

Progressive Architecture

August 1971, A Reinhold publication



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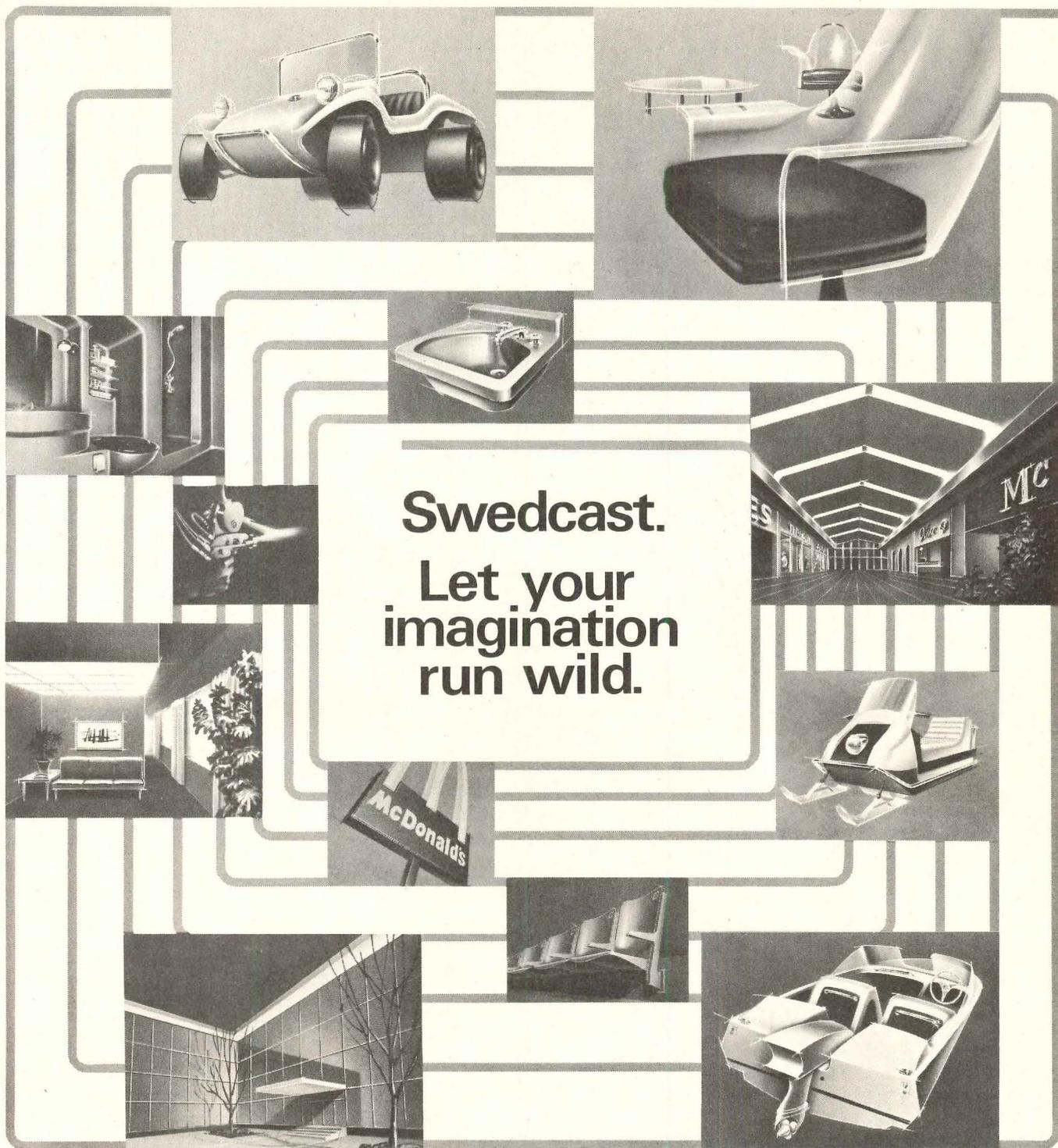
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It's the law

Progressive Architecture

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

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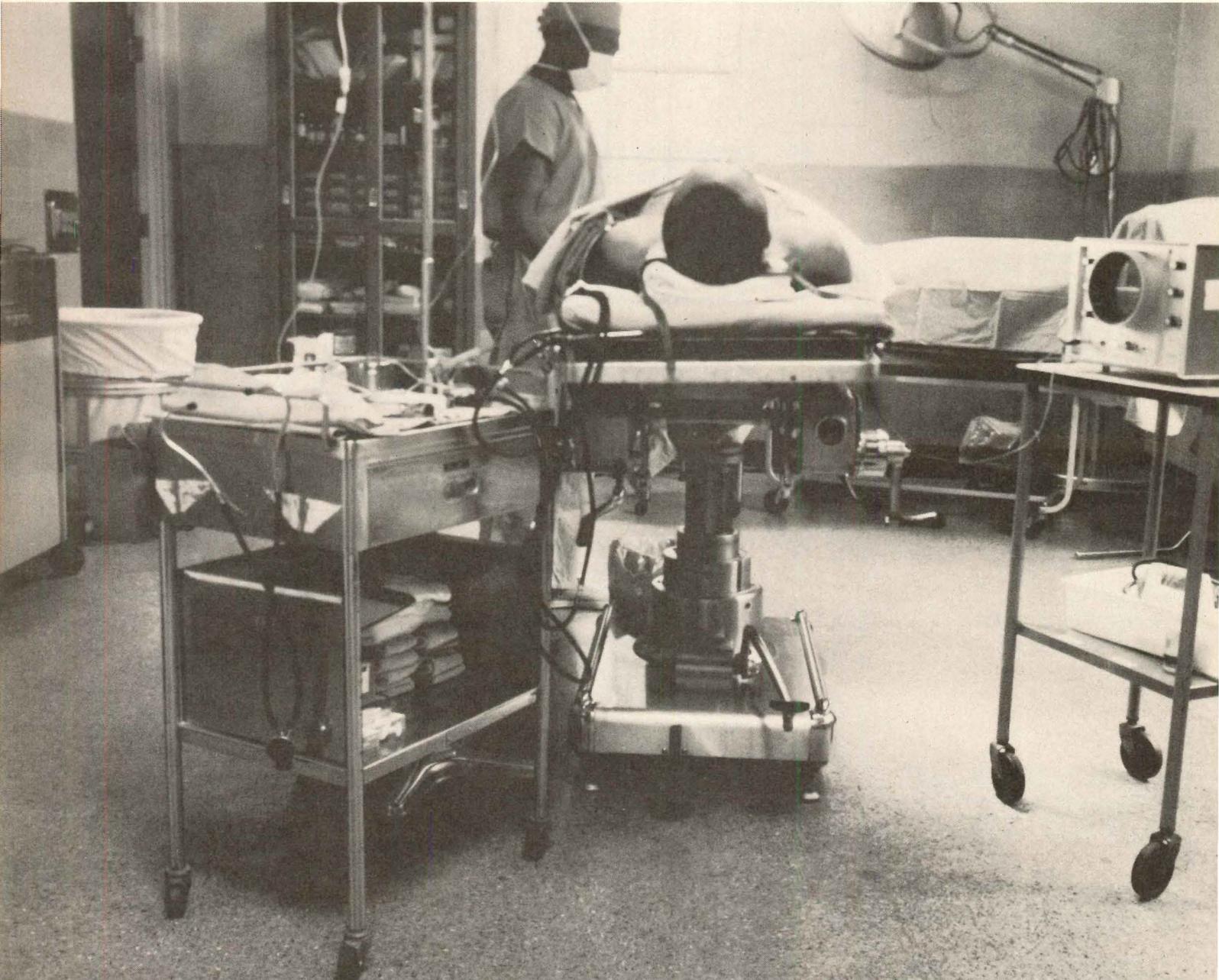
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atters from readers

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.*

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

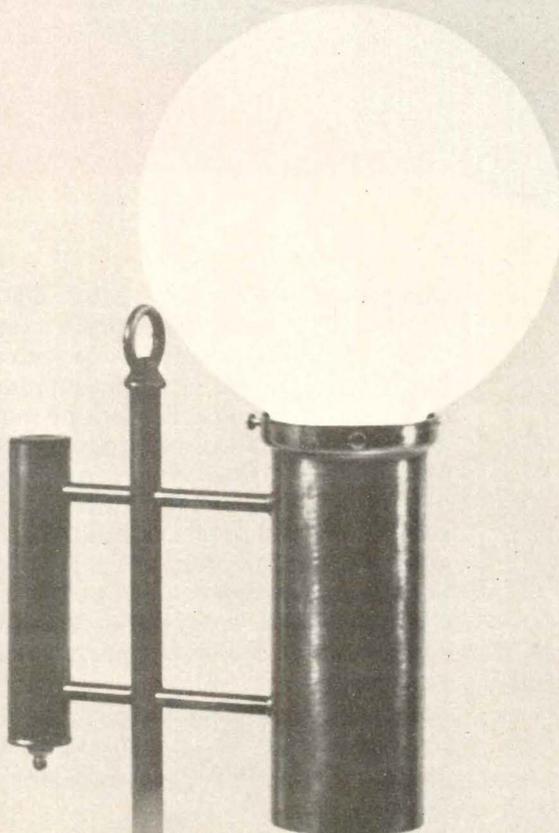
Dear Editor: "Psychic or metaphorical cues," "an ecology of the mind," "contextual relevance,"—re: the Herb Greene house in the May issue of P/A (p. 80)—is this really Herb Greene speaking?

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.*

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

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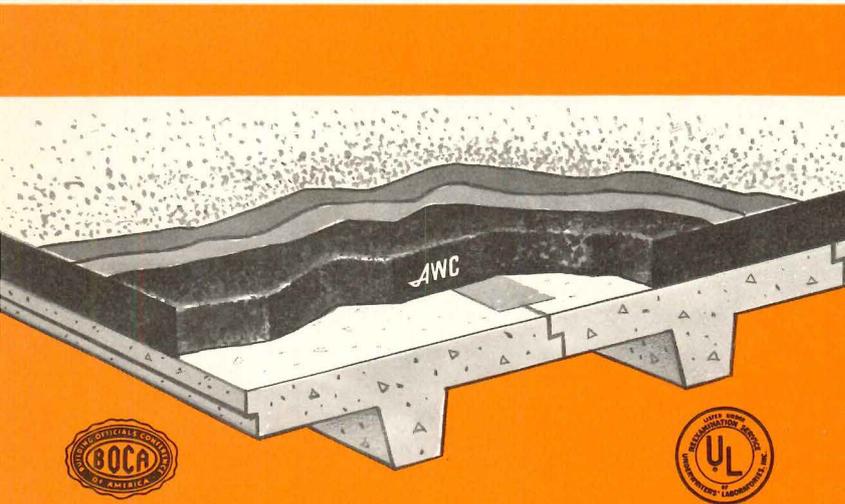
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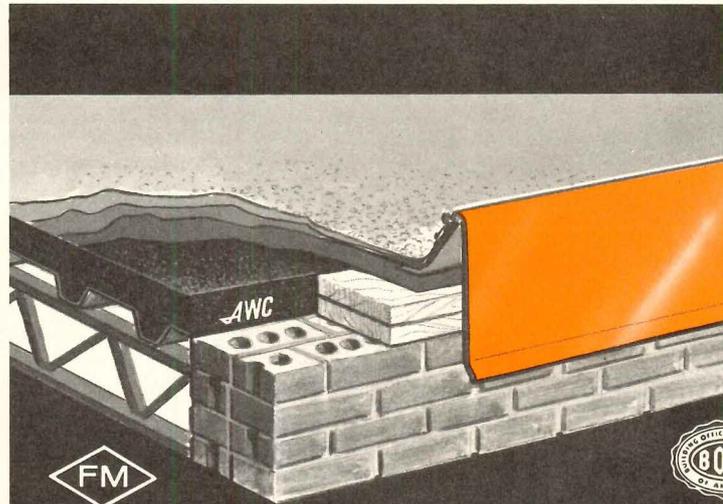


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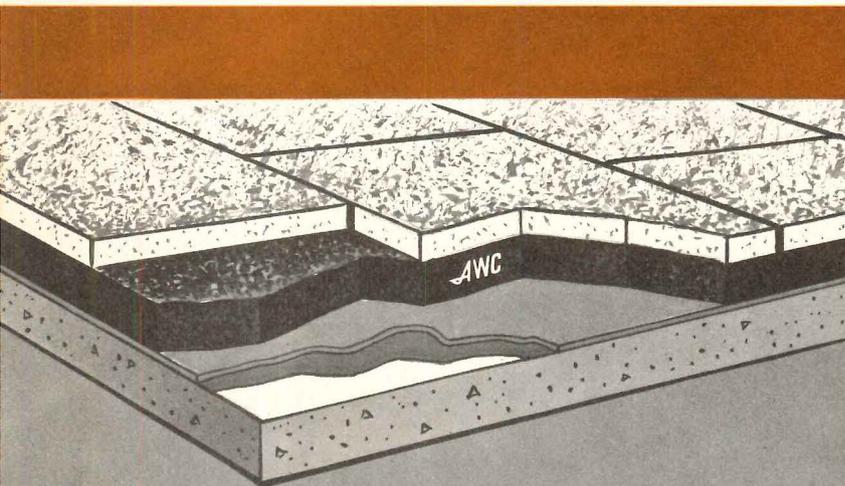
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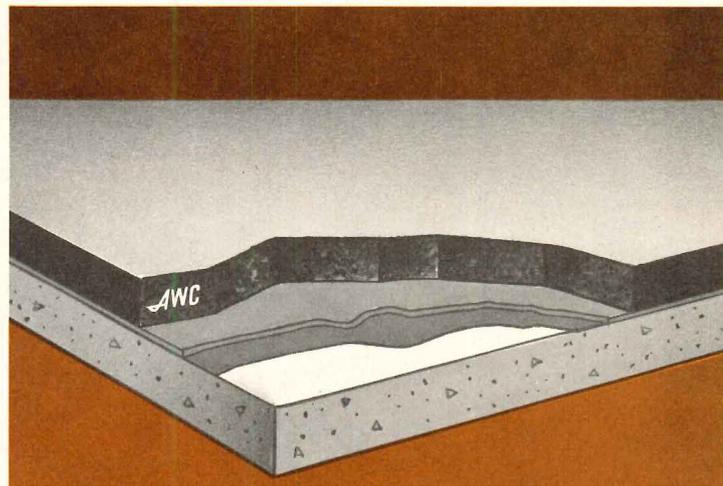
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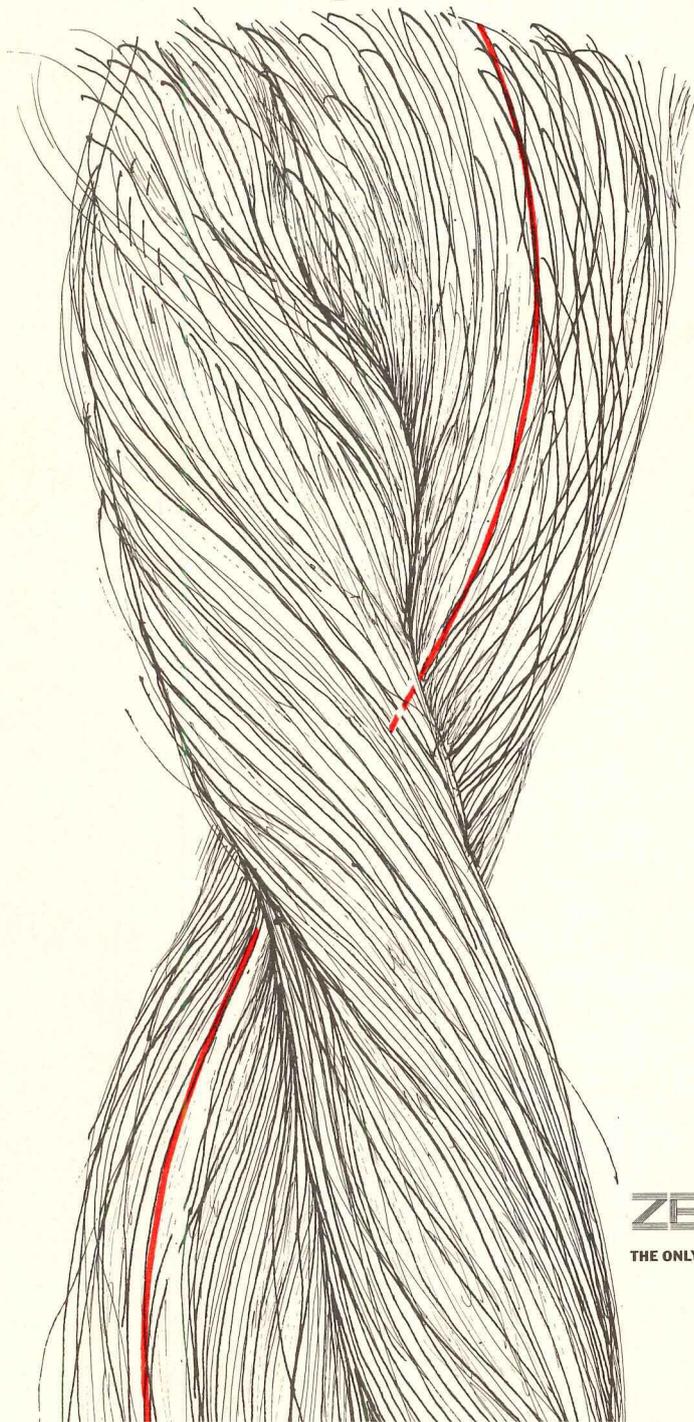
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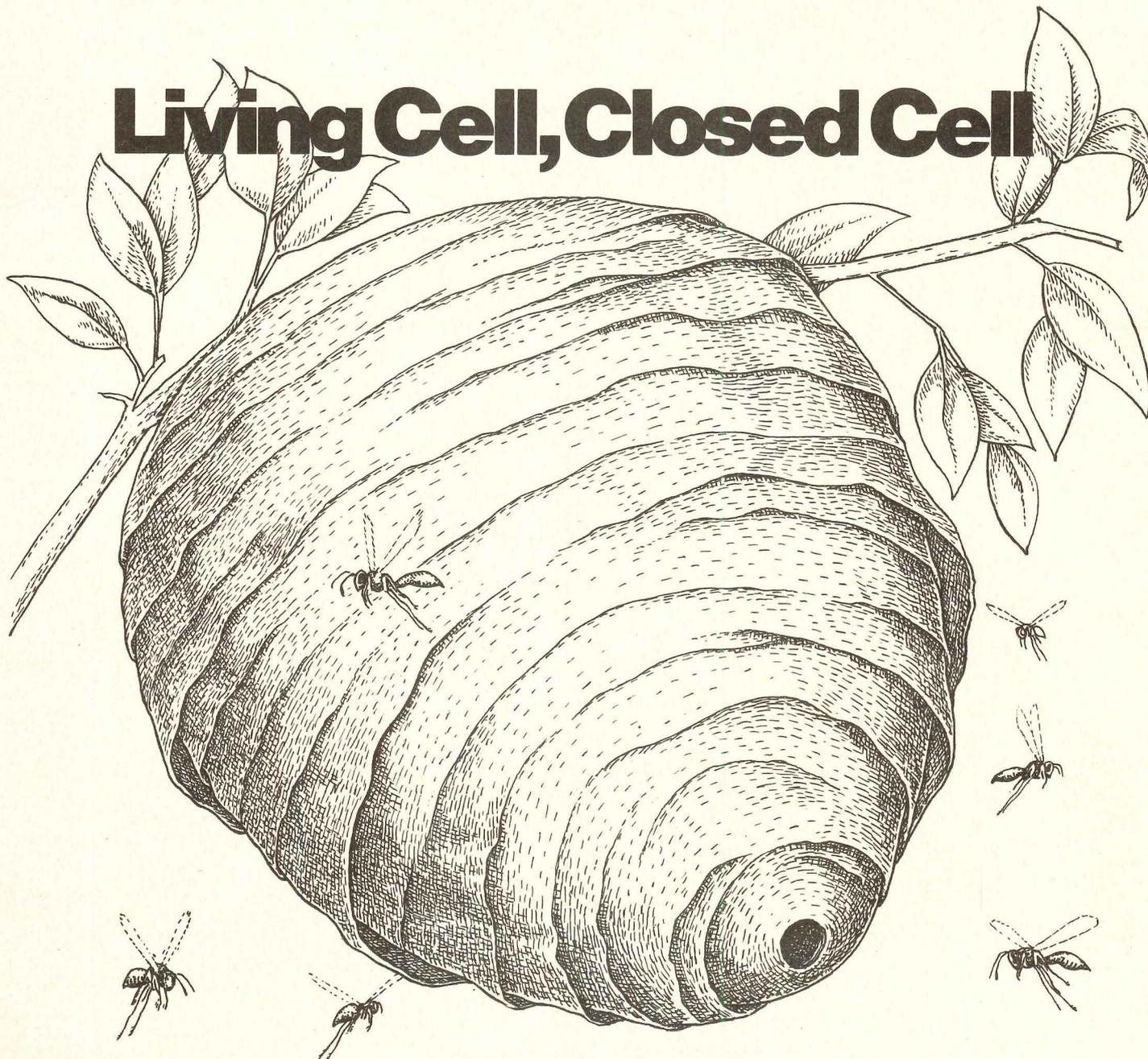
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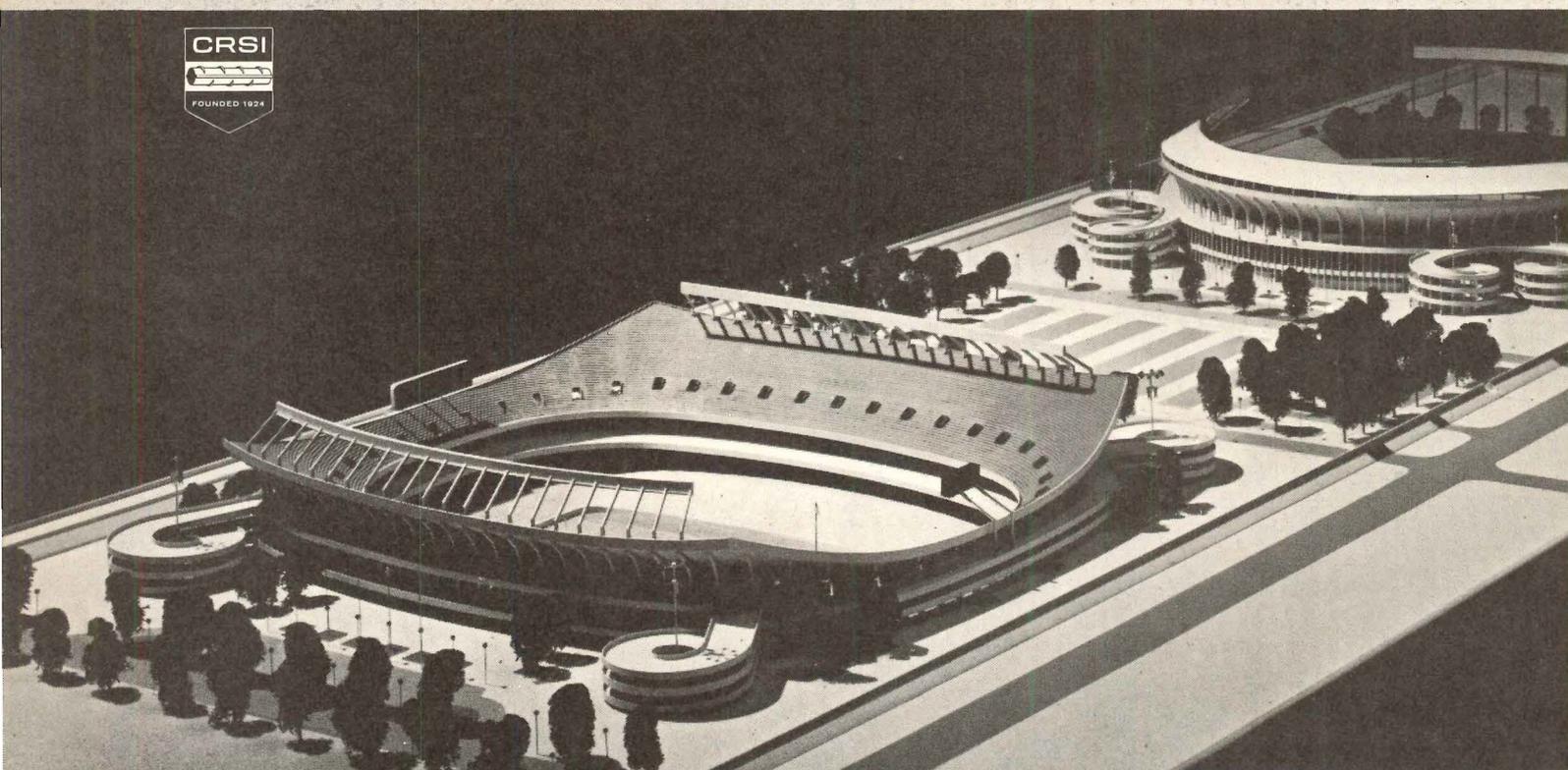
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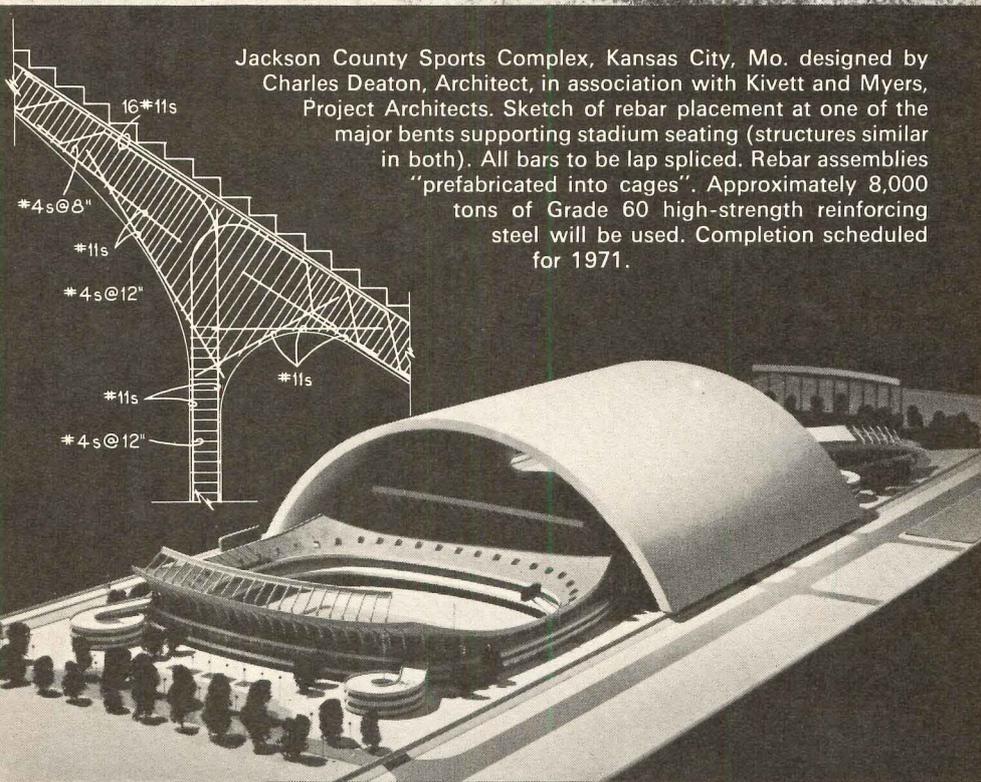


the beautiful
world of
reinforced concrete
is a climate
of excitement



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.



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.

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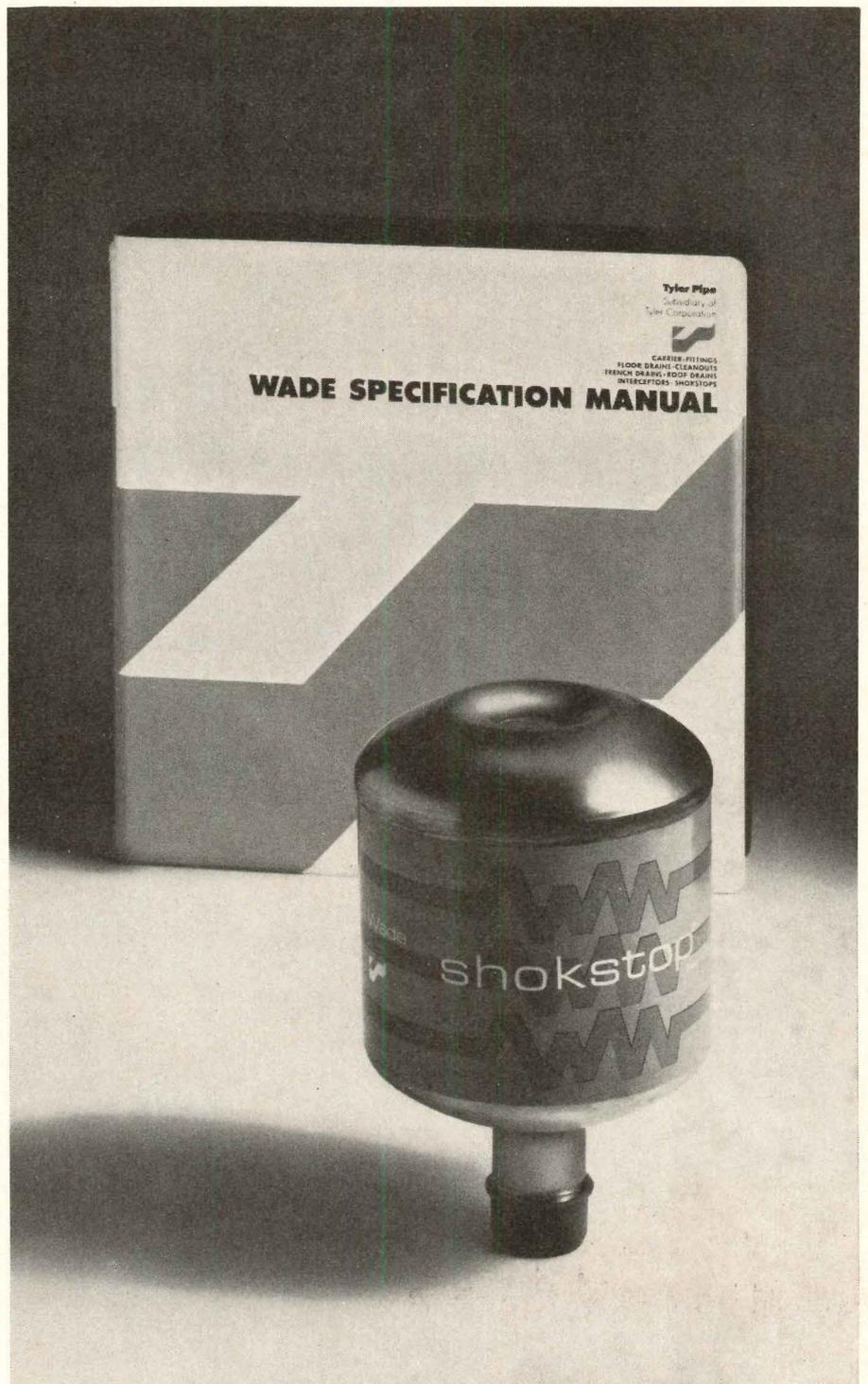
Under the heading "Shokstops" you'll find a new catalog with everything you need to know about water hammer arrestors.

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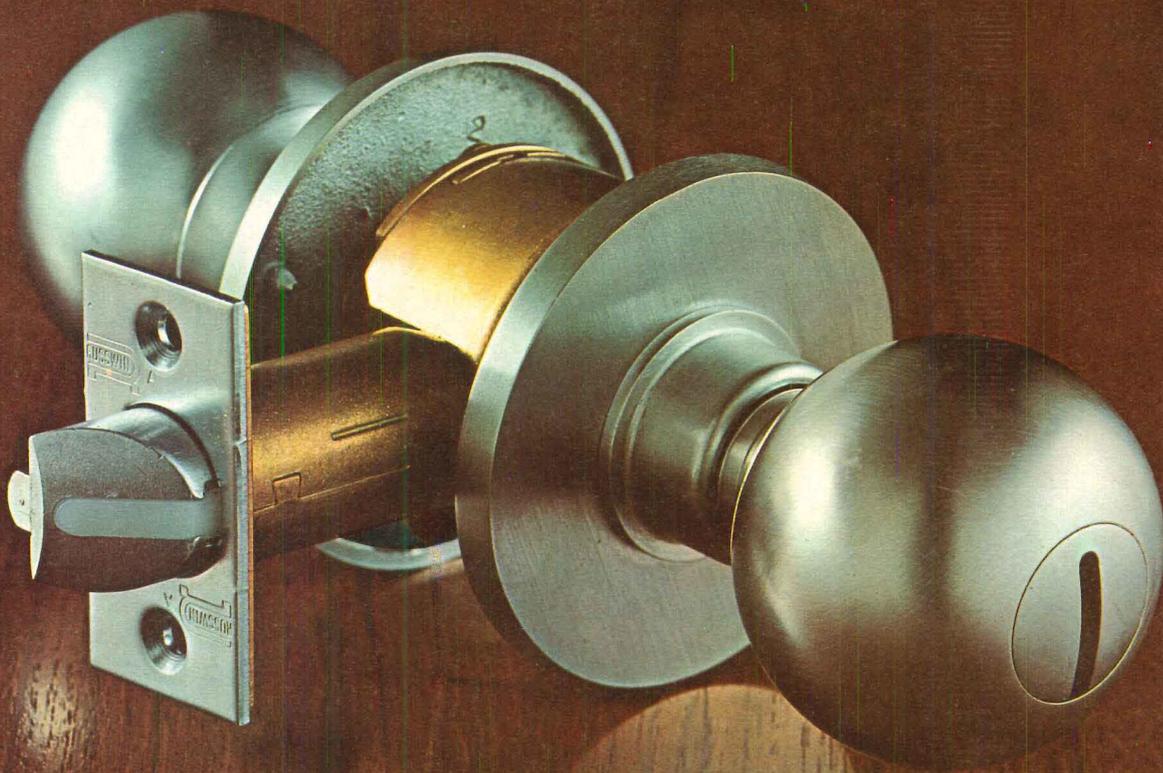
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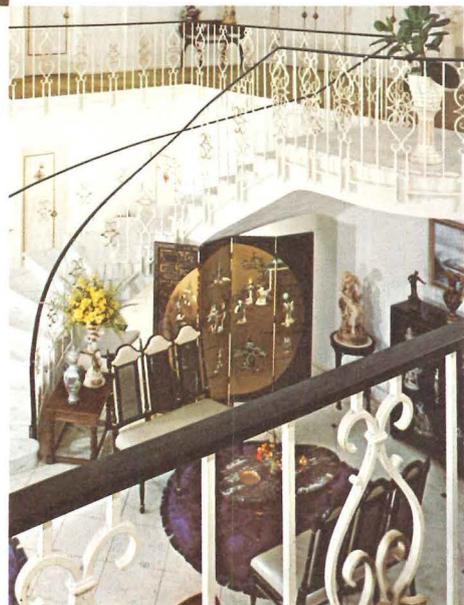
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Large Law Firm handles a case against storage problems and wins a victory

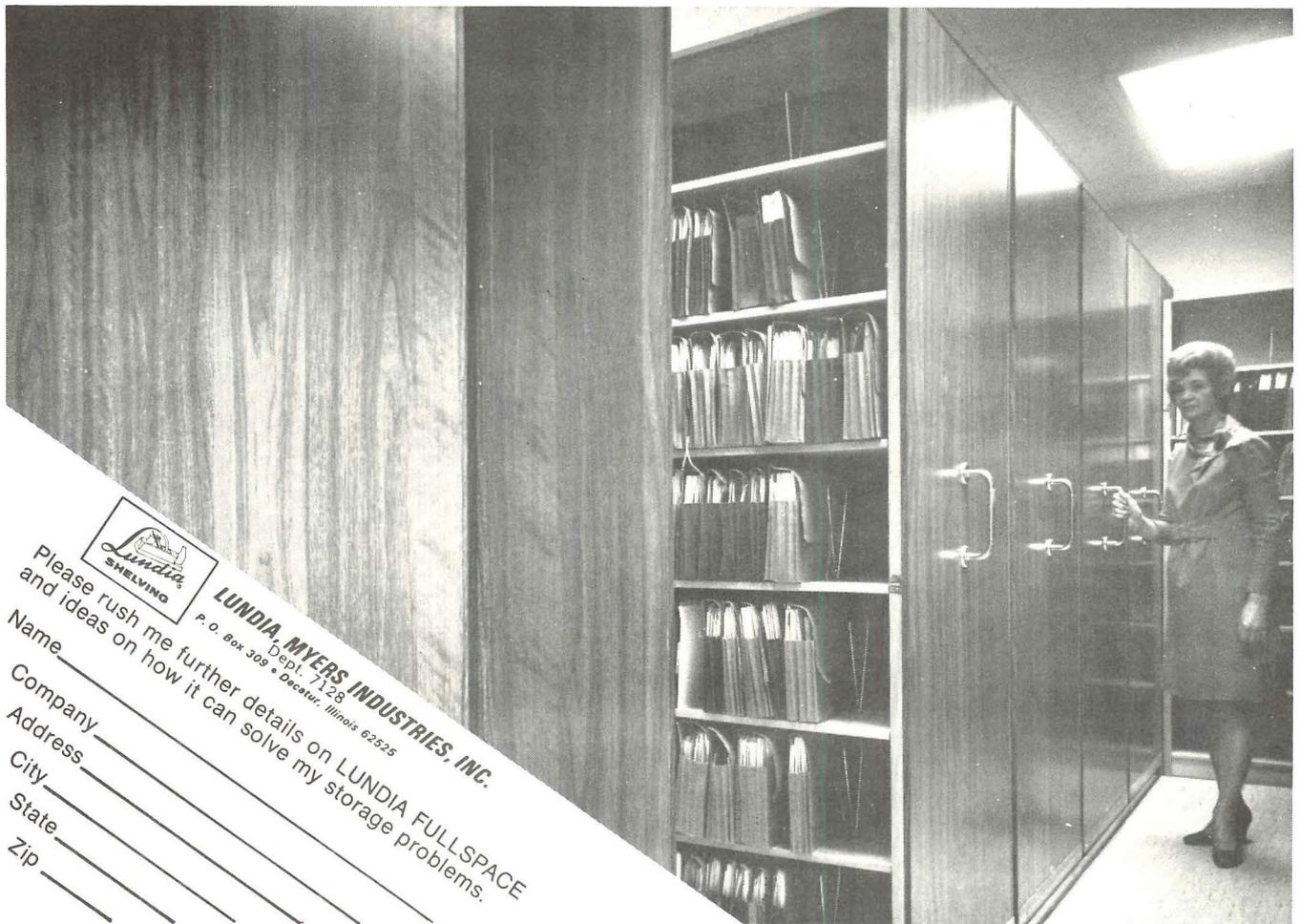
It was a case of moving—or doing something drastic about the problem of records storage at the law offices of Gibson, Dunn & Crutcher. The law firm is one of the largest of its kind in the U. S., with offices in L. A., Beverly Hills and Newport, Calif., and Paris, France.

