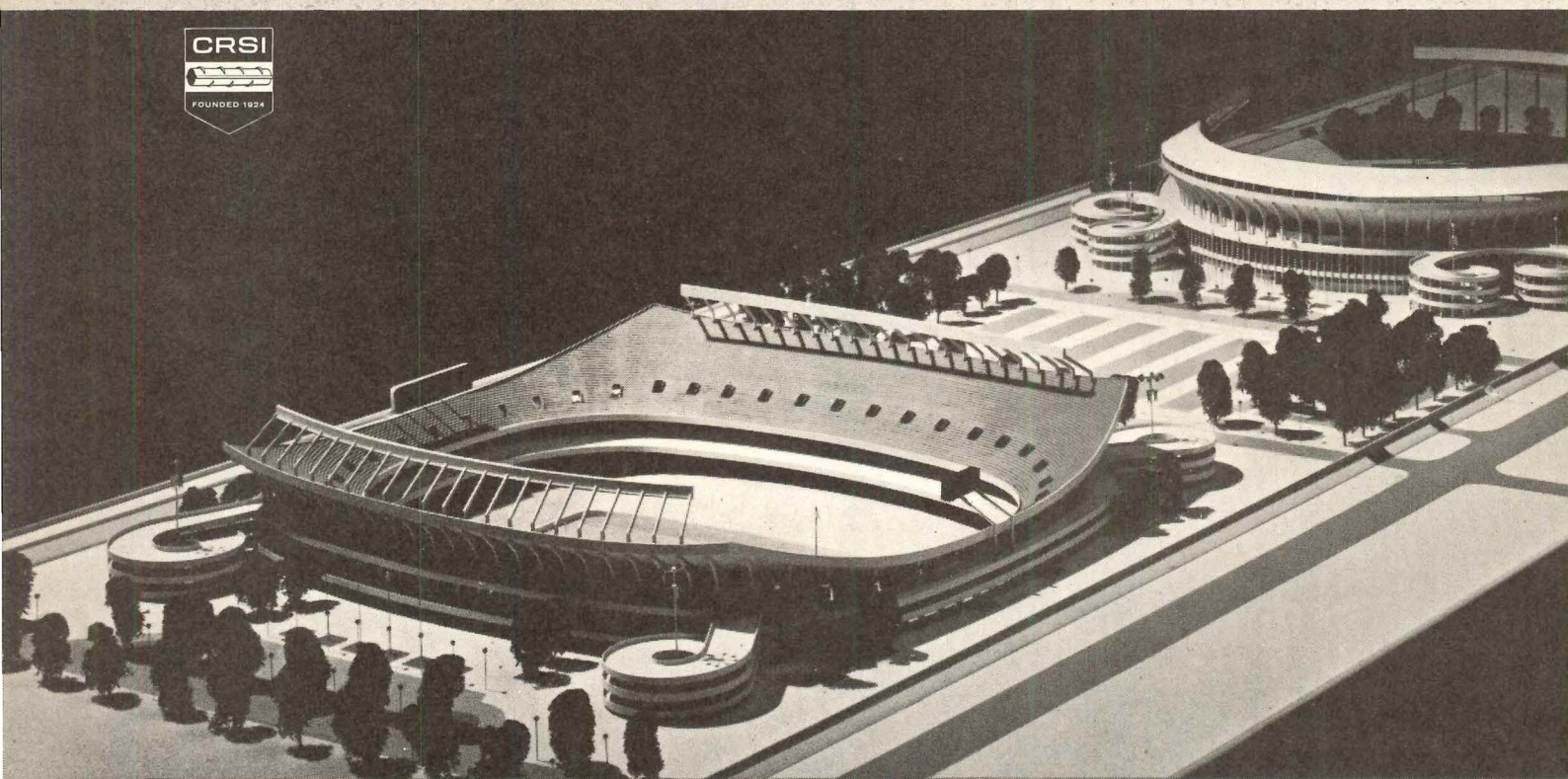
Next time you specify a job . . . specify McKinney Moderne hinges. They always work.

# McKinney





# the beautiful world of reinforced concrete is a climate of excitement



Excitement for all seasons is planned in Kansas City. In reinforced concrete. This new Jackson County sports complex, created by architect Charles Deaton, is a spectacular for spectators inside and out. Both stadiums offer every fan an unencumbered view of the action. Football stadium seats 75,000. The baseball structure holds 45,000. The graceful sight lines and sculptured beauty of the Deaton design demonstrate why the trend to reinforced concrete

grows bigger by the day. There's new utility, flexibility and economy in this medium. New design freed greater opportunity to run with bold concepts and New high-strength reinforcing steel is one of the reasons why. It offers 50% greater yield strength. Faster, practical construction. Almost limitless design possibilities. New high-strength reinforcing steel makes everything the mind's eye can imagine build better in reinforced concrete.

CONCRETE REINFORCING STEEL INSTITUTE





Jackson County Sports Complex, Kansas City, Mo. designed by Charles Deaton, Architect, in association with Kivett and Myers, Project Architects. Sketch of rebar placement at one of the major bents supporting stadium seating (structures similar in both). All bars to be lap spliced. Rebar assemblies "prefabricated into cages". Approximately 8,000 tons of Grade 60 high-strength reinforcing steel will be used. Completion scheduled for 1971.

Grade 60 Steel\* offers new strength and economy in a one-grade package. Ultimate Strength Design (USD) utilizes fully its 50% greater yield strength. Helps achieve slimmer columns. Lowers over-all construction costs. Write for new Grade 60 Steel Brochure.





# When you specify water hammer arrestors, go by the book.

The book is our Wade Specification Manual. And it's your complete source for DWV system specification products.

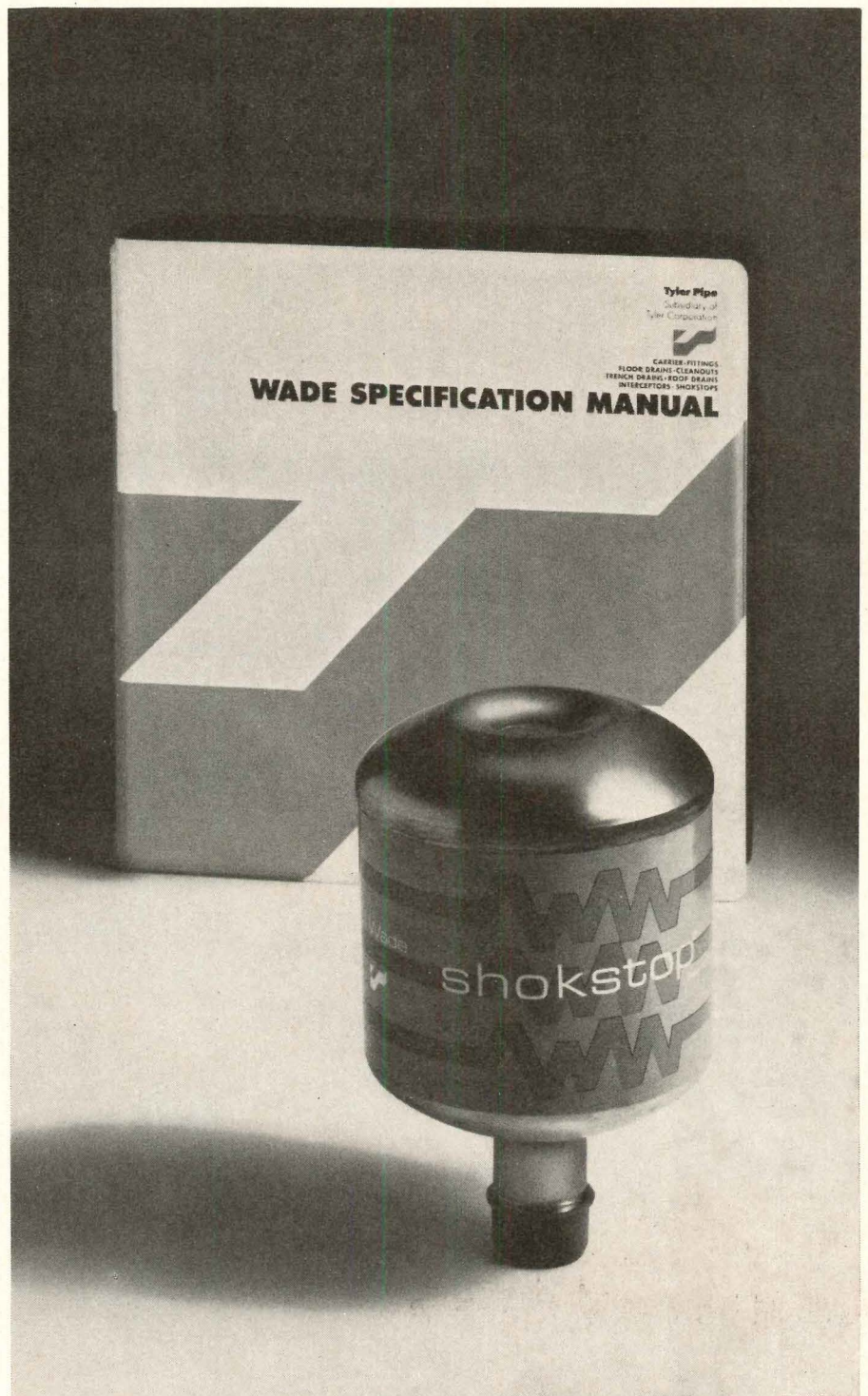
Under the heading "Shokstops" you'll find a new catalog with everything you need to know about water hammer arrestors.

You'll find complete specs and detailed information on six new commercial Shokstops.

You'll find out how the Wade Shokstops work. What they do. How to find out which one is best suited for a particular application.

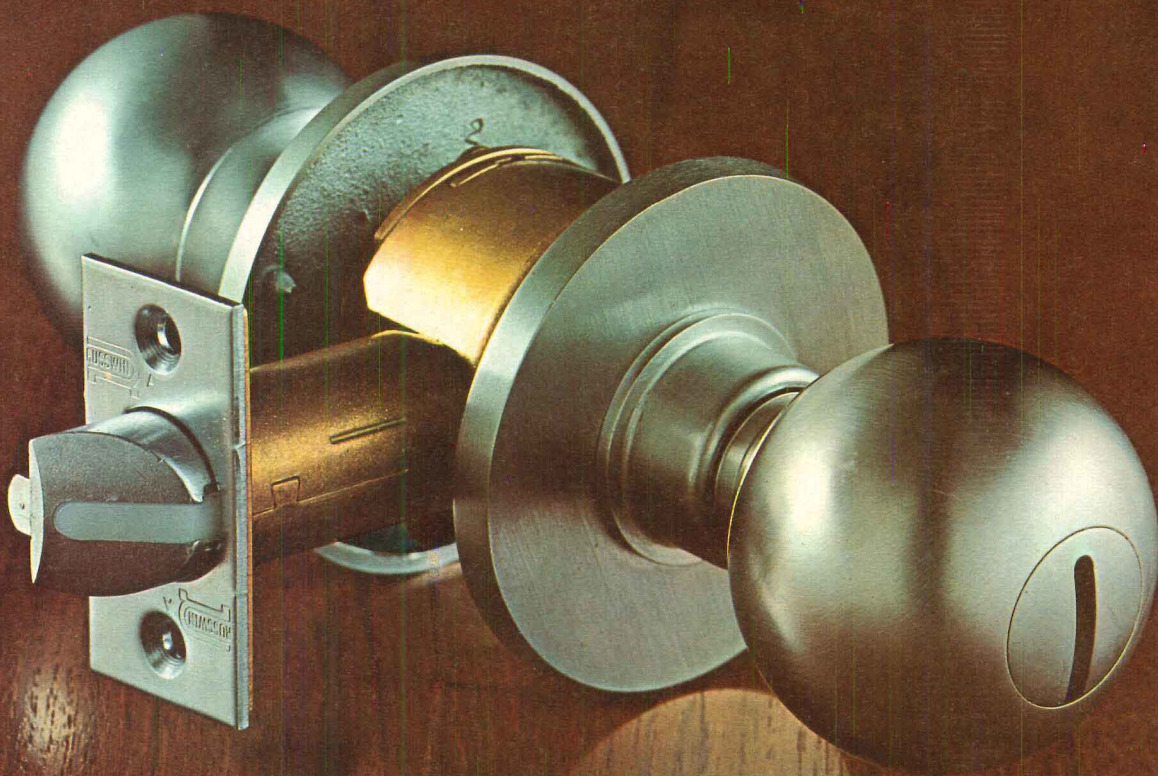
When you need water hammer arrestors, specify by the book, Wade's Specification Manual. To get your free, registered copy, simply write us on your letterhead to P. O. Box 2027, Tyler, Texas 75701.

If it goes into a DWV system, Tyler makes it.



**Tyler Pipe**  
Subsidiary of  
Tyler Corporation





## Well rounded

Smoothly sculpted to please as well as protect, the STILEMAKER® lockset is a beauty for all-around heavy duty service in schools, apartments, and office buildings. Unmistakably Russwin.

Russwin, Division of Emhart Corporation, Berlin, Connecticut 06037.

In Canada — Russwin, Division of International Hardware. Ronde Design.







## We would like to see you specify fire rated doors more often

The problem is getting worse.

In a recent apartment fire, twelve people died. Nine had rooms with hollow core doors that disintegrated in seconds.

The real problem is the lack of *enforcement* on codes already calling for fire resistive doors.

Code officials are cracking down.

As an architect, however, you can solve the problem faster by specifying a fire door when you have the slightest question about life or death.

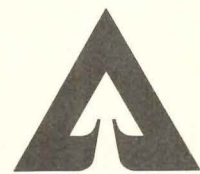
When in doubt, ask your nearest Weyerhaeuser architectural representative for recommendations.

We've done a lot of research

on fire resistive materials. Our test furnace in Longview, Washington, has helped us develop a large selection of wood fire doors with 45 minute, 1 hour and 1½ hour U.L. ratings.

Please specify doors that give people a chance.

Fire doors aren't that expensive.



**Weyerhaeuser**

On Reader Service Card, circle no. 391

On Reader Service Card, circle no.





Bankers' Club  
Bank of America Building  
San Francisco, California  
Interior Designers:  
Edward Brimm & Associates  
Cleveland, Ohio

Architects & Engineers:  
Skidmore, Owings & Merrill  
San Francisco, California  
Wurster, Bernardi & Emmons  
San Francisco, California

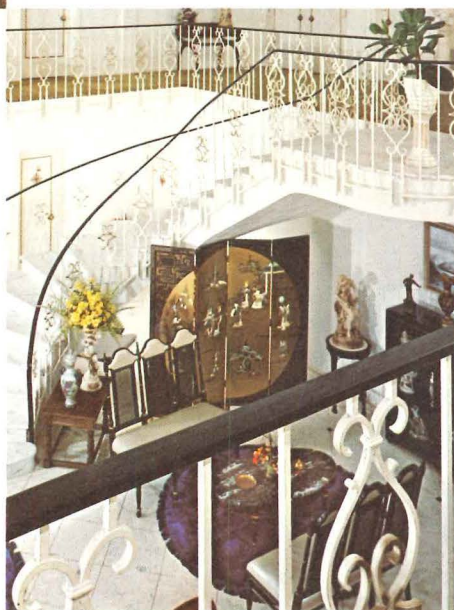
Mount Airy Lodge  
Mount Pocono, Pennsylvania  
Architect: Burns & Loewe  
Scranton, Pennsylvania

# Traditional Railings

The classic styling of traditional handrailings adds rich dimensions to any architectural setting. The Blum collection includes handrail mouldings, spindles, scrolls, finials and decorative panels.

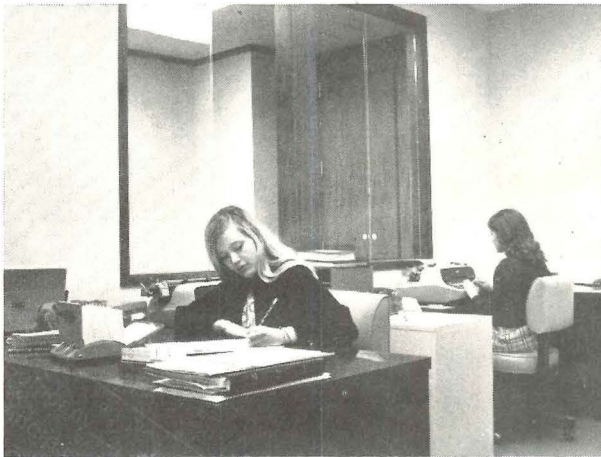
A large variety of high quality components is available from stock in aluminum, bronze, steel and malleable iron. Also included is a large selection of durable malleable iron treillage patterns in distinctive motifs which provide for a wide range of custom designs. These components are available through local fabricators everywhere.

For a complete listing of styles and sizes, write for Catalog, Special Bulletins, or see Sweet's Architectural File, Industrial File or Interior Design File.



JULIUS BLUM & CO., INC., CARLSTADT, NEW JERSEY 07072  
N. J. (201) GE 8-4600 • N. Y. (212) OX 5-2236 • TELEX 13-3491 • TWX 710-989-0112  
THE MOST COMPLETE SOURCE FOR ARCHITECTURAL METALS





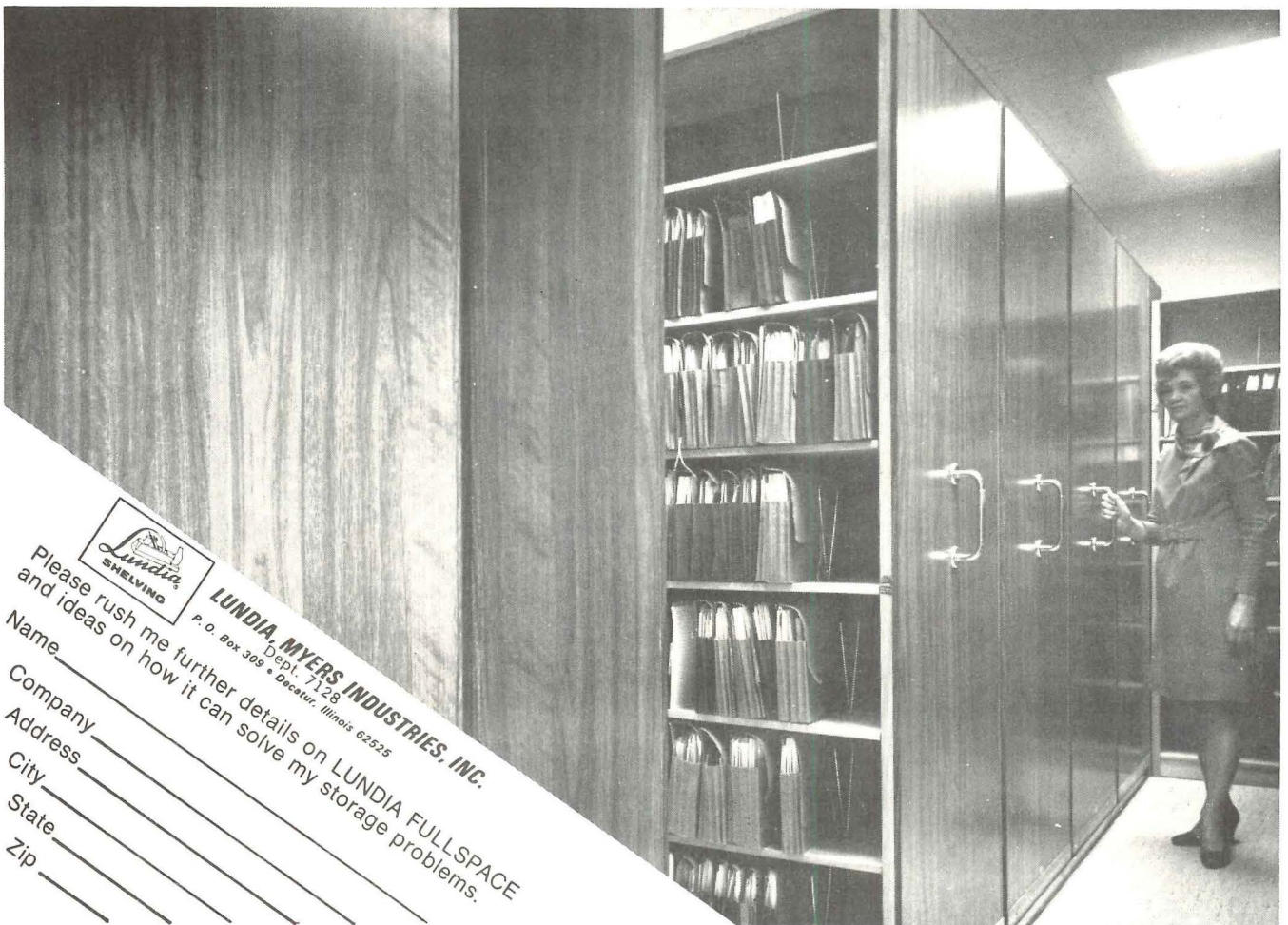
LOGICAL STORAGE SYSTEMS FOR  
SEEMINGLY ILLOGICAL SPACE PROBLEMS

Miss Vicki Mulcahy, Records Supervisor, "was literally climbing the walls in the old system" which was crowded, depressing and dusty. With FULLSPACE, "Not only is there so much more space, but it is easy to get to the proper shelf whenever I have to. I stay in one area and the file is brought to me, in a manner of speaking. It is just like an office rather than a back room reserved for storage...livable, attractive and cheerful."

## Large Law Firm handles a case against storage problems and wins a victory

It was a case of moving—or doing something drastic about the problem of records storage at the law offices of Gibson, Dunn & Crutcher. The law firm is one of the largest of its kind in the U. S., with offices in L. A., Beverly Hills and Newport, Calif., and Paris, France.

Mr. Herbert S. Schwab, Director of Administration, said, "Legal terminology always manages to cover endless sheets of paper to clarify a point of law or an issue, so when we finish some cases, we have an entire bookcase filled with legal folders." The firm's offices were literally being devoured by space-hungry storage shelves crammed with records, undergoing their own population explosion. "Fortunately," Mr. Schwab continued, "we saw the LUNDIA system in another attorney's office and recognized the tremendous potential. We would be able to double our storage space in existing areas without moving. The results have been nothing short of exciting. We now have used only 1/3 of the space we had for *all* our files. We still have 2/3 of this space left, and estimate that means at least three years before we have to think of expansion."



**LUNDIA MYERS INDUSTRIES, INC.**  
Dept. 7128  
P.O. Box 309 • Decatur, Illinois 62525

Please rush me further details on LUNDIA FULLSPACE  
and ideas on how it can solve my storage problems.

Name \_\_\_\_\_  
Company \_\_\_\_\_  
Address \_\_\_\_\_  
City \_\_\_\_\_  
State \_\_\_\_\_  
Zip \_\_\_\_\_



**Before  
you lay your  
reputation  
on an acrylic  
carpet,  
you owe it to  
yourself  
to read this.**



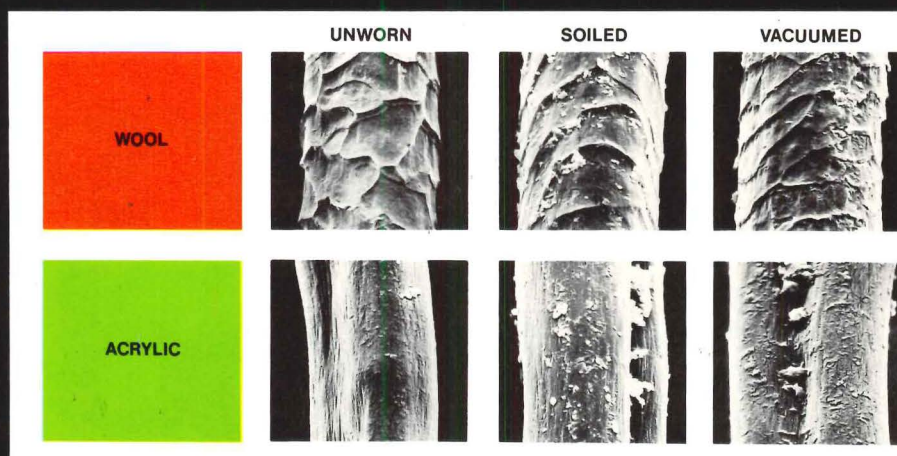
# Here's how wool carpets wear better and clean better than acrylics.

Most carpets look good when they're new, but how does acrylic carpet compare to wool after 100,000 footsteps? Which carpet is easiest to clean?

**These microscopic studies show that a wool fiber releases dirt much more readily than an acrylic one.**

Carpet samples of wool and acrylic were laid at a cafeteria entrance where they were walked on by people from a wide variety of areas—workshop, garden, laboratories, maintenance, etc. The arrangement of carpet samples was alternated and vacuum cleaned each day.

After three months when 48,000 people had walked over the carpets, small samples from the pile of each were studied by electron microscope—before and after vacuum cleaning—to determine any differences in the surface appearance of the fibers.



## Results:

Studies of the fibers showed that—compared with each other and with the unworn control samples—the wool had soiled noticeably less than the acrylic, and with cleaning had shed dirt to a greater degree.

## Conclusions:

One of the most important factors in the excellent long-term appearance retention of a wool carpet is the wool fiber's natural resistance to soiling, together with its ready release of dirt in cleaning.



**These pictures and graph show that wool carpeting soils less and cleans much more easily than acrylic carpeting.**

These pictures show the results of a study of the comparative soiling and cleaning of wool and acrylic carpets. Soiling was four to five times greater with the acrylic carpets, and soil release with shampooing was four times greater with the wool carpets than with the acrylics.

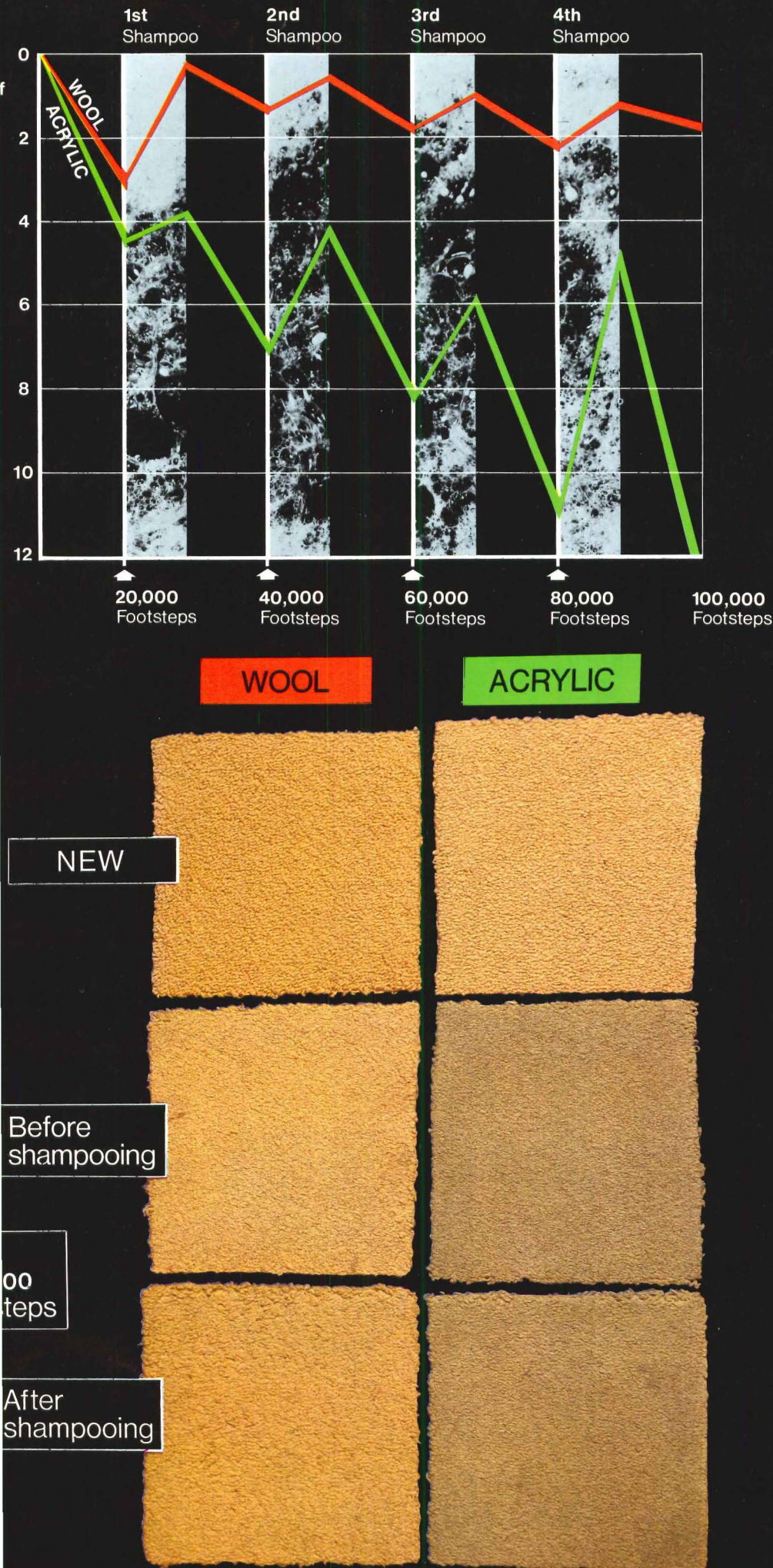
At each cleaning, the test samples were compared with unworn control samples, and the degree of soiling was expressed by color change. The graph shows the comparative soiling and cleaning performances of the wool and acrylic carpets.

#### Results:

- Before the first shampooing, the difference between the soiling of the wool and the acrylic carpets was negligible.
- The first shampooing showed that the soil release of the wool samples was about four times higher than that of the acrylic.
- After the first shampooing there was a remarkable difference in the degree of resoiling of the carpets—the acrylic soiled four to five times more than the wool.
- This resoiling increased as the wear on the carpets increased.
- Pile weight also made a difference in the soiling properties of the carpets. With increasing pile weight the wool carpets showed a lower degree of soiling. With the acrylic the relationship was exactly opposite—the higher the pile weight, the greater the degree of soiling.

#### Conclusions:

The wool carpets soiled much less than the acrylic carpets, from all points of view: soil and re-soil resistance as well as soil release in shampooing. These are very important characteristics, especially in high traffic areas such as public buildings, where carpets are subject to heavy soiling. The acrylic carpets, because of lower soil release characteristics, accumulated soil. The higher the pile weight of the acrylic, the more difficult it was to clean.





### What about resilience and durability?

Acrylics say they're more resilient, more durable, but the natural resilience and durability of wool is an undisputed fact. In laboratory testing, carpets of wool and acrylic, of comparable pile weights and similar construction, were subjected to a static loading of 31.3 lbs. per square inch for two hours. The wool carpet was compressed to 59% of its height for two hours. On release, after ten minutes, the pile had recovered to 95.5% and after two hours to 96.4%. No acrylic fiber measured up to wool's performance. The natural resilient quality of wool is an important factor in appearance, wearability and texture retention. The poorer recovery capacity of acrylic accounts for problems of flattening, matting down, pressure marks and loss of appearance. All of which is convincing proof of why wool scores best in any realistic assessment of carpet wear. Long-lasting good appearance and serviceability are what people want in carpeting.

### What about ease of maintenance?

Acrylics say they're easier to clean, but wool is the only fiber with a natural protective covering. The uncopyable structure of the wool fiber, wool's unique three dimensional surface, naturally protects itself against dirt. Studies by Stereoscan electron microscope of carpets in use show significant differences in the way acrylic holds dirt on the fiber surface, compared with wool, which tends to release dirt much more readily. The Stereoscan tests prove that wool carpets stay clean longer and release dirt better than acrylic carpets.

### What about flame resistance?

Acrylics say they now have built-in fire retarders, but wool is naturally fire-safe. Properly engineered wool carpets are resistant to fire and consistently satisfy PHS standards for Hill-Burton funded projects. Damage to wool carpets from matches and cigarettes is minimal: charred fibers can be easily brushed away, leaving little noticeable change in color or general appearance.

### What about color and style?

Acrylics say they're more colorful, but wool is the only fiber with a natural affinity for color. The protein core of the wool fiber soaks up dyes completely, permanently. The reason wool holds color so well is because the color actually becomes part of the fiber. That's why wool carpeting gives you the richest choice of colors possible. Once again, wool's unique, uncopyable, natural structure is what makes it look and act and feel incredibly luxurious no matter what the style and texture.



PURE WOOL PILE®

## Wool. It's got life.

The Woolmark label on carpeting means it has passed a battery of tests in the Wool Bureau laboratories, for fiber content, pile weight per square yard, mothproofing, backing construction. Look for the Woolmark label. It means you've got a quality-tested carpet made of pure wool pile.





*Twin Towers office building, Dallas, Texas. Owner: Sanders Campbell Development Company. Architect: Neuhaus & Taylor, Houston, Texas. Mechanical Designer: Chenault & Brady, Houston, Texas. Glazing Contractor: Nichols Engineering, Dallas, Texas.*

**For the Twin Towers in Dallas,  
the glass that cuts building costs.**





**Vari-Tran<sup>®</sup> coated insulating glass provides twin benefits**  
**Twin Towers: lower construction costs, lower operating costs**





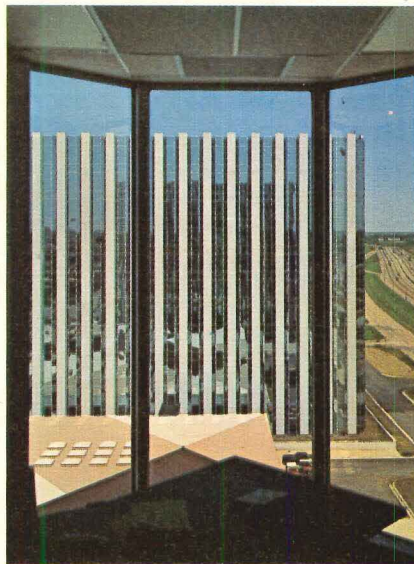
## How Vari-Tran reduced air conditioning equipment.

Chenault & Brady of Houston, who did the mechanical design for Twin Towers, studied glass cost analyses made for similar buildings with this result. Said Charles Chenault, "We had enough faith in the efficiency of Vari-Tran 108 Thermopane to design the building's mechanical system from the beginning based on that glass."

Chenault & Brady specified Thermopane® insulating glass having an outboard light with Vari-Tran 108 silvery coating on its airspace surface. Using L-O-F's heat gain calculator, this glass reduced the computed cooling load by 349 tons compared with Parallel-O-Grey®. At Mr. Chenault's figure of \$600/ton, this is a saving of \$209,400. Deducting \$150,000, the approximate additional cost of Thermopane made with Vari-Tran, an initial saving of \$59,400 was achieved.

## Vari-Tran justified on construction cost savings alone.

As you can see, Thermopane with Vari-Tran saved on initial air conditioning costs—more than enough to justify its additional cost. But there's more. Vari-Tran's superior heat-reflecting qualities made it economically feasible to design an all-electric building. This, Mr. Chenault estimates, will provide the owners with an additional annual saving of \$15,000 in operating costs.



## How Vari-Tran increased rentable area.

The "U" value of this hi-performance glass actually increased the amount of rentable square feet by decreasing space devoted to such things as fan-coil machinery, ductwork, etc. And, of course, with an all-electric building, no boilers. Specific figures are not available yet on Twin Towers, but a similar building enjoyed a 3% increase of rentable space.

## The glass that cuts building costs makes a very beautiful building.

Notice how the silvery Vari-Tran units combine with spandrels of Vari-Tran coated Tuf-flex® tempered glass to form continuous strips of

reflective glass from ground level to rooftop. In Twin Towers, they contrast with extruded cement-asbestos panels and are designed with a bay window effect to give each office a "balcony" view.

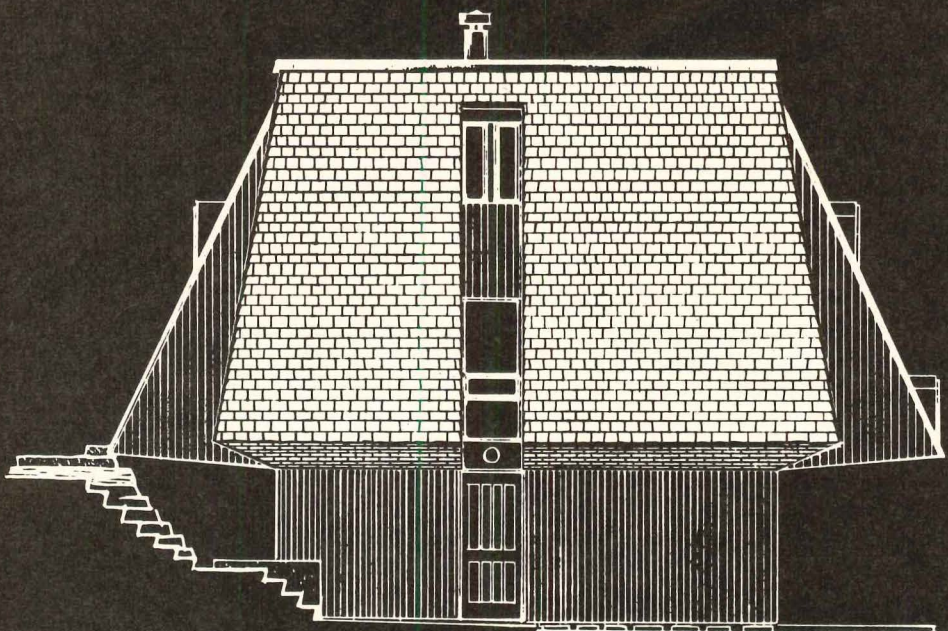
## Broad range of reflectivities and aesthetic effects available.

Vari-Tran is available in golden as well as silvery coatings in light transmissions of 8, 14 and 20 percent. Each provides significant reduction in solar heat and glare, as well as the beauty inherent in reflectivity.



If you would like a computerized cost analysis of the glass wall of a building you're planning, contact your L-O-F Architectural Representative or Architectural Department, Libbey-Owens-Ford Company, Toledo, Ohio 43624.





*Apartments at Seattle, Washington. Certigrade Shingles No. 1 Grade, 16" Fivex. Architect: Jan Kiaer. Owner-builder: Fred Peterson.*



## Red cedar shingles outside. No vacancies inside.

An investment in beauty made a beautiful investment at these Seattle apartments. Even before construction was completed full occupancy was assured. Now there's a long waiting list. It's easy to see why.

There is individuality here. Space. Elegance. Harmony. Architect Jan Kiaer did it with low-density site development.

With imaginative design. And with the native beauty of red cedar shingles.

The red cedar mansards do more than embellish. They permeate the area with warmth, creating a community instead of a complex. They blend with and extend the natural charm of the wooded environment. And they retain their

beauty for decades without maintenance.

For your next apartment project, specify red cedar Certigrade shingles or Certified handsplit shakes. For details and money-saving application tips, write: 55

White Building, Seattle, Wa. 98101  
(In Canada: Suite 1500, 1055  
Hastings St., Vancouver 1, B.C.



**Red Cedar Shingle & Handsplit Shake Bureau**

One of a series presented by members of the American Wood Council.



Buildings on the way up  
Calendar  
Personalities  
Washington report  
Architecture west  
Products  
Literature  
Notices

# News report

## Bridge technique adapted to Minneapolis bank

What looks a lot like a very short suspension bridge is, actually, the new Federal Reserve Bank under construction in Minneapolis; it is also the world's first catenary-suspended building. Designed by Gunnar Birkerts and Associates, the \$30 million 12-story building is part of a downtown renewal project.

While the catenaries of a suspension bridge are anchored to piers some distance from the towers, there is no room for that kind of anchorage in building construction. In this case the catenaries are supported by the two towers, which are braced by two steel trusses. The real keys for the system are four 93-ton weldments at each corner of the towers; they anchor the catenaries and connect trusses and towers.

The block-long bank will be sheathed in glass, granite and aluminum. The two end towers will house stairs, rest rooms and mechanical rooms; a third tower, not related to the structural system, will house elevators. Structural engineers for the project are Skilling-Helle-Christiansen-Robertson; Jaros, Baum & Bolles are mechanical engineers.

## Want to run a CDC? Here's how

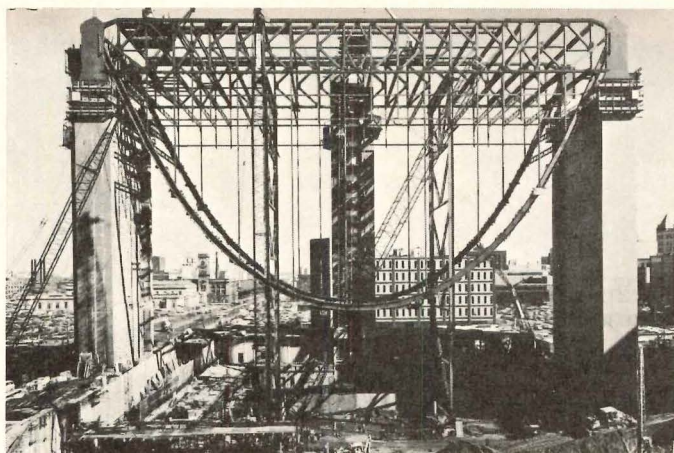
Drawing on three years of practical experience, the Philadelphia Architects Workshop has published "A Primer for Community Design Centers." The 48-page booklet, published as part of a HUD grant, covers everything from setting up the center to keeping it going.

It's a down to earth, realistic primer. Almost everything is in the form of suggestions and guidelines, but two rules, which should be "graven in stone," are given: "Rule one: start with something small. Rule two: finish it." After that, the booklet goes on to give advice on locations, client relations, community groups, public relations, handling jobs, staff members, grants and donations. For anybody interested in CDC operations, it is \$2 well spent; it's available from Architects Workshop, 2012 Walnut St., Philadelphia, Pa. 19103.

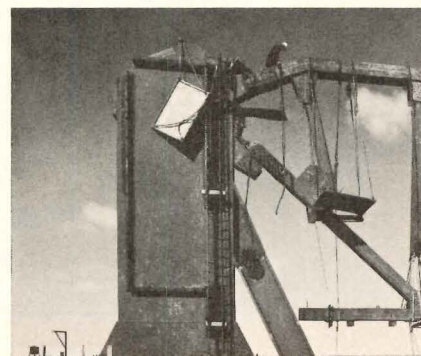
## Geddes Brecher Qualls Cunningham wins competition

With a plan for a 2500-acre new town, the Philadelphia firm of Geddes Brecher Qualls Cunningham has won the \$28,500 first prize in an international urban design competition for Vienna, Austria. GBQC's plan calls for housing for 70,000

[continued on page 30]



Bank's catenary, corner weldment



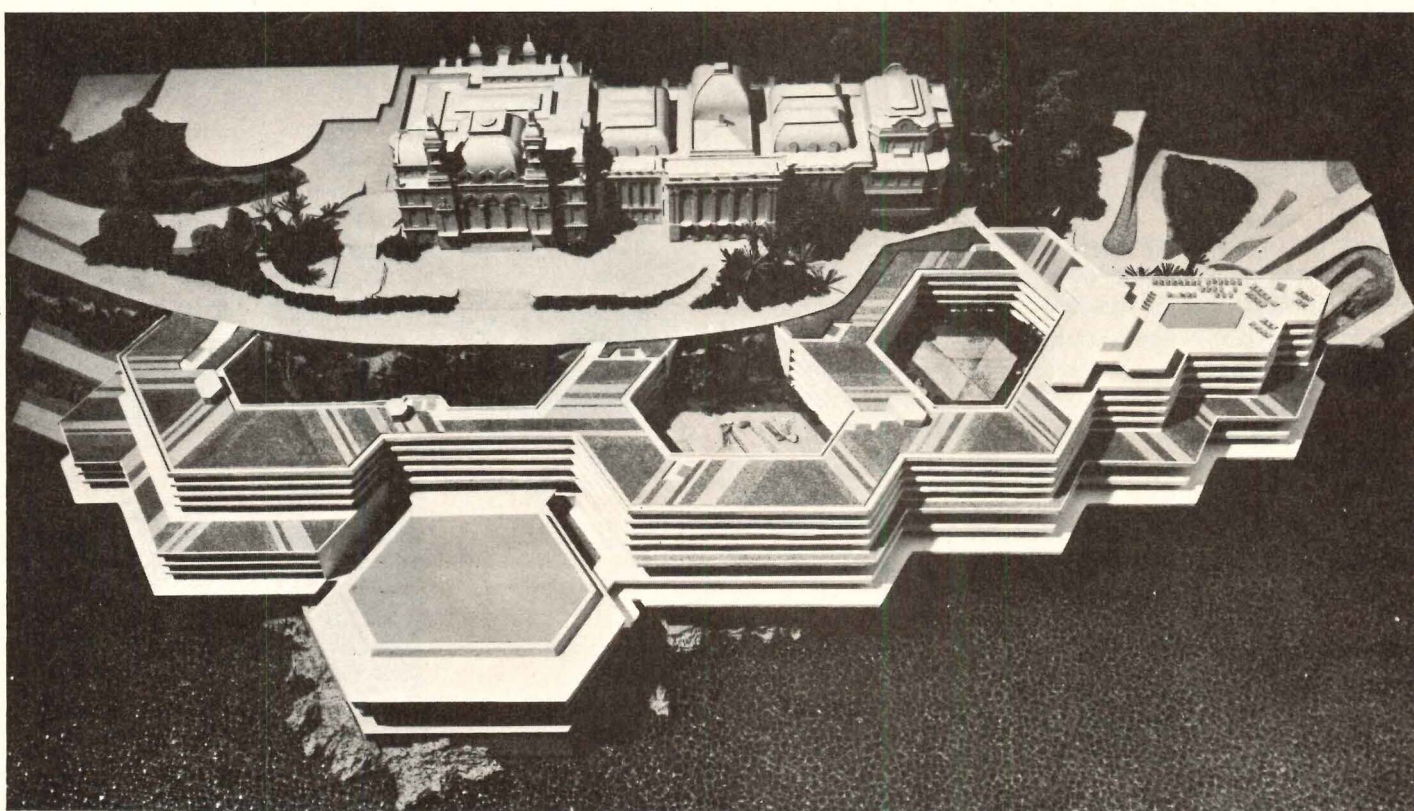
Prize winning new town design



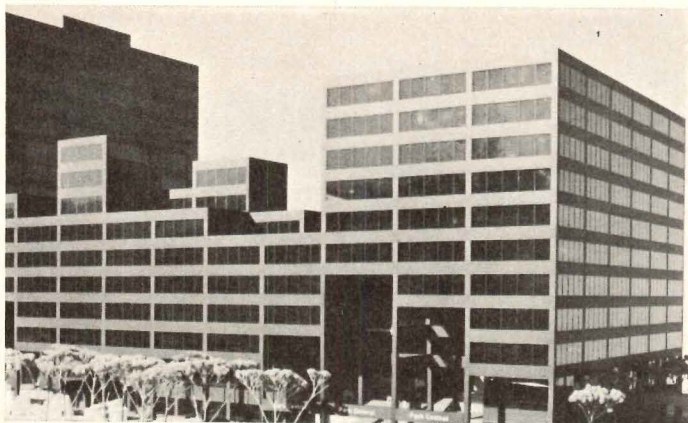


# Buildings on the way up

1



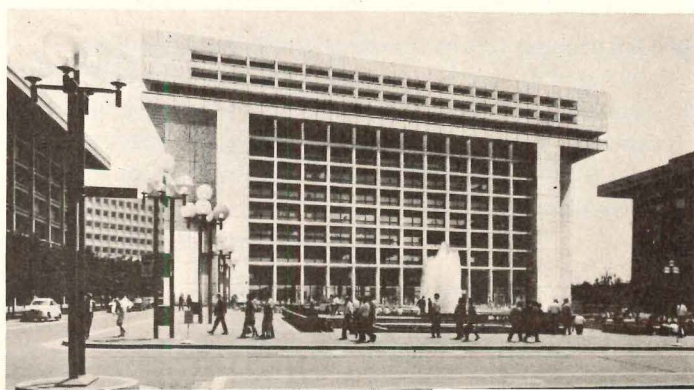
2



3



4





**1 Before and after** views show Monte Carlo's famed Casino and a \$40 million waterfront hotel and convention center designed by Jean Ginsberg, Herbert Weisskamp and Jean and José Notari. The hotel will provide 650 rooms along with a night club, restaurants, meeting rooms, ballroom and gaming rooms; the project will also include 150 apartments and a convention hall for 2000 people. (Michel Moch photo)

**2 A trio** of major buildings add another complex of offices and shops to downtown Denver. As designed by Muchow Associates, the \$21 million complex will include shops, restaurants, plazas and fountains in a 16-story tower and an 11-story building connected by a 7-story structure. The first two floors of each building will house banking facilities and the other retail spaces; beneath the structure will be a three-level garage.

**3 Adding** to their own master plan from Lowell (Mass.) General Hospital, Ritchie Associates, Inc. have connected two existing patient buildings with a concrete structure faced with brick and limestone. The addition will house 40 beds along with a pathology department, surgery and radiology departments, offices and other facilities. The all-brick lobby of the new construction is spanned by a central skylight. Consultants are: Gilbert Small & Associates (s); Buerkel & Co., Inc. (m); Edwin P. Mahard, Inc. (e); Hodgkins & Sullivan, Inc. (plumbing); Bolt Beranek & Newman (acoustical); Mason and Frey (landscape architects).

**4 The fourth and final** side of Washington's L'Enfant Plaza will be closed in by a combination hotel and office building designed by Vlastimil Koubek. The 378-room hotel will occupy the top four floors of the new building; separate elevator cores are provided to serve hotel residents and office tenants. The seven office floors will provide 380,000 sq ft of office space. The plaza level will contain the hotel lobby, ballroom, restaurants and other facilities; below the lobby will be a 46,000 sq ft addition to the existing L'Enfant Plaza shopping promenade.

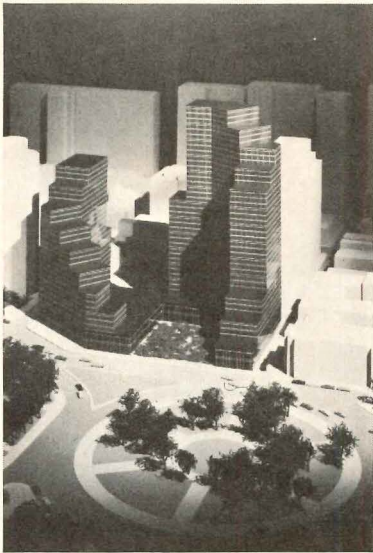
**5 Two towers** of aluminum and glass will wrap around a ground level arcade and terrace opening onto Philadelphia's Logan Circle. The taller of the two, 35 stories high, will be a 351-unit condominium apartment building, and the other a 27-story, 450-room luxury hotel. Connected by the arcade and a two-level underground garage, the two towers will be of glare reducing reflective glass in aluminum frames. Philip Johnson and John Burgee are the architects.

**6 Not just housing**, but a complete community for the elderly, is provided by a HUD turnkey project in New Haven, Conn. designed by Herbert S. Newman. Close to 100 apartments are provided in towers, leaving room for recreation, gardening and other activities. Towers have brick and block masonry bearing walls and precast concrete floor panels. Site, at edge of Yale University, includes outdoor band shelter and stage; building is sited at an angle to give balconies southern exposure and a view.

**7 The first store** in 50 years in downtown Los Angeles is a 250,000 sq ft Broadway Department Store; also part of Broadway Plaza is a 23-story Regency Hyatt House Hotel, 32-story office tower, 2-level shopping plaza and parking for 2000 cars. Charles Luckman Associates are architects for \$75 million project. The store, parking facility and the first two levels of the office building and hotel will be of brick over steel and concrete structural frames; the office and hotel towers will have steel frames with bronze glass and black aluminum curtain walls.

**8 Four additions** to Community General Hospital, Syracuse, N.Y. provide new facilities and augment existing ones. Two-story diagnostic addition, steel framed with concrete and masonry exterior walls, adds new services to become the major outpatient facility. Office building for doctors, also steel framed but with black glass and aluminum curtain walls, houses 100 offices and connects to 400-car parking garage, also new. Fourth addition is 100-bed extended care facility; garage has reinforced concrete frame, extended care facility is a poured in place concrete structure with brick and precast concrete exterior walls. King & King are architects. (Paul Norman photo)

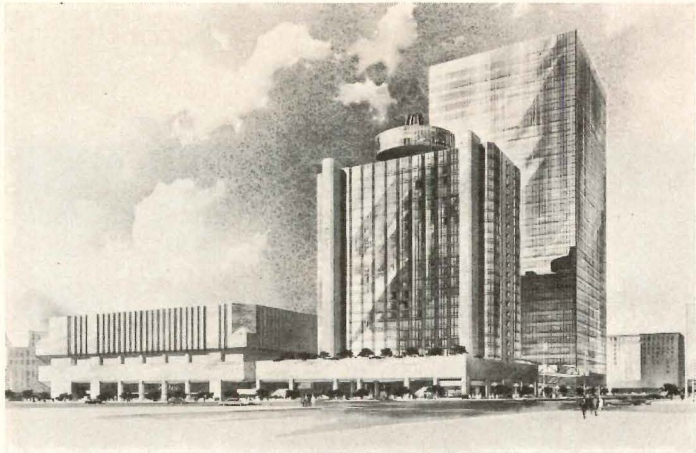
**9 Matching** preformed steel panels and bronze glass enclose \$13 million office building for Zenith National Insurance Co. in Los Angeles. Lightweight wall enclosure for 22-story building is designed to flex during earthquakes, reducing danger of cracks and other damage. Architect is Maxwell Starkman and Associates.



