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NEW SPACES FOR PRODUCT RESEARCH BY JAMES STEWART POLSHEK & ASSOCIATES
BUILDING TYPES STUDY: HEALTH FACILITIES
FULL CONTENTS ON PAGES 10 AND 11

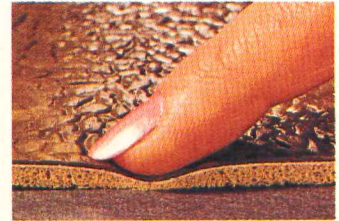
ARCHITECTURAL RECORD

AUGUST 1974 **8** A MCGRAW-HILL PUBLICATION THREE DOLLARS PER COPY



Imagine the ideal flooring—the one that combines underfoot comfort with all of the advantages of vinyl. You're thinking of Quiet Zone Vinyl Corlon® from Armstrong.

As you can see from the insert, Quiet Zone has a thick backing of Cushioncord® vinyl foam. So, as its name implies, it cushions footsteps. It makes standing and walking on Quiet Zone a pleasure. At the same time, it muffles the noise of dropped objects and foot traffic, giving you the double benefit of quiet and comfort.

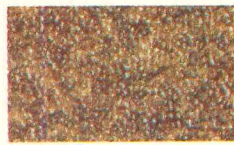
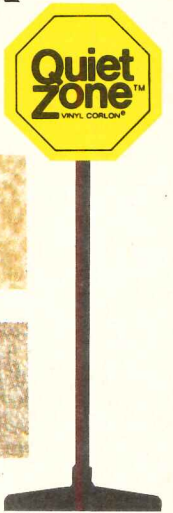


Naturally, Quiet Zone's sheet vinyl wear layer offers excellent resistance to stains and scuffing, and provides all of vinyl's proven maintenance advantages.

A bonus is its design—not only does Quiet Zone come in two handsome patterns—but it is richly textured to help disguise traffic marks as well as subfloor irregularities. Install Quiet Zone in your next open plan office. Then just sit back and listen to Quiet Zone at work.

For more information, clip this coupon, fill it out, and mail it to Armstrong, 4202 Rock St., Lancaster, Pa. 17604.

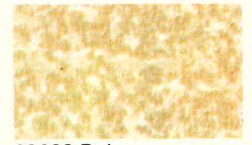
Shh. Quiet Zone™ at work. You know it's vinyl, but you might think it's carpet.



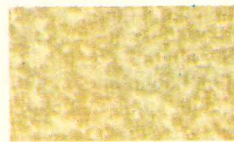
83020 Brown



83021 White



83022 Beige



83023 Gold



83024 Green



83025 Gray-Beige

The Quiet Zone pattern illustrated here is called Grand Central.

Please send me more information about Armstrong Quiet Zone Vinyl Corlon.

Name _____

Company _____

Address _____

City _____ State _____ Zip _____

FROM THE  INDOOR WORLD® OF
Armstrong
For more data, circle 1 on inquiry card

Want a wider choice of doors?



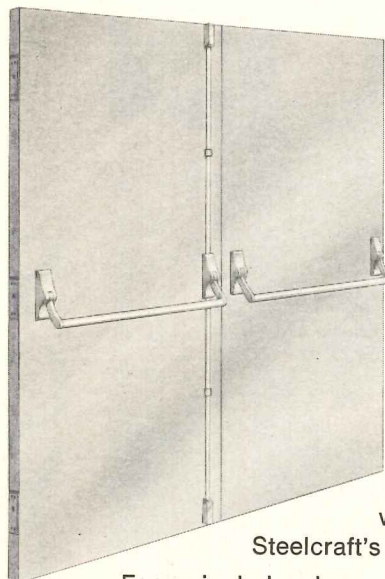
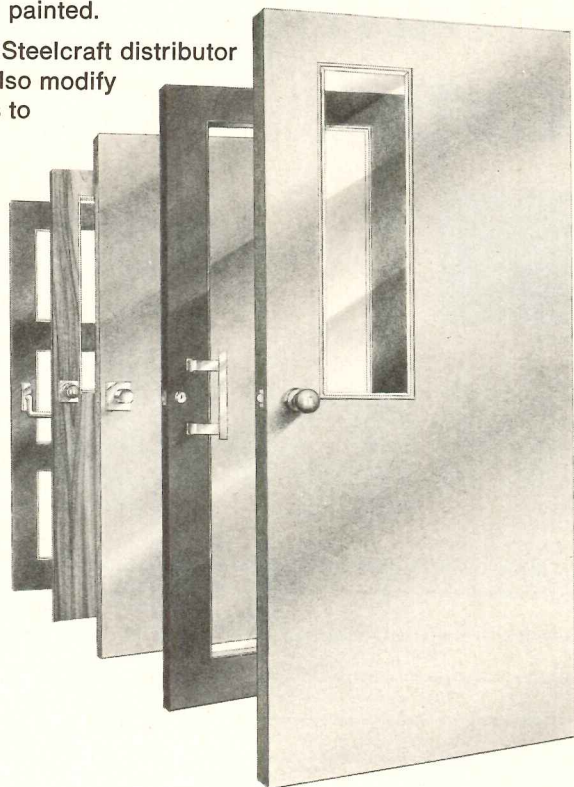
Rely on the man behind the Steelcraft door.

Rely on your nearby Steelcraft distributor. He is a factory-trained man who maintains a large stock of Steelcraft steel doors and frames close to your building project.

You'll find he offers steel doors and frames, including fire rated, to complement almost any interior/exterior wall opening condition. He carries a large variety of types and sizes in stock —

or he can obtain from Steelcraft galvanized, stainless or textured steel, wood grained or finish painted doors. Even frames are available finish painted.

Your Steelcraft distributor can also modify doors to

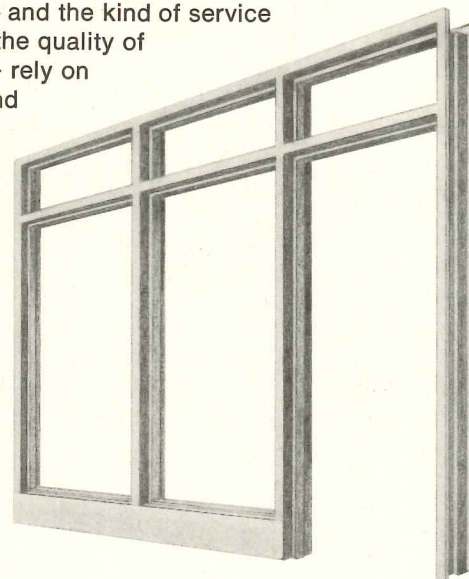


provide non-standard hardware preparations and different light or louver arrangements and he can deliver them fast — coordinated for the hardware.

You can also count on your Steelcraft distributor for fast service on made-to-order entrances, partitions, or window walls which he assembles from Steelcraft's unique "Stick System".

For a single local source, a single responsibility — and the kind of service that matches the quality of his product — rely on the man behind the Steelcraft door.

Write for details today.
9017 Blue Ash Road
Cincinnati, Ohio 45242



Steelcraft®

An American-Standard Company

For more data, circle 2 on inquiry card

Armstrong introduces
the bold textured lay-in
ceiling panel.

Boldface™



Easy-to-install, economical, and, above all, good-looking—those were the criteria that the Armstrong designers had to meet for our latest lay-in ceiling panel.

What they gave us was a panel with an exciting, bold, rough texture. We called it Boldface, and we think it's a beauty.

Its design is nondirectional with a white paint finish, making Boldface the ideal ceiling for any interior space.

Boldface is available in 24" x 24" or 24" x 48" lay-in panels and 24" x 48" Tegular lay-in panels which rest on a standard exposed-grid suspension system. Installation is simple and economical.

Its specifications rank Boldface well. It has an NRC of .60-.70; flame-spread rating of Class 25; good light reflectance—70-74%. And it has an average C factor of .52 at 3/4".

Boldface. It met all of our specifications and more. We're sure it will exceed yours, too.

For more information, write Armstrong, 4201-3 Rock Street, Lancaster, Pa. 17604.

FROM THE  INDOOR WORLD® OF

Armstrong

For more data, circle 3 on inquiry card

Letter to a reader

If the publisher can borrow the editorial page (as he did in April to talk about the International Design Competition for the urban environment of the developing countries—see also Perspectives this month on page 14), the editor ought to be able to use this space which is normally his. So I have—to talk about our RECORD seminars.

As many of you know, we've been operating two seminars for almost a year now—one on How the Architect Can Profit as a Builder-Developer and one on How to Market Professional Services (see page 198). Both have been attended by hundreds of RECORD readers as they toured the country, both have gotten very good marks from the attendees, and both are still running strong.

But not all of you may have caught up with our newest venture—The First International Seminar to Brazil, to be held October 23rd through 31st—a study tour of three of the world's most important and architecturally significant cities. First, Sao Paulo, the fastest growing city in the world—and a city marked by some extraordinary design and planning efforts to meet this growth. Then Rio de Janeiro—offering totally different challenges to professionals. Finally Brasilia—that unique design experiment.

The Brazilian architects are enthused. Seminar members will meet with some of the great architects and other professionals of Brazil—Oscar Niemeyer, Burle Marx, Sergio Bernardes, Joao Vilinova Artigas, Jorge Wilhelm, Alberto Botti, John Gian Carlo Gasperini have indicated their willingness to meet with the group.

Those of us in the editorial department who helped plan this seminar are proud of it—and we're anxious to make the trip. If you can think about coming along—alone or with the wife of your choice, at what seems to be a most reasonable price, what with possible tax deductions and all—read the material on page 89 and send in the handy coupon. We think it will be our most exciting seminar effort yet!

—Walter F. Wagner, Jr.

Letters to the editor

Even when a great man is allowed to live a complete life, it is still a sad day when he passes away. Thus, I was extremely unhappy, as I know you were, to learn that Alan Dunn had died after a full life of significance both in the world of humor and the world of architecture.

His gentle way of poking fun at architects who sometimes take themselves too seriously has been a benefit to us. His understated ridicule of new design clichés which herds of architects rush forward to "discover" has been a benefit to the world.

*Al Widmer
Carroll, Daeuble,
Du Sang and Rand*

As an avid and interested reader of RECORD, I wish to applaud the positive stand taken for support of the proposed 27th Amendment to the Constitution on Equal Rights.

It will take a great deal of coordinated planning and education of both the public and state legislatures by many professions and organizations before we attain the goal of equality for all citizens.

*Mrs. Solomon Kaplan, president
League of Women Voters*

We were delighted with your article on Reelfoot Lake's Airpark Lodge! You captured the spirit of the place with your text and selection of photographs.

*Clare Stallings
Gassner/Nathan/Browne, Architects*

Thanks very much for the lovely write-up in May RECORD.

I was prompted by this issue to take out the August 1967 issue of the RECORD in which our schematic plans and model were published, and was quite gratified to see that this was one project that was really built exactly as planned.

I would like to thank RECORD for providing me with such a fine "record" of this project.

*Alan H. Lapidus
Morris Lapidus Associates*

Elmer is dependable. Push-cart, cap badge No. 2 and a plumped-blue Elmer appear outside the dutch-door at exactly 9:35 each morning. And invariably if I am twitching in anticipation of receiving a check from the Navy at San Bruno, or my copy of RECORD, I must first expect to spend a few moments listening to Elmer's tales about his heart problems (nothing compared with mine), his ex-wife or the tribulations of the U.S. Postal Service. This last Wednesday morning while I was being informed about the U.S.P.S. retirement plan, my laser eyes were fruitlessly searching the contents

of the push-cart for RECORD brown wrapper. At the exact moment when Article No. 4c of the retirement plan was being presented, Elmer produced your package and I flipped.

After chatting with you on the telephone I immediately took pen to pad, but it was impossible. My heart was like a Hoover Dam turbine and my head, a cerebral-richocheting mess. My first carrier landing, our wedding recessional at Honolulu's St. Andrews Cathedral and the announcement of winning the competition are hum-drum in comparison.

Shanly and I thank you so very much.

*Robert M. Houvener
Architect*

Calendar

AUGUST

18-22 Exhibition of Architecture for Criminal Justice, sponsored jointly by the American Correctional Association and the AIA, at the 104th Congress of Correction, Houston, Texas. Contact: The American Institute of Architects, 1735 New York Avenue, N. W., Washington, D.C. 20006.

18-24 International Federation for Housing and Planning, Vienna, Austria. Details from: IFHP Secretariat General, 43 Wassenaarseweg, The Hague, Netherlands.

28-September 1 Annual Tour—Utica, Rome, New York (Upper Mohawk Region). Contact: The Society of Architectural Historians, 1700 Walnut Street, Philadelphia, Pennsylvania 19103.

SEPTEMBER

8-10 Sixth International Conference on Urban Transportation, Hilton Hotel, Pittsburgh. Sponsored by the Pittsburgh Urban Transit Council, U.S. Department of Transportation, and the Transportation Research Institute, Carnegie-Mellon University. Contact: Box 2149, Pittsburgh, Pa. 15230.

11-12 Second Federal Design Assembly to improve design quality in Federal projects, Washington, D.C. Contact: National Foundation on the Arts and Humanities, Washington, D.C.

17-18 Seminar on How to Market Professional Design Services, Newark, N.J. Sponsored by Architectural Record. Contact: Building Industry Development Services, Suite 104, 1301 20th Street, N.W., Washington, D.C. 20036.

27 One-day seminar on construction management, Washington University, St. Louis. Contact: Charles B. Hook, School of Architecture, Washington University, St. Louis, Mo. 63130.

ARCHITECTURAL RECORD (Combined with AMERICAN ARCHITECT, ARCHITECTURE and WESTERN ARCHITECT AND ENGINEER)

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Armstrong introduces
a grand new look
in ceiling tiles.
Grandshire.



The look is houndstooth check, and its appearance is unbroken across an expanse of ceiling.

It's Grandshire, a 12" x 12" tile.

Grandshire is the newest addition to the Travertone™ ceiling line and offers a distinctively different monolithic look.

You can achieve this look two ways: by cementing the tiles directly to a sound, existing ceiling or by suspending the tiles from a concealed-grid system. Either way, it's an exciting seamless look.

Grandshire is an acoustically efficient, mineral fiber tile, with a Class 25 Flame Spread Index and an NRC of .60-.70.

For more information on Grandshire, write Armstrong, 4201-2 Rock Street, Lancaster, Pa. 17604.

You'll agree, it's a grand new look.

FROM THE  INDOOR WORLD® OF

Armstrong

For more data, circle 4 on inquiry card

**Atlanta, Boston, Charleston,
Chicago, Dallas, Denver,
Kansas City, Los Angeles,
Minneapolis, New Orleans,
Phoenix, Portland, Spokane,
and Washington, D.C.
can save more energy.**

With a damperless multizone.



energy-wasting hot and cold air mixing, as well as the tricky and troublesome dampers.

Plan on it for your next low-rise design.

In any city.

For details on all six of our 15-through-37-ton Modular Multizones, see your Carrier representative. For details on our 14-city multi-zone comparison

study, send in the coupon.

*A computer simulation.

Number One
Air Conditioning
Maker

Carrier



Division of Carrier Corporation

A six-month study* completed this year, compared the energy usage of the Carrier Modular Multizone with the three other most widely-used multizone units. All under *year-round* climate conditions in 14 cities.

Conclusion: The Carrier Multizone is the lowest energy-consuming multizone air conditioning unit on the roof today.

Because it's the only damperless multizone you can specify. Has a separate cooling coil and heating element for each zone. Eliminates the

Carrier Air Conditioning Division
Dept. AR
Syracuse, N.Y. 13201

Please send me my free copy of the 14-city multizone comparison study.

Name _____

Title _____

Company _____

City _____ State _____ Zip _____

Armstrong introduces
a suspended ceiling panel
tough enough to take abuse.

Armatuff™*



You might look at this ceiling and think it's just another 2' x 4' lay-in.

But its name gives away its distinguishing feature — toughness.

You can't see it, but Armstrong has coated these lay-in panels with a thick, tough mineral material that allows Armatuff to stand up to repeated abuse.

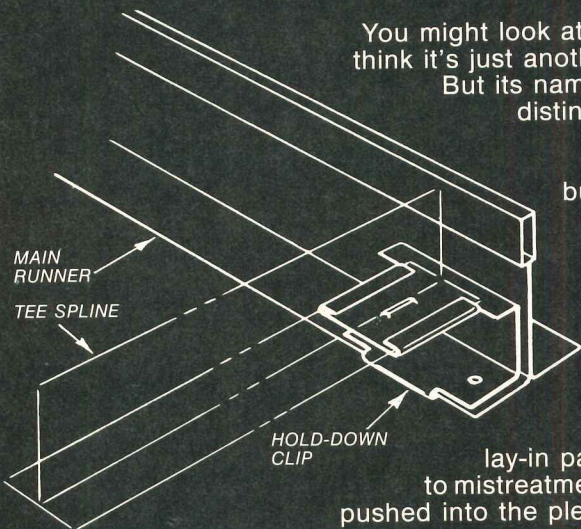
But, if these lay-in panels are subject to mistreatment, can't they be pushed into the plenum? If Armatuff

were an ordinary ceiling, the answer would be yes. But Armstrong has developed an impact clip that firmly anchors Armatuff to the suspended grid.


This combination makes Armatuff the ideal ceiling system for schools or anywhere else where a ceiling could possibly be damaged. And Armatuff can easily blend in with any decor, because its surface design is a nondirectional, rough natural texture, with a factory-applied white vinyl latex paint finish.

For more information, write to Armstrong, 4201-1 Rock Street, Lancaster, Pa. 17604.

You'll agree: Armatuff presents a good, tough case for itself.