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."



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

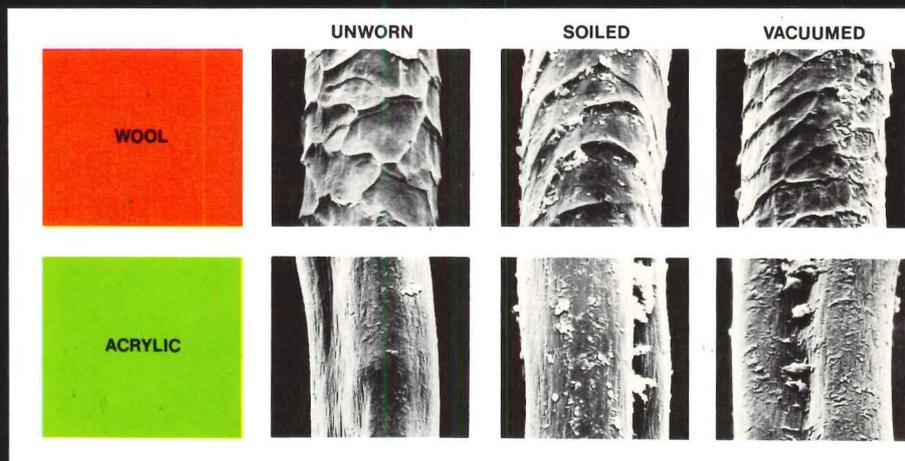
Here's how wool carpets wear better and clean better than acrylics.

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.

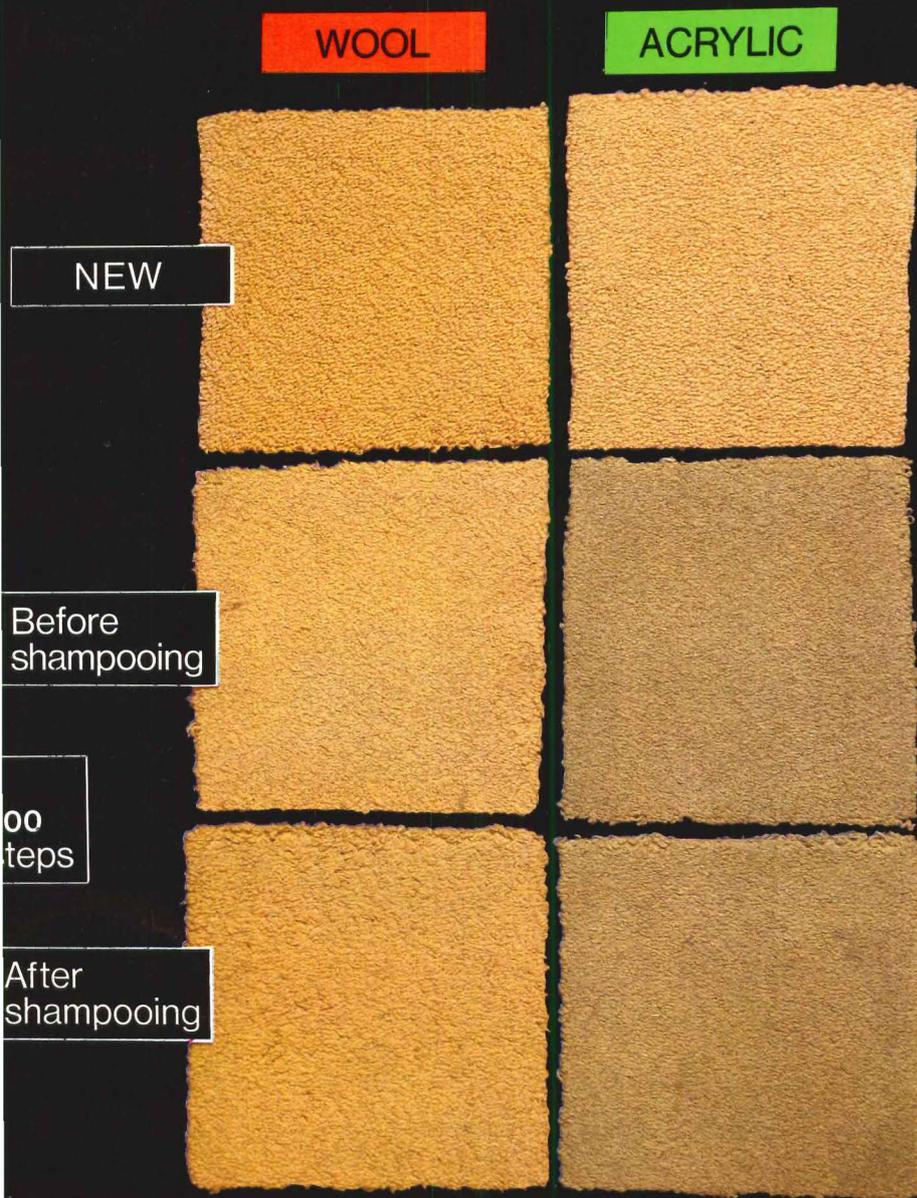
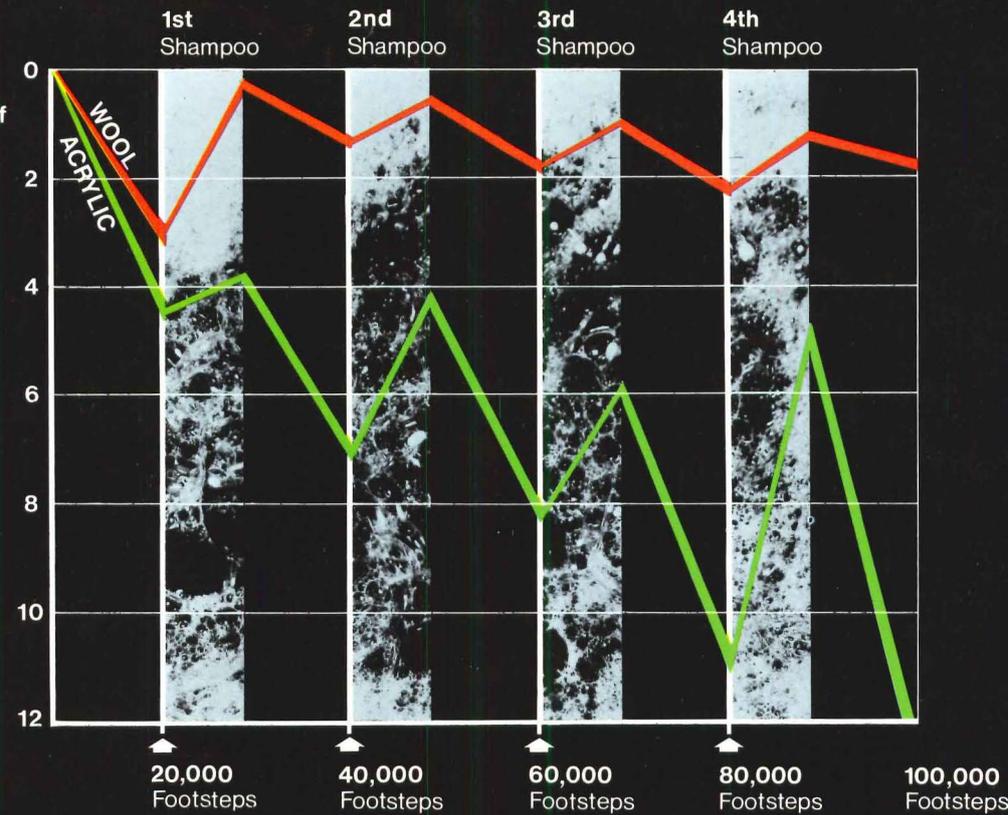
At each cleaning, the test samples were compared with unworn control samples, and the degree of soiling was expressed by color change. The graph shows the comparative soiling and cleaning performances of the wool and acrylic carpets.

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 resoiling 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?

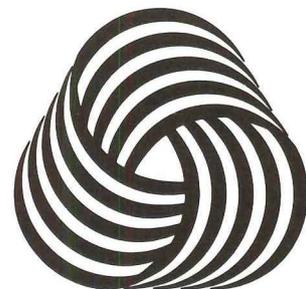
Acrylics say they're easier to clean, but wool is the only fiber with a natural protective covering. The uncopiable structure of the wool fiber, wool's unique three dimensional surface, naturally protects itself against dirt. Studies by Stereoscan electron microscope of carpets in use show significant 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?

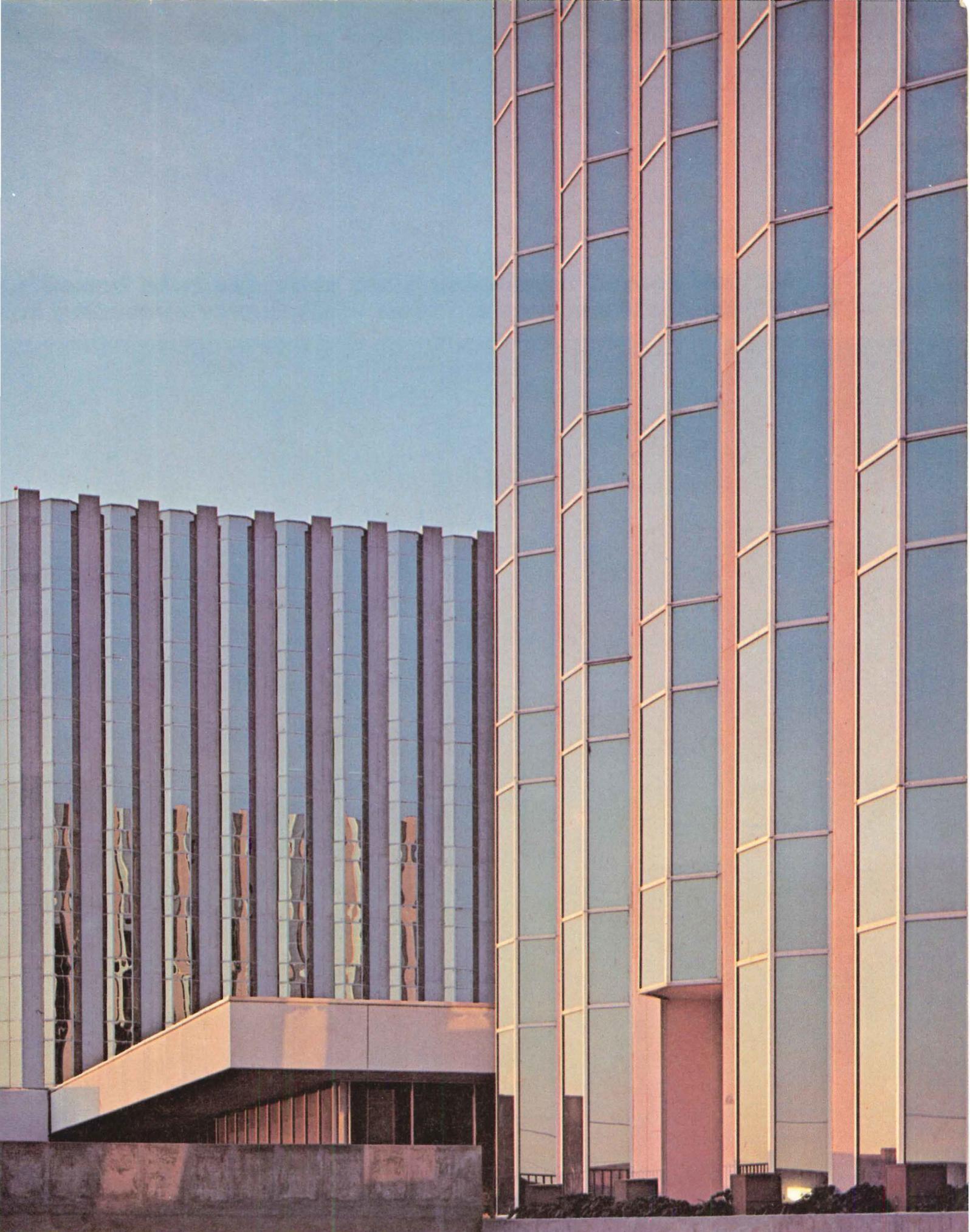
Acrylics say they're more colorful, but wool is the only fiber with a natural affinity for color. The protein core of the wool fiber soaks up dyes completely, permanently. The reason wool holds color so well is because the color actually becomes part of the fiber. That's why wool carpeting gives you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



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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[®] coated insulating glass provides twin benefits
Twin Towers: lower construction costs, lower operating costs**



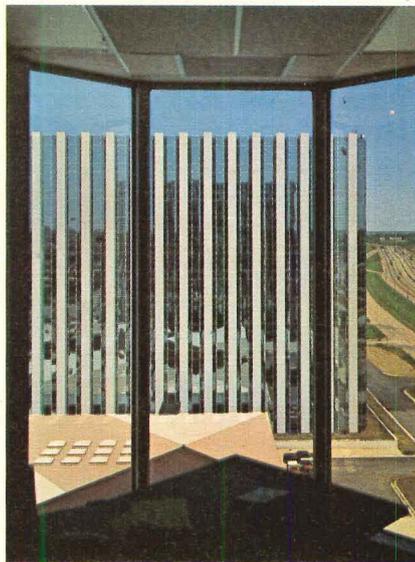
How Vari-Tran reduced air conditioning equipment.

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.

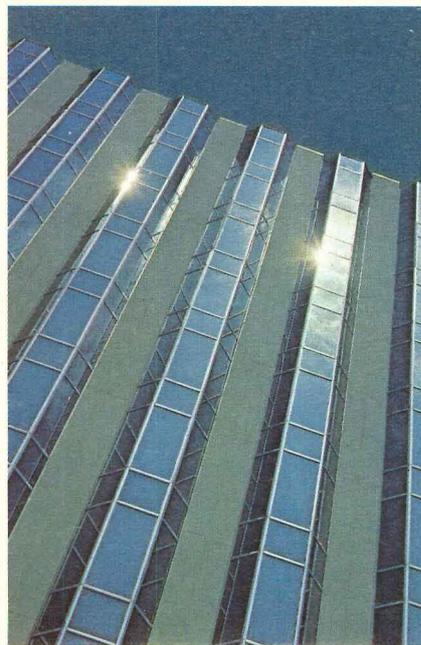
The glass that cuts building costs makes a very beautiful building.

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

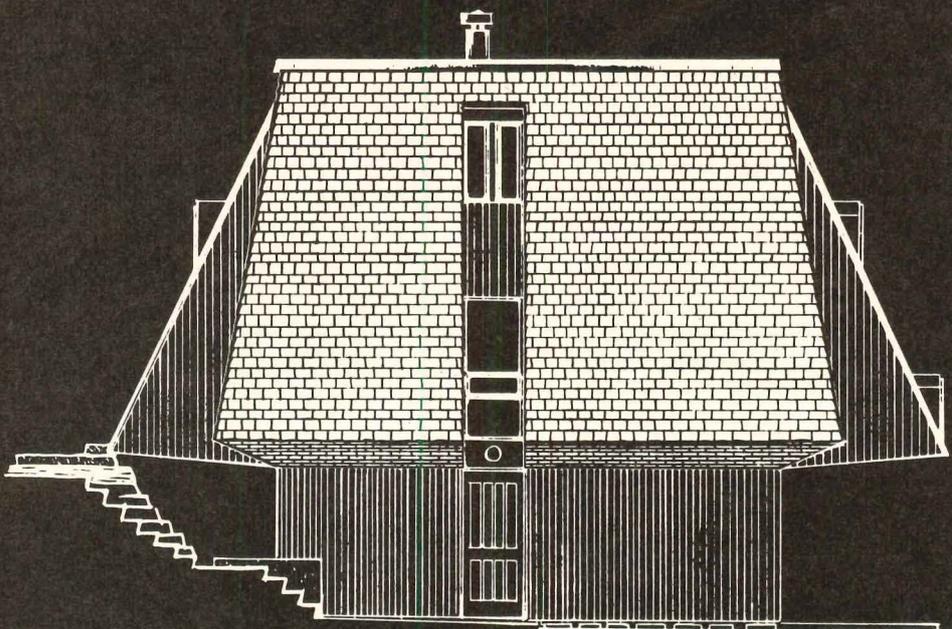
reflective glass from ground level to rooftop. In Twin Towers, they contrast with extruded cement-asbestos panels and are designed with a bay window effect to give each office a "balcony" view.

Broad range of reflectivities and aesthetic effects available.

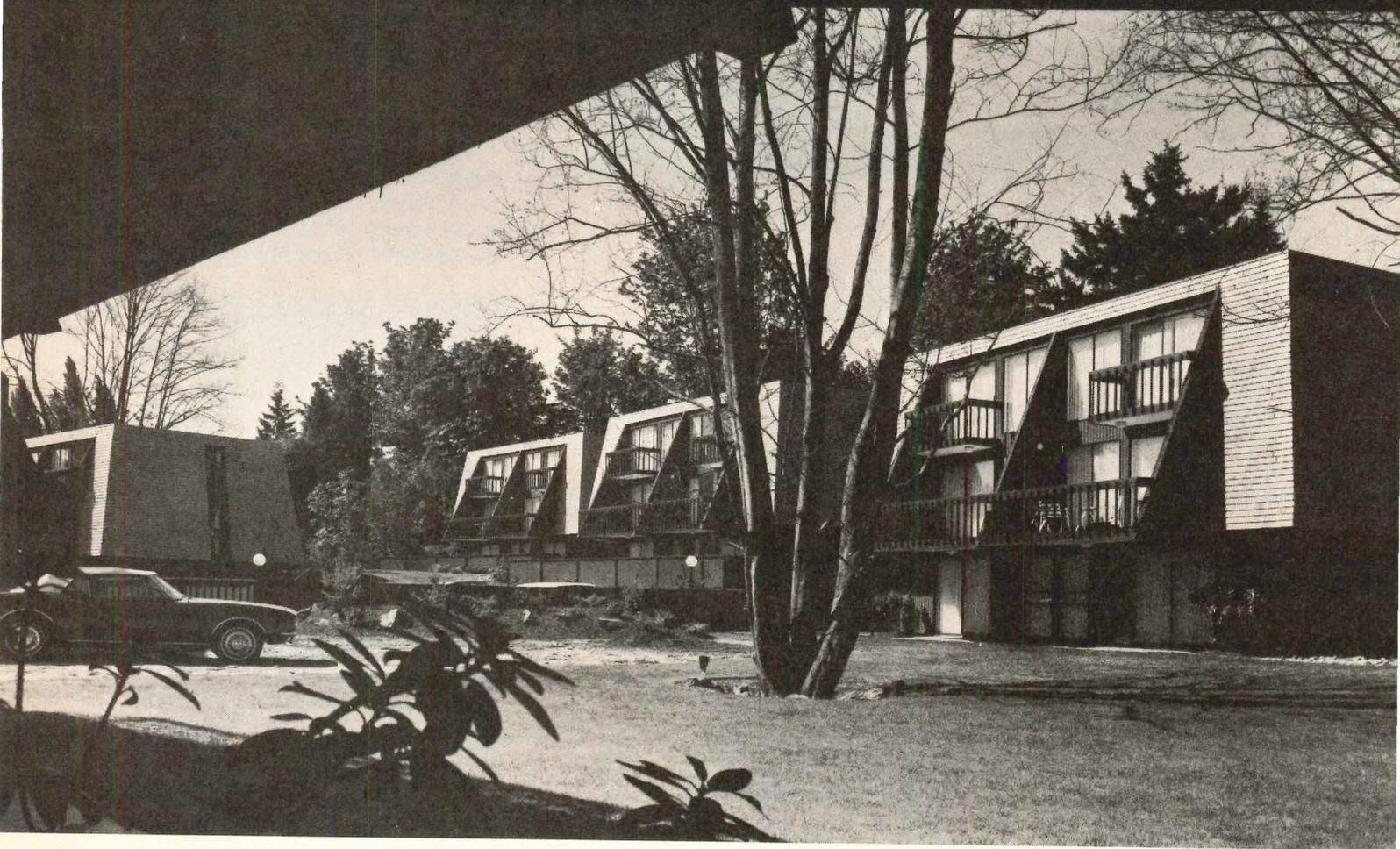
Vari-Tran is available in golden as well as silvery coatings in light transmissions of 8, 14 and 20 percent. Each provides significant reduction in solar heat and glare, as well as the beauty inherent in reflectivity.



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

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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

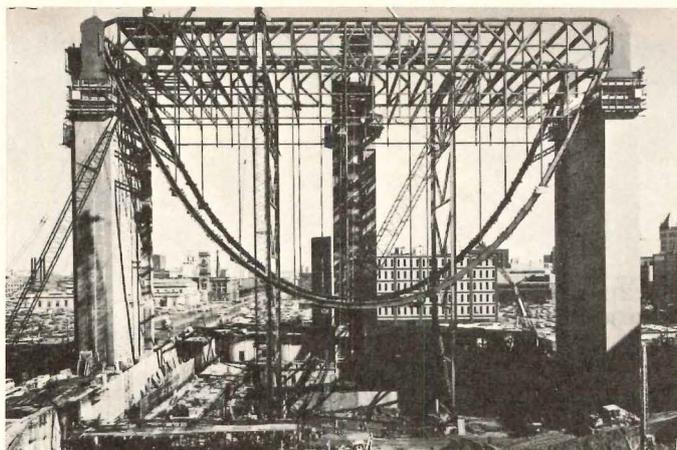
Drawing on three years of practical experience, the Philadelphia Architects Workshop has published "A Primer for Community Design Centers." The 48-page booklet, published as part of a HUD grant, covers everything from setting up the center to keeping it going.

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.

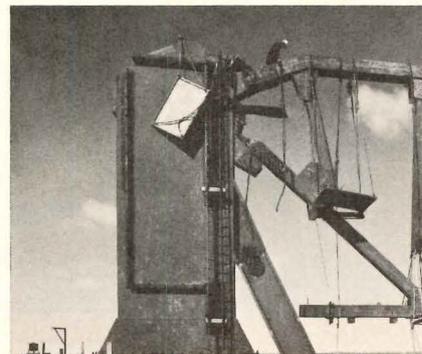
Geddes Brecher Qualls Cunningham wins competition

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



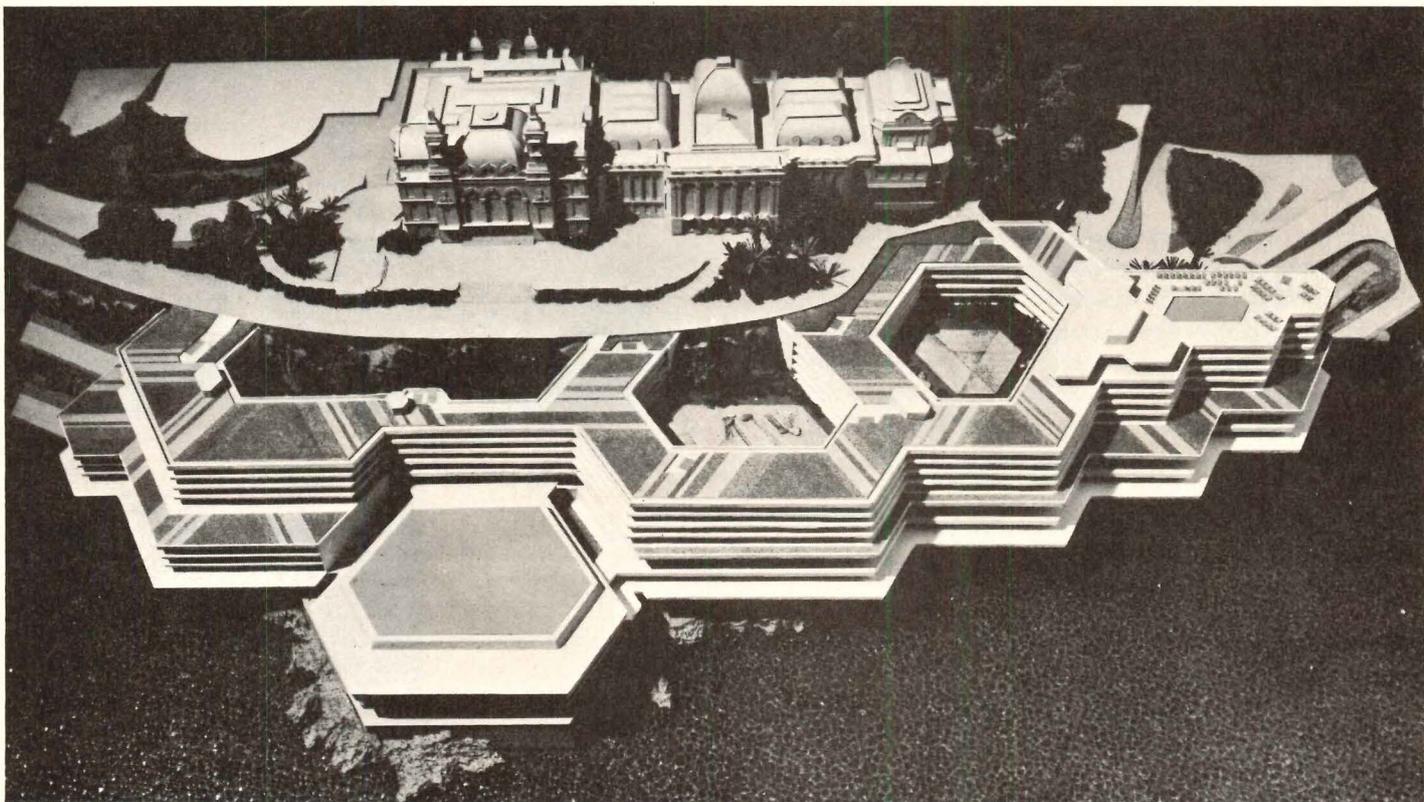
Prize winning new town design



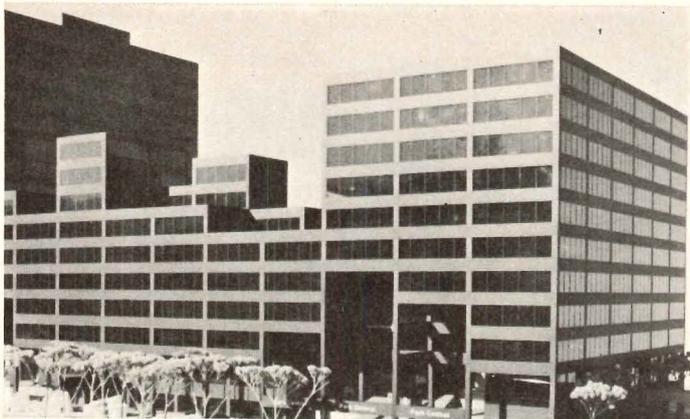
Buildings on the way up



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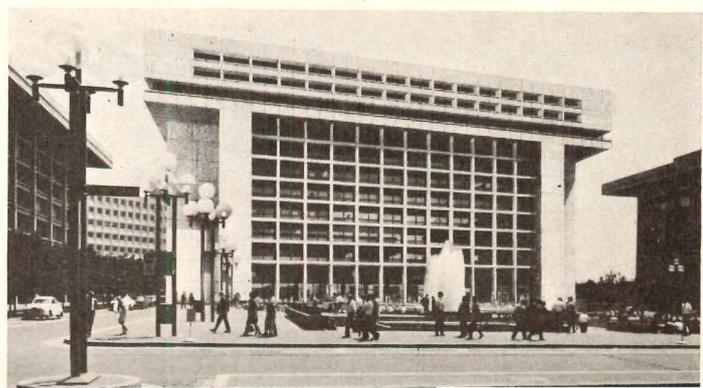
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1 Before and after views show Monte Carlo's famed Casino and a \$40 million waterfront hotel and convention center designed by Jean Ginsberg, Herbert Weisskamp and Jean and José Notari. The hotel will provide 650 rooms along with a night club, restaurants, 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.

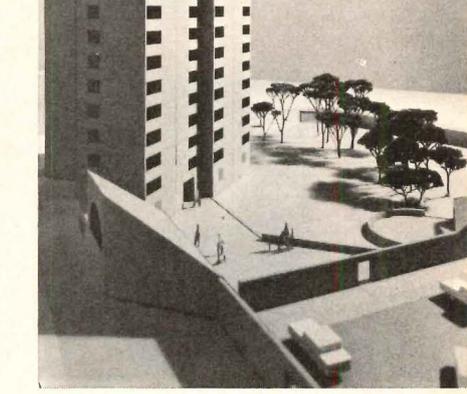
5 Two towers of aluminum and glass will wrap around a ground level arcade and terrace opening onto Philadelphia's Logan Circle. The taller of the two, 35 stories high, will be a 351-unit condominium apartment building, and the other a 27-story, 450-room luxury hotel. Connected by the arcade and a two-level 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. Light-weight 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.



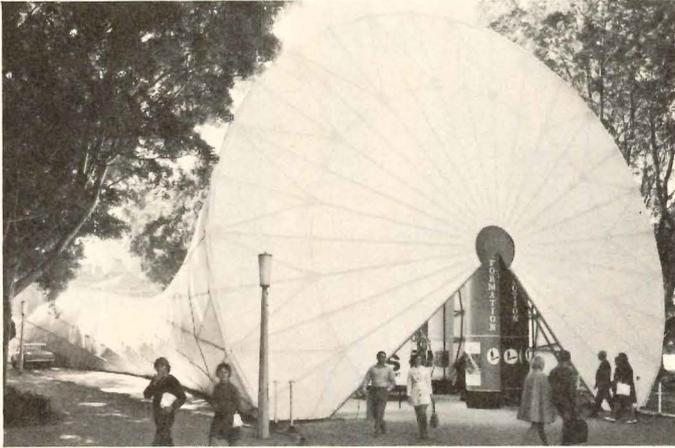
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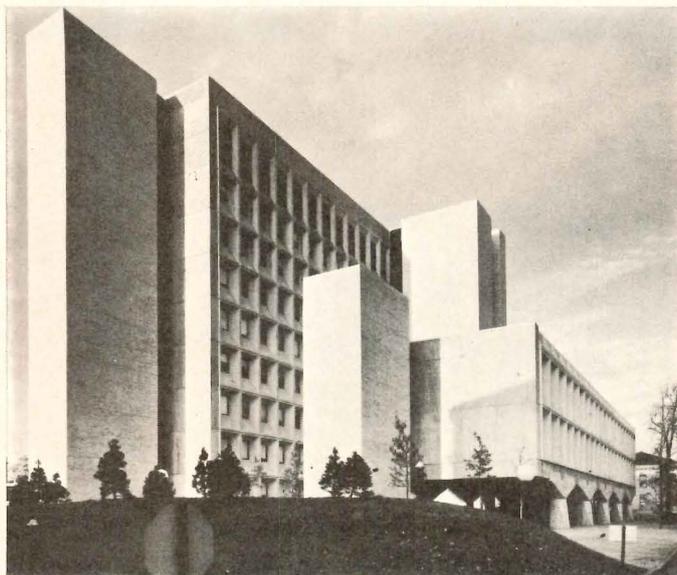
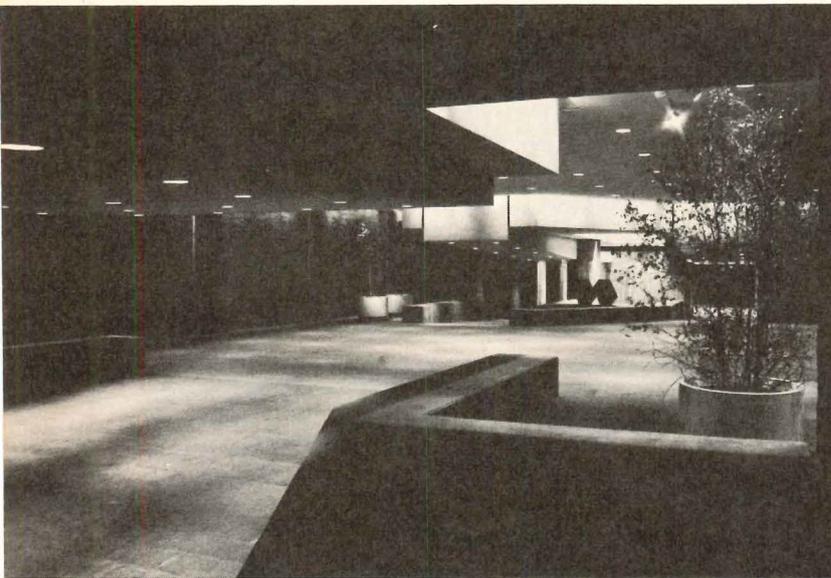
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Environmental exhibit down under



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 RAI A 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]



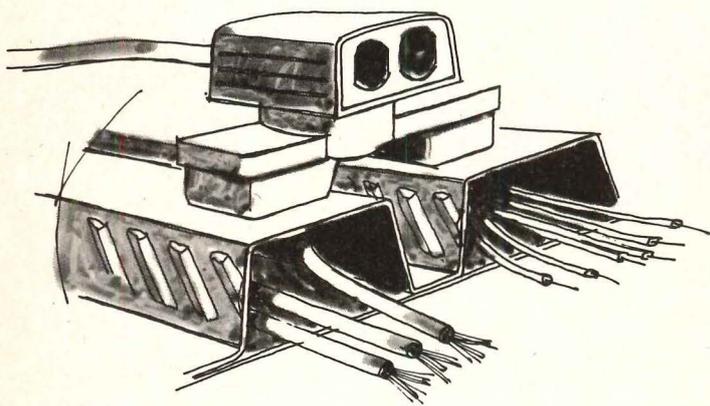
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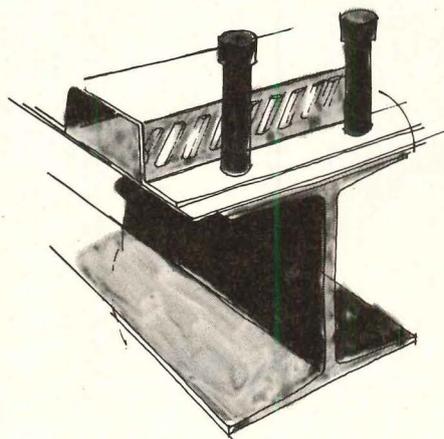


Disneyland Hotel, Anaheim, California, now numbers 1600 rooms with the addition of the new 11-story Marina Tower. Rooms are protected beautifully with the IMPERIAL Veneer Wall System. Ask your U.S.G. Representative for complete information. Write for IMPERIAL Wall System brochure, P-403. 101 S. Wacker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

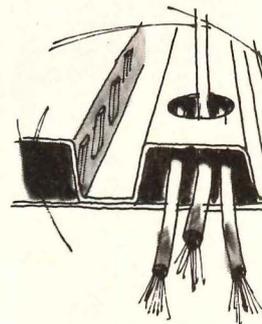
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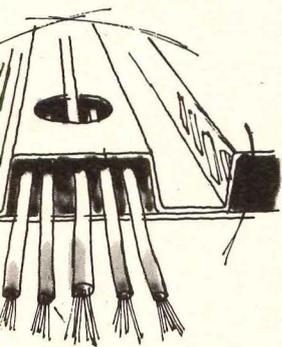
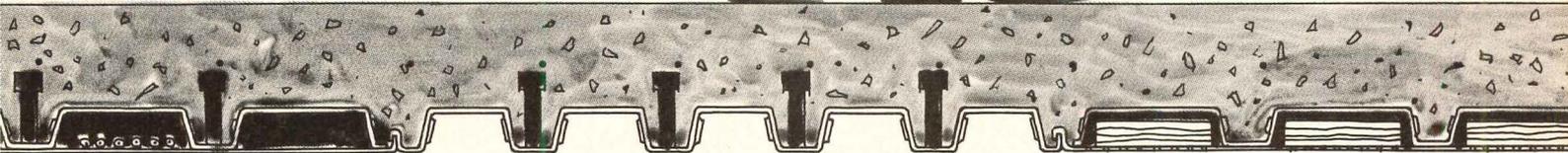
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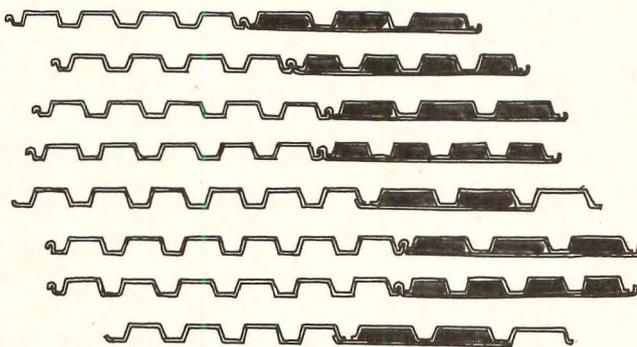
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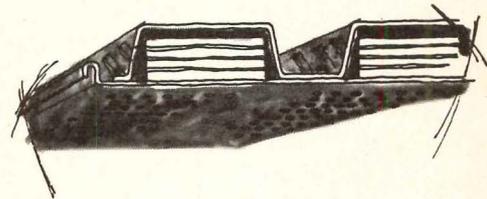
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ence of the Environmental Design Research Association will be held at the same time, same place.