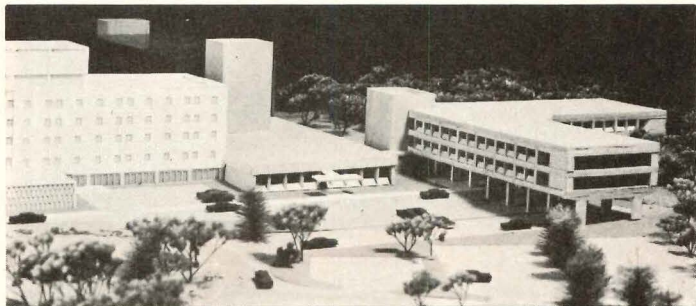
5



6



7

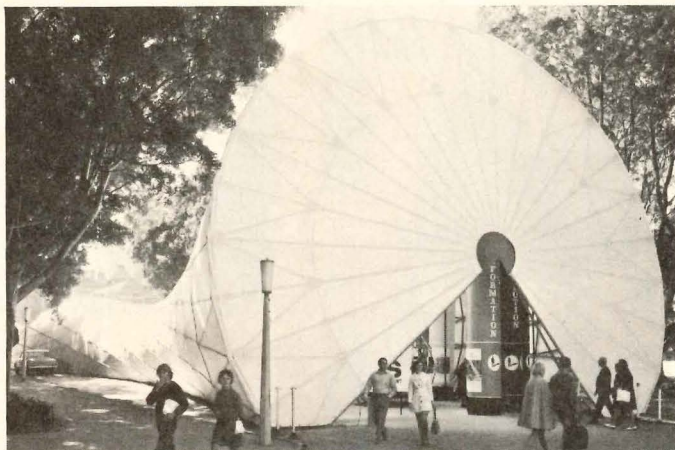


8

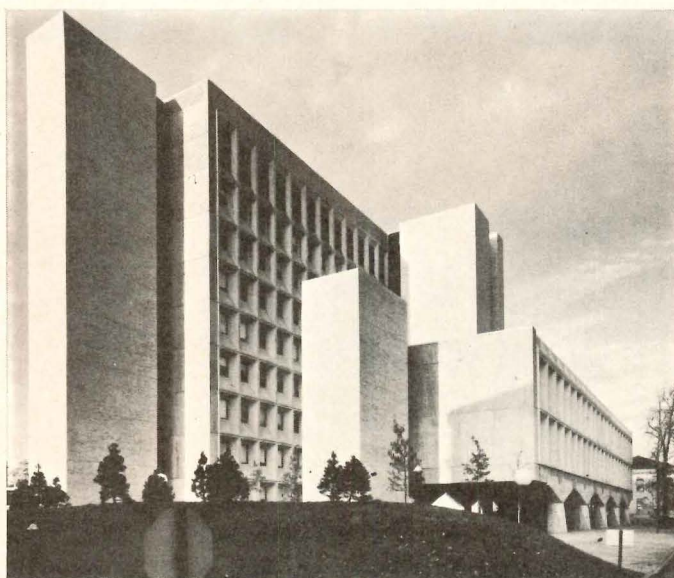
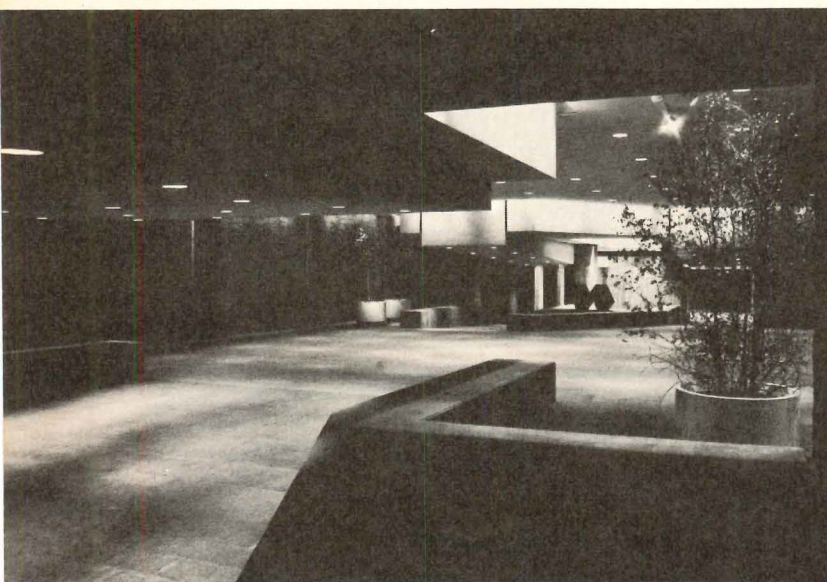


9





Environmental exhibit down under



Graduate Center Mall, Technology Building

people, along with space for industry, shopping, education and recreation.

The plan is based on a grid of flexible land strips that will allow growth and expansion over a 20-year development period. Five types of housing are proposed: elevator and walk up apartments, row houses, flats and detached houses. A system of greenways running from north to south through the site puts open space close to most areas, and high density housing is sited close to parks. Shopping and commercial areas are placed in the centers of the strips, which parallel roads crossing the site.

#### Australia's 'AIA' marks 100th year with look at pollution

A century old this year, the Royal Australian Institute of Architects marked the occasion with an international convention in May dedicated to the effects of pollution. Held in Sydney, the meeting included some high-powered guest speakers from the U.S., Great Britain and Japan.

According to RAIA president R.A. Gilling, the institute has taken upon itself the role of "watchdog of the public interest in relation to the environment." And at the convention, speakers and delegates took close looks at problems of air and water pollution, uncontrolled property development, consumerism and conservation. The big question, said Gilling before the meeting, was mankind—"where mankind is heading and how he can stop the degradation of his social and physical environment."

#### Bard Awards honor two New York universities, pan housing

Along with honors to two university buildings in New York City, the jury for the Bard Awards program of the City Club of New York handed out a sharp criticism of the housing scene in the city. The awards this year went to Carl J. Petrilli for the Graduate Center Mall of the City University of New York, and to Marcel Breuer and Hamilton Smith for Technology Building II at New York University.

The jury's views on the New York building scene, particularly on housing, were as definite as their choices for the awards. "The political and economic situation," the jury report said, "is now such as to make it impossible to build in New York City at the present time."

Romaldo Giurgola, echoed by the rest of the jury, took a healthy swat at residential architecture in the city. "Housing should constitute the real parameter of a good architectural environment in the city. Nothing short of excellence should be accepted." Except for a few cases, he said, the low state of the art stems from "the lack of a vital and dynamic attitude on the part of the sponsoring agencies." The situation in New York, he went on, "is perhaps 50 years behind the standard achieved in other cities."

Summing up, the jury noted that "the talent is out there. It should not die on the vine. No doubt about it, there's something wrong going on somewhere."

#### AIA seeks papers for eighth research conference

For its eighth annual AIA Architect-Researchers Conference, the AIA is seeking original research papers covering building science and architectural and environment problems. The conference is scheduled for January 24-27, 1972, at the School of Architecture and Urban Planning at the University of California at Los Angeles; the third annual conference [continued on page 34]





## IMPERIAL® Veneer Walls look great, even after 10 years of kid scuff!

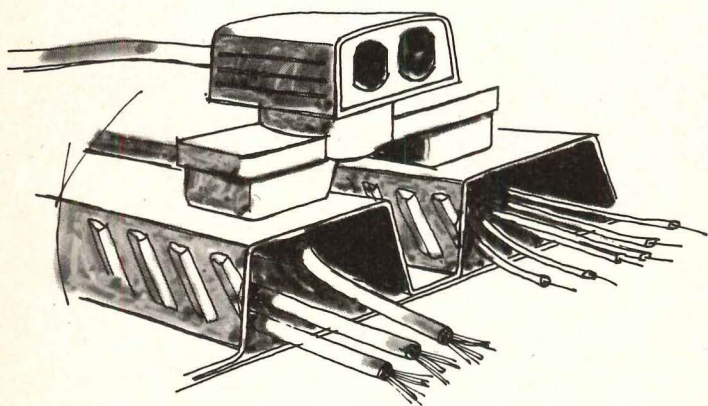
Year after year, IMPERIAL Walls stand the severest test of all: kids, kids, kids at the world-famous Disneyland Hotel. This advanced veneer concept combines drywall speed and economy with the solid beauty and versatility of plaster. No monolithic gypsum system is faster! Walls finish up to 2 days sooner to cut construction loan costs and speed occupancy. Jobs stay right on schedule, even when slow drying conditions delay other types of work. The tough, thin IMPERIAL veneer dries overnight to a hard, smooth surface ready for paint, paper or texture. IMPERIAL walls withstand punishment of 3000 psi to make the system especially suitable for schools, hospitals, apartments, offices, and clubs. And versatile IMPERIAL simplifies design and construction of stairwells and archways; works beautifully with virtually any partition assembly, too.



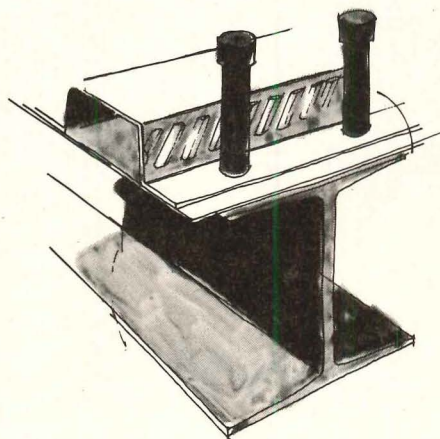
Disneyland Hotel, Anaheim, California, now numbers 1600 rooms with the addition of the new 11-story Marina Tower. Rooms are protected beautifully with the IMPERIAL Veneer Wall System. Ask your U.S.G. Representative for complete information. Write for IMPERIAL Wall System brochure, P-403. 101 S. Wacker Dr., Chicago, Ill., 60606, Dept. PA-81.

**UNITED STATES GYPSUM**   
BUILDING AMERICA

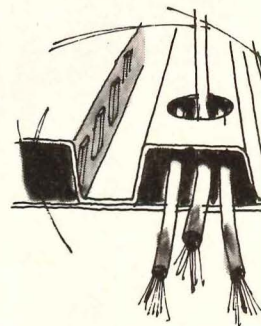




**PRE-SET INSERTS**  
Eliminate costly drilling  
and installation...one  
fixture for both power  
and telephone.

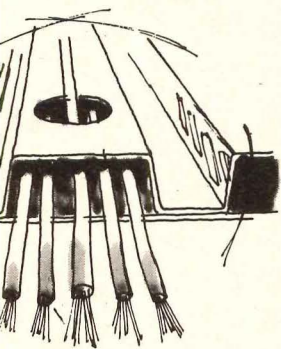
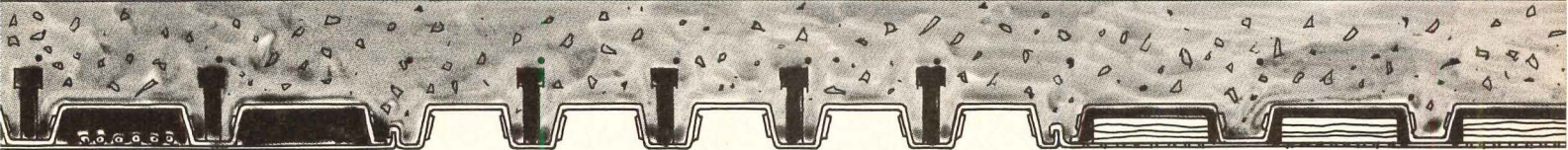


**COMPOSITE BEAM DESIGN**  
Hi-Bond® lugs, special side  
lock designs...comprehensive  
design data and assistance.

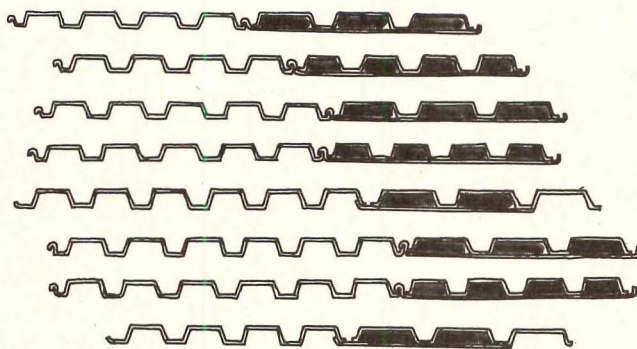


You'll find us in Sweet's  
Architectural Catalog, Section 5.

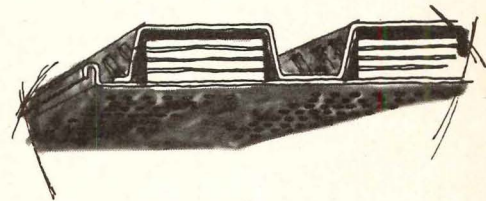




**1-5/8" CELLUFLOOR**  
Provides 66% more  
wiring space per cell...  
many more Cellufloor  
profiles to choose from.



**BLENDS MEET ANY MODULE**  
Mix Cellufloor® and non-cellular  
decks...provide economical  
electrification to meet any  
architectural module.



**ACOUSTIFLOR™**  
Doubles as structural  
floor and acoustical  
ceiling...eliminates  
separate suspended ceiling.

Whatever your floor system requirements, there's an Inland-Ryerson floor deck specialist to help you. He's backed by an engineering department known for its ingenuity and ready to provide assistance in testing and specialized design. To contact him, and for a copy of Catalog 21-1, write Inland-Ryerson Construction Products Company, Department H, 4069 W. Burnham St., Milwaukee, Wis.



**INLAND RYERSON**

General Offices: Chicago, Illinois  
A member of the **INLAND** steel family

On Reader Service Card, circle no. 3



ence of the Environmental Design Research Association will be held at the same time, same place.

This year, the conference planners are particularly interested in papers dealing with user needs studies, operations research and management, studies of man/environment interaction, computers and post-construction evaluation. Abstracts (200 words maximum) are due by the end of this month; they should go to Don Conway AIA, Director, Research Programs, AIA, 1785 Massachusetts Ave. N.W., Washington, D.C.

#### **NEOCON turns the Mart into an indoor street festival**

The Third National Exposition of Contract Interior Furnishing (NEOCON) at Chicago's Merchandise Mart gave the overall impression of an Italian street festival moved into a department store. Architects, interior designers, specifiers, space planners, office and contract dealers from all over the nation gathered there for three days in June for probably the best attended event of this nature in the country.

The Mart's 2 million sq ft of display space features every major manufacturer of floor covering, office furniture, curtain, drapery and textiles and the merchants eagerly welcomed exposition members into their shops to sample the wares. Merchandising efforts were sweetened with cocktails, champagne, breakfast, lunches and free bus rides from local hotels.

The list of speakers at the various panel discussions represented every area of environmental concern. Open to the specifier and vendor of interior commercial products, they ranged from health care to "self-amortizing campus facilities" for those in search of "new profit centers."

Such panel titles as "Developing a new charisma for shopping centers" and "Accelerating profits through professional development" set the tone for the most popular discussions. The Chicago Chapter of the AIA sponsored a major session dealing with new uses for old spaces and former P/A editor Forrest Wilson chaired a panel on underwater living.

Among the most popular exhibitions were a full size carpet tufting machine operating in the Mart lobby and the first computer-plotter system to produce interior architectural drawings. The system, developed by Lawrence Lerner of Saphier Lerner and Schindler, proved the validity of Lerner's prediction at NEOCON in 1969 that computers would become an essential factor in the world of design, particularly where draftsmen are concerned.

Corridor conferences were another unique innovation of this year's NEOCON, enabling those attending panel discussions to continue a dialogue with key speakers on a direct person to person basis. These semi-informal discussions consisted of pre-scheduled time period where speakers involved in the regular program were available at specific locations throughout the Mart to meet their audiences without the formality of the rostrum intervening.

#### **AIA Detroit: politics over shop talk**

What might have been the big story of the 1971 AIA Convention—the restructuring of the Institute and its Board of Directors—never happened; the 1138 architects meeting in Detroit voted it down—twice. In fact, a lot of the news of the convention concerns things that didn't happen: associate

membership on a national level, student demands and a good crowd.

Not that the convention was a disaster. Far from it: three theme sessions on The Hard Choices were thought provoking and much of the debate on business matters was revealing. And running at the same time was the National Conference on the Building Team, which dealt in shop talk for those who tired of political talk. There was something (including good parties) for everybody in Detroit.

But everybody didn't come. The crowd was noticeably smaller than anyone had expected: there weren't as many exhibitors, the exhibitors said there weren't as many people passing their exhibits, and there weren't as many architects and wives in the meetings and in the hallways. The final attendance figure was around 3200; 5000 had been expected. A variety of reasons were given for the small attendance, with the state of the economy being the most popular.

Those that came got most of the business out of the way before the theme sessions, though some of the business carried over to the very last. Voted down early in the convention, then later brought up again and defeated, were by-law changes that would have expanded the Board of Directors and encouraged the formation of state regions. Proposed after a year long study, the changes had been described as "promising a major turning point in Institute affairs."

Among the other things that didn't happen was the establishment of associate membership at national level; this provided a good look at the way things get done in conventions. The proposal was for associate membership for those who are not architects but working for architects or in related roles in government, education, research or journalism. Once on the floor the proposal was amended, dis-amended, re-amended and amended again until after a lengthy discussion it was back in its original shape, when it was then voted down. Among the objections: it might bring into the Institute "some of those far out journalists."

The student presence wasn't as keenly felt as at the two last conventions; they were there, but quiet. There had been talk of asking what had happened to the \$15 million commitment made in Chicago, but the inquiry was made quietly. A hat was passed, causing a brief stir and netting some \$1100 in cash. One plus for the students: the president of the Student Chapters AIA, who has been sitting with the AIA Board, now has a vote. As with the smaller crowd this year, the economic situation might have been one reason for the students' low profile (architects are now telling of having work-hungry students offering to buy them beers), but a more valid reason might have been the staging of the convention. Confrontation is a little difficult when everybody is on the speakers platform.

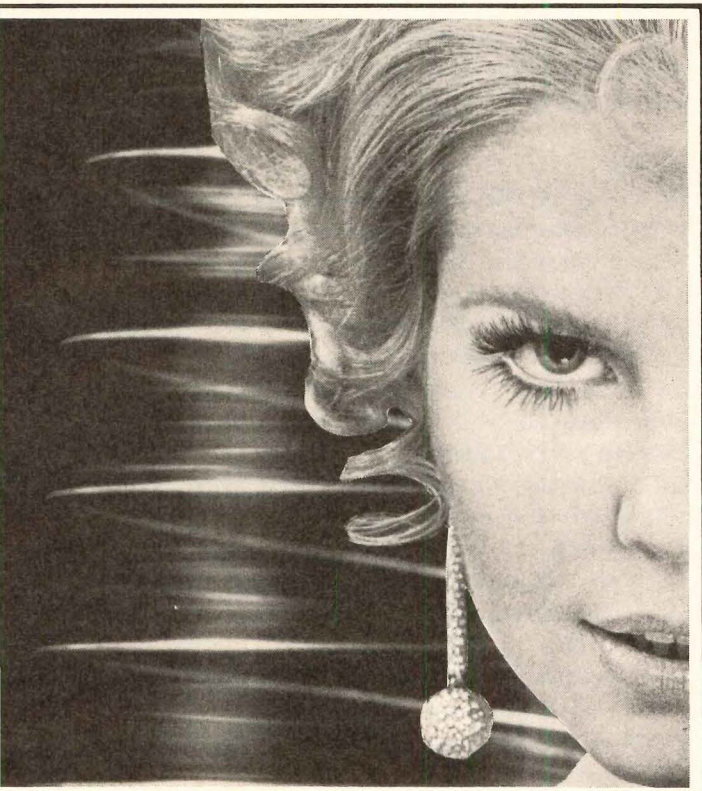
And everybody was. Speakers for the three sessions on "The Hard Choices" included a Canadian government minister, the mayor of Newark, a management consultant, a U.S. government official, a Congressman, a professor, the president of an oil company and four students. This mixed bag of speakers offered much that was thought provoking, some that was provocative and some that was just plain provoking.

The lead session asked if Americans would accept a national program for urban growth; two of the speakers argued that the country already has urban growth policies, albeit unofficial ones.

Question two: How Do We Best Use our Resources to Meet  
[continued on page 36]



# STEEL THE SPECS



Exclusive low-cost alternative for interior installations where steel butt hinges are used; the No. 9 Series Heavy Duty door holder and stop, with rugged steel arm and channel.



## Checkmate

A Division of **RIXSON** Inc.

9100 W. Belmont Ave., Franklin Park, Ill. 60131

In Canada: Rixson of Canada, Ltd.

On Reader Service Card, circle no. 390



### 9 Series, Holder and Stop (Steel)

Exceptional shock resistance . . . silent, self-lubricating operation . . . adjustable hold-open or stop-only control to 110° . . . surface mounted.

(Also available with bronze arm and channel or bronze arm and steel channel. Plated finishes available.)

Request details on the No. 9, or the 1, 3, 5, 7, and 8 Series holders.



Basic Human Needs Now? was dealt with by John Gardner, who gave a moving pitch for Common Cause; Dr. Vivian W. Henderson, president of Atlanta's Clark College and Harold R. Sims of the National Urban League, who stressed the actual outlines of the nation's racial and poverty problems; and Dr. Peter Drucker, management consultant, who was last on the program at his own request; he wanted to be, he said, "the SOB in residence."

The third session dealt with the big question—What Do We Have to Give Up to Create a Livable Environment? Answers varied from "nothing" to "everything."

While the AIA business sessions were going on early in the week, the National Conference on the Building Team was holding its sessions in an adjoining ballroom. These sessions were as much shop talk as the AIA sessions were political talk and, in their shop talk context, were every bit as varied. Key-noted by Roger Blough, the sessions covered labor problems, building codes and standards, environmental problems, ins and outs of Federal construction, construction managers, systems and interface problems, aggregating markets and mass buying and performance specifications. And that's not a complete list.

From the talks, some definite patterns emerge. The Federal government is, says Walter A. Meisen, GSA's Assistant Commissioner for Construction Management, into "performance specifications, systems building, project management and construction management now, and we're there to stay." The Feds are perhaps the first large construction user to be in a position to make some clear definitions for performance specifications and systems and they have the clout to make them stick. It was a government speaker who provided a look at the future, too: Arthur F. Sampson, GSA's commissioner of the public Buildings Services. In his view, "construction is going to become the model industry for America," disciplined, controlled and well managed—and quite possibly doing its thing without architects, engineers, contractors or all the rest. "Corporations are designing houses for their refrigerators and new towns for their houses. Metropolitan governments are forming, and the breakdown of jurisdictional boundaries will make regional planning and integrated urban systems a reality. Manufacturers of furnished mobile homes are taking over more of the housing market each year." It's inevitable, he said, that new corporations will "assemble the design and construction talent, the money and the organization needed to carry out projects from start to finish." The building team of "cooperating professionals," he said, is "just the first step in that direction." And for architects and engineers to be a part of the new construction industry will "require an agonizing appraisal of their role in the construction industry of the future."

Meanwhile, the architects went on agonizing over the usual spate of non-Institute and intra-Institute politics that fill the convention business sessions. Resolutions covered a variety of professional and social concerns; some of the more lively debates came from one to call for an end to the war in Vietnam (defeated for the third year in a row) and one encouraging population control (objected to on religious, social and personal grounds and also defeated).

New officers were elected, with S. Scott Ferebee, Jr., the

new first vice president and president-elect. Louis deMoll, Robert J. Nash and Archibald Rogers were elected national vice presidents; Elmer E. Botsai, the new treasurer, is the only new officer who isn't from the east coast.

Social activities play a large part in any AIA convention, and the Detroit one did quite well in that department. Cocktail parties in the public library and the art museum and a host chapter party for which the boats came and went as planned guaranteed that everybody had a good time. Of course, one of the temptations with a convention like that is to forget what you're there for and take it as a vacation; on the other hand, there is also the temptation to take it all too seriously and spoil everybody's fun.

### Correction

In the picture caption accompanying the June News report story "Rochester on the way up" the architects for the Federal Building should have been listed as Samuel Paul & Seymour Jarmul and the Offices of Michael J. DeAngelis.

### Calendar

Aug. 17–29. Det danske Selskab seminars on Scandinavian Architecture with stays in Copenhagen, Oslo, Stockholm and Helsinki. For information contact Det danske Selskab, Kultorvet 2, DK-1175 Copenhagen K.

Aug. 21–Sept. 3. XIII International Congress of Refrigeration, Washington, D.C. Sheraton Park Hotel.

Aug. 22–25. Annual meeting of the American Society of Heating, Refrigerating and Air-Conditioning Engineers, Inc. (ASHRAE). Shoreham Hotel, Washington, D.C.

Aug. 31. Deadline for mailing P/A Design Award entries.

Sept. 19–23. Prestressed Concrete Institute Convention, Los Angeles Hilton.

Oct. 18–21. New York State Association of Architects, Inc./AIA, annual convention and conference, Kutsher's Country Club, Monticello, N.Y.

Oct. 29. Sixth Annual ACM Computers and Urban Society Symposium, Hilton Hotel, New York.

Oct. 30–Nov. 5. American Concrete Institute's Fall Convention at Statler-Hilton, Buffalo, N.Y.

Oct. 31–Nov. 4. Industrialized Building Exposition & Congress, Kentucky Exposition Center in Louisville.

### Personalities

Chicago planner Carl L. Gardner has been elected president of the American Society of Consulting Planners.

Commissioner of the Florida State Department of Education has announced that Aristides Martinez, an engineer of the firm of Ludovici, Orange and Martinez, has been appointed a member of the School Building Research Advisory Committee.

William L. Pereira, FAIA, has accepted an invitation of the American Academy in Rome to serve as Architect in Residence for six weeks this summer.

Louis M.S. Beal, executive vice president of ISD Inc. of New York and Chicago, was presented the Alumni Award of Rhode Island School of Design.

Peter F. Shephard has been appointed dean of the Graduate School of Fine Arts at the University of Pennsylvania.

Raymond Heinrich, architect and professional planner, was named Director of the Division of Housing and Urban Renewal in the New Jersey Department of Community Affairs.

[continued on page 38]





# Customized

## FACTORY FLOORS *by Jennison-Wright*

Nothing ordinary about Kreolite® Wood Block floors! . . . In fact, they're very special and deserve your special consideration. For installation. They have so many advantages over other types of floors (see panel at right), that we strongly recommend custom designing so that no feature is overlooked. Therefore, when you choose Jennison-Wright End Grain Wood Block factory floors, be sure that they are given pre-installation engineering so that they'll perform as they should. Our engineers will expertly perform this service—no charge, of course.

### ADVANTAGES OF KREOLITE® FLOORS:

1. Easy relocation and concealment of service lines to machinery.
2. Speed and economy of replacement in aisles and other heavy wear areas.
3. Special finishes for absolutely dust-free surfaces.
- ✓ 4. Versatility in providing for in-floor conveyor systems, tow-lines, etc.
5. Measurable contributions to noise abatement.
6. Easy installation of oil dispersal and/or recovery systems.
7. Traditional properties of comfort through insulation.
8. Non-sparking surface in volatile areas.
9. Reduction of damage to dropped tools and products.
10. Priced for profitable production.



Jennison-Wright Corp., P. O. Box 691, Toledo, Ohio 43601 . . . *you'll find us in Sweet's Catalog and in the Yellow Pages*



Architect Howard R. Lane was elected to the board of directors of the Los Angeles Headquarters City Development Association. Robert E. Martin, a partner in the firm of Schauder and Martin, has been named to the Toledo City Planning Commission for a five-year term.

## Washington report

### Legislation proposed to override local codes

Building codes, standards, contract specifications and zoning ordinances are getting increased attention in Washington, as federal government and construction industry leaders struggle to find means to chop down the steady rise in construction costs.

There is already legislation before Congress aimed at solving one big problem on standards: S. 1859 would set up a new government-sponsored body to set standards for building materials and techniques; there is legislation (HR 3679) that would permit overriding local building codes on federally financed housing and other work; bill (S. 632) would set up a sort of national zoning law ("land-use planning").

On a sub-legislative basis, the Federal Construction Council of the National Research Council's Building Research Advisory Board has just set itself the task of producing a series of Federal Guide Specifications to cover the majority of work items on construction projects, perhaps ending an era in which every federal construction agency has insisted on writing its own; loud Congressional criticism is being leveled at such agencies as HUD for its "free and easy" policies in approving building materials.

The main drive stems from the almost desperate need to continue the apparent current revival of the housing segment of the construction industry (which was running at a record 1.9 million unit rate at the end of March), as well as to cope with generally high building costs. In fact, HUD Secretary George Romney has openly threatened to call for legislation to remove local controls over building materials and zoning, which he sees as barriers to newer methods and materials that might bring down costs.

There's little prospect that much of the legislation now proposed will get through Congress this session; the one with seemingly best prospects is S. 1859. It would set up a "National Institute of Building Science" as a nonprofit, non-governmental agency (but with federal funding of more than \$30 million over a period of years) to "develop and publish standards affecting building materials and local building codes; promote and coordinate tests and studies of new materials and techniques; provide research and technical services, and assemble and coordinate . . . present activities in this area."

Such an organization would certainly fill a major gap in the network of standards-setting organizations and devices now in existence. At least five major voluntary standards groups are now in operation, including the now five-year-old "National Conference of States on Building Codes and Standards," the Building Officials Conference of America, the American Insurance Association, the Southern Building Code Congress and the International Conference of Building Offi-

cials. There is no central agency, however, to which these or other groups can refer for uniform tests or research.

But perhaps the most promising effort now under way (because it is quietest and most politically realistic) is that of the National Conference on building codes, which the National Bureau of Standards staffs and services. Through the efforts of this coalition of state officials, at least 18 states are either considering or have passed state-wide building codes, or authorized the appointment of special commissions to develop state-wide regulations. The idea is to reduce the hundreds of local codes that exist within most states to one broad standard, so that architects and builders anywhere in a state would know what the regulations are; uniform testing and training of building inspectors might be a corollary. The 50 state-wide building codes would be a lot better, the theory runs, than thousands of codes and zoning regulations now in effect throughout the nation. And if held on a state basis, these codes could be responsive to local conditions.

There is general, and very real, opposition to taking standards, zoning, specifications away from local governments and individual agencies. Federal construction agencies, for example, contend that by writing their own specifications, they can be more responsive to changing situations and to their own changing needs.

At the local level, on both building codes and zoning, there is very real fear by local governments that they will lose their most powerful weapons against overbuilding, deterioration of property values and neighborhoods, maintenance of established community patterns.

More, they (along with local builders and professionals) have reason to be concerned lest nationally enforced, or even state-wide standards and specifications, made by men in some central headquarters without detailed knowledge of local conditions, may have disastrous results.

Rep. John Kluczynski, senior Democrat on the powerful House Public Works Committee, recently pointed out such an objection: he cited HUD's insistence that plastic-coated underground electric cable be approved for use in a Florida city, despite the fact that the local code called for metal-clad cable. The city's reason, said Kluczynski, was excellent: local rats consider the plastic coatings a delicacy—and have caused several disastrous fires.

There is also considerable debate over the form of building codes: whether they should be "performance" codes (that is, accept any material or method approved by some approved standards-making body) or "standards" codes, with rigid specifications for everything.

Most authorities agree that "performance" codes are more flexible. But there's disagreement there too. "A 'watertight' joint, specified in a code, isn't enough," says one building official. "Specifications must be tight enough that the joint is tight under any one of a number of possible normal conditions." The codes, he says, must also specify how the joint must be made and what materials should be used to insure safety and tightness, so that individual plumbers aren't given leeway to interpret the requirement to suit themselves, or their habitual methods of work.

Nevertheless, the effort to bring some sort of order out of the maze of regulations covering the construction industry is under way, if at a glacial pace. If costs keep climbing, that pace will accelerate, and make a lot of difference to the design professions. [E.E. Halmos]



# Architecture west

The basic recipe for recycling old brick industrial buildings in San Francisco: sandblast the brick shell and leave it alone; sandblast and leave exposed the old Douglas fir timber framing; enhance the vertical space originally provided for box-cars to pass through the building on the railroad siding—carry it to the roof if possible, build the vertical circulation around it and treat the floors as galleries; treat the rail bed as an Italian road through the building; expose existing and added mechanical systems and paint them bright colors. Keep handy a sectional view of Cumbernault Town Center.

The trend began less than 10 years ago on a big scale when Wurster, Bernardi and Emmons remodeled the Ghirardelli chocolate factory into an Italian village bazaar, then Joseph Escherick turned the Del Monte cannery into a multi-level fun place for shopping and eating for Leonard V. Martin. These two made remodels good business. Other cities looked for similar ways to attract people to the core at night; Los Angeles regretted the several million it had spent on the scholarly restoration of Pico House while at the same time planning for the removal of the only comparable fun place, Grand Central Markets, from the core.

The compactness of San Francisco and the proximity to one another of good buildings sound enough to remodel give San Francisco an advantage. The remodeling of one sets another into motion. The latest one to be completed is Rex Allen/Hugh Stubbins' Fuller Glass warehouse for the advertising agency Dancer-Fitzgerald-Sample. Across the street on Battery is the Ice House, two handsome brick buildings gutted three years ago by Wurster, Bernardi and Emmons for a wholesale decoration center for Henry Adams Co.

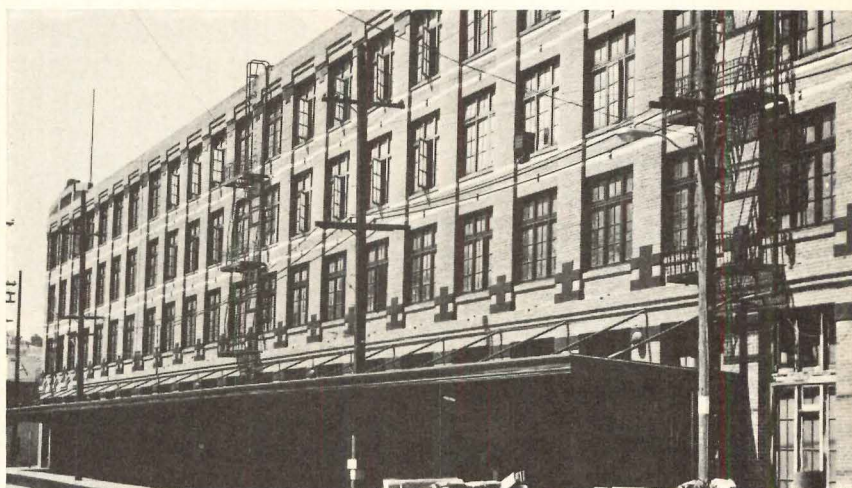
Two things have given momentum to the fashion. First is the growing resentment of San Franciscans against high-rise buildings which block a view of the Bay; this reached fever pitch when the Transamerica Building invaded the buffer zone between the low-scaled Chinatown and the Bay.

"There is more citizen involvement in San Francisco than anywhere I know," said Gwin Richards, in charge of design in the Allen/Stubbins remodel. "The people identify with the old buildings and are fed up with high rise. They like the individualized space you get in a remodel." After Transamerica it isn't easy to get a high-rise building through the City Council.

The second factor is the Building Rehabilitation Study, which the Greater San Francisco Chamber of Commerce car-



The Cannery



Show Place



Fuller Glass Warehouse

ried out under a grant from the Federal Economic Development Administration on the structural soundness and code deficiencies of 64 buildings. Floor plans, elevations and structural sections were made of nine buildings recommended.

The Show Place is one, a 1915 hardware warehouse being turned now into display spaces by architects Gerald Taylor and Robert Huston. The bellwether for an untried area south of Market St. and not of Richardson Romanesque vintage, its four stories enclose 300,000 sq ft—enough for a two-story 3000-sq-ft conversation pit for public affairs. The study accurately predicted remodeling costs at \$20 a sq ft. The Dancer-Fitzgerald-Sample building was \$17. Others go as high as \$25. "But DFS would be paying \$12 a sq ft for impersonal space in the Bank of America Building instead of \$6 a month for exciting space," says Richards.

Huston and Taylor, who worked in the Wurster office on the Ice House, named the universal problem: "Parking." [Esther McCoy]



# Light takes on form. By day, as well as night.

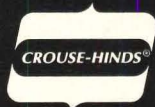
Burnish a brick facade. Splash safety on a footpath.  
Make bold a bas relief.

Shine security on parking areas.

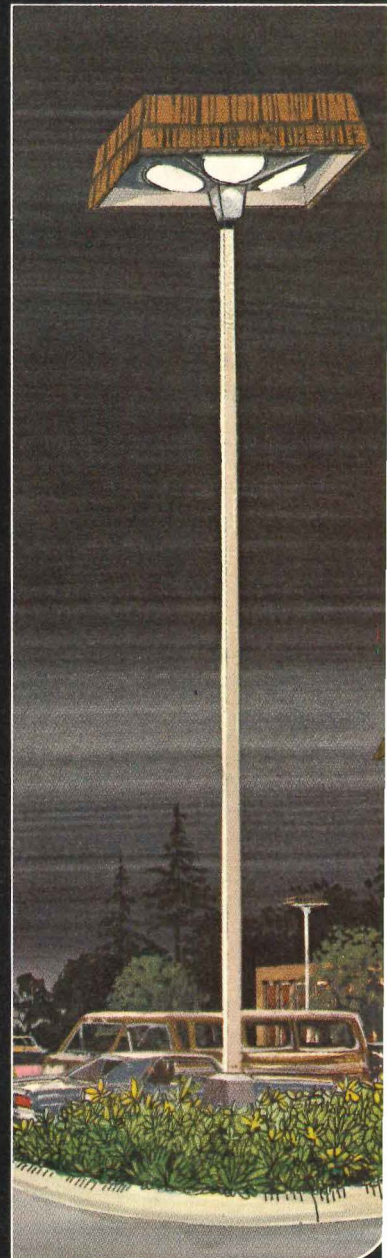
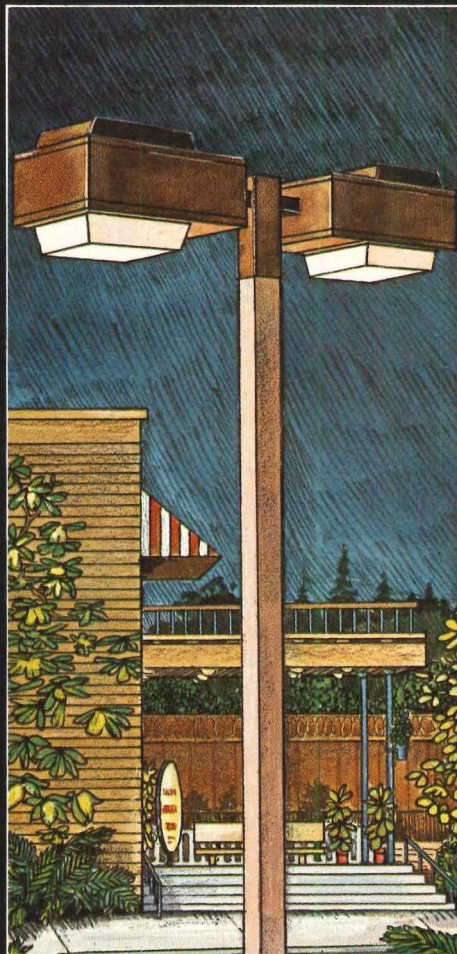
Until now that sort of lighting all too often came in ugly packages. The photometrics were nice. The esthetics weren't.

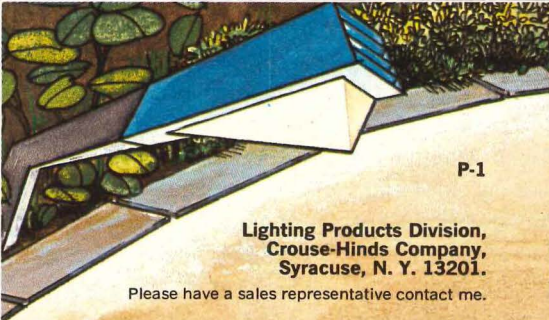
That's no longer true, as you can see on this page. Good looks by day complement good light by night. Now, fixture designs complement architectural creativity, complement landscape features, complement other lighting.

We've packaged lighting function inside lighting form in many new ways. Let us show you. And let's talk about creative custom designs, too. The coupon opens the conversation. Send it now.



**CROUSE-HINDS**





P-1

Lighting Products Division,  
Crouse-Hinds Company,  
Syracuse, N. Y. 13201.

Please have a sales representative contact me.

Name \_\_\_\_\_

Company \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

Telephone \_\_\_\_\_





Products and literature



Wall of furniture

**Furniture wall.** According to its makers, the design of Inter-lubke furniture is based on sociological studies and technical research. Free-standing, the usual storage space is offered on shelves and in drawers and closets. In addition, there are such features as a revolving pull-down bed which turns around to a cabinet shelving wall; a table that emerges from another cabinet wall for dining or desk use; a television shelf that revolves. In white polyester finish. International Contract Furnishings Inc.  
*Circle 101 on reader service card*

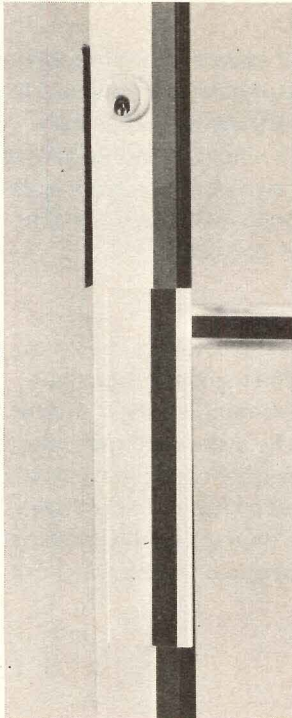
**Traffic signals for glass doors.** Signaline doors are designed to eliminate the hazard when fixed panels of glass are mistaken for doors. A series of color accents on horizontal push bars, pull handles and vertical glass stops on the lock stile signal the area where the door can be operated, also signal traffic in and out of a building. Amarlite/Anaconda.  
*Circle 102 on reader service card*

**Drapery prints for children.** Especially suitable for children's hospital rooms and schools, these five designs by Ben Rose, Inc., are printed on washable, iron-free Fiberglas. Included is Friendship, a series of geometric paper dolls; Regatta, patterns of sails and ship shapes; Tug-O-War; Mane Street, a pride of linear lions; and Girafters. Owens-Corning Fiberglas.  
*Circle 103 on reader service card*

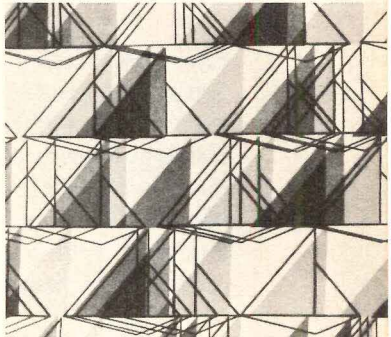
**Cast front lighting series.** Incandescent and mercury vapor lighting fixtures are designed to have a floating door appearance. Offered in square, recessed or flush fixtures with 12"x12" module with vertical multi-baffles. UL approved damp location and fully gasketed fixtures. For interior or outdoor use. Art Metal Lighting, ITT Lighting Fixture Division.  
*Circle 104 on reader service card*

**Sand surfaced siding.** The uniform sand coating and extra rigid Homasote board are integrated with a 20-mil-thick thermo-setting polyester resin for ready-to-install exterior siding panels. Structural and insulating, they are nonfading, weatherproof, moisture resistant and protected against termite, rot and fungi. In 4' x 8', 10' and 12' sizes, 12" thick. Homasote.  
*Circle 105 on reader service card*

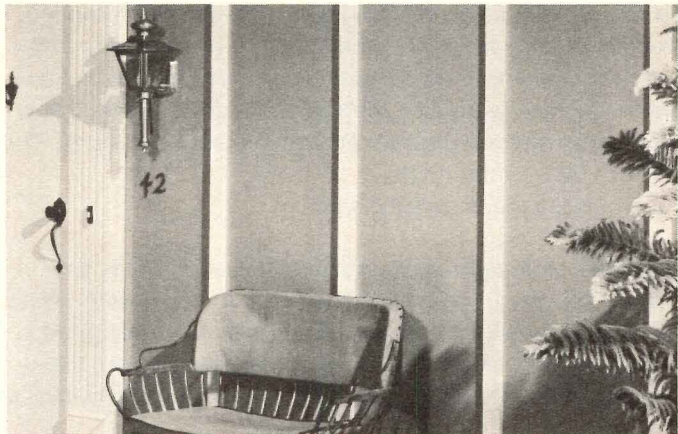
[continued on page 46]



Color accents



Playful walls



Exterior siding



**Infrared intruder detector.** Responding to sudden changes in infrared radiation, this security system is said to be unaffected by air motion, radio signals, noise. Consisting of a control unit, one to 20 sensors, and a low voltage transformer, it responds to an intruder's body heat. Each sensor covers an area 20' x 20'. The control unit contains the power supply, rechargeable standby batteries and alarm circuits. Advanced Devices Laboratory.

*Circle 106 on reader service card*

**Heavy-duty concrete finish.** Col-R-Pave, a heavy-duty coating for concrete surfacing, can be used for new applications and on old concrete surfaces, regardless of condition. Flat, matte and glare-free finishes in a wide range of colors, it is said to withstand sun, moisture and heaviest traffic. Kemiko, Inc.

*Circle 107 on reader service card*

**Fire-resistant paint.** Created to offer extra minutes of protection against the early ravages of fire, these paints are said to expand up to 150 times their original thickness when contacted by fire and to provide a tough, thick insulating layer of foam which keeps heat and flames away from the base material. For inside or outside application to metal, wood, plastic and other materials. Avco Systems Division.

*Circle 108 on reader service card*

**Vigilock.** Listed by the Underwriters Laboratories, panic device and self-contained alarm mechanism incorporates a dead-locking latchbolt and a 2" deadbolt with a 1" throw. Non-alarmed, the device operates like a standard panic device, with the latchbolt relocking the door each time it closes. When the extra deadbolt is extended by use of the key cylinder, the device is in the alert status; depressing the cross-bar opens the door, but also automatically sounds the twin horn alarm. Alarm Lock Corp.

*Circle 109 on reader service card*

## Literature

**Leak-free plaza decks.** Design and construction of leak-free plaza decks are featured in a 16-page pocket-sized booklet. It demonstrates ways to keep water out of occupied areas under plaza or promenade decks and gives guidelines for the structural slab, placement and type of drain, waterproofing system, protection board, percolation layer, insulation and traffic source. The suggested construction technique allows water that has penetrated through the traffic surface to flow freely to an all-level drain and out of the plaza deck area. The Tremco Manufacturing Co.

*Circle 110 on reader service card*

**Extruded aluminum fascia system.** A fascia, water dam, gravel stop and cant are incorporated in one system which controls water and gravel at the roof perimeter. Designed to withstand high winds, hide building irregularities and maintain alignment while allowing freedom of movement between trim and roofing components. Silbrico Corp., Inc.

*Circle 111 on reader service card*

**Shrinkage-free concrete.** A 16-page brochure, "Concrete Need Not Crack," outlines the uses for ChemComp, a shrinkage compensating cement. According to its makers, it can be placed in large sections greatly reducing the number of construction and control joints, requires no special equipment or handling procedures and is suitable for all present uses of conventional portland cement concrete. Chemically Pre-stressed Concrete Corp.

*Circle 112 on reader service card*

**Fire safety.** Chemicals and products useful in helping research and industry cope with problems related to fire safety are cataloged in this brochure. The listing covers such items as a fire-retardant system useful for cellulosic material; compounds for use in fire extinguishers, intumescent coatings, plastics and foams; fire-resistant fibers and molded plastics; flame retarding chemicals for flexible and rigid urethane foams, polyesters, elastomers, acrylics, polyolefins and synthetic and natural rubbers. Monsanto Co.

*Circle 113 on reader service card*

**Multi-purpose flooring.** Booklet describes a solid vinyl floor surface that serves as an ice skating rink, game court, dance floor and other recreational uses. Called "Slick," the flooring is intended for indoor use at temperatures between 45 and 80 degrees. A special conditioner is applied for ice skating. Comes in 1/4"x3'x3' square-edge panels for permanent installation or 1/2"x3'x3' tongue and groove panels for portable application. Vinyl Plastics Inc.

*Circle 114 on reader service card*

**Roof cooler.** Catalog describes method of keeping large buildings cool in summer by distributing a very small quantity of water over the roof area. Suggested for factories, warehouses, garages and where skylighting is used, it takes only 1/2 gpm of water to keep 1000 sq ft of roof area cool. Ruppright's Rotary Roof Cooler.

*Circle 115 on reader service card*

**Wall panel.** An 8-page booklet features a urethane foam insulated wall panel with a U-factor of 0.05. For construction using a one-step wall, it has a sculptured exterior and flat interior, is coated with a fluorocarbon finish. Armco Steel Corp.

*Circle 116 on reader service card*

**Waterproofing.** Scotch-clad deck coating for waterproofing of pedestrian and vehicular decks, roofs, membranes, floors, balconies and promenades is said to be easily applied, eliminates mixing materials, multiple coats. Two coats are required—base and top—using lightweight application equipment. The coatings are one-part high solids elastomeric products that cure when exposed to moisture in the atmosphere: cured coatings have a tensile strength of more than 500 psi and a minimum elongation of 400 percent. The 3M Co.

*Circle 117 on reader service card*

**Aluminum windows and walls.** Windows—both single and double hung, projected, vertical pivot, top-hung inswing and awning—window walls and curtain walls are described in 24-page catalog. Specifications are given as are applications suggestions. CE Building Products.

*Circle 118 on reader service card*



Different floors in your buildings lead different lives. Some get walked on, spilled on, wheeled on and even dropped on.

Others just have to look beautiful. And still others have to do both. So it seems natural to use special flooring made for special needs.

That's where your GAF Representative comes in. He can help you tailor just the right flooring for your buildings.

For example you might use a Royal Stoneglow tile for an especially heavy traffic area. It features very long wear and no-wax maintenance.