* Process patent pending

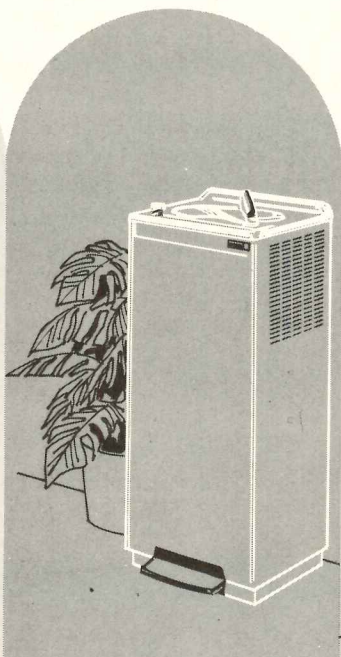
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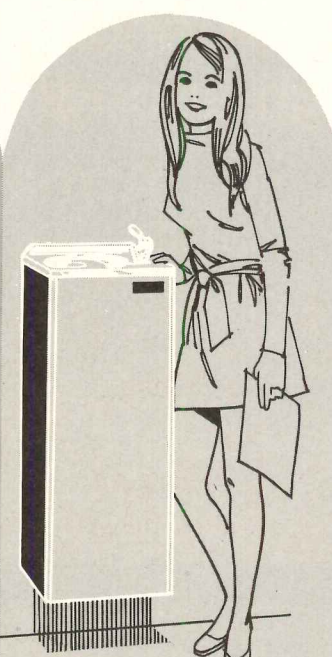
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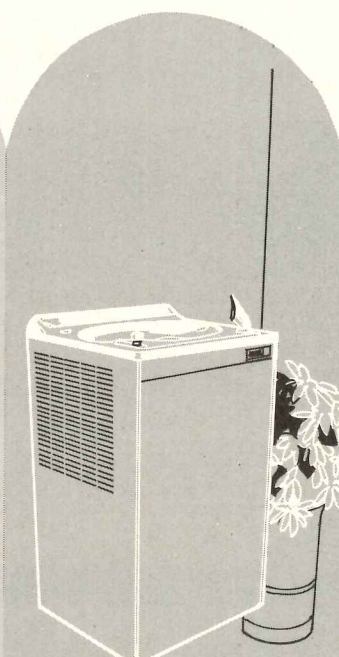
Three models of fully recessed water coolers in 8 to 12 gallon per hour capacities. In satin finish stainless steel or in bronze-tone finish. Model shown EFR-8A.



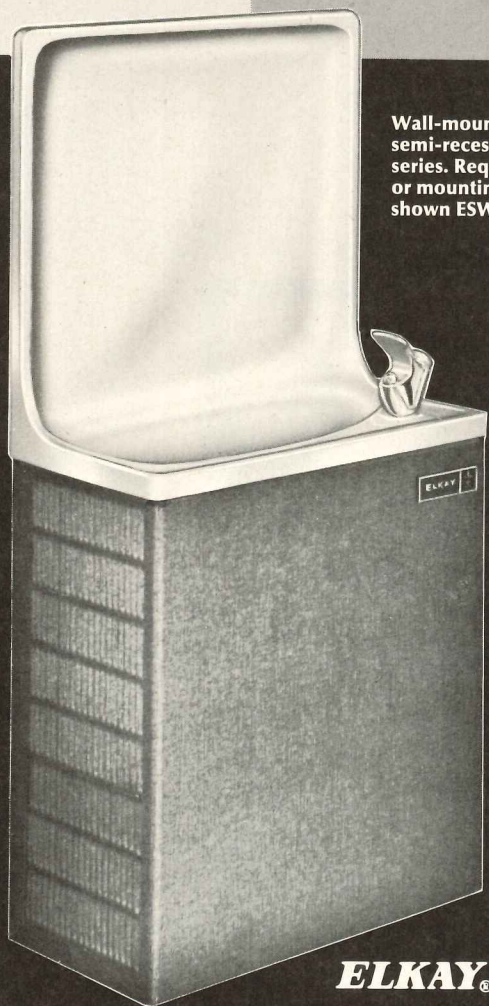
Self contained floor models in 4 to 20 gallon per hour capacities. Panels available in stainless steel, 9 vinyl decorator colors and two in baked enamel. Model shown EF-8.



Space-ette series. The ideal water cooler where space is limited. Capacities are 3, 5 or 8 gallons per hour. Also in floor models. Model shown W-701-5.



Wall mounted models in regular and compact sizes with Elkay's exclusive Cascade Basin. Full range of colored panels. Regular size 4 to 20 gallons. Compact in 4 to 14. Model shown EW-8.



Wall-mounted, simulated semi-recessed coolers, ESW series. Require no wall cut-out or mounting box. Model shown ESW-13.

Elkay reinvented the water cooler and here's why

Water coolers needed to be redesigned to permit simple, fast and economic installation. Elkay did that with sectional construction to keep mechanical systems away from the plumbing connection area. Water coolers needed a basin that is vandal-proof, minimizes splashing, looks better. And Elkay has created water coolers to fit every need: corner models, free standing, multiple basin models, two-level models. All of them with contemporary styling and finishes and colors to complement any decor.

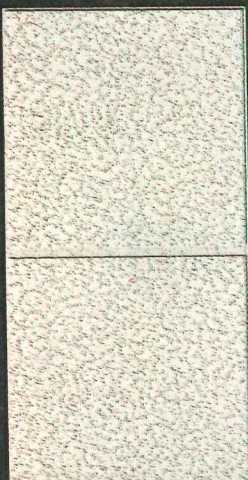
Write for Catalog DFC-4 for more information.

ELKAY® Manufacturing Company, 2700 S. 17th Avenue, Broadview, Illinois 60153

For more data, circle 6 on inquiry card

Take a second look.
Those ceiling tiles are really
lay-in panels.

Introducing the Second Look™* ceilings by Armstrong.



Second Look II ceiling panel

You really have to look twice. These are not 12" x 12" or 24" x 24" ceiling tiles, they are 2' x 4' lay-in panels.

That's why we call our new lay-in panels Second Look. They're designed to give ceilings the look of tile but with the economy of lay-in panels. What your client gets is a good-looking bargain. And the ceiling gets a lot of second looks.

We created this effect by scoring the panels to simulate 12" x 12" or 24" x 24" tiles—and we matched the exposed grid to the board finish in a speckled or low-gloss design.

Installation is the standard, economical suspended grid system. Just as soon as the panels are suspended, the total effect is achieved, because the grid and

the ceiling panels visually blend to give an overall appearance of more expensive tile.

Find out more about these unique Second Look lay-in ceiling panels. Write Armstrong, 4201-4 Rock Street, Lancaster, Pa. 17604.

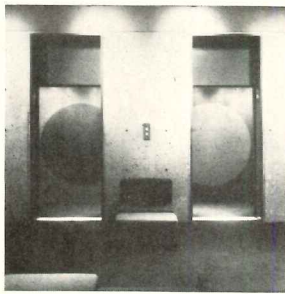
Then you can take a good long second look at our Second Look.

*Second Look Ceiling Systems I and II patent pending

FROM THE  INDOOR WORLD® OF

Armstrong

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Cover: Interior detail for a library at Harvard Cambridge, Massachusetts
Architects: Benjamin Thompson & Associates, Inc.
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State of Missouri opens competition for Wainwright Building restoration and renovation. American Academy in Rome offers 1975-1976 Prize Fellowships. Senate office building addition prompts discussion of Capitol Hill master plan.

37 Buildings in the news

Japanese Embassy, Mexico City. St. Peter's Church, New York City. Housing for the elderly, Lowell, Massachusetts. The Fashion Galeria, Albuquerque, New Mexico. Performing Arts Center, Commerce, Texas. Otis Elevator office building (below), Philadelphia.



Harris Davis

41 Human Settlements: World News

43 Required reading

ARCHITECTURAL BUSINESS

65 Evaluation studies: a follow-up architectural service

For years, architects have talked about the usefulness of a formal program of evaluation of the performance of their own and other buildings, based, of course, on realistic response of the solution to criteria of program, esthetics and budget constraints. Here's how one firm, Kaplan and McLaughlin, has structured an evaluation program and made it pay in terms of firm growth and actual service commissions.

71 Building costs

Gas stations forced out of business can be recycled for other uses.

73 Building activity

George Christie makes a second update of the outlook for 1974.



FEATURES

97 Two college libraries

A specialized library for an urban campus by Benjamin Thompson & Associates, Inc. (page 98) and a general library for a rural campus by The Architects Collaborative (page 105) have been significantly shaped by their respective sites.

109 Branch bank buildings

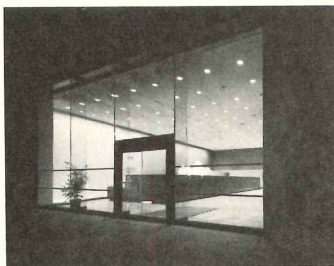
110 Albany Savings Bank, Schenectady, New York
Architects: Feibes & Schmitt

112 Commercial and Industrial prototype bank
Memphis, Tennessee
Architects: Gassner/Nathan/Browne

114 Golden West Savings Bank
San Jose, California
Architects: Marquis & Stoller

116 Hamilton National Bank
Knoxville, Tennessee
Architects: McCarty, Bullock, Church & Holsaple

118 American Savings Bank
New York, New York
Architect: Edward Larrabee Barnes



Nathaniel Liberman

121 The Arcosanti Antithesis: Paolo Soleri and the counterculture

Former RECORD editor Robert Jensen has spent time working at Arcosanti, the megastructure city for 3,000 people that Paolo Soleri is building in the Arizona desert. He reports on what it is like, and what it may mean.

127 New space for Allied Chemical

In adding to—and renovating—Allied Chemical's Materials Research Center in Morristown, New Jersey, the problem was to keep the scientists working during construction. Architects James Stewart Polshek & Associates found that extremely careful staging was the key.

BUILDING TYPES STUDY 464

131 Health facilities

No single type of building dominates today's market for architectural commissions in the health field. This study represents a cross-section of important considerations, new and long-standing, that somehow lend a unifying character of specialization to a rather heterogeneous mix of technical, educational, industrial and very human-oriented facilities. Somehow, too—despite the pressures of cost control, automation, fast-track and modular systems development—the buildings are getting better to look at and to live in.

132 Montego Bay Hospital
Jamaica, British West Indies
by The Architects Collaborative, Inc. and Chalmers, Gibbs and Associates

135 Tufts-New England Medical Center
Boston, Massachusetts
by The Architects Collaborative, Inc.



Phokion Karas

139 Community Health Care Plan Building
New Haven, Connecticut
by the Office of Bruce Porter Arneill

140 Edgewood House, nurses' dormitory
Princeton, New Jersey
by Holt-Morgan-Schwartz

141 City of Salem Long-Term Care Facility
Salem, Massachusetts
by Campbell, Aldrich and Nulty

142 University of Iowa College of Dentistry
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144 Veterans Administration Replacement Hospital
Bronx, New York
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ARCHITECTURAL ENGINEERING

147 A lab addition is built fast with off-the-shelf components. Perkins & Will provided a high degree of flexibility and modularity with subsystems requiring a minimum of field fabrication: precast planking, packaged air-handling system, and modular laboratory furniture.

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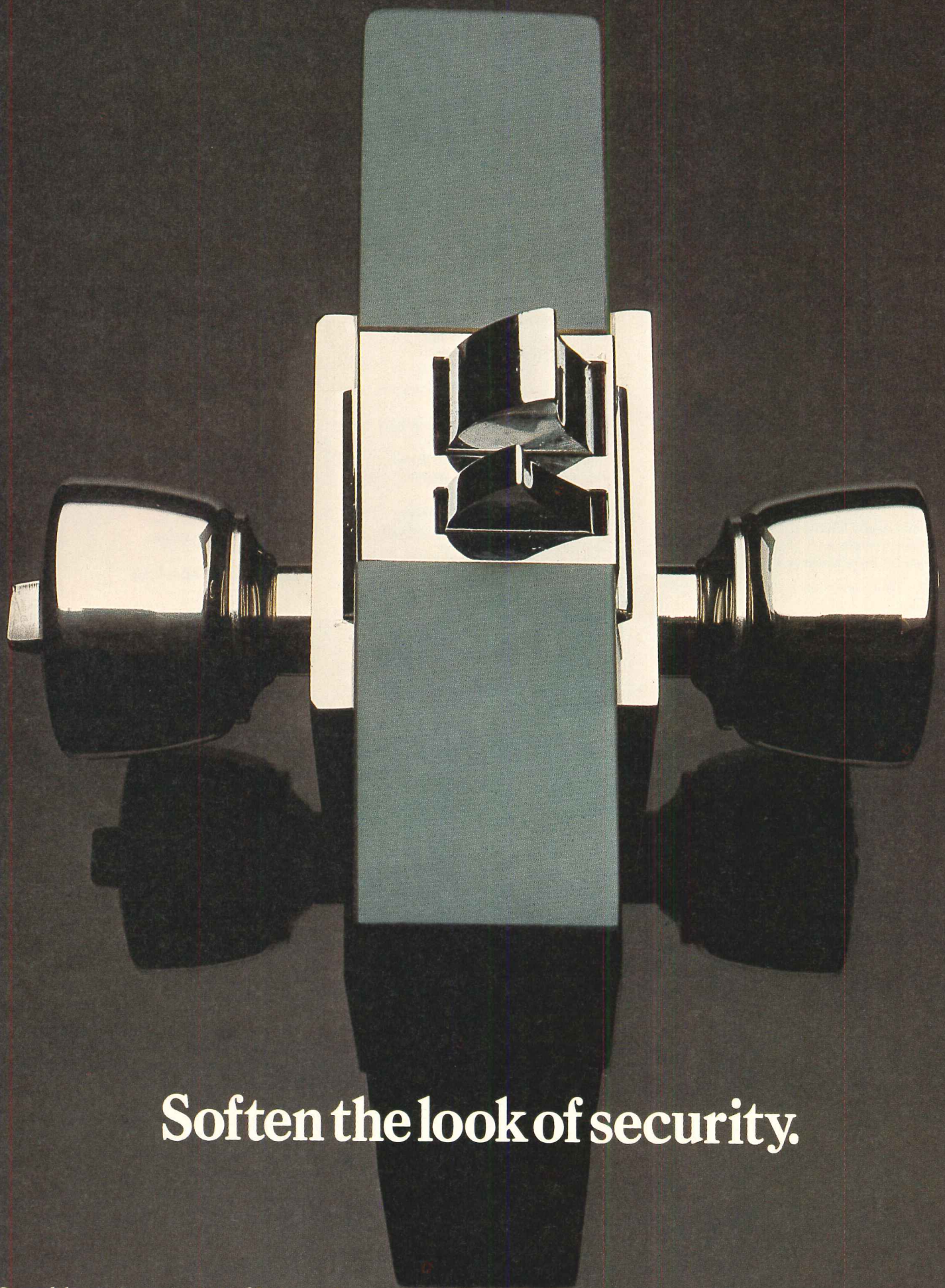
COMING IN MID-AUGUST

The first annual spotlight issue on Engineering for Architecture featuring: 1) Thirty-four pages of effective architect/engineer collaboration; 2) the results of RECORD's Round Table on Fire Safety: Codes and Standards; 3) "Systems Building Revisited—an appraisal of finished systems projects; 4) "The changing dialogue among architect, engineer and manufacturer; 5) "Energy Conservation in Perspective."

NEXT MONTH IN RECORD

RELIGIOUS BUILDINGS

In recent years, the volume of new church construction has diminished substantially. The reasons are many but foremost among them is the reduction in church attendance. Fewer Americans seem to be attending services on a regular basis and an increasing burden is therefore being carried by a smaller and smaller group. As the Church retrenches, new buildings are focusing greater attention than before on community—usually secular—uses and architects are working with programs for new churches that anticipate seven-day-a-week use. The September BTS will present several new churches and examine the ways in which new programs are redefining the churches' role in several communities.



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NCARB takes some important new steps to build—and protect—the profession

Everybody knows that the profession has some problems in education—and while the virtual falling-apart of many of the schools during the great student uprisings of the late sixties seems pretty well healed, there is still some dissatisfaction with preparation and great dissatisfaction with the internship period.

The new NCARB examination, while now widely accepted, is not totally accepted—with perhaps the biggest bone of contention the fact that under the new multiple choice exam candidates are not “tested” on their design ability—and these key issues will be discussed in next month’s editorial.

For this month—not to beat a dead horse (see the RECORD for November, 1973, pages 9-10) ‘cause it ain’t dead—there’s the matter of policing the profession during a difficult time when the conduct of a few is clearly damaging the reputation and credence of an entire and honored profession.

At its 53rd annual meeting, held this year in Dallas, the National Council of Architectural Registration Boards—that not-so-long-ago stolid and unimaginative body—tackled these (among other) problems with a vigor, vitality, sophistication, and clear-headedness that gets three loud cheers here. The papers from that meeting impress me as the work of people and of an organization which knows where it’s going, has set some tough standards, and seems to be getting there:

NCARB’s legal counsel made the case for policing the profession, and for NCARB doing the policing

In his speech to the convention, attorney Carol Sapers scored present policing of the profession as one of the great blocks to NCARB’s major goal—a system of reciprocal licensing throughout (and beyond) the country. Citing the unwillingness of some jurisdictions to accept the new NCARB professional exam (with some states requiring degrees, others a supplementary design exam, and a Puerto Rican residency requirement, for example) he criticized the “halting, insignificant effort by our [state] boards to ensure that the registered architect is practicing the high standards expected of him.

“Four things have occurred, however, within recent years which,” Sapers continued, “make the question of the role of state boards in policing the profession more timely than ever before.” His four points:

1. The May 1972 signing by the AIA of

the consent decree, coupled with the Justice Department’s investigations of minimum fee standards, a double whammy which has caused the AIA, Saper feels, to “respond prudently by retreating generally from the field of disciplining members for unethical practice.”