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."

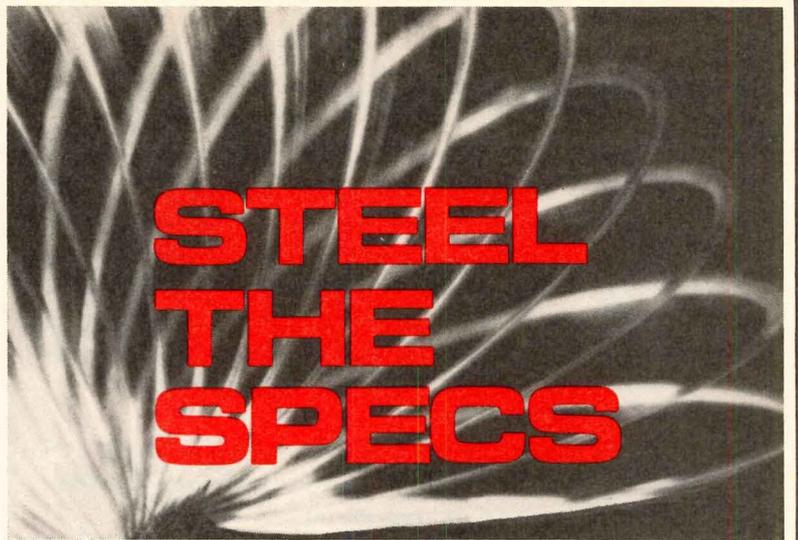
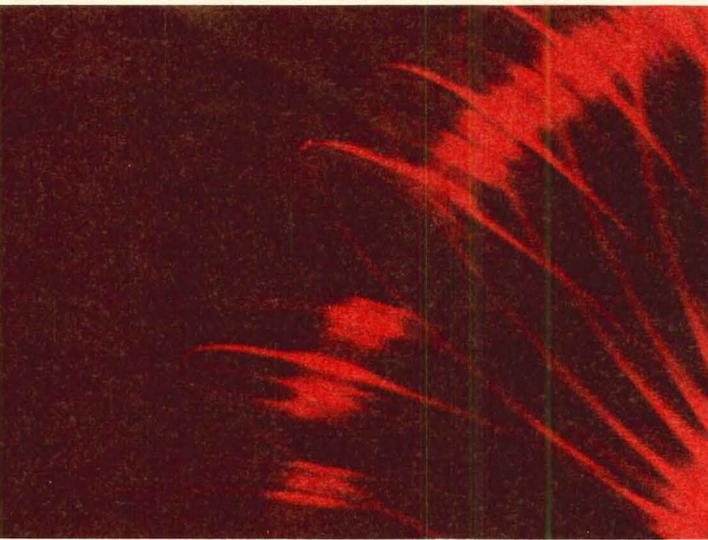
Among the other things that didn't happen was the establishment of associate membership at national level; this provided a good look at the way things get done in conventions. The proposal was for associate membership for those who are not architects but working for architects or in related roles in 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.

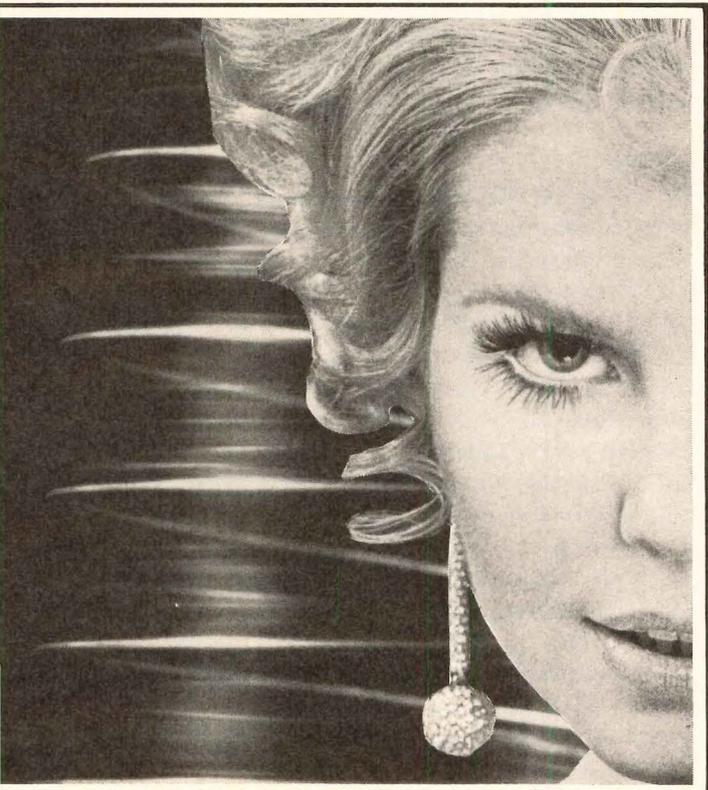
And everybody was. Speakers for the three sessions on "The Hard Choices" included a Canadian government minister, the mayor of Newark, a management consultant, a U.S. government official, a Congressman, a professor, the president of an oil company and four students. This mixed bag of speakers offered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

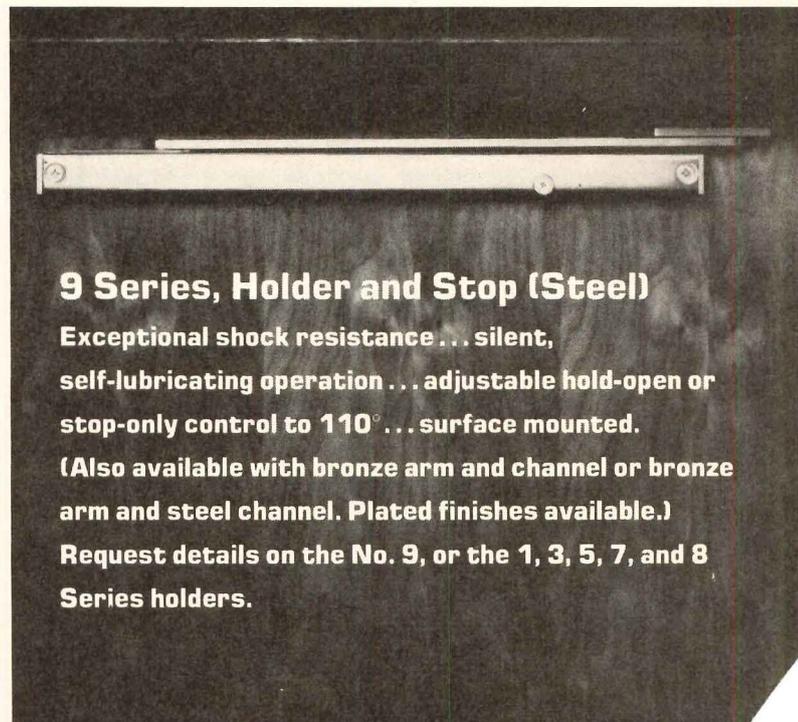
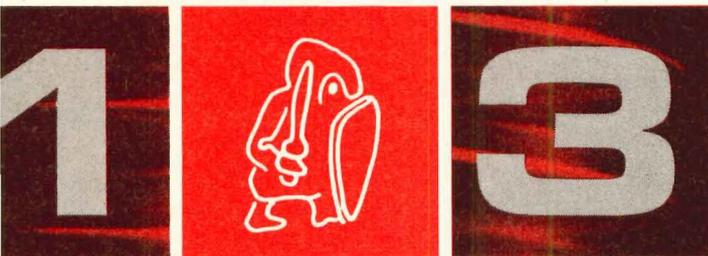


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Basic Human Needs Now? was dealt with by John Gardner, who gave a moving pitch for Common Cause; Dr. Vivian W. Henderson, president of Atlanta's Clark College and Harold R. Sims of the National Urban League, who stressed the actual outlines of the 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, Kultorget 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.

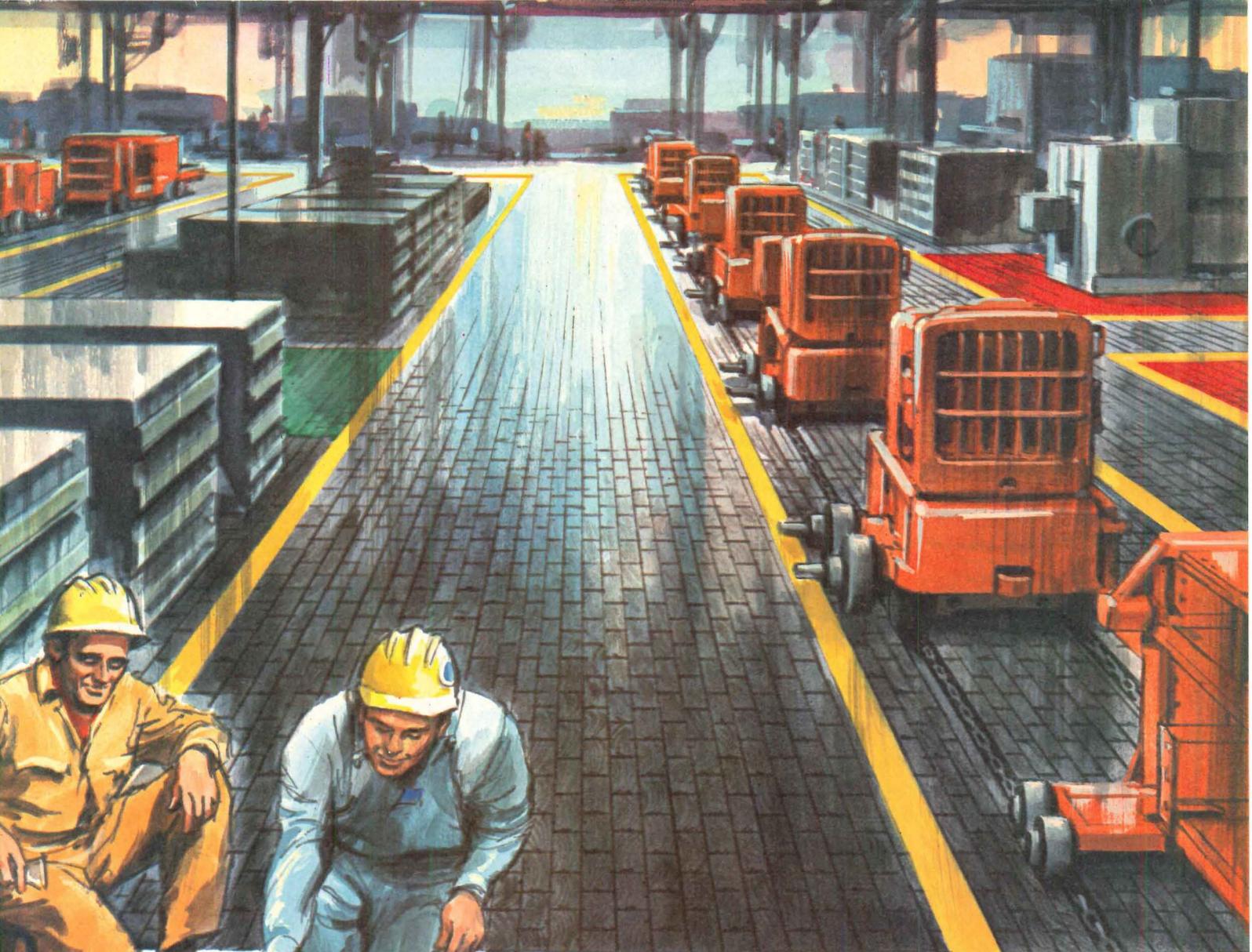
William L. Pereira, FAIA, has accepted an invitation of the American Academy in Rome to serve as Architect in Residence for six weeks this summer.

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]



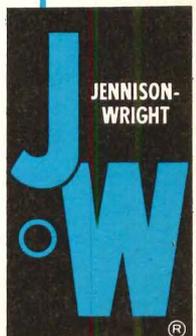
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Architect Howard R. Lane was elected to the board of directors of the Los Angeles Headquarters City Development Association. Robert E. Martin, a partner in the firm of Schauder and Martin, has been named to the Toledo City Planning Commission for a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

cial. 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 Cumbernauld 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.

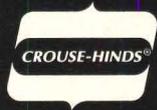
Burnish a brick facade. Splash safety on a footpath.
Make bold a bas relief.

Shine security on parking areas.

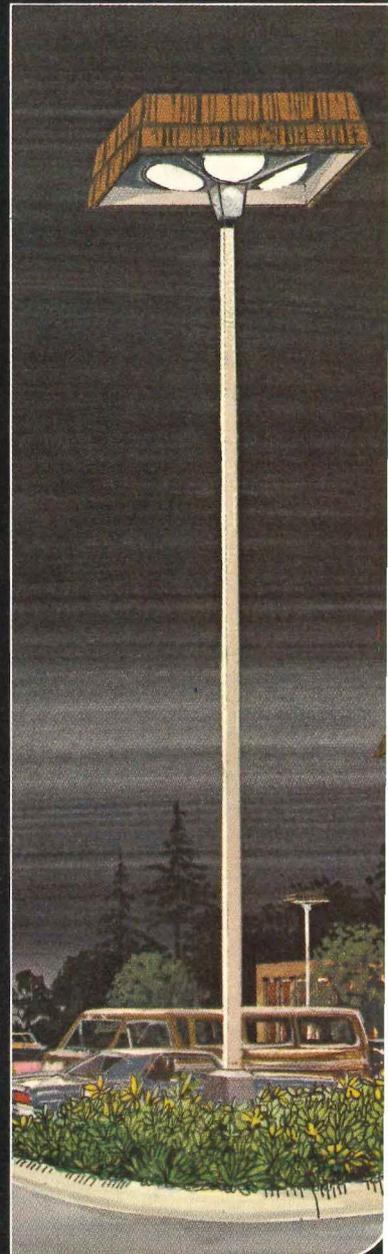
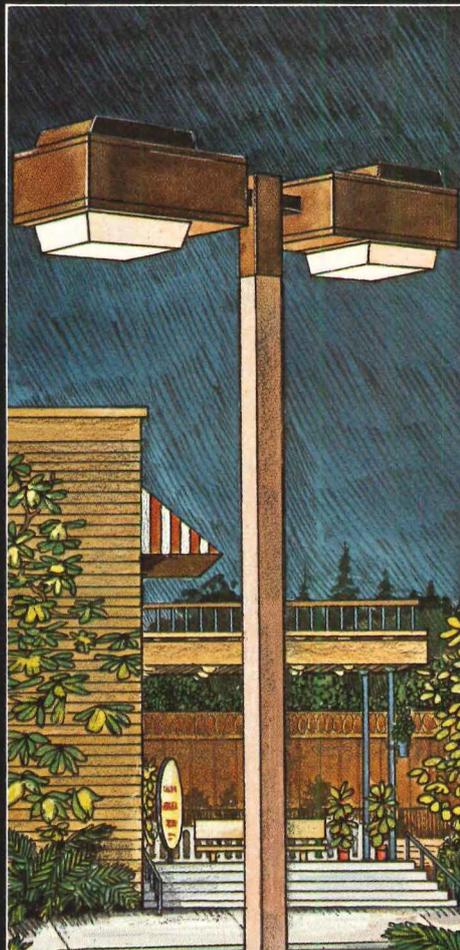
Until now that sort of lighting all too often came in ugly packages. The photometrics were nice. The esthetics weren't.

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.



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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 Giraffers. Owens-Corning Fiberglas.

Circle 103 on reader service card

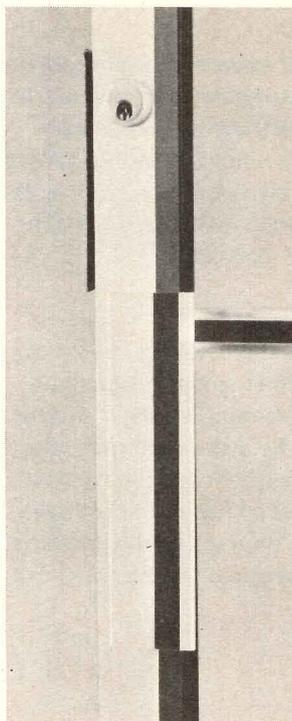
Cast front lighting series. Incandescent and mercury vapor lighting fixtures are designed to have a floating door appearance. Offered in square, recessed or flush fixtures with 12"x12" module with vertical multi-baffles. UL approved damp location and fully gasketed fixtures. For interior or outdoor use.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

Circle 104 on reader service card

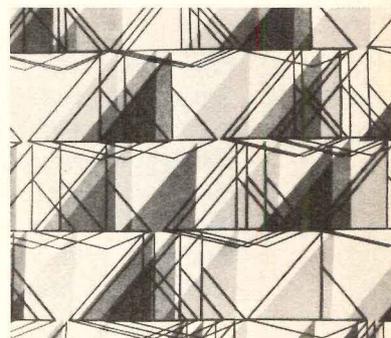
Sand surfaced siding. The uniform sand coating and extra rigid Homasote board are integrated with a 20-mil-thick thermo-setting polyester resin for ready-to-install exterior siding panels. Structural and insulating, they are nonfading, weatherproof, moisture resistant and protected against termite, rot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

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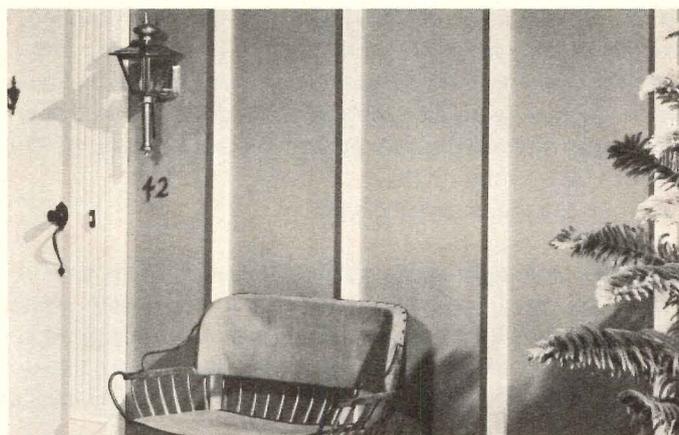
[continued on page 46]



Color accents



Playful walls



Exterior siding

Products continued from page 45

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 Prestressed 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. Rupp-right'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

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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.

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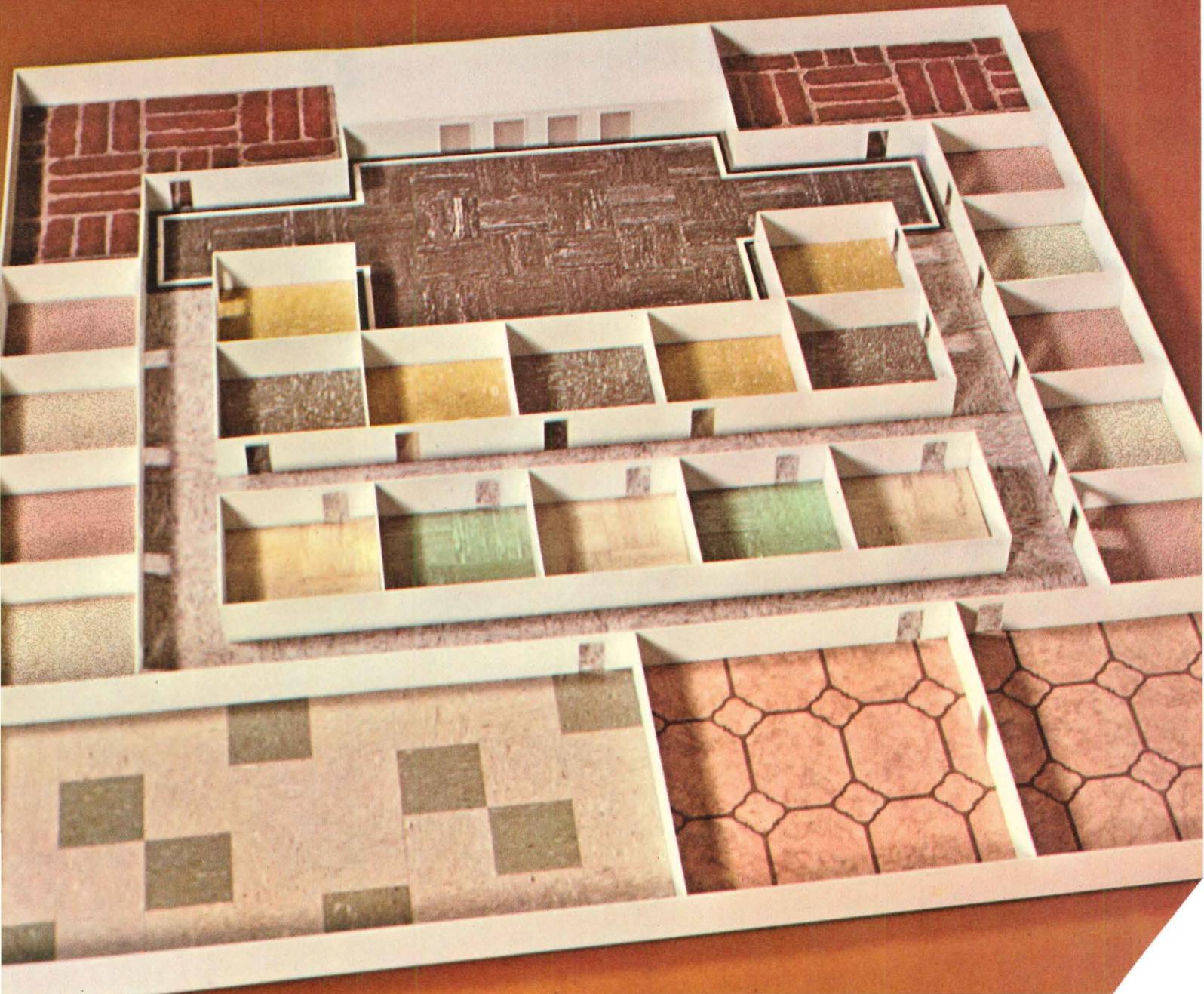
Then for a medium traffic area you might choose highly decorative sheet vinyl which now has interim Federal Specification Number L-F-001641 (GSA FSS). It wears well too, but features warmth and comfort underfoot. And like the tile it's fire-safe.

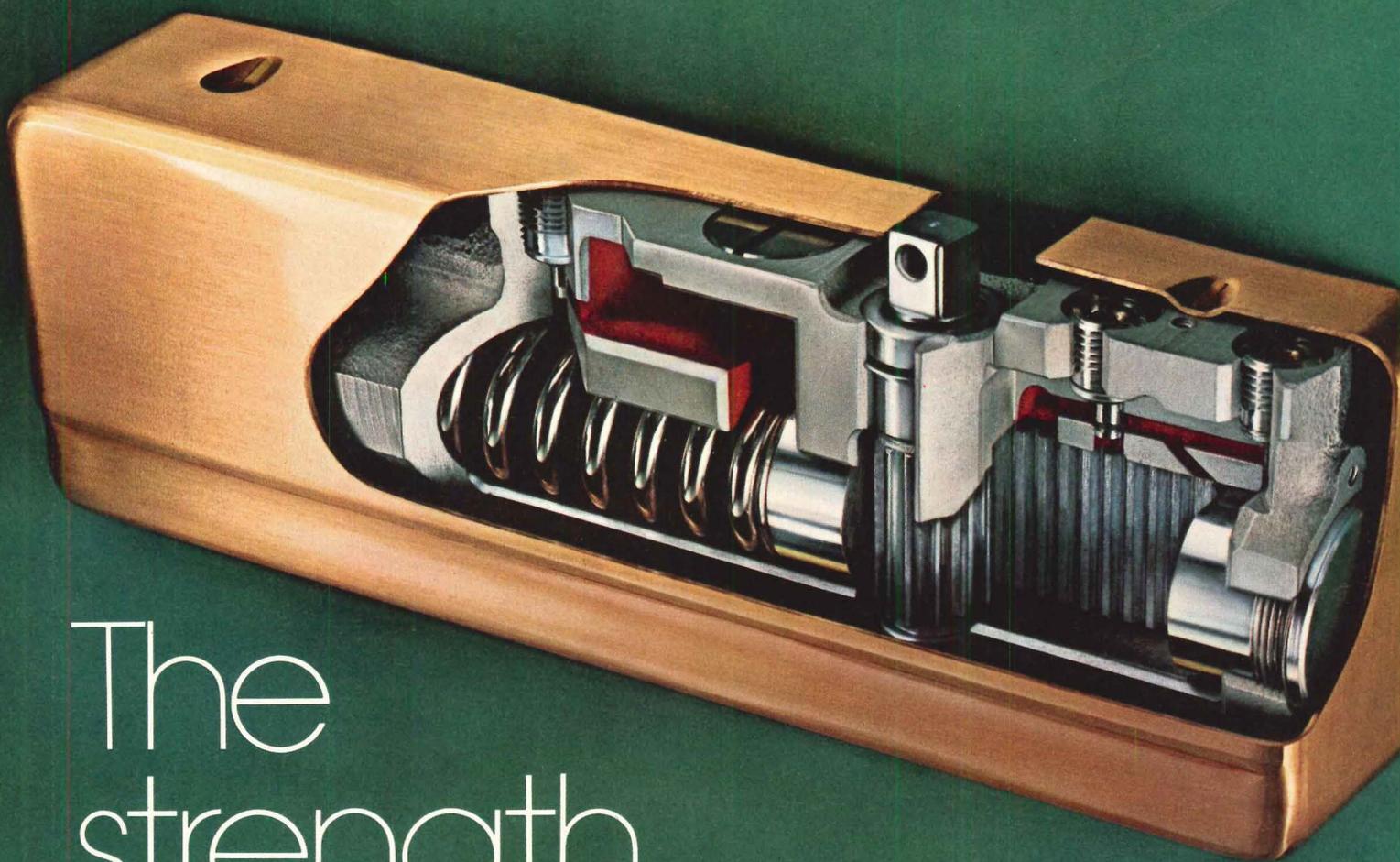
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Progressive Architecture

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]

Portfolio

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

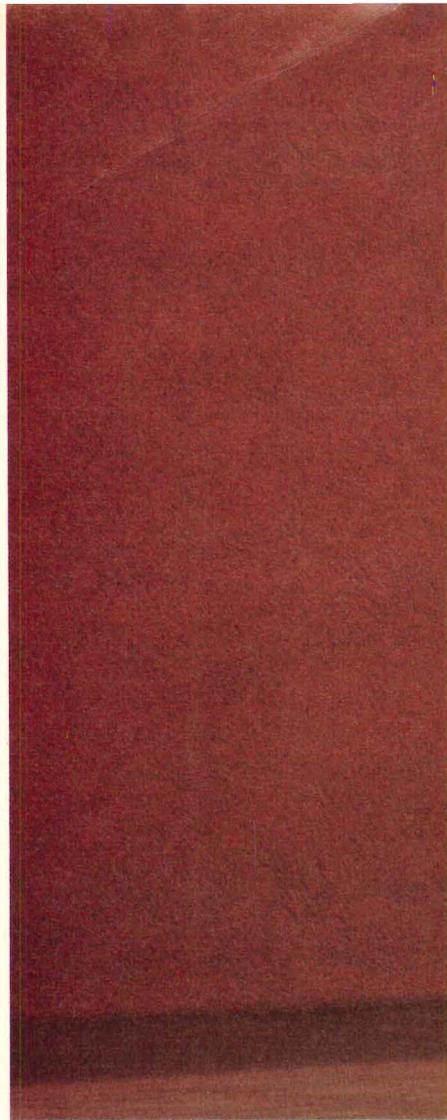
Luís Barragán is probably best known outside his country for his land planning of Mexico City's Pedregal Gardens, a suburban development on the same lava flow as the National University. Barragán recognized the uniqueness of the site; his 1949 plan required preservation of the native plants and a minimum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

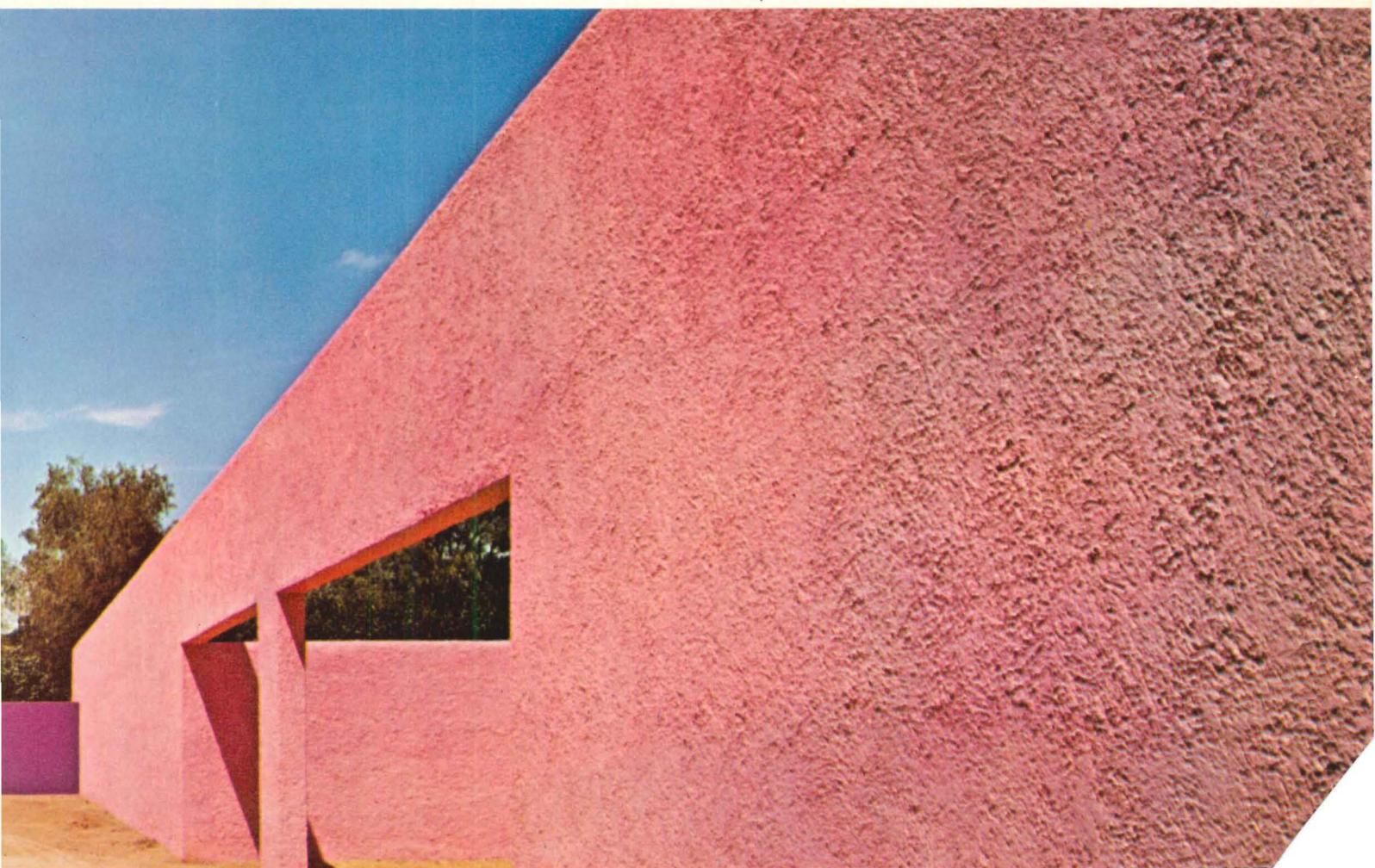
In 1950 he planned a second development in the State of Colima, and as recently as 1969 was called by Louis Kahn as landscape consultant for the large court at Salk Institute. Barragán's training, however, was as an architect in Guadalajara, and his early houses there and in Mexico City were recognized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





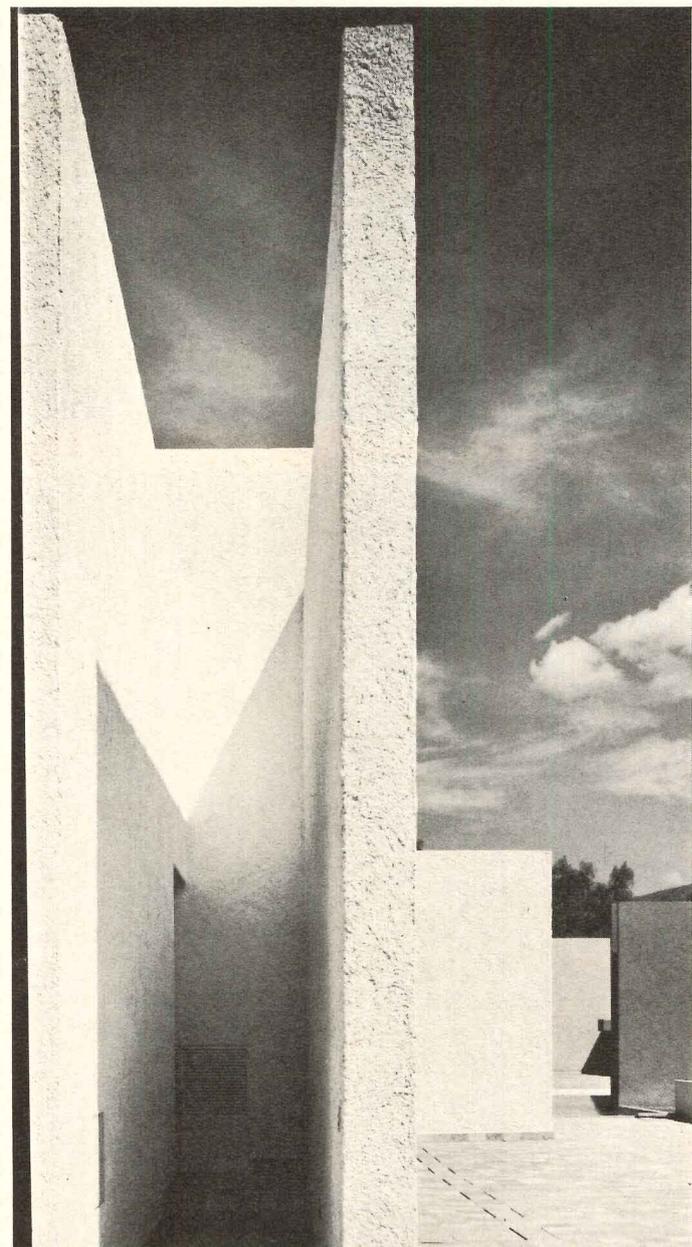
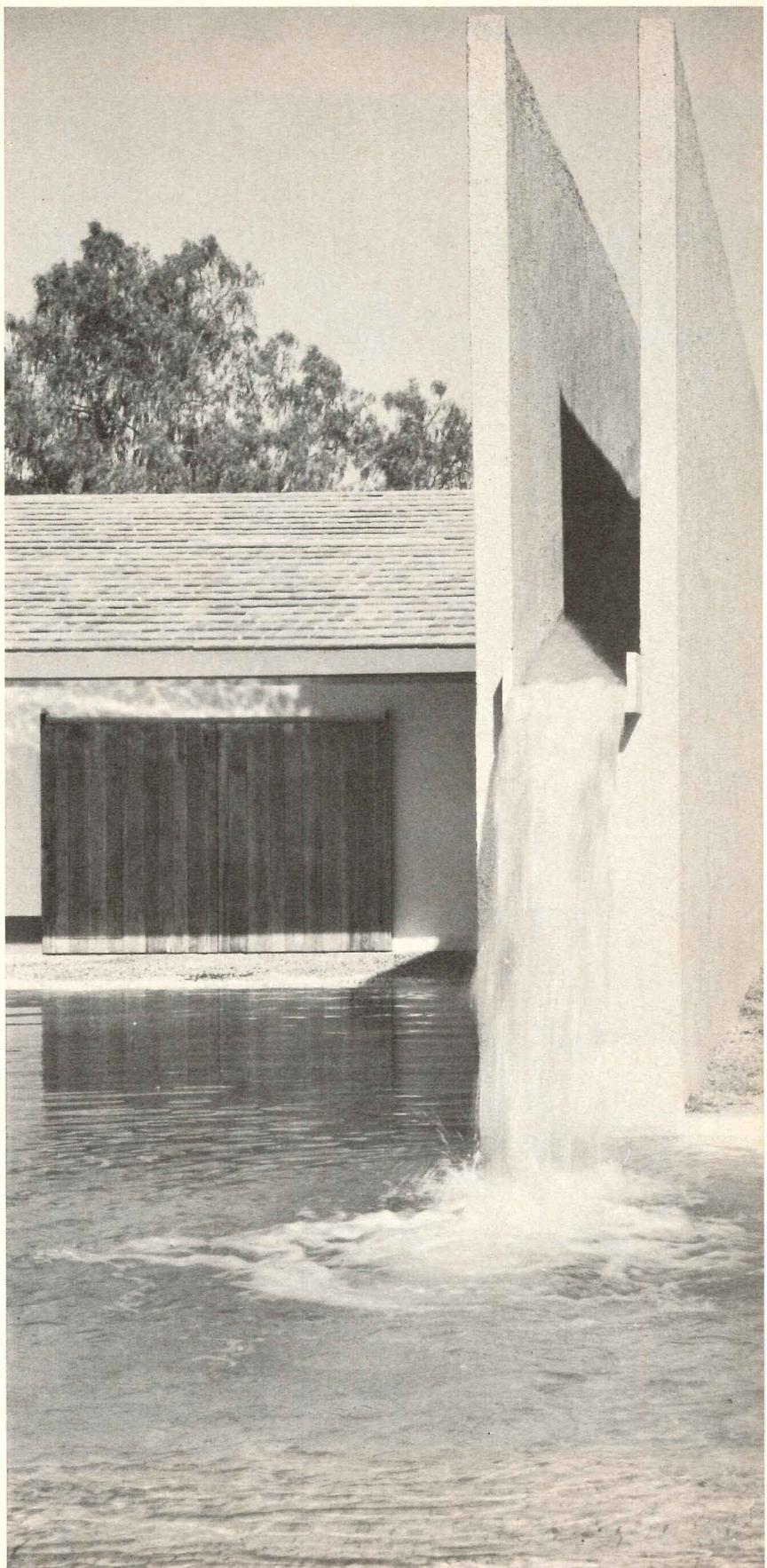


Luis Barragán

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.