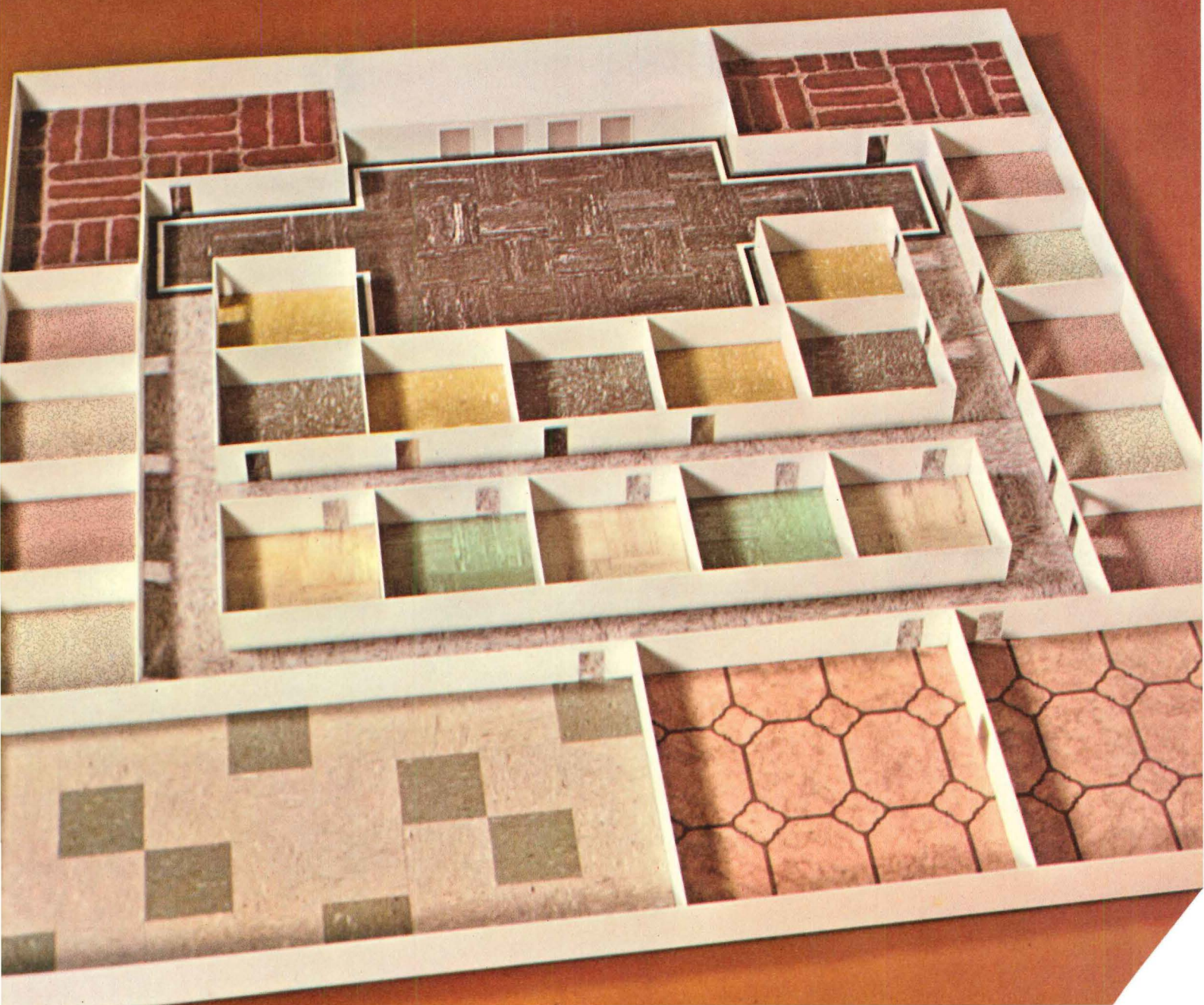
Then for a medium traffic area you might choose highly decorative sheet vinyl which now has interim Federal Specification Number L-F-001641 (GSA FSS). It wears well too, but features warmth and comfort underfoot. And like the tile it's fire-safe.

Your GAF Representative features such a broad line, that no matter what your needs are, he's sure to have the right style and color for you.

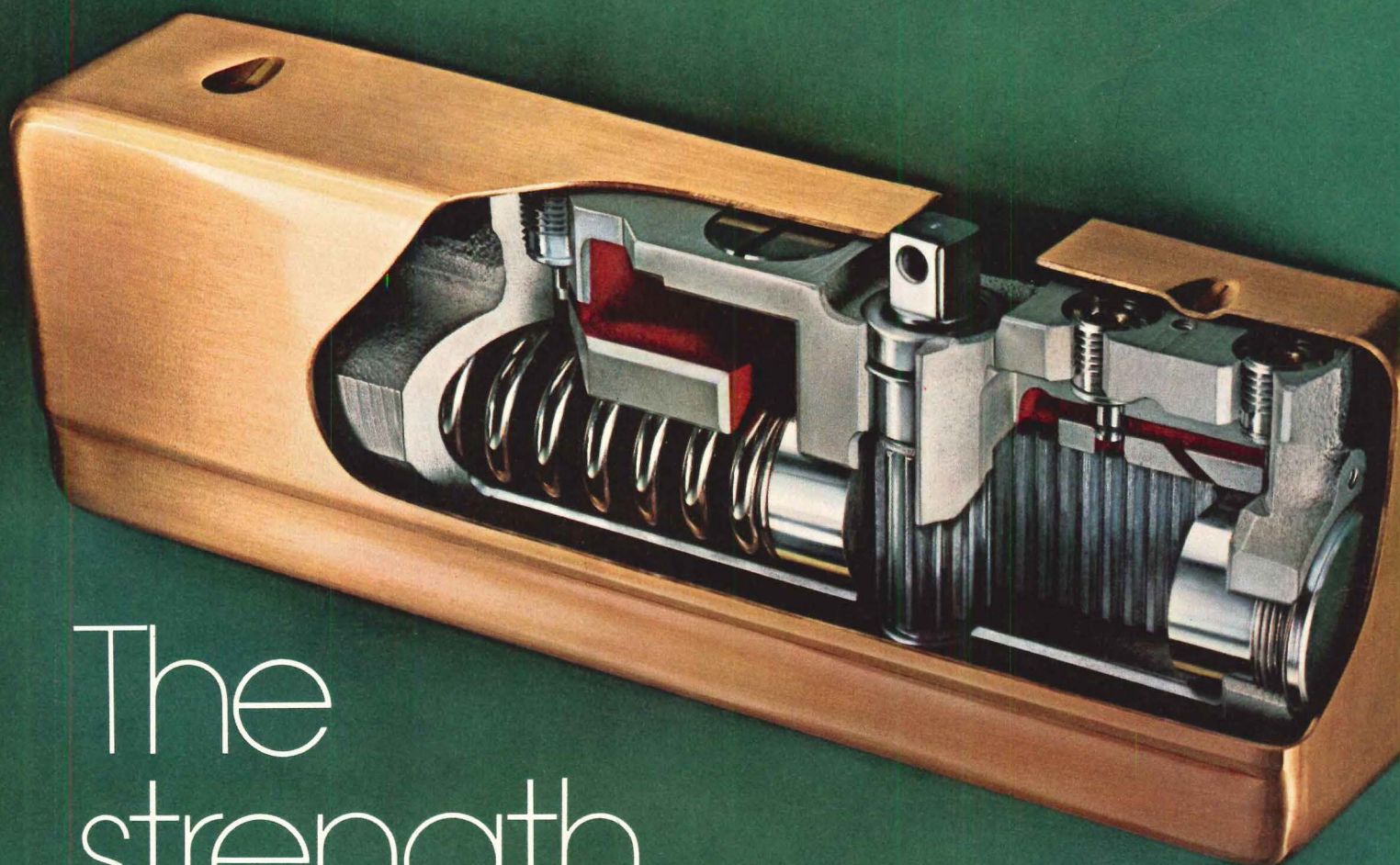
For more information contact:  
GAF Architectural Dept. **P-8**  
140 W. 51 Street N.Y., N.Y. 10020.



# GAF introduces floors for the way your buildings really work.







The  
strength

The  
style

The  
range

Door closers.  
Look at them as we do.  
From the inside,  
where strength and power  
combine to easily close  
the heaviest doors.

Now look at their eye appeal.  
Clean, smooth lines.  
Handsome finishes.  
Style.

Take a look, too, at the choice:  
The powerglide®,  
the 1200 Series.  
A door closer for every door,  
in every value range,  
with every feature.

Sargent door closers ...  
well worth another look.

 **SARGENT®**

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



# Progressive Architecture

August 1971

**Conventions: 1.** If it is true, as we have long been told, that resisting temptation strengthens virtue, then getting something worthwhile out of a convention might be counted a step along the way to heaven. The trouble with conventions is that they seem to work against useful endeavor, throwing up instead a barrage of temptations, all of which magnify human traits to the point of being real obstacles.

It's almost as if they were planned that way. Built into the very nature of a convention is the temptation to mingle only with your own kind. Human nature, yes, but you don't learn much that's new from your own crowd. And it is very tempting to overrate the importance of all the talk: words are equated with deeds, and ringing pronouncements with real accomplishments. There is, however, one temptation that might be more dangerous than any of the others: the temptation to forget what everybody is there for.

What brings this to mind is the recent AIA convention in Detroit. In recent years, AIA has been overcoming these temptations—all but the last. While there's no doubt that the annual convention now provides a variety of views on a variety of topics, this broadening process has had some unusual side effects. There's a little less drama each year: confrontations become difficult when everybody is on the speakers' platform. But that was the goal. Conventions become difficult when proceedings are interrupted by too many confrontations.

The slow, gradual process became really apparent this year in Detroit with the addition of the National Conference on the Building Team—a separate group sharing attendees and product exhibits with AIA. The AIA business and theme sessions were talking politics, while the Building Team program was talking shop.

AIA, or at least some of its more vocal members, have politicized a lot of architectural issues and architecturalized a lot of political issues. It's as if a convention of bird watchers passed a resolution blaming themselves for buying roses instead of hearing papers on the possible effects of pesticides.

Not that we disagree with AIA's basic concerns, or even some of the specific ones. It's just that many of these concerns are a bit beyond the Institute's expertise and influence. It runs the risk of diluting its political power on issues that are within the reach of the Institute. It's all very well for the speakers to offer theories and explanations of broad issues and to bring these issues to the attention of the architects, but it is

quite another thing for the architects not to discern which points of these issues are their responsibility.

**Conventions: 2.** One way to tackle the problems of dull, diffuse or confronted conventions is to schedule something else entirely. State AIA conventions are usually just low budget versions of the national one, but back in May, the Wisconsin Chapter AIA held one that can only be described as revolutionary. William Wenzler, a Milwaukee architect who was the convention chairman, told us about it during the height of the Detroit gathering. He had been to Boston the year before and was impressed with what he termed the "sham and opulence" of such a big convention. Everything he saw in Boston influenced his plans for the Wisconsin State convention, the theme of which was to be "Creating the Human Environment." "To begin with," he said, "we decided to have no categories of people at the convention—just human beings. We tried to aim at a level where everybody at the convention would feel equal and at home. We decided to eliminate hit and run speakers and instead get one 'resource person' for the entire time. We wanted to stress the idea that the human environment is based on the understanding that life is total. And finally, we wanted to do away with high ticket events."

The convention opened, not with a gala party but with an "experience," Wenzler said. Written by the director of the Inner City Arts Council and staged by a group of high school students, the sound and light show dealt with "dehumanization, poverty, injustice, war, lack of integrity." The real guts of the convention, however, was a three-day running dialogue with Bucky Fuller, the "resource person," and workshop sessions that grew out of the convention's theme.

Although everybody knew what to expect, reaction to the affair ranged from outrage to joy, judging from letters the Chapter received afterward. Nobody complained about Bucky Fuller, though some were so turned off by the opening experience they didn't stay around to hear him. On the whole, however, the reaction was positive.

But the Wisconsin approach is probably not the ultimate answer. It demands too much of people who show up just to have fun, and it ignores the middle-of-the-road practitioner who takes some cash out of the till and journeys to Convention City in hopes of finding some answers to his own problems, both business and technical. And then goes home hoping—next year. [The editors]



# Designing for a dry climate

**Architect Luís Barragán has emerged from an early all-white period with his use of color to deal with the effects of intense sun and shadows in the thin, dry Mexican climate**

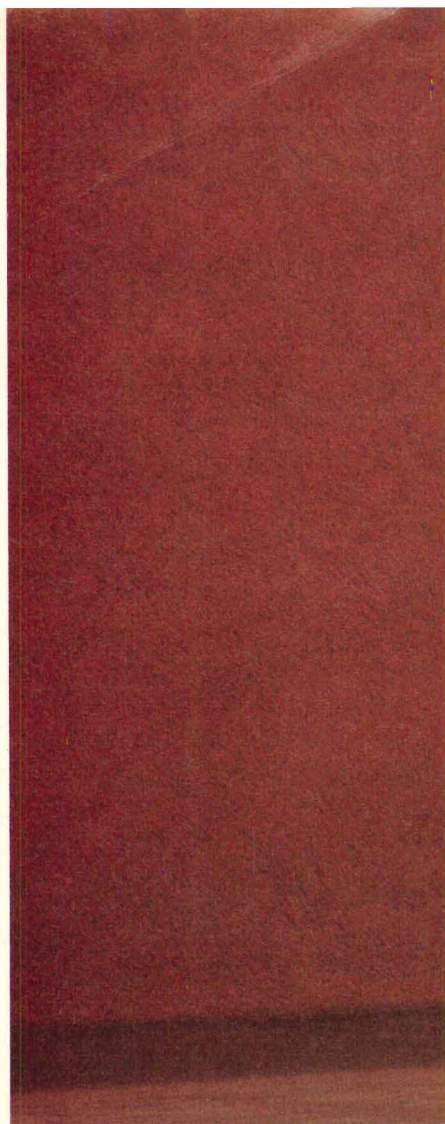
Luís Barragán is probably best known outside his country for his land planning of Mexico City's Pedregal Gardens, a suburban development on the same lava flow as the National University. Barragán recognized the uniqueness of the site; his 1949 plan required preservation of the native plants and a minimum of disturbance to the choppy sea of lava. Subsequently, the original large sites were subdivided, and the plan abandoned.

In 1950 he planned a second development in the State of Colima, and as recently as 1969 was called by Louis Kahn as landscape consultant for the large court at Salk Institute. Barragán's training, however, was as an architect in Guadalajara, and his early houses there and in Mexico City were recognized as a new voice in Mexican architecture.

Recently Barragán has simplified his buildings until walls exist as planes of color, or prisms, as in the towers at the entrance to Satellite City outside Mexico City. His all-white period of the 1950s—mainly houses in Guadalajara and Mexico City—combined the aesthetics of Le Corbusier and Spanish Colonial convents, set in de Chirico perspectives. These photographs by Armando Salas Portugal emphasize the perspective, sometimes so hauntingly that the image usurps the three-dimensional reality. The reality is less staged, but no less dramatic, for Barragán designs for a sun that is intense and for shadows that are velvety in the high altitude.

When he began using color in the 1960s, as in the Camino Real Hotel (P/A, June 1969), his walls appeared to be free-standing, even if they were not, because they changed color as they changed plane. He painted the originally pure white forms on the roof of his own house (Mexico City, 1950) in a spectrum of colors that ranged from pink to gray-orange, and he periodically repaints them in new combinations. The walls of the outbuildings of the Egerstrom house have gone

Egerstrom house and stables, San Cristobal, were classic white when built. Andres Castillas is associate architect; all photographs in this article are by Armando Salas Portugal.











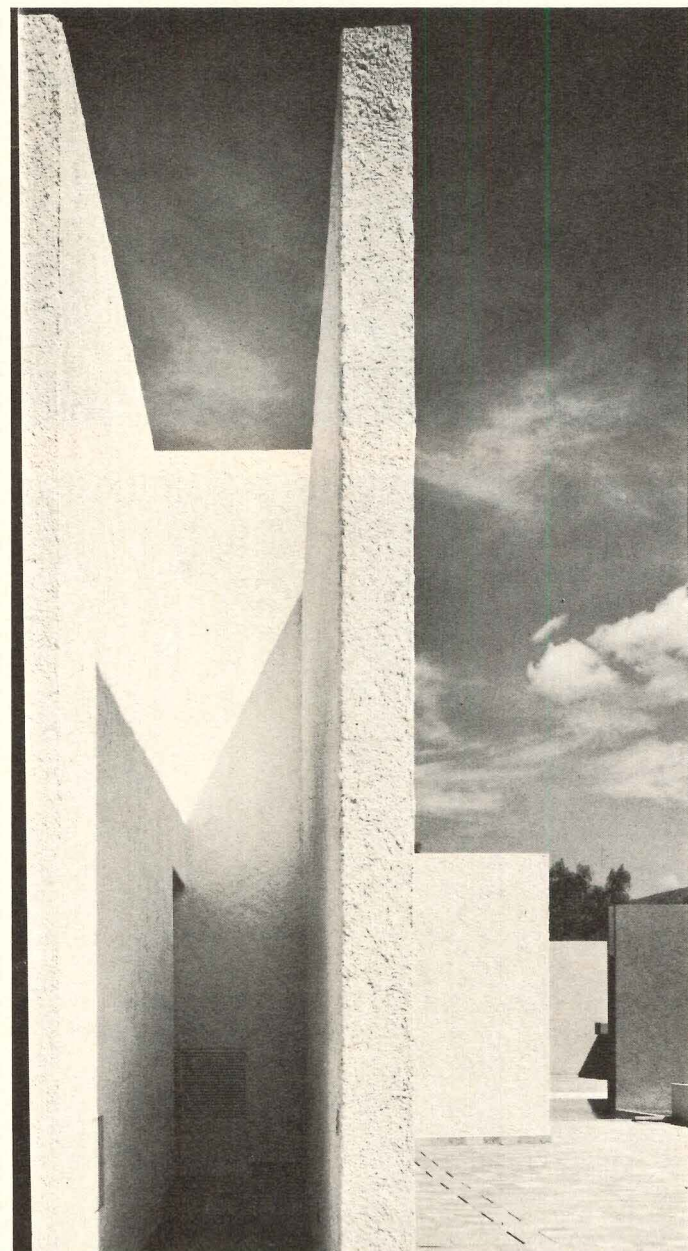
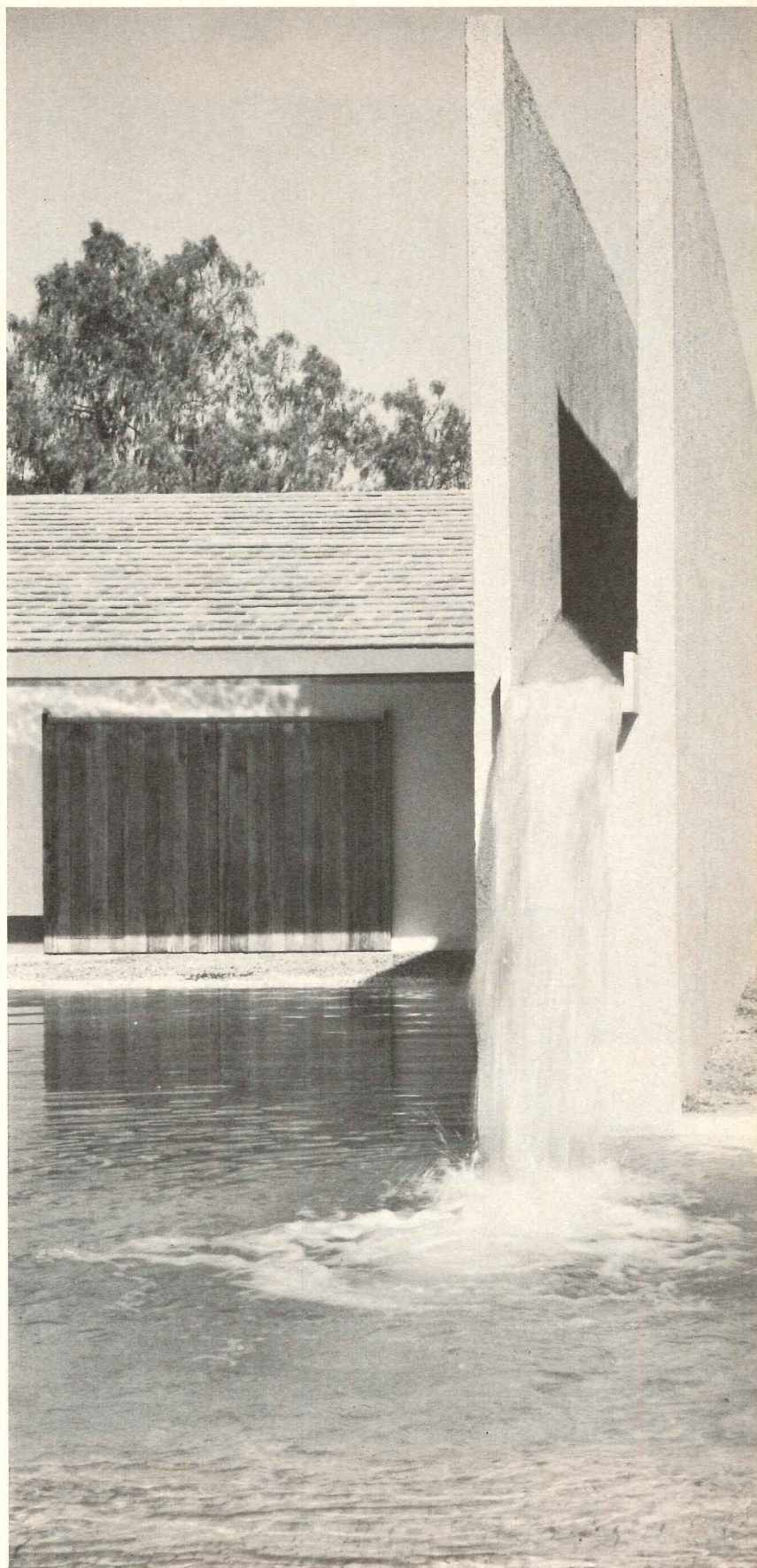


## Luís Barragán

through similar transformations. Clockwise, the walls around the stable enclosure move from rose, to the deep violet gate, continue in mauve, pink, then back to rose and finally work around to the deep red rust of the walls of the fountain. He has composed the forms like a painter working on canvas.

From convent architecture come his most enduring elements: rough plaster for garden, exterior and interior walls; floors of second grade pine, with a look of renunciation and of having been scrubbed that very morning. Ceilings are high, and the rough wood beams have the air of piety of those of the convent. Mexico is a wood-poor country, and Barragán has made a virtue of this. Entrances and courtyards are paved with dark gray lava stone; stairs, usually rail-less, often have lava stone treads.

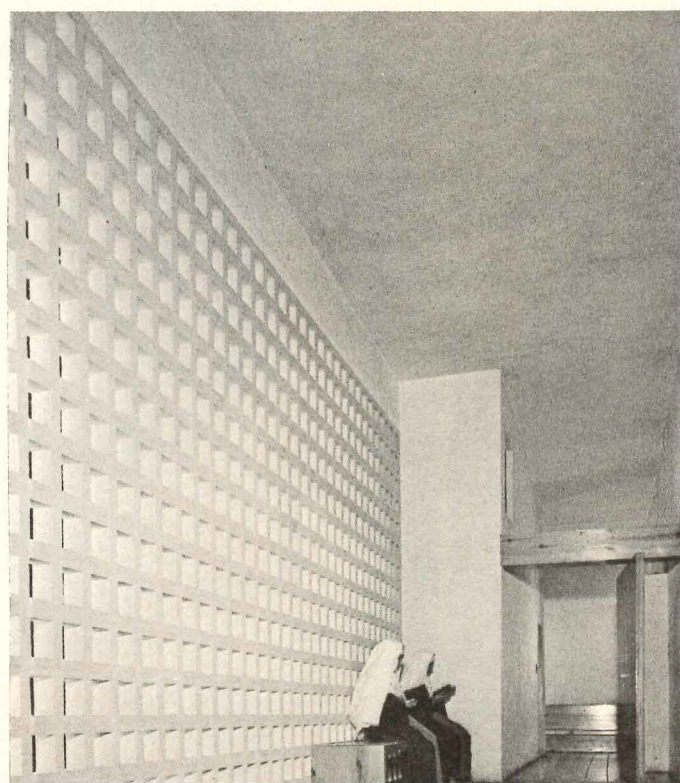
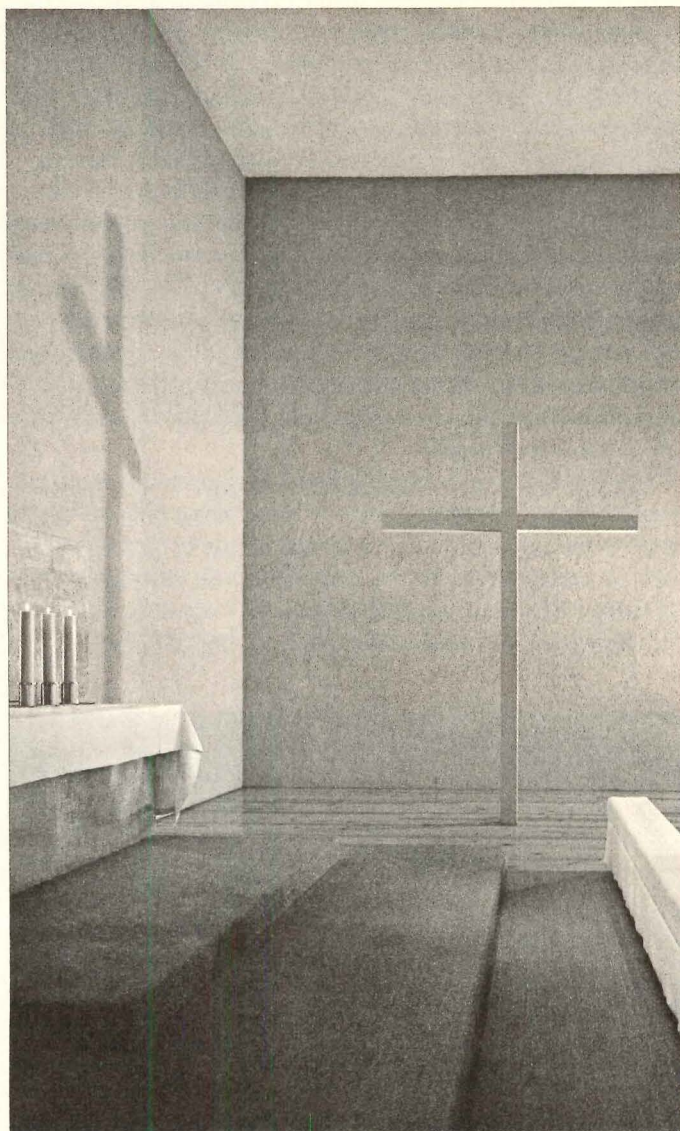
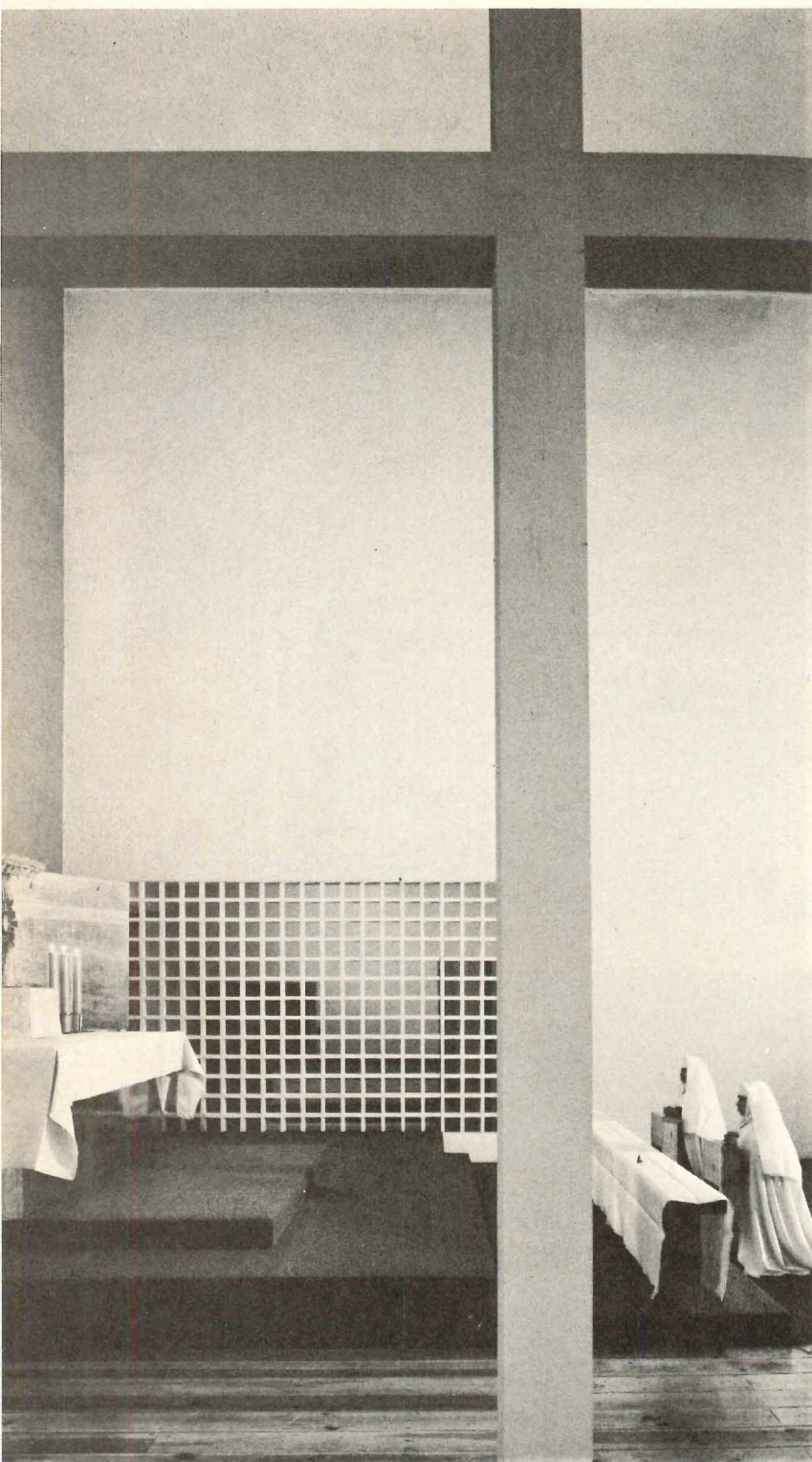
There is nothing in his buildings to suggest a return to handcrafts. If the hand seems to have smoothed the plaster and the hand to have laid the stones on the floor of the fountain, an eye aware of history of architecture, and especially of Le Corbusier, has brought them together in something as international as it is purely Mexican. [Esther McCoy]



Swimming pool (far left) is on opposite side of Egerstrom house from the watering pond for horses (above). Double wall form is also used at a patio entrance (left).

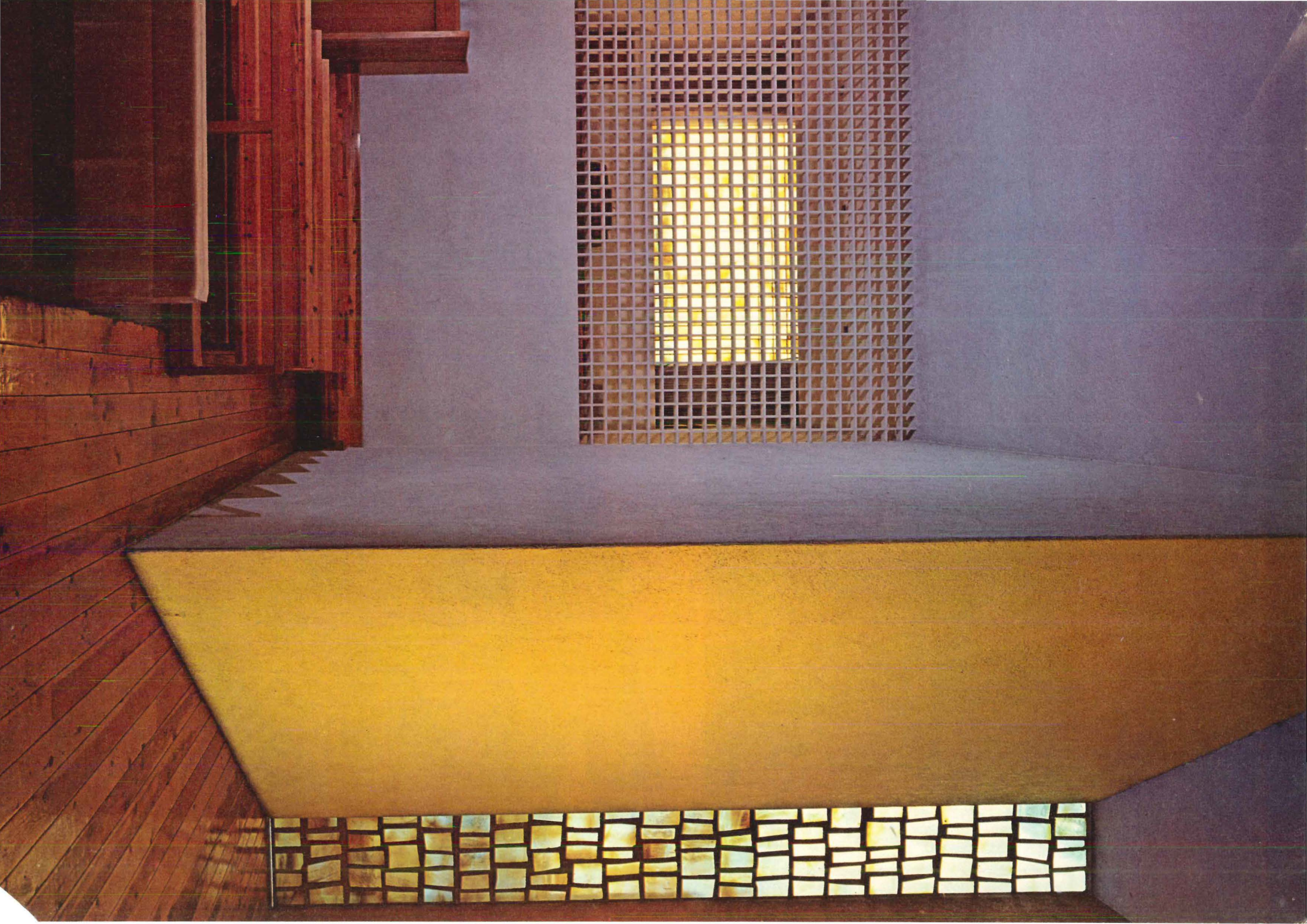


Luís Barragán



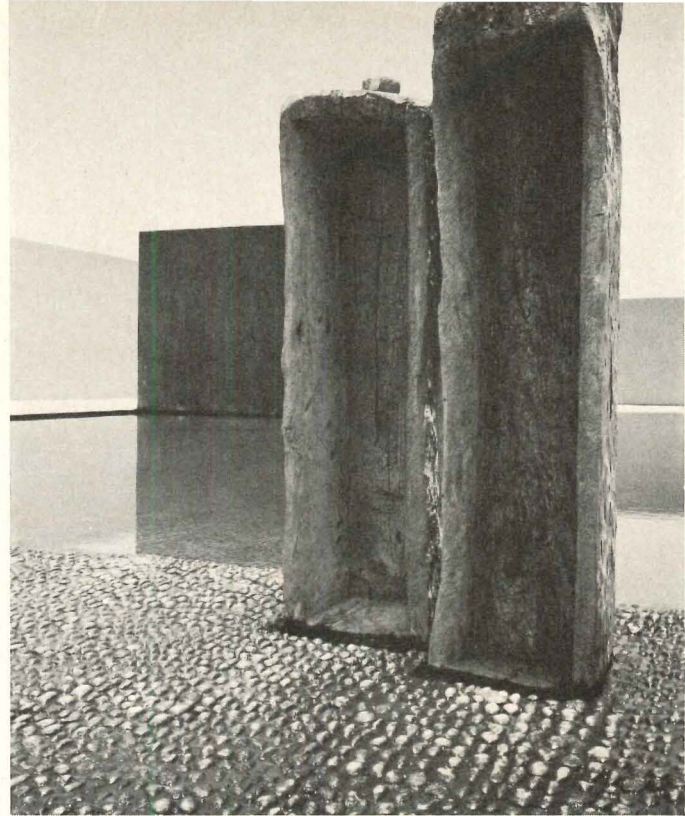
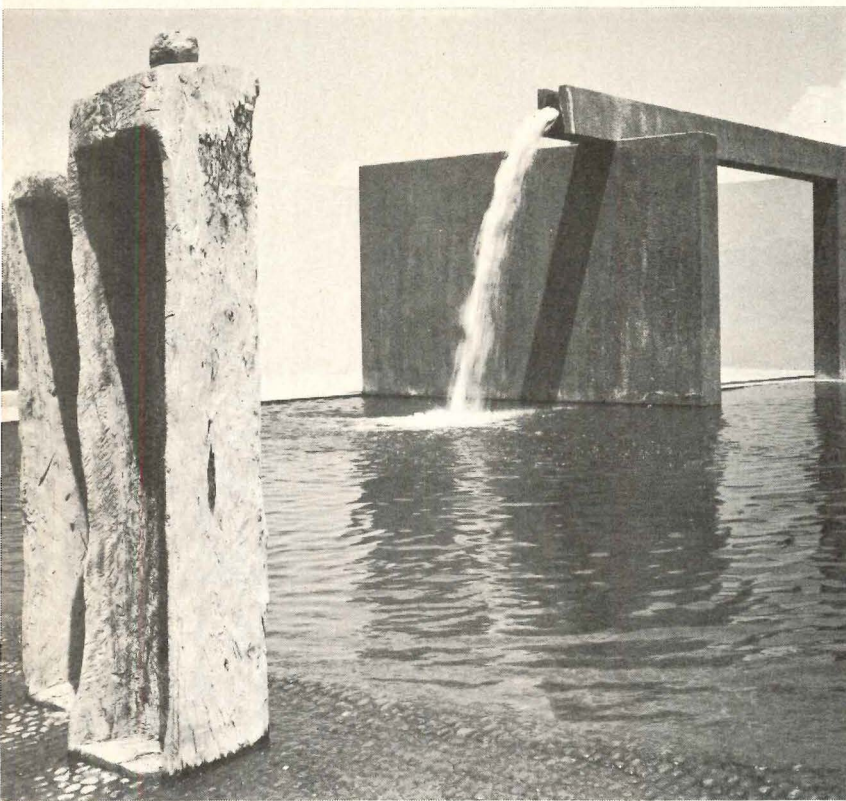
Barragán remodeled the 19th Century Tlalpan Convent and added a new chapel, balancing the severity of form with color.



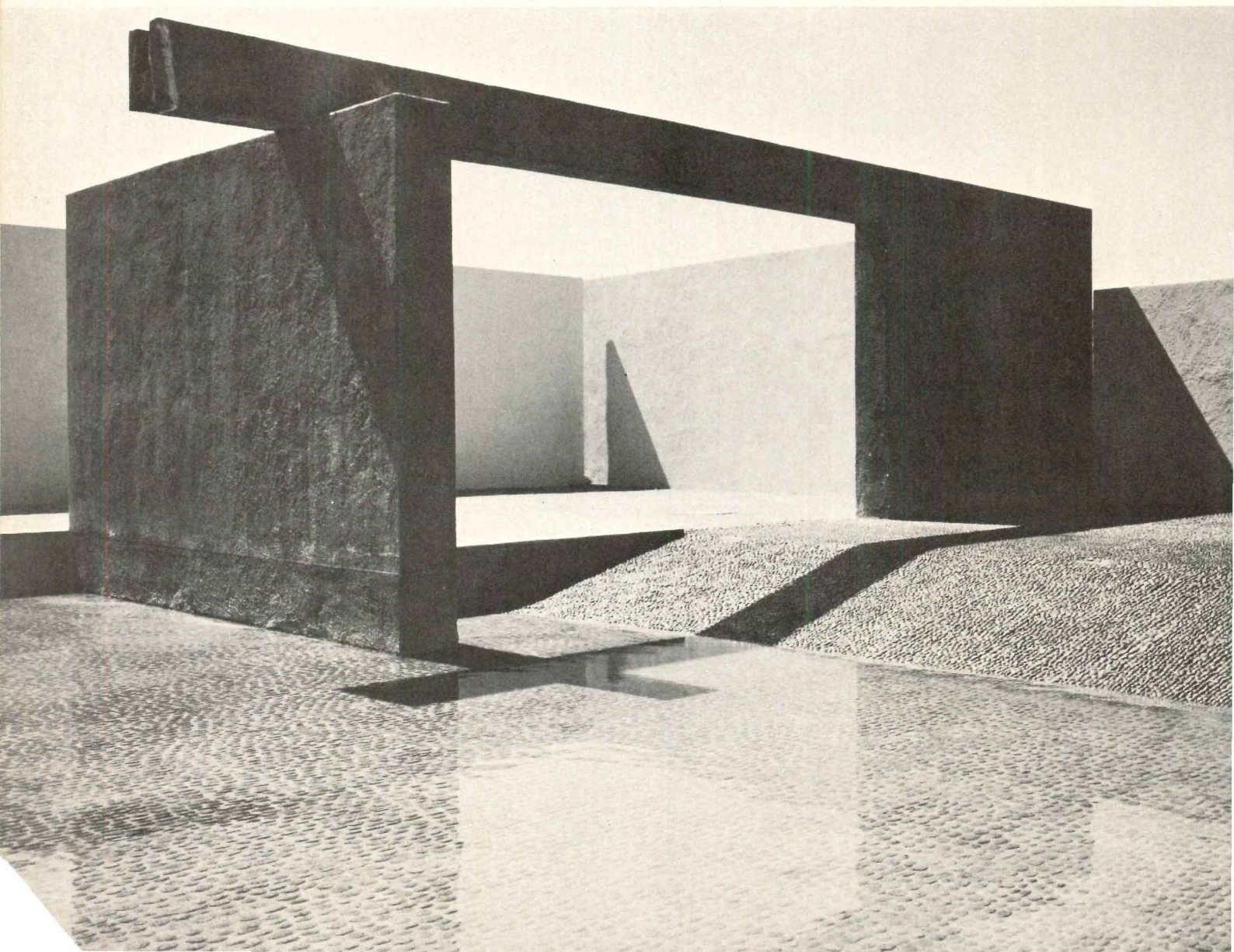




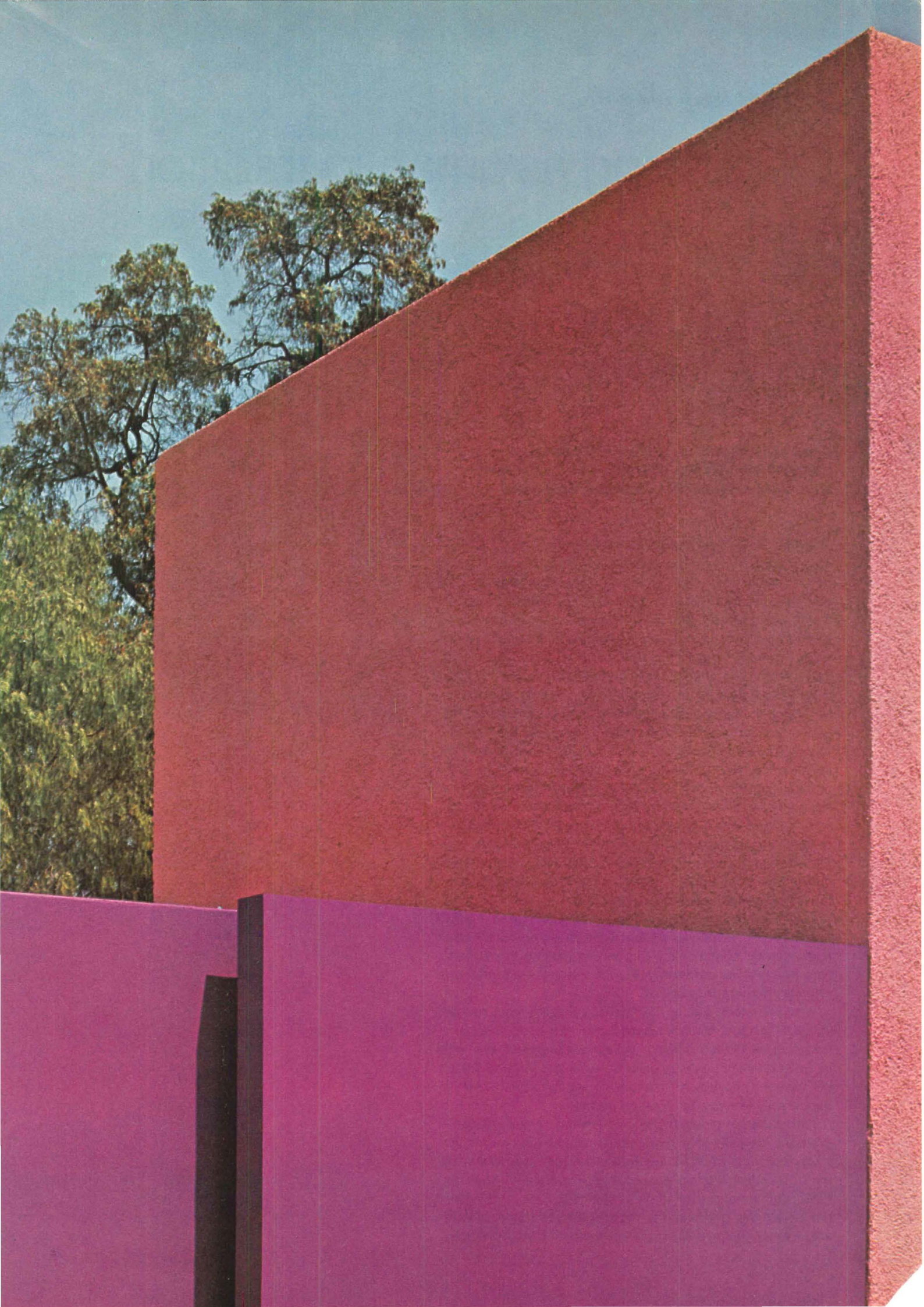
**Luís Barragán**



Weathered watering troughs serve as sculpture at the entrance to Las Arboledas subdivision, where riders may stop to let horses drink. Rounded stones on the pool floor prevent horses slipping. Colors are similar to those at the Egerstrom house.









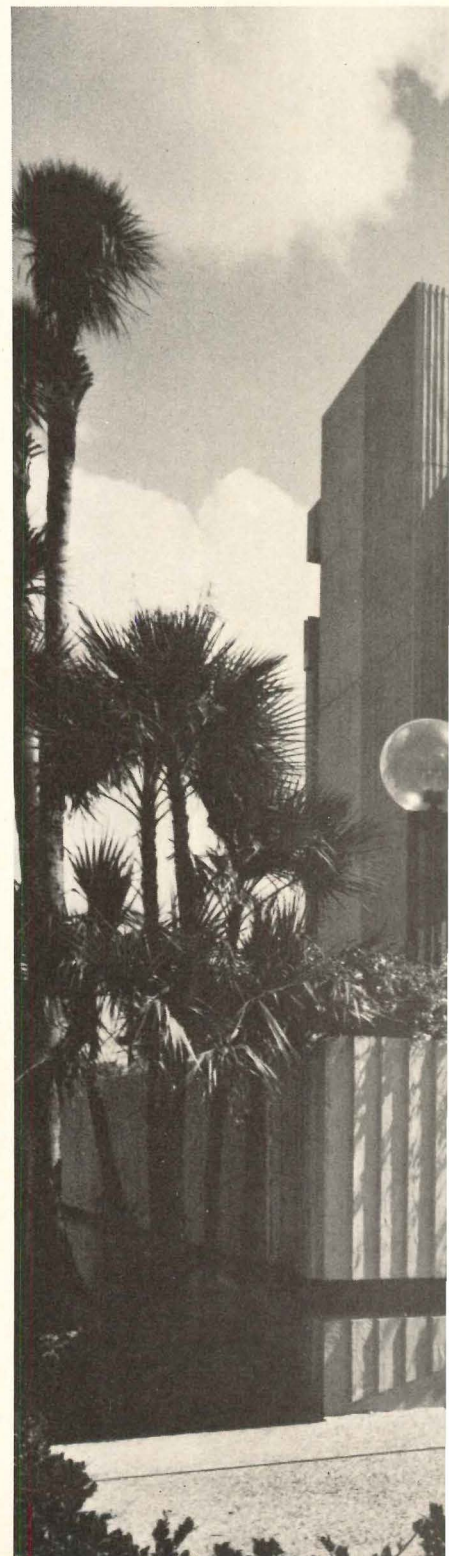
# Continuing a romantic tradition

**A new judicial building in Florida continues an old tradition of romantic architecture that has proved to be particularly suited to the subtropical climate**

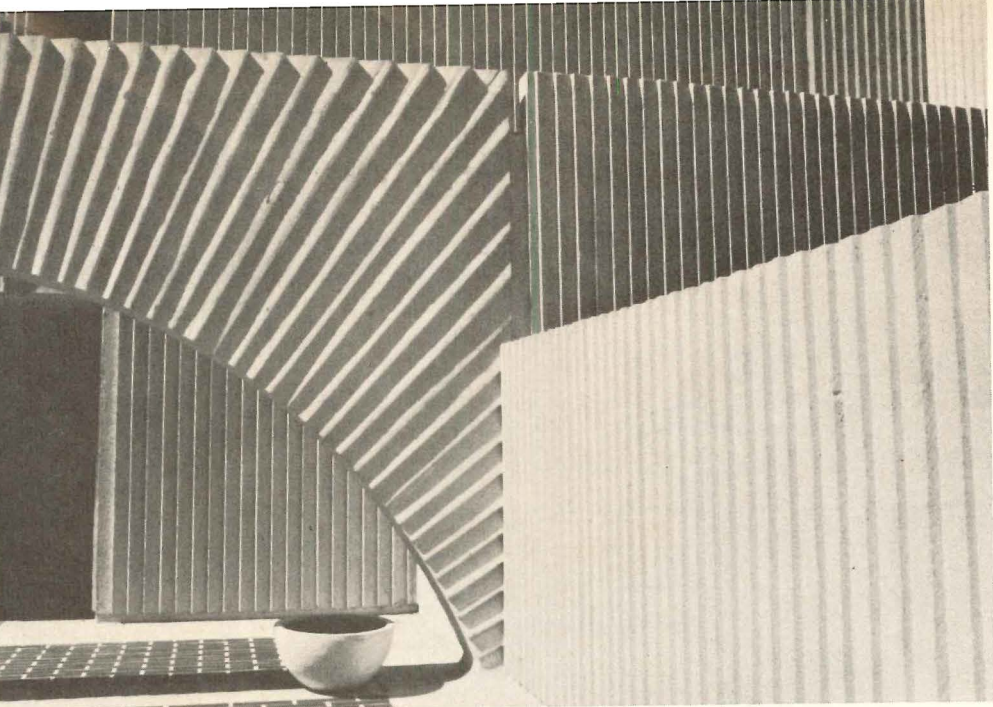
The Pinellas County Judicial Building continues an old Florida tradition of romantic architecture—a tradition that might be traced back to 16th Century St. Augustine when the first colonists brought Hispanic Renaissance design to the new world; they built with free use of open plazas, courtyards and protective colonnades, and often embellished structures with finely detailed and elaborate decorations. Later, English colonists reinterpreted the Greek and Italianate aesthetic to the warm humid climate; the large plantations and mansion houses, with their customary breezeways and oversized windows, were often surrounded by spacious verandas that encouraged outdoor living protected from the intense sun. But perhaps the major impetus to this attitude came during the Florida “boom” of the 1920s when everything from private residences to hotels, and even gas stations and post offices, whether large or small, became Italian or Moorish palaces set in lush tropical gardens filled with sparkling fountains and carved statues, where plazas and courtyards were lavishly adorned with Portuguese tile. However, regardless of how fanciful or grandiose the buildings and their surroundings were, these indoor-outdoor buildings were designed primarily to use every available air current while shielding from the sun. Even with air conditioning and central heating this building type persists; life patterns in Florida are still predominately oriented to the out-of-doors.

In addition to its official function of providing more space in which to conduct matters of law, the judicial building complements the Florida lifestyle. It is a place to gather, to mingle in the gardens or by the pool, or to rest in the plaza to enjoy the view of a nearby lake; not just a building to go to when required only to leave as soon as possible.

The poured-in-place, highly embellished, reinforced concrete building sits atop a spacious, raised, slate-surfaced plaza that is reached by a staircase bridged over a shallow pool. The plaza is completely open, punctuated only by structural columns and a small glass-enclosed lobby. Four floors rise above the lobby, and at night when the fluted columns are illuminated, the building seems to float on shafts of light.