2. Ralph Nader’s challenge to NCARB, at its convention four years ago, to take a more active role in protecting the public interest. As Mr. Sapers points out, “A cogent and persuasive argument can and should be made for the learned professions regulating themselves. But if they fail to do so themselves, a persuasive argument can be made for representatives of the public to step into the breach.” Consumerism again!

3. Saper’s third argument for better policing, “more difficult to describe, is the radical change which has taken place in the construction industry”—the more complex organization of many building jobs and the resultant diffusion of responsibility—which requires that “somebody act to ensure that the architect carry out his public responsibilities. Here again, the public will turn to the state registration boards.”

4. The recent disclosures of corruption. Mr. Sapers points to the disbarment of lawyers but asked: “How many of the architects and engineers involved in the Baltimore County scandals have lost *their* licenses?”

These four forces, Sapers feel, require new thinking about “whether or not the state registration boards are adequately fulfilling their responsibilities to protect the public interest.”

“The package of powers which seems to me adequate,” said attorney Sapers, “is statutory authority to promulgate rules and regulations governing the conduct of registrants, and statutory authority to discipline registrants who violate those rules and regulations.

“With those basic underpinnings established, the state boards may adopt and enforce rules governing the conduct of registrants.”

Mr. Sapers outlined the ranges of professional conduct which he thought could be regulated by NCARB with such legal “underpinnings.” “As most of you would suspect, a court will uphold regulations prohibiting dishonesty, fraud, gross incompetency, or conflicts of interest.” Further: “Rules prohibiting advertising, competitive bidding, and engaging agent to solicit jobs are all examples of prohibitions against economic activities thought to be unprofessional”—and which have been gener-

ally upheld. And he feels that "by the legal standards presently available, it is permissible for a state regulatory agency to fix prices [in the case of the state boards, to permit and enforce minimum fee schedules] even though the same activity by private parties would involve violations of the anti-trust laws."

And the next question he raised is whether it is "appropriate for state boards to be concerned with ordinary negligence by license holders. . . ."

"In an imperfect world, we cannot invoke serious disciplinary actions for occasional negligence" but he argued that persistent negligence should be a subject for disciplinary action: "Every architect may be entitled to one leaky flat roof, but is he entitled to five or ten?"

Two state programs were cited as examples of effective policing

In California, Mr. Sapers explained, "when a complaint is brought to the attention of the state board it is investigated by the board's own staff or by the Division of Investigation of the Department of Consumer Affairs [an apparently unique state agency with investigators who are available to various registration boards under its jurisdiction]. In the last completed fiscal year, the California board received 164 complaints of malpractice. Twenty-four were dismissed. . . . The balance were in some stage of investigation. . . . In one case, the license was suspended. In 12 cases, criminal actions were filed. In six cases, the action resulted in a conviction, with either probation, fine, or, in one case, jail resulting. . . ."

"Florida, with much more modest staff resources, appears to be undertaking an equally ambitious program—but with a slightly different emphasis," Mr. Sapers said. "The Florida board, in cooperation with the engineering registration board, has set up meetings with building inspectors throughout the state . . . and encouraged them to notify the state board if they have any difficulties with licensed architects."

"Supplementing this input, the local professional chapters of the AIA scrutinize the work being done in their area and bring cases of apparent incompetence or misconduct to the board's attention. For the approximate 12 months that this program has been in effect, the board has received, on the average of one complaint per week." From that point, the executive secretary of the boards makes a preliminary investigation and—if he believes it appropriate, brings the matter to the attention of the state board. In the past year, according to Mr. Sapers, ten to 12 cases have resulted in board proceedings, but the board has not yet convened a formal disciplinary hearing.

Concluded Mr. Sapers: "I think that these two examples should suggest to the rest of us that an effective program in this area (of professional policing) is possible."

And, it seems to me at least, not just possible but desirable—for all the reasons given above. For if the profession does not maintain its own standards in the face of consent decrees and well-meaning, but woolly-headed anti-trust threats and diffused responsibility for building jobs and "the new morality"—then someone is going to set much less desirable and much less professional standards with which we shall all have to live. Like it, or not.

And it seems to me, the NCARB—with its new vigor and its present position of official and quasi-official standing within the states, is in a fine position to take on this tough and important responsibility.

The next step is actually take it on.

—Walter F. Wagner Jr.

The great international design competition: a progress report

In the April issue of RECORD (pages 13-14), RECORD and L'ARCHITECTURE D'AU-JOURD'HUI—our sister publication in Paris—carried what we felt was a most important announcement—the formation of The International Architectural Foundation for the purpose of conducting an international design competition for the urban environment of developing countries.

That announcement gave some of the details of a design competition which we feel could be one of the most influential in history—a competition for the design of prototypical urban neighborhoods to act as catalysts in the awesome task of upgrading the urban slums of the developing world.

To review briefly: the competition is for the design of three small new neighborhoods within the existing urban context of three cities (one in Asia/Oceania, one in Central/South America and a third in Middle East-Africa). Each city is to designate a site, agree to commission the winning designer, and commit itself to build the premiated design—which in itself would be a major contribution. Further:

1) The Competition should provide the best yet source of design ideas for improvement of the urban slums of the world because (a) RECORD and L'ARCHITECTURE D'AU-JOURD'HUI have agreed to feature the best designs in special issues and (b) a book of the best ideas from all of the entries is part of the plan.

2) The winning designs will be a major exhibit feature at the most important convention on human settlements ever held—the United

Nations Conference-Exposition on Human Settlements (Habitat '76) to be held in Vancouver in May 1976—designed "to stimulate innovation, serve as a means for the exchange of experience, and ensure the widest possible dissemination of new ideas and technologies in the field of human settlements."

Well, lots has happened since that April announcement:

1. Negotiations with Manila and Bogota are well advanced and progress is being made in the Middle East-Africa area.

2. The professional advisors, Guth-eim/Seelig/Erickson, are hard at work on (a) developing programs for the projects, (b) securing preliminary approval of the UIA (under whose regulations the Competition will be conducted), and (c) selecting jurors.

3. Literally hundreds of architects and planners—potential competition entrants—have written from around the world expressing enthusiasm for the competition and asking for more details (they're coming, they're coming!).

4. The IAF is well embarked on its crucial fund-raising campaign, and many of us around this office and the Paris office of AA are pitching in feverishly to help out by getting in touch with corporations, foundations and governmental agencies. On pages 18-19 of this issue the first results of this effort are reported: Over \$50,000 of the \$300,000 needed has already been given or pledged to the International Architectural Foundation by The Graham Foundation, The Johns-Manville Fund, and The International Development Research Centre (Canada).

And that's very good news indeed. For it is an important beginning, and we all hope that the commitment (and the stature) of these first contributors will encourage others—including, perhaps some not yet reached—to participate in this most important and selfless effort.

If you—or any other professional organization you are familiar with—might like to consider being one of a limited group of sponsors both in the U.S. and abroad, please read the announcements on pages 18 and 19, and then call me (at 212/997-4565) or Blake Hughes, president, The International Architectural Foundation, Inc., 1221 Avenue of the Americas, New York 10020; 212/997-4685.

With a lot of hard work and determination—and some tax-deductible contributions from concerned private organizations and foundations—the IAF Competition can make it possible for architects and planners from around the world to really get something started in the way of ameliorating the lot of the world's ill-housed urban poor.

I know you'll join us in helping if you can.

—Walter F. Wagner Jr.



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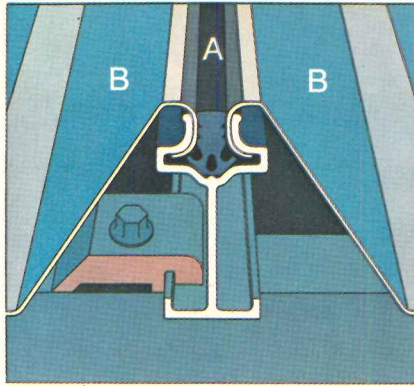
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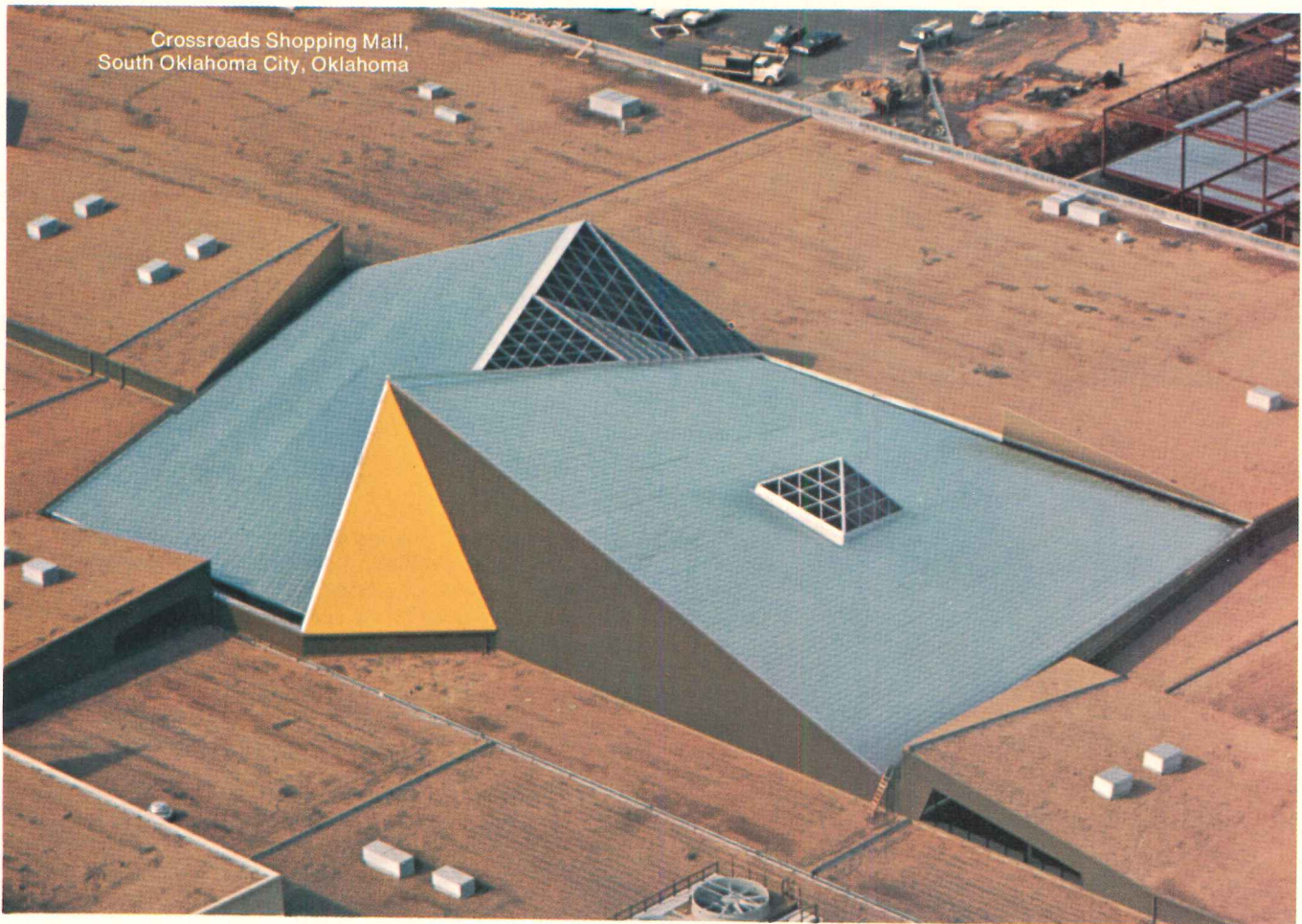
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*Architectural Record and L'Architecture d'Aujourd'hui announce
the formation of The International Architectural Foundation, Inc. for the purpose of conducting . . .*

An international design competition for the urban environment of developing countries

Desirous of helping the developing countries of the world to meet the challenges of unprecedented urban growth,

Inspired by the United Nations Resolution 3001 to hold a major United Nations Conference-Exposition on Human Settlements (Habitat '76) in Vancouver, Canada from May 31 to June 11, 1976, and wishing to contribute to its success,

The International Architectural Foundation, Inc. (IAF) has been formed for the purpose of organizing an International Design Competition open to the professions of architecture and planning throughout the world.

The IAF proposal has been described as "exciting and innovative" by Helena Z. Benitez, Coordinator, Preparatory Planning Group for Habitat '76. And Eric Carlson, its Deputy Director, has stated, "the IAF Competition has great potential for providing useful inputs to the important Vancouver meeting." In addition, prominent architects, planners and government officials around the world have expressed their enthusiasm and encouragement.

The Competition, scheduled to start in the late summer of 1974, when full details will be available to entrants, proposes to challenge the design professions to address themselves to a problem of grave and growing international concern: the human and environmental problem of *accelerating urbanization*. The challenge will be to design within a largely pre-existing urban-regional context a new and beneficent cell of urban growth—one that will foster human well being and development and one that will be fully considerate of environmental impacts. Thus, within a framework reflecting the universal problem of urbanization, three specific sites for a human settlement of moderate size will be selected to which designers can respond in the specific detail of both their physical characteristics and their social and economic factors. These sites will be located in three cities: one each in Central/South America, the Middle East/Africa, and

Asia/Oceania. Sponsoring local agencies will participate in the development of the Competition programs and agree to construct the winning designs and appoint their designers as project architects. In this unprecedented effort three design competitions, with three awards, to be built in three locations is projected; but the worldwide creative effort generated will yield the further benefit of many new ideas for urban community development which it is expected will be displayed at the Vancouver Conference-Exposition, featured in the world's leading architectural magazines, and published in book form.

The international consulting firm of Gutheim/Seelig/Erickson has been appointed by The IAF to organize and manage the Competition.

Funds needed to meet the Competition budget will be contributed by a small number of philanthropic sources in several countries and by interested business firms. The IAF is pleased to announce that the Graham Foundation has already endorsed its Competition and pledged its financial support.

If you would like to consider the possibility of joining a small group of financial sponsors, and being identified over a three-year period with a major effort to help developing countries find creative and practical solutions to some of their crucial problems of human settlements, write (in the U.S.) Blake Hughes, The International Architectural Foundation, Inc. (41), 1221 Avenue of the Americas, New York, N.Y. 10020, or (in France) Jean-Louis Servan-Schreiber, The International Architectural Foundation, Inc., 10 Rue Lyautey, Paris 16.

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The International Architectural Foundation, Inc. is pleased to announce that

THE JOHNS-MANVILLE FUND
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*in pledging their financial support to
The International Design Competition
for the Urban Environment of Developing Countries*

* * * *

Problems of excessive population growth, unemployment, environmental decay, disease, alienation and urban squalor are all interrelated—rooted in ignorance and disability, breeding despair and desperation. Nowhere are these ugly problems more clearly focused than in the urban slums of the developing world. Nowhere is there a greater need for human solidarity and creative contributions.

The International Design Competition is a modest means to these ends and aims to

- alert architects and planners to the gravity of the accelerating urban crisis in developing countries;
- increase the fund of talent and expertise available for planning human habitations;
- involve architects and planners in the design of demonstration projects in three cities of the developing world;
- contribute to the success of the important United Nations Conference-Exhibition on Human Settlements (Vancouver, 1976);
- act as a catalyst for further contributions by individuals, institutions, organizations, and governments to the solution of the multi-faceted problems of housing the urban poor.

To assure the success of the Competition, The IAF is seeking grants from a limited number of private organizations, foundations, and governmental agencies around the world.

If you would like to consider the possibility of becoming a sponsor, please read the brief announcement on the facing page and let us hear from you.

The International Architectural Foundation, Inc., 1221 Avenue of the Americas, New York, NY 10020. (212) 997-4685.