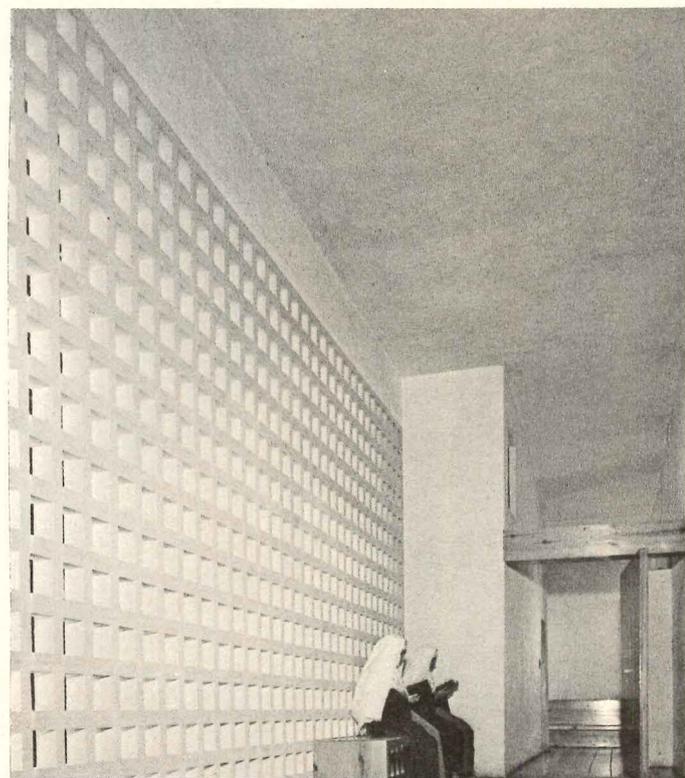
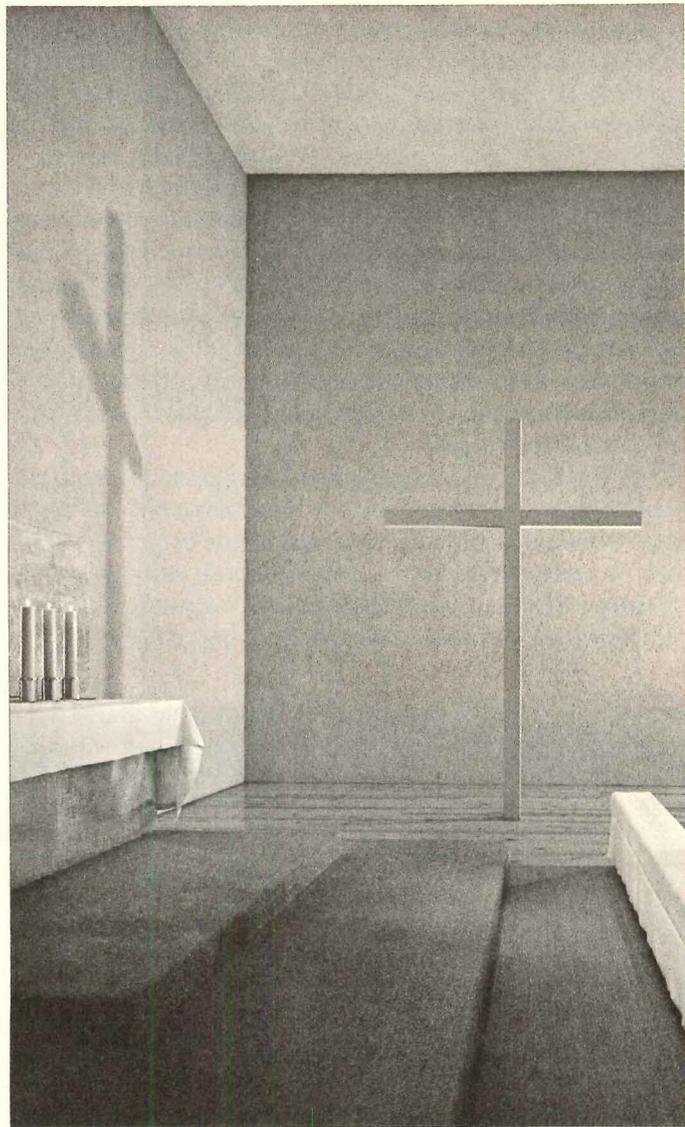
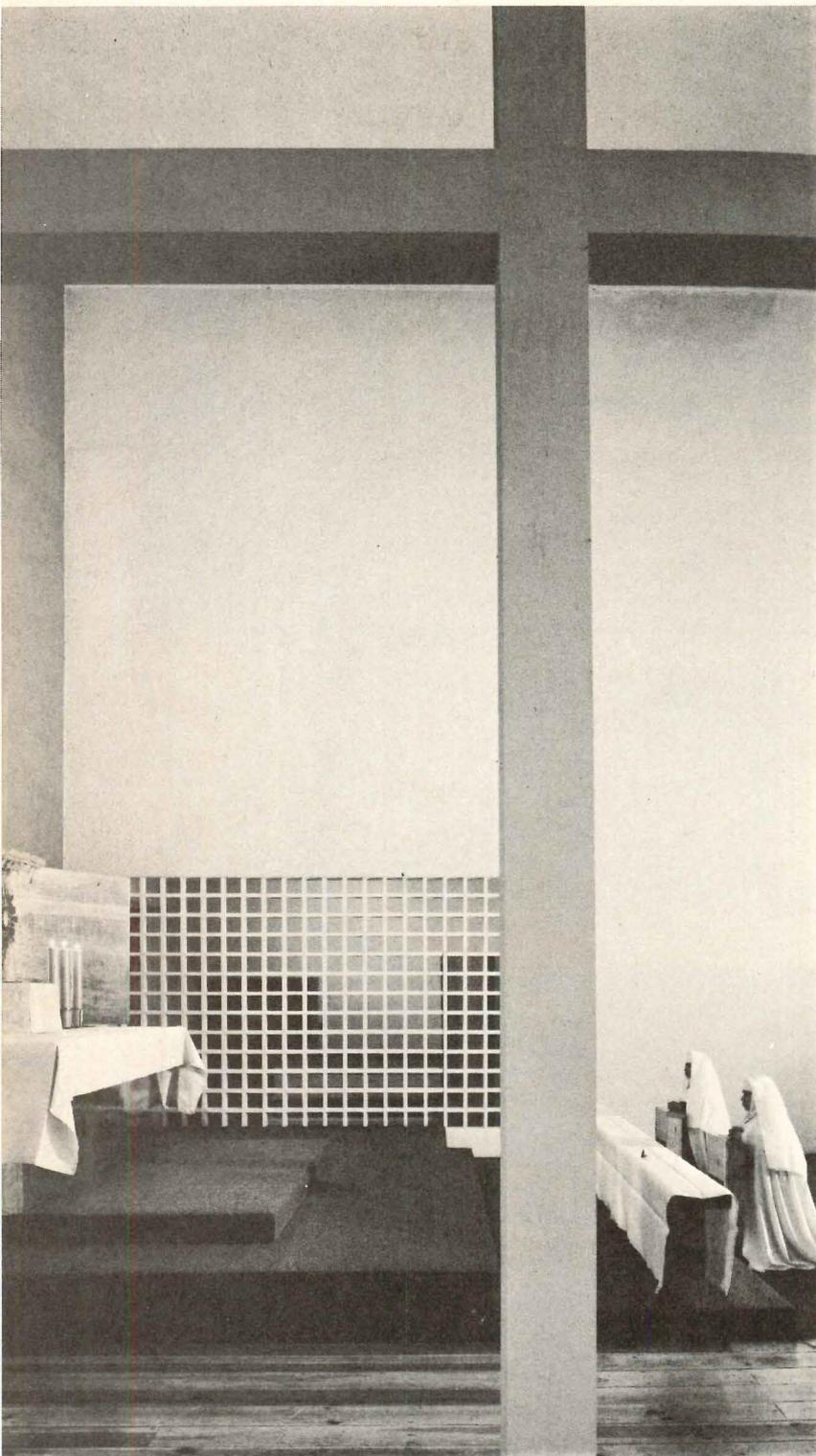
From convent architecture come his most enduring elements: rough plaster for garden, exterior and interior walls; floors of second grade pine, with a look of renunciation and of having been scrubbed that very morning. Ceilings are high, and the rough wood beams have the air of piety of those of the convent. 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]

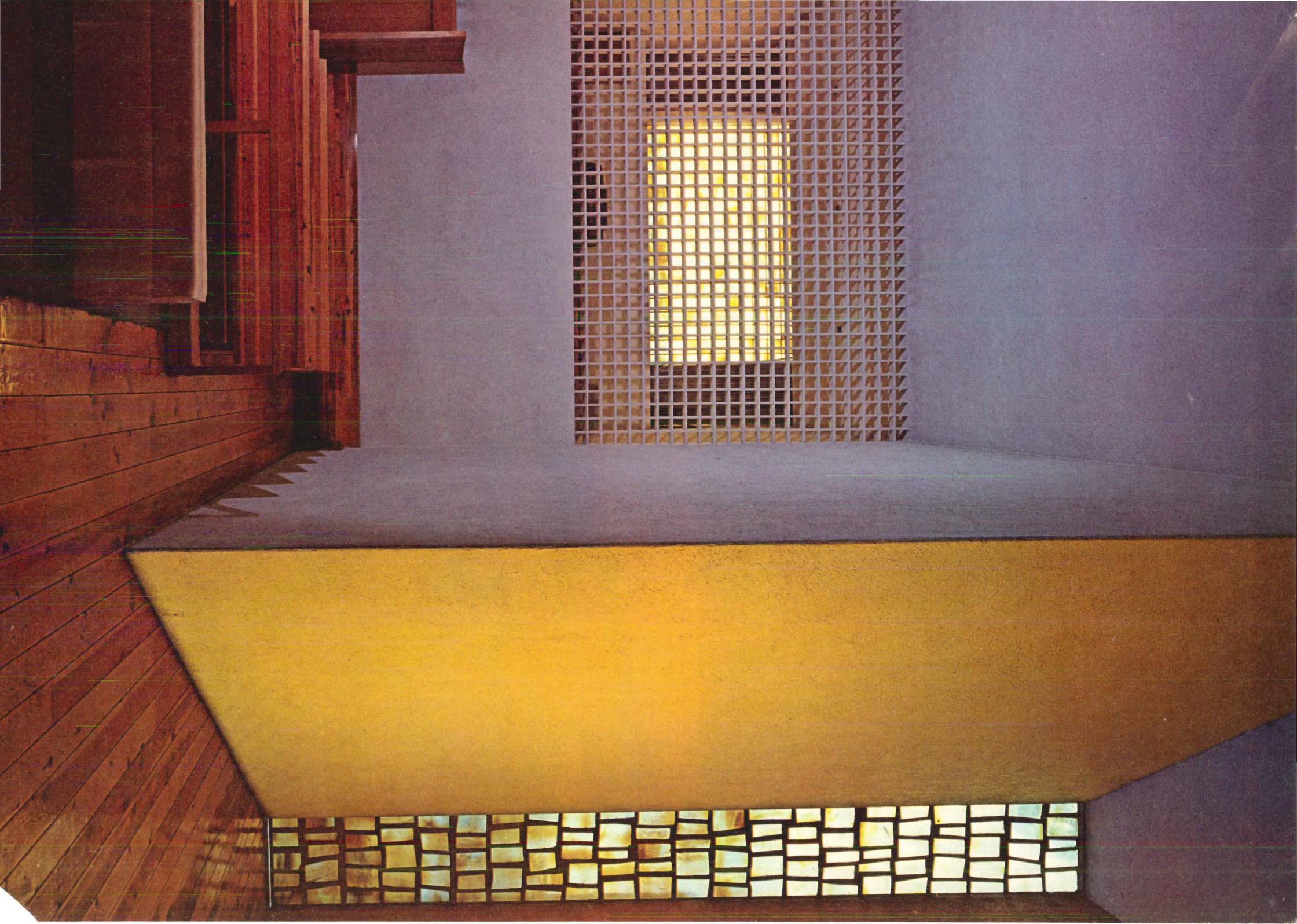


Swimming pool (far left) is on opposite side of Egerstrom house from the watering pond for horses (above). Double wall form is also used at a patio entrance (left).

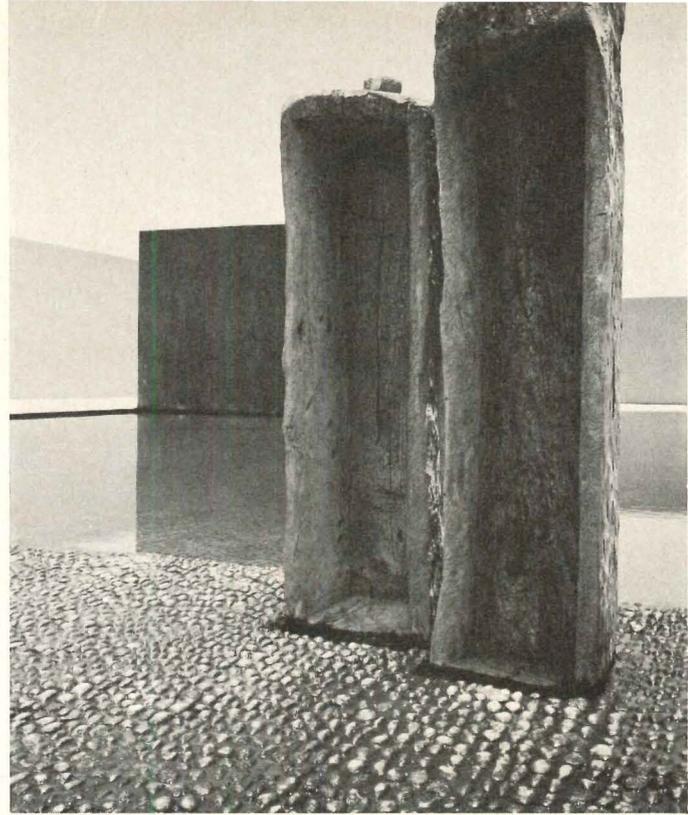
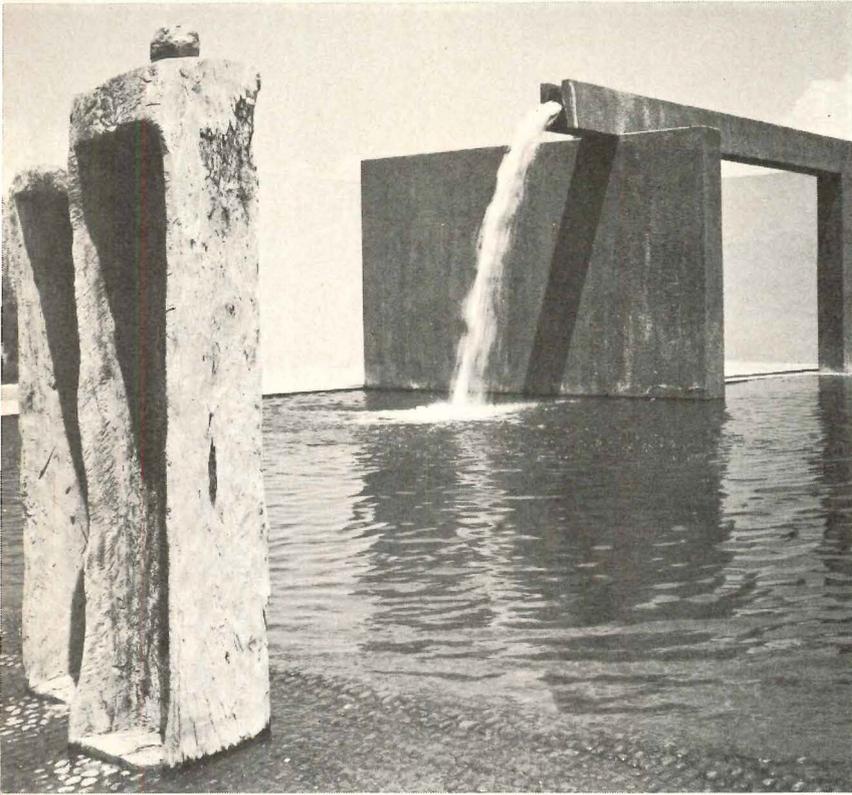
Luis Barragán



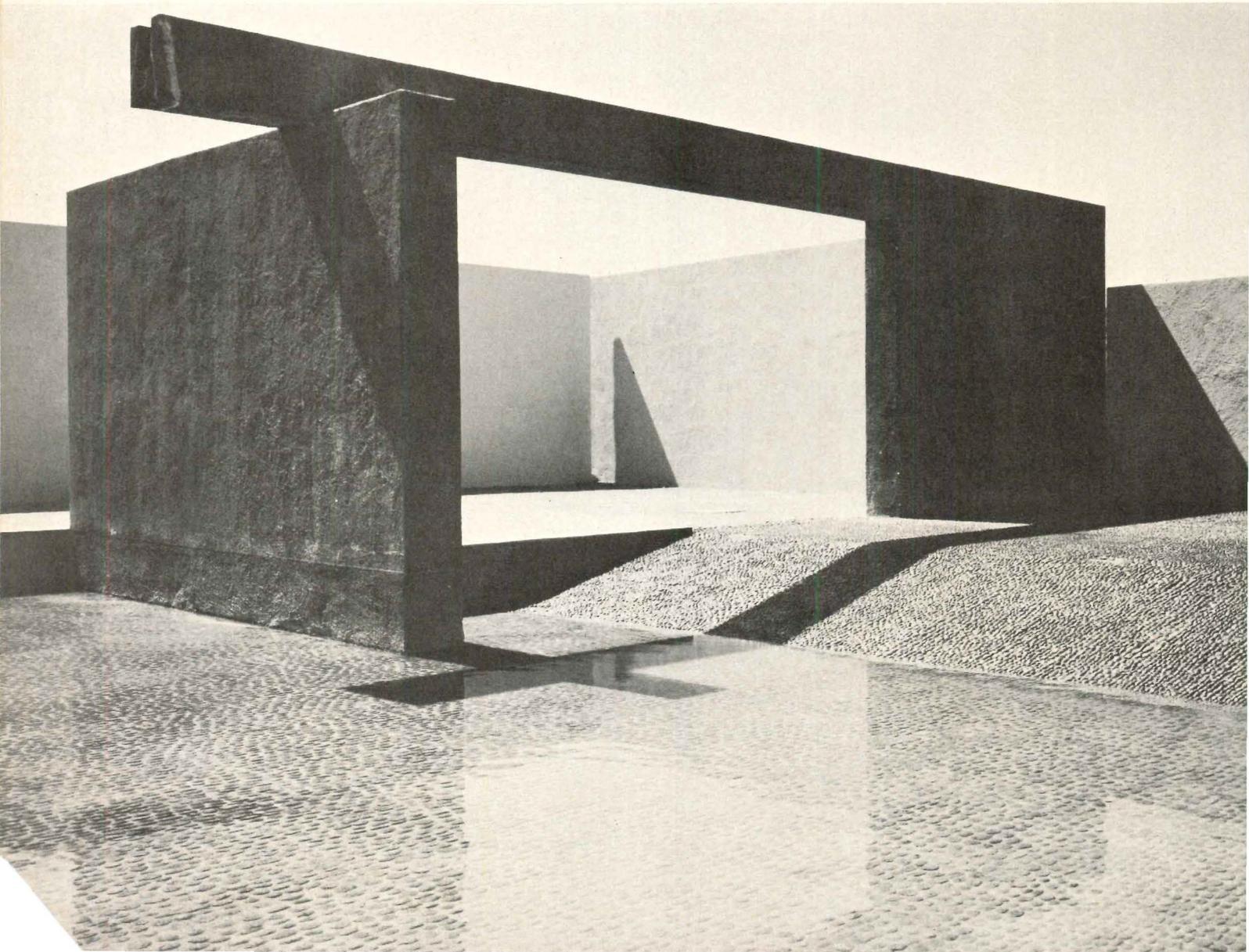
Barragán remodeled the 19th Century Tlalpan Convent and added a new chapel, balancing the severity of form with color.

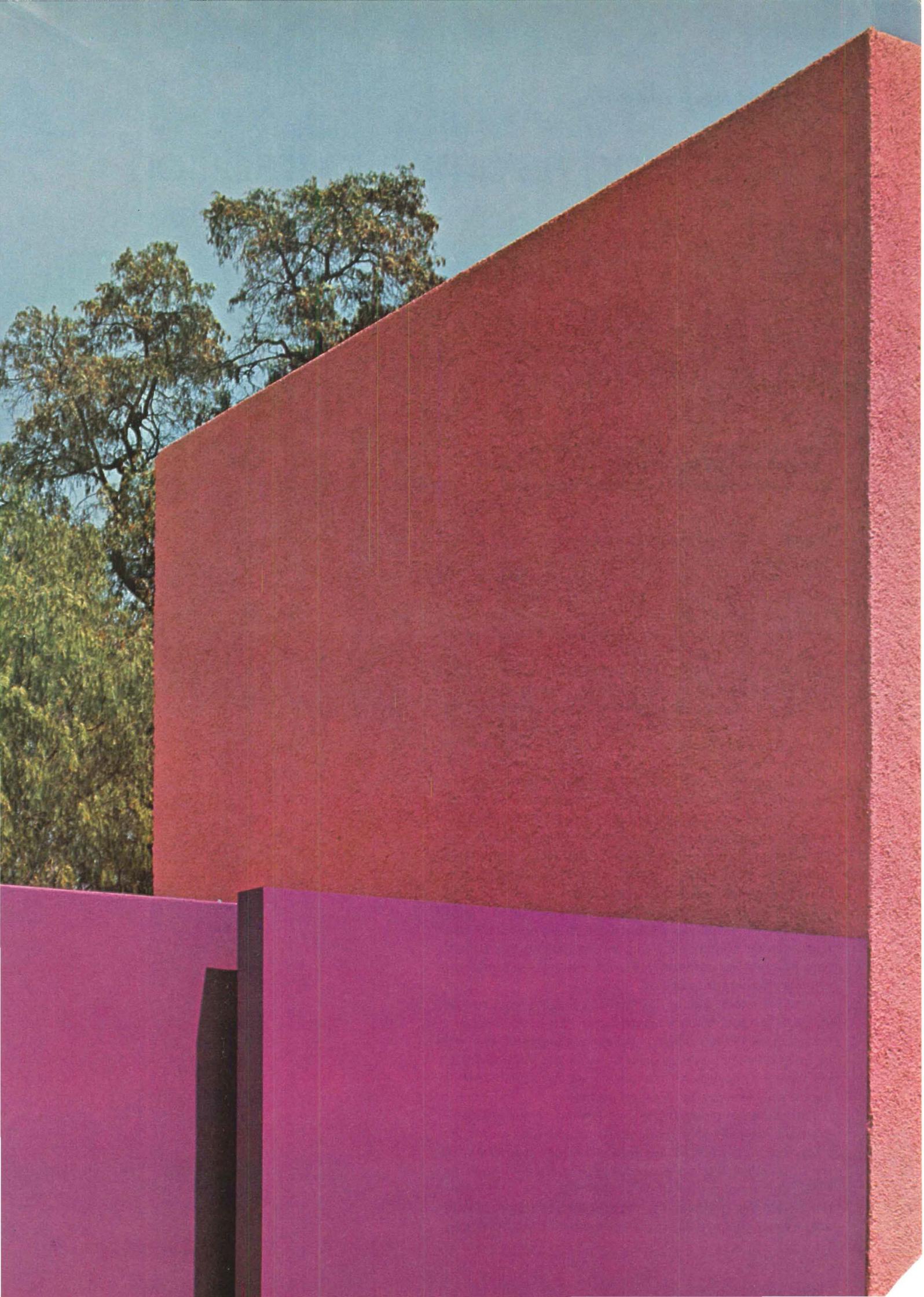


Luis Barragán



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

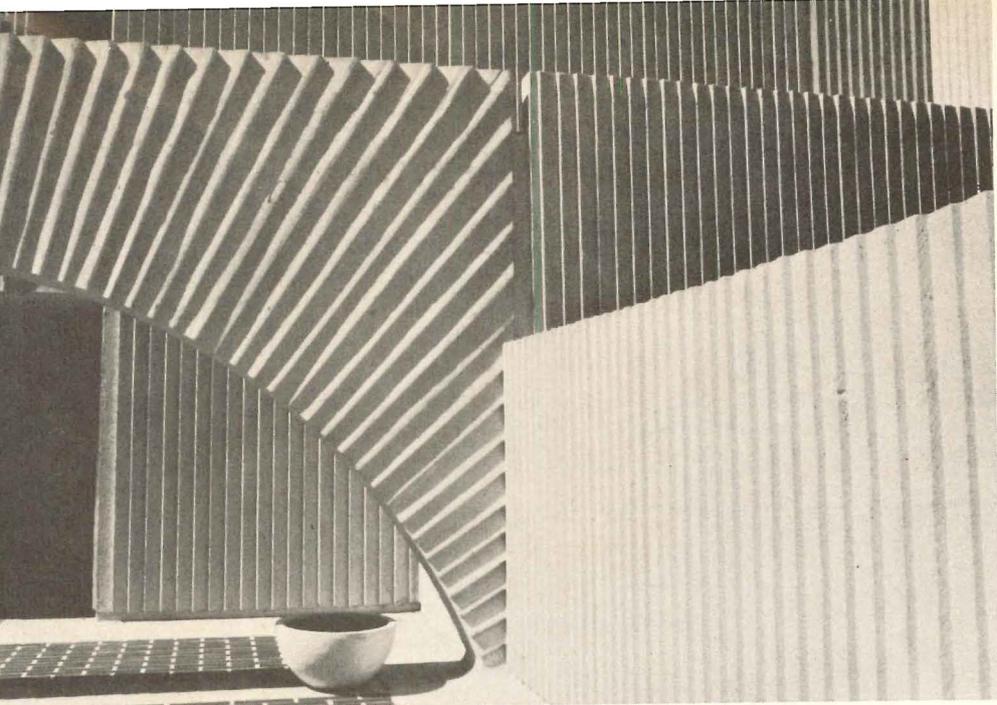
A new judicial building in Florida continues an old tradition of romantic architecture that has proved to be particularly suited to the subtropical climate

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.

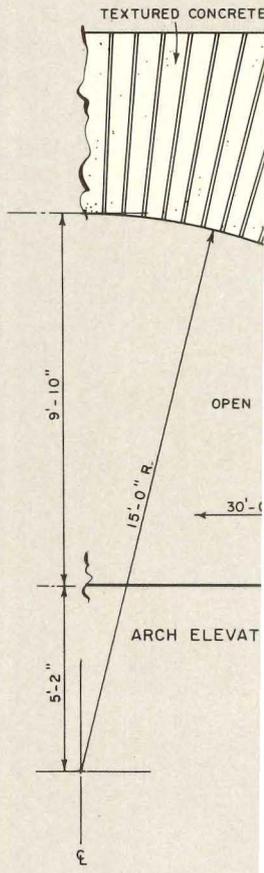
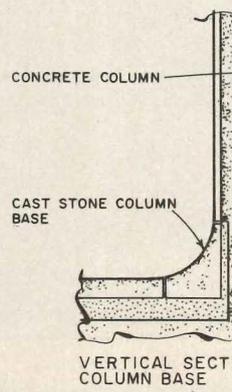
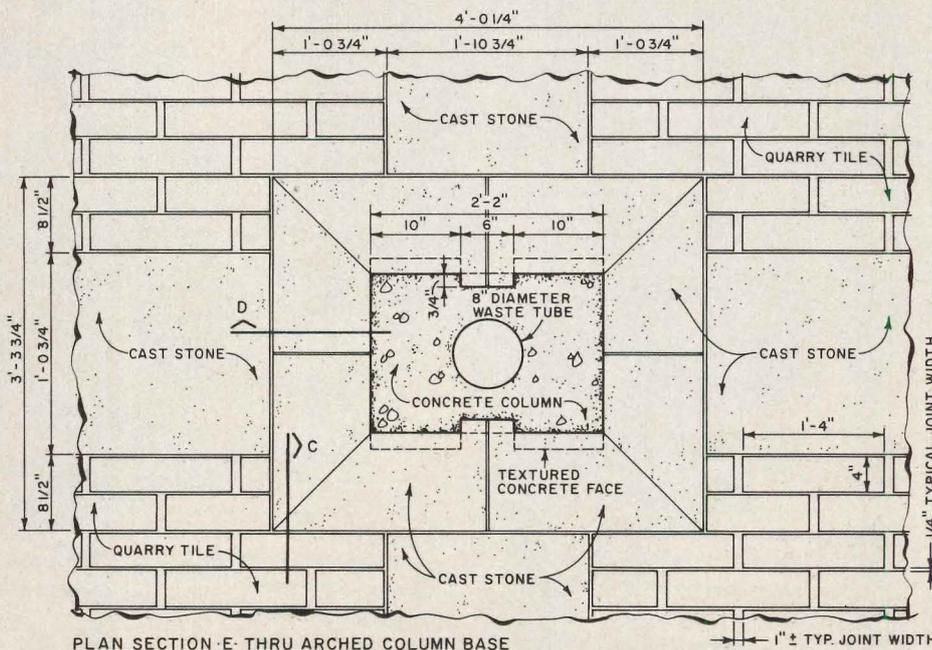
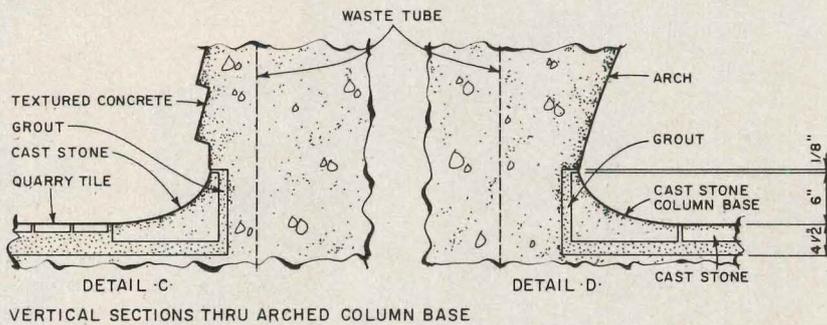
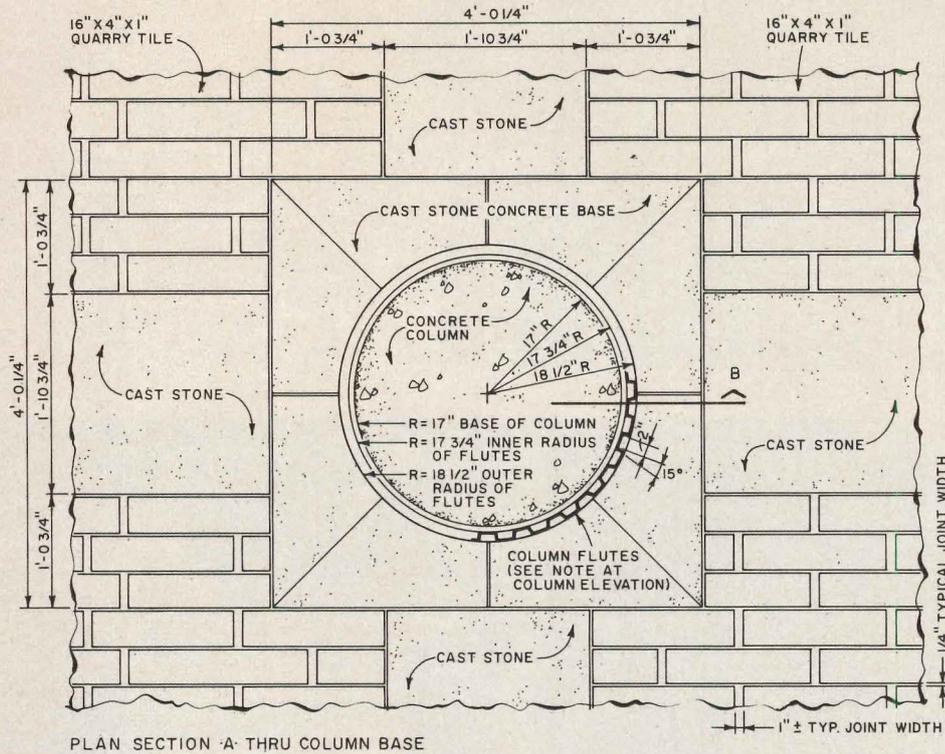
In addition to its official function of providing more space in which to conduct matters of law, the judicial building complements the Florida lifestyle. It is a place to gather, to mingle in the gardens or by the pool, or to rest in the plaza to enjoy the view of a nearby lake; not just a building to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

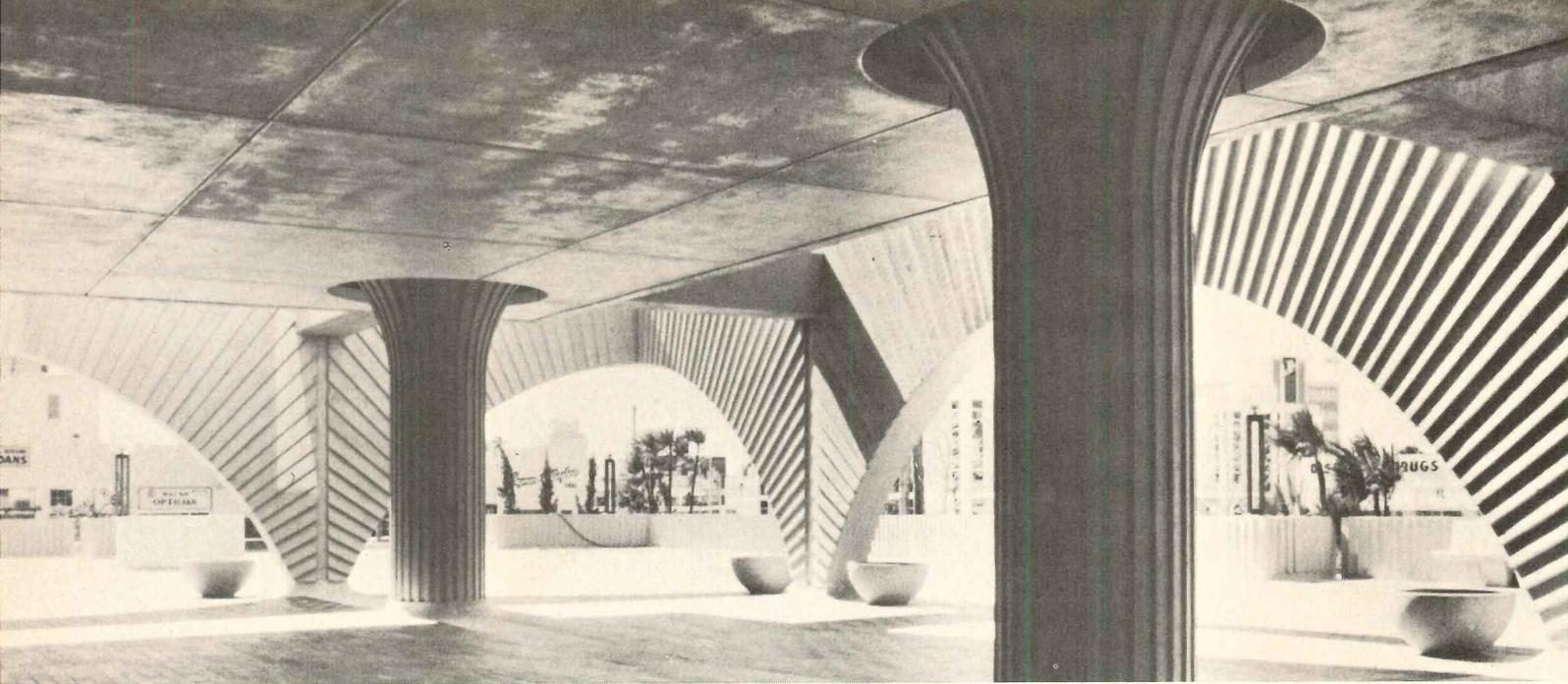
The poured-in-place, highly embellished, reinforced concrete building sits atop a spacious, raised, slate-surfaced plaza that is reached by a staircase bridged over a shallow pool. The plaza is completely open, punctuated only by structural columns and a small glass-enclosed lobby. Four floors rise above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





Construction details



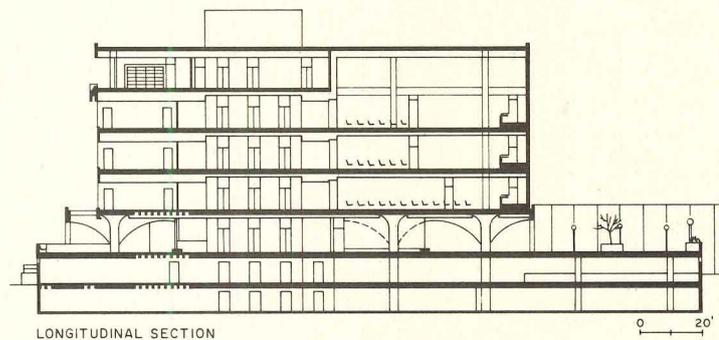


On plaza level, structural supports become fluted columns to support four upper floors of seven-story building. Detached connecting arches carry electrical and plumbing runs, which are brought to building by nonstructural box beams.