PLAN SECTION A THRU COLUMN BASE

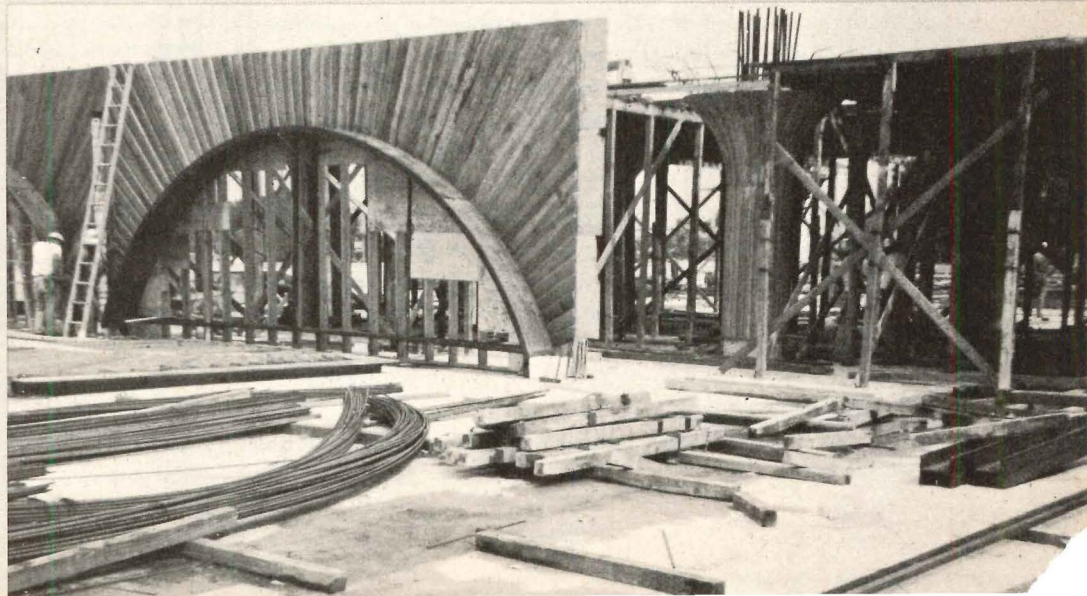
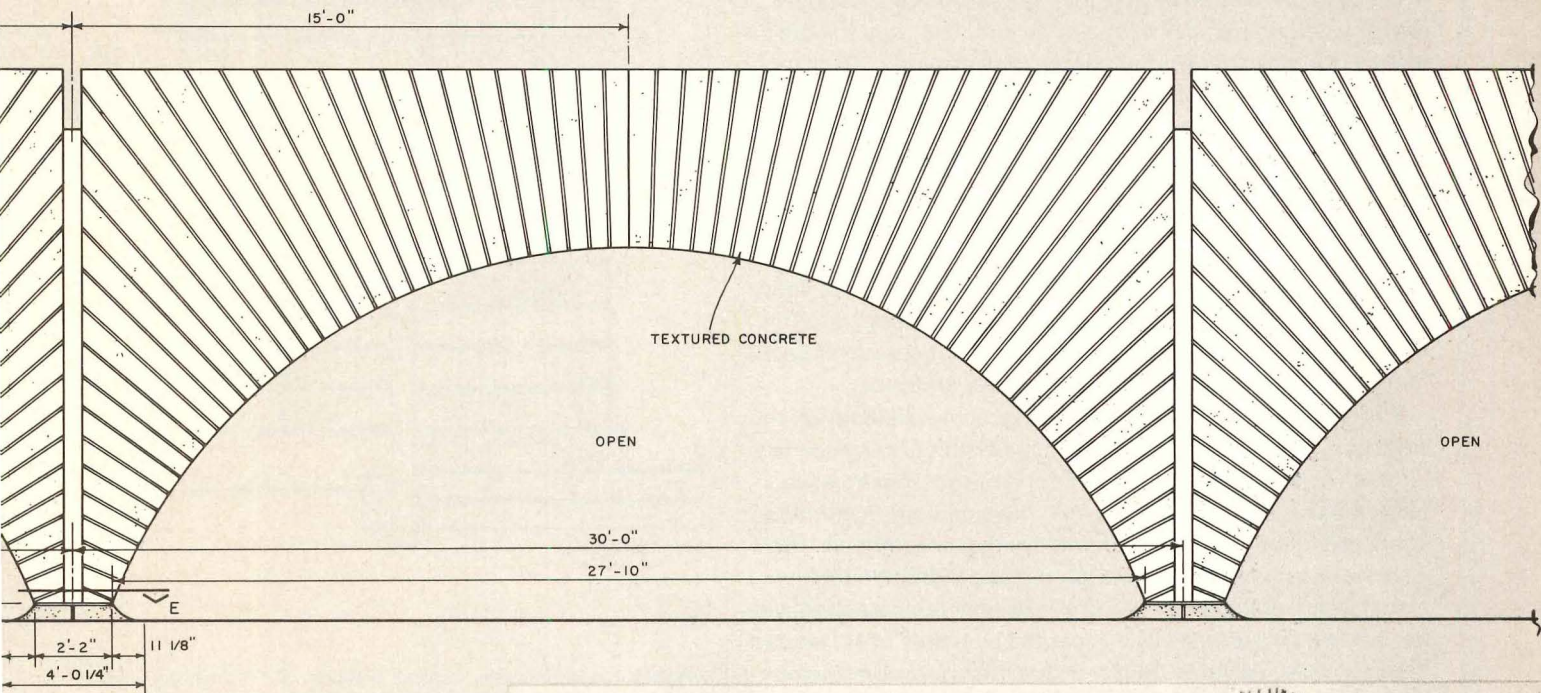
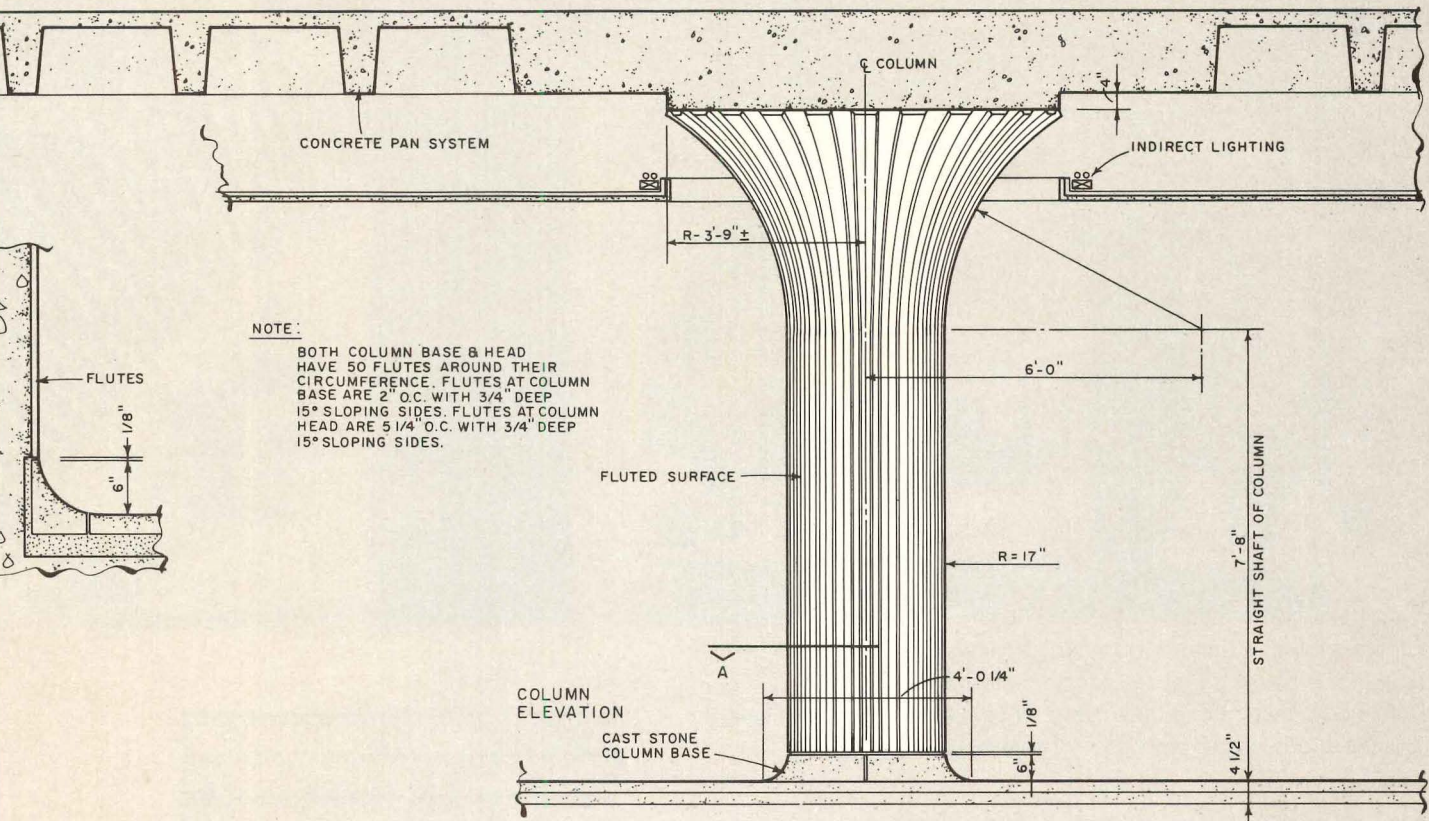
VERTICAL SECT  
COLUMN BASE

VERTICAL SECTIONS THRU ARCHED COLUMN BASE

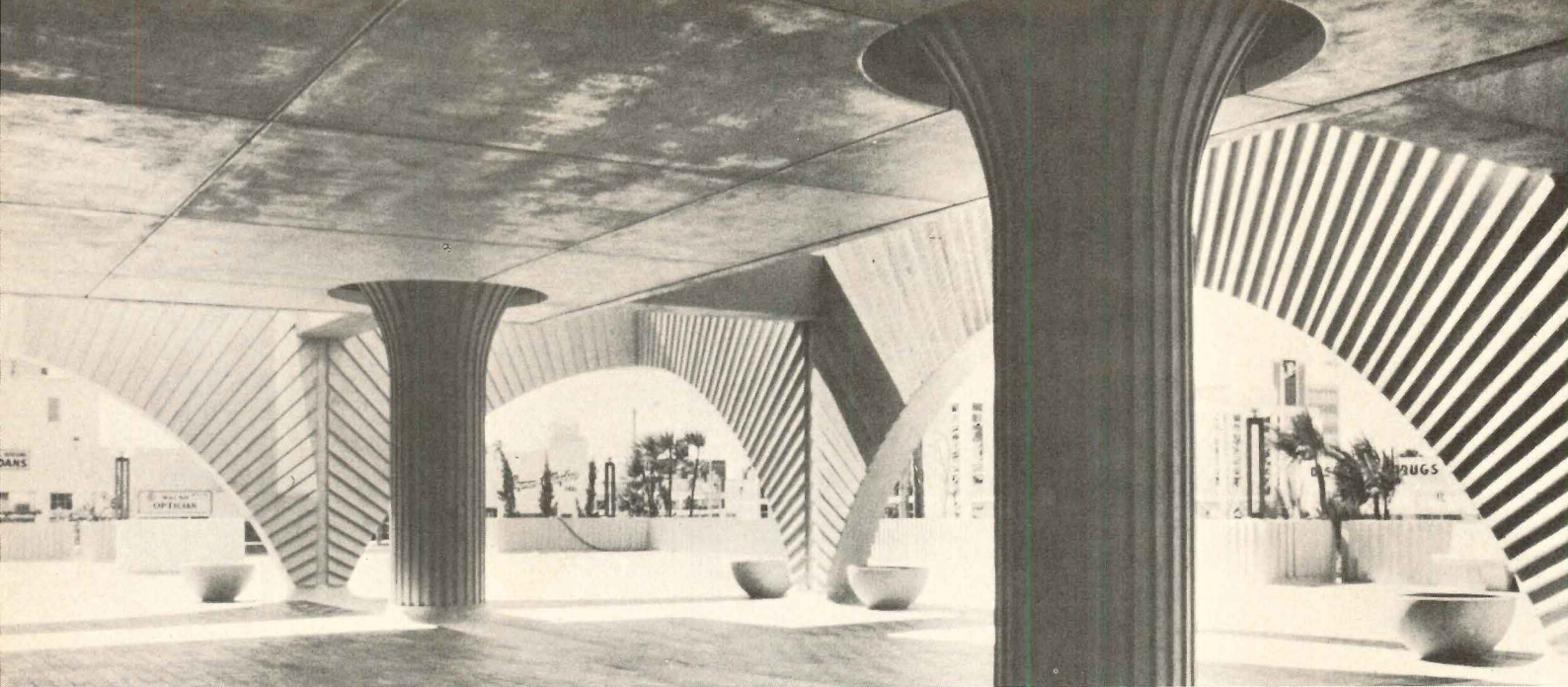
PLAN SECTION E THRU ARCHED COLUMN BASE

ARCH ELEVAT







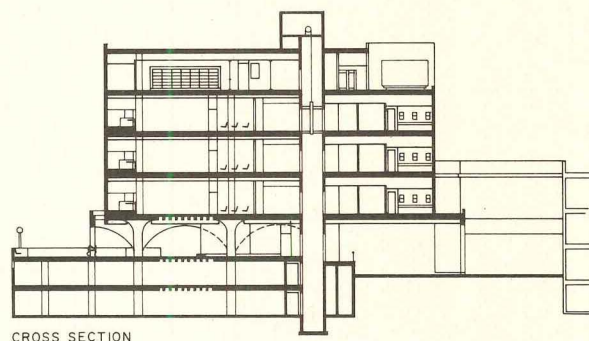
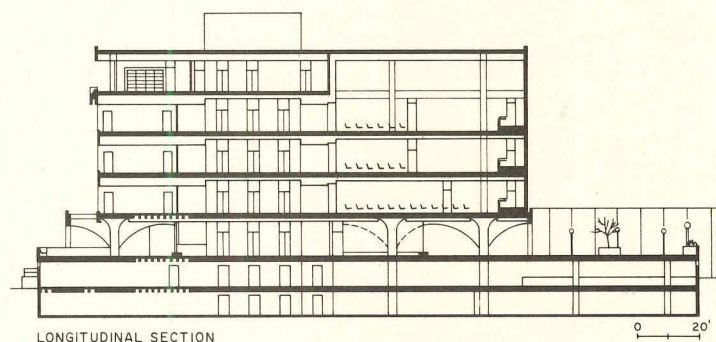


On plaza level, structural supports become fluted columns to support four upper floors of seven-story building. Detached connecting arches carry electrical and plumbing runs, which are brought to building by nonstructural box beams.

A series of connected arches that appears to be a viaduct, and in a certain respect is, stands several feet from the building and forms an almost continuous ring around it. Most of the plumbing and electrical piping is concealed within the spaces between those arched columns, and carried over to the upper floors' perimeter walls by regularly spaced, nonstructural box beams. The piping was enclosed between the arches' piers for two reasons: it required less piping than would have been needed to bring the utilities up through the service core, and it makes the piping more accessible than it would have been had it been brought up through the structural supports. The arches serve no structural function and can be easily recast if they ever need to be broken open to repair pipes.

The architects admit that there was some difficulty in the selection of interior furnishings and finishings because the judges, whose preferences lean toward the conservative, nevertheless wanted to avoid the unwelcoming, institutional atmosphere that is often associated with a courthouse. Their aims were accomplished through the use of traditional furnishings surrounded by the warm colors of the carpeting with paneled and travertine walls accented by highly polished dark green marble. To avoid rigidity within the courtrooms, a movable furniture system was devised whereby the jury stand and witness boxes can be arranged in various configurations to accommodate different trial procedures. To maintain a clean appearance throughout the building, all air conditioning diffusers have been concealed in black recesses at the junction of ceiling and walls. In the library on the top floor, bookcases are not placed against the perimeter walls, but set directly into the windows to maintain an open airy mood in the room.

Two levels of parking for 147 automobiles are concealed under the terrace, and some additional on-grade parking near the surrounding gardens will recede from view as the trees grow. The structure was designed for future expansion that will allow two additional floors on top. A glass-enclosed bridge through the palm garden connects the building to the old facilities. [DM]



#### Data

**Project:** Pinellas County Judicial Building, St. Petersburg, Florida.

**Architect:** Anderson-Johnson-Henry-Parrish, Architects Engineers, Inc.

**Program:** increase county judicial facilities with a structure allowing for future expansion and underground parking.

**Site:** old urban area in center city that will eventually become government complex facing a park-ringed lake.

**Structural system:** reinforced concrete waffle flat slab 30' x 30' bays. On open lobby-promenade floor vertical structural supports are articulated as fluted decorative columns. Trunks of detached perimeter arches contain most of plumbing and electrical piping.

**Mechanical systems:** heating—circulating hot water. Air conditioning—centrifugal water chilling; central duct system; hot and cold banks to mixing boxes for multi-zone control.

**Major materials:** formed-in-place reinforced concrete, cast stone, marble, slate, automatic sliding doors, pivoted aluminum windows.

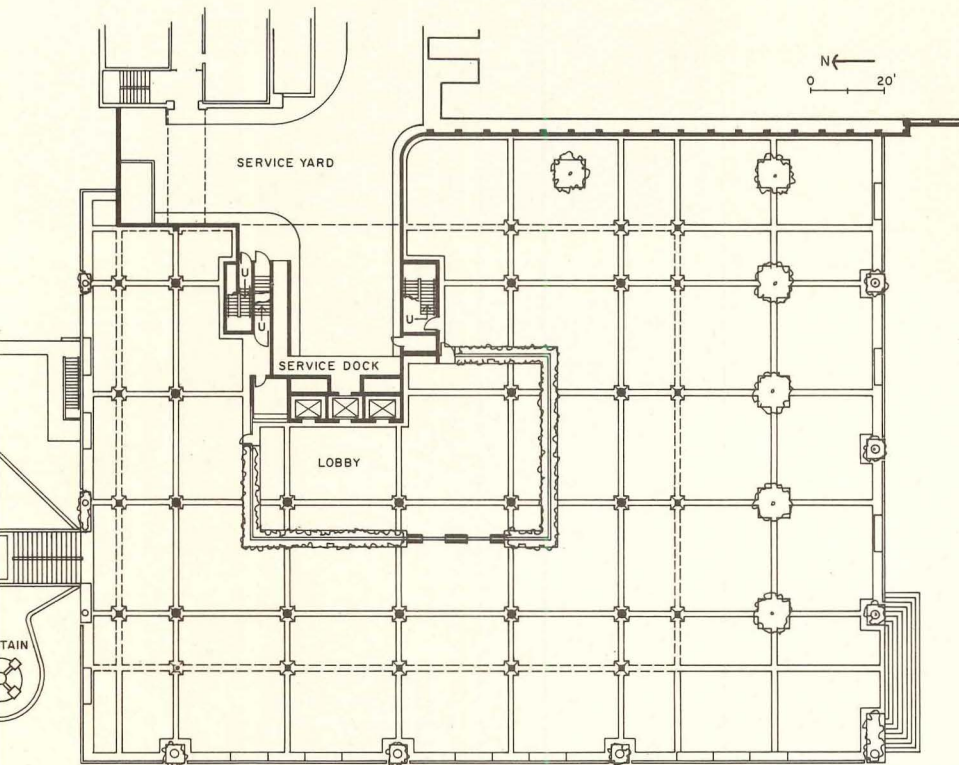
**Costs:** \$2,548,757 for building alone.

**Consultants:** landscape, Rainbow Nursery; mechanical, Rebane Consulting Engineers; structural, Mathew Bodo.

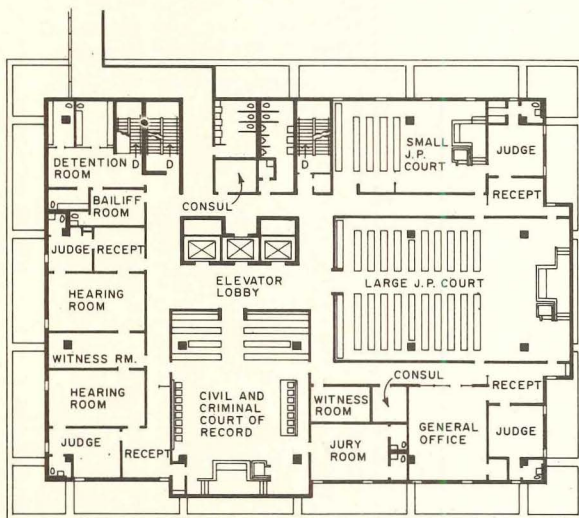
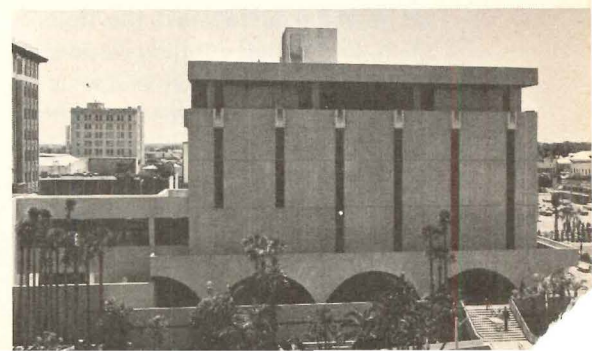
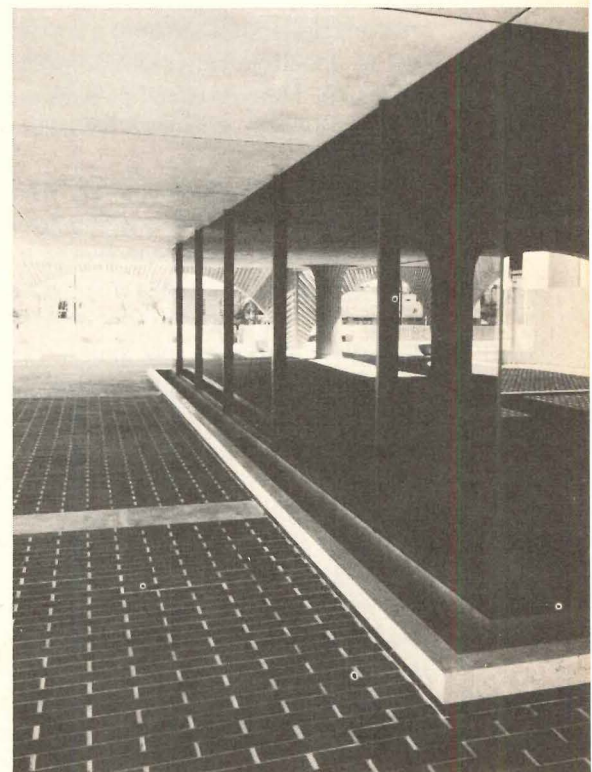
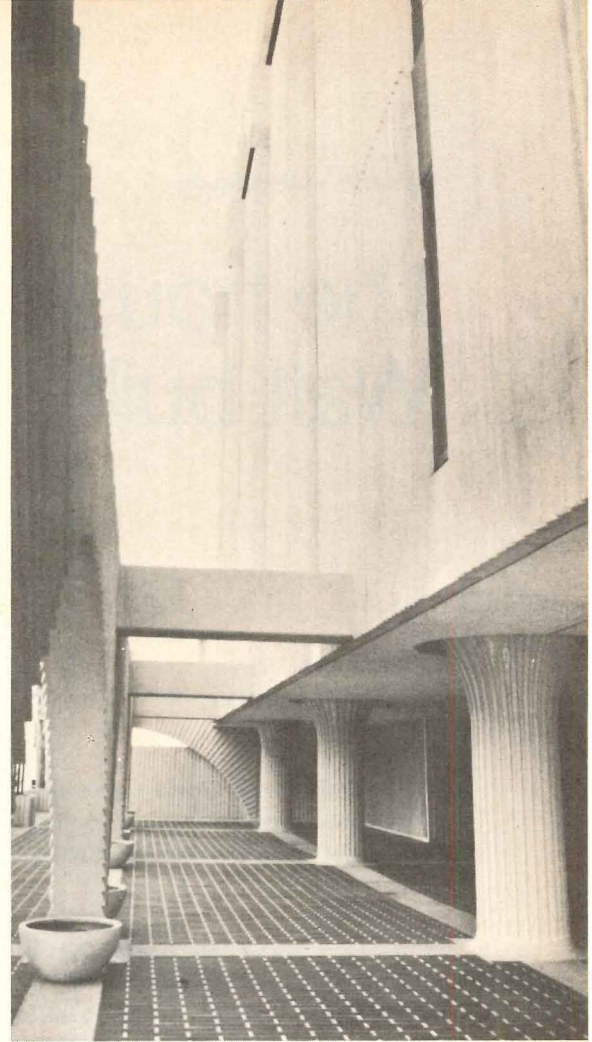
**Photography:** p. 59, Fotographic Productions; p. 63, bottom, Joe Schoff.



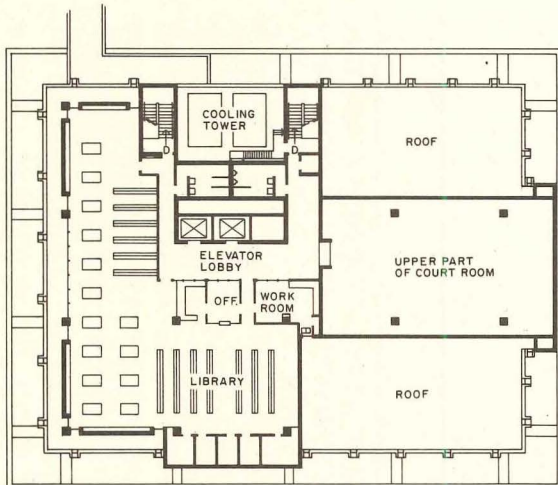
# Continuing a romantic tradition



PROMENADE DECK - FIRST FLOOR PLAN



SECOND FLOOR



FIFTH FLOOR PLAN



# The house that Walt built

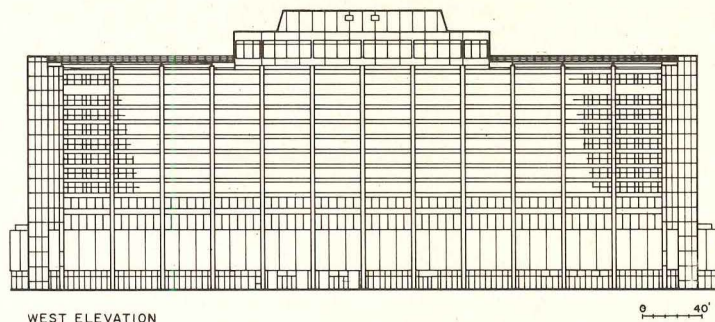
**When Walt Disney World opens its gates in October, the Disney tradition, the spectacular, will greet guests of a new hotel designed around steel framed modular units**

Hotel facilities at Walt Disney World, the 80-times-bigger-than-life eastern Disneyland, promise to be almost as spectacular as the exhibits and main attractions. Scheduled to be ready for the official October opening, the first of five hotels planned is a complex consisting of an outsized A-frame with prefabricated rooms flanking a nine-story-high lobby-concourse, and three-story hotel annex buildings. Guests will arrive via the monorail which cuts through the structure at the fourth level, with service, convention and large public areas below.

The 1050-room Contemporary Resort-Hotel was designed by Welton Becket and Associates for Walt Disney Productions. It is being built next to a large man-made lake by U.S. Steel Corporation's Realty Development Division, which set up a prefabrication plant eight miles down the road yet still on the WED Enterprises, Inc. site.

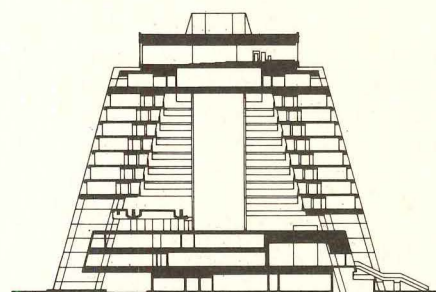
It is the 14-story A-frame hotel building, however, that forms the nucleus of the complex. Primary supporting members for the main building, 13 huge trussed bents rest on 14-in. diameter concrete-filled steel pipe piles varying in length from 40 ft to 200 ft. Main chords of the bents are 18" x 26" tube sections, and each bent is 150 ft high, 135 ft across at the top and 220 ft across at the bottom. Post-tensioned concrete struts under the lower level tie the A-frame bases. Upon completion of the steel skeleton of the building, hotel room modules were inserted, forming an interior concourse nine stories high, through which will pass the monorail linking all Disney World main attractions. The dimension between each pair of A-frames is wide enough for two modules. Support for the modules is from the A-frame on one end, and inclined cables at the centerline of the module pair. Wire rope cables 1½ in. in diameter, running diagonally from the suite floor on top to the fifth level, were pretensioned before modules were placed. Only nominal residual tensions remain at the lower cable fittings after full dead and service loads were applied.

The steel framed modules were prefabricated complete with fireproofing, balcony railings, corridor floors, baths, brightly colored carpet and wall finishings. Some of the mod-

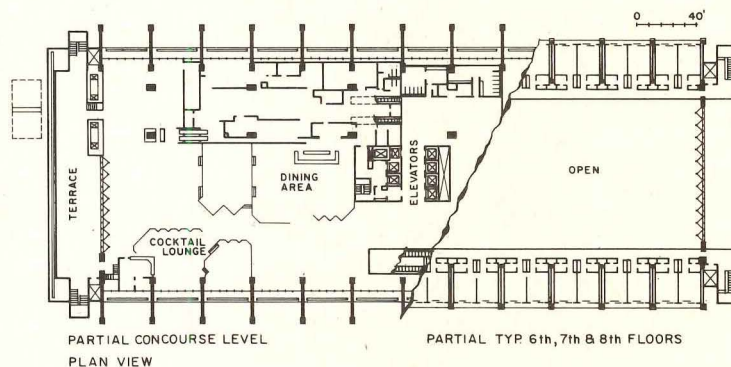


WEST ELEVATION

0 40'



CROSS SECTION



PARTIAL CONCOURSE LEVEL  
PLAN VIEW

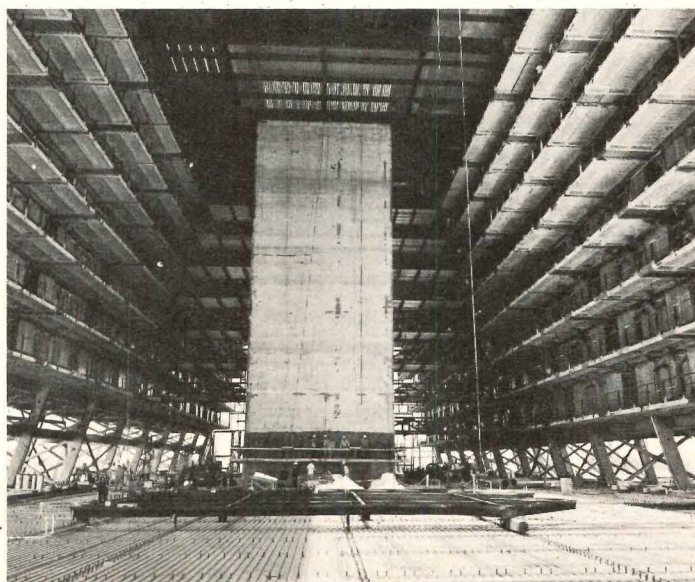
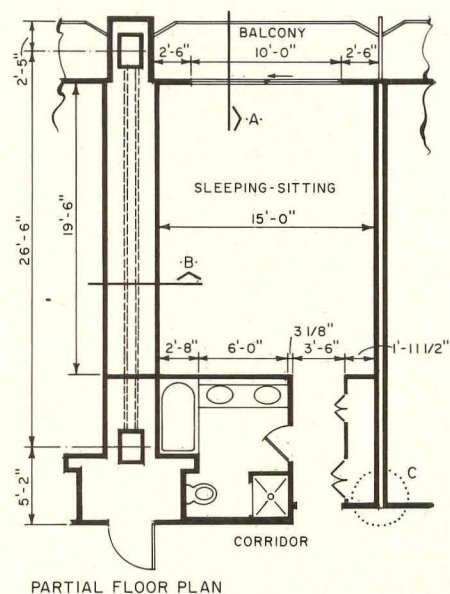
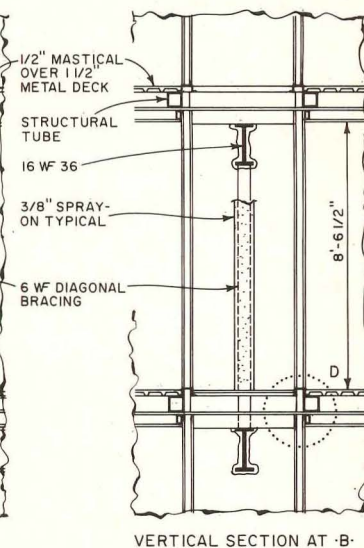
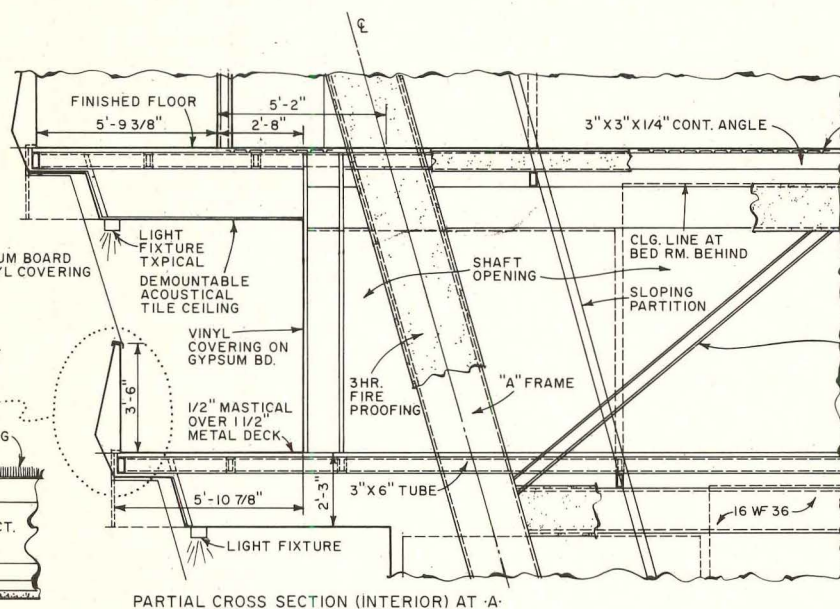
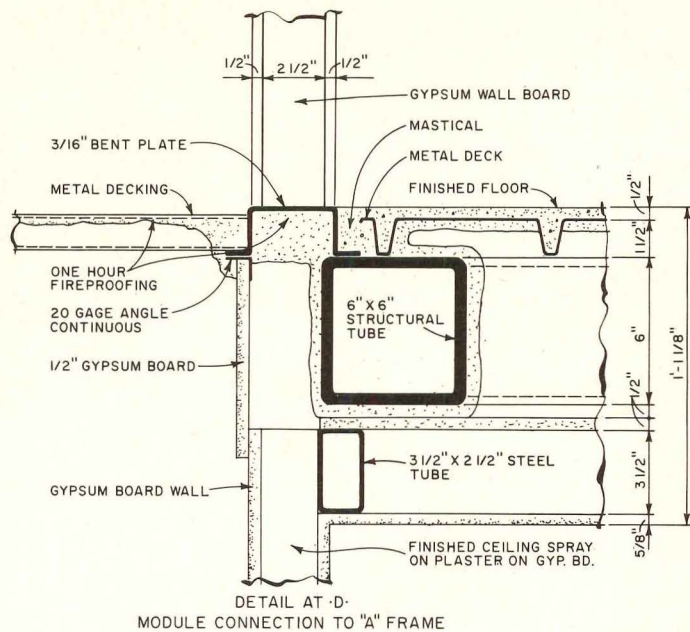
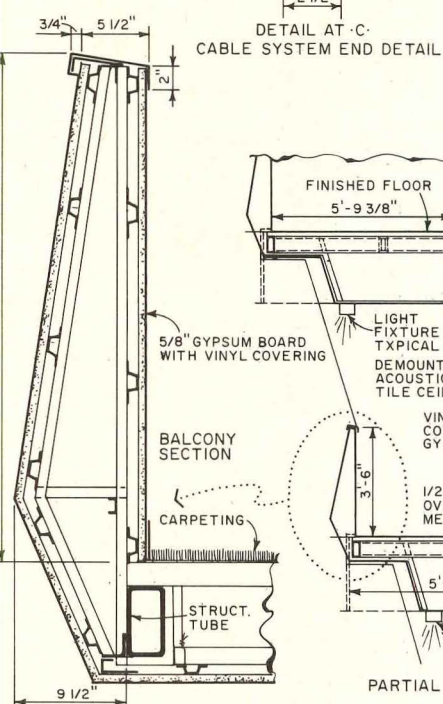
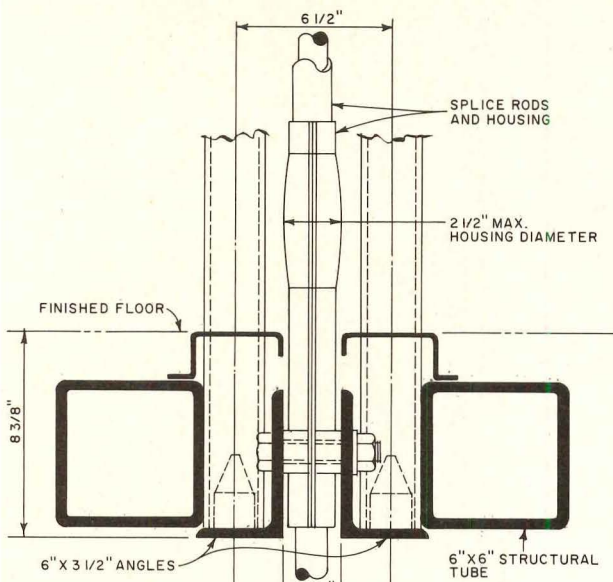
PARTIAL TYP. 6th, 7th & 8th FLOORS

ules have been joined, without further structural support, to form the three-story annex buildings with garden apartment-like rooms. The exteriors were finished with porcelain enamel panels, striated concrete block, and concrete.

The slip-formed core consists of two shafts housing elevators and stairs, with additional stair shafts of poured-in-place concrete located at each end of the building. Built with the same slope as the A-frames, the end stair shafts are U-shaped tubes structurally connected only at the top floor diaphragm and at the base.

End walls of the concourse space are tubular steel space frames, with glazing outside, as are the skylights over the huge space. Monorail cars will enter the end walls through an air curtain. Structural supports for the monorail rest on separate pilecaps insulated against the transfer of vibration to the main structure. [JM]





Prefabricated rooms slipped into truncated A-frame overlook concourse where monorail trains will pass shops and restaurants. Skylights and end panels will be bronze glass.



# Challenge to the rectangular

Clovis Heimsath AIA

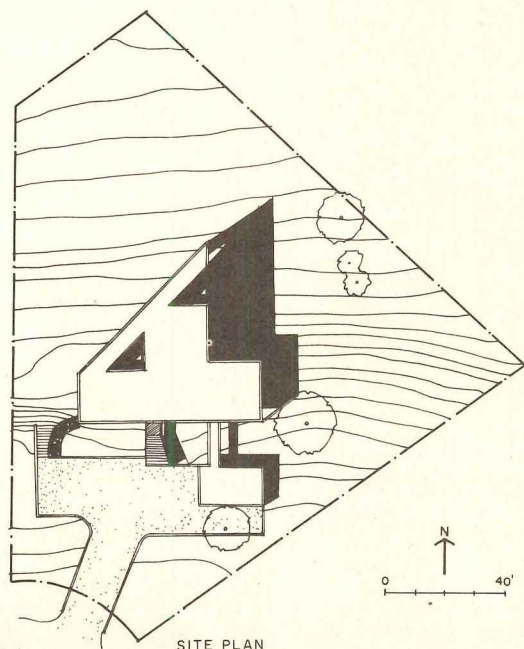
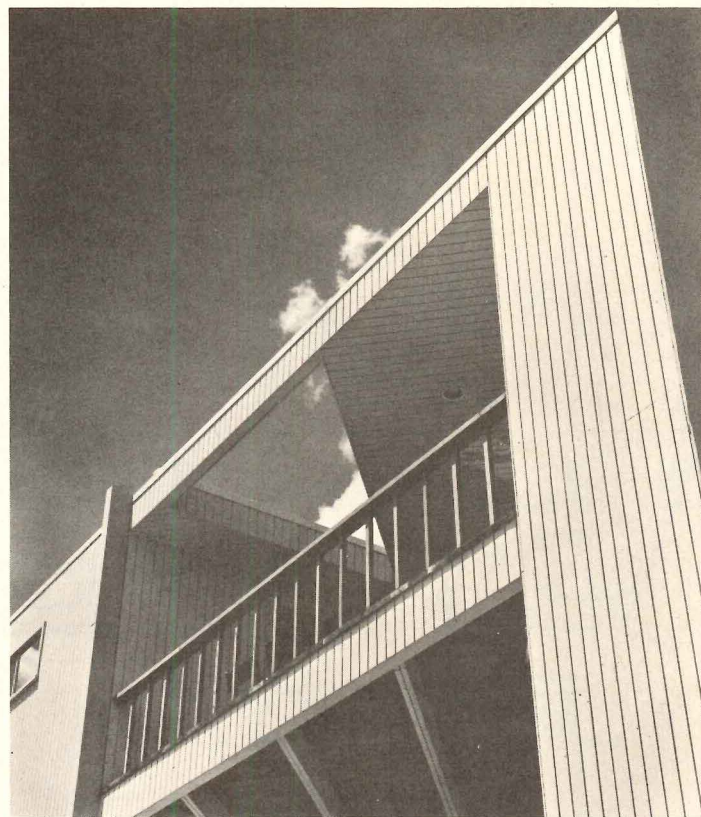
**Among the more important reasons given for change in architectural design procedure is that of a need to provide more responsively for a change in clients' needs. Architect Clovis Heimsath notes a deep-seated change in ways in which people perceive the space they live in: their homes**

The rapid transition of architecture today in this post-modern period is caused not by innovations in technology or geometric organization of space, but by a shift in how people see. In another age, a series of well constructed visual impressions could be ordered to create specific responses. A classic example is the cathedral, say Chartres. A central focus of the town, the cathedral towered above the surrounding buildings as appropriate symbolic form. Designed to be approached slowly on foot, the forecourt was carefully scaled to give the building maximum impact. Then entry produced a calculated sense of spatial awe. Today, as we fly over the cathedrals, they are pinpoints of form, stripped of symbolism and grandeur. In a simpler visual age, a great encompassing front porch reminded one of his grandmother's house years before; today the same porch may evoke a plethora of images, responding to the high intensity of images perceived year in and year out.

Because of this shift in seeing, the double grid has meaning. It is a system of ordering, yes, but a system of ordering that allows for a great variety in spatial relationships, a great variety of visual identifications. Visual identifications are the fingerprints of form which establish the unique in a room or series of rooms. Visual identifications are necessary if we are to have individuality in our place. The perception of the visual world is changing, but our need to establish a unique, recognizable *place* is as strong as before.

A word about this concept of *place*. Recently, through a series of anthropological studies, "The Territorial Imperative" by Robert Ardrey and "The Hidden Dimension" by Edward T. Hall, we have become aware of an animal instinct for place, a three-dimensional private area as an extension of our physi-

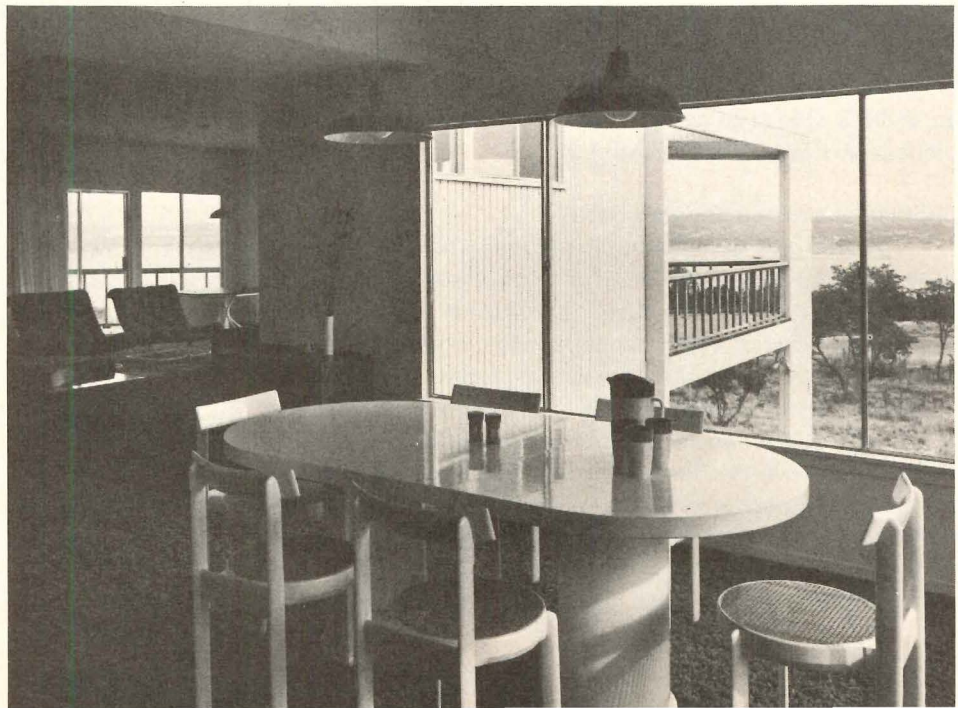
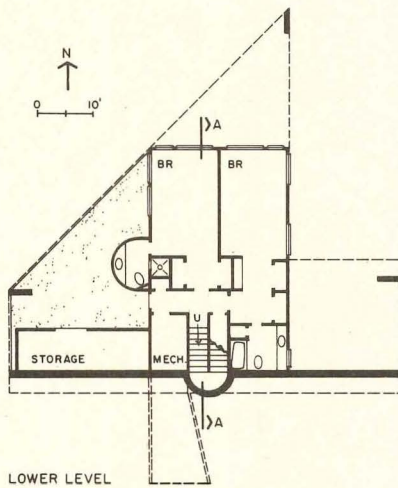
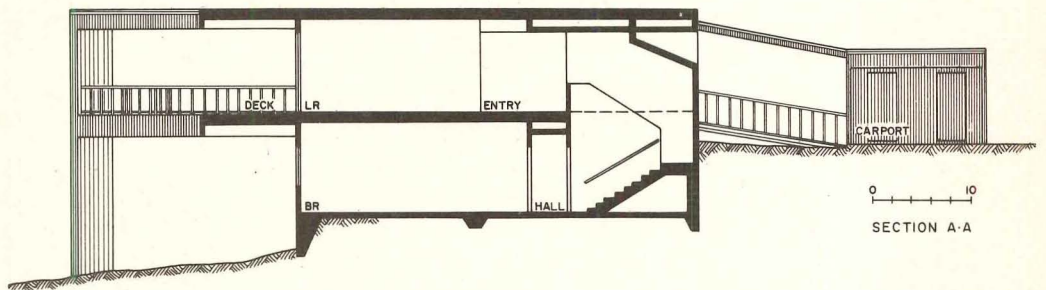
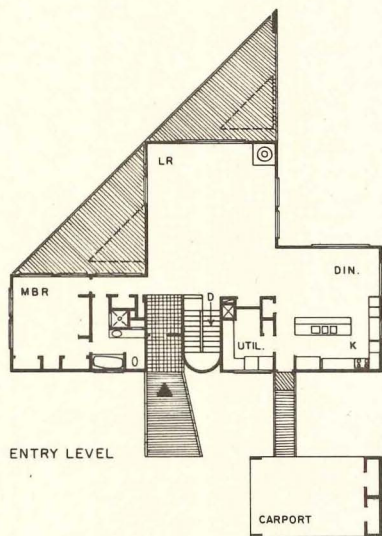
**Author:** Clovis Heimsath is a Houston architect, lecturer and writer, the author of *Pioneer Texas Buildings: A Geometry Lesson* (Austin: University of Texas Press, 1968).







Double grid creates triangular balconies and breezeway for the Barrow house, a lakeside retreat in Texas.





## Challenge to the rectangular

cal body. The place around us, particularly our home, is a personal extension of our image of ourselves.

This concept of unique place is counter to current technology which tends to mass produce standard containers for our lives. If we live in a tract home with its predictable floor plan or, more dramatically, a mobile home; if we work in an office building with its repetitive rooms about a central elevator shaft, we know how insipid the visual world has become. We fly above our cities and experience a constantly changing vista of the fabric below, but we are still left with four square walls at the end of our journey.

There is no fundamental conflict between the need to identify and the need for an improved system for building. Rather, perception of the individual must be thought of as one problem in the process. Taken alone, a repetitive building system creates endless repetition and little more. Taken alone, the need for visual identity spawns maudlin, picturesque stage set designs. (The system unmitigated is Park Avenue after the building boom, the visual unmitigated is suburban America with trappings of thin veneer styles masquerading as individual places.)

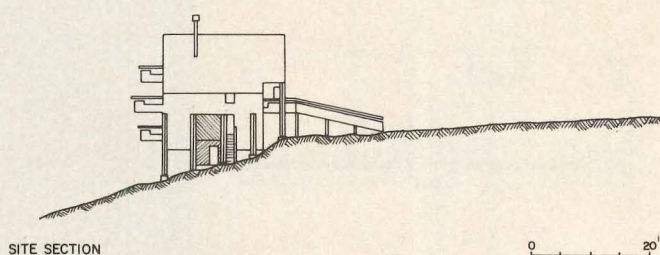
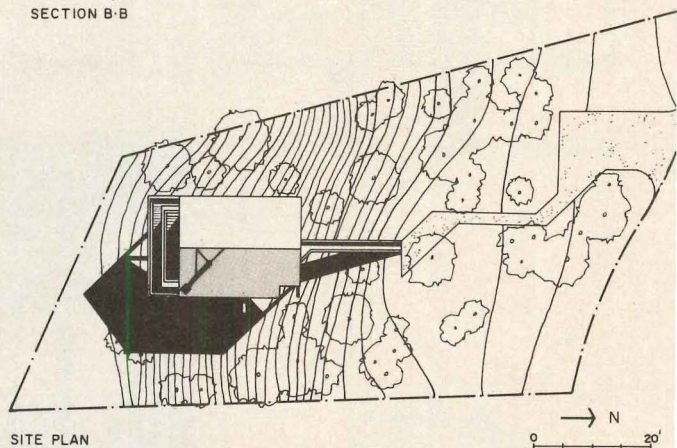
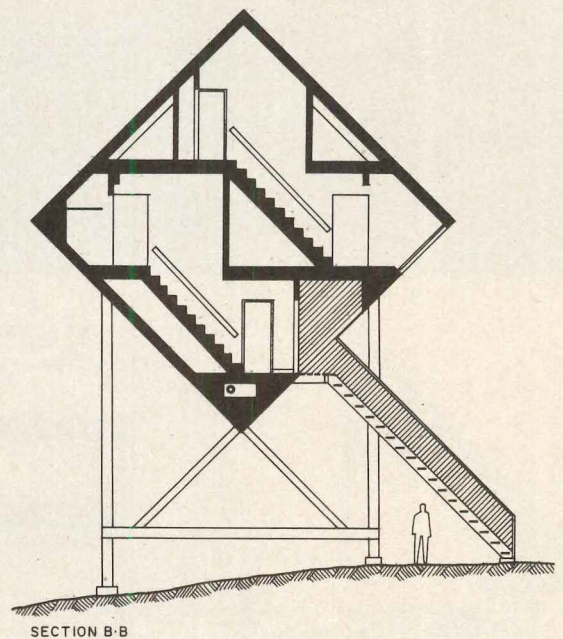
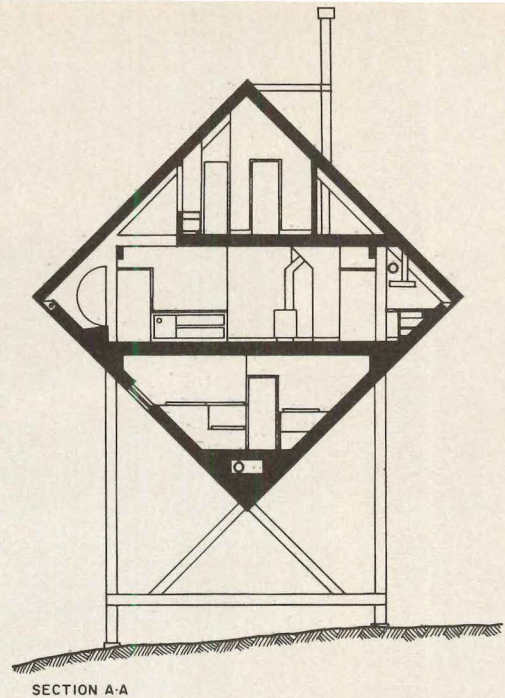
Taking a system/perception point of view, the double grid offers reference order and identification. Like the Field Theory, the double grid superimposes a 45-degree grid over a 90-degree grid, either as a point system or as inscribed squares. Although the visual reordering of form is a by-product of the Field Theory (see any recent large SOM school or library), the double grid at residential scale is a reordering of both functional and visual form.

The double grid should revolutionize house design for a very simple reason: it works. Within the intimate space needs of a family there is a variety of configurations and functions. Few need rectangular space envelopes. Do we live in rectangular rooms because we need them or because we have them? I feel that designers have been reasonably imprecise in not separating functional needs from space enclosures. It goes along with our hesitancy to study furniture, as if there were some generic difference between how we sit and how we stand and move. No area of architecture is so little studied as the spatial needs for simple human activities like eating, talking, relaxing, watching TV, sleeping, bathing and playing games. (In the much heralded Breakthrough operation, the thrust has been almost exclusively on technology, producing an endless rehash of spatial configurations codified by FHA precedent, not advocacy planning.)