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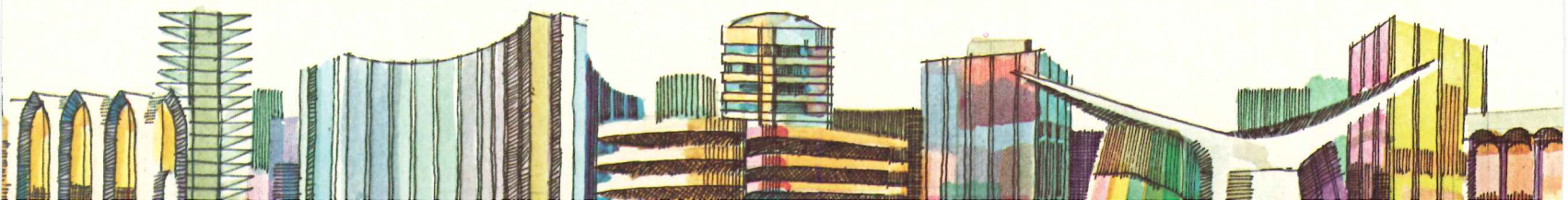


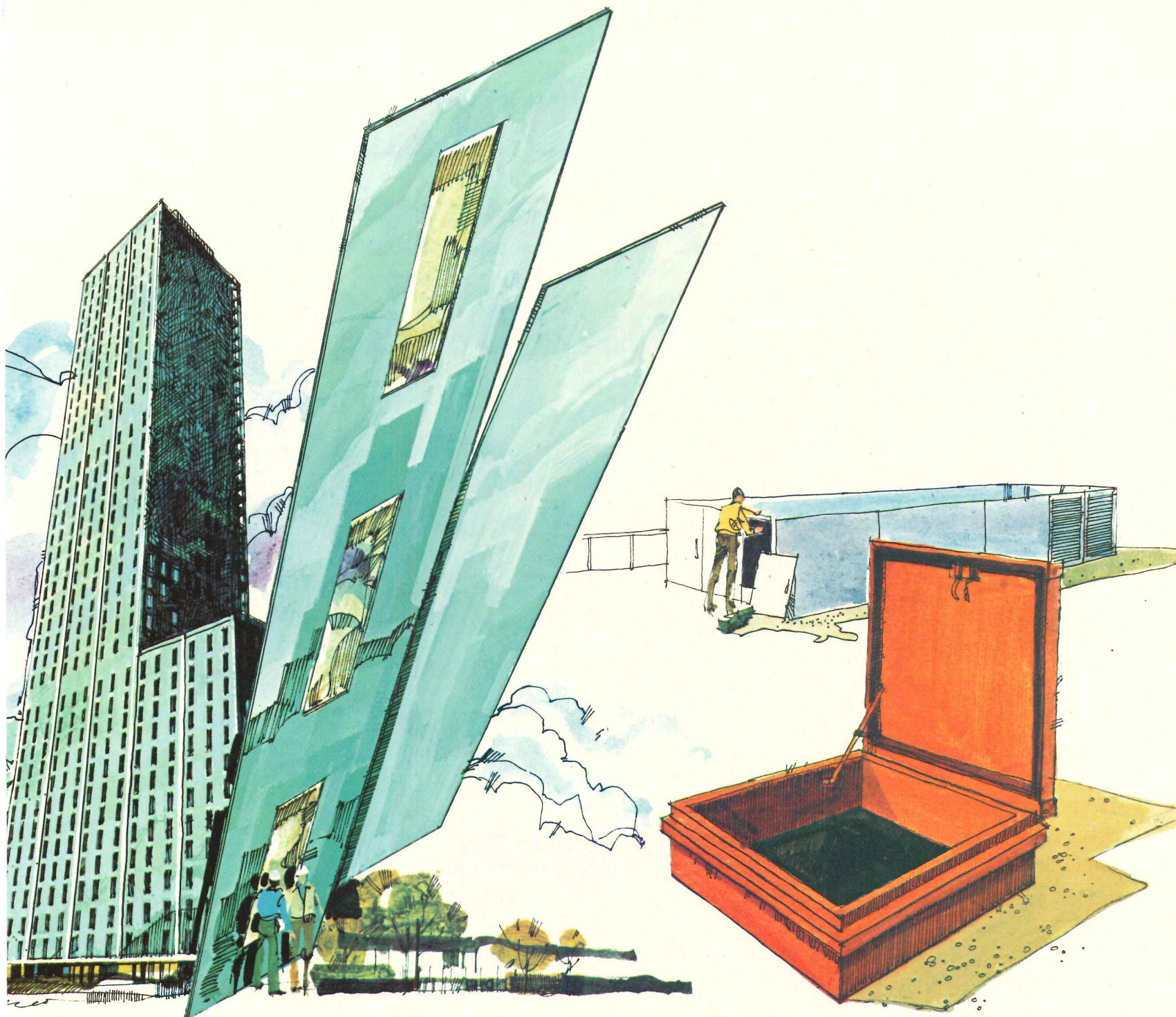
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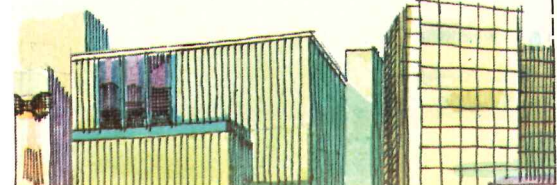
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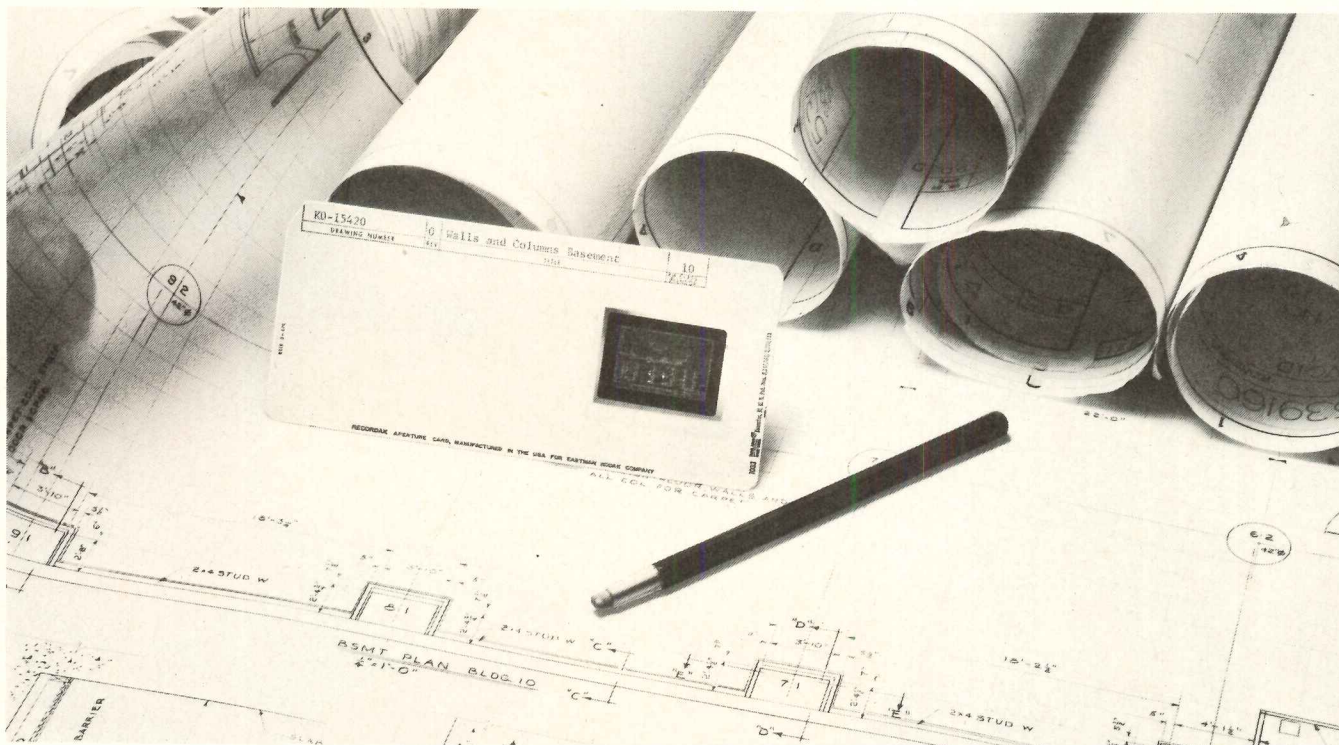
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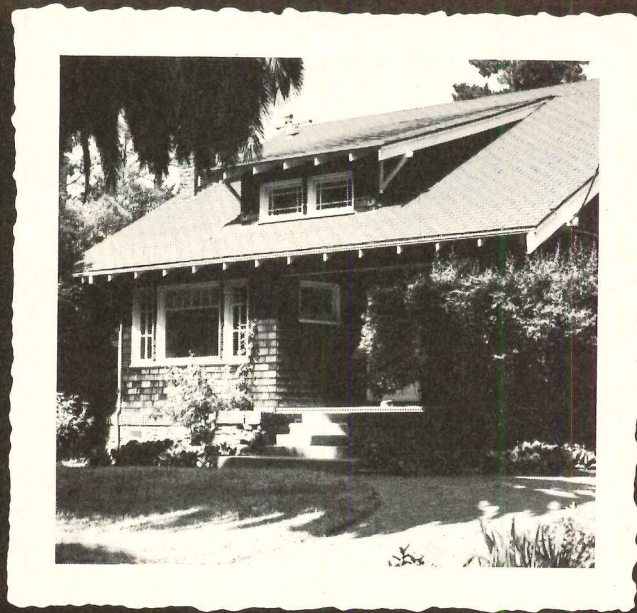
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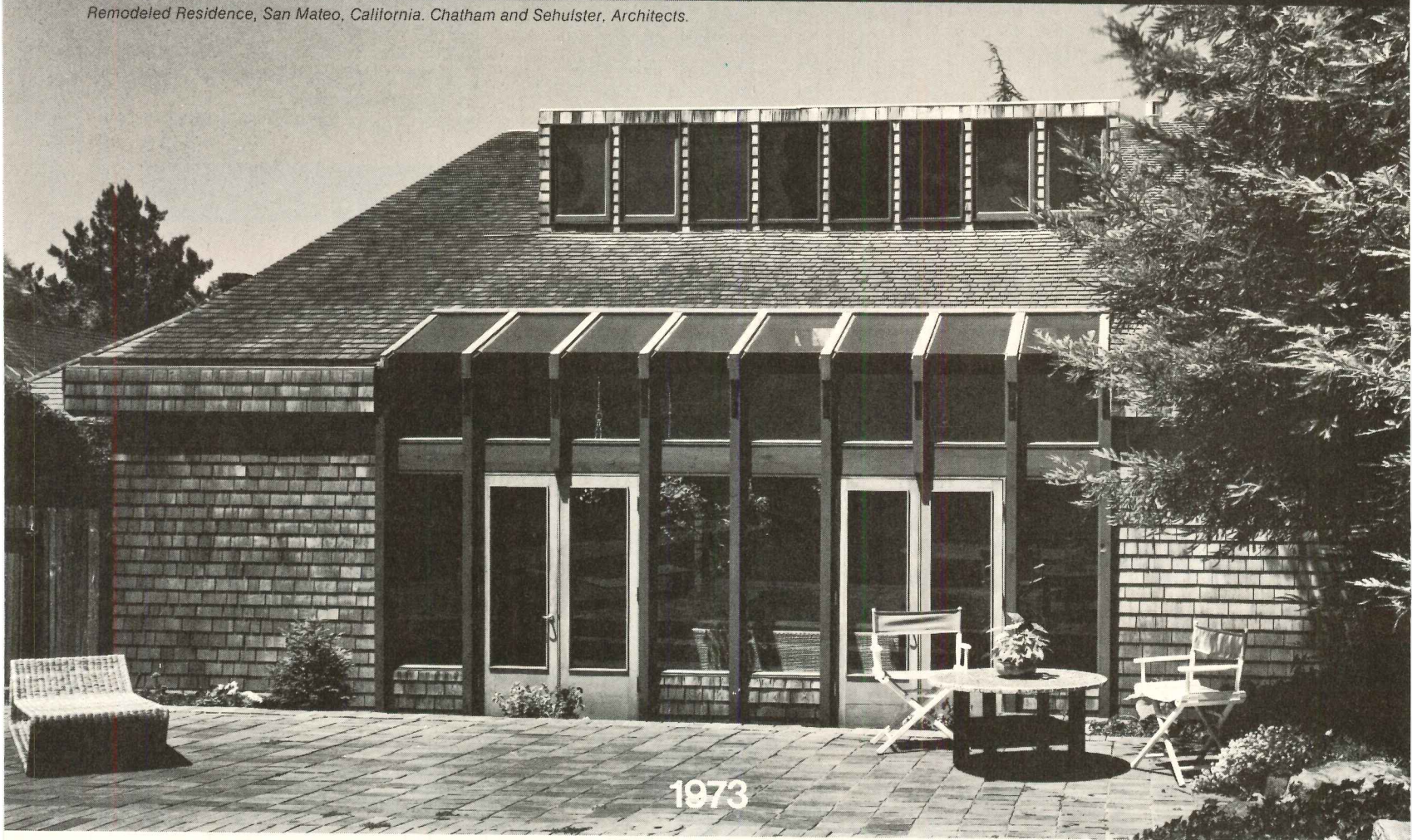
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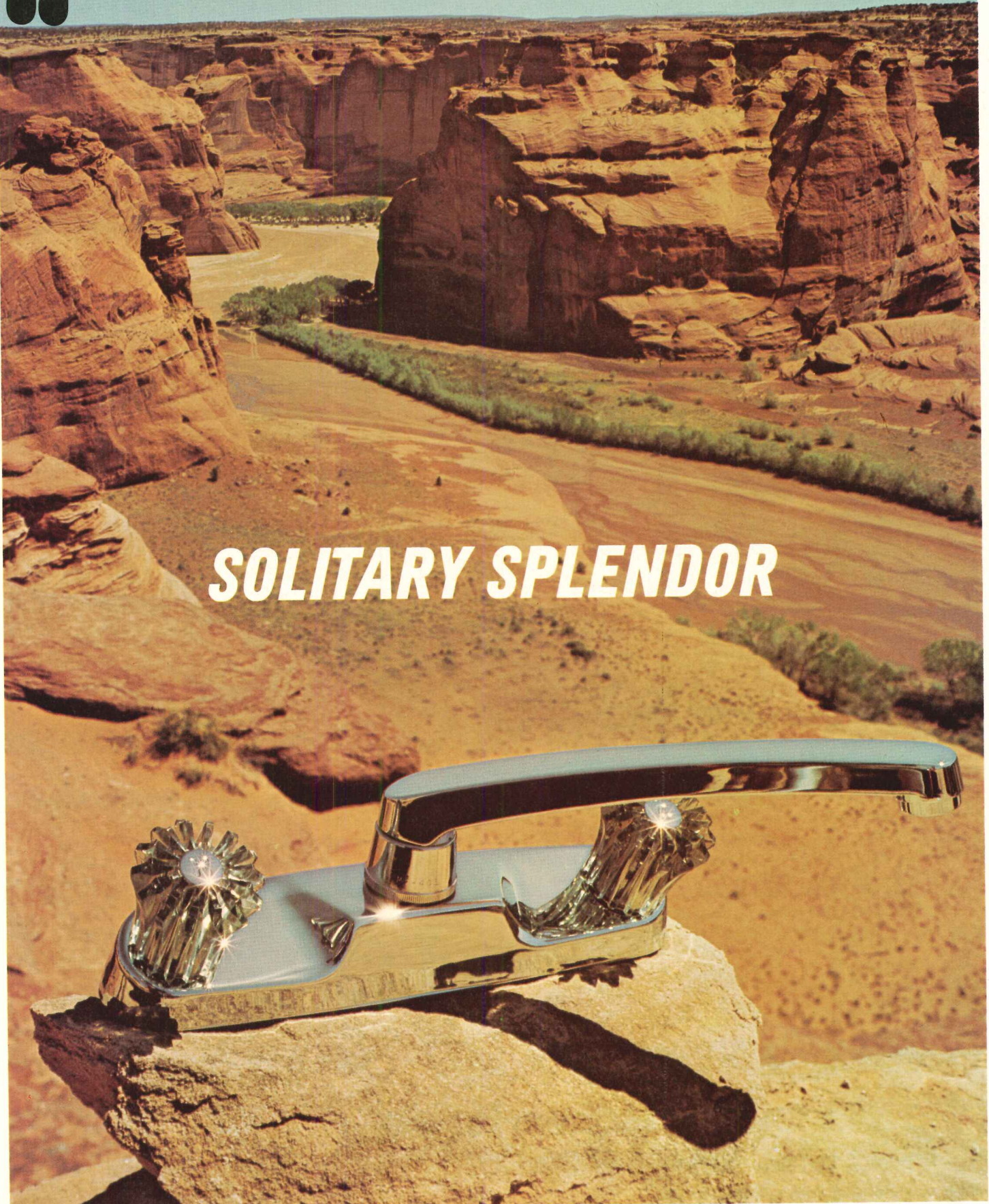
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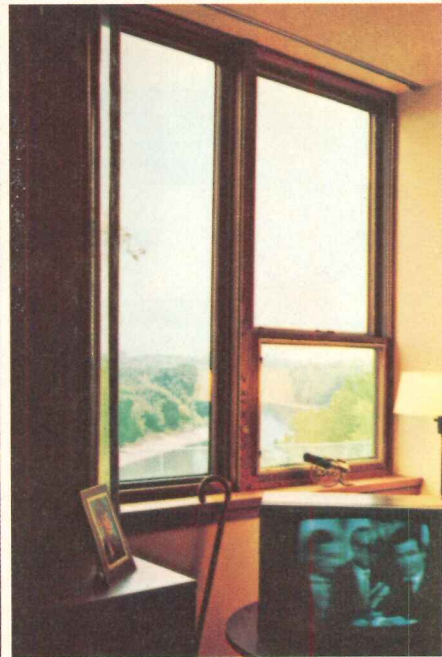
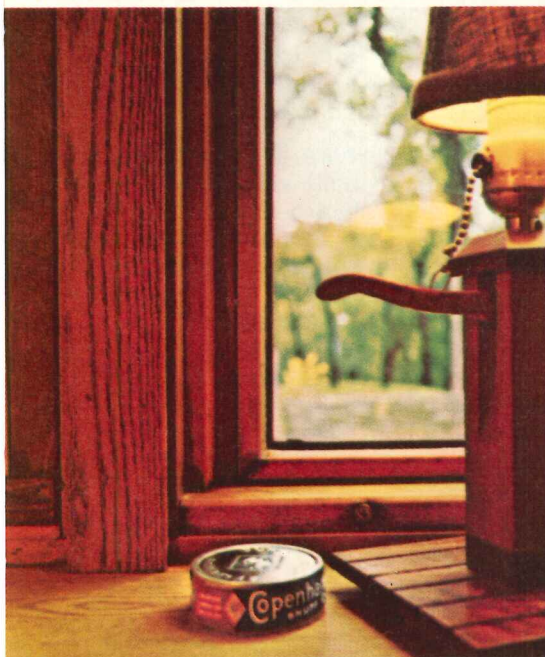
Inside, the unspoiled beauty of a carefully-crafted wood window.

Wood windows are known for their warmth. Visually. And because of their natural insulating value. And in designing the Pella Clad Wood Window, we left both of those properties unchanged. The exterior aluminum skin does not penetrate the frame or sash (b). Nor is it visible anywhere on the inside of the window. We recognized the need for a weather-resistant, low maintenance window. But seeing no reason to compromise the natural warmth of a wood window, we very carefully avoided doing just that.



(b)

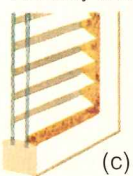
**At the Minnesota Veterans Home,
this Pella Clad window system
adds a warm touch,
inside and out.**



Architect: S. C. Smiley & Associates Builder: Arkay Construction Company Windows: Pella Clad Fixed Units and Contemporary Double-Hung

In between, the built-in flexibility of Pella's exclusive Double Glazing System.