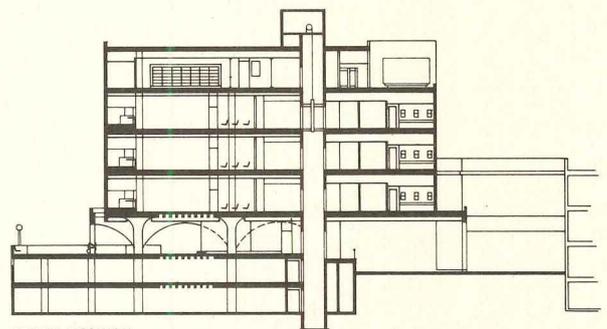
A series of connected arches that appears to be a viaduct, and in a certain respect is, stands several feet from the building and forms an almost continuous ring around it. Most of the plumbing and electrical piping is concealed within the spaces between those arched columns, and carried over to the 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]



LONGITUDINAL SECTION



CROSS SECTION

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.

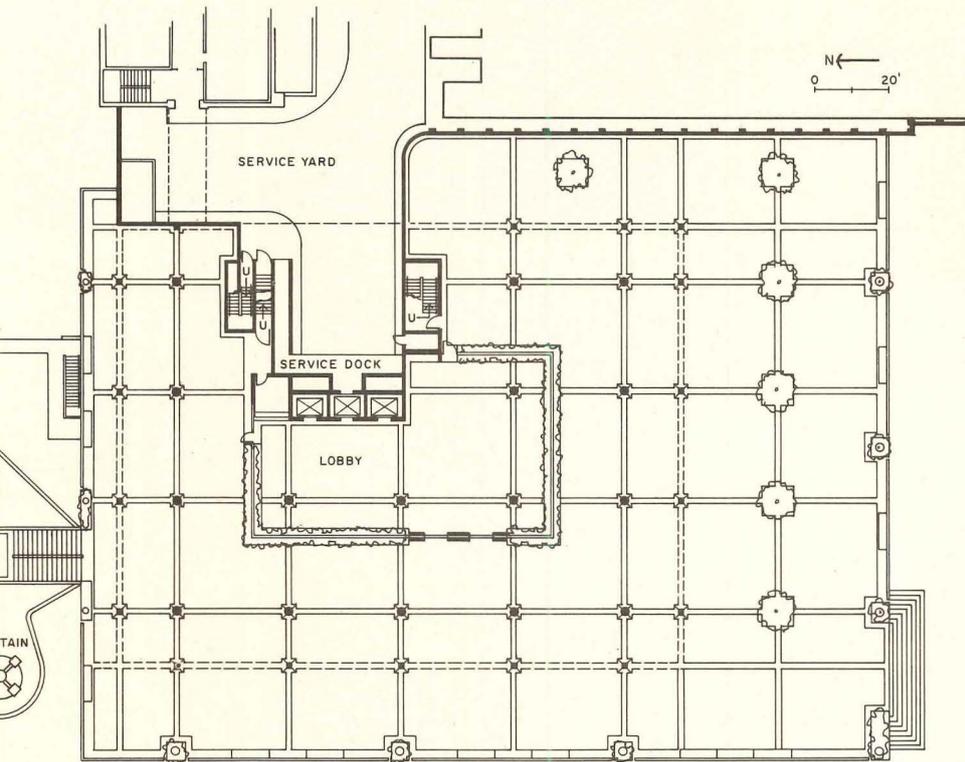
Major materials: formed-in-place reinforced concrete, cast stone, marble, slate, automatic sliding doors, pivoted aluminum windows.

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

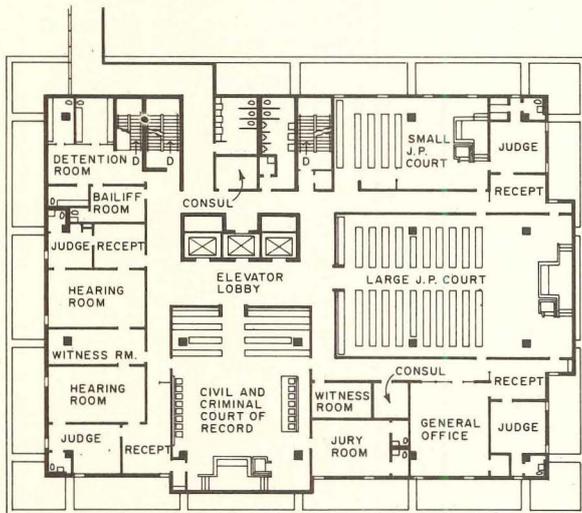
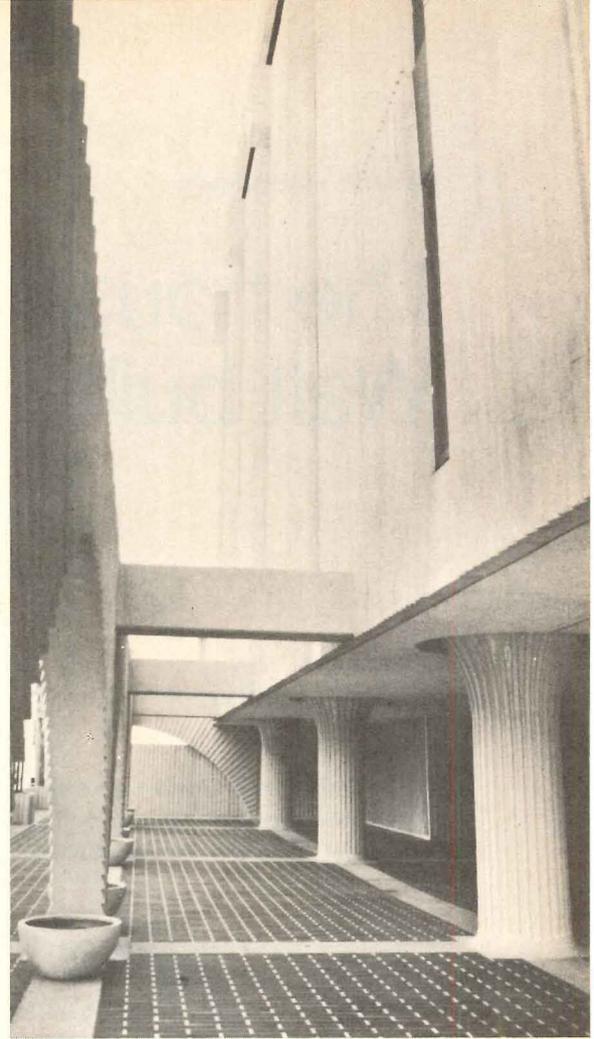
Consultants: landscape, Rainbow Nursery; mechanical, Rebane Consulting Engineers; structural, Mathew Bodo.

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

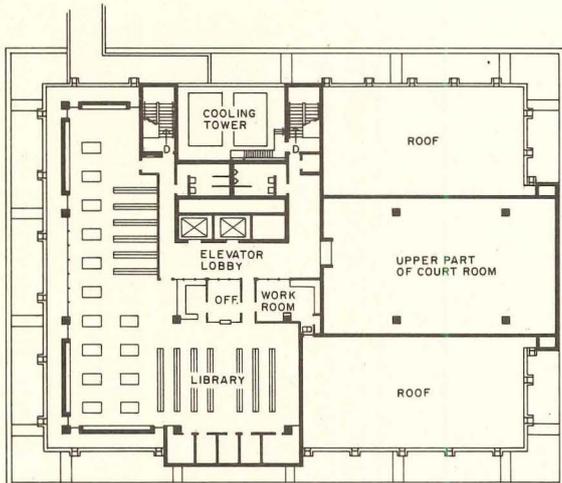
Continuing a romantic tradition



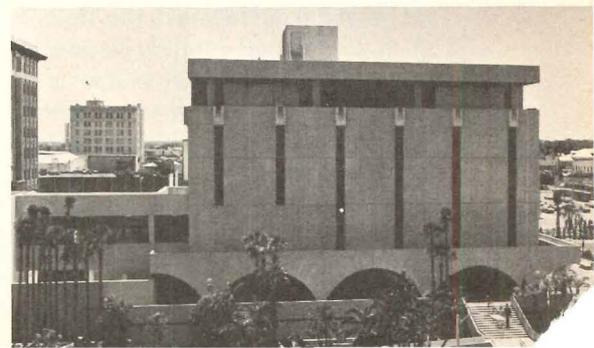
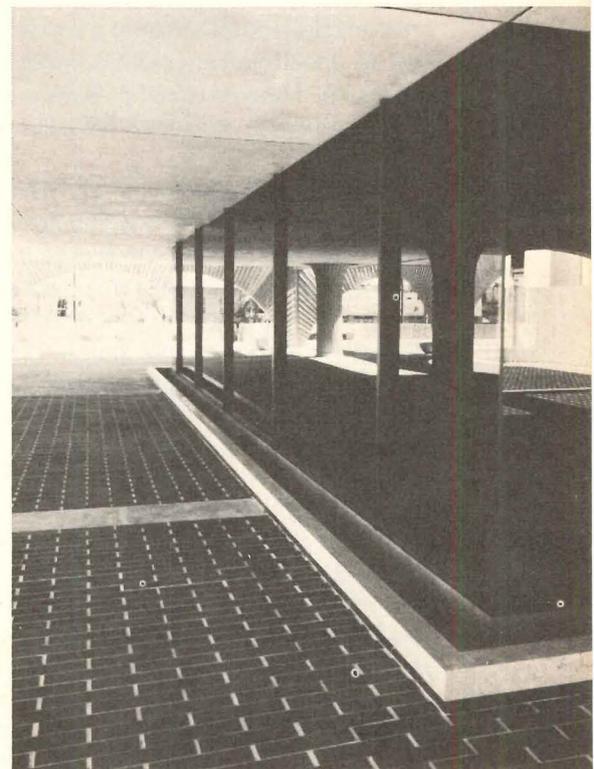
PROMENADE DECK - FIRST FLOOR PLAN



SECOND FLOOR



FIFTH FLOOR PLAN



The house that Walt built



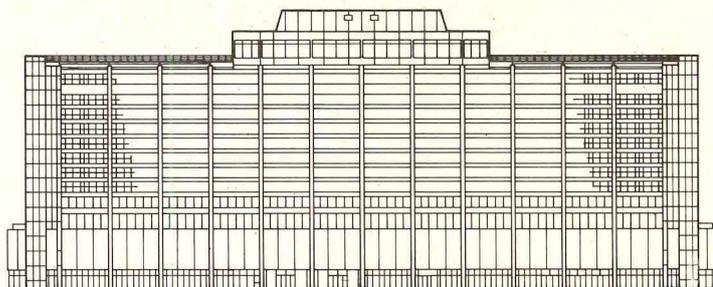
When Walt Disney World opens its gates in October, the Disney tradition, the spectacular, will greet guests of a new hotel designed around steel framed modular units

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.

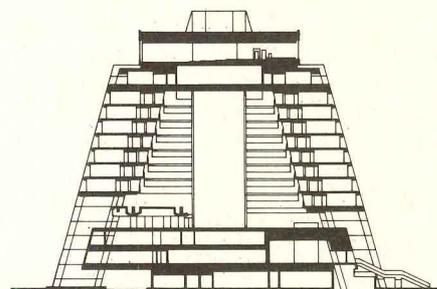
The 1050-room Contemporary Resort-Hotel was designed by Welton Becket and Associates for Walt Disney Productions. It is being built next to a large man-made lake by U.S. Steel Corporation's Realty Development Division, which set up a prefabrication plant eight miles down the road yet still on the WED 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 1 1/4 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.

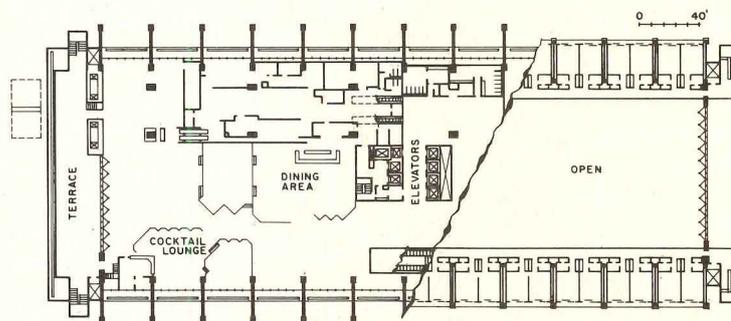
The steel framed modules were prefabricated complete with fireproofing, balcony railings, corridor floors, baths, brightly colored carpet and wall finishings. Some of the mod-



WEST ELEVATION



CROSS SECTION



PARTIAL CONCOURSE LEVEL
PLAN VIEW

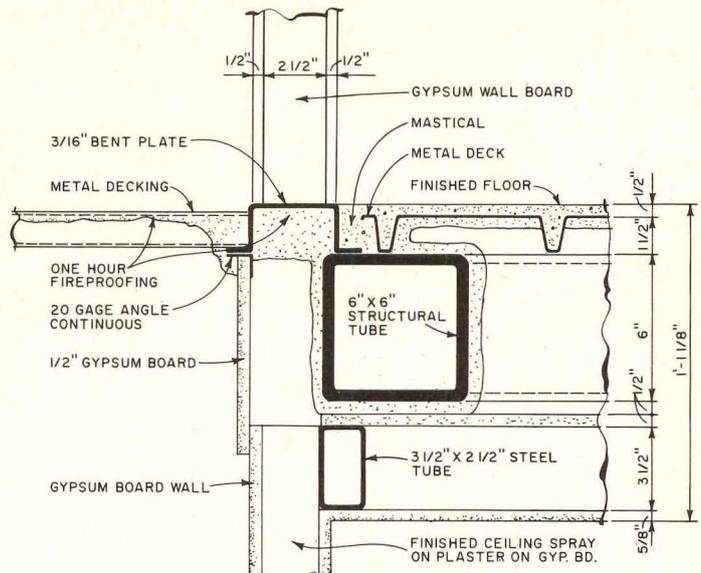
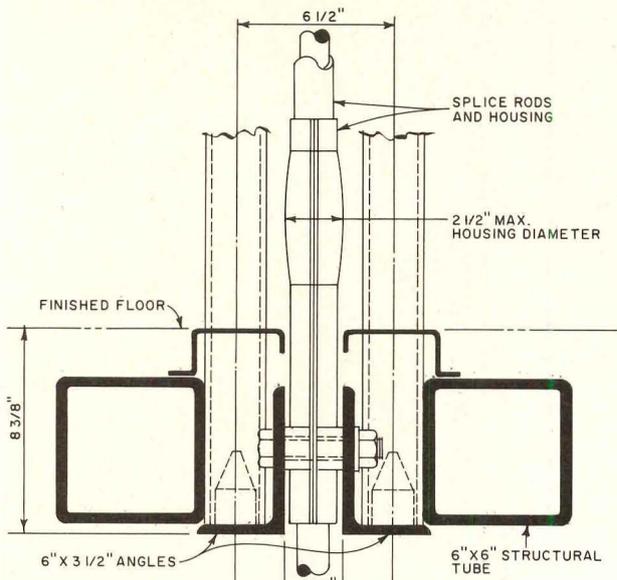
PARTIAL TYP 6th, 7th & 8th FLOORS



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.

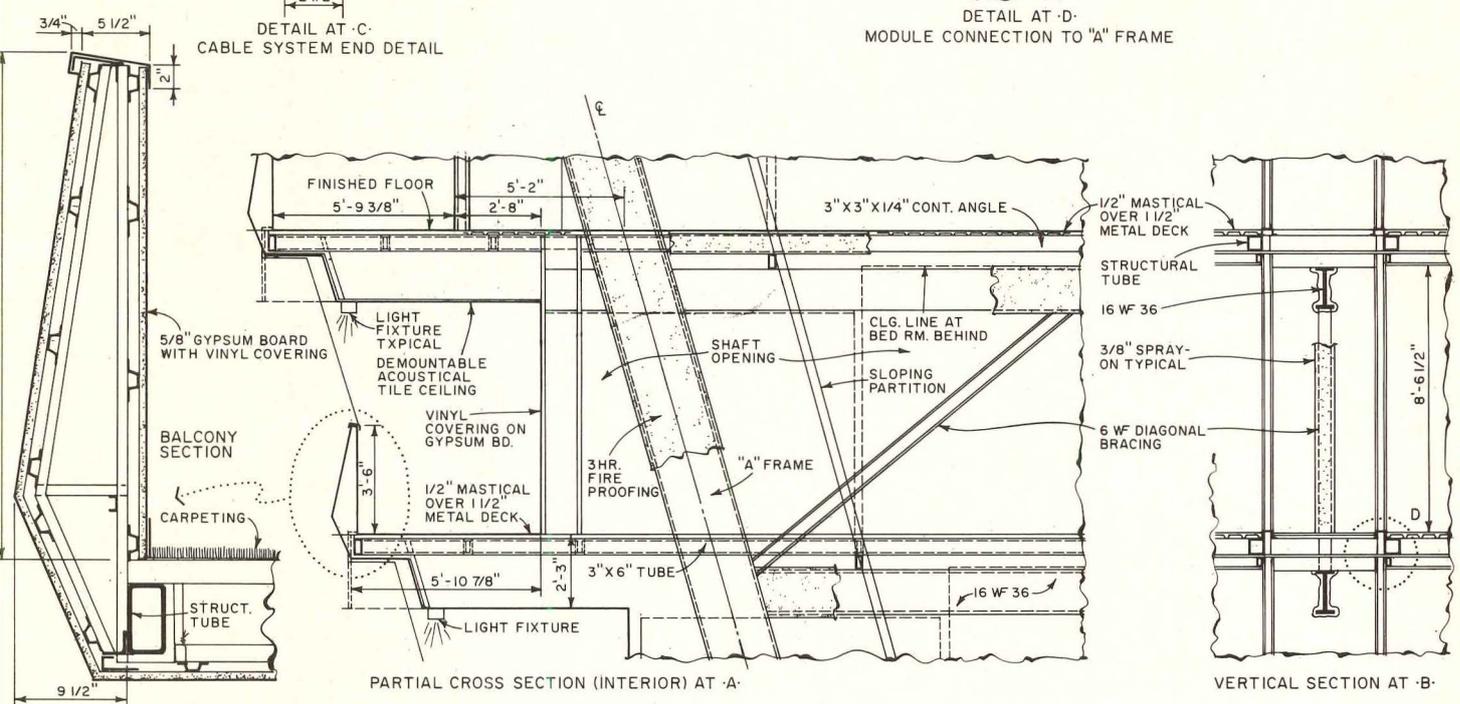
The slip-formed core consists of two shafts housing elevators and stairs, with additional stair shafts of poured-in-place concrete located at each end of the building. Built with the same slope as the A-frames, the end stair shafts are U-shaped tubes structurally connected only at the top floor diaphragm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



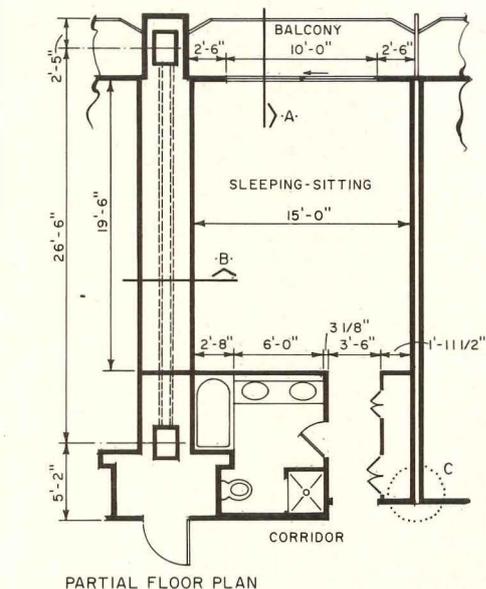
DETAIL AT C: CABLE SYSTEM END DETAIL

DETAIL AT D: MODULE CONNECTION TO "A" FRAME

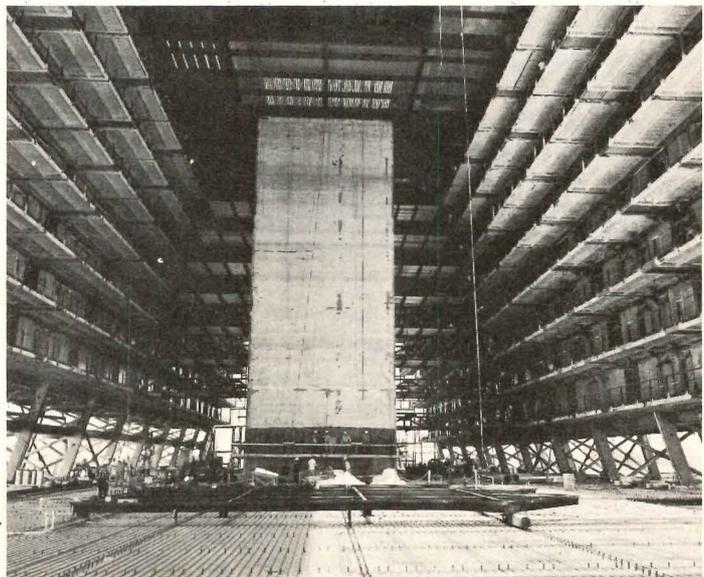


PARTIAL CROSS SECTION (INTERIOR) AT A

VERTICAL SECTION AT B



PARTIAL FLOOR PLAN



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

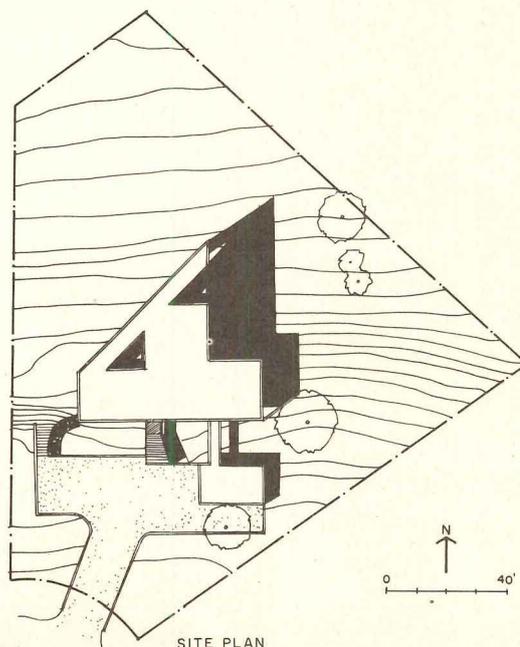
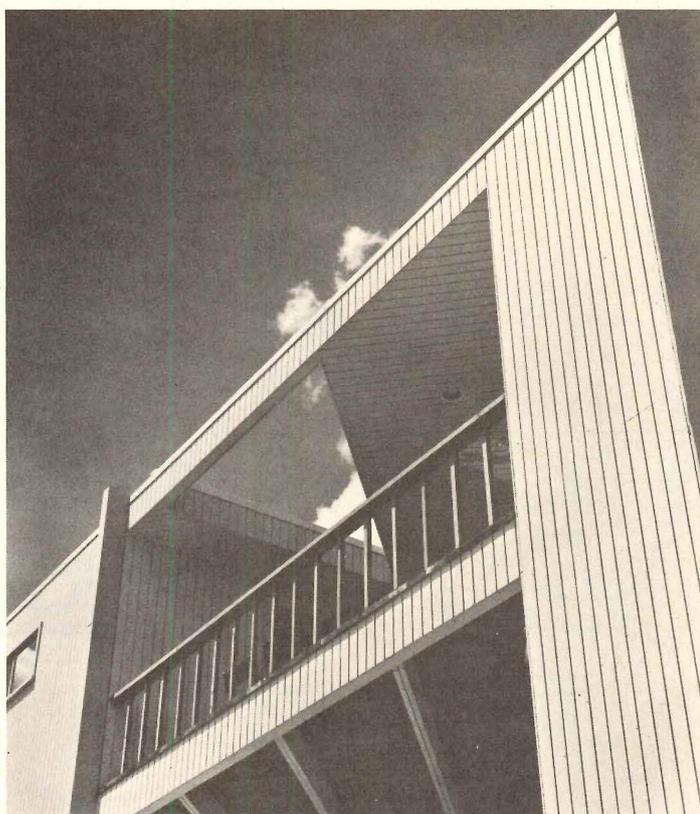
Among the more important reasons given for change in architectural design procedure is that of a need to provide more responsively for a change in clients' needs. Architect Clovis Heimsath notes a deep-seated change in ways in which people perceive the space they live in: their homes

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.

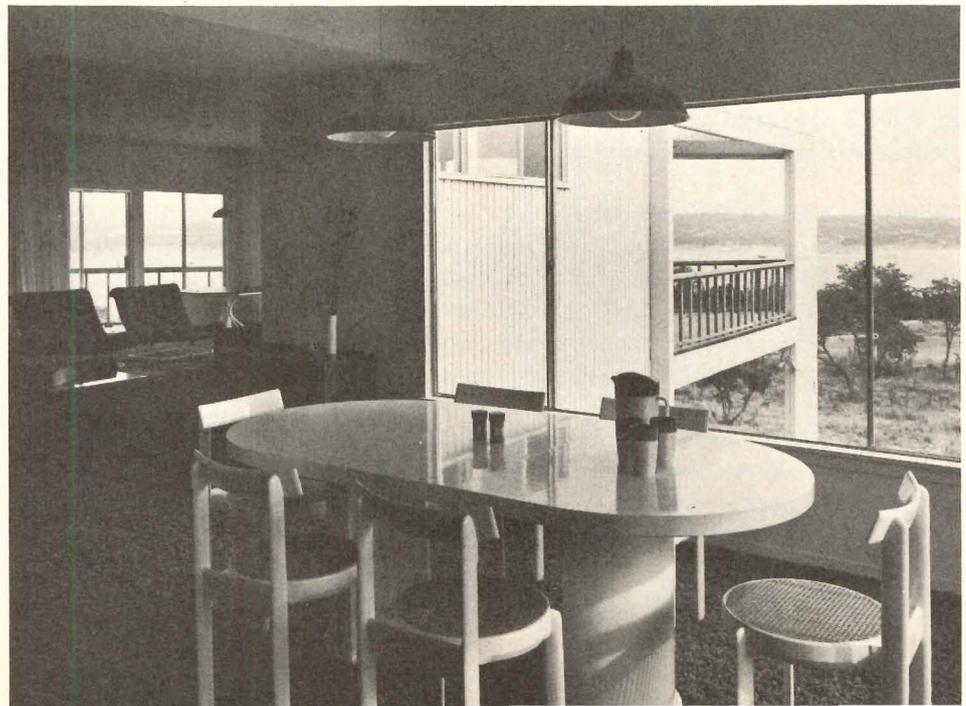
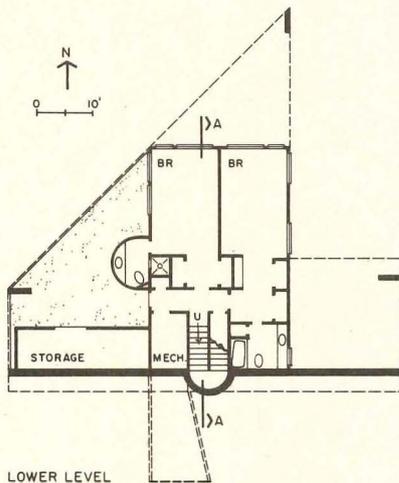
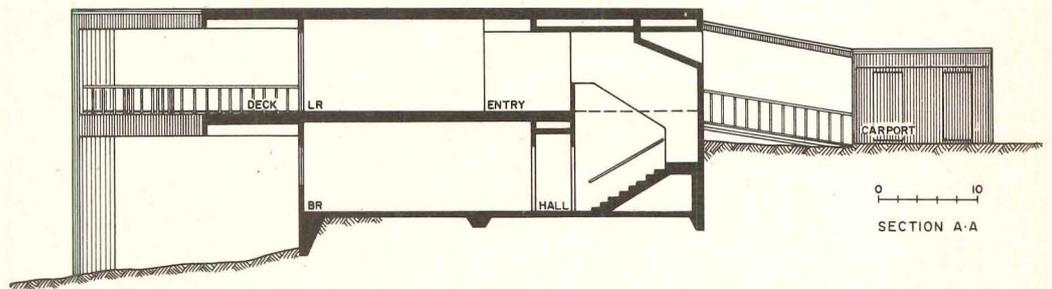
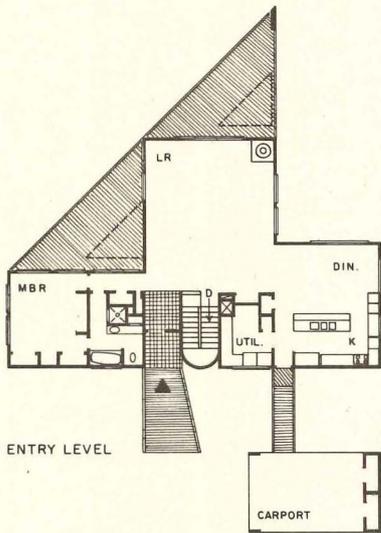
A word about this concept of *place*. Recently, through a series of anthropological studies, "The Territorial Imperative" by Robert Ardrey and "The Hidden Dimension" by Edward T. Hall, we have become aware of an animal instinct for place, a three-dimensional private area as an extension of our physi-

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.)

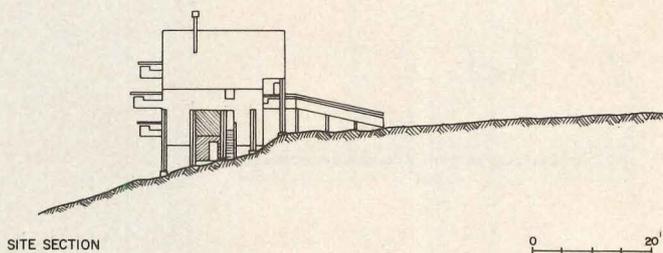
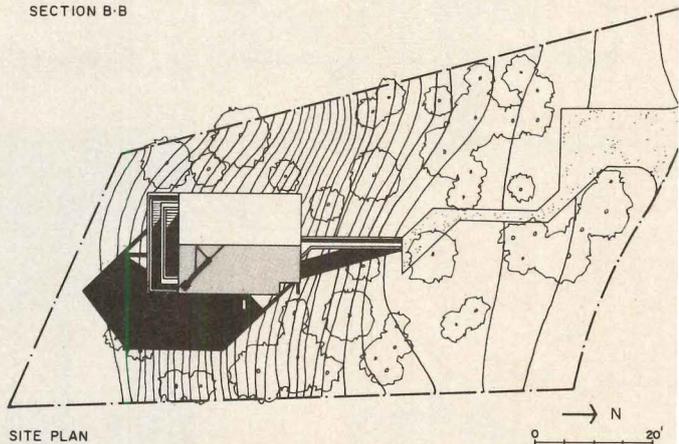
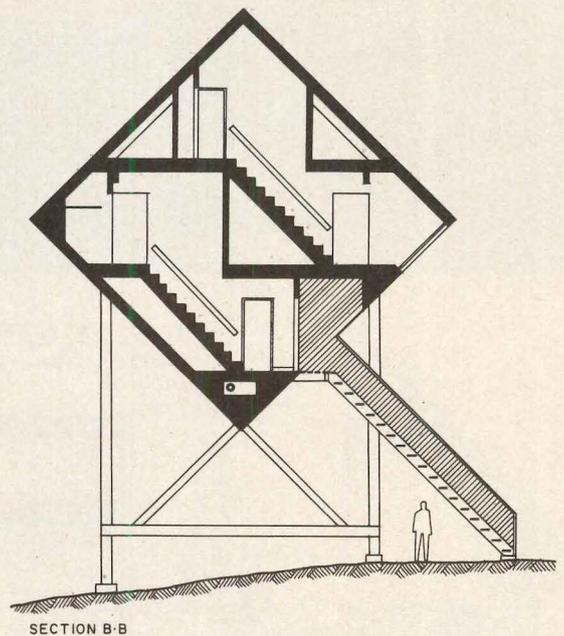
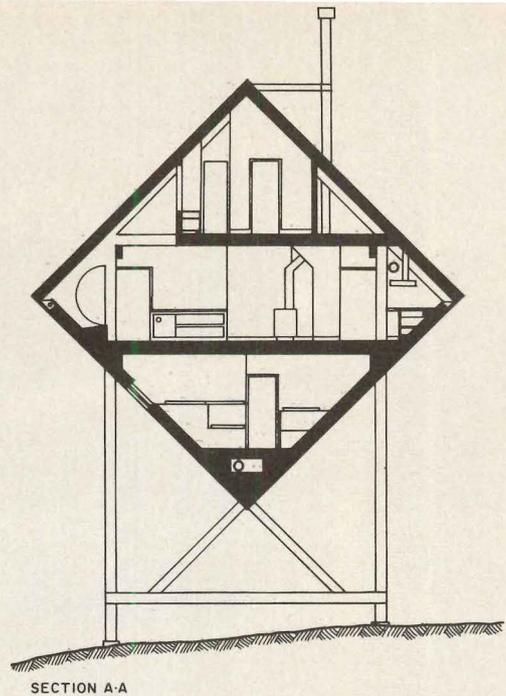
Taking a system/perception point of view, the double grid offers reference order and identification. Like the Field Theory, the double grid superimposes a 45-degree grid over a 90-degree grid, either as a point system or as inscribed squares. Although the visual reordering of form is a by-product of 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.