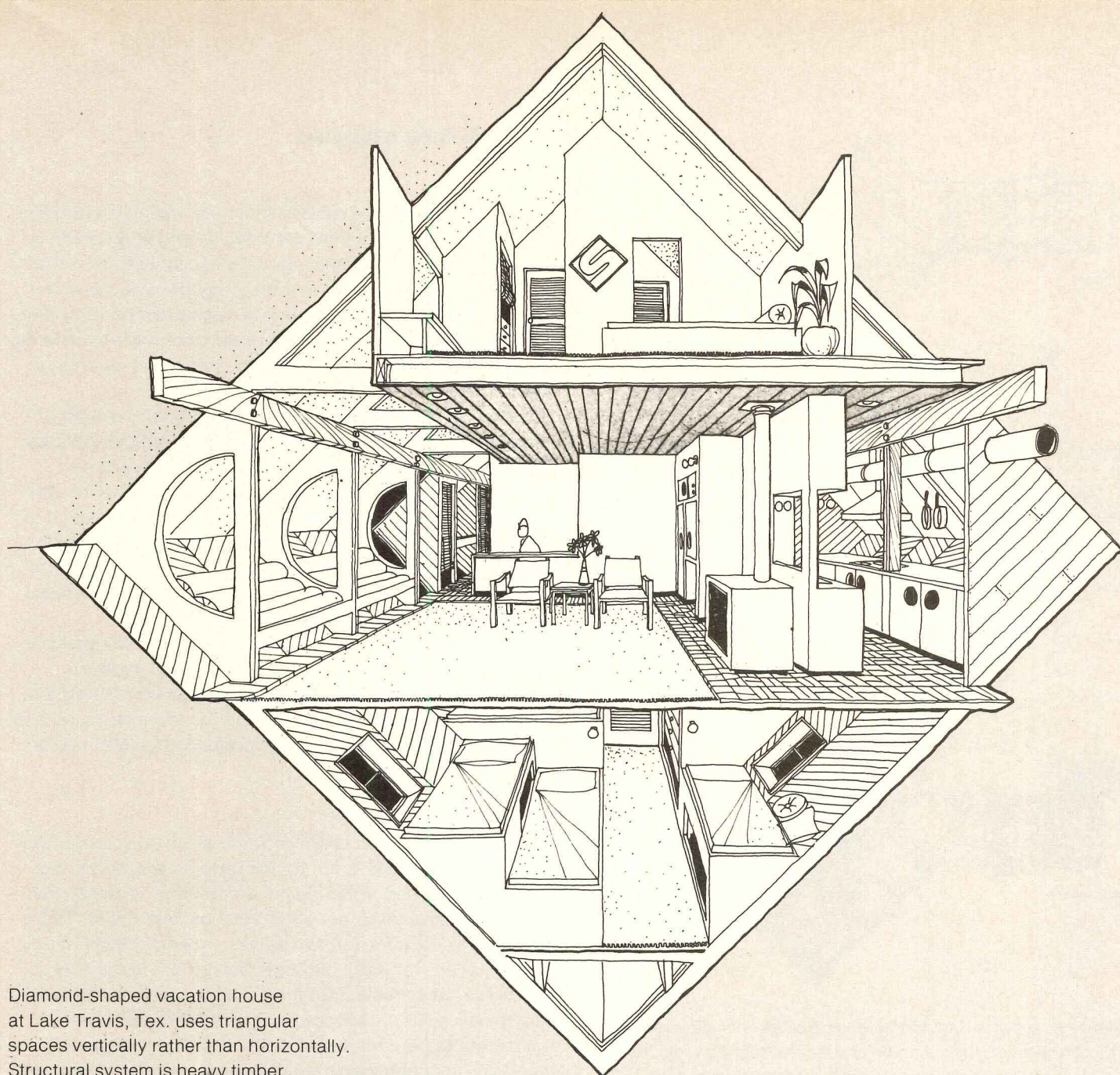
### Another look at functions of spaces

The double grid, as I envision it, requires a re-evaluation of each space function within a home. From this study, we find a series of activities better housed in triangular spaces. The space saved is significant when the triangle is part of a double grid since the reverse side of the triangle is also usable space. In the Barrow house, the double grid simultaneously creates two triangular balconies and a breezeway parallel to the lake and major view. In the Nemeroff house, extensive use of the double grid creates a living area, library and dining area all within one square. The space is efficiently used and, more importantly, the double grid creates visual diversity.

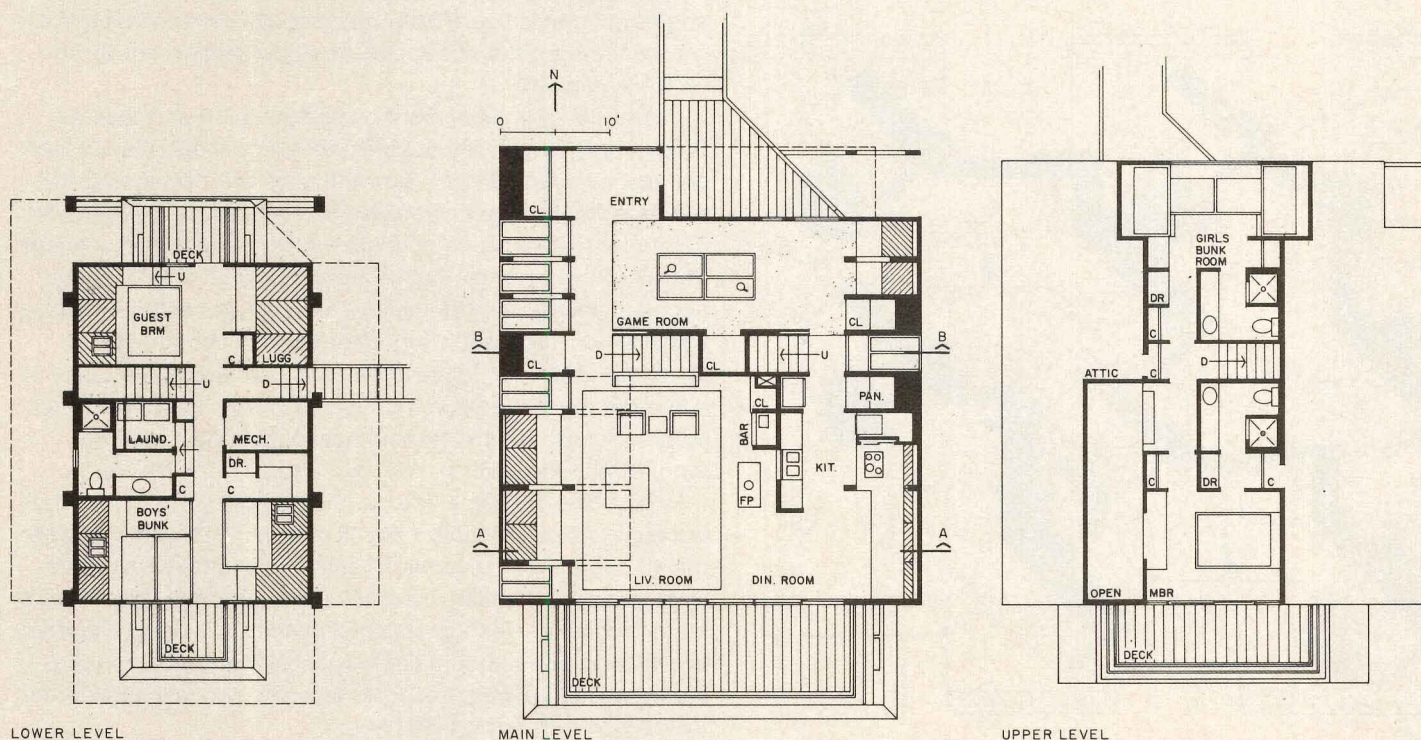
Juxtaposition of the double grid, particularly in the double-





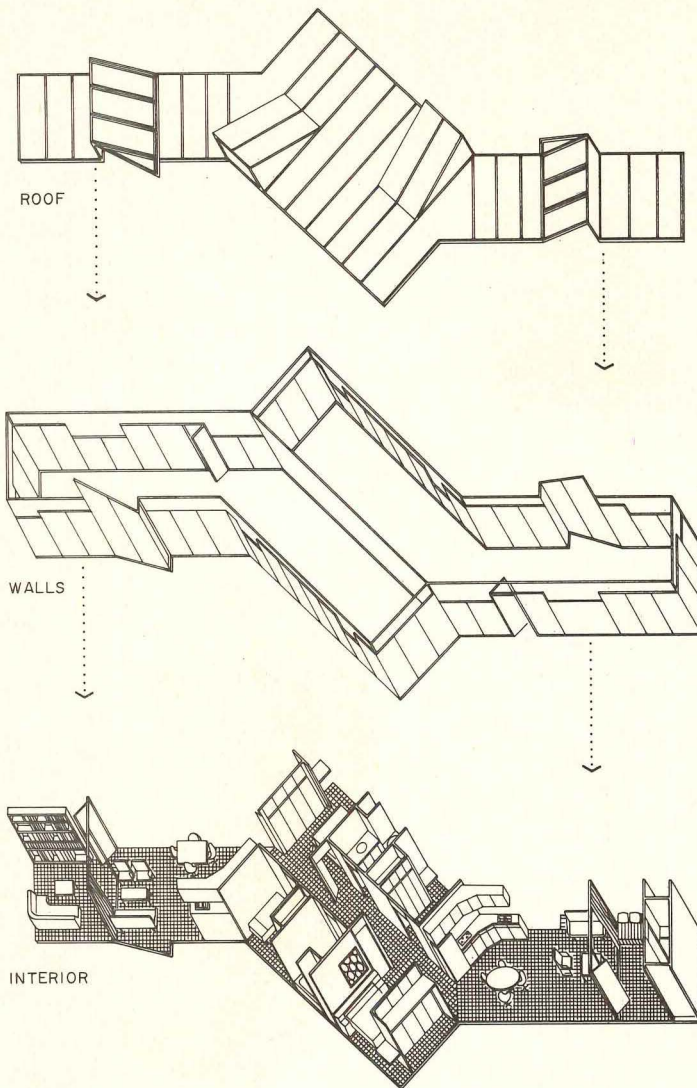


Diamond-shaped vacation house at Lake Travis, Tex. uses triangular spaces vertically rather than horizontally. Structural system is heavy timber.

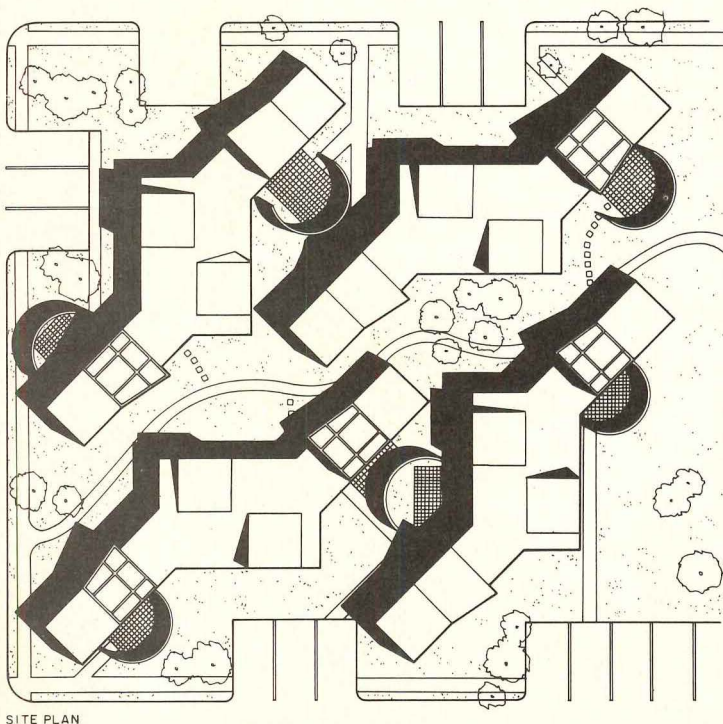




## Challenge to the rectangular



Housing study for Republic Modular Homes, Inc. shows how the double grid system can be used for multifamily projects. A variety of configurations is possible within the system.



high spaces, forces the mind to shift from one grid to another. This is the key; the superimposed double grid is apparent, it creates a tension. It creates an individuality of form, which can be personalized. This is a long way of saying a very simple thing—within the double grid, rooms can be very different from one another. Thus in a house, there is the chance for great change, great variety of focus and axis, hence great identification.

Robert Venturi says something similar when he talks of complexity and ambiguity, but many misinterpret his concept to be one espousing complexity *for its own sake* and ambiguity as an *end in itself*. Complexity and ambiguity are characteristics of an aesthetic which allows for a wide range of personal identifications. I certainly believe that the format for identification must be complex in an age when the general visual stimuli are complex but, to be significant, form must also be part of a system of space organization.

If the double grid works functionally, if it creates a great variety of spatial identities visually, then what are its shortcomings, what is its future? There are few shortcomings. The major one is that the double grid will be misunderstood and applied as a new veneer, as the occasionally splayed wall or the ubiquitous shed.

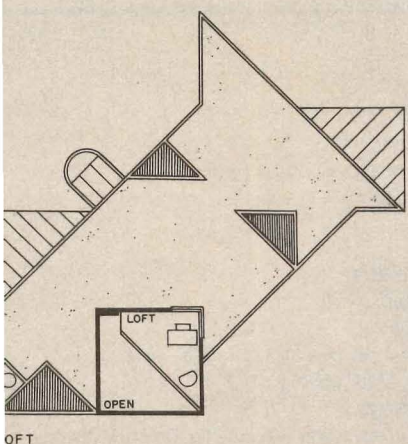
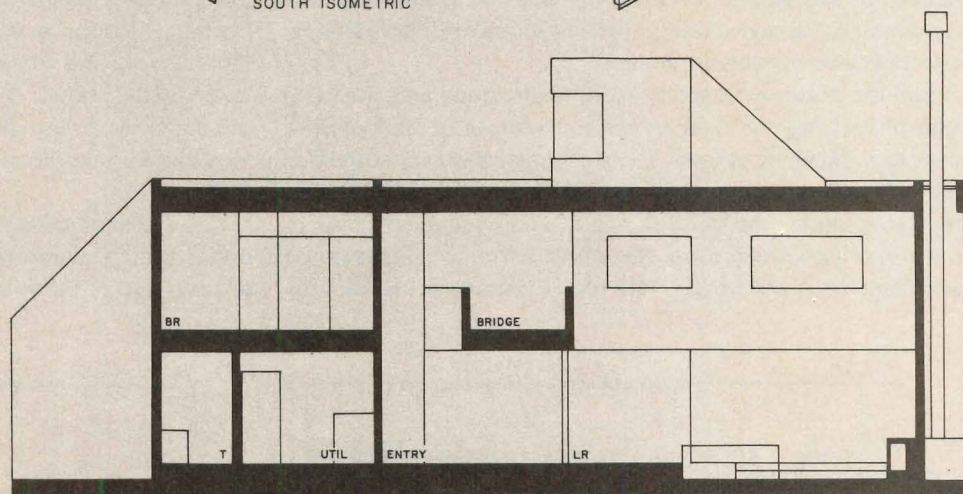
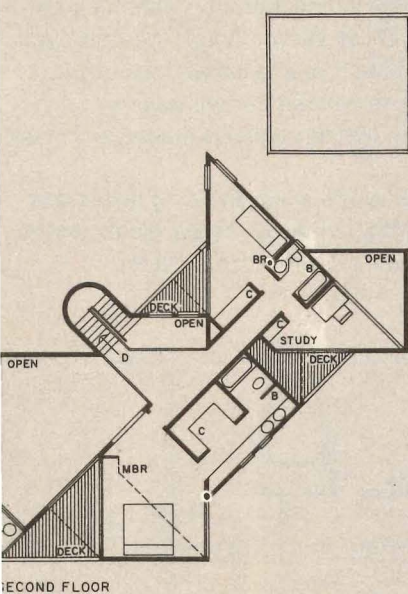
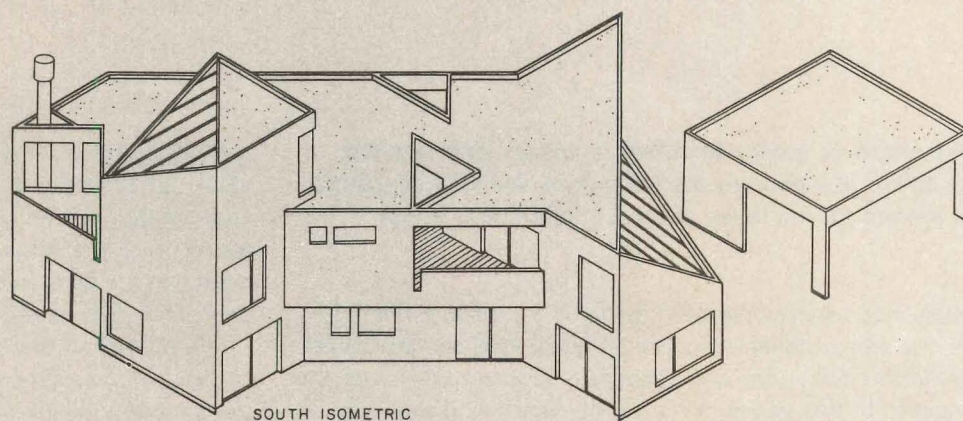
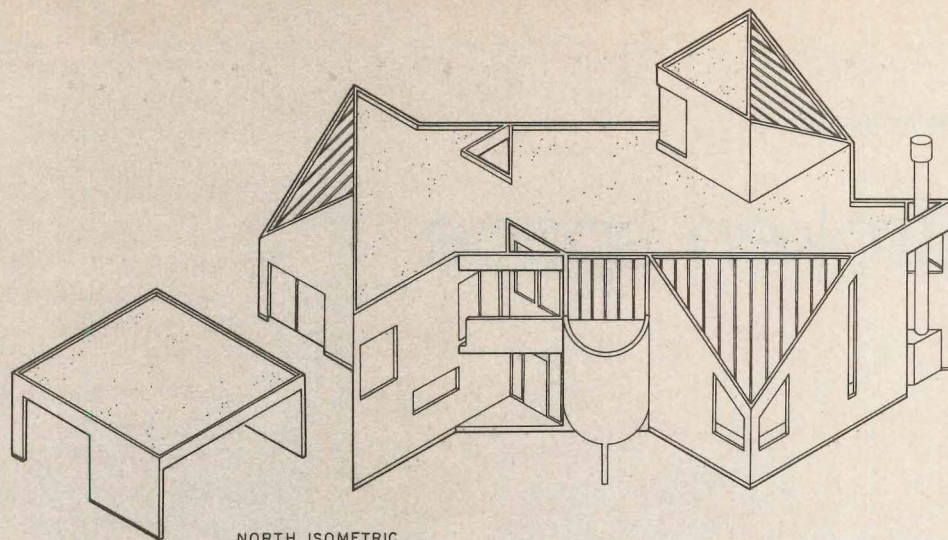
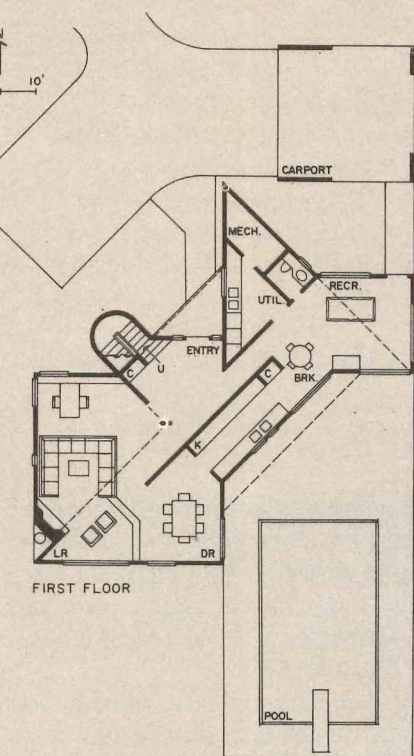
### Structural considerations

There are some structural problems which must be considered. In superimposing the double grid on two floors, the structure is carried at the points of intersection rather than along the wall surface as in a normal balloon frame. There tends to be a racking problem as well; in the Nemeroff house, our engineer, Nat Krahl, strongly braced the lower floor to take these lateral forces. On the functional level, it is necessary to check out the spaces falling into triangular configurations to be certain they work. We have built full-size mock-ups to determine how much space is required for a particular function. Grids other than the 45 degree create obtuse angles difficult to use. Finally, accuracy in dimensioning is essential if the points of support and intersection are to be properly aligned.

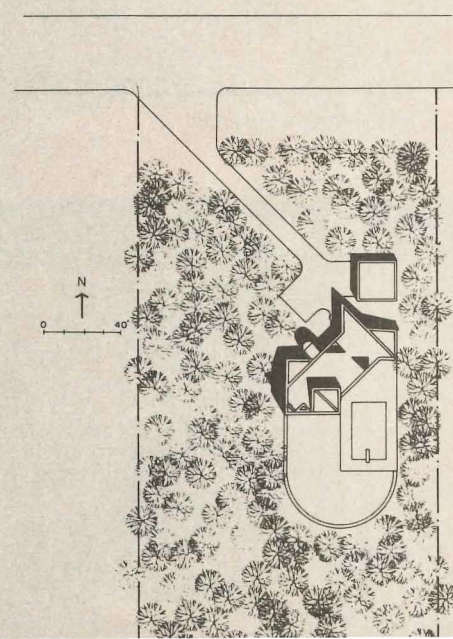
Unlike personal statement aesthetics such as those of Frank Lloyd Wright, the double grid is a concept open to variety and experimentation. Currently, we are developing the Worley house using the double grid in the vertical dimension. This opens up a whole new use of the double grid concept. The significance of the house is the variety in interior space accomplished within the simple order of an inclined square, allowing for duplication in higher density configurations. Double grid interior spaces have been successfully studied in a number of summer homes, such as one near Houston built by Southcoast for Mrs. Donald Austin, and the one in Vermont (P/A, June 1969, p. 104) by Southcoast Team No. 1.

Finally, the real use of the double grid will come in pre-engineered systems that utilize the 45 degree. We found that with the 45-degree grid, a variety of space relationships was possible merely by stacking modules along a double grid. In planning, particularly for high density housing, the double grid will allow for personally identifiable spaces; therefore, more humanly scaled spaces. Perhaps here the grid will allow both systems and visual complexity. □





Extensive use of the double grid puts living, dining and library areas into one square of the Nemeroff house in Houston. Structural problem of superimposing the double grid on two floors required strong bracing of the lower floor to prevent racking. Unlike balloon framing where loads are carried along walls, the structure is carried at points of intersection.





# Broken space

**The efforts of a department store design team and the limitation of a construction technique evolve a sequence of spaces for the lobby of the St. Petersburg Hilton**

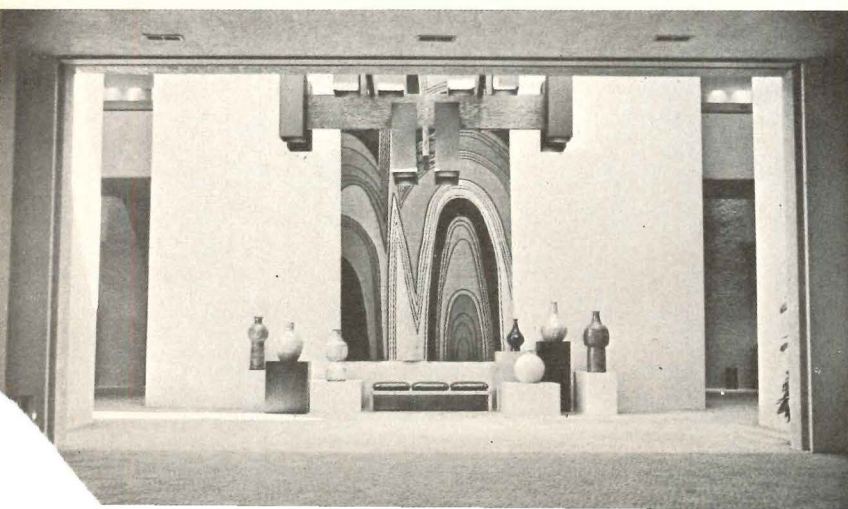
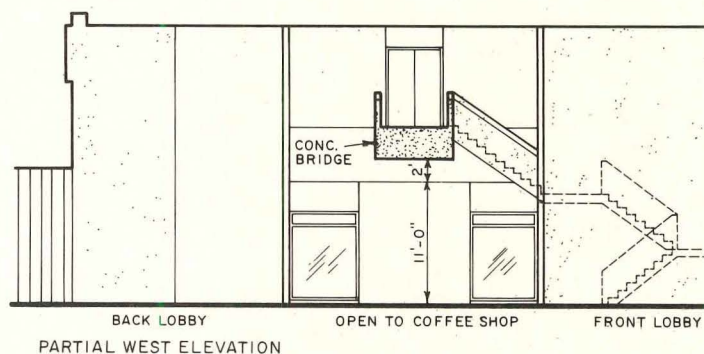
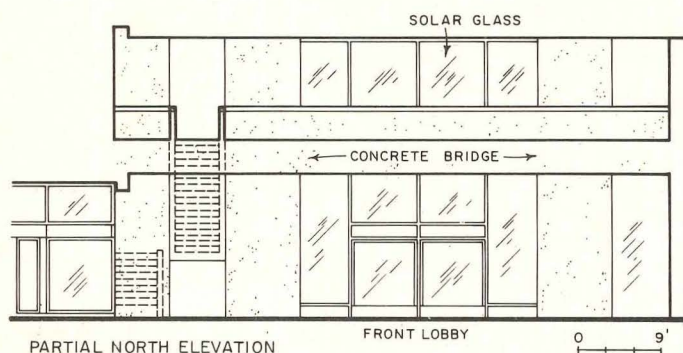
While much was being made of the St. Petersburg Hilton for its slipformed construction techniques, little has been said about the lobby interiors. There are several reasons for the success of this space, the most obvious being that it is not one monumental area in which small groups of furniture have been clustered to effect intimacy.

From the slipforming construction technique came the necessity of carrying the walls of the rooms above to the foundations, forming at lobby level, four small peripheral spaces two stories high around the elevator core. Three of these spaces are seating areas, the fourth is a stair leading to the mezzanine and bridge that crosses the lobby in front of the elevators. The clutter and noise of the registration desk are kept to

a minimum by locating it to one side where it is easily accessible from the lobby and elevators. Personnel can maintain visual control without being an intrusion. The lobby—for the use of hotel residents only—is kept free of large crowds by providing the banqueting and display facilities directly to the rear of the lobby with their own entrances.

The interior of the lobby, including furniture, lighting, tapestries, pottery, brick paving, carpeting and painting was done for approximately \$20,000 by the contract department of the J.L. Hudson Co. of Detroit in collaboration with the architects, Curtis and Rasmussen of Akron, Ohio. The approach taken by the interior design team was to lessen the severity of the concrete forms with warm colored carpet, tapestry hangings and earth tone ceramic pieces commissioned specifically for the lobby.

The St. Petersburg Hilton is one of seven being developed under franchise—possibly the strongest single factor which allowed it to be more than just another Hilton. [SLR]



## Data

**Project:** lobby, St. Petersburg Hilton.

**Architect:** Curtis and Rasmussen.

**Interior design:** J.L. Hudson Co.

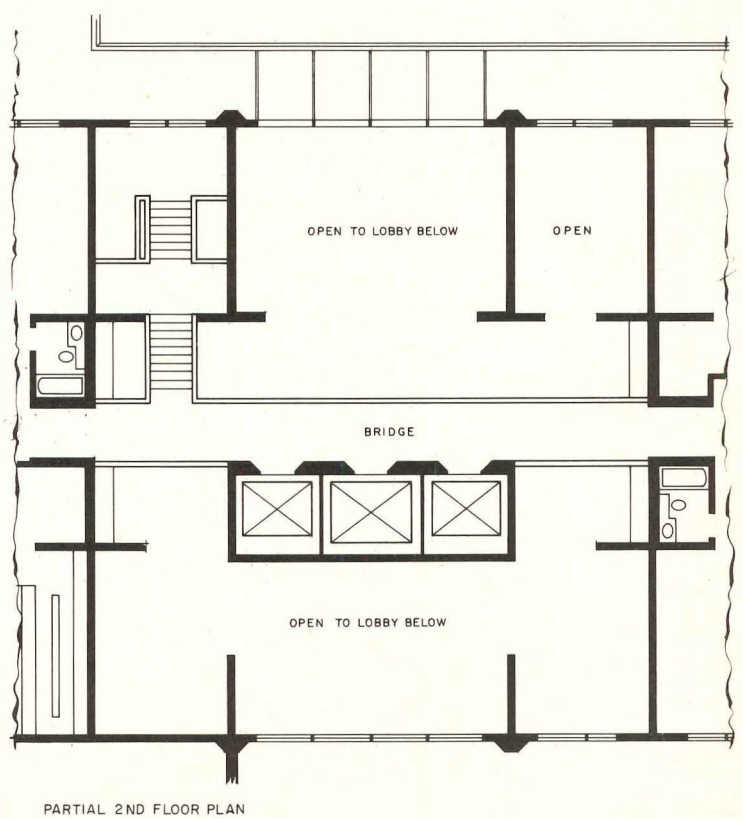
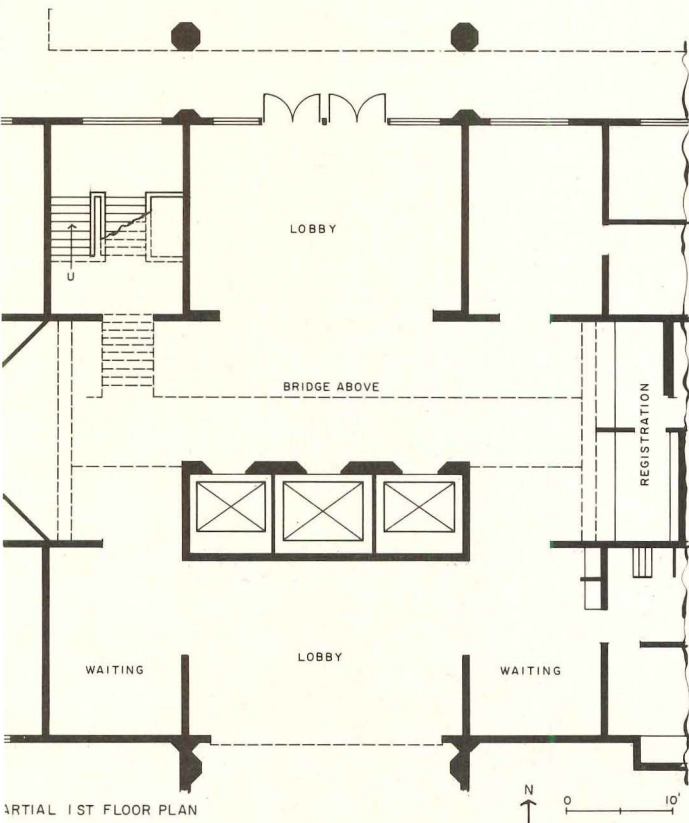
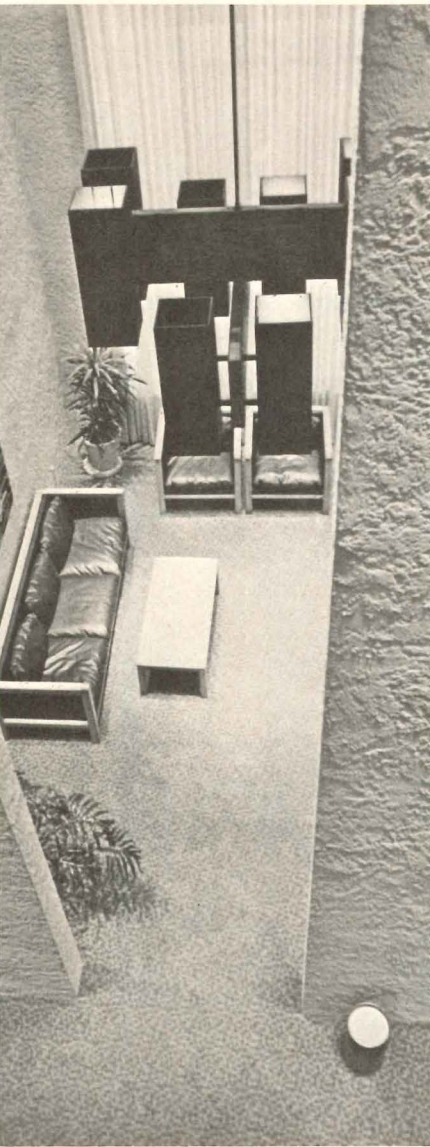
**Structural system:** slip formed, load bearing concrete walls.

**Major materials:** paint, carpet, brick paving.

**Cost:** \$20,000 including furnishings.

**Photography:** Freeman Studios (top right). All others, David Morton.





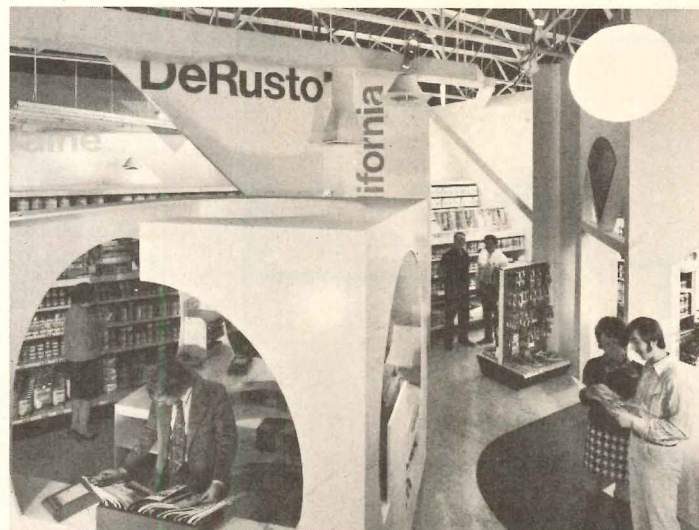
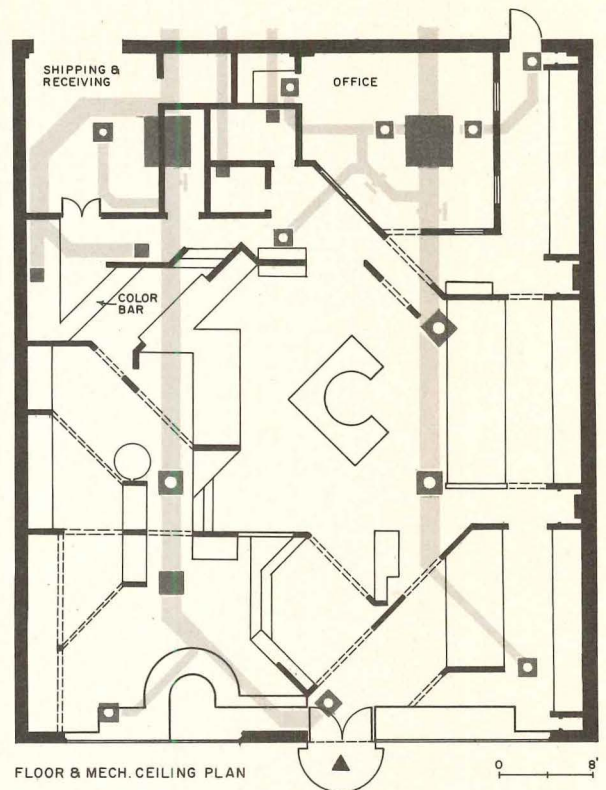


# Interior shells

**The contrast between two solutions, generated from the same spatial idea, comes from a difference in attitude toward the existing spaces for which they were designed**

Typical commercial construction forms the shell for the Standard Paint Store interior—masonry walls, steel trusses, decking and duct work. Working within a limited budget of \$25,000, Jim Terrell, the architect, chose to organize the selling areas with cut-out walls, leaving the structure and mechanical systems exposed. At the center of the store is the cashier's cube from which visual control is maintained over the store. To the left is the wallpaper and fabrics display area; to the right are the shelves of paint.

The store, a small oasis in the vast commercial neglect that exists on Route 1 in Orange, Conn. becomes one large advertisement for its products. All the colors used for the large color chips, ducts and signage are available in the store. The chips are removable and will be rotated with different colors and patterns. The lighting, a combination of warm and cool, incandescent, fluorescent and daylight, allows the colors and fabrics to be seen in the type of lighting they will be used in. To the rear of the store is a small office with a large mural—a constant, confusing reminder to the bookkeeper who works there.







#### Data

**Project:** Standard Paint Store.

**Architect:** James Terrell with the Environmental Design Group.

**Site:** block of commercial stores on Route 1, Orange, Conn.

**Major materials:** 2x4 wood studs, sheetrock, and paint.

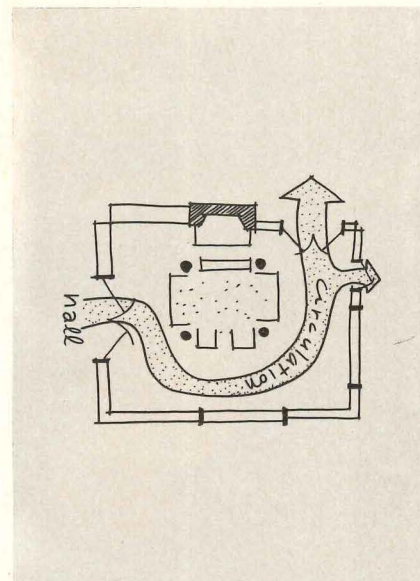
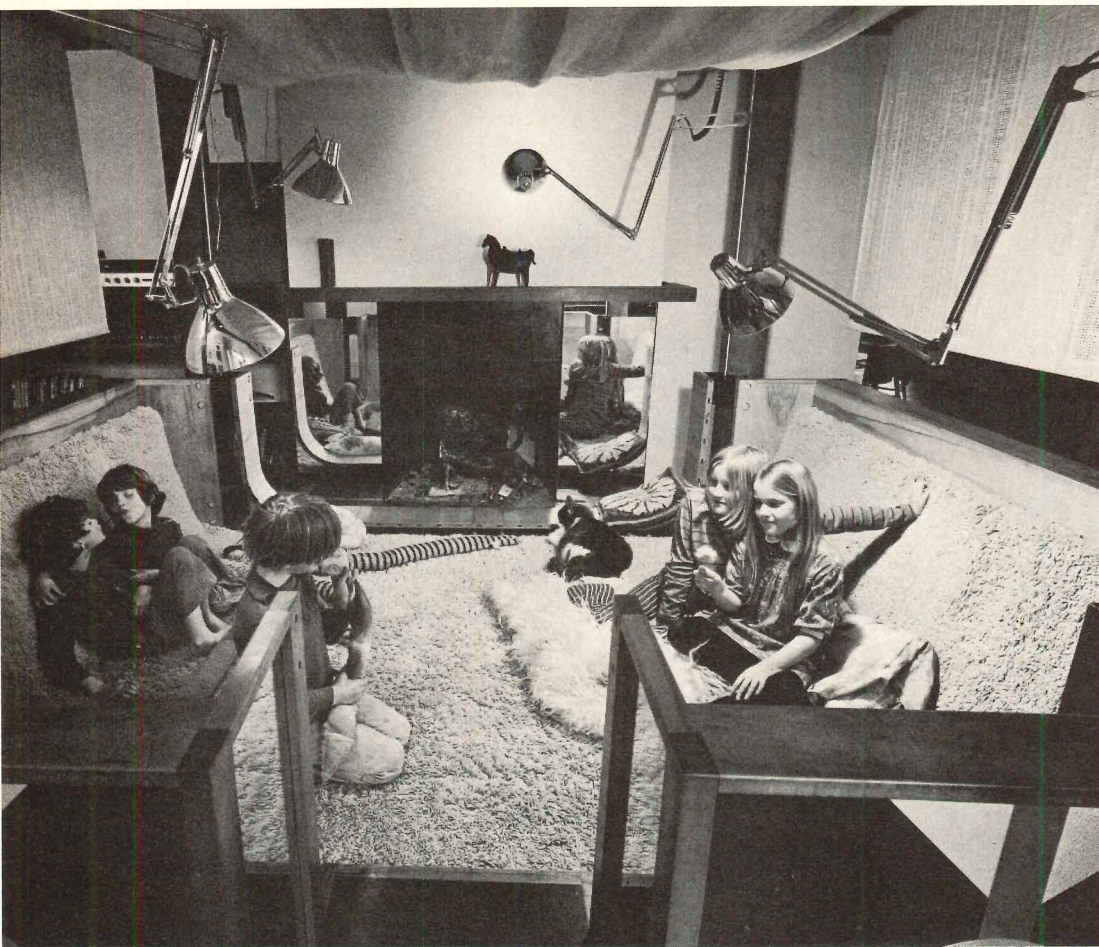
**Costs:** \$25,000 for construction, \$45,000 with manufacturers' standard displays and custom designed fixtures. \$9/sq ft.

**Photography:** Robert Perron.





## Sim van der room



Sim van der Ryn describes the original living room in his Berkeley, Calif. house as being "hard surfaced, an entry to lots of other rooms and little dead-ended spaces, cut up with doors and windows." From a rejection of this aesthetic came the idea of making a soft, self-contained living space which would provide a contrast in materials to the outside room. What resulted with great detailing effort was a space with low carpeted walls and a fabric ceiling that extends downward in the hope of obliterating the room. What also resulted was something more elaborate than the low cost idea van der Ryn originally had.

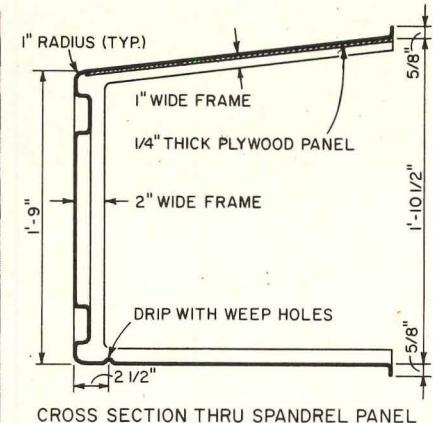
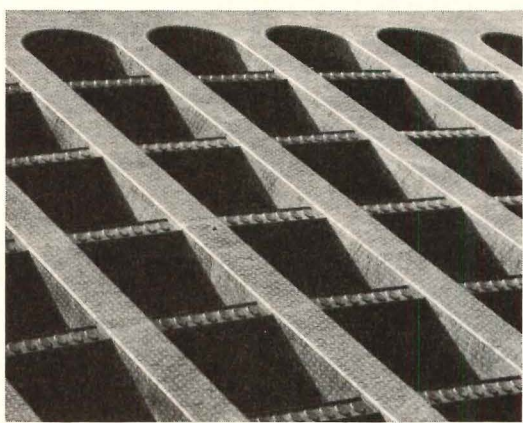
The lathe-turned redwood columns—whose only function seems to be that of disappearing into the ceiling—are attached to the backs of the maple seating with special chrome fastenings that also double as supports for the chrome lighting fixtures. Geometric patterns are made of Formica inlaid into the wood. The seating is a sloping carpeted wall and floor which would be quite satisfactory for children and dogs or anything in pants. Van der Ryn now feels the living space is too aggressive and static. "It would make a great waiting place in some corporate headquarters, better and less expensive than the usual Barcelona chair setup." [SLR]





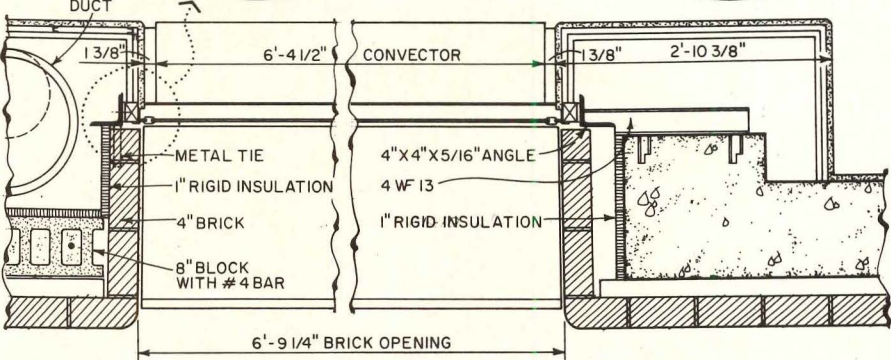
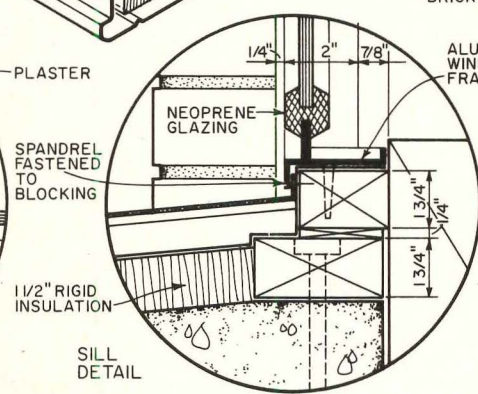
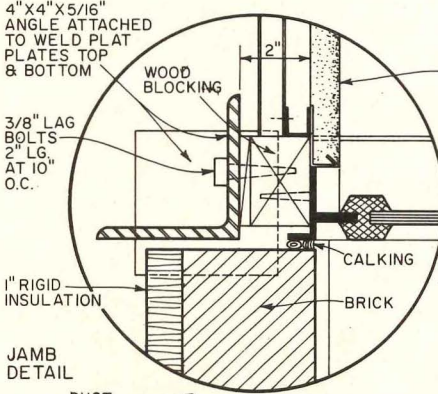
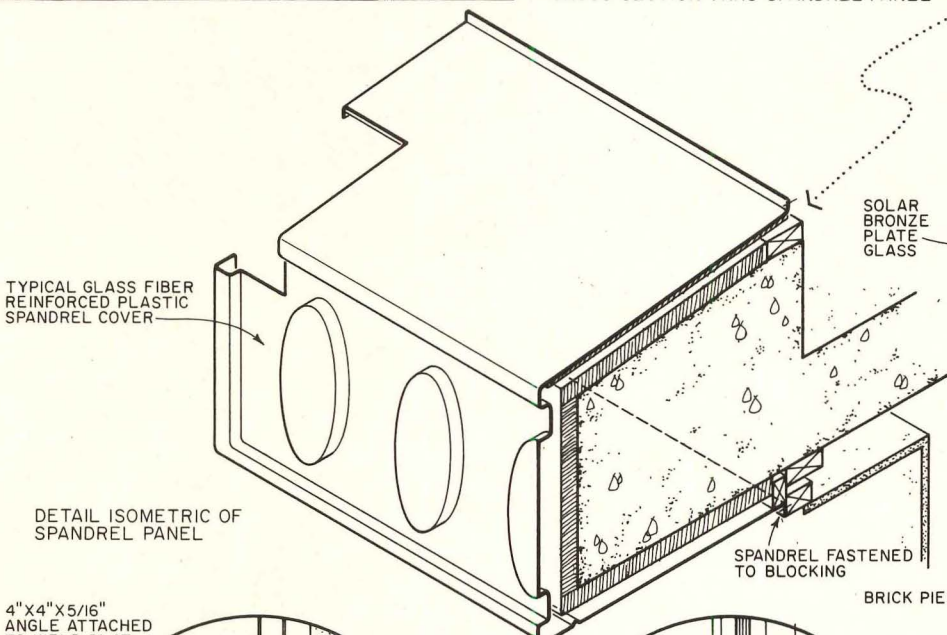
Selected details

Fiberglass reinforced plastic spandrel covers

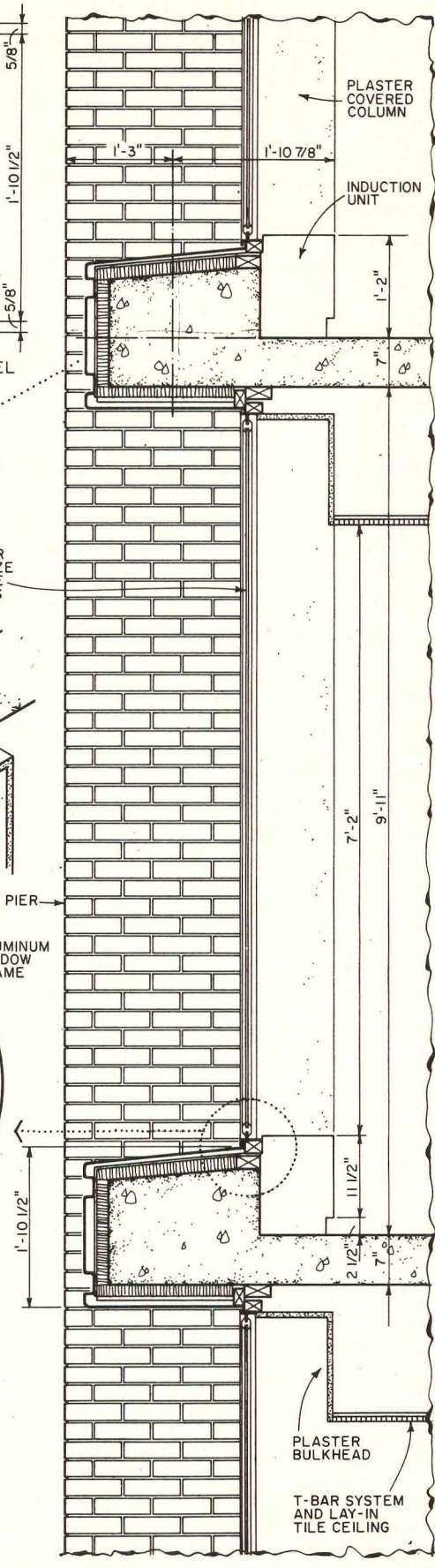


TYPICAL GLASS FIBER REINFORCED PLASTIC SPANDREL COVER

DETAIL ISOMETRIC OF SPANDREL PANEL



PLAN SECTION AT TYPICAL WINDOW



TYPICAL VERTICAL SECTION



# Emergency electrical power supplies

Robert Logan

**In order to safeguard against disruptions in electrical service, provisions for emergency or stand-by power should be part of initial design plans**

The inability of utility companies to guarantee electrical service is a major cause of concern to all involved in building design or operation. Disruptions to a service can vary from an unpredictable major blackout, such as occurred in the Northeast in 1965, to a scheduled minor reduction in operating voltage, or "brownout," which has been occurring more and more frequently during peak load periods.

In order to safeguard against these disruptions, the design of a building should encompass provisions for an emergency or "standby" electrical power supply. The scope and type of the system chosen will vary depending on the building function and the degree of protection required by an owner.

The primary consideration in determining the scope of an emergency power system should be the protection of human life. Provisions for this are normally mandated by local or national codes or both. Included in these codes are provisions for emergency area and exit lighting as well as emergency power for control and operation of fire protection systems. It is understood that these requirements are minimum, and it is the responsibility of engineers to recommend provisions which may further ensure life safety in a building when power failure occurs.

Some facilities require a more extensive system than others. The scope is determined on the basis of how dependent the general public or the building occupants are on the electrical service for their life safety; how much panic might be caused within a facility by a power failure; and how familiar the occupants are with exiting procedures.

On this basis the following types of facilities are listed in order of need for an emergency power system:

1. Health facilities, including hospitals, nursing homes and mental institutions; communications facilities, airports and lighthouses; police and fire stations; municipal water pumping stations; and military installations.
2. Places of public assembly, such as theaters, department stores and restaurants.
3. Schools, especially elementary schools.
4. Hotels and boarding houses.

5. High-rise office buildings.

6. Low-rise structures and industrial plants.

The remaining considerations in determining the scope of an emergency power system are primarily economic. Of these, the most obvious is protection of the structure and its equipment. In addition, some functions must be operable at all times. For example, critical data processing cannot normally tolerate any electrical disturbance. The same is true of some processes in research institutions and industrial plants. These functions must be given consideration in light of the economic loss which may be sustained by a power failure.

## Type of system

Once the general scope of an emergency power system has been determined, the type of system to serve the facility must be analyzed. Basically, the systems fall into three categories:

1. Standby utility company service.
2. Standby storage battery systems.
3. Mechanically driven standby generation plants.

The use of a standby service is frequently employed where allowed by the local utility company. It allows great flexibility in size and type of load serviced, and is low in initial and maintenance costs. This type of system offers complete protection against the failure of a particular utility company feeder or group of feeders. It offers no protection against a limited or total "blackout," and is therefore usually designed in conjunction with one of the other systems.

The standby storage battery system is normally used where only small amounts of emergency lighting and power are required for a short duration. This type of system can operate from one to three hours after power failure, is relatively inexpensive for installations up to 20 kw, and easily maintained.

The most commonly employed emergency power source is a generator driven by a gasoline engine, diesel engine or turbine. For small installations up to 100 kw, the gasoline engine, which has a low initial cost, may be used. One drawback to the use of gasoline, however, is the fuel's volatile character, with the result that the installation is classified as hazardous.