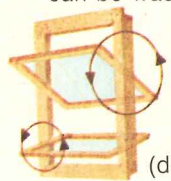
The removable inside storm panel gives you any number of interesting options. Like using our unique Slimshade® (c) to control sunlight, privacy and solar heat gain and loss. Housed between the panes, this fully adjustable blind remains virtually dust-free. The system also accommodates our snap-in wood muntins, and the selective use of privacy panels. But flexibility is not the system's only strong point. The 13/16" air space between the panes does a better job of insulating than welded insulating glass.



(c)

Afterward, the ease of washing a counterbalanced, pivoting sash double-hung window.

Window cleaning is another maintenance factor that must be considered. And here again, Pella design makes an easy job of it. Our Double-Hung Window has a spring-loaded, vinyl jamb liner which allows the sash to pivot. So the outside surfaces can be washed from inside the building. And because each sash pivots at its center point (d), the weight of the sash is counterbalanced. Which makes the whole job just that much easier. Reglazing can also be accomplished from inside, along with sash removal.



(d)



For more detailed information, send for your free copy of our 24-page, full-color brochure on Pella Clad Windows & Sliding Glass Doors. See us in Sweet's Architectural File. Or look in the Yellow Pages, under "windows", for the phone number of your Pella Distributor.

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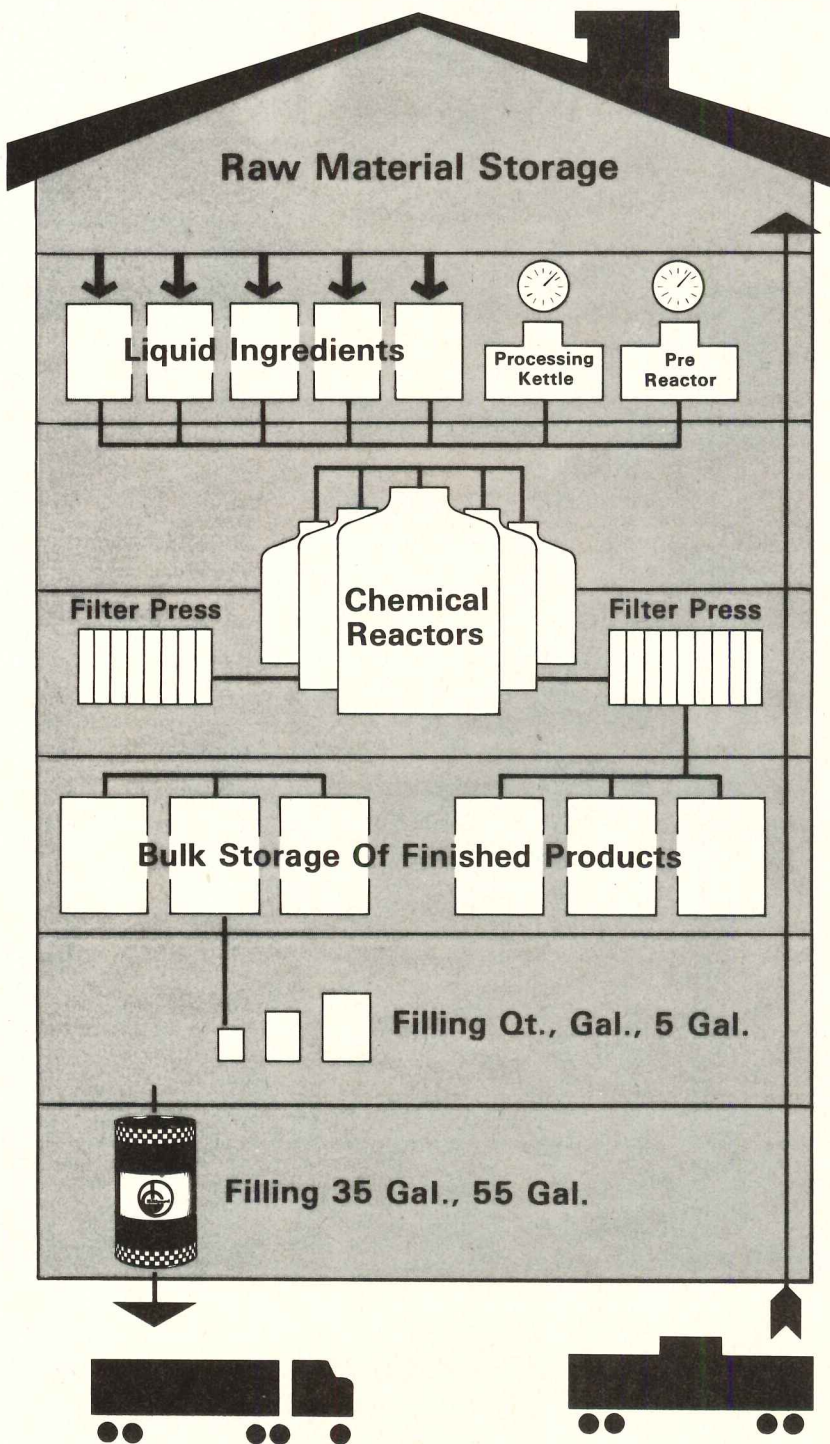


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THE Super House That Hillyard Built

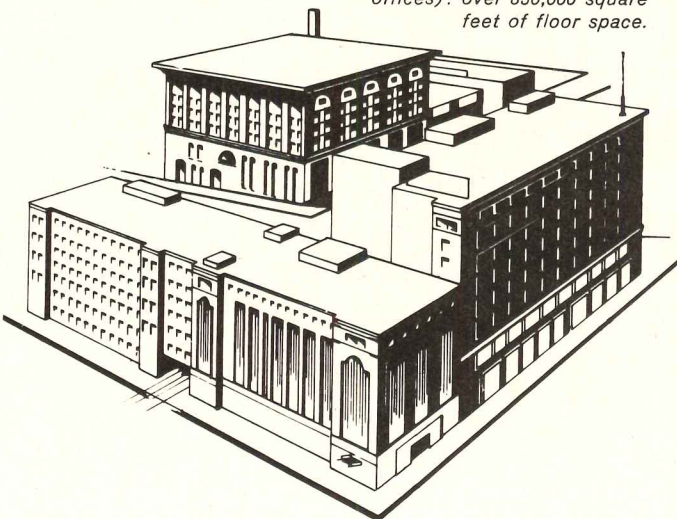
... where the Hillyard "Super Pro" Representative gets those professional floor care products he's so proud to sell.

There is no facility anywhere in our industry, to our knowledge, that is built with the same concept as the Hillyard manufacturing plant in St. Joseph, Mo. Compact and efficient, the unique seven-story structure utilizes simple gravity flow throughout all the steps of production. Liquid and dry ingredients flow from the top floor to processing kettles and pre-reactors, then to the main chemical reactors on the fourth and fifth floors, through filter presses, into single-product-only tanks and finally to the filling operations at the lower levels.

Located on the fifth floor is the "cornerstone" of the Super House—the uncompromising Quality Control Laboratory which sets those rigid Hillyard standards that are followed so carefully, from purchasing of raw materials through manufacturing to packaging.

What this all means is that when the finished Hillyard products are shipped to your area, you are assured of those super floor care results which have made Hillyard the leader of the Industry.

The Hillyard complex in St. Joseph (manufacturing, distribution center, offices): over 350,000 square feet of floor space.



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the new hospital room:



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This one functional unit combines a lavatory; mirror; dispensers for towels, soap and paper cups; light fixture; convenience outlet and a storage compartment for bedpan and washbasin. There is also a compartment for patient's toiletries.

This lifetime stainless steel unit is a cost saver. . . and space saver, too. It fits into a wall opening 16" wide by 4" deep.

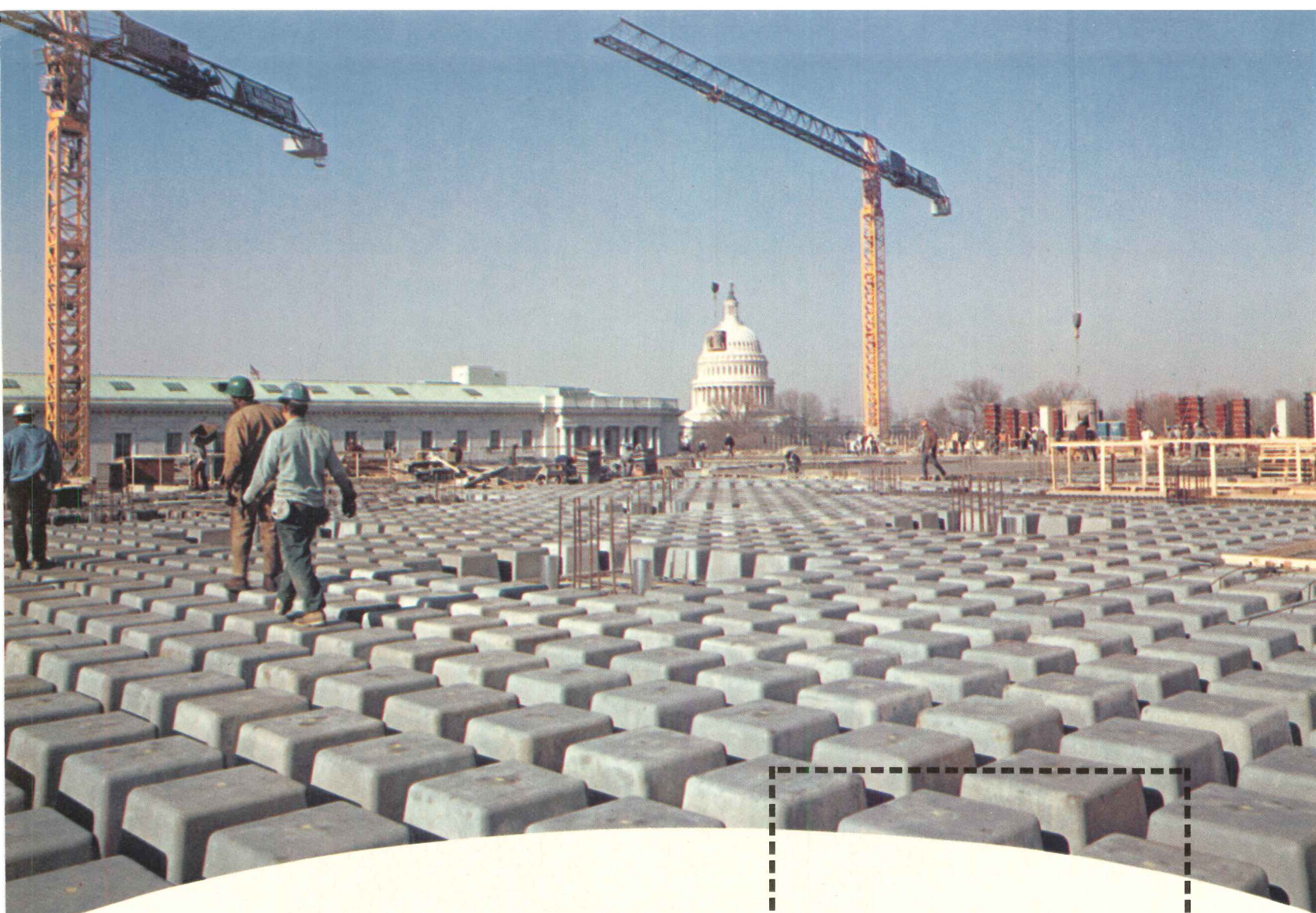
Bobrick Consoles are part of a "Total Design Concept" of coordinated washroom accessories for today's hospitals.

Send for our Hospital Planning Guide and brochure describing 20 other Hospital Consoles. Bobrick, Architectural Service Department, 101 Park Ave., New York 10017. Bobrick products are available internationally.

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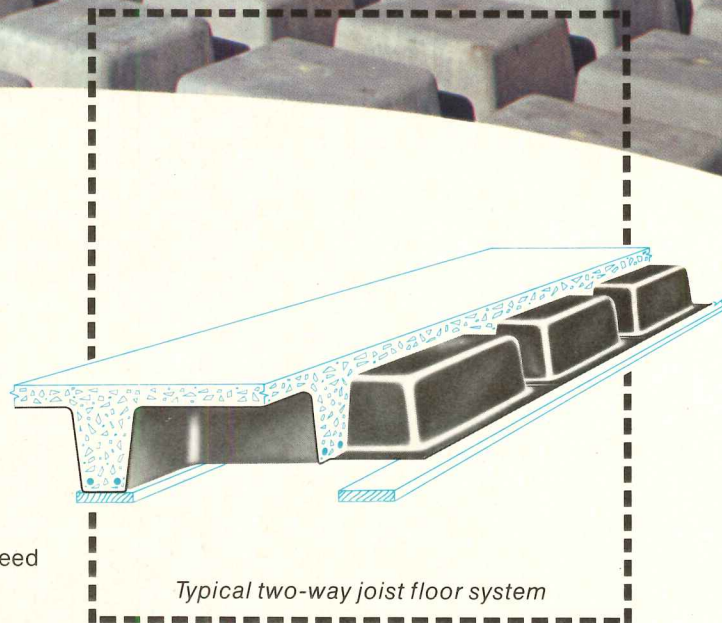
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Typical two-way joist floor system

James Madison Memorial Building
Library of Congress, Washington, D. C.
George Hyman Construction Co., *Contractor*
Roscoe DeWitt, A. J. Tatum,
Alfred Easton Poor, Albert Homer Swanke,
Jesse M. Shelton, A. P. Almond, *Associate Architects*
Severud, Perrone, Sturm, Conlin, Bandel,
Consulting Engineers Superstructure



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NEWS REPORTS
BUILDINGS IN THE NEWS
HUMAN SETTLEMENTS
REQUIRED READING

Construction in 1974 is expected to total \$97 billion, three per cent below earlier estimates, due to Federal monetary restraint to curb inflation, according to George A. Christie, chief economist of the F. W. Dodge Division, McGraw-Hill Information Systems Company. For the complete update of the Dodge/Sweet's 1974 construction outlook, see page 73 Architectural Business section.

Tallie B. Maule, BART architect, died in San Francisco, June 17, 1974, of a heart attack. He was 57. Mr. Maule, chief architect who supervised the design and adornment of nearly all BART stations, commissioned architects, landscape architects, designers and artists to provide the Bay Area Rapid Transit system with a series of varied and distinctive stations. Mr. Maule, a native of Oklahoma, received his bachelor's degree in architecture in his home state and earned a master's degree at Princeton University where he was selected as a Lowell Palmer Fellow. He also studied in Italy.

The State of Missouri is sponsoring a competition to renovate the Wainwright building in St. Louis. The project will include the work on the famous early skyscraper, and the construction of new office space for state use. See page 34 News Reports.

The Cost of Living Council reports construction settlements have been running 10 to 12 per cent above last contract figures, some exceeding 18 per cent, since controls were removed. Last year's average for construction industry wage settlements was just over 5.5 per cent, under controls.

The House of Representatives voted 351 to 25 in June to authorize \$11.3 billion for housing programs. This differs from a version approved earlier in the year by the Senate, and the two versions are to be resolved in committee this year. The House version, expected to receive President Nixon's support, would pass out \$8 billion by 1977 in block grants with few strings attached. The Senate version costing \$10 billion seeks to distribute funds with fairly strict mandates for use in community development and related activities.

The Second Federal Design Assembly, "The Design Realty," convenes in Washington, D.C., September 11-12. Architecture, landscape architecture/environmental planning, visual communications, and interior design/industrial design will be on the program at the Arena Stage, 6th and M Streets, S. W. For more information, contact the National Endowment for the Arts, Washington, D. C. 20506.

Don P. Schlegel is the new president of the Association of Collegiate Schools of Architecture. Mr. Schlegel is the chairman of the Department of Architecture at the University of New Mexico, and is a partner in the firm, Group 5. He will serve in his new post for one year.

The 1974 Rotch Travelling Scholarships have been awarded to Nelson Scott Smith and Craig E. Rafferty. Mr. Smith received the \$11,000 first prize for nine months' travel abroad, and Mr. Rafferty received the \$6000 second prize for five months' travel. They will leave in September. A statement of eligibility requirements and applications for the 1975 program may be obtained by writing Hugh Stubbins, 1033 Massachusetts Avenue, Cambridge, Massachusetts 02138, on or before March 6, 1975. Applicants must have spent some study or experience time in Massachusetts.

James Marston Fitch and Dovie Kate Reiff have been awarded the 1974 Brunner Scholarship by the New York Chapter, AIA. The nationally recognized annual grant of \$10,000 is for furthering the development of architecture in the United States through advanced study in some special field of architectural investigation. Mr. Fitch will prepare a basic text on the retrieval and recycling of the existing housing stock of historic buildings and the rehabilitation of the built environment. Mrs. Reiff will prepare an overview of design requirements of disabled persons for space and mobility needs, and analyze legislation for removing architectural barriers.

August 23 is the entry deadline for the AIA-approved Plywood Design Awards, sponsored by the American Plywood Association. Open to licensed architects, the program carries cash awards in residential, commercial and institutional categories. Projects must have been completed before August 23, 1974 and after August 23, 1972. For more information, contact the Plywood Design Awards, American Plywood Association, 1119 A Street, Tacoma, Washington 98401.

August 31, 1974 is the deadline for submitting entries to the Fifteenth AISC Architectural Awards program. Sponsored by the American Institute of Steel Construction, the program recognizes buildings framed in structural steel and completed after January 1, 1973 and prior to August 31, 1974. For complete details and entry rules, contact AISC, 1221 Avenue of the Americas, New York, N.Y. 10020.