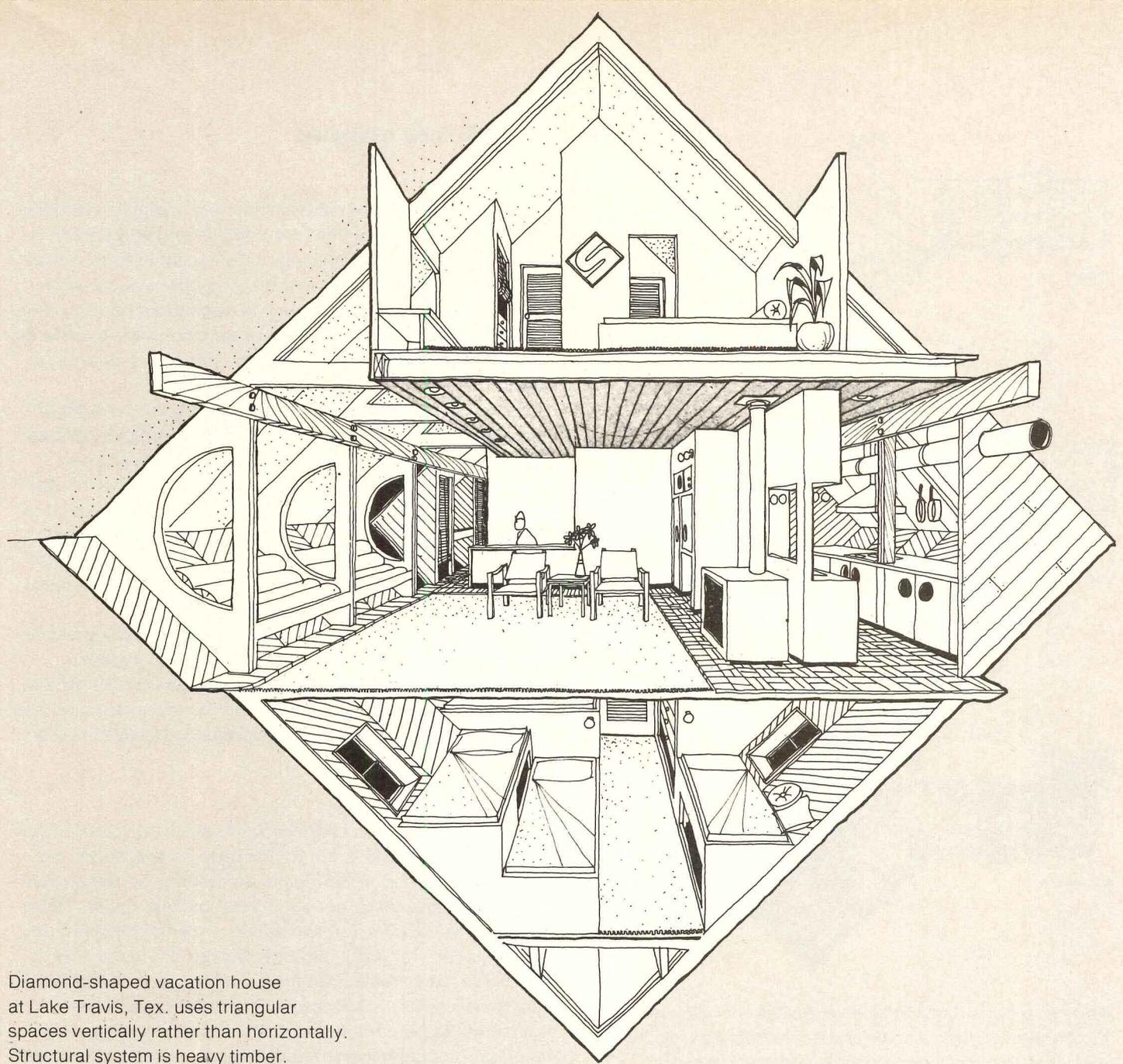
The double grid should revolutionize house design for a very simple reason: it works. Within the intimate space needs of a family there is a variety of configurations and functions. Few need rectangular space envelopes. Do we live in rectangular rooms because we need them or because we have them? I feel 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

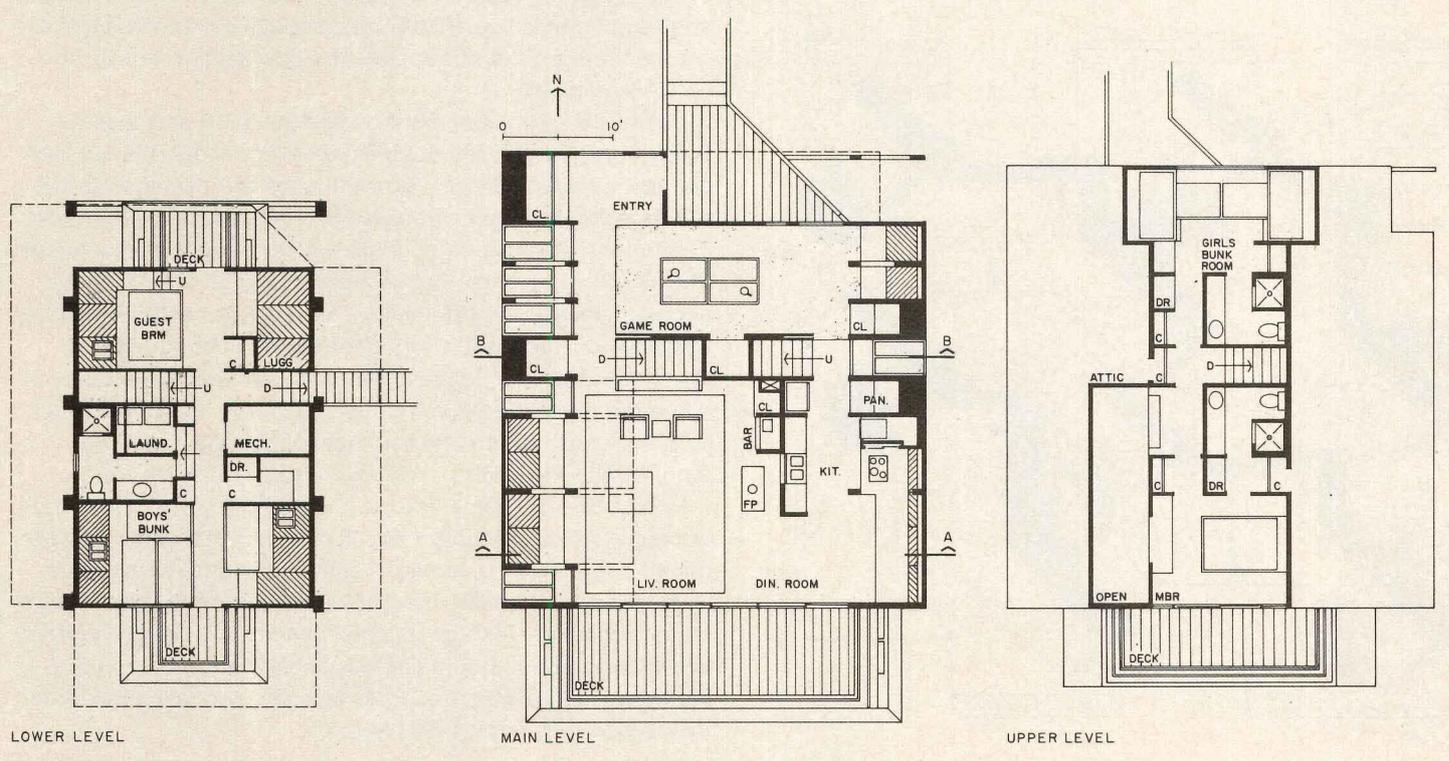
The double grid, as I envision it, requires a re-evaluation of each space function within a home. From this study, we find a series of activities better housed in triangular spaces. The space saved is significant when the triangle is part of a double grid since the reverse side of the triangle is also 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.

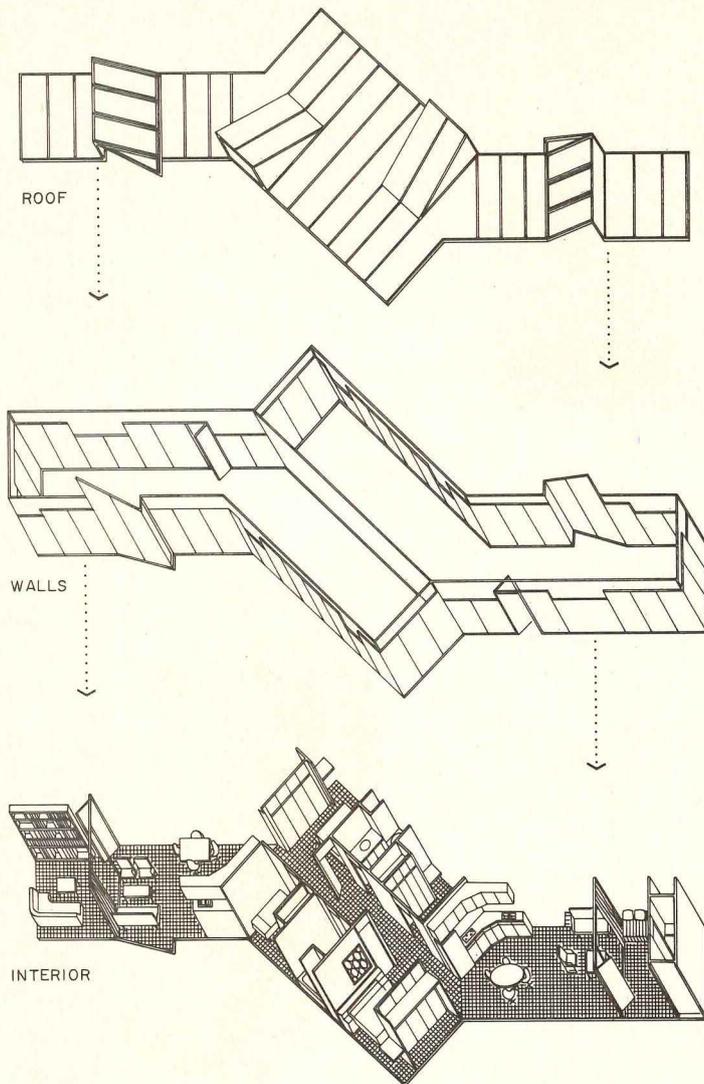


LOWER LEVEL

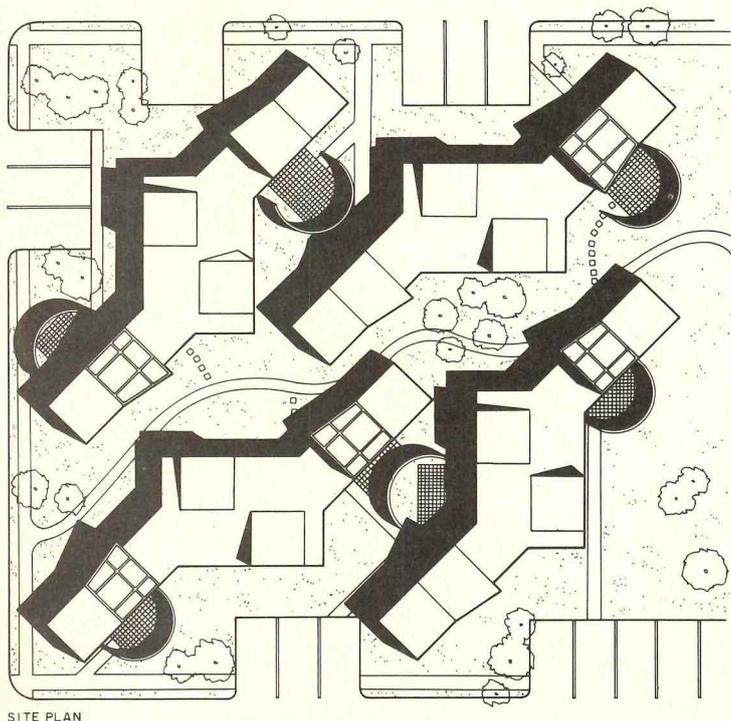
MAIN LEVEL

UPPER LEVEL

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.

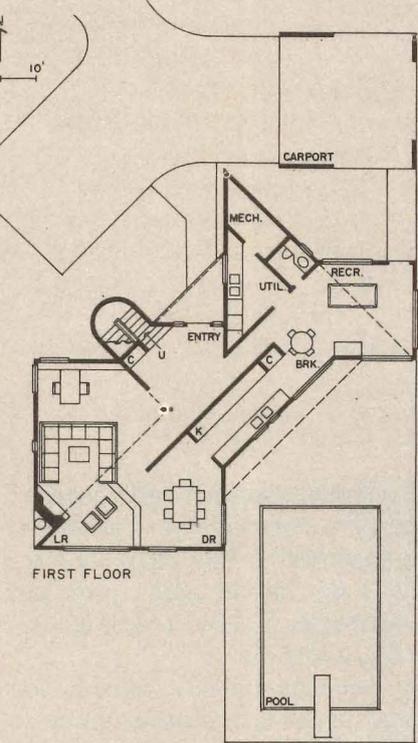
If the double grid works functionally, if it creates a great variety of spatial identities visually, then what are its shortcomings, what is its future? There are few shortcomings. The major one is that the double grid will be misunderstood and applied as a new veneer, as the occasionally splayed wall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

Structural considerations

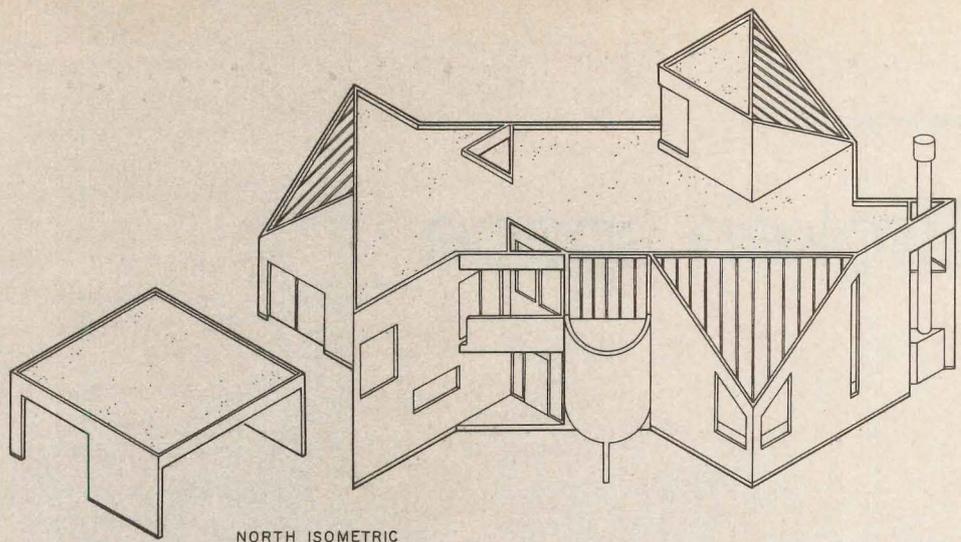
There are some structural problems which must be considered. In superimposing the double grid on two floors, the structure is carried at the points of intersection rather than along the wall surface as in a normal balloon frame. There tends to be a racking problem as well; in the Nemeroff house, our 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.

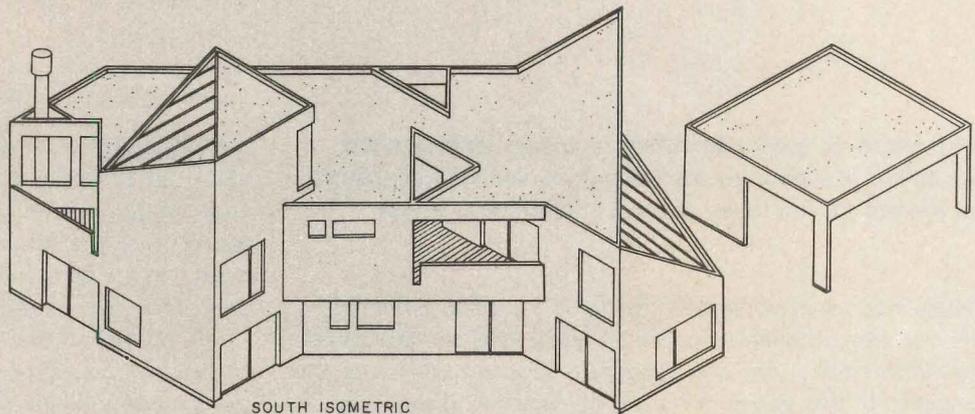
Finally, the real use of the double grid will come in pre-engineered systems that utilize the 45 degree. We found that with the 45-degree grid, a variety of space relationships was possible merely by stacking modules along a double grid. In planning, particularly for high density housing, the double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



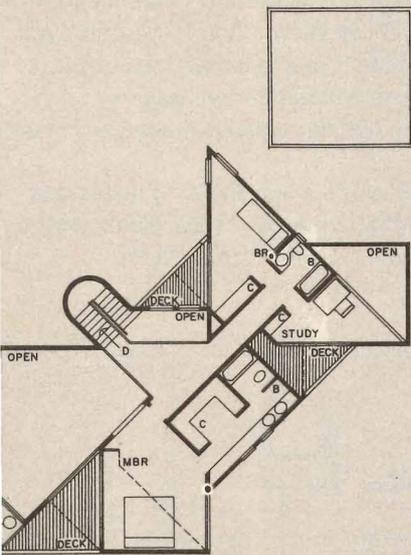
FIRST FLOOR



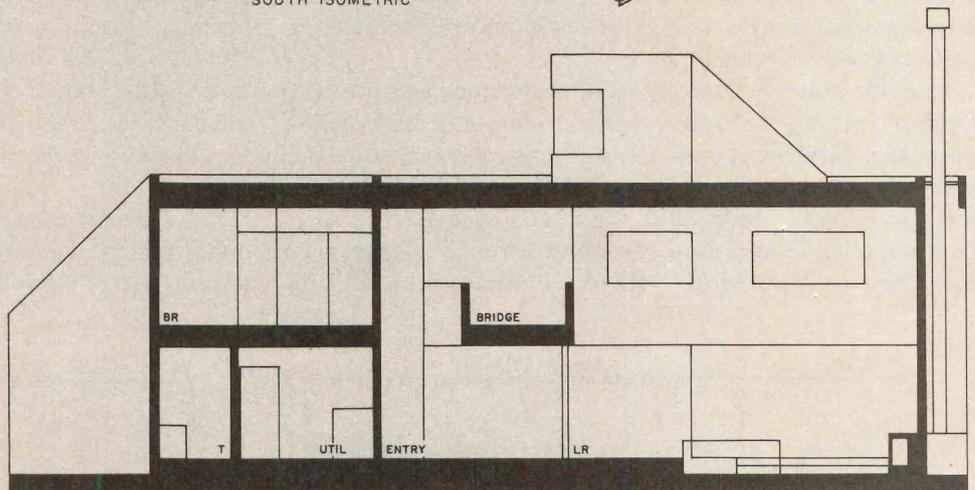
NORTH ISOMETRIC



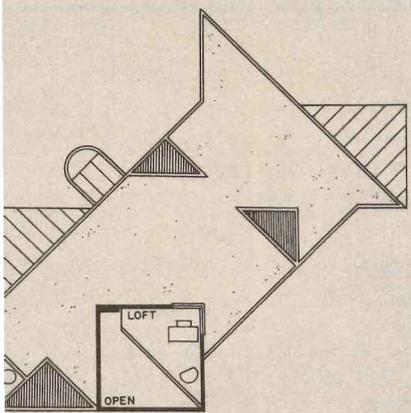
SOUTH ISOMETRIC



SECOND FLOOR

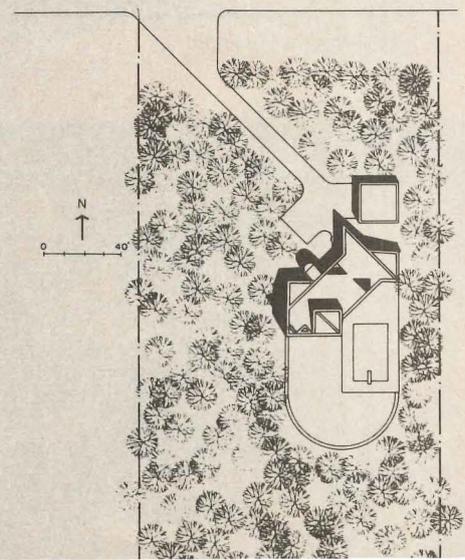


SECTION



LOFT

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

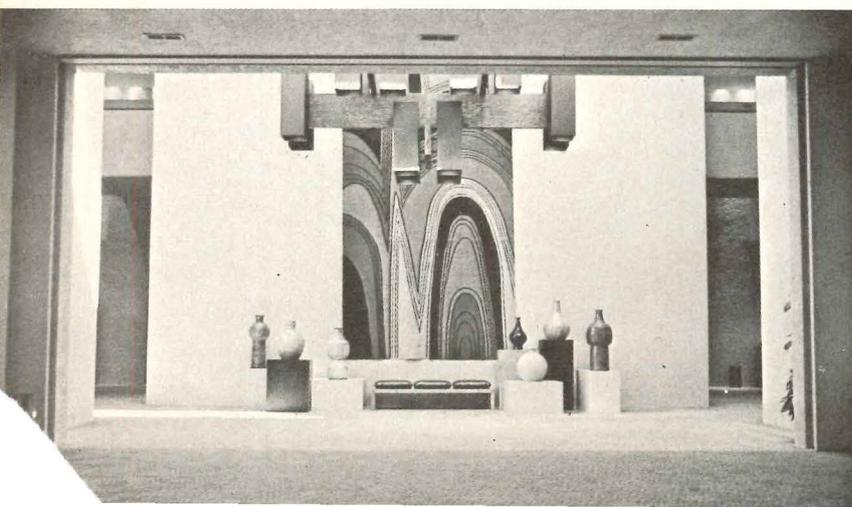
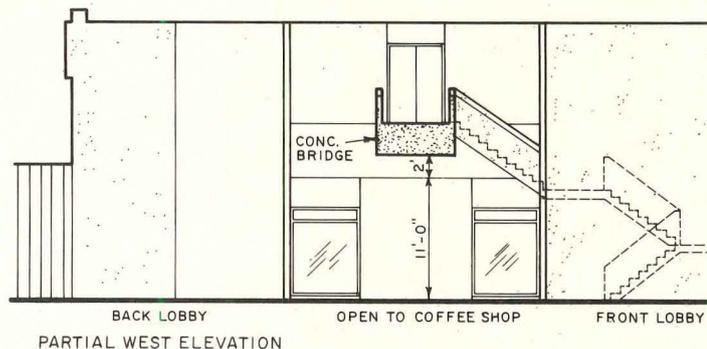
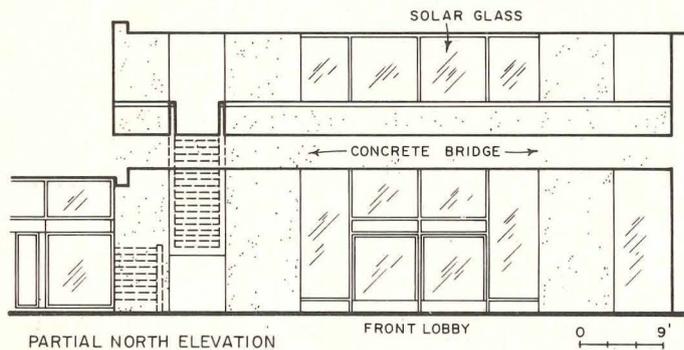
While much was being made of the St. Petersburg Hilton for its slipformed construction techniques, little has been said about the lobby interiors. There are several reasons for the success of this space, the most obvious being that it is not one monumental area in which small groups of furniture have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

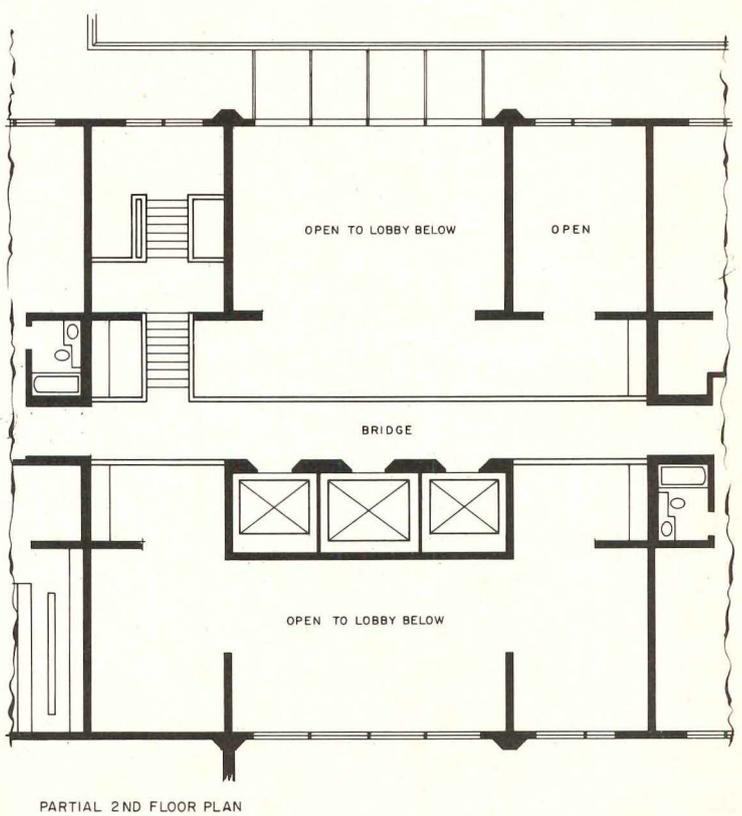
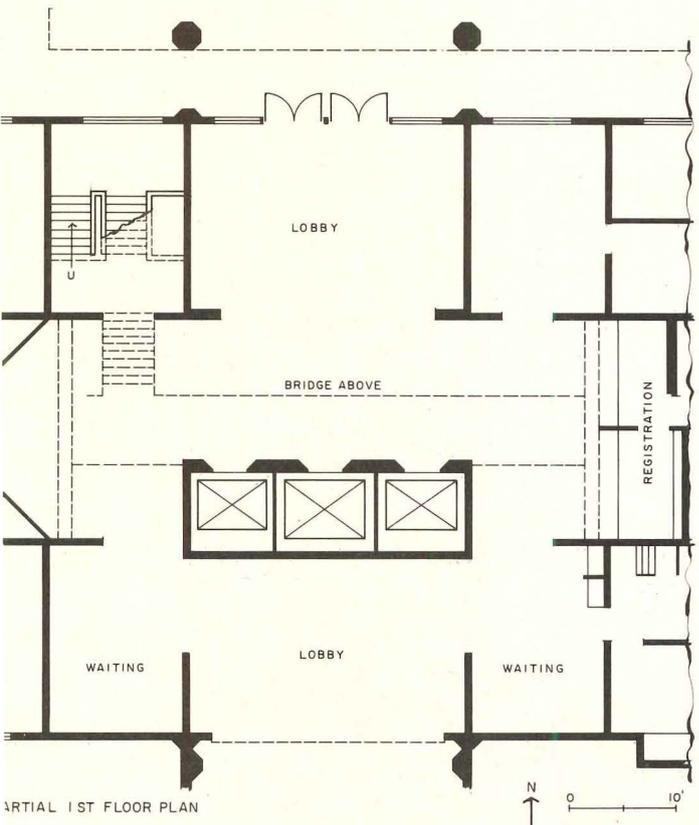
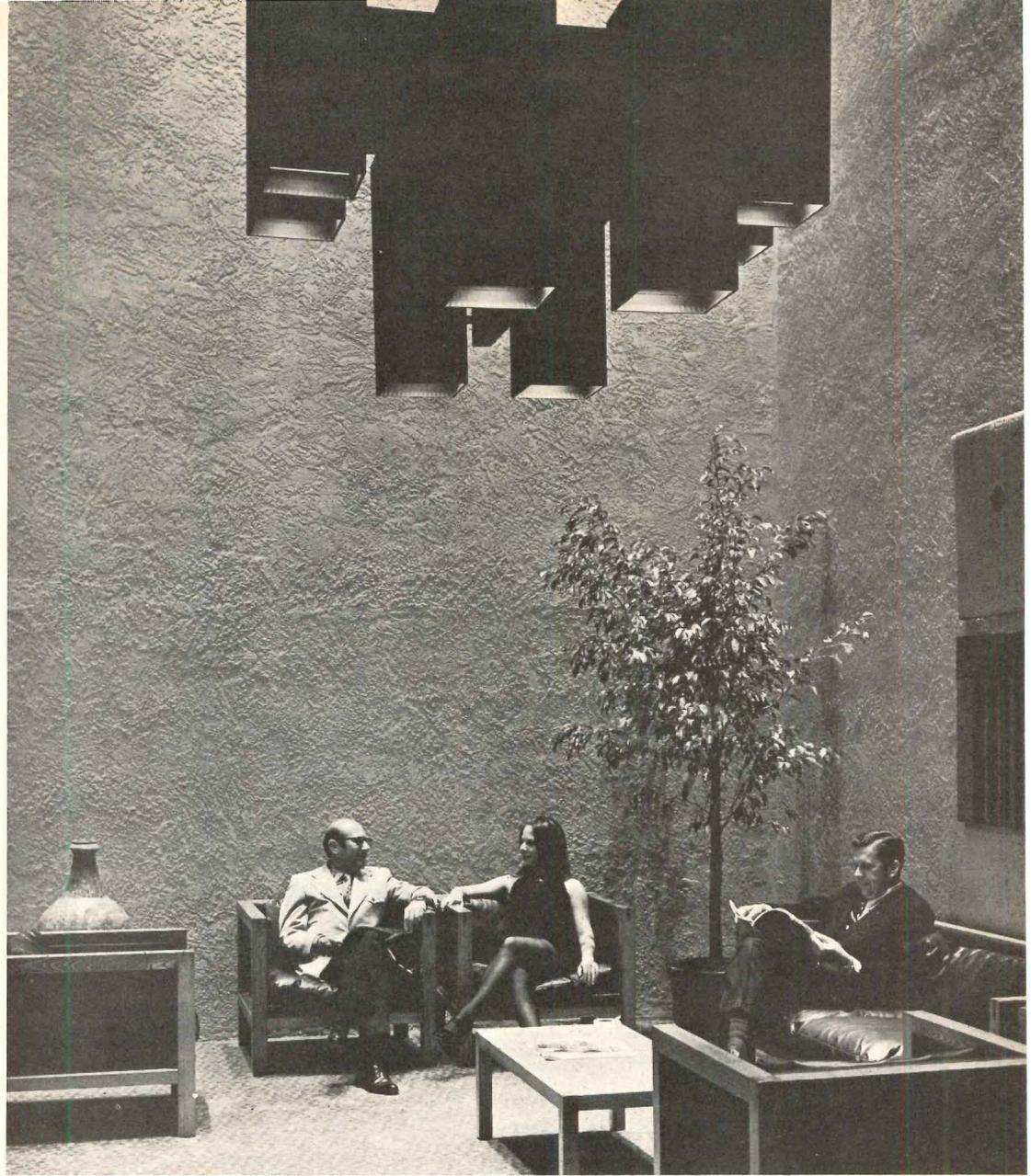
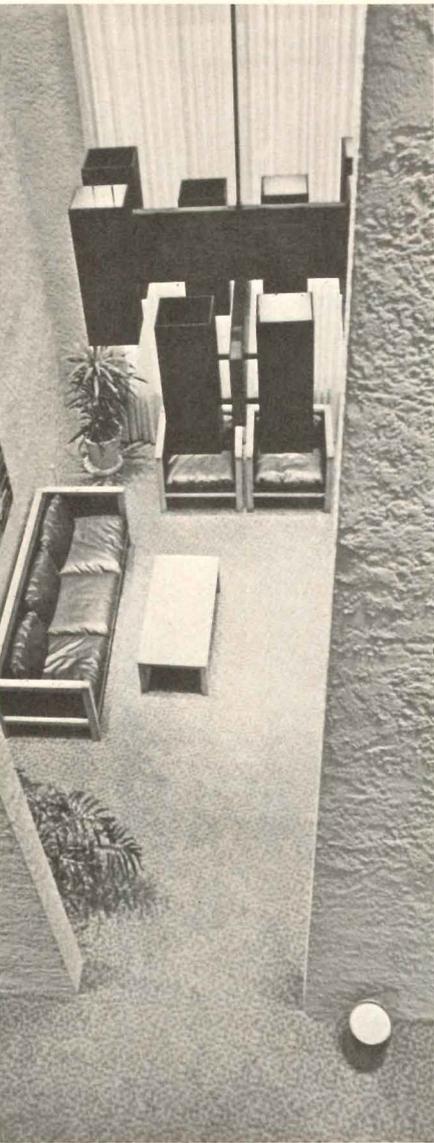
Interior design: J.L. Hudson Co.

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.

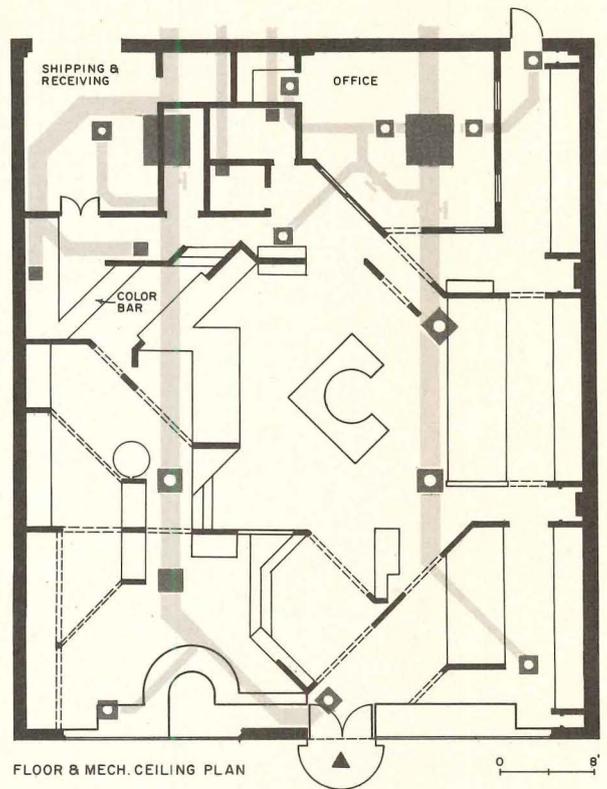


Interior shells

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.