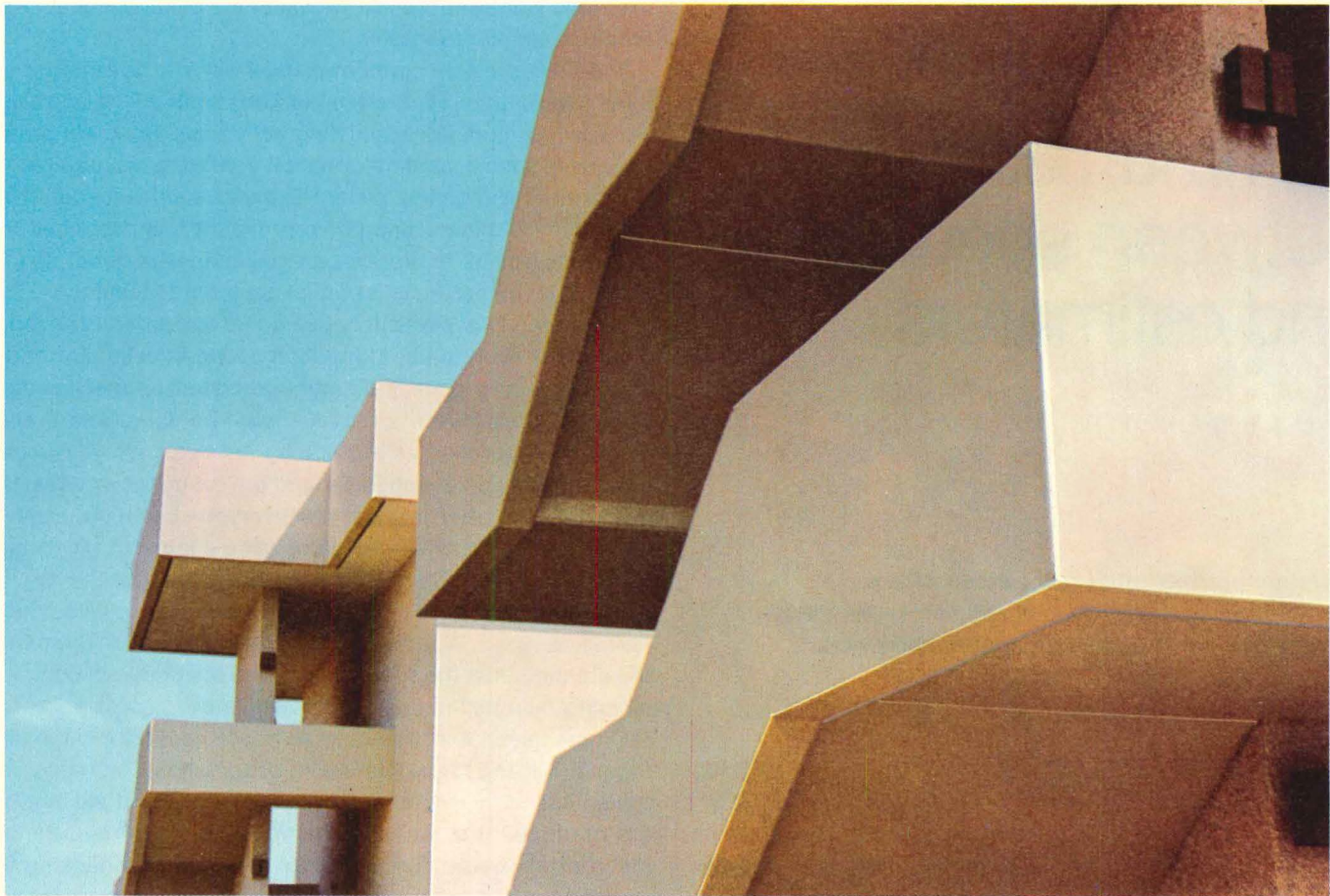
The diesel engine offers the advantages of low cost in larger size installations and use of a nonvolatile fuel. Its drawbacks are its great weight and size, and, like the gasoline engine, the many moving parts which must be maintained.

The turbine, on the other hand, is lighter per kw output and has relatively few moving parts to maintain. It can operate on a variety of fuels and does not require jacket water cooling systems as engines do. Turbines are available only in a limited number of sizes, require large volumes of air for cooling, and because of their high operating speeds, take longer to get "on line."

[For further information on Emergency Power Systems, we invite interested readers to request Syska & Hennessy's Technical Letter on the subject. 144 East 39 St., New York, N.Y. 10016.]

**Author:** Robert Logan is Senior Engineer for Syska & Hennessy, Inc., Consulting Engineers, New York City.





American Airlines Stewardess College

■ ARCHITECT & ENGINEER: Preston M. Geren & Associates, Fort Worth  
 ■ CONTRACTOR: McCord-Condron & McDonald, Inc., Fort Worth

Exciting patterns of light and color reflecting the clear sky and bright sun of the Texas plains characterize the new, 150,000 square foot American Airlines Stewardess College nestled in a grove of native oak trees between Dallas and Fort Worth. Smooth expanses of concrete spread in angular shapes from the 3-story dormitory, the 2-story maintenance facility, and the 2-story dining and administration area through an enclosed, connecting passageway to the classroom building. ChemComp cement concrete was used in almost the entire structure to help prevent drying shrinkage cracks that would mar an otherwise beautiful design. And a college to train stewardesses for American must be beautiful, mustn't it?

- REDUCES SIZE AND INCIDENCE OF DRYING SHRINKAGE CRACKS
- DIMENSIONALLY STABLE
- LOW PERMEABILITY
- INCREASES BOND STRENGTH TO REINFORCING STEEL
- INCREASED LIVE LOAD CAPACITY
- SUBSTANTIAL REDUCTION IN NECESSARY CONTROL JOINTS
- NO SPECIAL PLACING PROCEDURES
- LESS SEALING AND CAULKING OF JOINTS
- MUCH LESS LONG-TERM MAINTENANCE

*Specify, profit by using*

# ChemComp® Cement

*the shrinkage-compensating cement*

AVAILABLE NATIONWIDE FROM THESE MANUFACTURERS

## KAISER

Cement & Gypsum Corp.  
 Kaiser Center, 300 Lakeside Drive  
 Oakland, California 94604

## MEDUSA

Portland Cement Co.  
 P. O. Box 5668  
 Cleveland, Ohio 44101

## PENN-DIXIE

Cement Corp.  
 1345 Avenue of the Americas  
 New York, New York 10019

## SOUTHWESTERN

Portland Cement Company  
 1034 Wilshire Boulevard  
 Los Angeles, California 90017

## TXI

Texas Industries, Inc.  
 P. O. Box 400  
 Arlington, Texas 76010

For further information contact: **Chemically Prestressed Concrete Corp. 14656 Oxnard Street, Van Nuys, California 91401** or the sales office nearest you



# Closer communications between specifiers and estimators

Harold J. Rosen, PE, FCSI

**There are benefits to be gained from closer liaison between specifiers and estimators. Herewith, suggestions for making such coordination work**

Communication and coordination between members of the design team are part and parcel of the design process. However, the relationship between the specifier and the estimator is too often overlooked and the benefits that might accrue from closer liaison between these two specialists go unreaped. G. Nelson Tower, president of Wood & Tower, a construction cost management firm, and Ray E. Cumrine, a specifier and vice president of IDAC, believe that a closer coordination of the activities of specifiers and estimators will produce a number of material benefits.

A dialogue between these specialists resulted in the following suggestions, which illustrate areas where coordination and communication could result in time and cost savings from the inception of the building program to the completion of construction. Incidentally, these firms make extensive use of the computer to generate construction cost estimates and specifications information.

On the question of when these specialists should coordinate their activities with the designer, the following views were presented. The specifier should coordinate with the cost management consultant not later than the preliminary design phase. At that time the designer and specifier can translate the owner's definition of scope into volume of space and quality of construction which the estimator can assess as being within the budget. In addition, controls can be worked in so that the budget is maintained as more detailed drawings and specifications are developed. Especially important at that time is a meaningful outline specification, drawn in terms that coincide with the cost consultant's estimate.

The preliminary estimate in the absence of detailed drawings and specifications is often prepared at this stage in terms of systems; i.e., foundations, exterior wall systems, interior partition systems, floor systems and roof structures. Traditional specifications follow the CSI format, and outline specifications are also often patterned on the same technical section approach. If the specification input can be rearranged to suit the estimator's needs, a preliminary edition of an outline

specification might be devised that will result in a document arranged somewhat similar to that of the cost consultant's estimate in terms of systems.

The next question concerned itself with the advantages of early coordination. The estimator finds it difficult to use project specifications for estimating schematic work. He prefers to receive specification information geared to his requirements and believes the owner too benefits since he could understand the dimensions of his project if it is described in terms of systems. At present, specifications are generated in terms of technical sections which are intended ultimately for the bid document stage. It appears that to properly communicate and coordinate information between estimator and specifier, a new dimension must be added to specifications. This would explain to the owner what he could afford and would then be used as a guide by the designer. A common language serving the specifier and the estimator would establish a set of values (or costs) that everyone could understand. It would approach the concept of value engineering which is compatible with specifications and would provide the designer with a set of specifications to design by—a value guide for the designer. What is needed is a realization on the part of the architect that the specifier must be the bridge in communicating new techniques to the estimator.

On the question of adequate in-house cost control the dialogue produced these interesting observations. Normally, in-house cost controls are prepared manually and estimates are produced that do not reflect designs which can be as much as six weeks further along. The designer, lacking the vocabulary of a technician, often does not communicate properly and the input of the specifier is required to assist the cost consultant. What is needed is the development of a language and a sequence of information that would serve as an intermediate step between the design concept and the bid documents. The cost consultant deals in terms of construction-cost-quality designations and the specifier in terms of function-design-product designations that form the basis of their respective systems. The architect, in coordinating the entire project, must consider cost control at the earliest stage. At this point he must use value-engineering. The cost control system has to inform both the architect and the owner if the program is affordable.

How frequently should costs be reviewed? Tower points out five major check points of cost control during the design process: (1) when the program is determined to provide a realistic budget, (2) at the schematic phase, so the schematic plan which best fits the budget may be selected, (3) when design development has progressed to a point where a decision can be made to proceed with the construction document phase, (4) once during the construction document phase, and (5) at the end of the construction document phase just prior to release for bids.

What is the future state of the art? Cost consultants have tried to make estimating a science rather than an art. This has been brought about by creating standards for preparing uniform estimates. If we can efficiently and accurately identify quality and establish the programmed costs and specifications, we can utilize the computer and other tools to quickly arrive at cost control throughout the design process.

**Author:** Harold Rosen is Chief Specifications Writer of Skidmore, Owings & Merrill, New York City.



ARCHITECT/MECHANICAL ENGINEER C. F. Murphy & Associates • PLUMBING WHOLESALER Warren Barr Supply Co.  
PLUMBING CONTRACTOR Great Lakes Plumbing & Heating Co. • FIXTURE MANUFACTURER Crane Company



## Chicago's New McCormick Place Acclaimed



### "Most Usable Exposition Center of all Time!"

With more than a half million square feet of exhibit space on two levels—32 meeting rooms—six theatres—eight restaurants—and 20 banquet rooms, Chicago's new McCormick Place is the world's newest, most modern, and most complete exposition center.

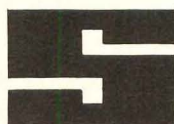
Stretching over two city blocks beside Lake Michigan, this 95 million dollar structure has risen phoenix-like from the ashes of the first McCormick Place destroyed by fire four years ago.

Though actually a third larger than its predecessor, the new structure manages to create an atmosphere of warmth and intimacy unique in so massive a building. This illusion stems from the Architect's ability to design the lobby, corridors and other pub-

lic areas as a series of elements rather than as a formidable, overwhelming monolith.

The Sloan Flush Valve installation in McCormick Place is unique and completely new. In step with space age design, the concealed closet flush valves are *remotely* controlled by "Push to Flush" buttons conveniently located in the toilet stall partitions. Concealed urinal flush valves are similarly controlled by "Push to Flush" buttons in the wall immediately above each fixture.

Early patrons of the new McCormick Place have already expressed enthusiastic acceptance of this new Sloan Flush Valve installation, one of several new Sloan ideas. We invite you to discuss your flush valve installations with Sloan to help make your proposed building as new as tomorrow.



**SLOAN VALVE COMPANY**

4300 West Lake Street • Chicago, Illinois 60624



# The architect contracts with a public body

Bernard Tomson and Norman Coplan

**The architect is subject to considerable risk when contracting with a public agency, unless all technical requirements are met before he renders service**

It is not uncommon practice for a governmental agency to authorize or direct an architect to commence his services before a formal contract has been entered into, and, on occasion, before the appropriation covering his fees has actually been made. The architect is subject to great risk in complying with such direction, but, on the other hand, is under great pressure to do so. Many courts have stated the proposition that municipal corporations should not be permitted to disavow a just commitment or obligation or to conduct itself in a manner violative of fair dealing, or in a manner which would not be permitted by the courts if natural persons were the parties involved. However, these same courts have too often been compelled to deny compensation to persons contracting with a governmental body, even though valuable services have been rendered pursuant to the direction or authority of a governmental agency, because the statutory technical requirements have not been met.

Examples of the foregoing can be found in the judicial determinations of almost every state. For example, in Arkansas, it has been held that the contract of a county judge employing an architect is invalid in the absence of a court order appointing the architect. In Georgia, a court ruled that an architectural contract was not binding because the statute required the contract with the county to be in writing and entered into minutes, and the minutes in question did not specify the compensation for the architect. In Kentucky, the court held that persons dealing with a municipal corporation are bound at their peril to know that contracts made by an official of the corporation are executed in the manner required by applicable ordinances.

In Michigan, the city of Detroit was held not liable to an architect for fees in excess of the sum contained in the original contract where a modification of that contract by the Board of Health was not expressly authorized. In Oklahoma, a court ruled that although the city charter authorized the mayor to sign contracts, the mayor could not authorize a contract for architectural services in connection with repair to public buildings independent of any action on the part of the city

council. In Oregon, it has been held that an architect who has performed services for a city under a contract which was not executed in a manner provided by the city charter, was not entitled to enforce the contract to recover the compensation for his services, although the work was accepted by the city.

In Washington, a court ruled that an architect should have known the extent of the authority of the county commissioners with whom he contracted and should have been aware of the county's debt limit, and if he prepared plans, the cost of which would exceed the county's debt limit, he would not be entitled to compensation. For a general discussion of these and other cases, see *Tomson and Coplan, Architectural and Engineering Law*, Second Edition.

Form contracts used by municipalities and other governmental units can contain other than statutory requirements which may jeopardize the fee of an architect or any other party contracting with that governmental body unless there has been strict compliance with them. Illustrative of this problem is a recent decision of the Court of Appeals of the State of New York (*Kooleraire Services and Installation Corp. v. The Board of Education of the City of New York*, 165 N.Y.L.J. #54), which involved a contract between a mechanical contractor and the Board of Education of the City of New York. In this case, the contractor had made the low bid for the heating and ventilating work on a junior high school, and was awarded a contract which was executed by the city.

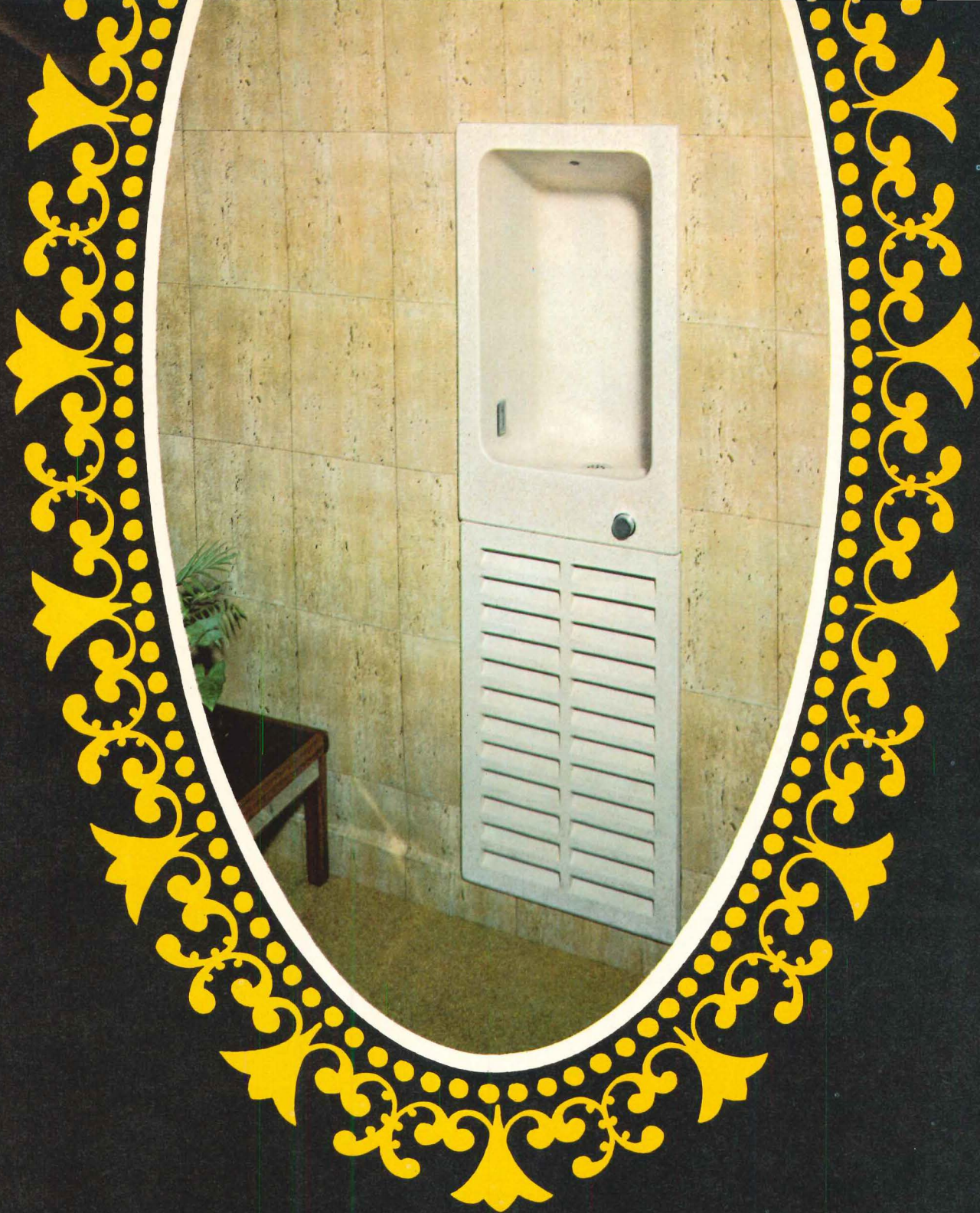
Monies had been appropriated by the Board of Estimates covering the contractor's compensation prior to the making of the contract. The contract provided that the agreement would not be binding unless and until the city comptroller endorsed thereon his certificate that there remained unexpended and unapplied, an appropriation sufficient to pay the estimated expense of executing the contract as certified by the officers making the same. The contractor was directed to commence work immediately upon the execution of the contract, but the comptroller's certification was never endorsed on the contract, although he was requested to make such endorsement by the Board of Education.

After the contractor had performed the preliminary stages of his work, the contract was rescinded. The alleged basis for this decision was that the contractor had made false statements on his prequalifying application. The city refused to pay any part of the contractor's compensation and when he instituted suit, the city defended on the ground that the comptroller's certificate was not endorsed on the contract.

The Court of Appeals, ruling in favor of the contractor, stated that "the parties could not reasonably have intended more than that the comptroller's certification was needed only as to the existence of the funds, and that there is no suggestion in any part of the instrument that they intended the comptroller should have a veto of the contract." The court pointed out that a provision of a contract having one purpose—the showing of sufficient monies to do the work—ought not be utilized to accomplish another purpose when in fact the money is there and the contract should have been certified. The general rule, stated the court, is that "one may not take advantage of a condition precedent, the performance of which he has himself rendered impossible."

**Authors:** Bernard Tomson is a County Court Judge, Nassau County, N.Y., Hon. AIA. Norman Coplan, Attorney, is Counsel to the New York State Chapter of the AIA.





# *Fountain, fountain in the wall...*

*Is this the fairest of them all? If it isn't it must be pretty close to it. Smooth-polished vibra-cast concrete surfaces are highly complementary for your decor planning... choice of five beautiful colors, too. This space-saving, full-recessed drinking fountain has matching louvered grille with remote electric water chiller. Get all the facts; write today! HAWS DRINKING FAUCET CO., 1441 Fourth Street, Berkeley, Calif. 94710.*

Model 2300-RC6 or 12 illustrated in Antique White finish.



**DRINKING FOUNTAINS**



# Bright idea



Beautiful way to brighten washrooms and cut costs: new, polyester fiberglass-reinforced Bradglas Washfountains. The smart-looking, colorful, new Washfountain materials add a touch of drama to any washroom. They weigh up to 80% less than precast stone, yet have a strength-to-weight ratio approaching that of steel. The smooth, non-porous bowls and panels are highly resistant to abrasion, acid, and corrosion. And will not chip, peel, or flake. Vandalproof Washfountains serve up to eight people with just one set of plumbing connections, reducing installation costs as much as 80%. Washfountains also save about 25% on both floor and wall space. And because they're foot-operated, they're more sanitary than ordinary washfixtures. Circular and semi-circular 54" diameter models are available in your choice of decorator colors. For details, see your Bradley washroom systems specialist. And write for literature. Bradley Washfountain Co., 9109 Fountain Boulevard, Menomonee Falls, Wisconsin 53051.

# from Bradley!

Leader in Washroom Fixtures and Accessories

On Reader Service Card, circle no. 328





# otpourri

**Computer in Art** by Jasia Reichardt.  
New York: Van Nostrand Reinhold Publishing Co., 1971. 96 pp., illus. \$2.75.

Anyone who can hold a pencil can draw a picture, and this little book proves that the same can be said for anyone who can use a computer. In fact, most of the "artists" mentioned in the book aren't artists, but engineers at the computer console. The text provides a survey of computer-generated art, well laced with explanations by engineer-artists themselves. The illustrations, all of them interesting, range from mathematically generated geometries to computer processed photographs and variations on classical themes. Some look like mathematical exercises and others show a great deal of wit. It's clear that the computer has added another tool and another medium for the artist who wishes to take advantage of it. But since a computer's output is only as good as its program and its input, the difference between those who can use it and those who can produce real works of art will still be with us.

**Proposal to Change the Structure of City Planning: Case Study of New York City** by Beverly Moss Spatt. New York: Praeger Publishers, 1971. 115 pp. \$10. The author of this study is a former member of the New York City Planning Commission (from 1965 through Jan. 1971). She has been a frequent critic of Lindsay administration and this book reflects her critical stance. The first sentence of the preface points up this position, "The planning function in the City of New York is in disarray," and proceeds on there to examine the structures for planning in New York City, to examine past and present performances,

and to suggest options available.

It should be noted that Mrs. Spatt was denied reappointment to her post on the planning commission by Mayor Lindsay. She is suggesting that a central planning agency be created with broad powers over the city's operational agencies and that the officials of such an agency be appointed and removed at the Mayor's pleasure, in contrast to the present commission whose members are named by the Mayor to eight-year terms.


The book presents a brief history of city planning as well as the critique. In addition, it evaluates the planning commission's organization and its Master Plan, the city's treatment of housing needs, the ability of the Capital Budget to provide funds for improvements as well as the zoning system.

The changes Mrs. Spatt suggests are well worth weighing by all those concerned with planning in New York City, and elsewhere.

**The Struggle to Bring Technology to Cities.** Washington, D.C.: The Urban Institute, 1971. 79 pp. \$1.95 (paper).

This publication was inspired by the ideas and issues expressed at a symposium held at The Urban Institute on "The Application of Science and Technology to Local Government" in August 1970, jointly sponsored by the National Science Foundation, the International City Management Association and the Institute. Participants included city and county managers, mayors, technical consultants to cities, and representatives from Federal agencies with urban programs, industry and many others.

It is a brief book, considering the tomes [continued on page 98]



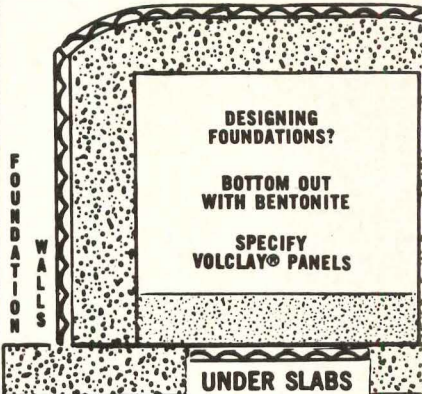
## VOLCLAY PANELS

### PREVENT WATER INFILTRATION BELOW GRADE

Inorganic granular VOLCLAY bentonite packed, weighed, and sealed in the corrugated flutes of biodegradable kraft panels—provides uniform coverage at low comparative cost.

•

#### EARTH COVERED ROOFS



FOUNDATION WALLS

DESIGNING  
FOUNDATIONS?

BOTTOM OUT  
WITH BENTONITE

SPECIFY  
VOLCLAY® PANELS

UNDER SLABS

VOLCLAY Panels are attached to exterior concrete surfaces with tempered nails or mastic, and are placed horizontal to receive slab pours.

•

Kraft degradation, after application, leaves an all bentonite mineral water barrier with self healed joints, protecting against severe, medium, and mild water conditions.

•

**VOLCLAY Panel Sizes—4'0" square x 3/16" and 5/8" thick.**

•

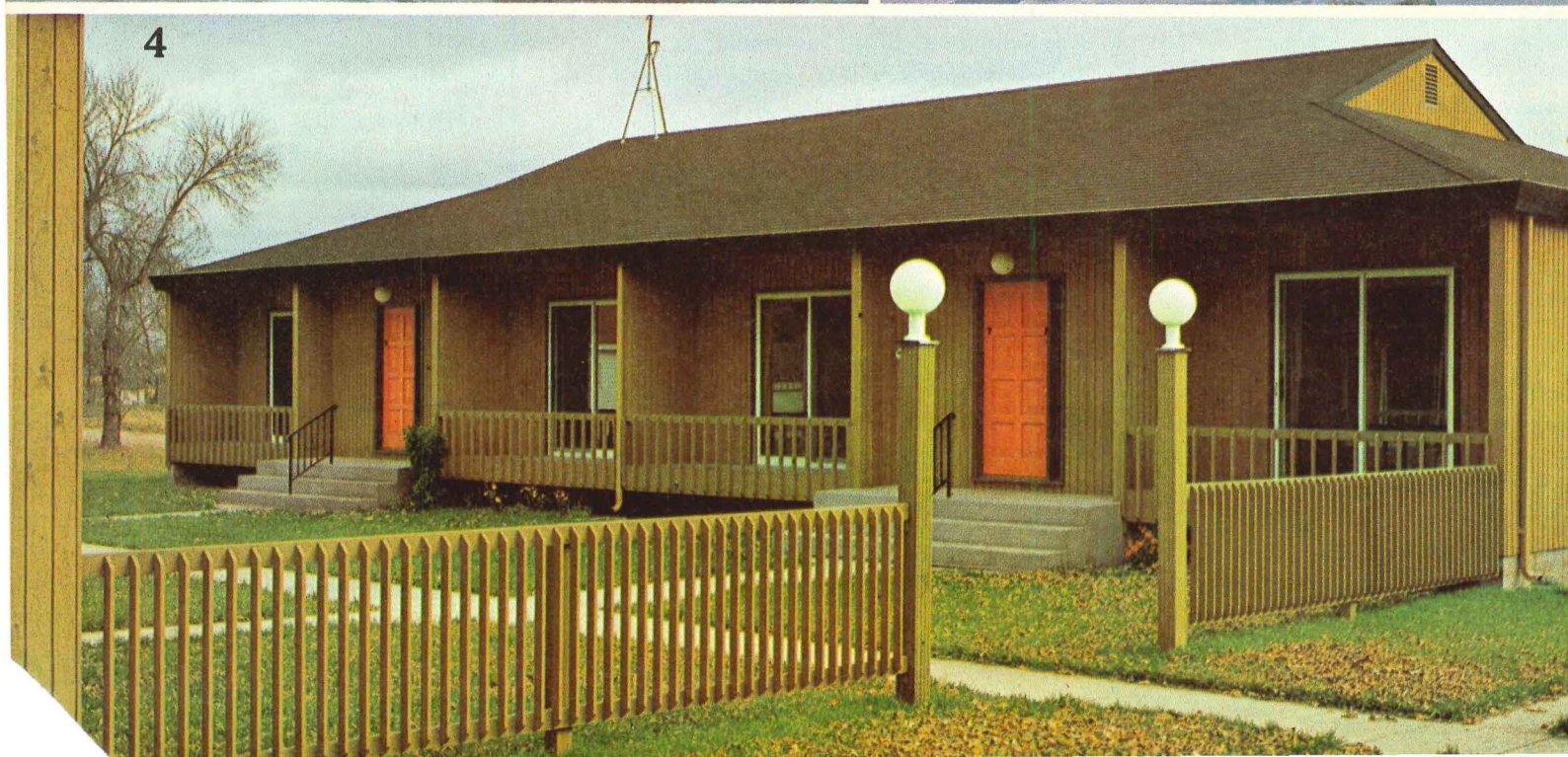
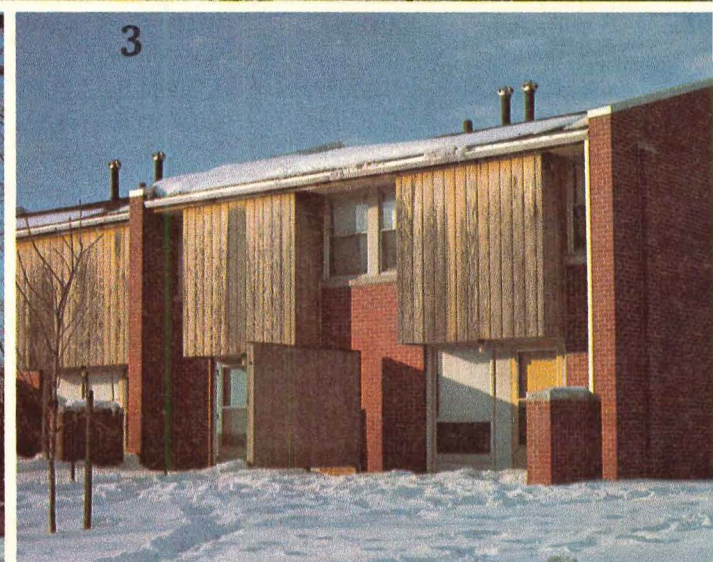
Availability—Domestic & Foreign

## AMERICAN COLLOID COMPANY

U.S.A. • EUROPE • AUSTRALIA  
5100 SUFFIELD COURT  
SKOKIE, ILLINOIS 60076  
Phones: Chicago (312) 583-0400  
Skokie (312) 966-5720

SWEET'S
SPEC-DATA







# Why high-quality Andersen Windows belong in low-income housing.

If you're planning a public housing project, Andersen Windows are more practical on a total cost basis. Made in complete units, they cost less to install. There's no on-site exterior painting when you specify our Perma-Shield® Windows. Made with a thick vinyl sheathing on the outside, these windows will save significantly on maintenance costs over the years. They won't need scraping, painting or refinishing.

Fuel costs are lower. Andersen Windows are made with a solid core of wood—one of nature's best insulators. Our weathertight construction and welded insulating glass (optional) complete the tight design against heat, cold, dust and drafts.

Andersen Windows will cost less over the long run, because their beauty lasts as long as the building. That's why it pays to specify the best.

## Minneapolis Housing for the Elderly

The architects wanted to make this large, multi-unit housing project into a real "home" for the residents. So Bettenburg, Townsend, Stolte and Johnson, Inc. created a living community with friendly courtyards and recreation areas.

Adding warmth and pleasantness to the surroundings are Perma-Shield Fixed and Casement windows equipped with welded insulating glass which block out cold Minnesota winters and keeps residents snug and warm.

## Columbia Court Public Housing

Precast concrete "shadow panels" give this multi-unit complex in Muskegon Heights, Michigan its distinctive look.

The architects, Haughey, Black & Associates, designed special recesses into the panels where Perma-Shield Casement windows fit snugly.

The white vinyl sheathing on the outside blends well with the smooth-surfaced concrete. These windows can be opened straight out, allowing elderly residents to clean both surfaces from the inside—another cost-cutting benefit of Andersen Windows.

## 3. Family Housing Project

Hackner, Schroeder, Roslansky & Associates received an award from the Wisconsin Chapter of the A.I.A. for this series of townhouse groups in La Crosse, Wisconsin.

They were cited for the use of materials which added dignity and distinction to these low-cost dwellings. Among the materials used were Andersen Beauty-Line™ and Narroline™ Windows.

Beauty-Line windows combine a fixed upper sash with a ventilating, awning-style lower sash. They can be used singly or in groups, making them as versatile as they are attractive.

## 4. Award-winning Low-Rent Apartments

Located in Herman, Minnesota, this group of one-story 4-plexes received an award from the Minnesota Chapter of the A.I.A. for being the best representative example of the theme of "Involvement."

The architects, R. F. Ackermann and Associates, carried the residential character of the neighborhood into these apartments with a warm and simple design.

Adding to this feeling are graceful gliding doors by Andersen. They open onto comfortable, private decks. Andersen Beauty-Line Windows provide picture window beauty at a practical price.

For more information on Andersen Windows and Gliding Doors, check your Sweet's file or contact your nearest dealer or distributor.

**Andersen Windows™**  
Window beauty is Andersen. Andersen Corp., Bayport, Minnesota 55003









# New Naugahyde Luxura.

## No one's come close to softness like this.

One touch tells you Uniroyal's Naugahyde® Luxura has a softness unequaled by other vinyl fabrics. But we made it even better than that. We made Luxura soft clear through.

First we made a unique backing that combines the gentle support of a fibrous web with a cushion of billowy cotton.

We also blended an exclusive combination of materials to make this vinyl relax. And keep it limber, comfortable.

We added a cool, soothing texture. Quiet, subtle grains. And twelve distinctive but soft-spoken colors.

Then we put it all together to bring you the softest vinyl ever made. And the most cooperative. Fold it. Drape it. Even pleat it. Luxura's softness conforms to whatever you're creating. Beautifully.

Call our Coated Fabrics Department, Mishawaka, Indiana (219) 255-2181, or your Uniroyal representative or Naugahyde distributor. Ask for a free sample of Luxura. And come close to this new kind of softness yourself.

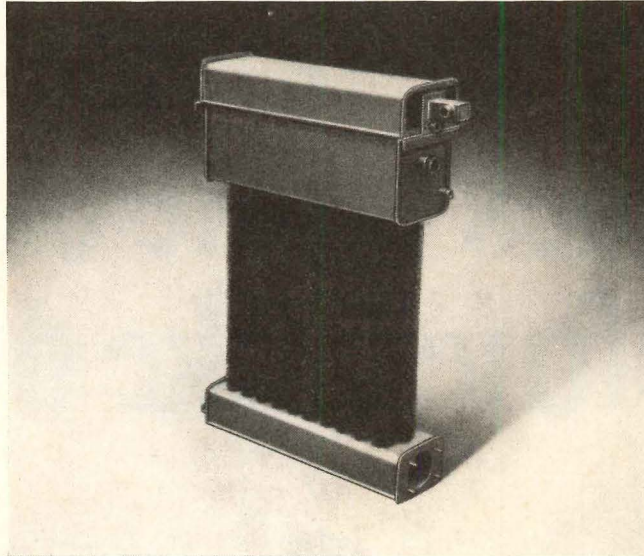
**Naugahyde** Decorative  
Fabrics



**We help you do it with style.**



# GE's gas/electric combustion chamber withstands heat like a jet engine.



We use a super alloy metal that was developed for jet engines in the combustion chamber of our rooftop gas/electrics for the same reason—both get hot. While the jet engine runs steadily at higher temperatures, the rooftop unit is constantly being turned on and off.

Making the combustion chamber out of a very tough metal is only one of the many things we've done to make our rooftop units more competitive.

To get the maximum heat out of the hot gases, the GE gas/electric has stainless steel tubes with serrated steel fins in its heat exchanger. In addition to being very efficient, the 140,000 BTUH size is so compact that it is no larger than a two-suitcase suitcase.

The GE gas/electric uses a forced air combustion system for a number of reasons. It's smaller than a non-pressurized system for one thing.

And we've put the burner on top. That way, nothing can fall down and clog the burner.

Due to the fact that no primary air is mixed with the gas prior to combustion, there is practically no chance for flashback.

Conversion to liquid petroleum gas is accomplished with greater ease.



With all our gas/electric models you can have the General Electric National Service Contract Plan at the time of installation. Service is available from the installing dealer or any other authorized servicer.

Look up your GE dealer in the Yellow Pages under "Air Conditioning Equipment and Systems."

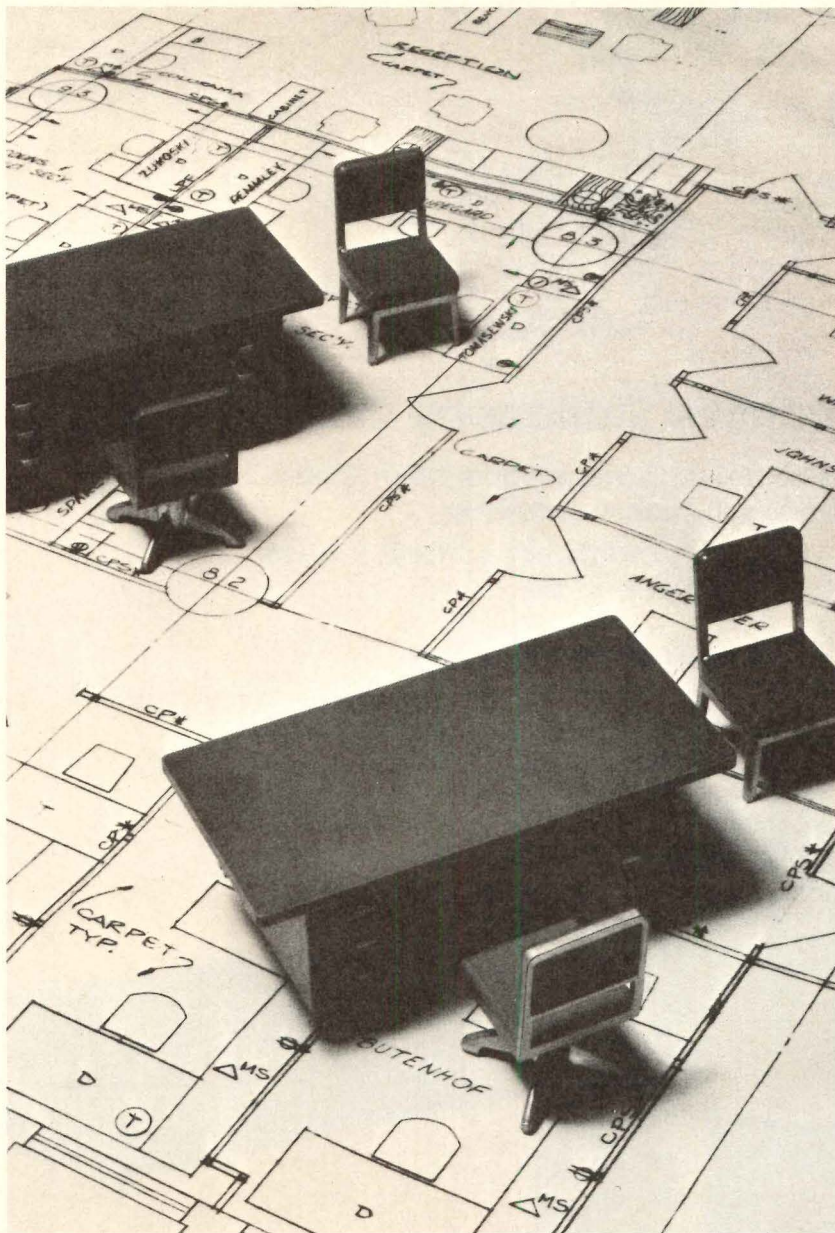
Now that you've met the newest thing in gas/electrics, meet the man who'll give you the ones you'll need.

**GENERAL**  **ELECTRIC**

On Reader Service Card, circle no. 344



# Don't repeat yourself.



## Use KODAGRAPH Films for repetitive design elements.

It's easy to bypass tedious retracing when the same design must be repeated in a drawing. Or when you want to transfer a design from one drawing to another. Let photography and Kodagraph films do the work for you.

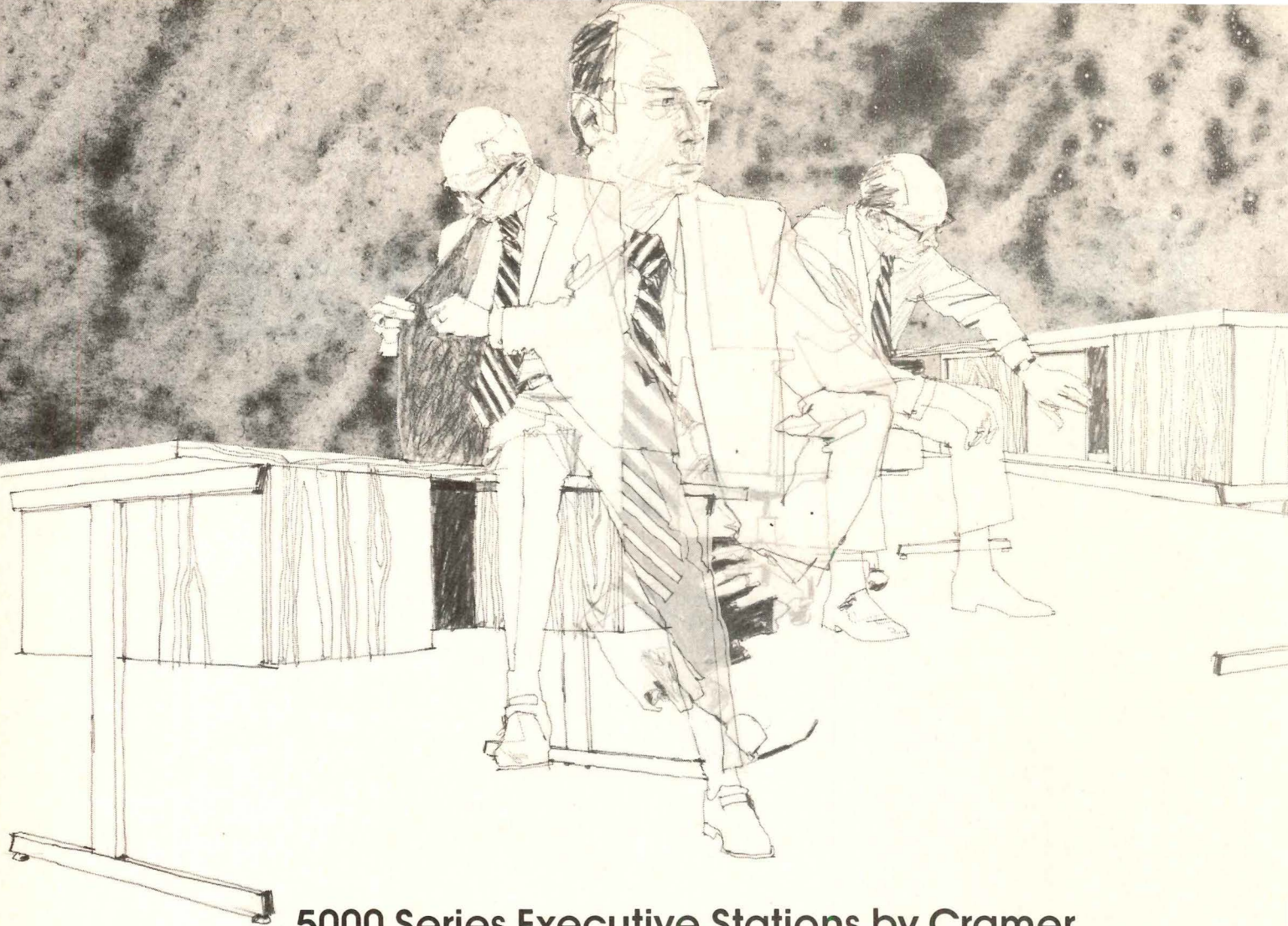
We'd like to show your drafting/design department our new slide presentation, "Focus on Drafting." It will clue them in on the many shortcuts possible with Kodagraph films and papers. Whenever you're ready, just call your Kodak Technical Sales Representative.

Or write for literature to Eastman Kodak Company, Business Systems Markets Division, Dept. DP812, Rochester, N.Y. 14650.

## DRAWING REPRODUCTION SYSTEMS BY KODAK

Kodak





## 5000 Series Executive Stations by Cramer

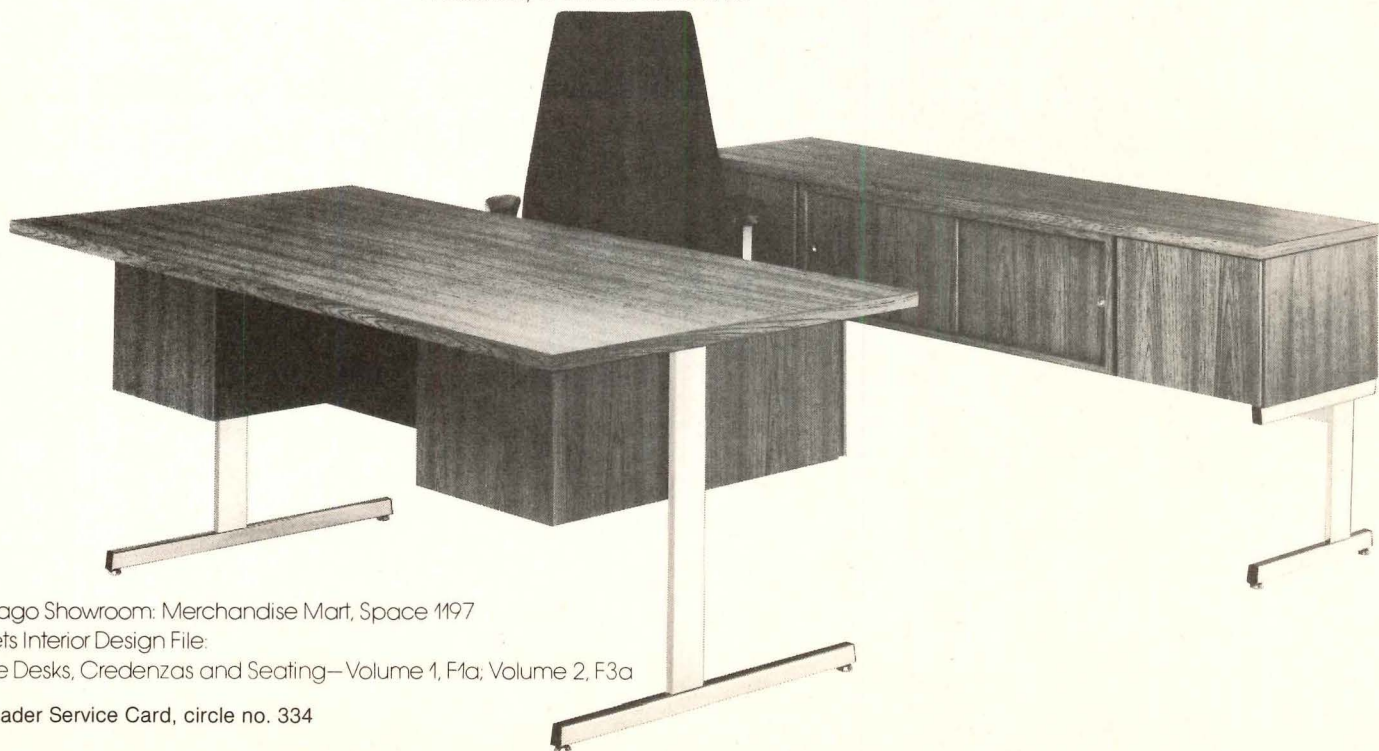
Envision the cantilevered design in a landscape. Open. Clean.  
Without distortion. Teak, walnut, white.

The 5000 Series is Cramer's contribution to office art and science.  
For literature, write or call.



**CRAMER INDUSTRIES INC.**

625 Adams Street, Kansas City, Kansas 66105 Ph. (913) 621-6700  
A Subsidiary of OLIX INDUSTRIES INC.

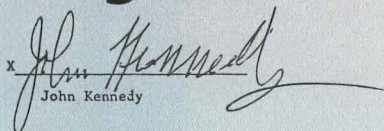


Chicago Showroom: Merchandise Mart, Space 1197  
Sweets Interior Design File:  
Office Desks, Credenzas and Seating—Volume 1, F1a; Volume 2, F3a

On Reader Service Card, circle no. 334



# "Leisure World wanted a quality faucet that needed a minimum of maintenance. So I got them 50,000 Delta faucets."

x   
John Kennedy

Kennedy Mechanical Contractors

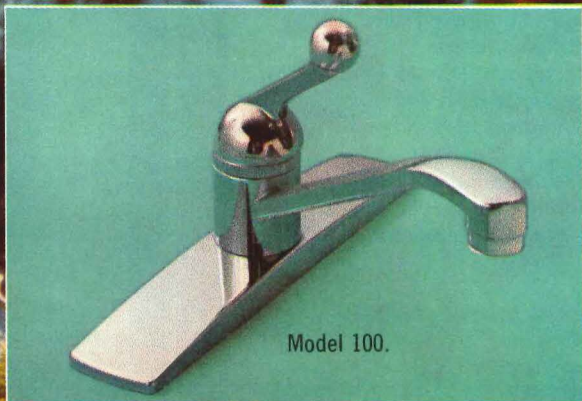
Leisure World is just that. A beautiful retirement community in California that's become a new living concept in America. And for the maintenance crew and the plumbing contractor, it's even more of a leisure world. Because during the 7-year history of Leisure World, they've hardly had to repair or replace any of the community's 50,000 Delta faucets.

But beside its great maintenance record, Delta single handle faucets were chosen because of their ease of operation. And because they look as good as they work.

As John Kennedy said, "Seven years ago when Ross Cortese, the developer of Leisure World, awarded me the project, he said he wanted a Class A job. And with Delta faucets that's just what he got."

We can tell you even more about the full line of trouble-free Delta faucets. Just write Delta Faucet Co., a Division of Masco Corporation, Greensburg, Indiana 47240.

**Delta Faucet.**  
**Simply beautiful.**





A weather-tight steel  
grid wall supports one  
of the world's largest  
reflective surfaces.

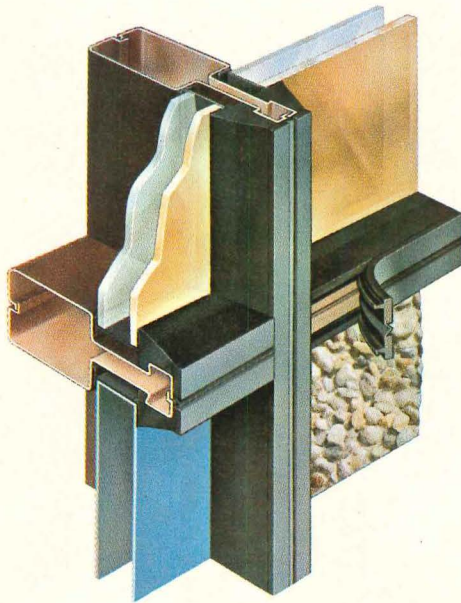
# New FENMARK

## *Thermo Grid wall system*

Control Data's new headquarters building will reflect many images. New thin sight line FENMARK *ThermoGrid* Wall System plays an important role . . . for it supports the nearly one-quarter million square feet of golden-hued, reflective insulating glass.

Here's why FENMARK *ThermoGrid* Wall System was selected. All steel system for strength and stability. Narrow sight lines. U factor of .59. Weather-tight and leak-proof. Ease of installation. Factory prefinished. Pressure Equalization feature. Factory assembled. Increased wind load resistance. Low cost. And it's all backed by 66 years of unequaled integrity in the construction industry.

Use FENMARK *ThermoGrid* with all thicknesses and types of insulating glass, sash and panels. *ThermoGrid* is versatile . . . use it in conjunction with structural steel frames, masonry, or reinforced concrete . . . there's just no limit to its application. It's too new to be in our Sweet's file 20 a/Fe . . . but write today for our new full color brochure . . . *THERMOGRID*.



*New*

### FENMARK *ThermoGrid* WALL SYSTEM ACCEPTS INSULATING GLASS . . . FEATURES ULTRA NARROW SIGHT LINES

This unique steel system features excellent thermal weather integrity. With a U factor of .59, leakproof *ThermoGrid* seals out driving rain, snow and ice, helps maintain uniform conditioned air . . . and easily withstands wind loads in excess of 40 lbs./sq. ft. on a 14' span with mullions on 5' centers. Includes pressure equalization feature. And new FENMARK *ThermoGrid* is designed to American Iron and Steel Institute specifications. Why not investigate *ThermoGrid's* advantages for your next project?