August 30, 1974 is the deadline for submitting entries for the seventh annual DOT Awards Program, "The Highway and its Environment." Sponsored by the U.S. Department of Transportation, the program will recognize excellence in ten categories where a more esthetic highway environment has been created. For more information, contact: Department of Transportation, Office of Environmental Policy, Washington, D. C. 20590.

Rome Prize Fellowships announced for 1975-76

The American Academy in Rome is offering Rome Prize Fellowships for 1975-76 for artists and scholars ready to do independent work. The purpose of the Academy is to provide the facilities and program within which a small number of individuals of exceptional promise have the opportunity to pursue their creative work and research.

Among residents for the coming academic year will be: Jean-Paul Carlhian and Charles Moore in architecture, Donald Appleyard and Stephen M. Carr in environmental design, and Stuart Dawson in landscape architecture. Henry A. Millon, architectural historian, is the Academy's director and Frank E. Brown, archaeologist, heads the School of Classical Studies.

Fellowships will be awarded in the fields of architecture, environmental design, landscape architecture, musical composition, painting, sculpture, history of art, classical studies and post-classical humanistic studies. Fellows are chosen on the basis of merit and promise by independent juries. Awards are open to citizens of the United States irrespective of race, color, creed or sex, for two years beginning September 1, 1975, with an option to accept the fellowship for one year. Each fellowship carries about \$4,600 a year, in addition to free residence and studio and use of the library and other facilities at the Academy.

Applications and submission of work, in the form prescribed must be received at the Academy's New York office by December 31, 1974. Requests for details should specify the particular field of interest and should be addressed to the Executive Secretary, American Academy in Rome, 101 Park Avenue, New York, N.Y. 10017.

Competition opened for Wainwright block

The State of Missouri is sponsoring an architectural competition for the restoration and renovation of the historic Wainwright building and construction of 150,000 square feet of additional office space. The new building will be located on the remainder of the block in downtown St. Louis containing the Wainwright Building designed by Dankmar Adler and Louis Sullivan, and built in 1890.

The competition officially opened on June 17. It will be conducted in two stages ending in October, under the Code for

Architectural Design Competitions of the American Institute of Architects. To be eligible, architectural firms must have their head offices within Missouri or be associated with a Missouri architectural firm.

Jurors for the competition will be: E. C. Bassett, Skidmore Owings & Merrill; Gunnar Birkerts; Norman Henry Pfeiffer, Hardy Holzman Pfeiffer Associates; M. Paul Friedberg, Friedberg & Associates; George Hoover, Muchow Associates; Walter McQuade, Time, Incorporated; and Vincent Scully, professor of the history of art, Yale University.

Copies of the official announcement are available upon written request to: John A. Cooper, Office of Administration, P.O. Box 809, Jefferson City, Missouri 65101.

RECORD editor honored by Producers' Council

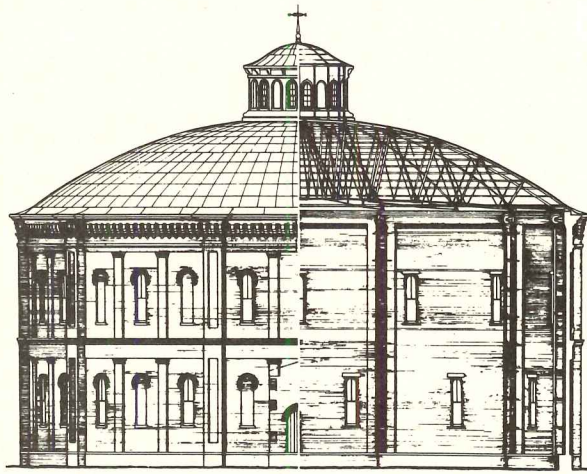


Ernest P. Mickel, Washington editor of ARCHITECTURAL RECORD has been elected to honorary membership in Producers' Council, a national organization of manufacturers of construction products and equipment.

This action by the Council's board of directors at its recent meeting in Williamsburg, Va. was in recognition of Mr. Mickel's objective and accurate reporting of construction industry events during a distinguished journalistic career of over 40 years.

Only two other individuals have been elected to honorary membership during the Council's 53-year-history—Theodore Coe, former technical secretary of the American Institute of Architects in October 1950, and D. Kenneth Sargent, Syracuse, N.Y. architect, in June of 1963.

Official presentation of the honorary membership will be made at the Council's National Member Conference, scheduled for the Antlers Plaza Hotel, Colorado Springs, Colorado, October 15-17, 1974.



Historic industrial resources examined by RPI

Successful restructuring of historic industrial resources to original use or for other purposes appears feasible, economically-practical at today's high building costs, and significant to the future of communities and nations.

This was the theme of a recent five-day Institute on Industrial Archeology at Rensselaer Polytechnic Institute, Troy, N.Y.

Participants ranged from professors of architecture and students from everywhere, to archeologists, preservation consultants, librarians for colleges, city planners, and architects.

Through walking inspection tours, slide/film presentations, lectures and general discussion, continual emphasis was placed on methods for determining possible adaptive uses for existing historic industrial structures.

These ranged from simple factories and mills to ornate company tenement housing, riverfront warehouses, foundries, power systems, locks, bridges, waterways, old fire houses and parks.

Prof. Merritt Abrash of RPI; Dr. R. A. Buchanan, University of Bath, England; and Theodore Sande of Williams College, headed the Institute's faculty.

In tracing the history of in-

dustrial archeology, Dr. Buchanan noted it is a term less than 20 years old. In the case of the Hudson-Mohawk (N.Y.) area, where a number of nationally-important industries developed together in a relatively compact area during the 19th century, the physical remains should be viewed as great potential resources for the economic/environmental revitalization of the region, he emphasized.

Dr. Buchanan also explained that industrial archeology, unlike "dirt" archeology, is concerned with industrial remains above ground—even those still in use—as well as with those beneath it.

Because of simplicity of design, rectangular shape, open interiors, the structures are readily adapted to today's industrial needs without major rehab.

Among the numerous adaptive uses observed were the several factories now serving as warehouses, wholesale headquarters, iron works, retail establishments, distributors, clothing manufacturers, and a paint/asphalt manufacturer.

Of special interest was the U.S. Arsenal built in Watervliet, N.Y. in 1812. It remains today a major manufacturer of ordnance and prime employer in the area.

Public construction continues healthy

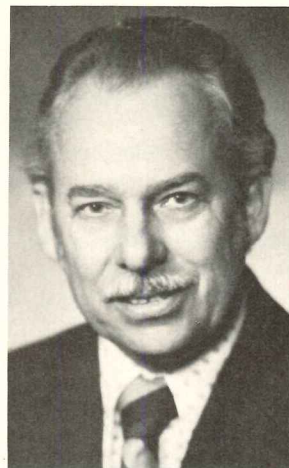
The Federal Reserve Board, in its current bulletin, reviews the status of construction, real estate and mortgage markets, noting that current dollar outlays for public construction have continued near their first-quarter peak.

State and local government expenditures, major share of the public total, have remained relatively large as well, even though yields required by investors in municipal bonds have been exceptionally high and Federal support has remained selective. While building needs for primary schools have eased, FRB said demands for health, rapid transit, and energy facilities have increased.

The FRB conclusions were summarized in this opening paragraph: "Outlays for new construction this spring measured in real terms were continuing to trend downward from the record rate reached more than a year earlier. Construction expenditures for privately owned residential units were running well below the 1973 peak even in current dollars. But constant-dollar outlays for private non-residential construction were holding at earlier highs, and expenditures for public construction were relatively strong. Meanwhile, conditions in mortgage markets tightened sharply again as credit terms in general became more restrictive in a situation of rapid inflation. . . ."

Costs have continued to rise and wage settlements, which had remained moderate under economic controls, show signs of escalating rather rapidly. (The National Association of Home Builders reported that settlements which had averaged less than 5.5 per cent under the Construction Industry Stabilization Committee, now defunct, have shot up 20 per cent and higher in a number of localities.)

Dean L. Gustavson, NCARB past president, honored by Council in Dallas



At its 53rd annual meeting in Dallas recently, the National Council of Architectural Registration Boards presented the first Dean L. Gustavson Award to the past president for whom the award was named. The award will be given in years to come for outstanding service by an individual architect in helping to achieve the highest standards of professional conduct.

Gustavson (shown) served as president of NCARB in 1969, having been elected to the board of directors three years earlier. He was conference chairman for the 1971 meeting

of the Multi-Nation Conference on Registration and Reciprocity, has led negotiations for NCARB in New Zealand and Australia and signed the preliminary agreement for reciprocity with them.

At the Dallas meeting, John M. O'Brien, of Memphis was elected NCARB president. Other officers elected are: first vice president, William C. Muchow, Denver; second vice president, Lorenzo P. Williams, Minneapolis; secretary, Paul H. Graven, Madison, Wis.; and treasurer, Charles A. Blondheim, Jr., Eufaula, Ala.

Senate office addition spurs Capitol Hill debate

Strong pressure for the immediate development of a long-range comprehensive plan for Capitol Hill development was placed on the Senate Public Works Committee in June when several architectural critics and others testified on the latest plans for the Dirksen Senate office building addition (below).

The experts had studied the design in detail prior to the hearing by viewing plans, drawings and models of the exterior and interior design developed in the last nine months by John Carl Warnecke, the Associate Architects. (Architects for Capitol Hill projects traditionally associate with the Architect of the Capitol, now George M. White.)

The building contained a reworking of earlier details which, in exterior elevation, did not satisfy the committee, the particular objection centering on the connection of the new structure to the existing Dirksen building. In the new plan, a recessed glass area has replaced a more prominent flat slab and the roof line has been modified, apparently to the greater satisfaction of committee members.

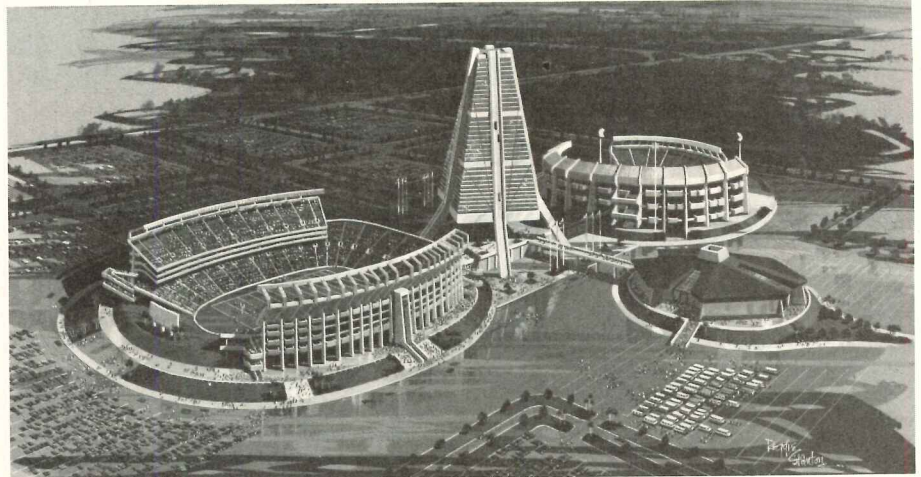
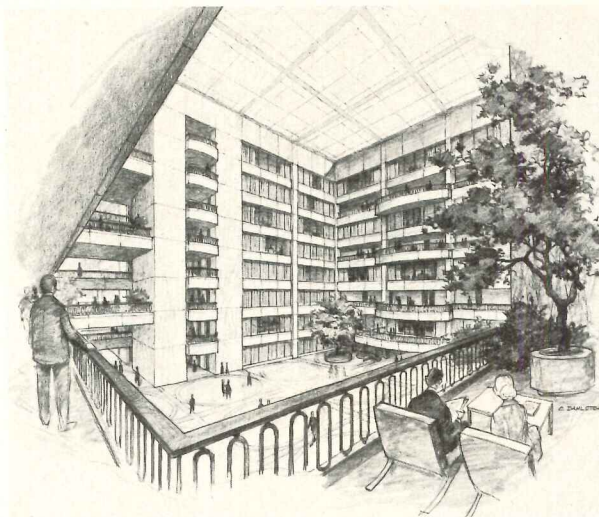
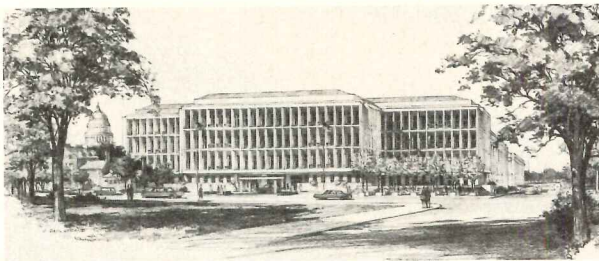
The emphasis placed on a need for intensive long-range Capitol Hill planning centered on a wish to avoid future piecemeal planning of new Federal structures in the Capitol Hill complex. It was brought out that without a more thorough master plan of the area, the Congressmen and Senators responsible for approving new structures and siting them have no reference points regarding future de-

velopment. Each new building, under the present approach, becomes a single addition to the current inventory, judged on its architecture and location only in relation to the standing structures.

As one of the senators at the hearing suggested, a Capitol Hill master plan with a thorough public airing, might be a Bicentennial present Congress could give to the nation.

The new structure is technically an extension to the Dirksen building (formerly known as the New Senate Office Building). Connecting to the Dirksen building, the new building will occupy the balance of the block, except for the area occupied by the Belmont House which houses the National Women's Party. The new building will border Second Street, Constitution Avenue and C Street, N.E. Site clearance is expected to begin early in 1975 and occupancy is planned for late 1977.

Appearing at the hearing were: William Lacy, program director of architecture and environmental arts for the National Endowment for the Arts; William L. Slayton, executive vice-president of the American Institute of Architects; Wolf Von Eckardt, architecture critic for the Washington Post; and Jean-Paul Carlhian, vice president with the architecture firm of Shepley, Bullfinch, Richardson and Abbott in Boston. George M. White, Architect of the Capitol, made the opening statement at the hearing.



Mammoth Florida sports complex will cost \$100 million and begin in 1975

Plans have been announced in Orlando, Florida for the construction of a \$100 million sports complex to provide facilities related to numerous major league sports as well as hotel accommodations.

The football facility shown on the left is capable in its initial phase of seating 70,000 per-

sons. On the right of the photograph is depicted a 45,000-seat baseball facility and in the foreground a 16,000-seat arena.

Rising over the entire complex will be a 34-story office/hotel/merchandise mart facility. The first floor of the facility actually begins some six stories from the ground. The de-

sign provides for the use of solar energy panels on the exterior skin of the sloped-sided high-rise structure.

The 212-acre complex is designed as an eight-year phased program with initial construction beginning in 1975. The architect is Thomas E. Lewis, Jr.

GE study reveals solar potential for U.S.

By the year 2000, the United States could save \$5 billion in fuel costs and 150 billion kilowatt hours annually through use of inexhaustible and non-polluting solar energy for heating and cooling buildings, according to a study conducted by the General Electric Company's Space Division, for the National Science Foundation (NSF).

The study was sponsored by NSF's Research Applied to National Needs (RANN) branch and it is the first part of a three-phase program designed to stimulate and accelerate widespread use of solar energy wherever it is economically practical. The objectives of the study portion of the project were to establish the feasibility and to provide the planning for later phases of solar energy applications. Second-stage objectives will be to produce preliminary designs, optimize the recommended and accepted systems and perform critical subsystem research and development, as suggested by the study. In the third and final stage, systems selected earlier will be designed, constructed, tested and their performance evaluated.

In its study, GE estimated that the number of buildings in the U.S. on which cost effective solar energy installations could be made by the end of this century is about 40 million. Using projections of reasonable market growth during this time period, solar energy installations are likely on about 4.5 million buildings.



Cape Town, South Africa faces historic losses

Shown top is an example of renovated 18th century Cape-Dutch architecture. In South Africa, a move by Cape Town's city council to destroy a group of 18th century buildings (bottom) has irritated local architects.

The buildings are being demolished to accommodate motor traffic through construction of a central parking garage. City engineer, Dr. Solly Morris, says that "something of the past must be sacrificed to meet demands of the present and future."

The Cape Provincial Insti-

tute of Architects (CPIA) claims the buildings "form a representative and complete portion of old Cape Town, the preservation of which is of vital importance."

Even a move by the CPIA through representative politicians at the next parliamentary session, when it is planned to introduce a declaration to conserve such structures, will probably be of little worth. But the destruction of the block may, according to one architect, lead to a "prevention of demolition law" and a list of untouchable historic buildings.