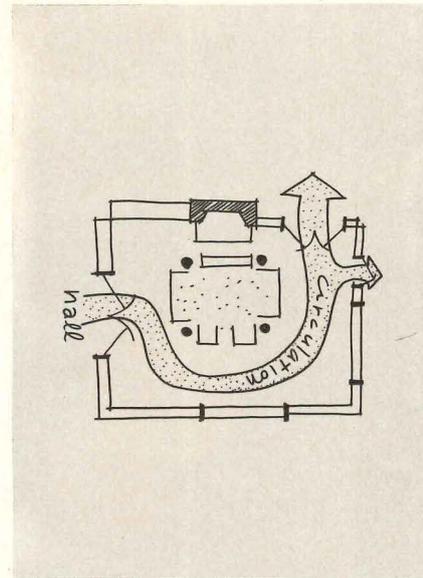
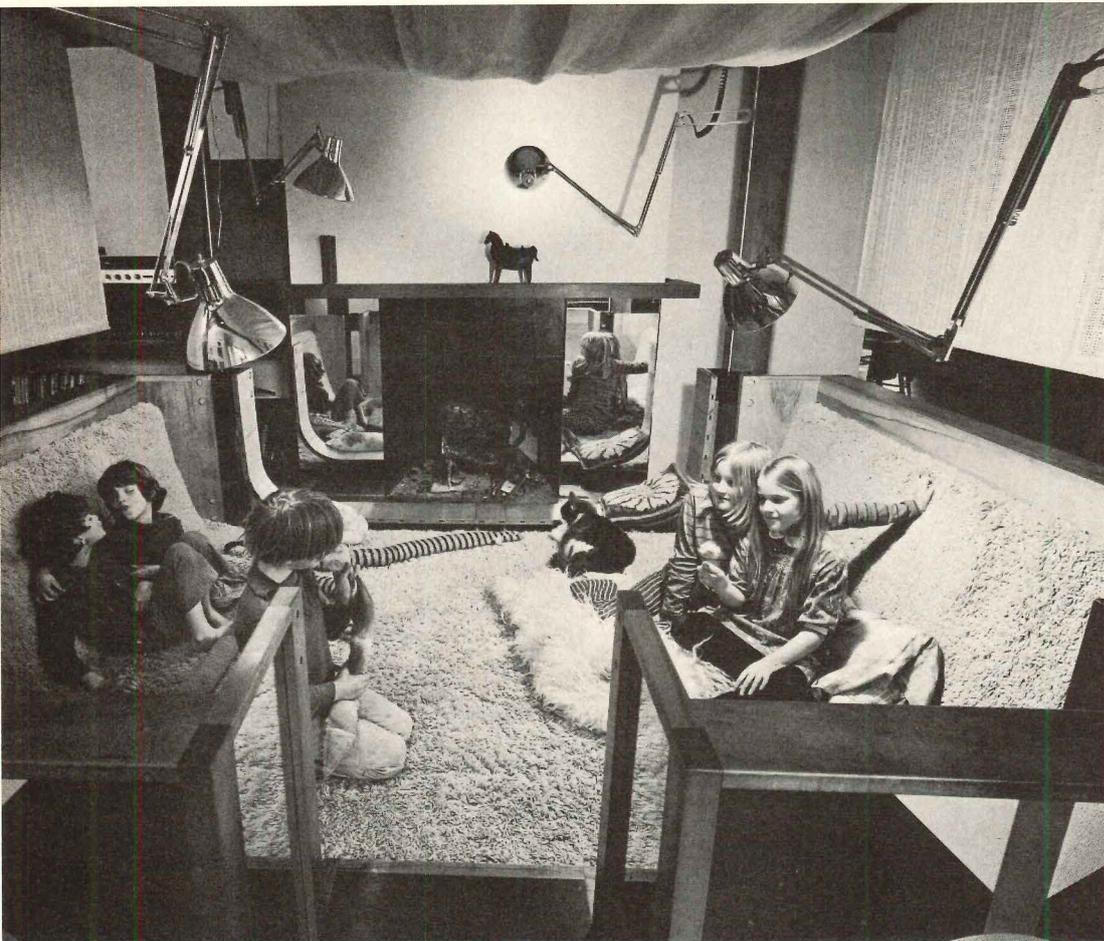


Data

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



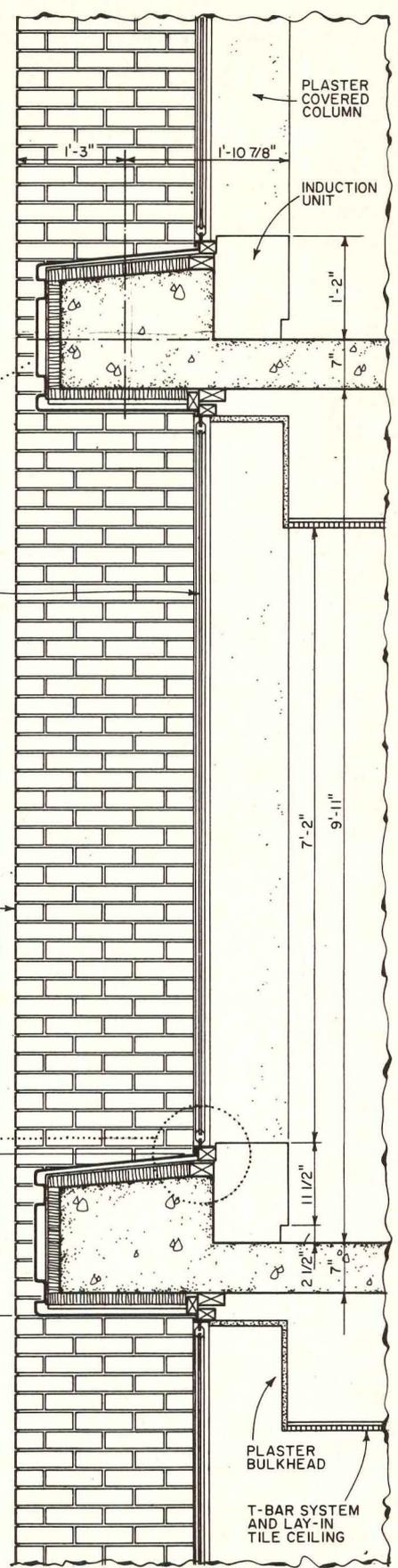
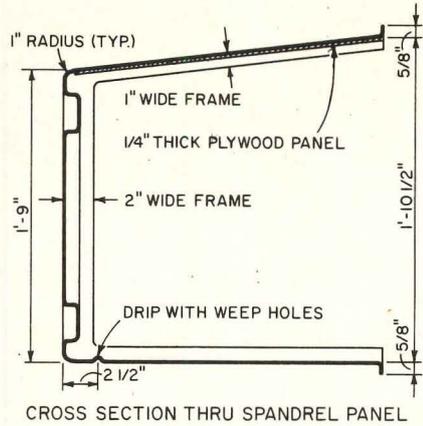
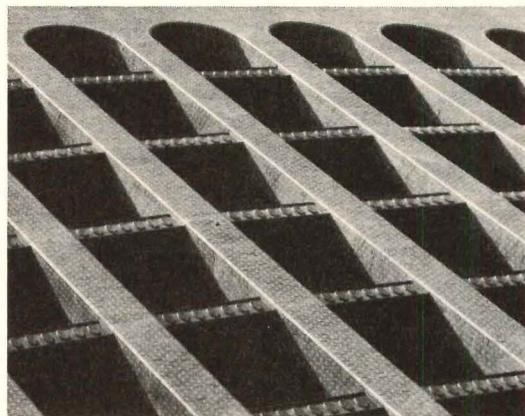
Sim van der Ryn describes the original living room in his Berkeley, Calif. house as being "hard surfaced, an entry to lots of other rooms and little dead-ended spaces, cut up with doors and windows." From a rejection of this aesthetic came the idea of making a soft, self-contained living space which 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]

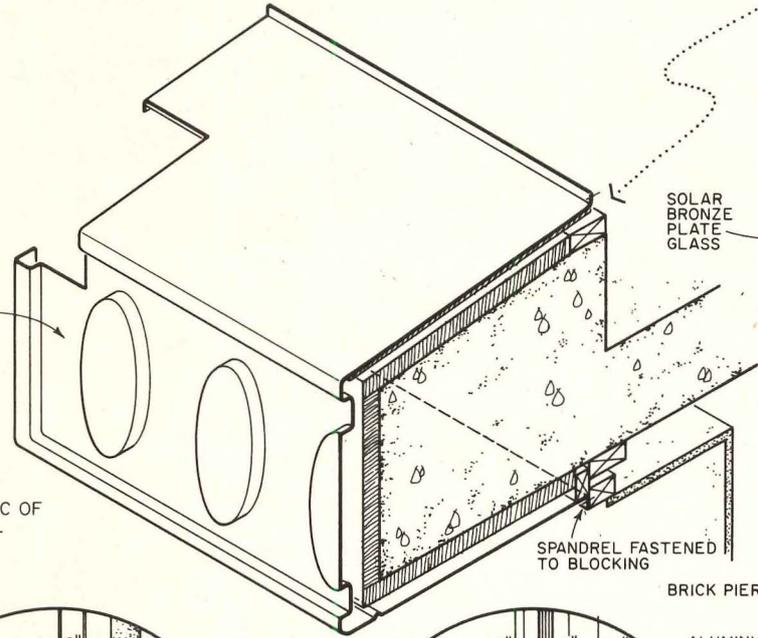


Selected details

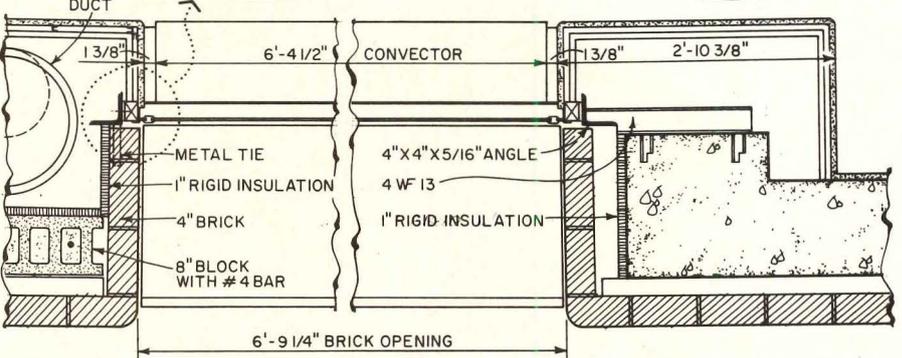
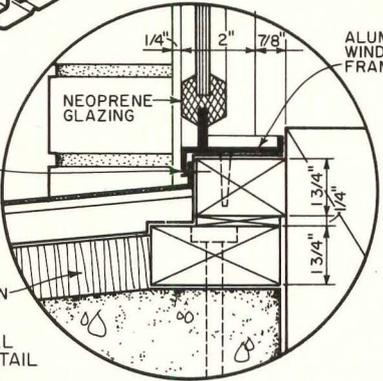
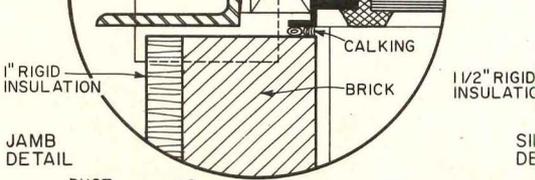
Fiberglass reinforced plastic spandrel covers



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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?

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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.

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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.

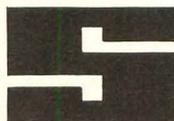
Stretching over two city blocks beside Lake Michigan, this 95 million dollar structure has risen phoenix-like from the ashes of the first McCormick Place destroyed by fire four years ago.

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

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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.

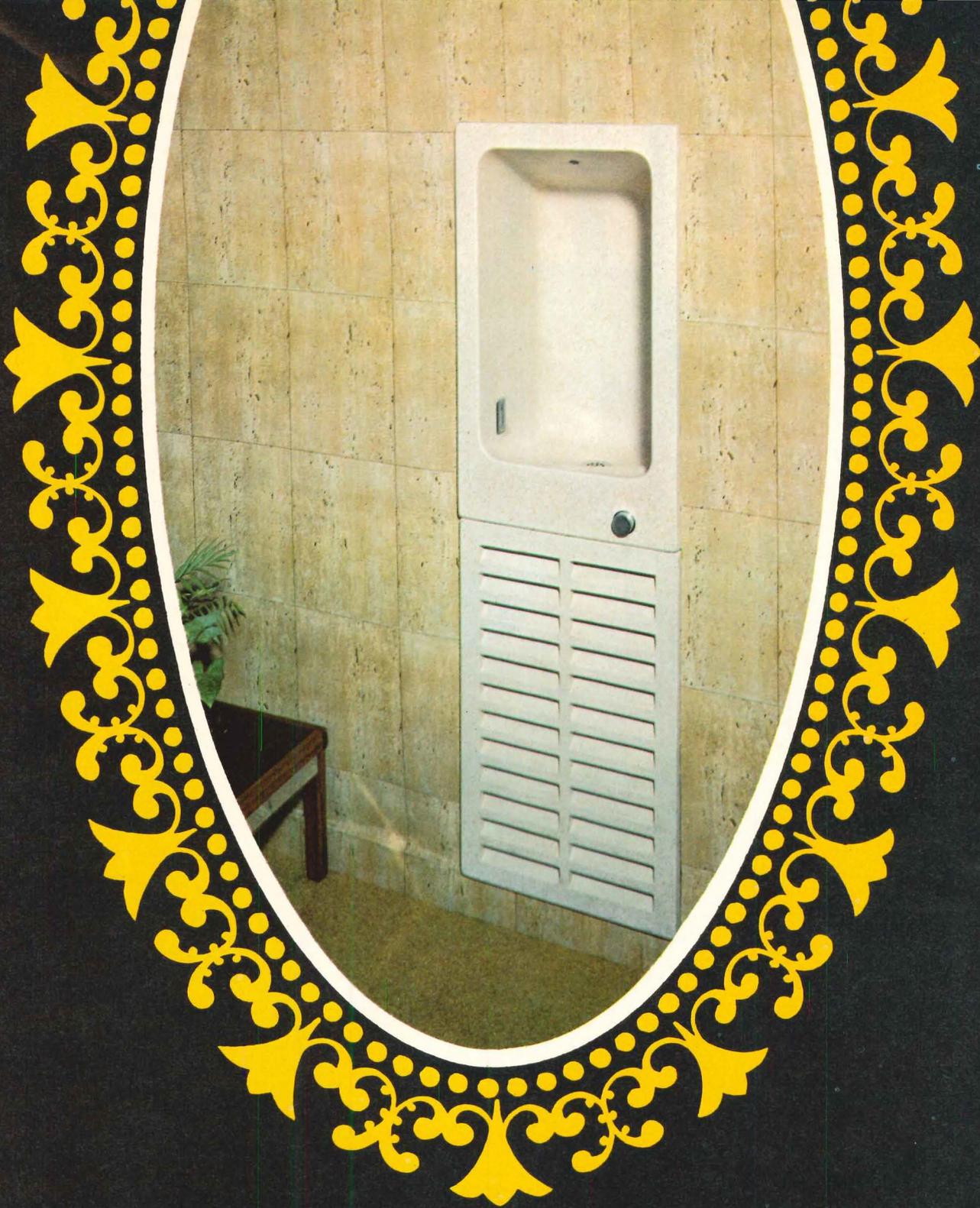
Form contracts used by municipalities and other governmental units can contain other than statutory requirements which may jeopardize the fee of an architect or any other party contracting with that governmental body unless there has been strict compliance with them. Illustrative of this problem is a 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 rescission 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.



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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.

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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 program 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 January 1971). She has been a frequent critic of the 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]



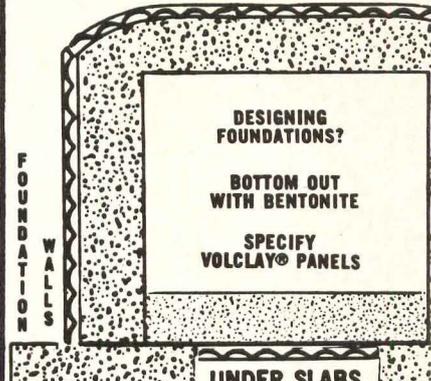
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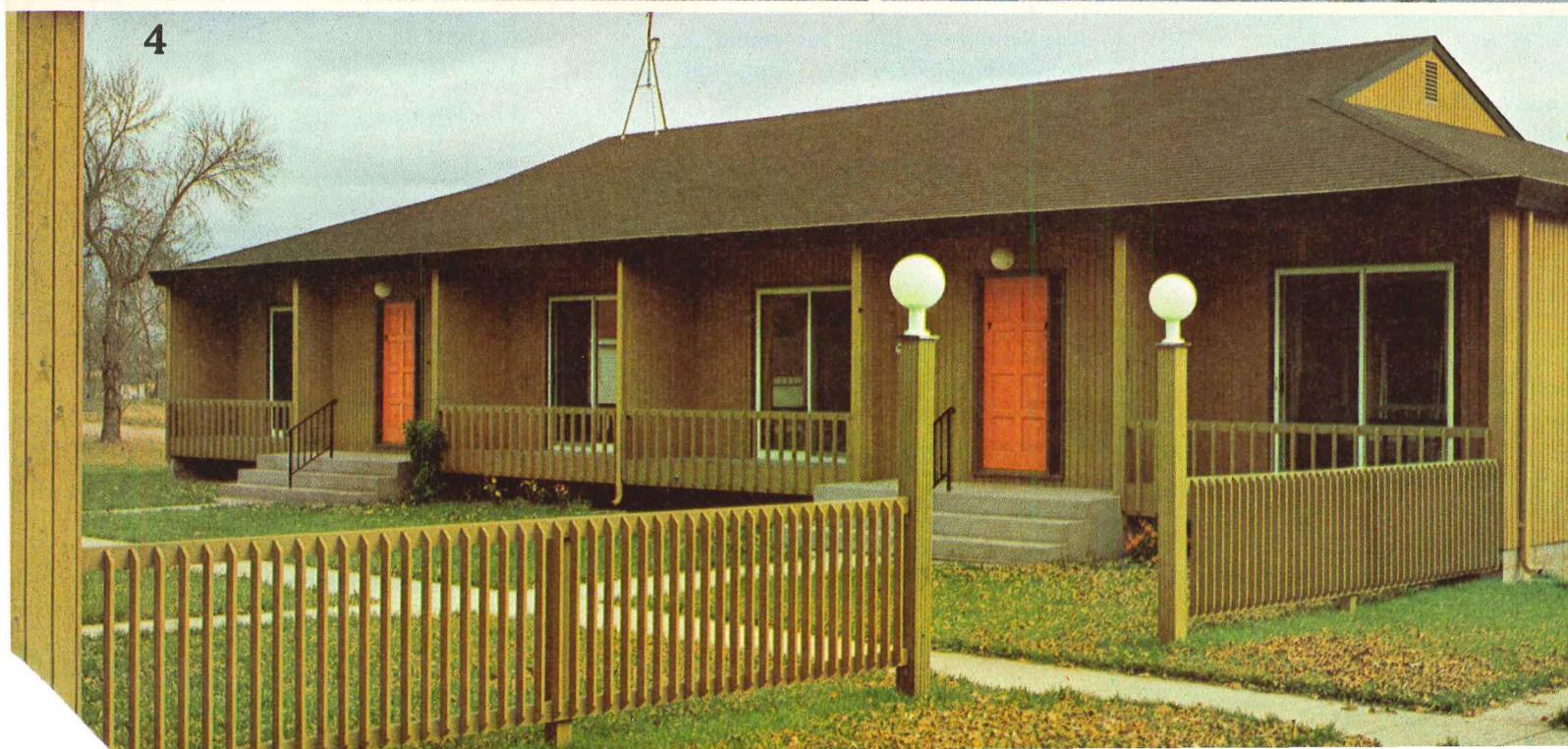
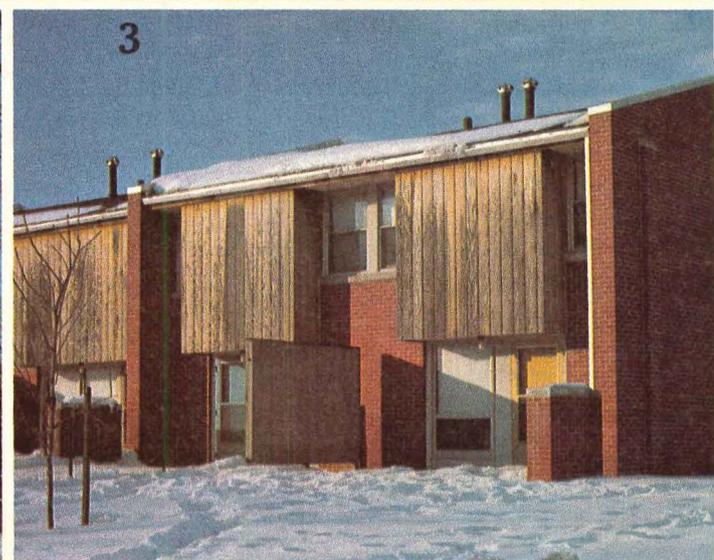
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Andersen Windows will cost less over the long run, and their beauty lasts as long as the building. That's why it pays to specify the best.

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 blocks 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.

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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.

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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.

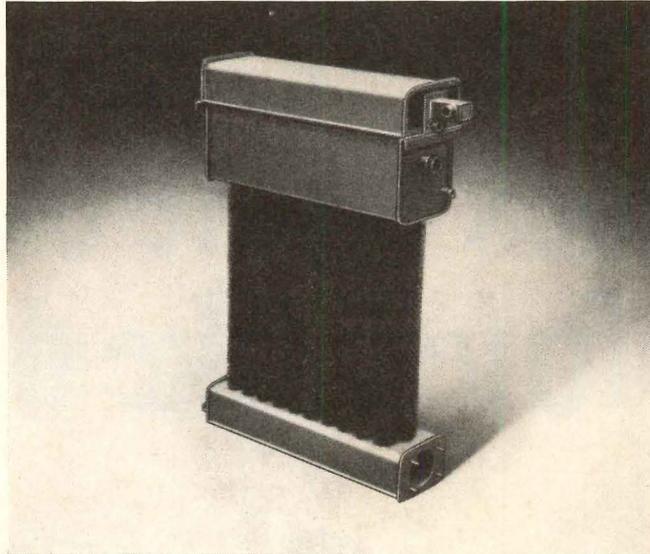
Call our Coated Fabrics Department, Mishawaka, Indiana (219) 255-2181, or your Uniroyal representative or Naugahyde distributor. Ask for a free sample of Luxura. And come close to this new kind of softness yourself.

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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.

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.

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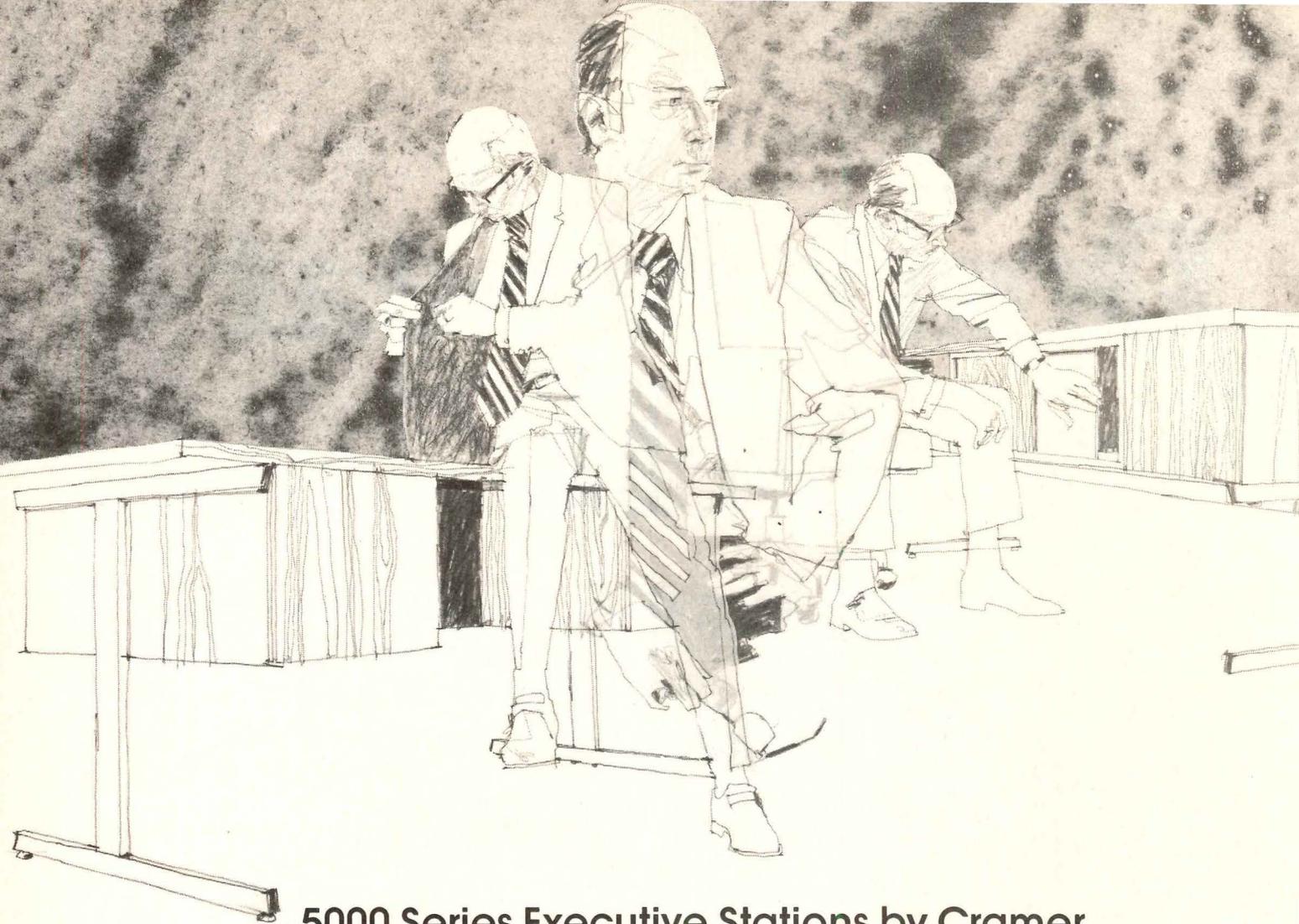
With all our gas/electric models you can have the General Electric National Service Contract Plan at the time of installation. Service is available from the installing dealer or any other authorized servicer.

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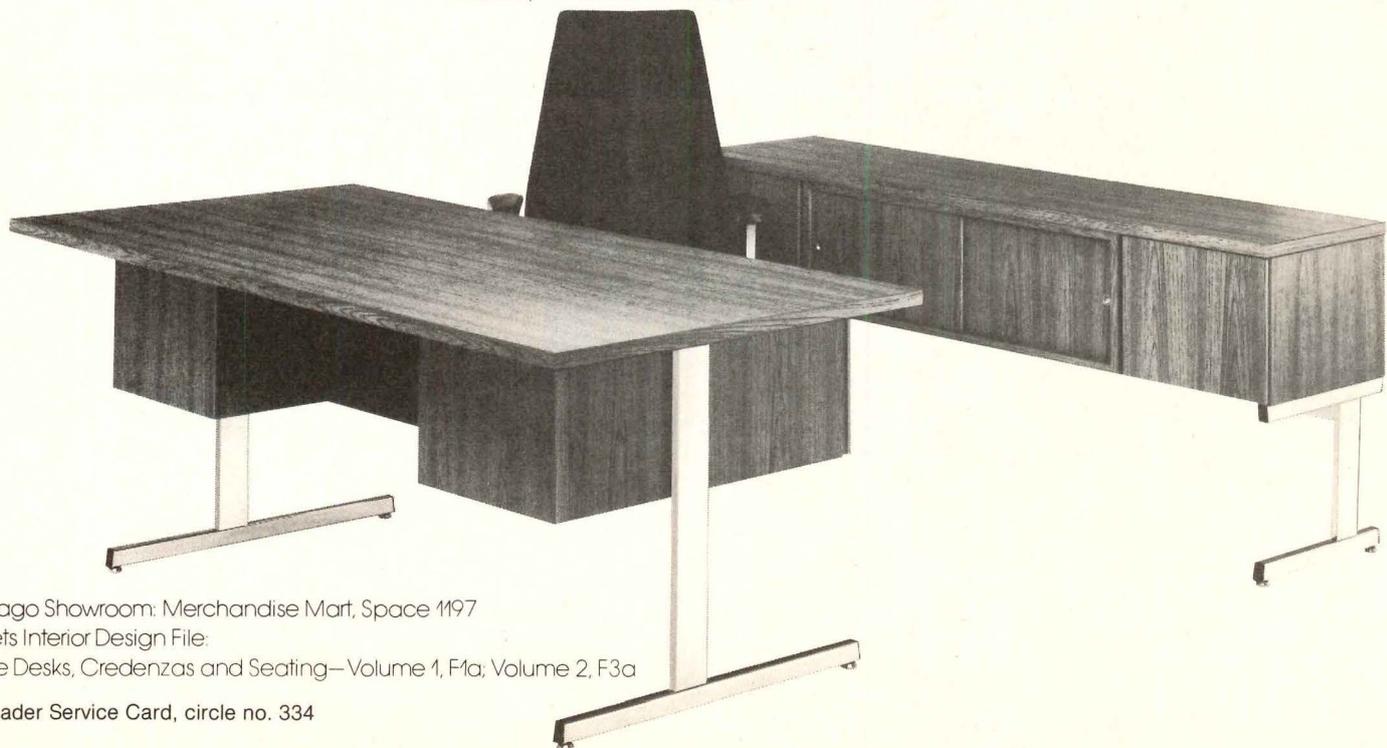
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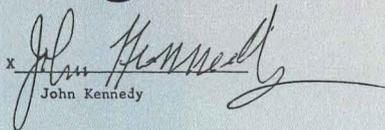
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John Kennedy

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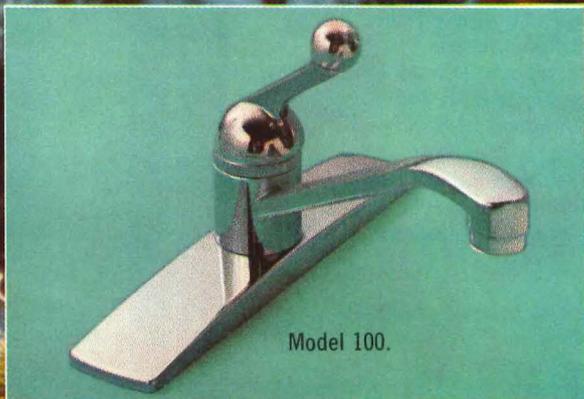
Leisure World is just that. A beautiful retirement community in California that's become a new living concept in America. And for the maintenance crew and the plumbing contractor, it's even more of a leisure world. Because during the 7-year history of Leisure World, they've hardly had to repair or replace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

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Delta Faucet.
Simply beautiful.



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

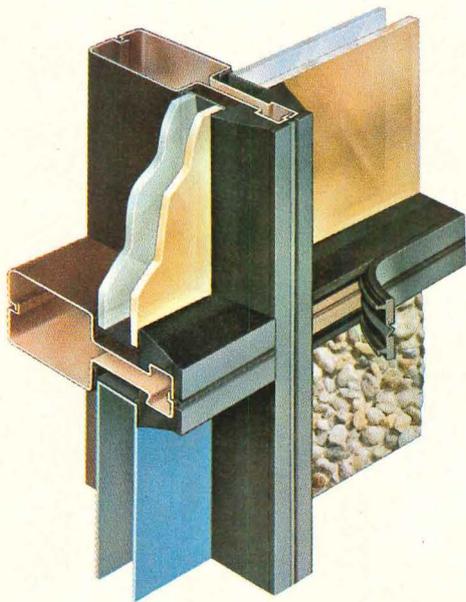
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Use FENMARK *ThermoGrid* with all thicknesses and types of insulating glass, sash and panels. *ThermoGrid* is versatile . . . use it in conjunction with structural steel frames, masonry, or reinforced concrete . . . there's just no limit to its application.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



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FEATURES
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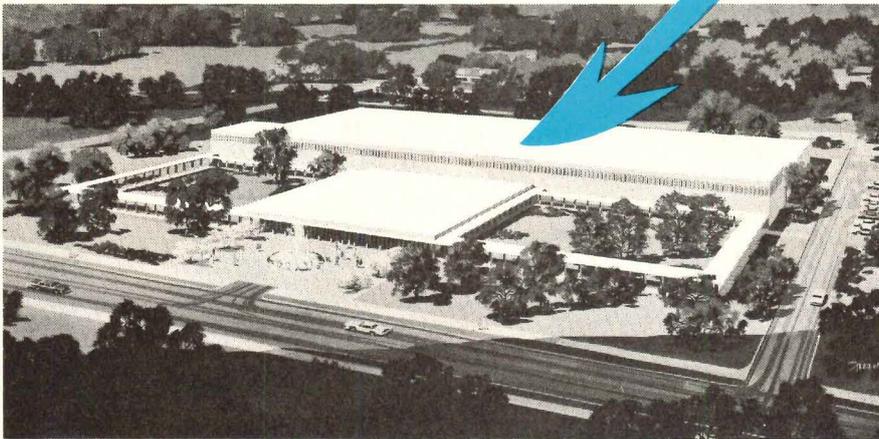
This unique steel system features excellent thermal weather integrity. With a U factor of .59, leakproof *ThermoGrid* seals out driving rain, snow and ice, helps maintain uniform conditioned air . . . and easily withstands wind loads in excess of 40 lbs./sq. ft. on a 14' span with mullions on 5' centers. 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?





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marble chips on top
and save money, too?**



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**LIME CREST
ROOFING SPAR**

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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 and 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 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

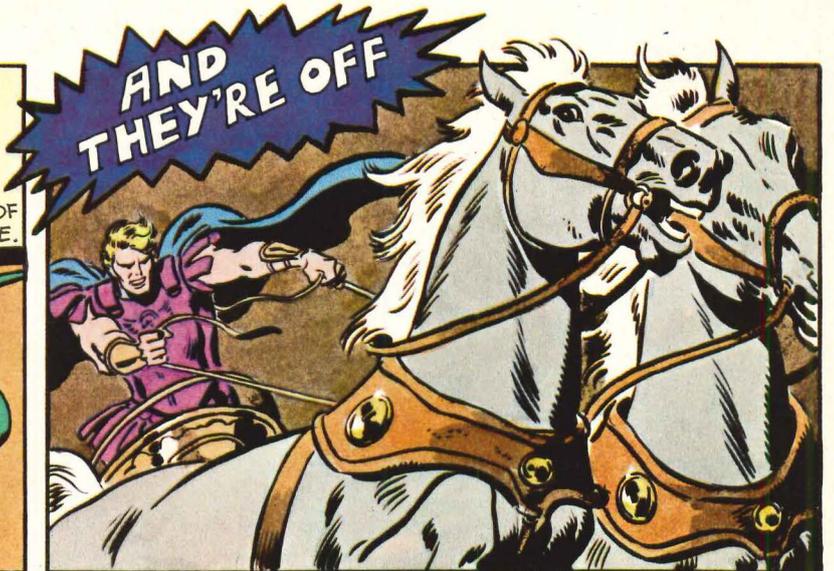
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MAJESTIC REVIVAL OF THEIR
PRIME INDOOR SPORT*

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NEEDLESS TO SAY



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NOT RACING, OF COURSE



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



THIS'LL
FINISH YOU,
BEN-HIM!

CHOKES
GASP
AARGHHH
HOT
PEANUT
BUTTER!



HOT
PEANUT
BUTTER



MISSED HIM!



HERE COMES
THE
MOP-UP
CREW

THEY'RE
WASHING THE PEANUT-
BUTTER RIGHT OFF
THE CARPET
ISN'T EVEN
STAINED!



... WHO'S THE
RIGHT 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.
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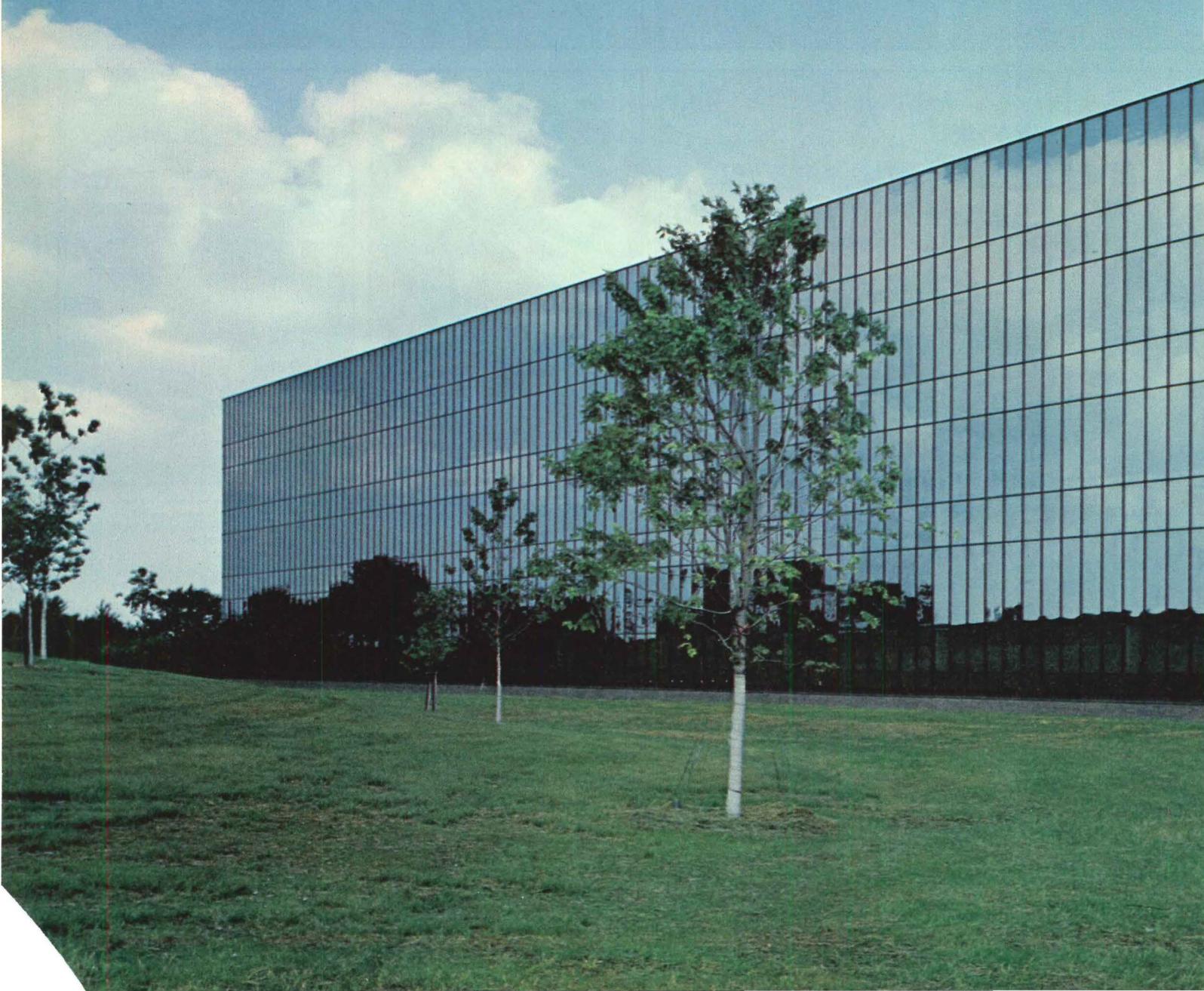
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This esthetically unique complex, the architect specified a PPG Environmental Glass—*LHR* (Light and Heat Reflective) Glass—because he believes it is the most practical, maintenance-economical cost-per-square-foot available to do the job. Working with Westinghouse Nuclear Systems and Westinghouse State Design Center, the architect decided 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.