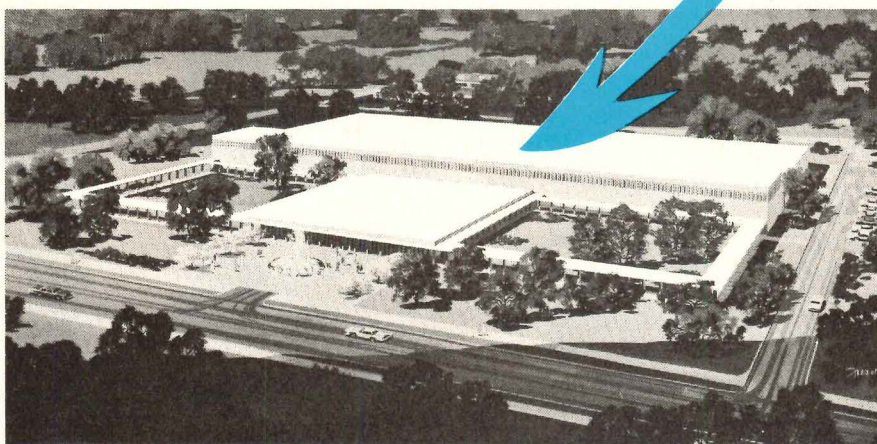




**CONTROL DATA HEADQUARTERS** ..... **Bloomington, Minnesota**  
Architects & Engineers . . . HENNINGSON, DURHAM & RICHARDSON, Omaha, Nebraska  
Contractor . . . . . KRAUS-ANDERSON OF ST. PAUL CO., St. Paul, Minnesota



**How can you use  
marble chips on top  
and save money, too?**



OFFICE, LABORATORY AND MANUFACTURING PLANT FOR YARDLEY OF LONDON, INC.  
ARCHITECT: EDWARD D. STONE

Simple. Because more often than not Lime Crest Roofing Spar costs *less* than other white aggregates. In some areas this unusual calcite marble even costs less than slag! Yet its uniform, hard crystalline surfaces resist weather and corrosion, defy dirt and smoke to wash clean and stay bright indefinitely.

Tests show that Lime Crest Roofing Spar increases the effectiveness of roof insulation, reduces the cost of air conditioning, assures longer roof life—and it's accepted for maximum bonding by leading manufacturers and contractors.

Many architects specify Lime Crest for its texture and sparkle, but nothing we could say or show on this page could do justice to our roofing aggregate . . . let us send you a sample that will.



**LIME CREST  
ROOFING SPAR**

Limestone Products Corporation of America  
Newton, New Jersey 07860

On Reader Service Card, circle no. 355

**Books** continued from page 85

being written on this subject. It includes a few sharp clear photographs that amplify the text and is essentially a plea to city officials, industry and researchers to make use of recent scientific advances to provide city citizens with better services at lower costs.

**Breakthroughs in Architectural Practice: Environmental Control Failures. The Architectural Promotion Directory.** 3 Manuals. Berkeley, Calif: Guidelines Publications, 1971. \$2.

A series of case studies make up this stimulating report concerned with architects' approaches to their practices. For example, two young architects with no work, and seemingly no prospects, come up with an idea that insures their survival and rapid growth while other small offices are going under. In another study, an architect starts his practice by discovering an overlooked clientele and within a few years outpaces the oldest and largest firm in his city.

*Environmental Control Failures* deals with unexpected problems in ventilation, heating, lighting and acoustics and how they were dealt with by a dozen experts.

*The Architectural Promotion Directory* lists names, addresses, editorial requirements and other data on publications that publish the work of architects. Why and how some architects' projects are published and others are not is analyzed.

#### **Documents**

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

**Manual for the Safe Use of Electricity in Hospitals (NFPA No. 76 BM).** National Fire Protection Association Publications Service Department, 60 Batterymarch St., Boston, Mass. 02110. 72 pp. \$2.50.

Recognizing the fact that hospital patients are susceptible to greater hazards due to the increasing use of electrical appliances and the development of surgical and monitoring procedures based on medical electric investigative, diagnostic and therapeutic equipment, this guide describes these hazards and their acceptable limits. It outlines principles for design and testing for safety of electric services and equipment, and offers suggestions for safe use.

[continued on page 110]



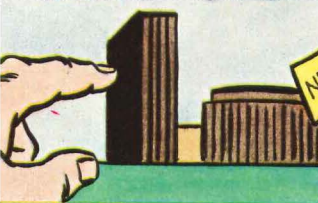
# VECTRA® OLEFIN FIBER IN

# BEN-HIM

**YOU REMEMBER.....**  
MILLIONAIRE BEN-HIM AND  
CHARIOT LOVING FRIENDS  
TAKEN OVER MADISON  
AND GARDEN FOR A  
MAJESTIC REVIVAL OF THEIR  
PRIME INDOOR SPORT\*

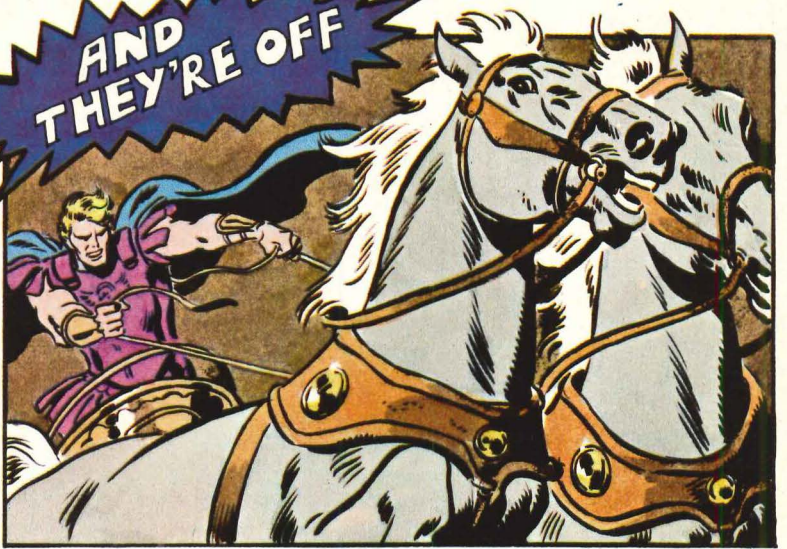
A GIGANTIC TUFTED  
CARPET OF VECTRA®  
OLEFIN FIBER  
WAS UNROLLED AS THE  
GROUNDWORK FOR THIS  
FORTHCOMING EPISODE OF  
MAYHEM, MADNESS & MUSCLE.

NEEDLESS TO SAY



**TOR'S NOTE ~**  
NOT RACING, OF COURSE

**AND  
THEY'RE OFF**



**GOLLY....**  
THOSE HOoves  
AREN'T EVEN  
MAKING A DENT  
IN THE CARPET!

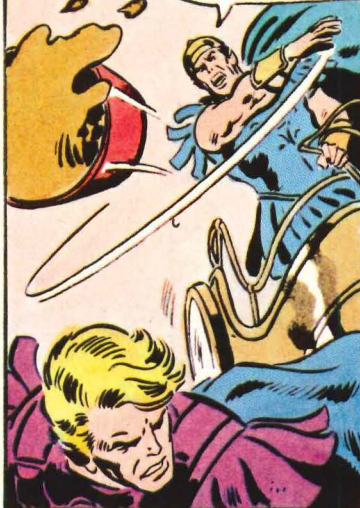


THIS'LL  
FINISH YOU,  
**BEN-HIM!**

CHOKES  
GASP  
AARGHHH  
**HOT  
PEANUT  
BUTTER!**



MISSED HIM!



HERE COMES  
THE  
MOP-UP  
CREW



... WHO'S THE  
TIGHT GUY WHO  
TURNED ON  
THOSE LIGHTS



MY  
**SUN-GUN**  
WILL BLIND  
BEN-HIM'S HORSES

WHOA.....  
HORSES. KEEP  
YOUR EYES ON THAT  
CARPET.  
IT WON'T FADE

**VECTRA'S  
BUILT-IN  
COLOR WILL  
LEAD US TO  
VICTORY!**



THEY'RE  
PULLING  
AHEAD

**BEN-HIM WON.**  
THANKS TO  
VECTRA'S FADE  
RESISTANCE  
YAY!

**NO HORSEING AROUND WITH  
VECTRA® OLEFIN FIBER.**  
MOISTURE, STAINS, WEAR,  
FADING, STATIC-ALL THE  
DASTARDLY ANTI-CARPET  
VILLAINS HAVE NO POWER  
AGAINST CARPETS OF VECTRA®.  
THAT'S WHY THEY'RE AL-  
WAYS THE WINNERS IN  
HOSPITALS, SCHOOLS,  
RESTAURANTS AND OTHER  
CHARITABLE INSTITUTIONS  
THAT ARE VERY HARD ON CARPETS.

For more about tufted carpets of  
Vectra and the folks who make them,  
please mail this coupon:  
Vectra Corporation  
60 West 49th Street, Suite 868  
New York, N.Y. 10020

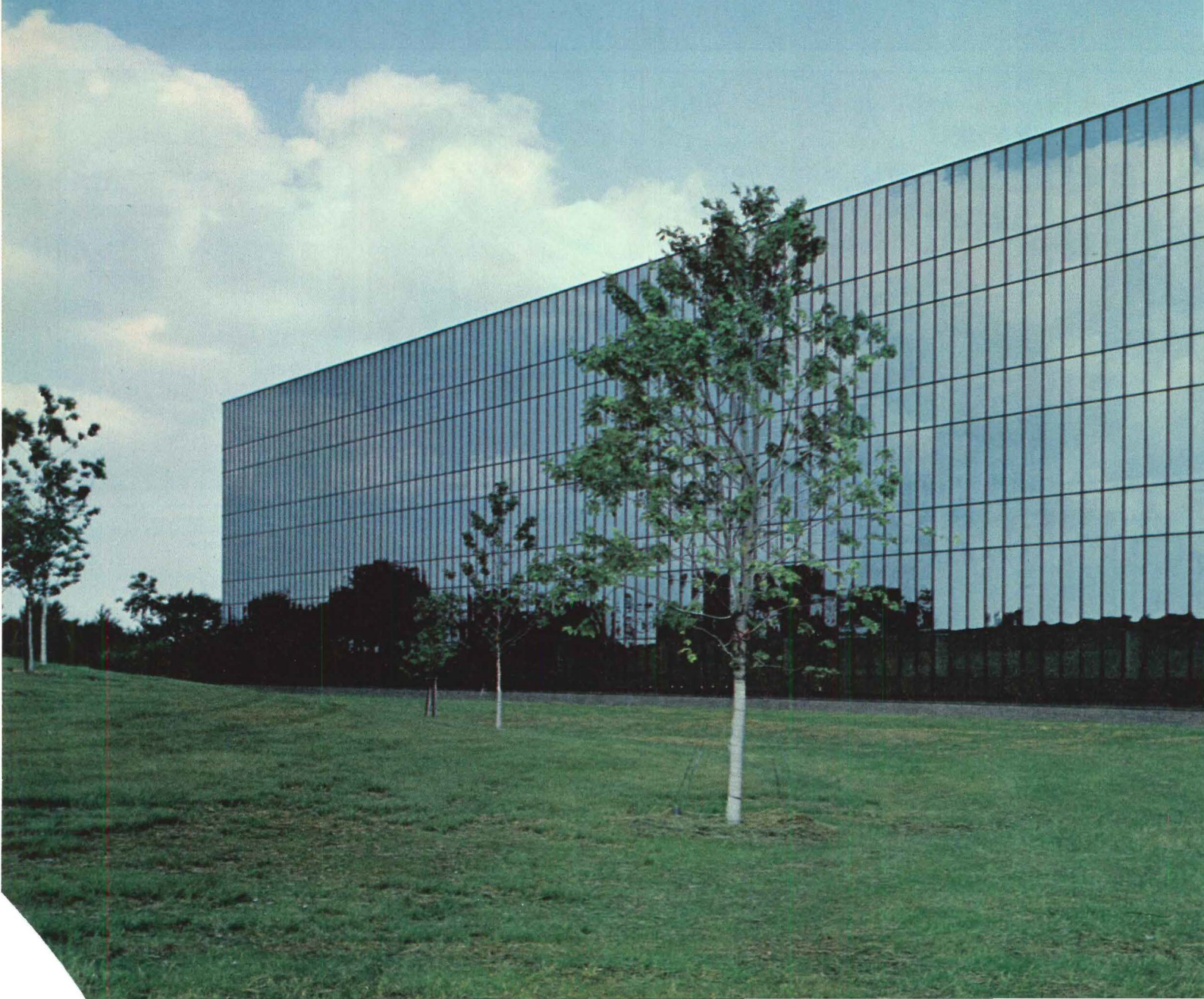
NAME \_\_\_\_\_  
FIRM \_\_\_\_\_  
ADDRESS \_\_\_\_\_  
CITY \_\_\_\_\_  
STATE \_\_\_\_\_ ZIP \_\_\_\_\_

**Vectra**  
OLEFIN FIBER

Vectra® olefin fiber is manufactured by Vectra Corporation, Odenton, Maryland, an affiliate of Enjay Chemical Company, Odenton: (301) 969-9000. New York: 60 West 49th Street (212) 974-3000. Atlanta: 225 Peachtree Street, N.E. (404) 688-4250. Vectra makes fiber, not carpets.



# LHR<sup>®</sup> Glass from PPG





## Westinghouse Nuclear Center reflects contemporary image with PPG Environmental Glass.

As an esthetically unique complex, the architect specified a PPG Environmental Glass—*LHR* (Light and Heat Reflective) Glass—because he believes it is the most practical, maintenance-economical cost-per-square-foot available to do the job.” Working with Westinghouse Nuclear Systems and Westinghouse State Design Center, the architect defined that this glare-reducing glass

would provide a comfortable and pleasant working atmosphere for a large population of scientists and technical people.

And *LHR* Glass proved to be beautiful as well as practical. It reflects the Center’s wooded surroundings, and presents a facade that changes as often and dramatically as the sky tones and clouds . . . a visual effect of architectural oneness, because *LHR* Glass serves both vision and spandrel areas.

The availability of Environmental Glass such as *LHR*, plus its ease and speed of installation, influenced the architect toward his glass curtainwall design.

See PPG about *LHR* Glass—or the others in our family of Environmental Glasses for your next building. Early in the design stages. There’s a PPG Environ-

mental Glass that you can use as an active design medium to meet any esthetic consideration, help solve environmental problems and contribute to a return on investment. Write PPG Industries, Inc., One Gateway Center, Pittsburgh, Pa. 15222.

### PPG: a Concern for the Future

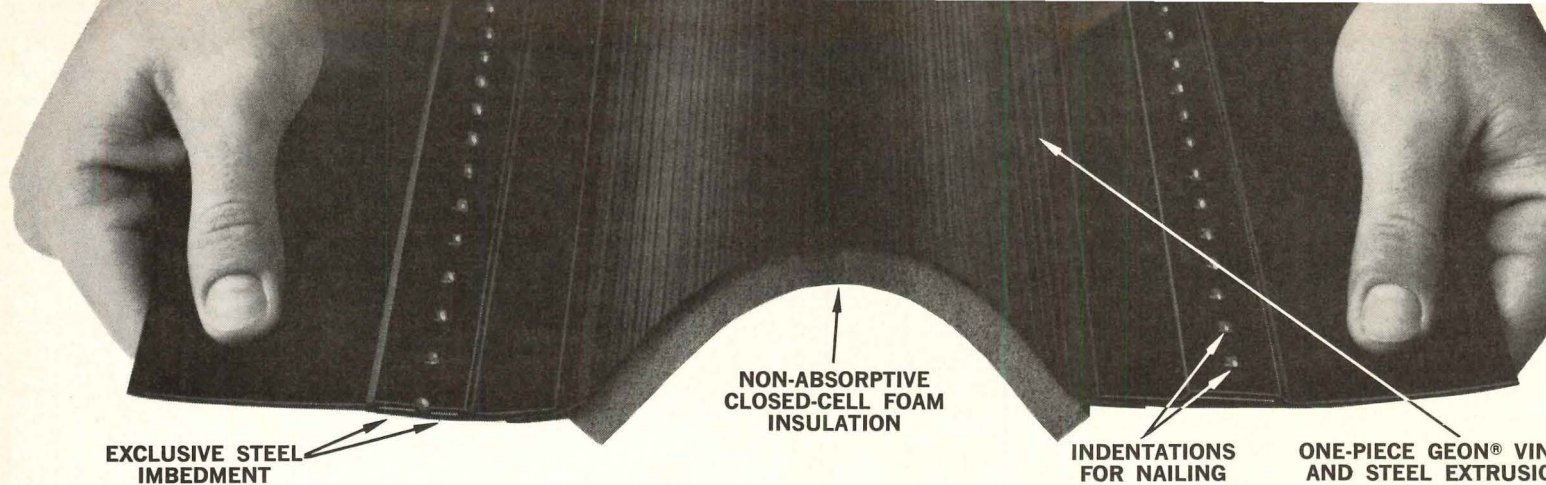
Owner: Westinghouse Electric Corporation, Pittsburgh

Architect: Deeter Ritchey Sippel Associates, Pittsburgh

On Reader Service Card, circle no. 394







## ANSWERS TO YOUR QUESTIONS ABOUT METALASTIC® MARK II

new principle expansion joint cover



by **PAUL J. RAABE**, Products Manager,  
Building Products Division,  
GREFCO, Inc.



A subsidiary of  
General Refractories Company

**YOU:** What is Metalastic Mark II?

**PAUL:** It is a new type of expansion joint cover that assures your clients of weatherproof joints in rooftop construction. It permits roof sections to expand, contract and distort without causing breaks in the joint cover.

**YOU:** How is Metalastic Mark II made?

**PAUL:** By a new principle. Extruded simultaneously through a single die is a Geon® vinyl bellows flanked by two semi-rigid flanges containing continuous metal imbedments. After extrusion, the bellows is lined with closed-cell vinyl foam insulation.

**YOU:** What is meant by metal imbedment?

**PAUL:** It is a continuous perforated strip of steel that controls the expansion and contraction of the joint cover; the vinyl flange and the metal assume identical coefficients. This metal strip is an integral extruded part of the flange. It has neither been glued nor crimped in place. It won't work loose. It can't rust. It can't corrode.

**YOU:** Why is this strip perforated?

**PAUL:** Molten vinyl flowing through the perforations "keys" the metal in place. The slight indentations occurring every  $\frac{3}{4}$ " along the imbedment show where nails can be driven.

**YOU:** Do these perforations have other advantages?

**PAUL:** In addition to speeding nailing, nails driven through the perforations are automatically sealed tightly against entrance of water.

**YOU:** What about the "dissimilar metals" problem?

**PAUL:** Metalastic Mark II solves that because its metal imbedments, as the term implies, are completely encased in Geon® vinyl, which is compatible with any metal.

**YOU:** How is Metalastic Mark II packaged?

**PAUL:** Straight flange Metalastic Mark II comes packaged in 50-ft. rolls together with nails and splicing kit. Curb-shape is available in 10-ft. lengths. Also available are cross-over, tee and corner transition pieces, which lap over straight runs and eliminate butt joints and splices.

**YOU:** Is there an advantage to roll material?

**PAUL:** Sure, it eliminates most of the splicing.

**YOU:** What is the splicing procedure?

**PAUL:** It's as simple as putting a patch over a joint and takes less than five minutes under most weather conditions. A properly executed splice is almost impossible to remove after 24 hours.

**YOU:** Why a 50-ft. roll and not 100-ft.?

**PAUL:** We can supply 100-ft. and 150-ft. rolls if you order them. The 50-ft. roll is the result of conferences with roofers. Since the 50-ft. roll fits in a carton less than 20 in. square and 14 in. high, roofers found it easier to handle. They like its light weight—only 45 lbs. In addition, they can now purchase closer to the exact footage required and eliminate waste.

**YOU:** Why furnish nails?

**PAUL:** To make sure the proper size and type of nail is used.

**YOU:** Has Metalastic Mark II been thoroughly tested?

**PAUL:** Yes, in both field and laboratory and in testing programs set up with the Illinois Institute of Technology as well as GREFCO's own Research and Development Laboratory. Many roofers participated in our initial testing program, and we benefited greatly from their experiences.

**YOU:** What are architects' reactions?

**PAUL:** They appreciate the ability of Metalastic Mark II to conform to unusual roof design. They like Geon® vinyl's established resistance to industrial and atmospheric pollutants, its toughness and its flame-retardance.

**YOU:** Is there any significance to the word "Mark" instead of just Metalastic II?

**PAUL:** My boss, Mr. B, insisted on it. Everyone else was against it.

**YOU:** Is the name set?

**PAUL:** Looks like it. Metalastic Mark II is a registered trademark.

**YOU:** Sounds great! How can I secure a free sample and technical data?

**PAUL:** I thought you'd never ask. Write GREFCO, Inc./ Building Products Division, Dept. PA-2, 333 N. Michigan Ave., Chicago, Illinois 60601.

\*Registered Trade Mark of B. F. Goodrich Chemical Company

**GO AHEAD... SPECIFY METALASTIC MARK II**





## **In hotels and motels everywhere Bally Prefab Coolers and Freezers are accepted as the standard for walk-in refrigerated storage**

Bally Prefabs can be assembled in any size for indoor or outdoor use from standard panels insulated with four inches of urethane foamed-in-place. Easy to add sections to enlarge . . . easy to relocate. Factory refrigeration systems for every temperature from 35° cooling to minus 40° freezing. Stainless steel, patterned aluminum or galvanized finishes. Subject to fast depreciation. (Ask your accountant.) Write for 28-page booklet and urethane wall sample. Bally Case and Cooler, Inc., Bally, Pennsylvania 19503.

**There's an  
evolution in the  
kitchen**



© 1971 ALL RIGHTS RESERVED.





# Copper sheet. Obviously beautiful

Here are some economical uses for copper that may surprise you. Using standard sheet copper. Available now. Every bank, restaurant, hotel, office building, house of worship and residence can be made more attractive and elegant with the quality features of copper. Feast your eyes.

**New copper/roofing system** (right). Large copper sheets bonded to plywood. Quick, easy to apply. Needs no special tools. **Clear film-finished copper roof** (below). Copper sheet laid over plywood deck in a vaulted design. Secured with hidden clips. Factory coated to preserve natural color. **Bronze sliding glass doors, windows** (below right). Brings the outdoors indoors. Beautifully framed in roll-formed bronze, a rich looking copper alloy. Quiet elegance that lasts.



**Copper leaders that are an integral part of the design** (right). Copper's resistance to corrosion especially valuable here. Painting eliminated. Weathers naturally to a russet brown. **Copper vent hoods** (far right). Long-lasting, good-looking. New high-strength and economical copper strip is perfect.





# Naturally durable. Readily available.



**Bronze floor tiles** (left). Pebble textured bronze on copper sheet applied directly to concrete or plywood. Needs only minimum care. Foot traffic adds varied highlights of muted gold tones.



**Copper gutters and flat roofing** (above). Corrosion-resistant copper is as functional as it is beautiful. Highlights quality.



**Copper-accented entrance** (above). Stamped copper rosettes with a patina finish. Easily applied. **Copper-clad ceiling** (left). Chemically etched ultra-thin sheets of copper and brass in a kaleidoscope of tone and color. Every pattern unique. For walls, counters too. For details on these—or any other architectural uses for copper, brass and bronze—just write us.

Copper Development Association Inc.  
405 Lexington Ave., New York, N.Y. 10017

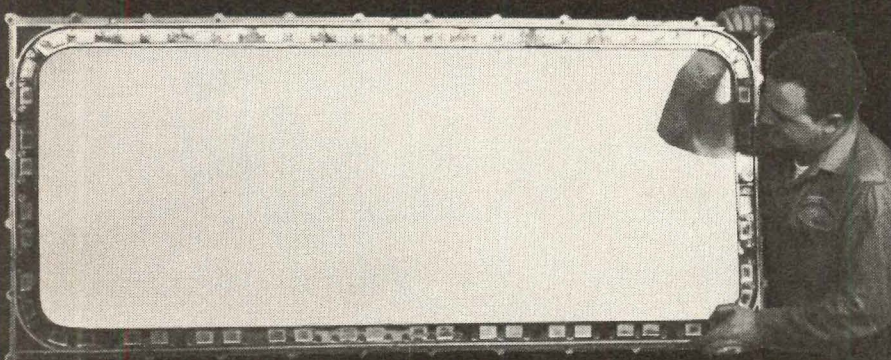
 **COUNT ON COPPER**

On Reader Service Card, circle no. 397





# Design your next pool with a KDI Paragon underwater window.



## You'll see the difference.

No other single piece of equipment multiplies the use of a pool like an underwater observation window. It is coveted by Coaches of swimming and diving; an invaluable aid for ballet and synchronized swimming instruction; a dramatic aid for photographers and a delight for audiences.

KDI Paragon underwater windows are precision-engineered of cast bronze with a polished chrome surface. Available with  $\frac{3}{4}$ " tempered polished plate glass or  $1\frac{1}{8}$ " safety glass. They fit flush in any plain or tiled concrete wall pool. Shipped fully assembled to the job site ready to install. Rectangular windows 2' x 2' to 3' x 5'. Also .18" round windows.

Detailed Engineering Specification Sheet on Request



**KDI Paragon Inc.**  
Mfrs. of Quality Deck &  
Underwater Equipment  
12 Paulding St.  
Pleasantville, N.Y. 10570  
914-769-6221



Our Catalog in Sweets Architectural File

New from Progressive Architecture

## 'Details from the Industry'

Now, four times a year, P/A will feature a select group of advertisements showing professional architectural details of buildings.

The 'Details' gives the manufacturer the opportunity to advertise products within the framework of a working drawing, giving advertising a new dimension.

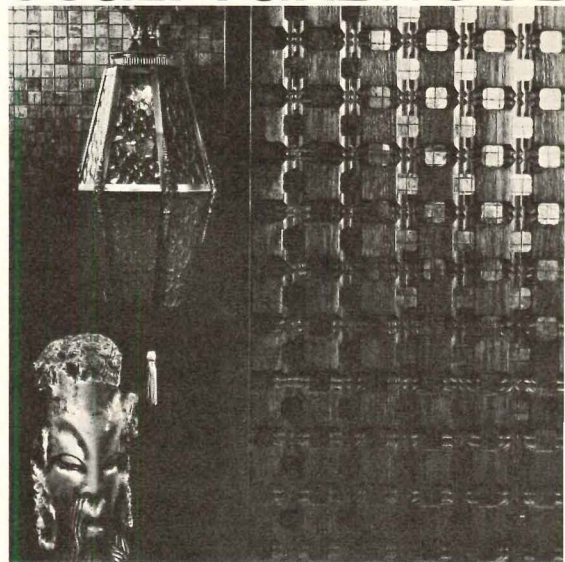
Remember, once a product is in the working drawing, it's in the building.

To insure the use of these pages, they have been designed for easy removal and filing under the Uniform Filing System adopted by AIA, CSI and the Producer's Council.

Call your P/A representative, get the details on 'Details' and arrange to use this important new program in your schedule.

Progressive Architecture 600 Summer Street Stamford, Connecticut

## SCULPTUREWOOD



**Scene Stealers**—Sculpted hardwood screens play many supporting roles as walls, dividers, backdrops to create drama in the settings of business or homes. A wide repertoire of 20 patterns and an unlimited cast of woods—walnut, birch, ash, oak, poplar and other species. You may direct us on size, framing and finishing. The response will be lots of applause. Write for free color playbill.

**Penberth**  
ARCHITECTURAL PRODUCTS

5800 So. Boyle Ave., Los Angeles, Calif. 90058 (213) 583-45  
REPRESENTATIVES IN PRINCIPAL CITIES. COVERED BY PATENT NO. 28597

On Reader Service Card, circle no. 383

← On Reader Service Card, circle no. 353





## ULTRAWALL<sup>\*</sup> Movable Partitions:

**New, free-changing  
wall systems, so different,  
they do everything.**

Now, with ULTRAWALL Partitions you'll create interiors that erect quickly, relocate easily, look and "thump" like solid, permanent walls.

---

### *ULTRAWALL is simple—and versatile*

All system variations use the same basic components, differ only in type and placement of studs. You can plan for 1) erection of complete partitions, both sides, for speed and economy; 2) erection of one side only, with later erection of other side to suit future tenant's needs for color and pattern; 3) erection of one or both sides with individual panels removable on either side. For accessibility where and when you want it. You can also use systems in combination.

---

### *It's a pleasure to design interiors*

Select from a broad range of colors and patterns in vinyl-surfaced panels, or plain panels for decoration as you wish. Add glazing anywhere.

Costs are low because you save time with components and prefinished panels. Components are virtually 100% reusable. Maintenance is minimal.

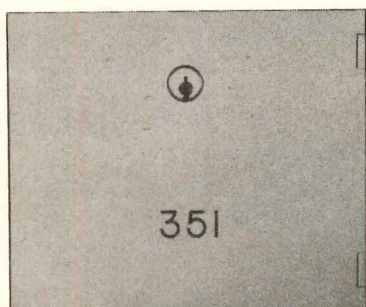
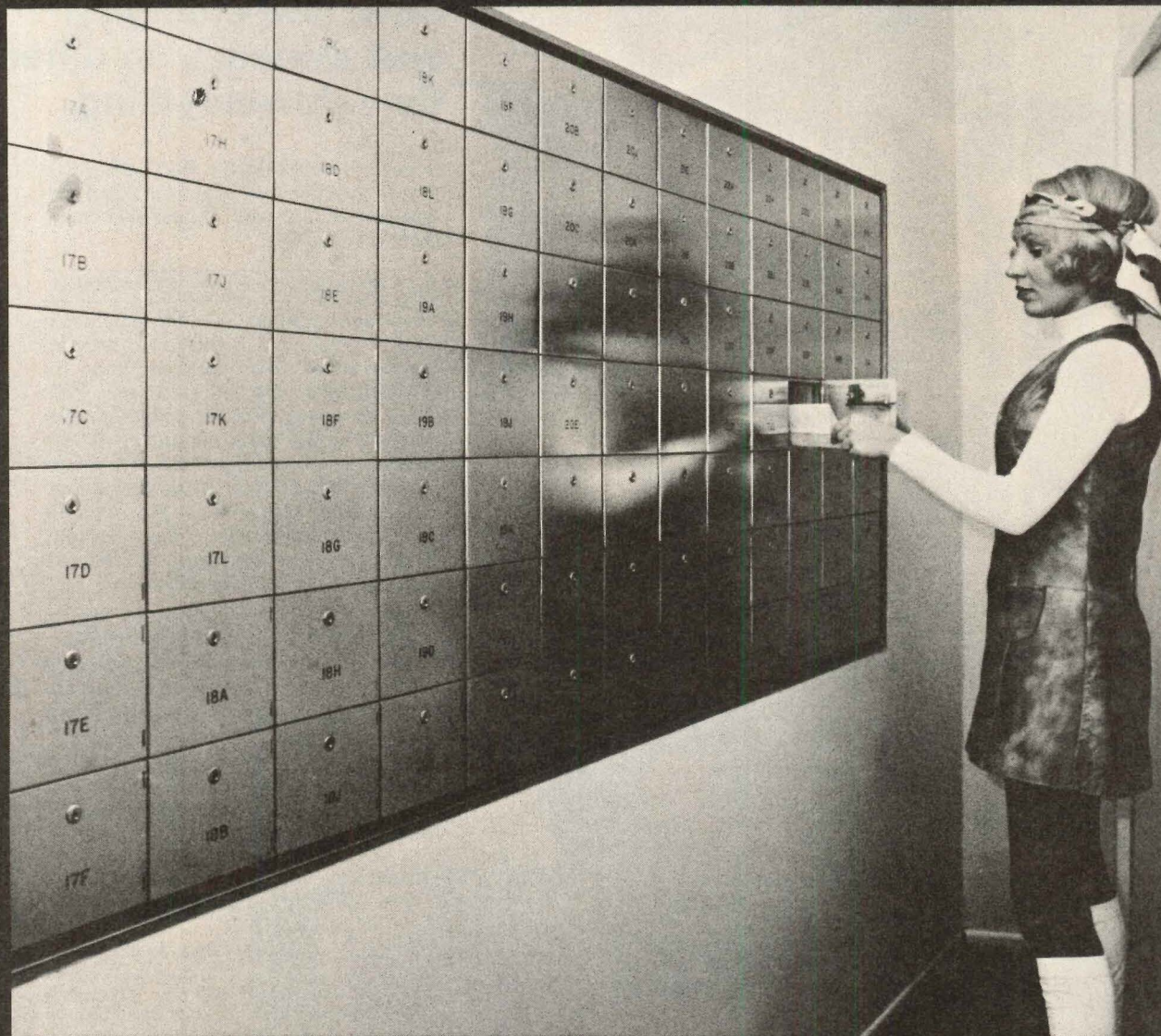
Four-component systems include ULTRAWALL Panels,  $\frac{3}{4}$ " thick and 24" or 30" wide; steel runners; flanged aluminum rails; and H-studs, T-studs, C-studs, or combinations, spaced 24" or 30" o.c. Hollow partitions are  $3\frac{1}{2}$ " thick. Systems fit standard ceiling grid modules.

For information,  
write us at  
101 S. Wacker Dr.,  
Chicago, Ill. 60606,  
Dept. PA-81

**UNITED STATES GYPSUM**  
BUILDING AMERICA



# SMOOTH SWINGERS



Custom designed letter box installations by Wood Products feature concealed and inaccessible hinge pins. Enhance the modern lobby of this high rise apartment building. This tamper-proof, flush-mounting design includes 5-pin tumbler lock protection to assure security as well as beauty.

Letter boxes by Wood Products are available with solid cast bronze or cast aluminum doors. Models for rear loading . . . models with Slim Master® doors for front loading. All models meet U.S. Post Office Department regulations for apartment buildings or wherever letter boxes are carrier-served.

Complete installation furnished free of charge. Simply send rough sketch showing space available, type, size and quantity of boxes desired.



**WOOD PRODUCTS**  
DIVISION OF EMHART CORPORATION  
BERLIN, CONNECTICUT 06033



9765 Moss Green Oak

9541 Danish Walnut

9724 Garrison Oak

9552 Caisson Walnut

## The one perfect woodgrain pattern you've been looking for.

9542 Gunstock Walnut

9562 Monarch Walnut

9204 Golden Teak

When you're the leader in plastic laminate design, you know everyone's taste is different.

That's why we've created 20 woodgrain patterns that are each perfect in their own ways. Which is why we're sure you'll find the one and only woodgrain pattern you've been looking for when you look at our beautiful twenty. Including six new ones for 1971 that offer even more exact and subtle varieties of light, medium and dark tones.

Whether it's a forest of beautiful woodgrains, a rainbow of solids or exciting abstracts, Textolite knows that the way to give you one perfect laminate design is to give you more than 120 that are perfect. And you can see them all by sending for our full line catalogue. General Electric Company, Laminated Products Dept. Coshocton, Ohio 43182.

### TEXTOLITE®

DECORATIVE SURFACING

Gentlemen:

- ☐ Send full-line catalog.
- ☐ Send complete set of samples
- ☐ Have your salesman call. P A-3

Name \_\_\_\_\_

Firm \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_

State \_\_\_\_\_

Zip \_\_\_\_\_

Position \_\_\_\_\_

**GENERAL ELECTRIC**



9510 Burmese Rosewood

9120 Fruitwood Cherry

9104 Fireside Cherry

9570 Americana Walnut

9544 Regent Walnut

9214 Honey Teak

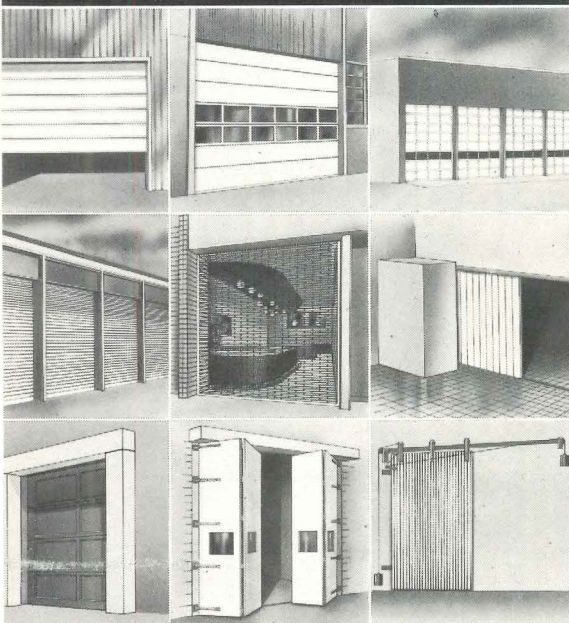
9742 Saxon Oak

9734 Armada Oak

8805 Continental Pecan



it comes to  
filling  
an opening...  
any opening



## CRAWFORD has the DOOR

Industrial, Commercial  
Institutional, Residential

- Sectional Doors: Steel, Fiberglass, Aluminum, Wood—Flush and Panel
- Security and Counterweighted Doors
- Rolling Doors: Steel, Stainless Steel, Aluminum ■ Rolling Grilles: Steel, Stainless Steel, Aluminum, Bronze
- Rolling Counter Shutters: Wood, Steel, Stainless Steel, Aluminum ■ Side Coiling Grilles and Doors: Wood, Steel, Stainless Steel, Aluminum, Bronze
- U. L. Labeled Rolling Doors, Counter Shutters, Metal Clad and Corrugated Sliding Fire Doors ■ All Special Engineered Doors ■ a Full Line of Accessories: Electric Operators and Controls, Pass Doors, Removable Mullions, Dor-Seal Dock Shelters.

FOR FULL DETAILS SEE YOUR SWEETS ARCHITECTURAL CATALOG FILE Section 8.9/Cra "Uprising Sectional Doors" and/or Section 8.7/Cr "Rolling Doors, Grilles, Shutters and Sliding Fire Doors."

Contact your local Crawford Distributor for specific data.



**Crawford Door Company, 4270  
High Street, Ecorse, Michigan  
48229**

Division of The Celotex Corp.

On Reader Service Card, circle no. 335

**Books** continued from page 98

inspection and maintenance. Specific chapters cover the nature of the hazards involved, electric wiring installation, electric appliances and administration and maintenance.

### **Glossary of Construction Industry Terms.**

*The American Institute of Architects, 1735 New York Ave., N.W., Washington, D.C. 20006. 18 pp. \$1.25.*

This is the first comprehensive AIA glossary of terms to be published for the construction industry. Terms are included which have a special relationship or meaning in the design professions and/or the construction industry; excluded are those terms which are self-explanatory, which do not have special meanings or which are defined in standard dictionaries.

### **Cyclic Analysis of Time Series: Selected Procedures and Computer Programs by**

*Gerhard Bry and Charlotte Boschan. Published by the National Bureau of Economic Research. Distributed by Columbia University Press, New York, 1971. 230 pp. \$8.*

This technical paper presents programmed approaches to various analytical techniques useful for business cycle research and business condition analysis.

### **Establishing and Maintaining Effective Control Over the Physical Development of**

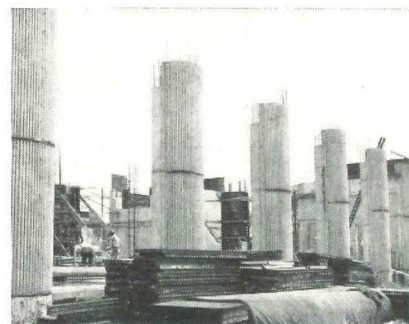
*a New Town by James W. Colby, PE. 128-page mimeographed thesis prepared for George Washington University.*

*Available: James W. Colby, 3333 Freedom Place, Falls Church, Va. 22041. \$3.*

This document reflects the experience gained by the writer on a New Town project. It investigates the organizational structure and control techniques required to administer the subdivision of land and the design and construction of physical facilities. A preferred organizational structure and manual CPM-based control system are presented.

**Losses from Natural Hazards (No. 90) by Clifford S. Russell. Reprinted from Journal of Land Economics, vol. 46, no. 4. Economics of Thermal Pollution Control by George O.G. Löf and John C. Ward. Reprinted from Journal Water Pollution Control Federation, vol. 42, no. 12 (December 1970). Single copies of the reprints are free on request from Resources for the Future, Inc., 1755 Massachusetts Ave., N.W., Washington, D.C. 20036.**

## ARCHITECTURAL CONCRETE WITH RIBBED LINER



The Calumet Construction Co., Hammond, Ind., used Symons Steel Ply Forms with Symons 1½" Deep Rib Plastic Liner for all bearing walls and columns on the First National Bank of Lansing, Ill. The liners were handled for each re-use.

These deep, architecturally dramatic ribs can be easily cast into any concrete surface. As the sun revolves through the day, distinctive shadows appear within the ribs, giving the concrete surface strong, clean lines. Several different finishes are possible with this liner. Concrete can be left smooth, sandblasted or roughened by hammer blows and bush hammering. The rough finish shown was obtained by bush hammering. Liner life is high and not affected by the number of concrete casts.

Symons architectural form liner brochure is available upon request.

**SYMONS MFG. COMPANY**  
DIVISION OF  **SYMONS CORPORATION**  
158 E. Touhy Ave., Des Plaines, Ill. 60018

On Reader Service Card, circle no. 375

On Reader Service Card, circle no.



# For whom the Buzzer tolls

For Evelyn. Who has waited for what must seem like a thousand years for the right guy to come along. She mustn't make a mistake now...she has to be sure he's the right one. She's waited so long.

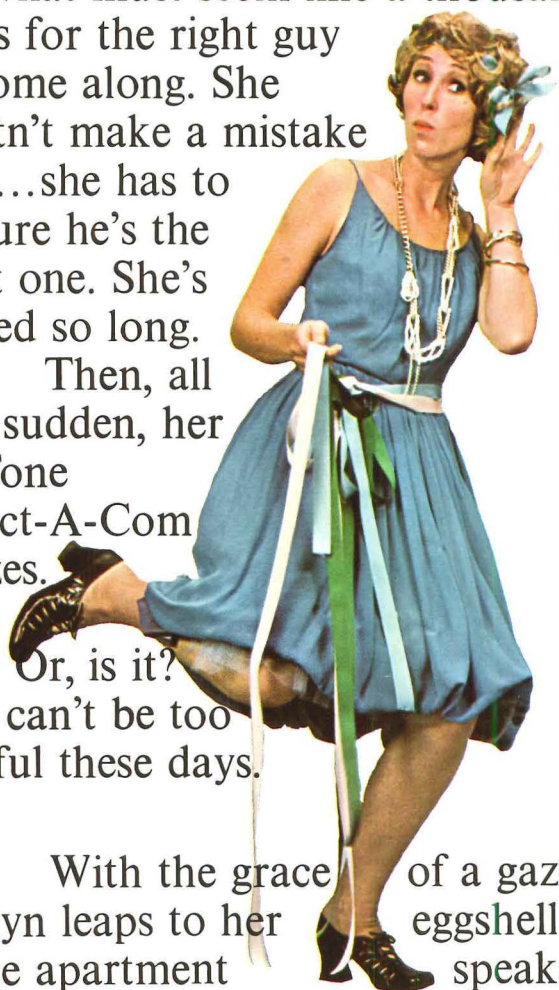
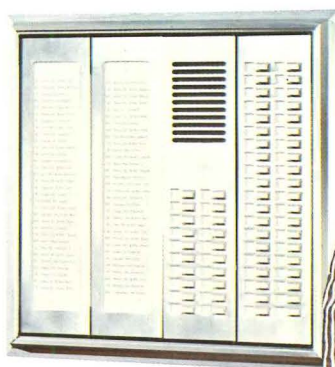
Then, all of a sudden, her NuTone Direct-A-Com buzzes. It's him! Or, is it? He can't be too careful these days.

With the grace of a gazelle, Evelyn leaps to her white apartment speaker. "Who is it?" "It is I, Bernard, and we have come to take you to the fancy dress ball," he said. Evelyn is sure now. Her heart-flutter, and the exceptional voice clarity of her NuTone Direct-A-Com, tells her that this is truly Mr. Right.

So, with the gentle press of a button, she triggers the Master Lock Door Release, and happiness walks into her life.

As you may have guessed, Bernard and Evelyn will eventually be married. And he will provide her with all the comfort, security and convenience that NuTone has given her thus far. End of Story.

But not the full story. To find out how you, and NuTone, can design happiness into your apartment lobbies... just turn the page.





# High-Rise, Low-Rise No-Rise

## NuTone can help you design Security, Convenience and overall Happiness into your apartment lobbies

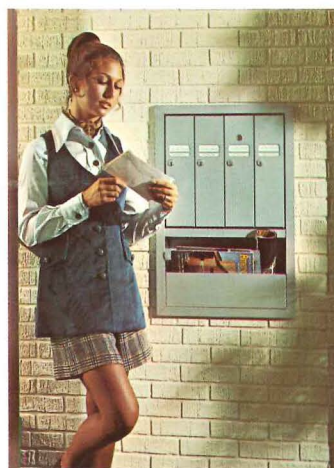
Direct-A-Com Systems and Apartment Mail Boxes are designed with flexibility in mind. Styled to complement, not dominate, almost any architectural style or lobby decor. Modular concept allows you to put

together just the right package of components to fit your building needs . . . matched sets of mail boxes and directory systems from one source, designed to add style and function to every lobby.



**Direct-A-Com Series 1**—For 1 and 2-entry low and medium/high rise apartments. Solid state control. Time-delay door lock release, from 4 to 12 seconds. Optional 'Auto Call' for 2 entries automatically connects apartment speaker to door where call originates. Handsome, easy-to-install apartment speakers operate with simple push buttons.

**Distinctive Directories**—NuTone Directories are more than a place for names. They can be used to talk with tenants, or ring their door chime. There's a full range from which to choose.



**Mail Boxes: First Class**—By themselves, or with Direct-A-Com, NuTone Mail Boxes look like they 'belong' in any lobby. Select as few as three to as many as you need. With or without magazine receptacles. With or without push buttons. Silver, Brass or Stainless Steel finishes.

**NEW!** **SecuriCom™**—First true Security System, with Radio/Intercom. Four products in one: Electronic warning for forced entry. Built-in Radio; Room-to-room Intercom; plus Electronic Lock Signal. The price will amaze you. You can include this vital safety-convenience in *any* apartment or home.

For the name of your nearest NuTone distributor, Dial

**800-243-6000**

Call FREE, any time, any day. (In Conn., call collect: 1-800-942-0655.) Or, see the Yellow Pages under 'Electric Appliances—Small' (or Major).

**NuTone** **SCOVILL**

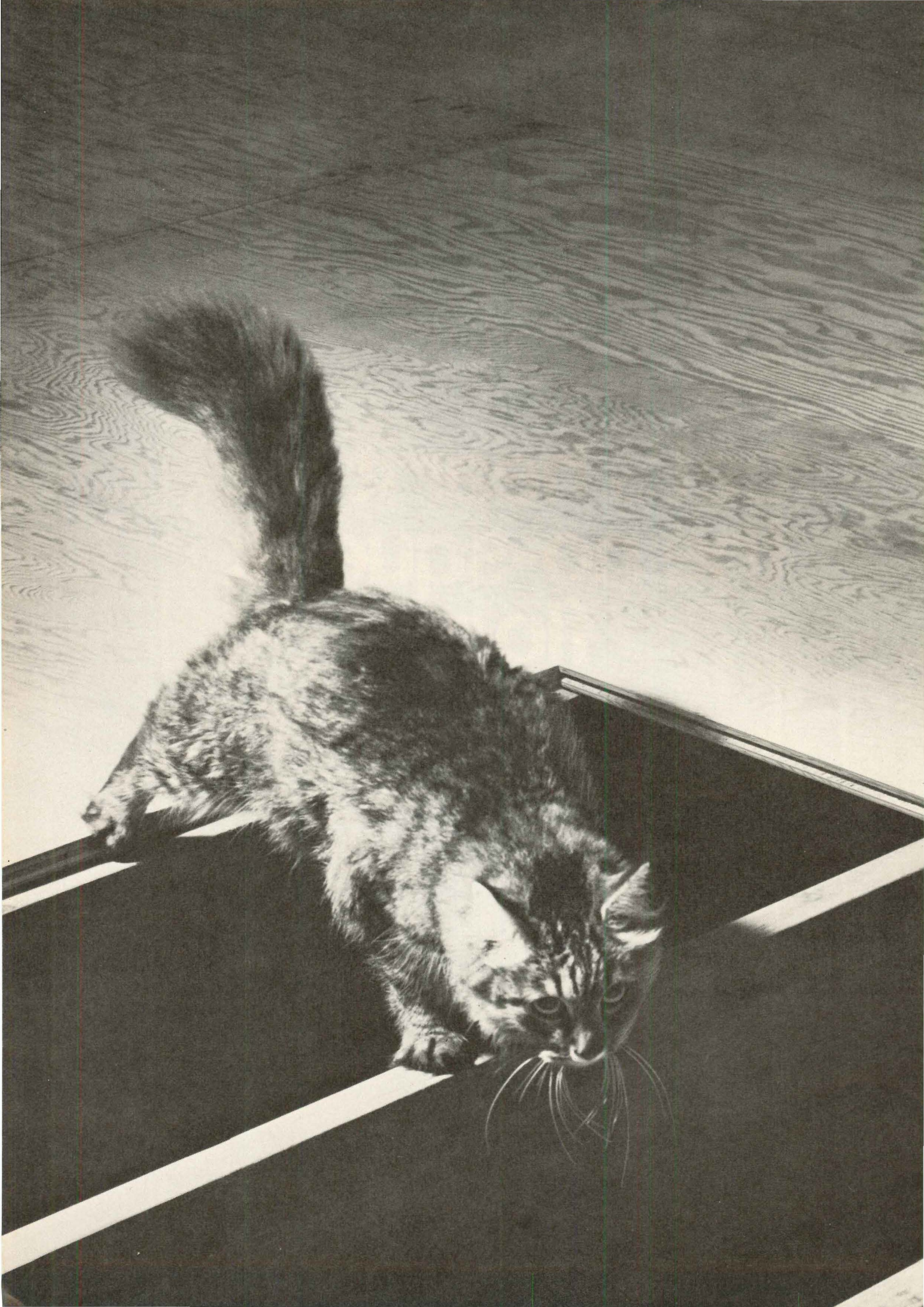
Madison and Red Bank Roads, Cincinnati, Ohio 45227

Dept. PA-8. Form 757, Printed in U.S.A.



**Let's hear it for  
the no-squeak  
floor.**







# Shhh.

## Six specifiers talk about the APA<sup>®</sup> glued floor. The quiet one.

**"All of our single and multi-family floors are glued plywood. Fewer callbacks... a better product."**

Joe Lawson, United Homes Corp.,  
Seattle, Wash.

**"We want economy and 24-in. spacing without bridging so duct work can run between joists. Glued plywood gives us both."**

James Denike, Community Concepts Corp.,  
Acton, Mass.

**"We use lightweight concrete over glued plywood. The system cuts squeaks and movement, makes a stiffer floor."**

Michael Gelardi, General Mechanical Corp.,  
Virginia Beach, Va.

**"No nail pops to show under vinyl floor coverings. It's squeak-free, stiffer."**

Jim Henry, Kettler Brothers, Inc.,  
Gaithersburg, Md.

**"Squeaky floors destroy customer confidence. Carpet over glued floors eliminates the problem."**

Frank Burton Wilson, AIA, Total Concepts Corp.,  
Torrance, Calif.

**"The nail-glued floor simplifies our operation and saves us 7 cents per sq. ft."**

Ralph Howey, The Howey Co.,  
Charlotte, N. C.

### What more can we add?

No squeaks. No nail pops. No callbacks.

Properly constructed, the system is as simple as glue-nailing a single layer of tongue and groove plywood to wood joists.

Result: Floor and joist are fused into a T-Beam unit. Stiff. Strong. Resilient. Unsqueaking. For houses, apartments, all kinds of commercial buildings.

APA glued floors. The strong, silent type. Ask anyone who's used the system. We did.

Send the coupon for the whole story.

**American Plywood Association, Dept. PA-081  
Tacoma, Washington 98401**

☐ I need to be convinced. Please send me the new APA<sup>®</sup> Glued Floor System brochure, including application sequence data, span tables, cost comparisons, materials recommendations and equipment suppliers list.

Name

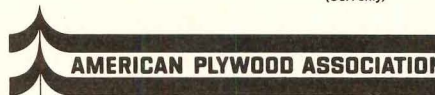
Firm

Address

City

State  Zip

(USA only)



Plywood quality-tested by the Division For Product Approval.