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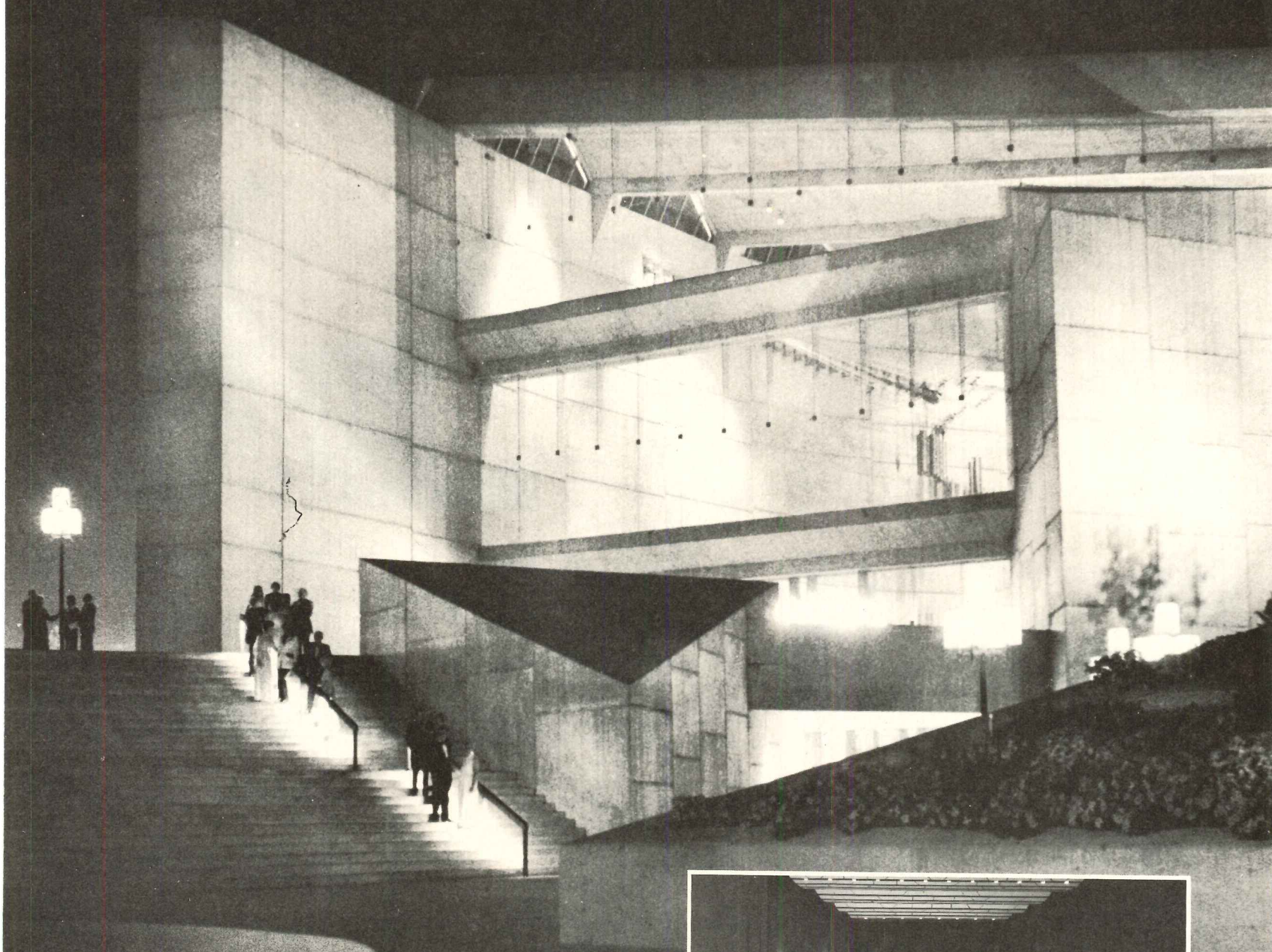
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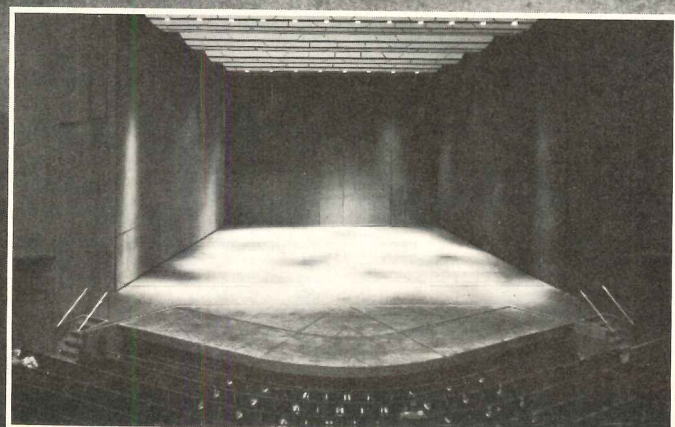


Edwin J. Thomas Performing Arts Hall
University of Akron
Architects: Caudill Rowlett Scott
Dalton, van Dijk, Johnson & Partners
Carl E. Bentz

Theater Consultant: George C. Izenour

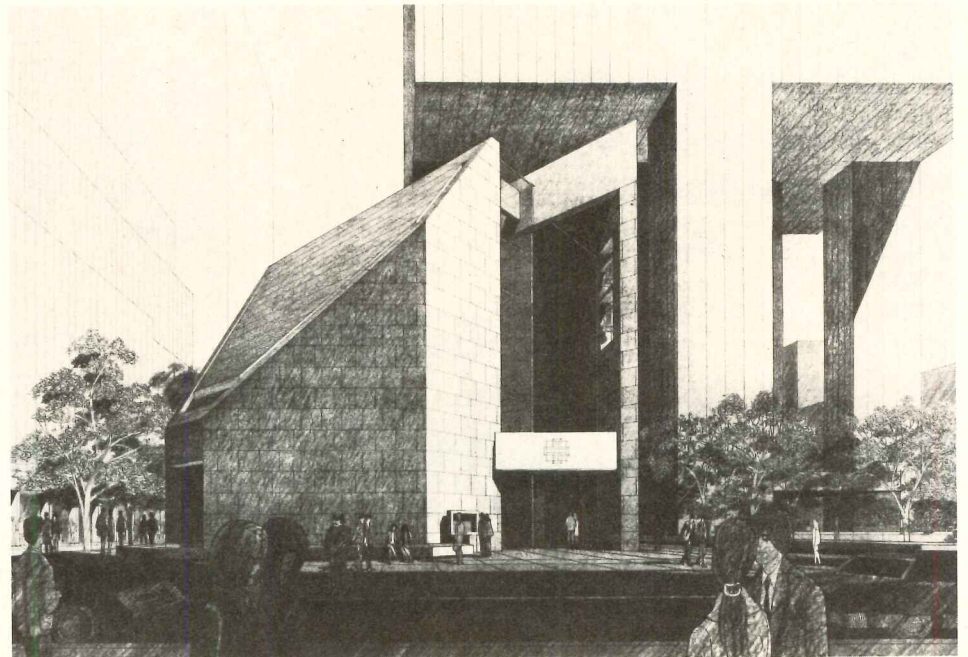
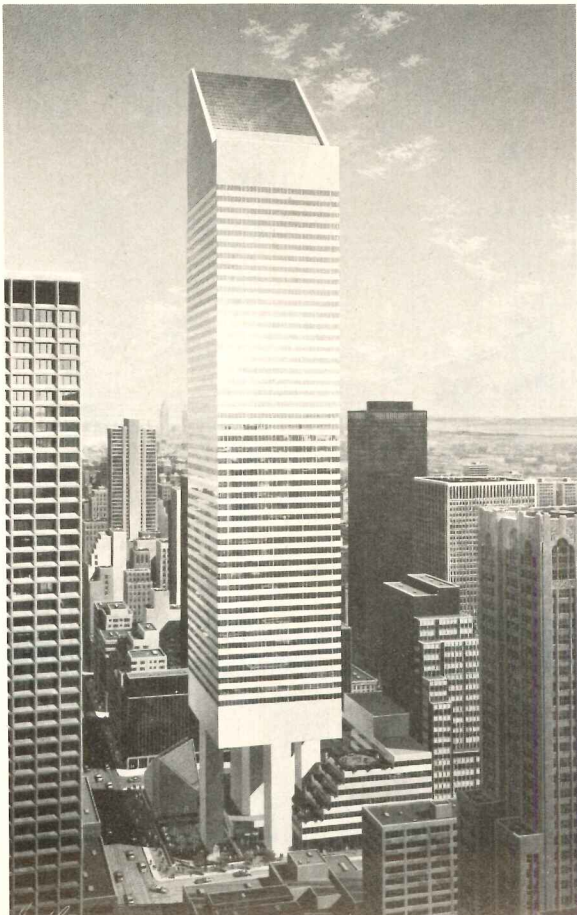
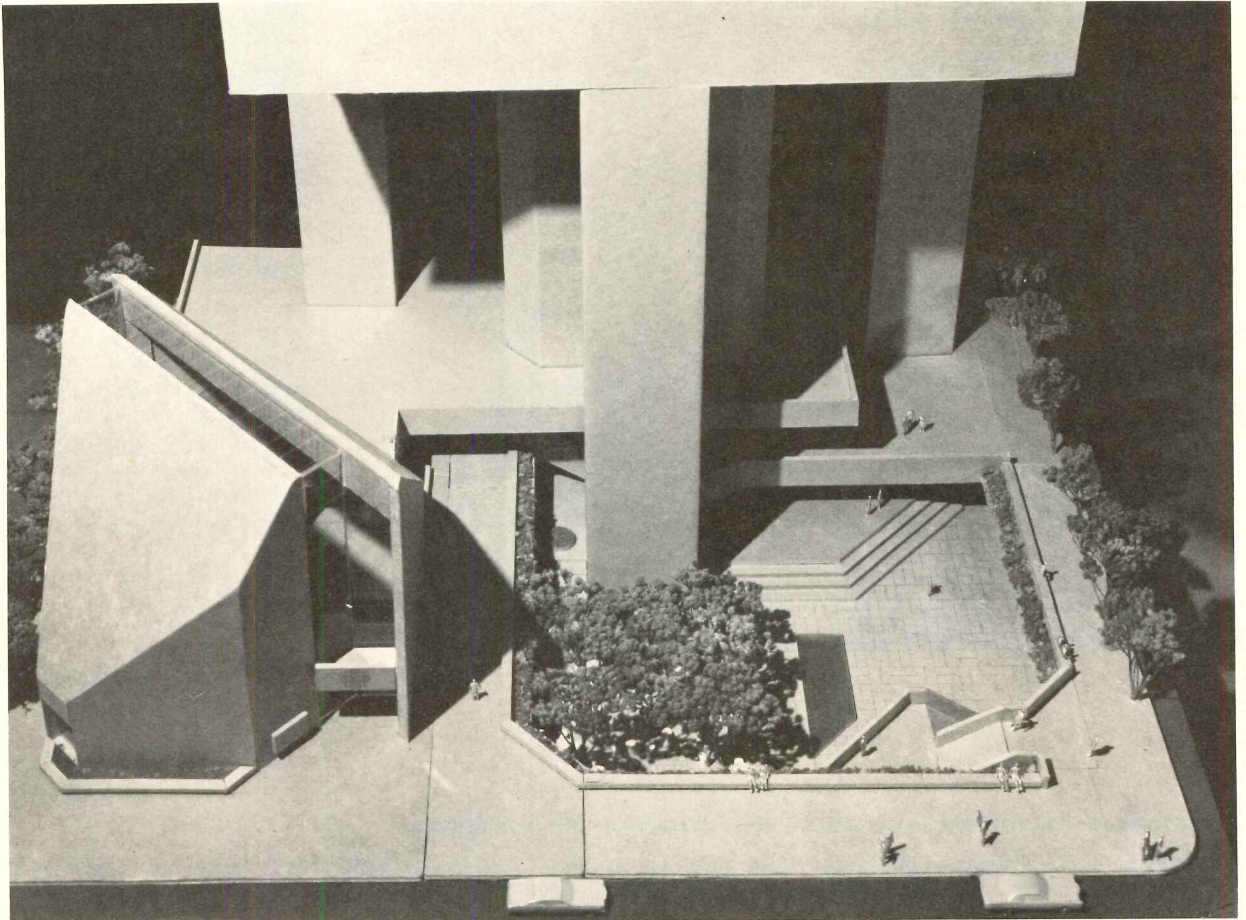
General Contractor: Mosser Construction, Inc.

Stage lifts installed by Dover Elevator Co., Cleveland, Ohio



**Church is condominium
in multi-use block**

St. Peter's Lutheran Church in New York City is said to be the first church to be combined with an office building on a condominium basis. Designed by Hugh Stubbins and Associates, also the architect for the large Citicorp Center in which the church will be located (see photo below), St. Peter's sold the air rights over its property in 1970 with the understanding that the church would retain ownership of the realty and would build a new church in conjunction with the Citicorp development. Replacing on almost the same site a turn-of-the-century Gothic building, the new St. Peter's Church will sit at one corner of the 59-story tower which is supported by 12-story columns. The sanctuary of the church will be one level below grade, extending under the sidewalk for additional space. A skylight runs diagonally across the building. The entrance gallery crosses the sanctuary to a skylighted chapel and the narthex where broad curving stairs descend to the sanctuary.



Housing for the elderly begun in Massachusetts

Ninety-four homes for low- and moderate-income elderly will be created in Lowell, Massachusetts, with the assistance of HUD interest reduction payments and public housing leasing by the Lowell Housing Authority. The 80 one-bedroom and 14 two-bedroom units are expected to be completed by January 1976. The Raymond J. Lord Manor, designed by Thomas J. Holzbog Associates,

will be a seven-story building in two sections, staggered and connected by a central circulation area. The design avoids long, impersonal corridors, and each unit affords some view of the nearby Merrimack River. Concrete block bearing walls, 24-feet on center, with reinforced concrete floor planking comprise the structural system. Exterior facing will be scored concrete block.



Royal Bank of Canada building offices in Toronto

The Webb Zerafa Menkes Housden Partnership, commissioned by one of Canada's major banks, has designed this project under construction on three acres in downtown Toronto. The \$100 million Royal Bank Plaza will contain a 130-foot-high banking hall

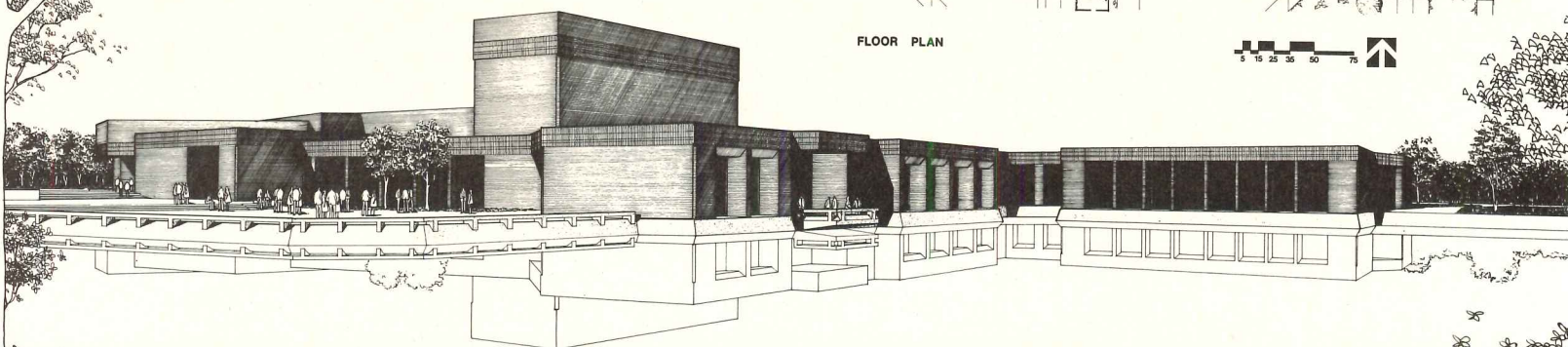
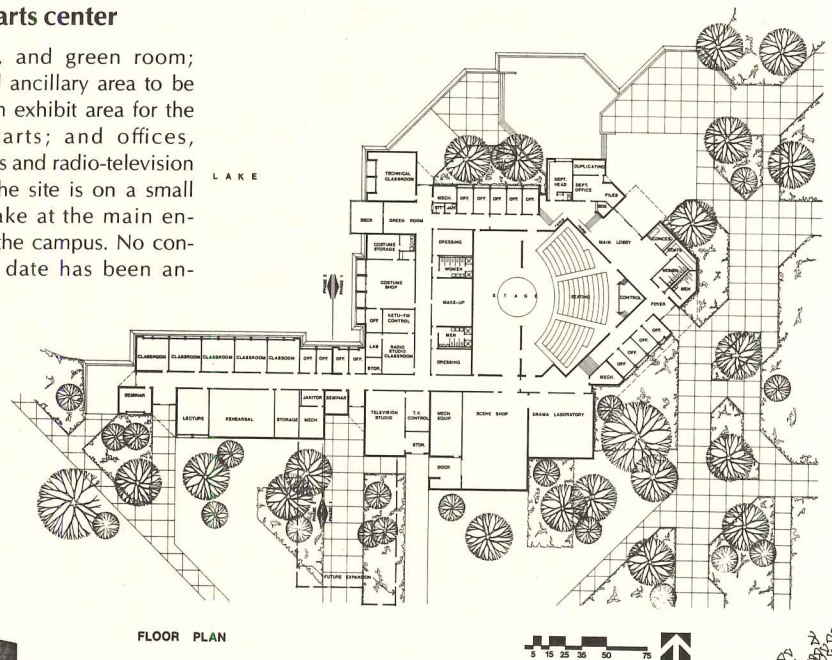
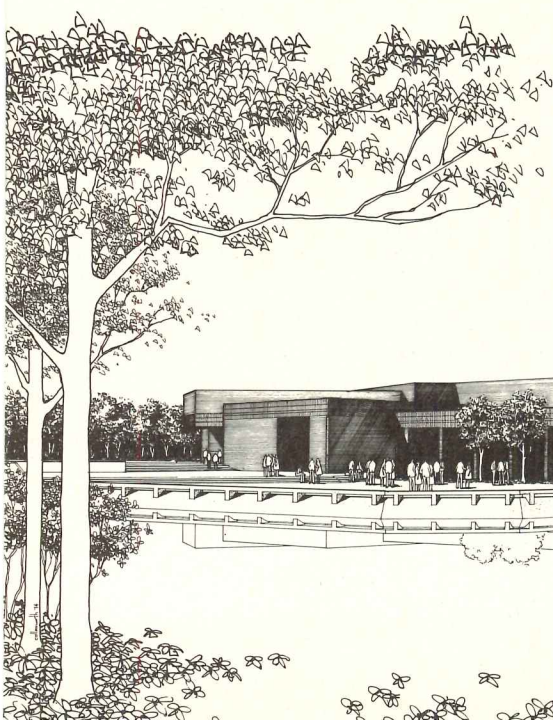
straddled by two triangular towers of 41 and 27 stories. A three-level, landscaped public meeting place and the banking hall are the architectural centerpiece of the project, which taps the natural flow of heavy pedestrian movement in the downtown core.