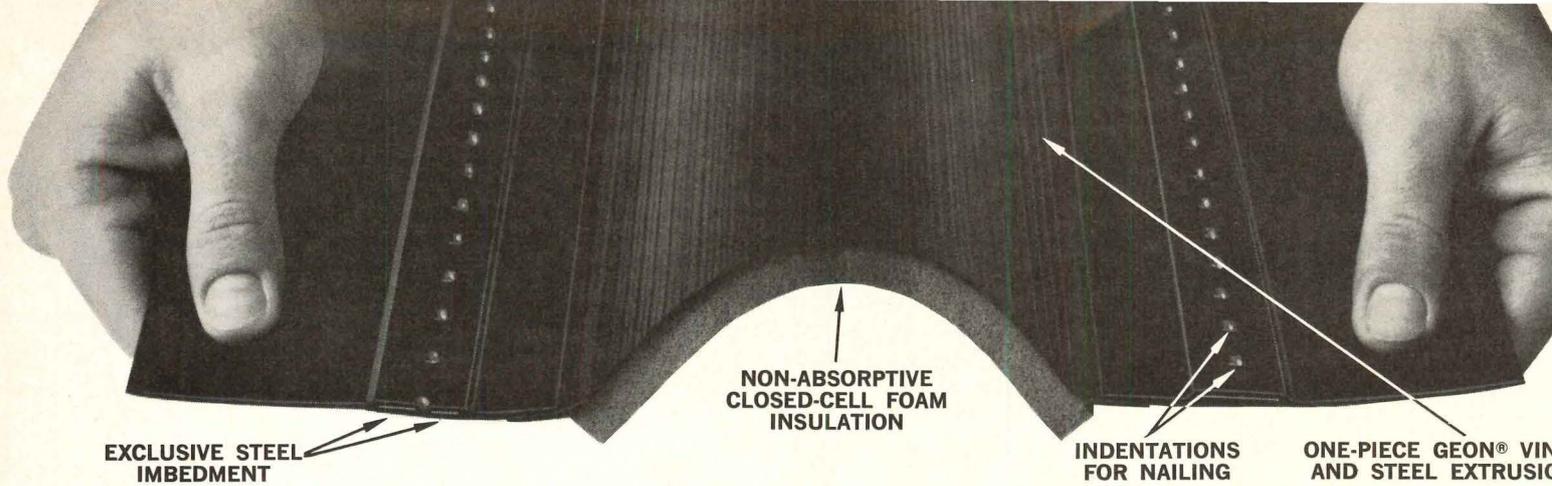
PPG: a Concern for the Future

Owner: Westinghouse Electric Corporation, Pittsburgh

Architect: Deeter Ritchey Sippel Associates, Pittsburgh

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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

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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



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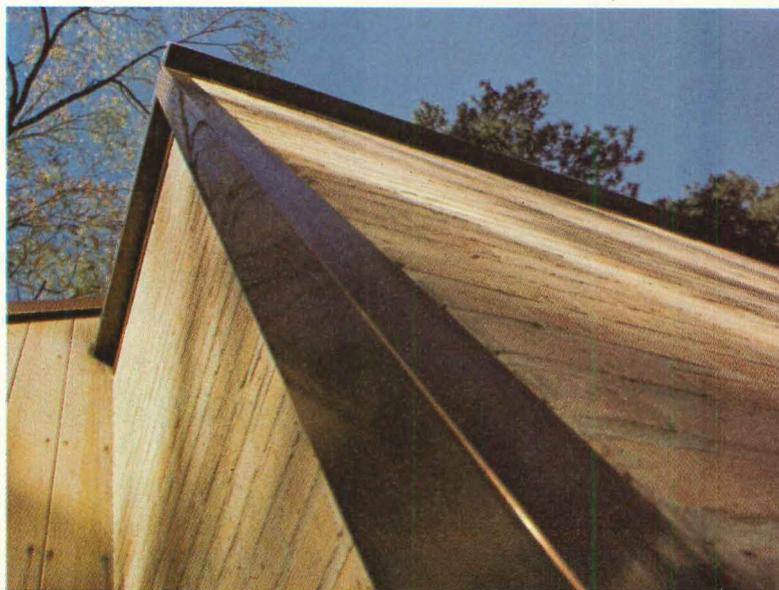
Copper sheet. Obviously beautiful

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.



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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.



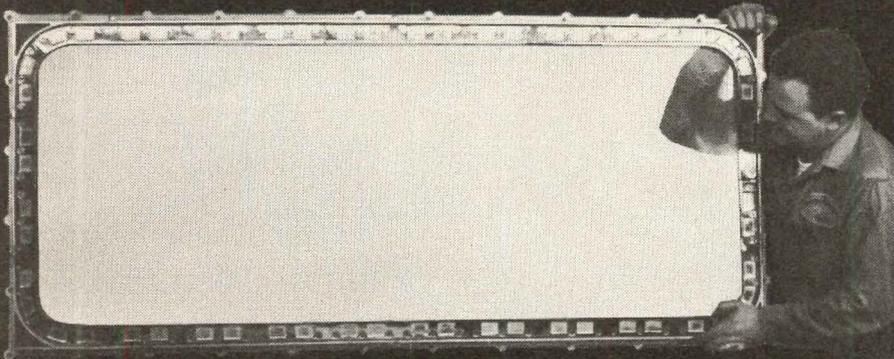
Copper-accented entrance (above). Stamped copper rosettes with a patina finish. Easily applied. **Copper-clad ceiling** (left). Chemically etched ultra-thin sheets of copper and brass in a kaleidoscope of tone and color. Every pattern unique. For walls, counters too. For details on these—or any other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

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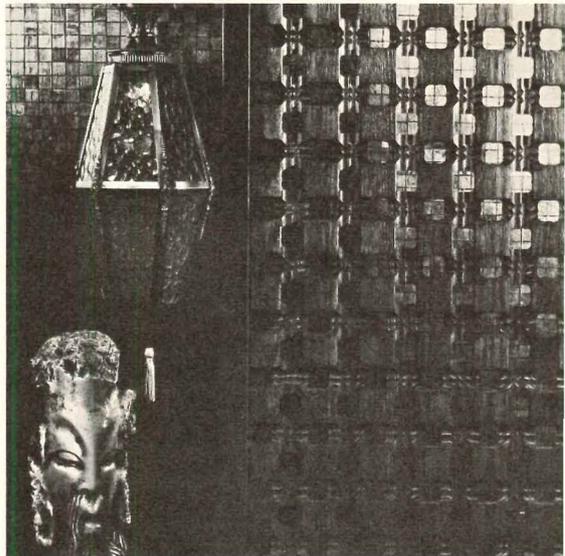
Remember, once a product is in the working drawing, it's in the building.

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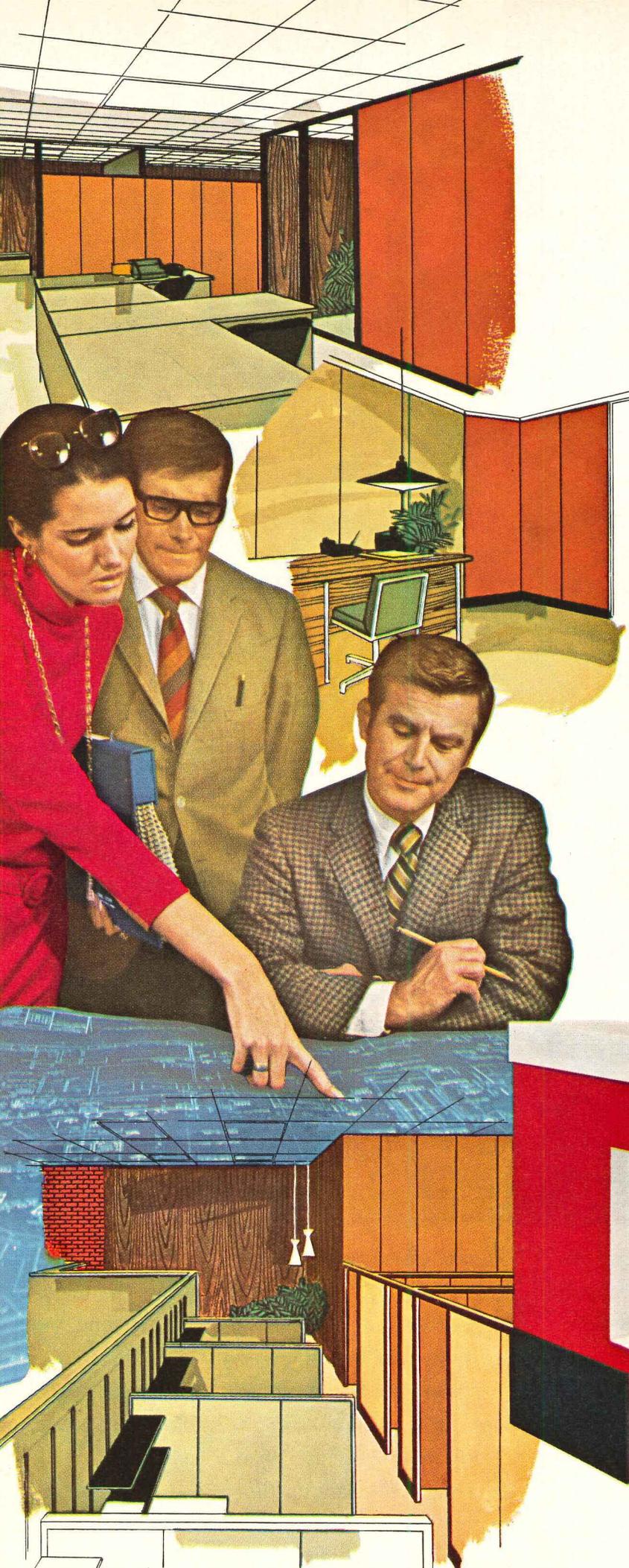
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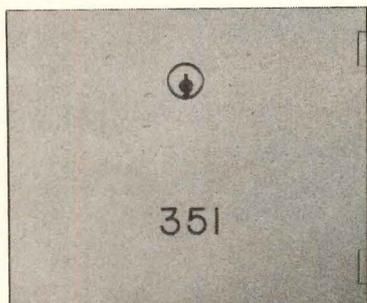
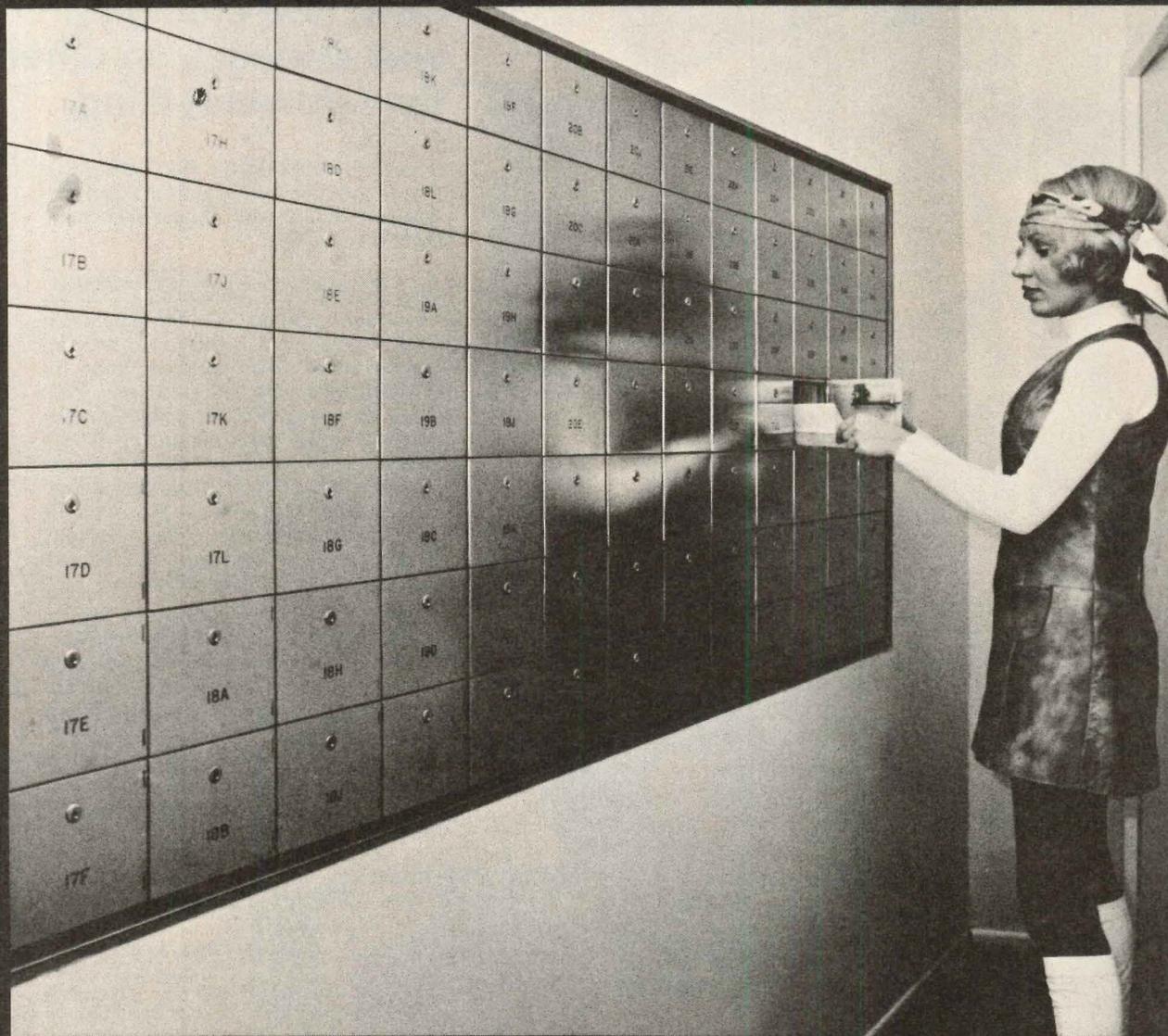
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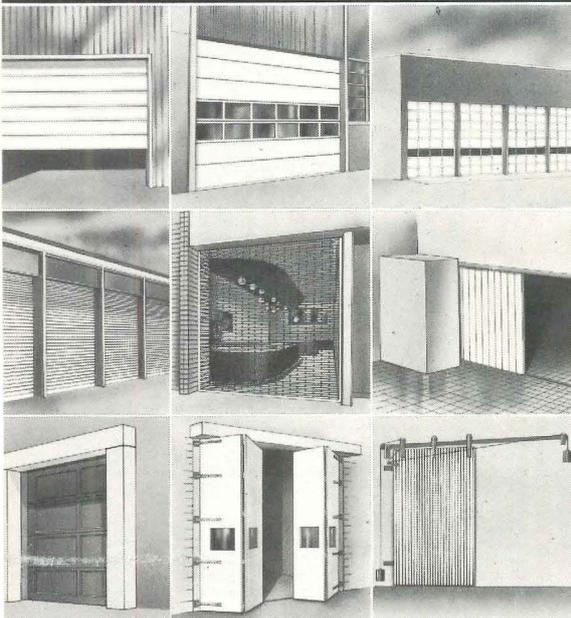
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Books continued from page 98

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.*

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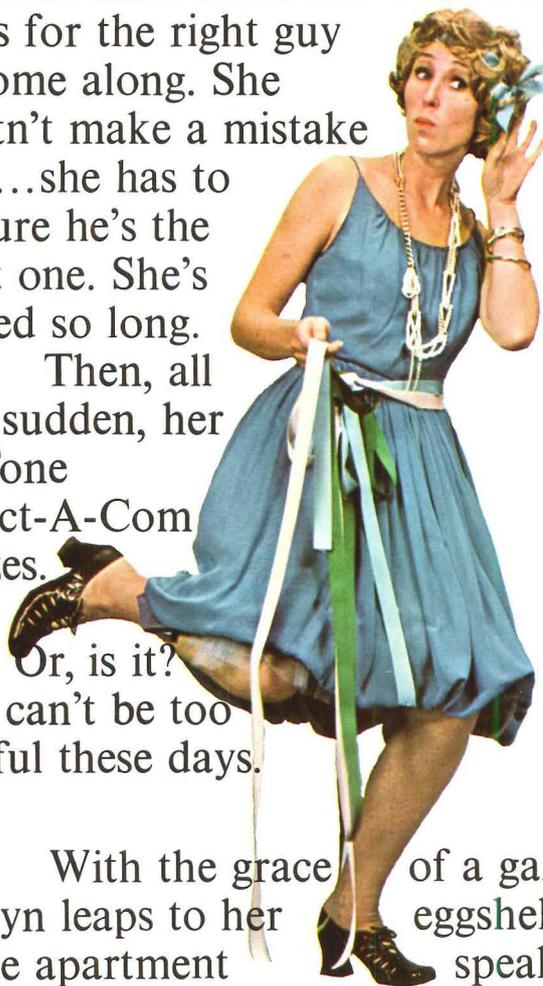
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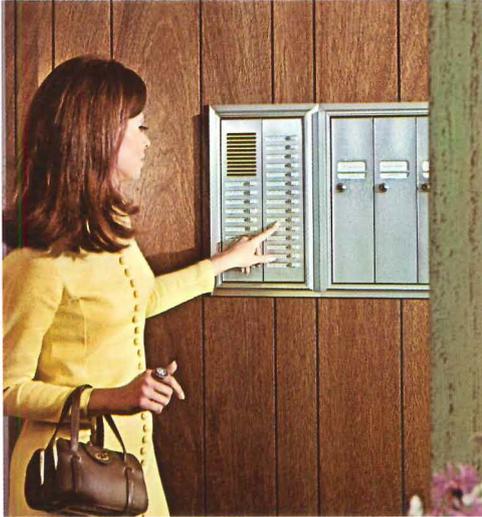


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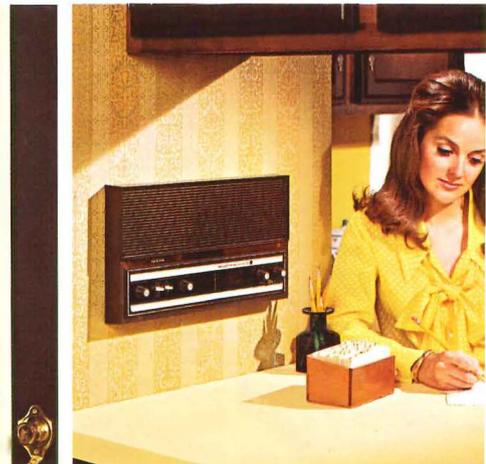
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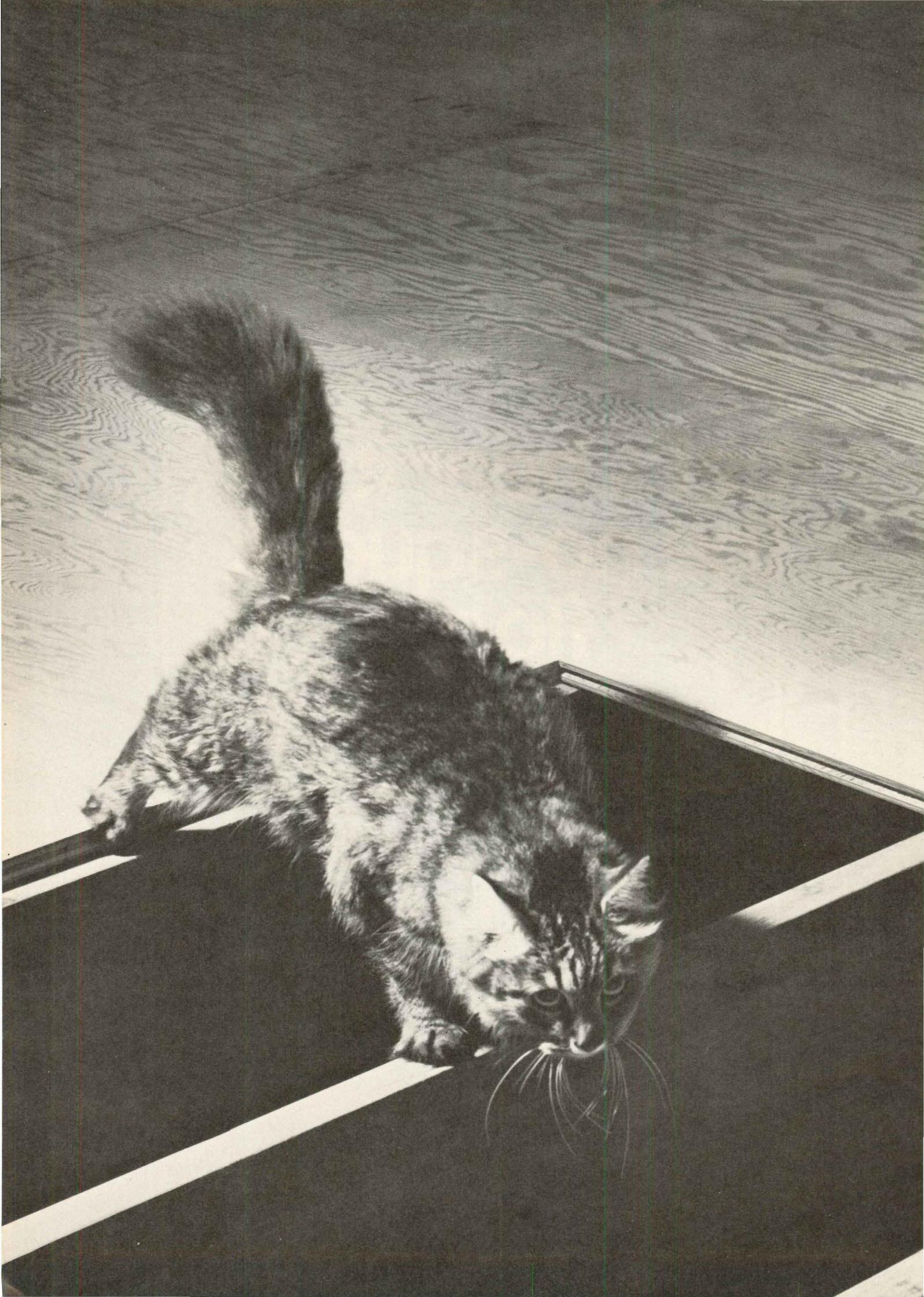
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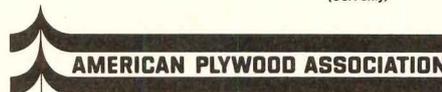
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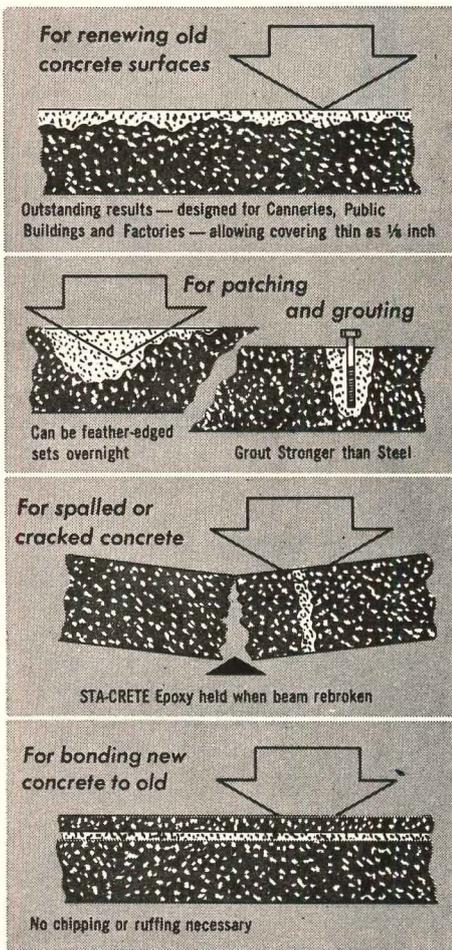
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Progressive Architecture

Notices

Appointments

Douglas Babbit 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 Neubauber 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

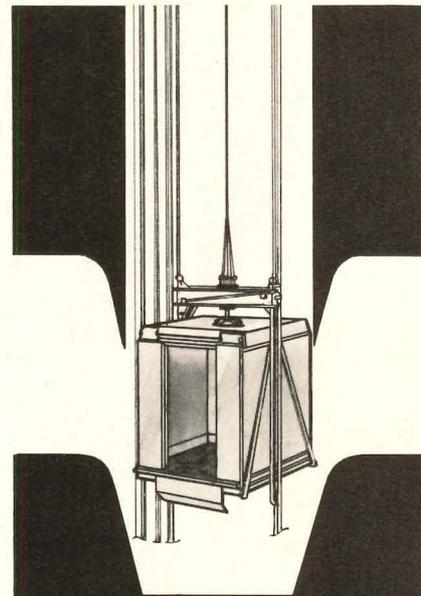
The Office of Sigmund Blum, Vaporciyan & Mitch, Inc., Suite 1900, Fisher Building, Detroit, Mich. 48202.

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.



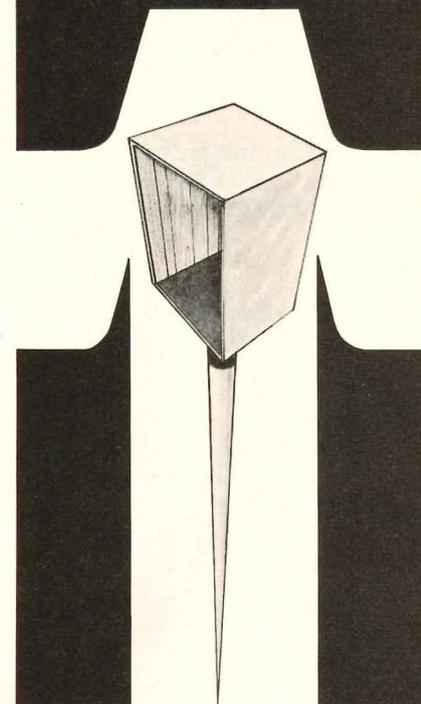
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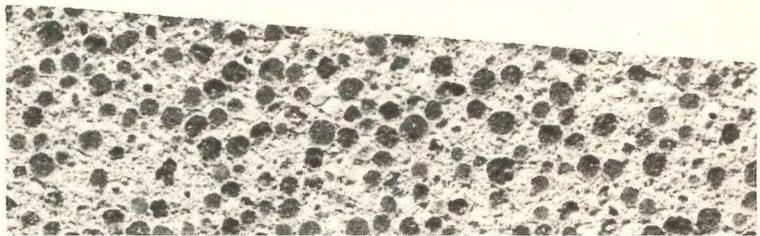
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The Volumaster starts with all the proven advantages of a central climate control system. Then adds some unique improvements of its own.

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The air hugs the ceiling even under low flow conditions. There are no drafts. No hot spots. No dumping of air.

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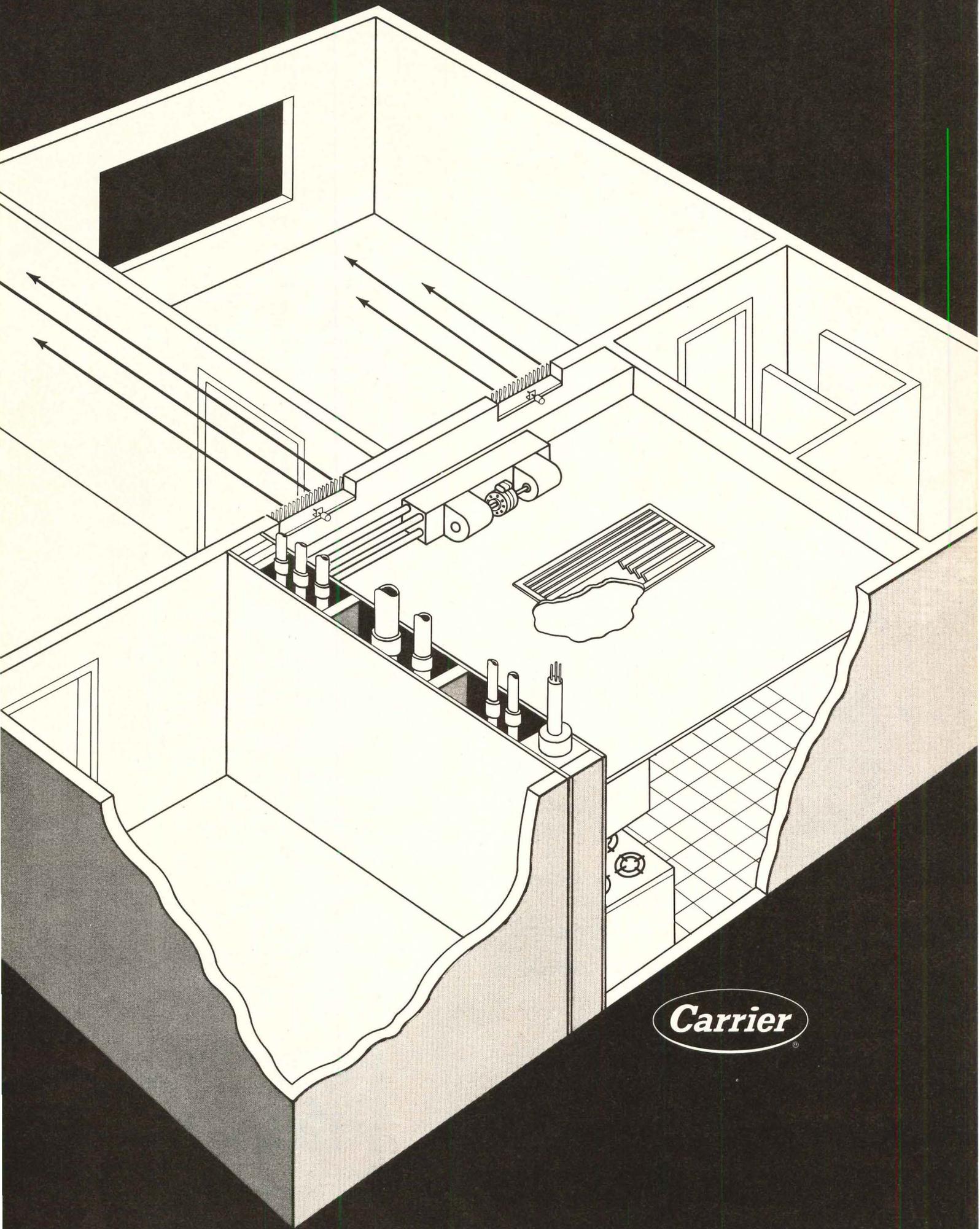
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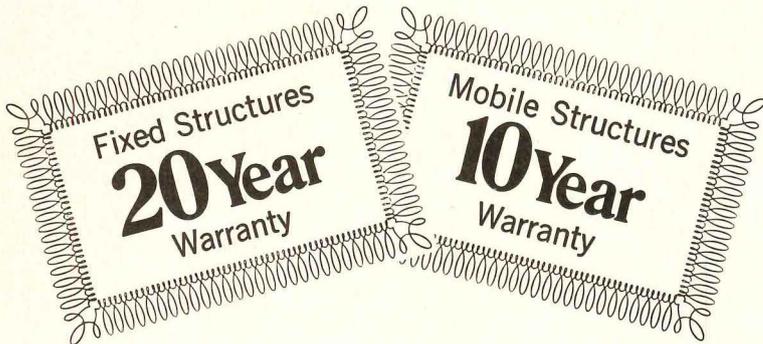
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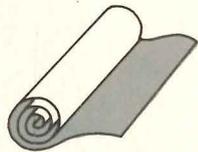
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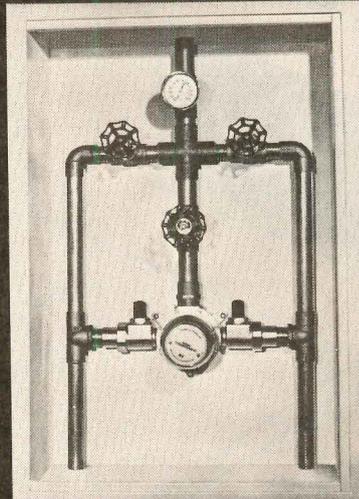
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Look into Grace-Zonolite® Masonry Fill Insulation. It's incredible stuff. To put it another way, it's a lightweight, free-flowing, water-repellent, vermin-proof, rot-proof, fire-proof, sound-deadening, inorganic, granular vermiculite!

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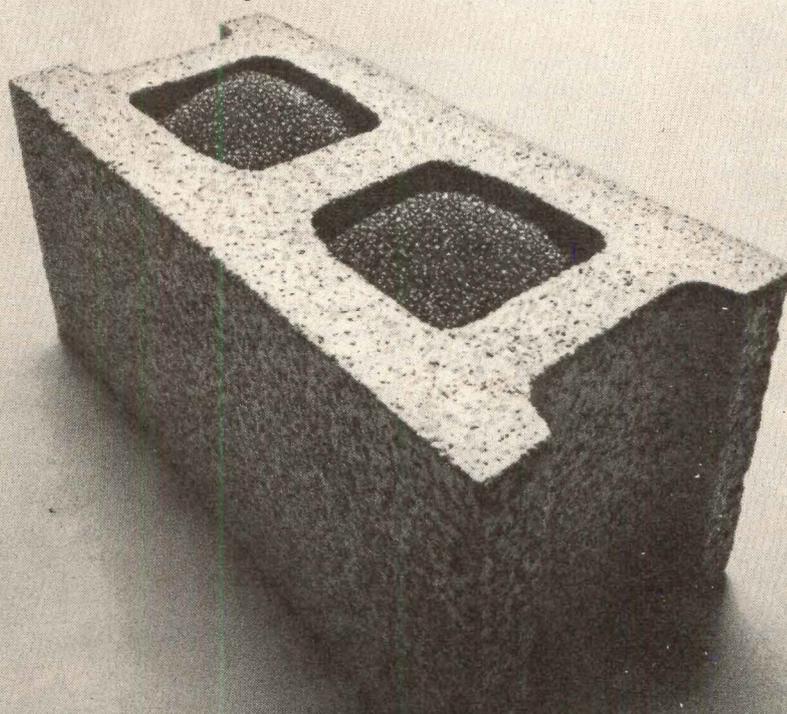
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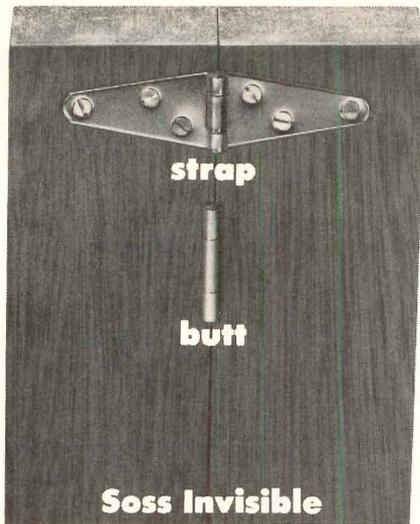
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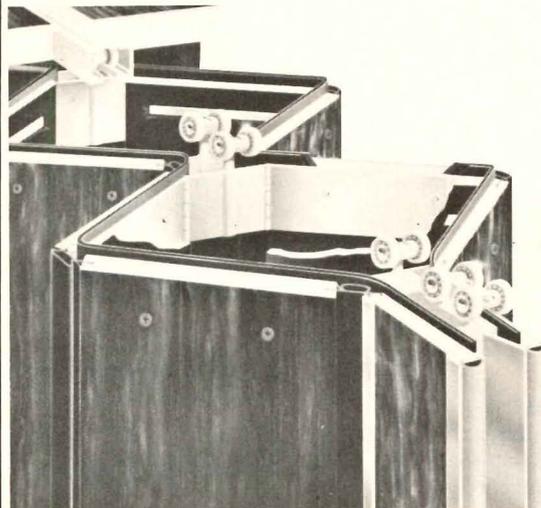
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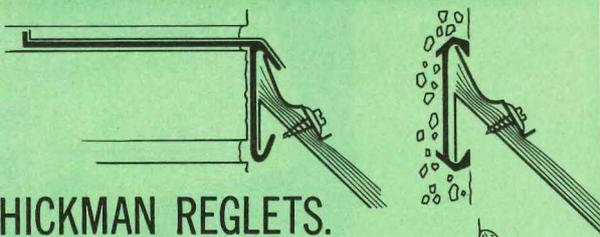
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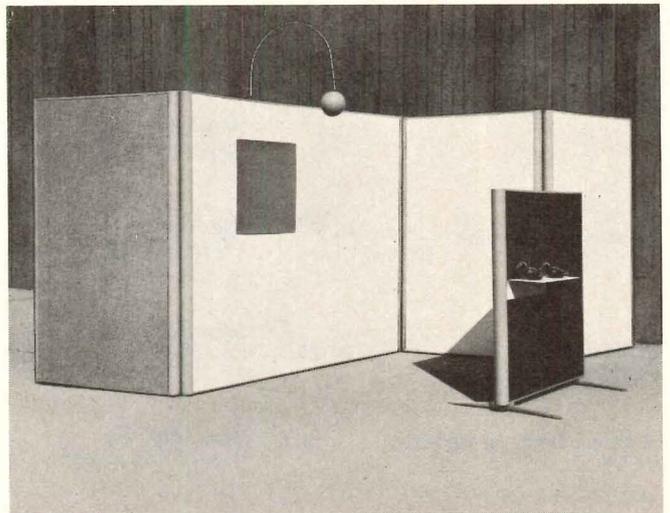
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Credits/Architects: Wilson, Morris, Crain & Anderson/General Contractor: W. S. Bellows Construction Co.

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.

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