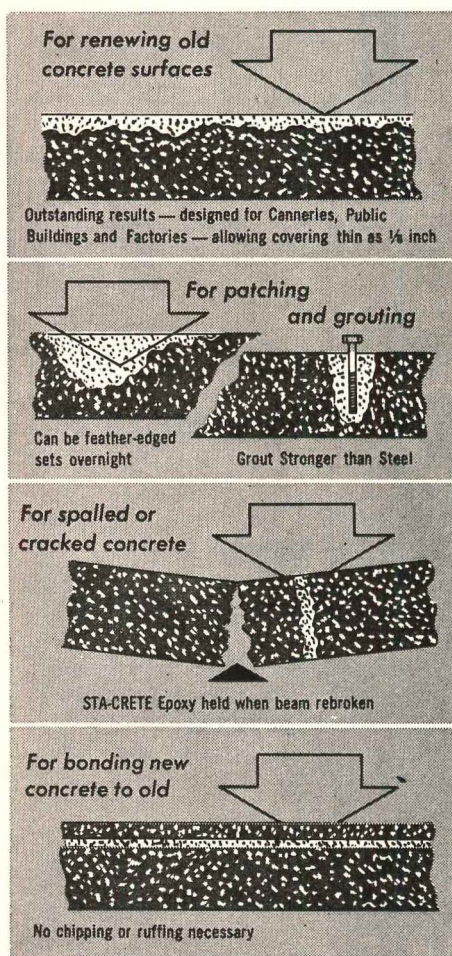


# STA CRETE "Experienced" EPOXIES

for maintenance

surfaces ready for traffic  
within hours

**Now** "experienced" formulas  
for specific problems...  
CONCRETE TO CONCRETE TO  
WOOD TO METAL



## 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 Reader Service Card, circle no. 373

## Progressive Architecture

# Notices

## Appointments

Douglas Babbitt has been appointed an associate of Lea, Pearson & Richards, Tacoma, Wash.

Robert O. Vickery, AIA, has been made director of architectural design at Piedmont Engineers, Architects & Planners, Inc. of Greenville, S.C.

Qazi Ahmed, Hugh Kirley, Perry Neubauer and Richard Sabin were elected associates of The Architects Collaborative, Cambridge, Mass.

William A. Godsall, AIA, was named staff architect of ENGINEERS Incorporated, Newark, N.J.

## Expansions

SMS Architects have announced an independent design service, SMS Interiors, 777 Summer St., Stamford, Conn. 06901, to be directed by Frances E. Wilson, AIA.

## New Addresses

Ulrich Franzen & Associates, 555 Madison Ave., New York 10022.

Lee Harris Pomeroy Architects-Planners, 17th Floor, The Plaza, 2 S. 59 St., New York, 10019.

Shreve Lamb and Harmon Associates, PC, 475 Park Ave., S., New York 10016.

## Mergers

Rowe Paras Associates Architects, Inc., announced the merger of H. Dean Rowe, AIA Architects and Gus Nick Paras, AIA Architects and an acquisition of their new Engineering Division and an addition of an Interior Design Division in affiliation with Bessent, Hammack & Associates, Inc., located at 5444 Bay Center Drive, Suite 205 in the Bay Center Building, Tampa, Fla.

## New Firms

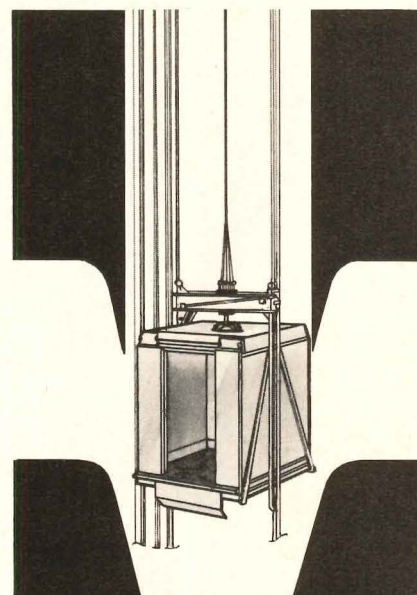
The Office of Sigmund Blum, Vaporciyan & Mitch, Inc., Suite 1900, Fisher Building, Detroit, Mich. 48202.

Roger E. Holtman, Suite 405, Morris Building, 306 N. Charles St., Baltimore, Md. 21201.

W. Henry Schwab, AIA, 60 16 St., N.W., Atlanta, Ga. 30309.

The TAG Associates, Architects, 975 Grant St., Denver, Colo. 80203.

Medical Facilities Planning Associates, 1575 Tremont St., Boston, Mass. 02120.



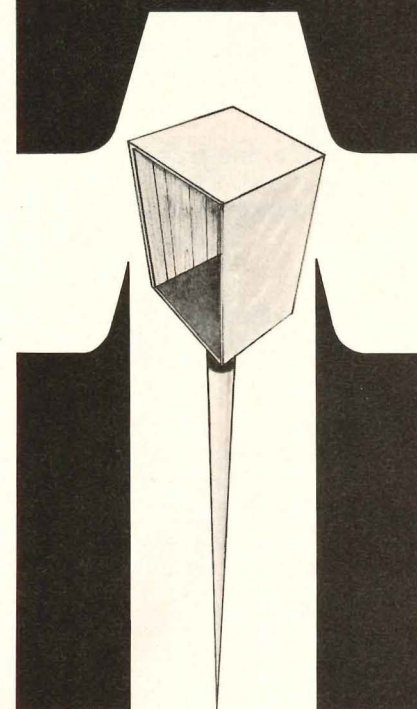
## PROJECT GOING UP?

For high rise or low rise projects, Southeastern Westbrook gives you complete flexibility in specifying traction or hydraulic type elevator systems to meet your exact requirements. Write direct for complete information.

## Southeastern Westbrook

### ELEVATOR CO., INC.

441 Memorial Drive S.E.  
Atlanta, Ga. 30312  
Danville Industrial Park  
Route 729 • Danville, Va. 24541



On Reader Service Card, circle no. 374





*Why steel joists were  
the right answer to  
this building need*

# The PACIFIC BUILDING...

no interior obstruction  
on any floor!

"This is a magnificent building, and the steel joists used in its construction played a major part in making it so," say owners Richard Hadley and Al Clise. "We are highly impressed by the economy, flexibility, ease of use, versatility and other advantages offered by steel joists in modern building construction."

A handsome addition to the Seattle skyline, the Pacific Building includes 16 floors of office space and six floors of parking. There are no interior columns, no load-bearing partitions. The structure includes the longest spans (74 feet) of any office building in Seattle. Construction time was approximately one year.

High-strength, lightweight open web steel joists provide an ideal answer for high-rise construction. They go in fast . . . can be set in place with time-saving, cost saving speed and ease. And they're available in a wide selection of lengths, depths and load-carrying capacities.

For complete technical information, send coupon today for your free copy of our 1971 Edition, Specifications and Load Tables for Open Web Steel Joists and Longspan Steel Joists.



## STEEL JOIST INSTITUTE

Suite 707-B, 2001 Jefferson Davis Hwy.  
Arlington, Va. 22202

---

**Mail to: Steel Joist Institute**

Suite 707B, 2001 Jefferson Davis Highway  
Arlington, Virginia 22202

Please send me a copy of your 1971 Specifications and Load Tables

NAME \_\_\_\_\_

TITLE \_\_\_\_\_

FIRM \_\_\_\_\_

ADDRESS \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP CODE \_\_\_\_\_

71-008

On Reader Service Card, circle no. 376



# You probably know how easy it is to slope a roof with Tapered FOAMGLAS<sup>®</sup> insulation...

Tapered FOAMGLAS eliminates roof drainage problems by automatically putting a slope on a flat deck. The roofer simply places factory-tapered blocks in sequence and roofs over immediately. FOAMGLAS is an excellent base, because it's strong and dimensionally stable. It consists entirely of closed-cell glass, so it's waterproof, vapor-proof, and incombustible—and guaranteed to remain so for at least 20 years.





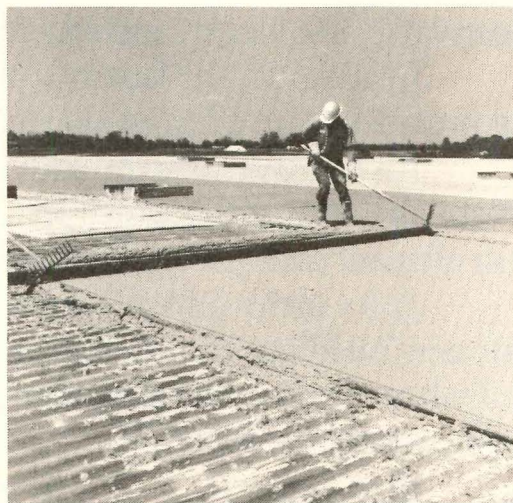
# It's just as easy with CIRF, our new insulating fill that acts like concrete.

New CELRAMIC® Insulating Roof Fill is another simple way to slope a roof. CIRF eliminates the traditional problems with insulating fills because its very low water-cement ratio of .62 (6-7 gallons of water per bag of cement) is about the same as for structural concrete.

CIRF gives you a strong, durable concrete base. Curing time is very fast—you can usually roof over in a couple of days. Shrinkage is less than 0.12%, and residual moisture is negligible.

CIRF's secret is in the aggregate—CELRAMIC Nodules made of closed-cell glass. They're nonabsorbent, inorganic and incombustible, which gives CIRF a two-hour rating.

FOAMGLAS or CIRF? We'll help you decide with men, samples and technical data. Write Pittsburgh Corning Corp., Dept. PA-81, One Gateway Center, Pittsburgh, Pa. 15222.





# The Carrier Volumaster

A revolutionary apartment air-distribution system harnesses the Coanda effect.

The Volumaster starts with all the proven advantages of a central climate control system. Then adds some unique improvements of its own.

First, a Carrier exclusive: a special variable-speed fan-coil unit. Only one unit is needed for each apartment. Its motor is specifically designed to follow the heating/cooling load. This offers the owner up to 20% lower operating costs. And the unit's reliability greatly lowers maintenance costs, too.

Then, there's the new Volumaster outlet. This Carrier exclusive provides even air distribution regardless of the load.

How does it work? Instead of pouring air into a room, the damper blade automatically adjusts to the air flow. The aerodynamic design of the outlet enables the discharge air to cling to the ceiling. The air hugs the ceiling even under low flow conditions. There are no drafts. No hot spots. No dumping of air.

That's not all that's exclusive with the Volumaster. It also features patented solid-state controls. Controls that are totally dependable, last longer, and require no field maintenance.

In addition, the factory's prepackaging reduces installation costs and provides more effective quality control.

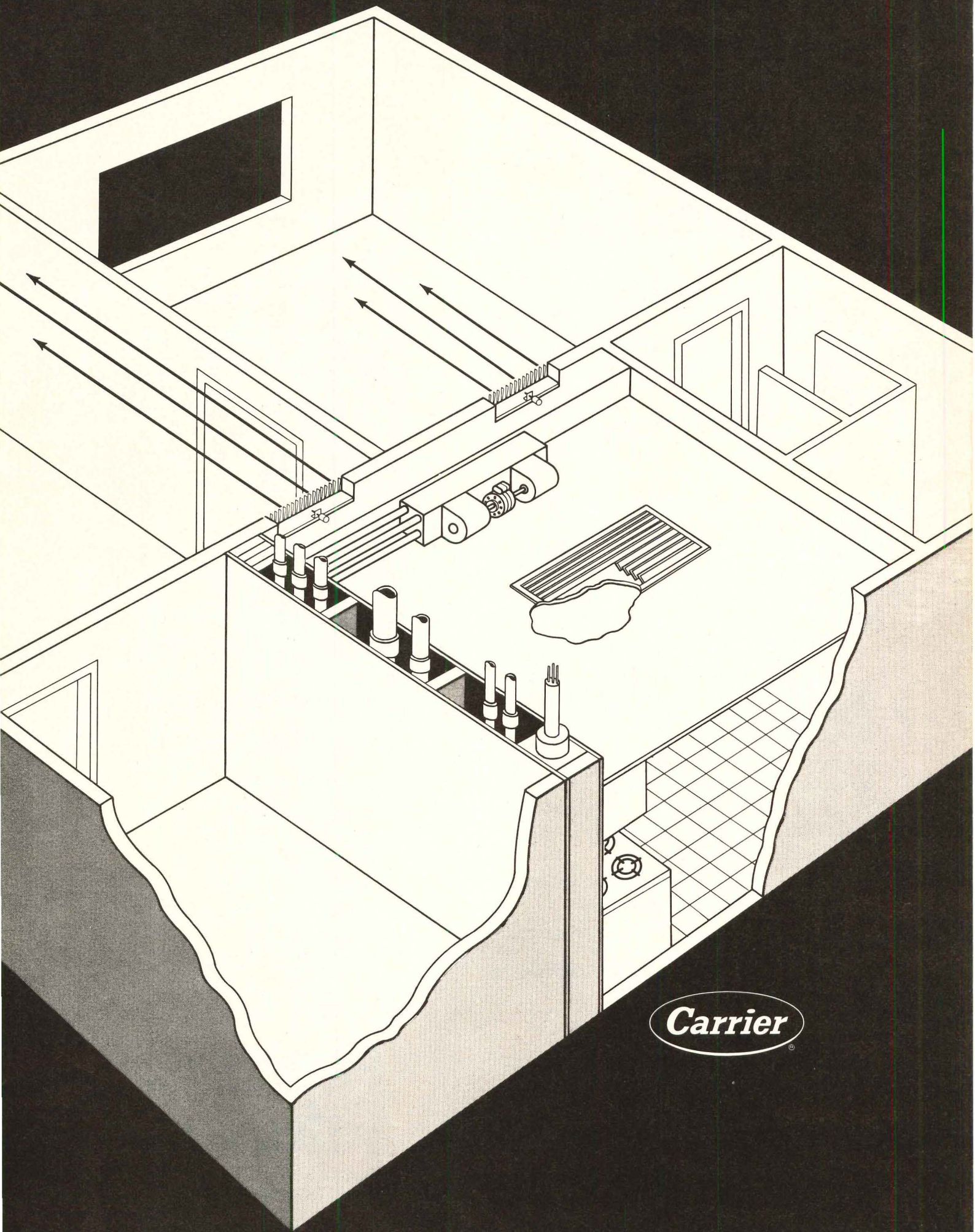
All this gives owners and developers a much higher profit on their investment. And at the same time, it gives tenants the most comfortable, most efficient and quietest air conditioning around.

Ask Carrier how a Volumaster air distribution system can improve your new building with central air conditioning and save money. And when you do, ask them about their big advance in gas absorption cooling machines: the 16JB.

 AMERICAN GAS ASSOCIATION, INC.

**Natural Gas. It's pure energy.**



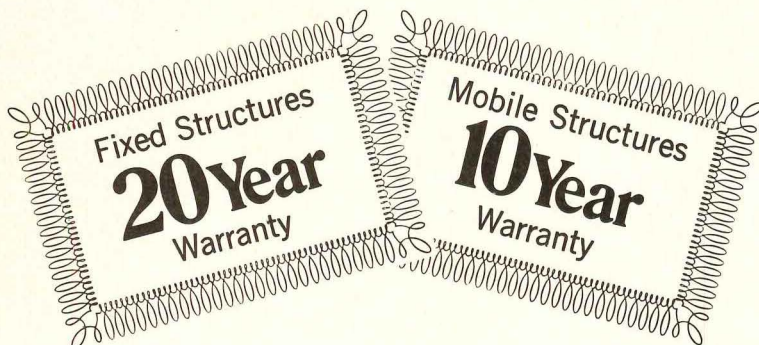


**Carrier**

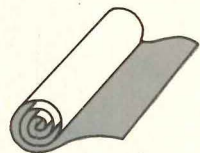


# Important Announcement.

**We've doubled the warranty on Royalty® Roofing.**



We just recently introduced Royalty Roofing\*, so we're doubly proud to be able to announce the extension of the warranty period on this amazing product. There are no other roofing materials which can measure up to the performance of Royalty Roofing.



Royalty Roofing is the new polyvinyl chloride rolled roofing product that is leak-proof, heat-reflecting and sound-deadening. In addition, it has self-extinguishing, mildewproof, self-sealing qualities. It is positive-weld seamed, conforms to pitches, valleys and structural shapes for true protection. And, it is virtually maintenance-free.

If you haven't done so, get complete information by filling in the coupon below.

\*Patents Pending © 1971



## Royalty Building & Industrial Products

A Division of Royalty Industries, Inc.  
(Formerly Royalty Designs of Florida, Inc.)  
601 West 27th Street  
Hialeah, Florida 33010

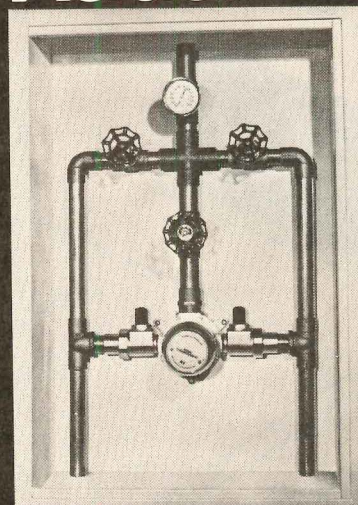
NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

TYPE OF STRUCTURE: \_\_\_\_\_

# Rada:



## Saves money.



## Saves their skins.

The Rada Thermostatic Mixing Valve does a superior job of conserving hot water. Because it does a superior job of controlling it.

Once set, Rada's bimetallic brain automatically adjusts for both temperature and pressure fluctuations in the hot and cold lines and holds steadily to the temperature you set.

Result: a safe, steady shower temperature without scalding or freezing bursts. Greater comfort for them, but more important, the safety you must have in schools, hospitals and other institutions.

But that's not all. Rada cabinet assemblies also reduce design and installation costs. We've designed 50 different cabinet assemblies. So you can select the thermostatic control center that's best for your system.

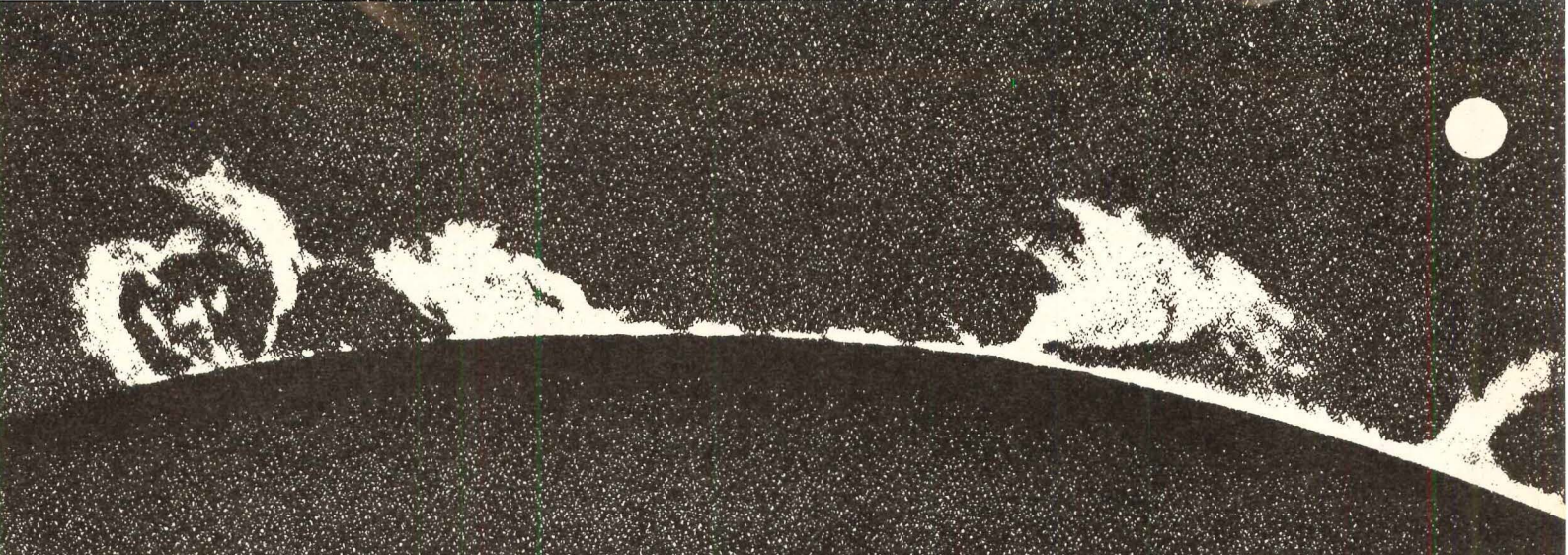
Next time be certain to specify Rada. It's a comfort to showerer and specifier alike.

For an explanatory booklet and specifications on Rada Thermostatic control centers call or write:

# Richard Fife, Inc.

1140 Broadway, New York, N.Y. 10001  
Phone: (212) 683-0745





## Outside heat raises inside cooling costs. Zonolite can help reduce the problem at its foundation.

Look into Grace-Zonolite® Masonry Fill Insulation. It's incredible stuff. To put it another way, it's a lightweight, free-flowing, water-repellent, vermin-proof, rot-proof, fire-proof, sound-deadening, inorganic, granular vermiculite!

Year after year, it can deliver savings in cooling and heating dollars that far exceed the initial cost of the fill.

Other virtues? Yep. Zonolite® Masonry Fill Insulation reduces sound transmission 20% to 31%. It increases a 2-hour fire rating to 4. It pours in at the rate of 28 square feet per minute. It's acceptable in FHA-financed housing.

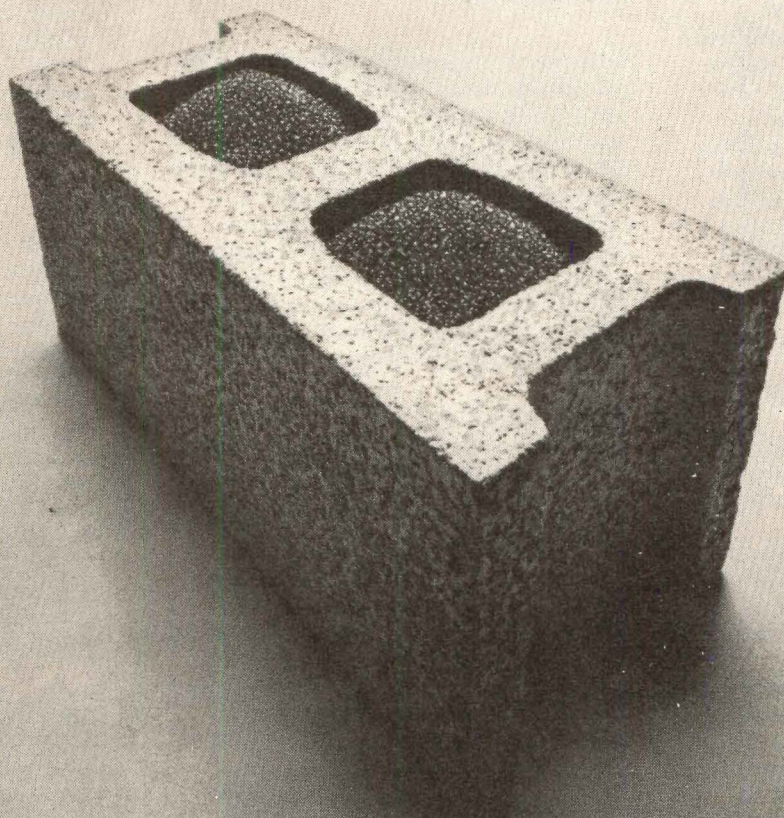
Want all the details, test data, specifications, and such? Say the word!

### "U" VALUES—concrete block walls

Wall Thickness, Inches	Type of Block	Block Only	
		Uninsulated	Insulated
6	Lightweight	.40	.26
	Heavyweight	.33	.17
8	Lightweight	.53	.36
	Heavyweight	.33	.12
12	Lightweight	.46	.25
	Heavyweight	.33	.12

## ZONOLITE

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



# Just say Grace.



# Job mart

## Situations open

**Architect:** NCARB preferred. Degree and minimum 10 years experience in design of large industrial facilities, including laboratories. To serve as member of project team with responsibility for design, presentations and design development. Liberal benefits. Send resume to: Mr. P. Compagnone, Personnel director, Jackson & Moreland International, Inc., 600 Park Square Building, Boston, Mass. 02116. An equal opportunity employer.

**Architects:** Architectural/engineering firm ranking in top ENR 500 with excellent future growth potential and individual advancement opportunities needs qualified candidates to fill challenging positions. Must be design oriented towards medical, educational, commercial and industrial facilities. Liberal benefits package. Within one hour of a variety of sports and cultural activities. Please send confidential resume including salary requirement to Box # 1361-200, *Progressive Architecture*. All replies acknowledged. An equal opportunity employer.

**Architects:** Immediate openings for career-minded professionals in our major architectural office in Dallas. License, registration and a minimum of five years' experience in commercial design of retailing, warehousing, and shopping center facilities required, along with a degree and U.S. citizenship. Progressive office staffed with professionals who are master-planning and providing comprehensive design services for new construction and remodeling of our facilities worldwide. Also, opportunity for future transfer to one of our regional management centers in the U.S.A. or to our European or Far East offices. Starting salary \$15,476. Outstanding fringe benefits and opportunity for work on challenging projects are part of the package. MOBILITY is a requirement. You must be willing to relocate and accept occasional transfers, for we need mobile professionals. Your reply will be acknowledged within a few days. Those applicants whose backgrounds and qualifications most closely match our requirements

will be interviewed within the next few weeks. TO APPLY, RUSH YOUR RESUME, which must include your salary history, to: Mr. Bill Benge, Dept. EA-8, Army Air Force Exchange Service, 3911 Walton Walker Blvd., Dallas, Texas, 75222. An equal opportunity employer.

**Architects/designers:** Excellent opportunity for permanent position and growth in major interdisciplinary firm of architects, engineers and planners. Submit resume and include major projects and responsibilities, awards and photographs to: Rogers/Nagel/Langhart/architects and engineers, c/o Mr. Victor D. Langhart, 1626 Stout St., Denver, Colorado 80202.

**Contracts for high income:** Medium size (25 million/year design) growing A/E Pennsylvania firm seeks individual(s) with proven contact ability, and technical background, to deliver professional design contracts. Excellent staffing and experience should enable person(s) with solid contacts to perform ably. 2 medium projects per year can produce \$30,000. Firm active in private, state, and federal sectors. We can assist on your initial contacts. Send resume and possibilities to Box # 1361-265, *Progressive Architecture*.

**Designer:** Start at \$12,600-\$15,000 if you're qualified to work under minimum direction of supervisory architects in drawing plans for remodeling and new construction, and assisting in the development of standards for our extensive facility layout, fixture and equipment programs. You'd make on site inspections of our facilities to determine design, space, equipment and volume requirements before work is begun on a project, and you'd work with others in our department to coordinate mechanical and electrical designs with outside consultants, in addition to compiling background information on projects for the supervising architects. Work in our office is qualifying experience for licensing, and presents a broad exposure to architectural problems. To qualify you'll need a degree in architecture, plus at least three years progressively responsible design, drafting, or interior design experience in a

large retail organization or architectural firm. MOBILITY IS A REQUIREMENT. You must be willing to relocate throughout the U.S.A. and overseas and accept occasional transfers. We have a strong benefits package with excellent opportunity for advancement. Your reply will be acknowledged within a few days. Those applicants whose qualifications match closely our requirements will be contacted for personal interviews within the next two weeks. TO APPLY, RUSH YOUR RESUME, including salary history to: Mr. Bill Benge, Dept. ED-8, Army Air Force Exchange Service, 3911 Walton Walker Blvd., Dallas, Texas 75222. An equal opportunity employer.

**Experienced architectural draftsman:** Job captain or senior draftsman position. Must be able to produce working drawings/details. Commercial work-shopping centers, apartments, light industrial. Degree and license required; experience mandatory. Send resume, references, work examples, salary requirements to: William L. Poulton, T. A. Carter, Architect, P. O. Box 1018, Salam, Virginia. Mark Confidential.

**Facilities planners:** International consulting firm with offices in New York, Chicago, and London seeks professionals to define and analyze client facilities problems and to develop and present detailed recommendations for their solution. Facilities include corporate offices, governmental agencies, bank and brokerage houses, and educational institutions. Opportunities for personal growth, salaries commensurate with qualifications, and comprehensive benefit program including deferred profit sharing. Submit confidential resume of experience and earnings to: Becker and Becker Associates, Inc., Seagram Building, 375 Park Avenue, New York, N. Y. 10022.

**Project architect:** Expanding architectural engineering firm has opening for talented architects as project architects and project designers. Located in western New York and maintaining a regional practice through the states of New York, Pennsylvania, Vermont, New Hampshire and Connecticut, this firm can provide exciting challenges to architects oriented to the design of medical, educational and industrial facilities. License and/or degree helpful, but not mandatory. Please send confidential resume, including requirements, to: Mr. Franklin D. Guidone, AIA, Director of Design, The Cannon Partnership, 2637 Main St., Niagara Falls, New York 14305

**Supervisory architect, GS-808-15:** Salary: \$24,251 to \$31,523 per annum as chief architect, provides overall architectural leadership, guidance and expertise to all components of navy, other federal agencies and private firms concerned with design and construction of naval shore facilities. Provides highest level of professional and architectural leadership throughout the command. This is a career civil service



on with regular salary increases, liberal  
fits and will be filled on an equal  
rtunity basis. Send resume of SF-171  
onal qualifications statement) to: Mrs.  
Graves, Civilian Personnel Div., Naval  
ties Engineering Command, Washington,  
20390.

## Positions wanted

**Architect:** Age 47, married, Pennsylvania  
education, with 27 years comprehensive  
experience in all phases of work from  
ception to completion, including client  
contacts — commercial, residential, indus-  
trial buildings — desires employment with  
scientifically productive architectural firm.  
Northeast or Florida but willing to  
go elsewhere. Resume upon request.  
Reply to Box # 1361-266, *Progressive  
Architecture*.

**Architect:** Space planner — 10 years experi-  
ence. Prefer partnership or directorship of  
firm. Planning, interior design oriented  
organization. Prefer south location. Resume  
upon request. Reply to Box 1361-267,  
*Progressive Architecture*.

**Architect/urban designer/developer:**  
Arch., M.C.P., NCARB. 10 years  
experience/national firm in architecture,  
planning new towns, condominiums, real  
estate development, computers, modulars.  
Position as head/urban development  
large firm or with developer doing new  
residential or commercial/multi-family housing.

Resume on request. Reply to Box # 1361-267,  
*Progressive Architecture*.

**Professional engineer:** 37, proficient in heat-  
ing, ventilating, air conditioning, plumbing  
and drainage systems. Registered in several  
midwest, west, east and southern states.  
Will affiliate or represent contracting, engi-  
neering or architectural firm. Geographical  
area no barrier. Box # 1361-184, *Progres-  
sive Architecture*.

**Research engineer:** Building products and  
flooring. Experimental structures. Open and  
closed systems. Design-development single  
and multi-purpose components. System inter-  
face studies. Time studies. Heat transfer-  
infiltration studies, full scale structures.  
Polyurethane systems and machine develop-  
ment. Plastics conversion operations, F. M.  
Sweeney, 1060 Sherry Lane, Lancaster,  
Pa. 17601.

**Specialist:** In computer applications in archi-  
tecture and construction. BSEE, three years  
study in design at MIT. Extensive experience  
in computer graphics, systems design, pro-  
gramming, and the problems of computer  
operation for an architectural office. Have  
worked overseas. Fluent German. Reply to  
Box # 1361-262, *Progressive Architecture*.

## Miscellaneous

**Career builders inc., agency:** Complete range  
of Architectural and Interior Design place-  
ment under the direction of Ruth Hirsch.

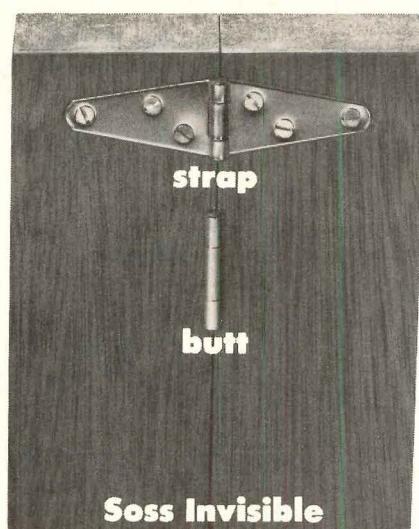
Apprentices to Senior Designers and Project  
Architects. Professional screening and per-  
sonalized service. References checked. 501  
Madison Ave., New York, N. Y. 10022,  
PL 2-7640.

**Edwards & Shepard Agency:** We are a design  
and architectural placement service uniquely  
equipped to locate and appraise the qualifi-  
cations, experience and effectiveness of  
architectural and interior designers, urban  
planners, systems and space planners, con-  
struction specialists, exhibit, lighting and  
environmental designers. We know (1) what  
positions are available (2) who the best  
prospects are (3) the right approach (4) how  
to break negotiating gaps (5) how to save  
money, time and effort (6) how to simplify  
procedures and appointments (7) the day  
to day state of the market. Contact Bill  
Shepard at (212) 725-1280. Interviews by  
appointment in our "dome on the roof" at  
1170 Broadway, N. Y. C., N. Y. 10001.

## Advertising Rates

Standard charge for each unit is Fifteen Dollars, with a maximum of  
50 words. In counting words your complete address (any address)  
counts as five words, a box number as three words. Two units may  
be purchased for thirty dollars, with a maximum of 100 words.  
Check or money order should accompany advertisement and be  
mailed to Job Mart c/o Progressive Architecture, 600 Summer  
Street, Stamford, Conn. 06904. Insertions will be accepted not later  
than the 1st of the month preceding month of publication. Box  
number replies should be addressed as noted above with the box  
number placed in lower left hand corner of envelope.

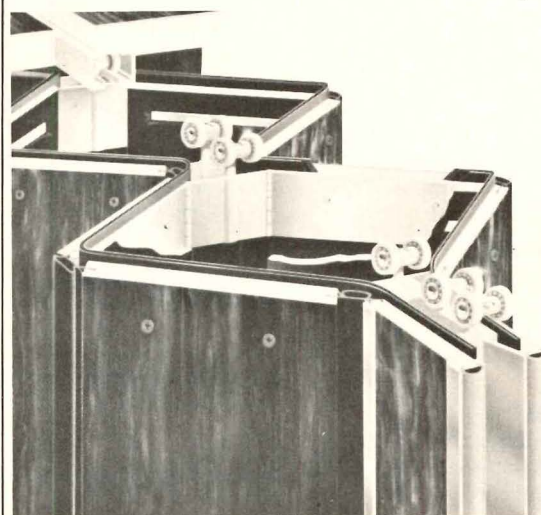
Pick  
the  
hinge  
that  
hides



Compare the Soss look of invisibility with any strap or butt hinge  
and you'll choose The Soss Invisibles. These amazing hinges hide  
when closed to blend with any decor. With The Soss Invisibles you  
can create room, closet, or cabinet openings which are unbroken  
by hinges or gaps... the perfect look for doors, doorwalls, built-in  
bars, stereos, or T.V.'s. The Invisibles are extra strong, open a full  
30 degrees, and are reversible for right or left hand openings. See  
listing in Sweet's or write  
for catalog: Soss Manufac-  
turing Company, Division  
of SOS Consolidated, Inc.,  
P.O. Box 8200, Detroit,  
Michigan 48213.



# SONICWAL®



STC  
40

in  
WOOD

Who said you couldn't use wood folding  
partitions to control sound? You can now.  
With twin panel Sonicwal®. Look it up today in  
your 1971 Sweet's Architectural File 10.2 Pa.  
After all, wouldn't you rather work with wood?



# Advertisers

## Advertising Sales Offices

**Stamford, Connecticut 06904:**  
600 Summer Street 203-348-7531

**William F. Bondlow, Jr.**  
Advertising Sales Manager

**Michael J. Hanley, Donald C. Stanley**  
District Managers

**Philadelphia, Pennsylvania 19107:**  
12 So. 12th Street 215-922-0346  
**John A. Teefy**, District Manager

**Pittsburgh, Pennsylvania 15219:**  
Porter Bldg.—Room 242 412-281-9421  
**Albert E. McClimans**, District Manager

**Chicago, Illinois 60603:**  
10 So. LaSalle Street 312-726-1282  
**James J. Hoverman, Steven McLean**  
District Managers

**Cleveland, Ohio 44114:**  
1717 E. 9th Street 216-771-4011-12-13  
**John F. Kelly**, District Manager

**San Francisco, California 94104:**  
Jobson, Jordan, Harrison & Schulz, Inc.  
57 Post Street 415-392-6794  
**Charles S. Harrison, Cyril B. Jobson**  
Representatives

**Los Angeles, California 90057:**  
Jobson, Jordan, Harrison & Schulz, Inc.  
1901 W. 8th Street 213-483-8530  
**Kenneth E. Jordan, Peter Schulz**  
Representatives

**Atlanta, Georgia 30308:**  
H. Proctor Co.  
505-805 Peachtree Bldg. 404-874-6427  
**Harmon L. Proctor**, Representative

**Tokyo, Japan:**  
International Media Representatives, Ltd.  
1, Shiba-Kotohiracho, Minatoku  
**Sumio Oka**, Representative

**American Colloid Co.** ..... 85  
Cat Productions

**American Gas Association** ..... 120, 121  
Ketchum, MacLeod & Grove, Inc.

**American Plywood Association** ..... 113-115  
Cole & Weber, Inc.

**Andersen Corp.** ..... 86, 87  
Campbell-Mithun, Inc.

**Armstrong Cork Co., Flooring Div.** ..... Cover 2  
Batten, Barton, Durstine & Osborn, Inc.

**BASF/Wyandotte Corp.** ..... 10  
Ad Concepts Inc.

**Bally Case & Cooler Inc.** ..... 103  
Beaumont, Heller & Sperling, Inc.

**Blum, Julius & Co., Inc.** ..... 17  
Seery & Co., Marketing

**Bradley Washfountain Co.** ..... 84  
Hoffman-York, Inc.

**Brewster Corporation** ..... 128  
Selwyn/Conway Advertising, Inc.

**Burke Rubber Co.** ..... 4  
Hal Lawrence, Inc.

**Carrier Air Conditioning** ..... 118, 119

**Celotex Corp.** ..... 39-42  
Bishopric/Lieberman/Harrison/Fielden, Inc.

**Checkmate, Division of Rixson Inc.** ..... 35  
Motivation Dynamics

**Chem Comp National** ..... 79  
First Marketing Group, Inc.

**Concrete Reinforcing Steel Institute** ... 12, 13  
Bozell & Jacobs, Inc.

**Copper Development Association** .... 104, 105  
Ross Roy of NY, Inc.

**Cramer Industries** ..... 94  
Bryan Donald, Inc.

**Crawford Door Co.** ..... 110  
Anderson Associates

**Crouse-Hinds Co.** ..... 44  
Rumrill-Hoyt, Inc.

**Delta Faucet Div.—Masco Corp.** .....  
Burton Sohigian, Inc.

**Dow Badische—Zefstat** .....  
deGarmo, Inc., Advertising

**Duriron Co.** .....  
Don Wanamaker Advertising Arts

**Eastman Kodak Co.** .....  
J. Walter Thompson Co.

**Emhart Corp.—Russwin Div.** .....  
Horton, Church & Goff, Inc.

**Emhart Corp.—Wood Products Div.** .....  
Horton, Church & Goff, Inc.

**Fenestra** .....  
Altman-Hall Associates

**Fife, Richard, Co.** .....  
Bozell & Jacobs, Inc.

**Floating Floors Inc.,  
Sub., of N. L. Industries, Inc.** .....  
Widerschein/Strandberg Corp.

**GAF** .....  
Daniel & Charles, Inc.

**General Electric** .....  
Young & Rubicam, Inc.

**General Electric—Textolite** .....  
Wyse Advertising

**Glaverbel** .....  
Alden Advertising Agency, Inc.

**Grace, W. R., & Co.  
Zonolite Construction Products** .....  
Fuller & Smith & Ross, Inc.

**Grefco Building Products** .....  
Boylhart, Lovett & Dean

**Harter Corp.** .....  
J. G. Sullivan Advertising, Inc.

**Haws Drinking Faucet Co.** .....  
Pacific Advertising Staff

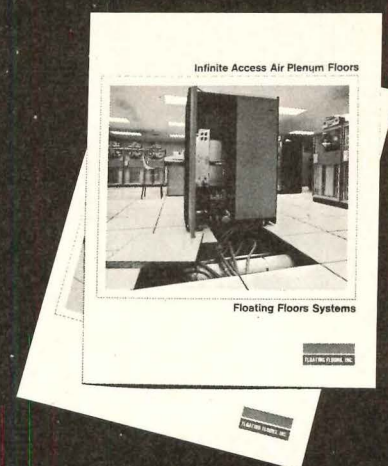
**Hickman, W. P. Co.** .....  
John H. Rosen Advertising

**Inland-Ryerson Construction  
Products Co.** .....  
Hoffman-York, Inc.



ison-Wright Corp. . . . .	37
pps Associates, Inc.	
son Service Co. . . . .	Cover 4
nan-York, Inc.	
Paragon, Inc. . . . .	106
S. Howard Associates, Inc.	
ey-Owens-Ford Co. . . . .	23-25
obell-Ewald Co., Advertising	
stone Products Corp. of America . . . .	98
ard Owen & Co.	
rt Long, Inc. . . . .	6
Maxwell Arnold Agency	
ia, Myers Industries, Inc. . . . .	18
Haerr, Peterson & Harney, Inc. Advtg	
nney Mfg. Co. . . . .	11
-Dawson, Inc.	
ne Div. of Scovill . . . . .	111, 112
a Group, Inc.	
Industries, Inc. . . . .	100, 101
um, MacLeod & Grove, Inc.	
ifold Doors, Inc. . . . .	125
e Agency	
olscreen Co. . . . .	91, 92
Ramsey Advertising Agency	
erthy Lumber Co. . . . .	106
olds-Buker & Associates	
burgh Corning-Foamglas . . . . .	118, 119
um, MacLeod & Grove, Inc.	
Cedar Shingle & ndsplitt Shake Bureau . . . . .	26
Ayer/F. E. Baker, Inc.	
blic Steel Corp. . . . .	16WA
um & Fewsmith, Inc.	
n Inc., Checkmate Div. . . . .	35
ation Dynamics	
rtshaw Controls Co.— ntrol Sys. Div. . . . .	5
I Eanes, Inc.	
ty Industries, Inc. . . . .	122
r-Pritchard Wood Associates	

Russwin, Div. of Emhart Corp. . . . .	15
Horton, Church & Goff, Inc.	
Sargent & Co. . . . .	48
Hepler & Gibney, Inc.	
Silbrico Corp. . . . .	8
Elving Johnson Advertising, Inc.	
Sloan Valve Co. . . . .	81
Reincke, Meyer & Finn, Inc.	
Soss Mfg. Co. . . . .	125
Brewer Associates	
Southeastern Westbrook Elevator Co. . . .	116
Jack M. Doyle Advertising, Inc.	
Sta-Crete . . . . .	116
Steel Joist Institute . . . . .	117
Batz Hodgson Neuwoehner, Inc.	
Swedlow, Inc. . . . .	2
Ralph H. Jones Co.	
Symons Mfg. Co. . . . .	110
J. W. Evans, Inc.	
Trinity White, General Portland Cement Co. . . . .	Cover 3
Glenn Advertising, Inc.	
Tyler Pipe—Wade Div. . . . .	14
Walter Clark Advertising, Inc.	
Uniroyal, Inc. . . . .	88, 89
Campbell-Mithun, Inc.	
U. S. Gypsum Co. . . . .	31, 107
Lennen & Newell/Midwest	
Vectra Corp. . . . .	99
Sweet & Co.	
Weyerhaeuser Co. . . . .	16
Cole & Weber, Inc.	
Wool Carpets . . . . .	19-22
AC&R Advertising Inc.	
Zonolite Construction Products, W. R. Grace & Co. . . . .	123
Fuller & Smith & Ross, Inc.	



## Get this brochure before you buy or specify a raised floor system.

Data processing installations deserve the best in unlimited access floors for the support of expensive equipment and for maximum flexibility. The answer . . . The Floating Floors® System.

**Choice of Panels**—Aluminum for highest quality, steel for economy.

**Choice of Surfaces**—Hard surfaces or carpeting permit any combination of appearance and function.

**Precision-Fit**—Made to virtually perfect squareness for complete interchangeability.

**Strength**—Strong panels and proper pedestal design give needed strength without stringers. Support 1000 lb. per square inch with less than .085" deflection.

**Rigidity**—Positive interlock between aluminum panels and pedestal makes a stable floor approved for seismic conditions.

**Total Access**—Panels lift out to allow complete underfloor access.

**Flexible Air Distribution**—The cavity beneath the Floating Floors system can serve as a plenum.

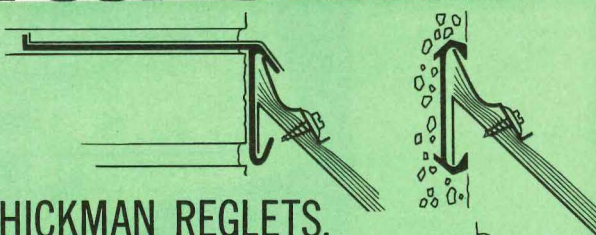
A complete line of accessories is available. Write for this authoritative brochure: Floating Floors, Inc., Subsidiary of N L Industries, Inc., 5400 North Detroit Ave., Toledo, O. 43612. (419) 479-0721.

**N L INDUSTRIES**  
**FLOATING FLOORS, INC.**

*N L Industries, Inc. is the new name of National Lead Company*



# How to flash roof to wall:



## HICKMAN REGLETS.

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

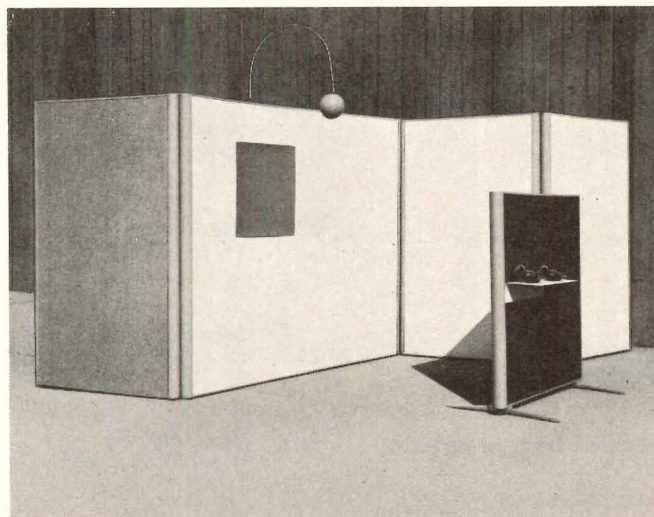
Patent  
Applied  
For

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

# HICKMAN

W. P. Hickman Company, Inc.  
2520 Industrial Row, Troy, Michigan 48084  
Phone: (313) 549-8484

Ad No. 7168 produced by John H. Rosen Advertising  
On Reader Service Card, circle no. 388



## Willing Walls

Willing SHO-WALLS move instantly with the flow pattern and space grouping identified with today's open office and open school concepts.

Imagine soft and friendly walls that gently baffle sight and sound but move into new configurations on a whim. Boxes and cubicles may be gone forever.

Air-light SHO-WALLS provide spontaneously rearrangeable space division with built-in exhibitability. They require no fastenings to walls, floors or ceilings. They self-connect without tools. About twelve dollars per lineal foot.

See SWEET's ARCHITECTURAL FILE (Sec. 10.1 Br.)  
Dept. 185

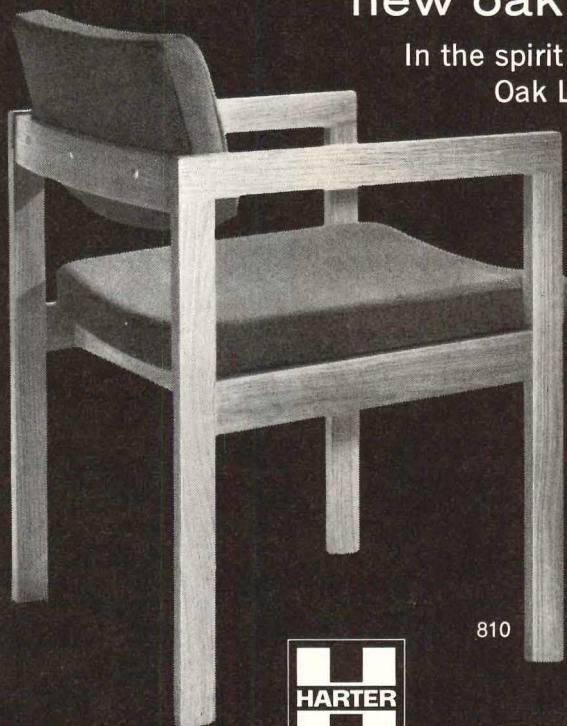
**BREWSTER**

Old Saybrook, Ct. 06475 203-388-4441

On Reader Service Card, circle no. 330

## new oak from Harter

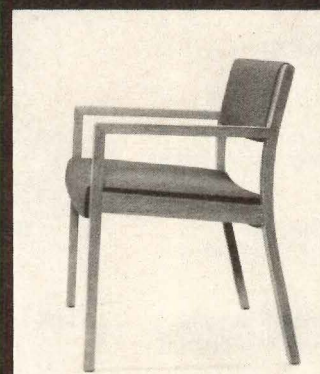
In the spirit and tradition of Harter  
Oak Lounge and Linear Oak.  
Bold. Strong. Honest.  
Now at our show-  
rooms or write  
for information.



810



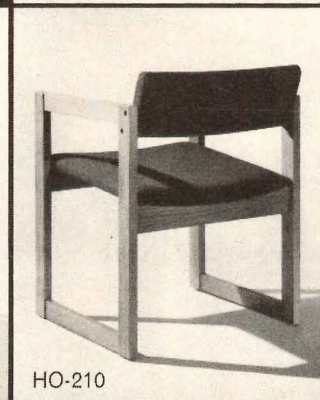
New York / Atlanta / Chicago / Denver / Los Angeles



611



HL-10



HO-210

HARTER CORPORATION, 817 PRAIRIE AVENUE, STURGIS, MICHIGAN 49091

On Reader Service Card, circle no. 348





Credits/Architects: Wilson, Morris, Crain & Anderson/General Contractor: W. S. Bellows Construction Co.

## Good news reported in white concrete--Cast-in-Place and Precast.

Utilizing the advantages of white concrete cast-in-place, beauty and complete flexibility were designed into the Houston Post's main office building. The structure is part of a three building complex recently occupied by the Post, a leading Southwest newspaper.

The clean beauty of the distinctive white concrete fins almost hides their functional purpose. In order to provide the utmost in open office space, the architects designed the fins to support the building's floors and roof.

The cast-in-place method was selected because it provides the most practical method of achieving the bearing-wall concept.

The ten towers, also cast-in-place white concrete, grow naturally from the fins. They contain stairways, elevators, and miscellaneous equipment rooms—helping to provide maximum open office space.

Exterior finish was created by medium sandblasting to enhance the monolithic look of the structure. To accent the main building, a white concrete sloping terrace wall surrounds the structure.

The two other buildings in the complex, totaling 96,759 square feet, have precast exteriors finished to match the cast-in-place exterior of the main building. Because their function is different than that of the main building, precast white concrete proved the most practical method of achieving the desired architectural goals.

We'd like to help make cast-in-place and precast architectural concrete with Trinity White Cement good news for your building plans. Please feel free to call us.

For new ideas in architectural concrete using Trinity White and new Trinity Warmtone, write: P.O. Box 324, Dallas, Texas, 75221.

*Trinity White* Cement  
Creativity in Concrete

General Portland Cement Company 

Offices: Dallas • Houston • Tampa • Miami • Chattanooga • Fort Wayne • Kansas City, Kan. • Los Angeles



# New CC-1000. Modular automation package for the smaller budget.



## Johnson: automation specialists

Johnson's CC-1000 environmental control center system provides high performance building automation on a budget. And expands to meet growing requirements.

You can start with a low-cost single module and still get big-system features. Such as system display. Time-sharing multiplexing that carries many signals per wire. High-speed

scanning: up to 1200 points every second. Accurate inputs from reliable resistance elements and bridge circuits.

The CC-1000 can monitor the status of temperature, humidity, security systems, remote equipment. Sound an alarm for off-normal. Permit stop-start control, either manual or programmed. Provide intercom facilities. Point reset. Instant, simultaneous inspection of points throughout the building, by a glance at the annunciator board. With readouts in English, not in code.

It can be expanded to match growing needs—building additions and changes in occupancy or functions. It's easy to add features like system slide projection. Programmed or random recording of up to 8 points. Extra alarm annunciators. And more.

The CC-1000 control center system is a blue-chip investment. Pays for itself in 3 years or less, through savings in labor, fuel, energy and time. For details, write for Publication 2554.

Finding new ways to do things automatically is our business.



**JOHNSON**  
**SERVICE COMPANY**  
MILWAUKEE, WISCONSIN • 53201