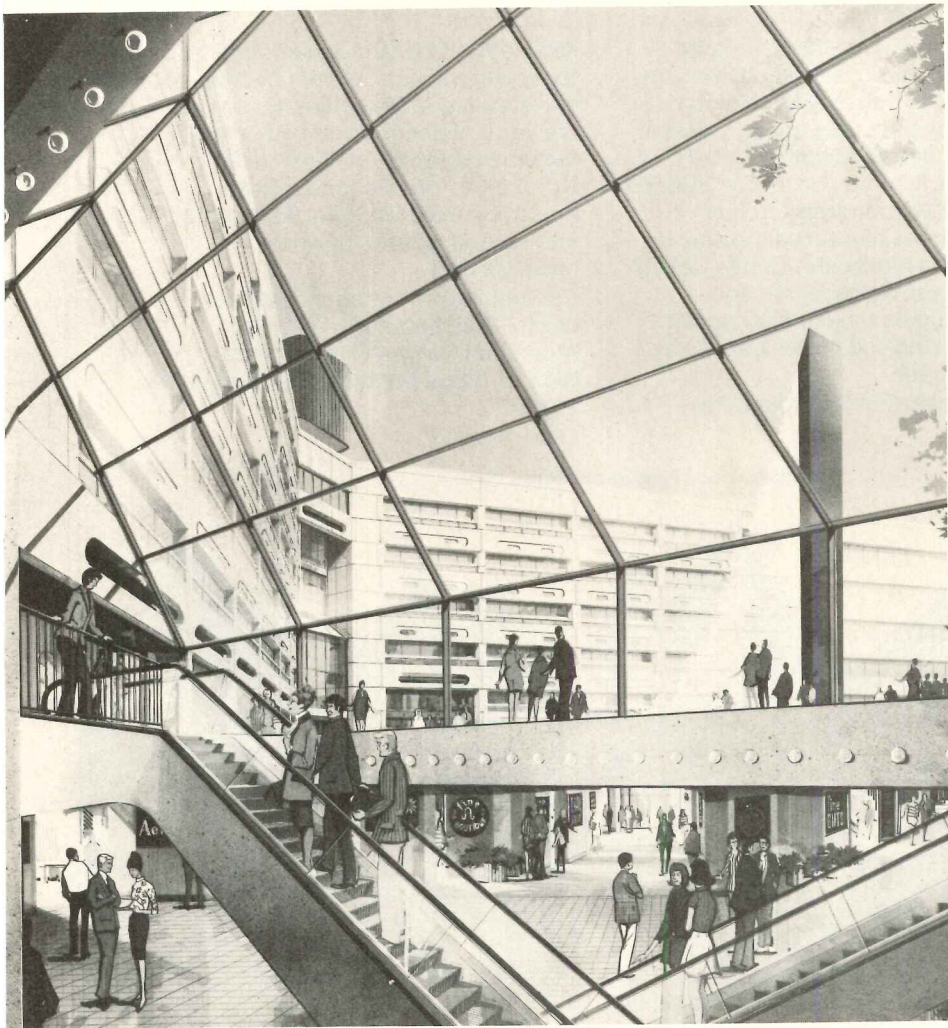
Design announced for East Texas State University performing arts center

Iconoplex Inc., architecture and planning firm, has recently announced completion of the design development phase for this performing arts center to be built in Commerce, Texas. Its two-fold purpose is to be a teaching facility for education in theater, special communications, and radio-television;

and to present a new image for East Texas State University as a center for fine arts. The center's 30,000 sq ft, housed within a steel structural frame, include a main theater seating 300 people; an experimental theater; theater support facilities including scene shop, costume shop, dressing and make-

up areas, and green room; lobby and ancillary area to be used as an exhibit area for graphic arts; and offices, classrooms and radio-television studios. The site is on a small natural lake at the main entrance to the campus. No construction date has been announced.





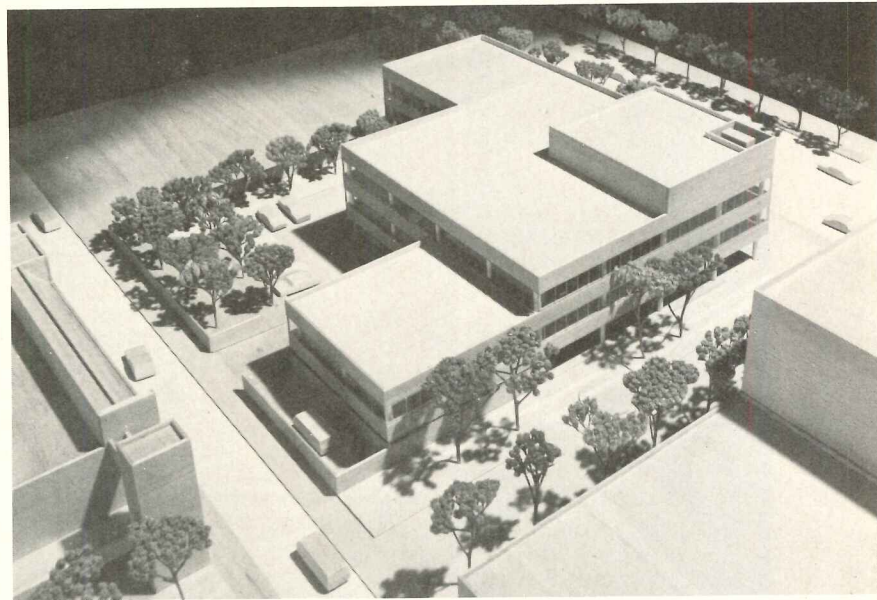
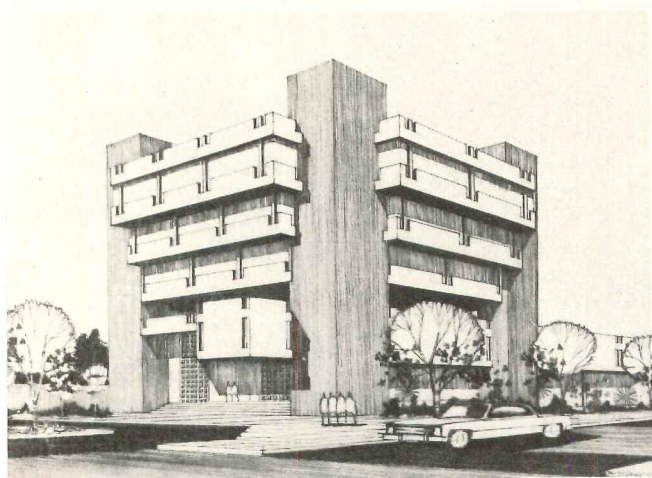
Albuquerque reserves whole block for pedestrians

A major 55-store fashion shopping area—called the Fashion Galeria—is being created in downtown Albuquerque, New Mexico. It will occupy a full square block reserved for pedestrians, with all parking on the periphery. Part of First Plaza, the multi-use complex (above) now being developed by The First National Bank of Albuquerque, The Fashion Galeria will be a 100,000-sq ft enclosed mall below the plaza. Expansive use of skylights (left) will provide natural light in the enclosed mall. Harry Weese & Associates is the architect for the First Plaza project which was

begun in 1973. The seven-level structure, including 230,000 sq ft of office space, will be completed this fall, and The Fashion Galeria, about six months later. According to the architect, the whole project attempts to reflect the Southwest lifestyle. The building is comparatively low and massive, with earth tones indigenous to that part of the country. The bank plans to add to the current project in phases which will more than double the office and retail space, and include a hotel. Besides the shops and offices, the present structure contains various restaurants and several theaters.

Japan's new embassy in Mexico City unveiled

A team consisting of Kenzo Tange, and Rosen Morrison and Ramirez Vazquez designed this embassy building, siting it on one of Mexico City's main avenues—Paseo de la Reforma. Four massive columns will support cantilevering floors increasing in area as need dictates. The top, and largest, floor is for the ambassador's offices.



Construction begun on Otis Elevator offices

This 500,000-sq ft office building designed by Bower and Fradley Architects for the Otis Elevator Company, will accommodate regional and local sales and service operations of the company in Philadelphia. A proposed landscaped walkway would connect the University Science Center site with the University of Pennsylvania campus. To assert a strong pres-

ence on the street and to define the corner site, the bulk of the building volume has been raised on columns one level above grade and pulled to the outer street edges. An open loggia at grade provides the building entrance, while the remaining space at grade is given over to parking. Completion is planned for 1975. Ground was broken in June.

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Barbara A. Runette

Carnegie-Mellon team selects Guatemala site for refugee housing test

In the fall of 1973, an interdisciplinary team of architects, civil engineers, and chemical engineers was formed at Carnegie-Mellon University to study housing problems in refugee situations in the developing countries and to design ultra low-cost housing prototypes for use in the disaster prone areas of these countries.

The Working Party, as it is called, decided to concentrate its initial efforts in three areas: first, the development of a building process and methodology which can be applied to a wide variety of situations; second, the development of a prototype housing unit which could be built throughout large areas of the world with whatever materials were on hand locally; third, the introduction of technological processes to improve indigenous building techniques and construction practices. All were incorporated into a design program to produce a unit which provides immediate shelter for refugees and, with modifications, can be turned into a long-term house.

The team decided to concentrate its initial efforts on developing a prototype for tropical environments and a field site was selected in Guatemala for testing.

An estimated cost of \$10 of

shelter space per family was derived by utilizing criteria obtained from the U.S. Agency for International Development (AID) and from costs typically allocated by relief organizations in recent operations.

It was then decided that initial efforts would be concentrated on designing a structure which would utilize bamboo for the frame and palm thatching for the roofing material. The design was to be flexible enough to allow the substitution of unfinished wood (logs) in construction of the frame with only minor modifications. All other components of the structure were to utilize only indigenous materials or materials which could be produced easily in the region.

In selecting the design for the prototype, efforts were coordinated with the Emergency Shelter Group of the University of Texas. The Texas team, under the direction of Wolf Hilbertz, built full-scale mock-ups of several of the proposed designs and conducted extensive research into bamboo joining techniques. Structures evaluated included triangulated pyramids, bamboo lattice shells and cable tension structures.

The Working Party also coordinated its research with relief organizations engaged in hous-

ing efforts. Through Intertect, consultants for the project, the designs were evaluated from the viewpoint of relief field staff for simplicity, ease of construction, ease of administration and cost.

It is felt that the total resulting system is flexible and can be modified to accommodate the various material, environmental, administrative, cultural and technical constraints. The structure resembles the majority of those structures found throughout the tropical areas. It incorporates building features which are common to both wood and bamboo structures.

In the coming year, the Working Party will monitor the reaction of a wide variety of occupants to the structure. Their comments, their modifications, their alterations, and possibly their rejection of the structure and its components, will be analyzed and resulting changes will be incorporated into design revisions as part of the on-going research program.

Members of the Carnegie-Mellon University team include: Volker Hartkopf, Steve Lee, John Whitney, Stephen L. Rosen, Steve Scherer, Charles Goodspeed, Richard A. Behr, Ray Evangelista, Frederick C. Cuny, James Parkey, Chang-I Hua, V. J. Singh, Julian Perez and Barbara A. Runette.

UNESCO admits Joint Committee on Tall Buildings

The Joint Committee on Tall Buildings has been admitted to the United Nations Educational, Scientific and Cultural Organization (UNESCO), it was announced recently by Dr. Lynn S. Beedle, Chairman of the Joint Committee. The announcement came from Joint Committee headquarters at Lehigh University, Bethlehem, Pa.

Dr. Beedle said that the Joint Committee—comprised of members from over 70 countries—has been granted a "Category C" membership classification by UNESCO for "a non-governmental organization maintaining a mutual information relationship."

With increased concern in recent years toward the needs of less developed countries, UNESCO has focused more attention

to educational and scientific development projects; here UNESCO hopes the Joint Committee will be able to make a significant contribution.

The Joint Committee's goals are to stimulate and carry out research on all aspects of the planning and design of tall buildings. These aims are being achieved through the cooperative effort of architects, civil and structural engineers, housing and planning groups, and advisors from all levels of government. In addition to the technical experts, social scientists are making major contributions to the Joint Committee's studies on urban development, particularly with respect to the social problems of a "tall building environment," and their alleviation according to the committee.

General Motors aids housing in South Africa

In May of 1973, General Motors (South African) began its own housing program with a \$750,000 loan to the Port Elizabeth (location of the company's operation) City Council, to build homes (shown) for families in the mulatto residential area of the city. (Apartheid is still in force in South Africa.)

The loan was part of an over-all home ownership and improvement plan instituted by the company and includes a further \$150,000 per year to be made available to assist eligible employees to purchase homes.

Because the company has found the program to be a success, as well as an incentive for employees, further assistance was announced recently.

On May 17, this year, GM agreed to make a loan of \$1.6

million to the Bantu Affairs Administration Board for building 500 homes for rental and a primary school in an African (pure black) residential area.

While these houses will be available to all Africans, preference will be given to GM employees. They will be constructed of brick, in semi-detached design.

There are no other similar low income housing programs in Port Elizabeth other than those administered by local government. GM says their program is conducted in full consultation with local government on the understanding that the amount of housing funds allocated to Port Elizabeth by the national housing authorities will not be reduced by reason of the GM loan.





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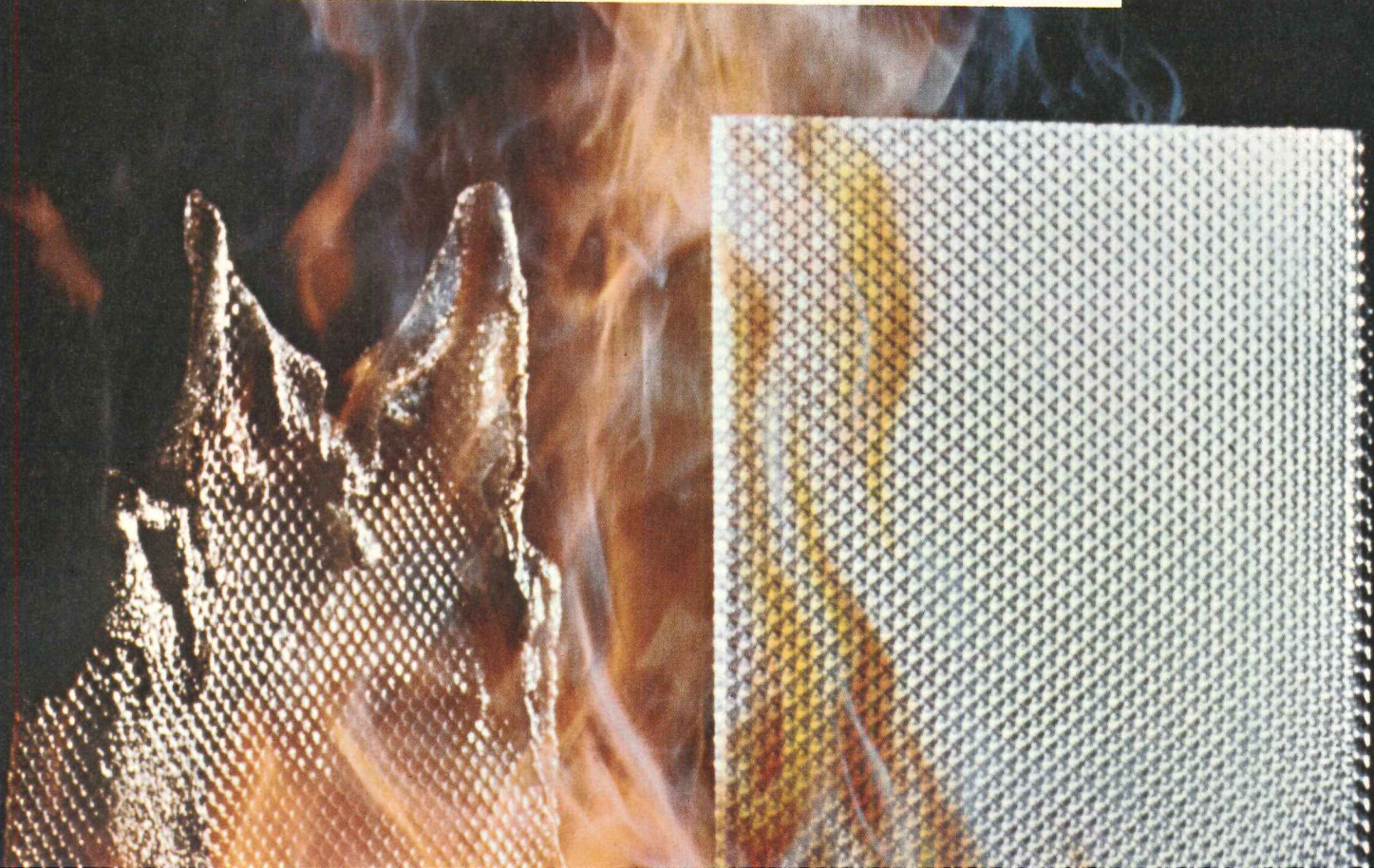
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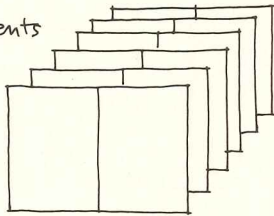


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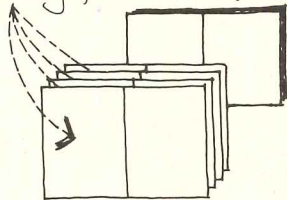


Pages (spreads) are events occurring in sequence

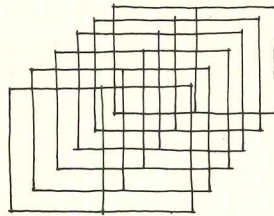
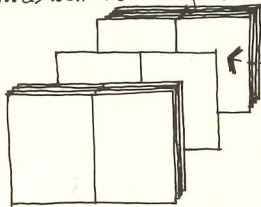


They do not exist singly, but only in context of the group. It takes time to perceive them, one after the other.

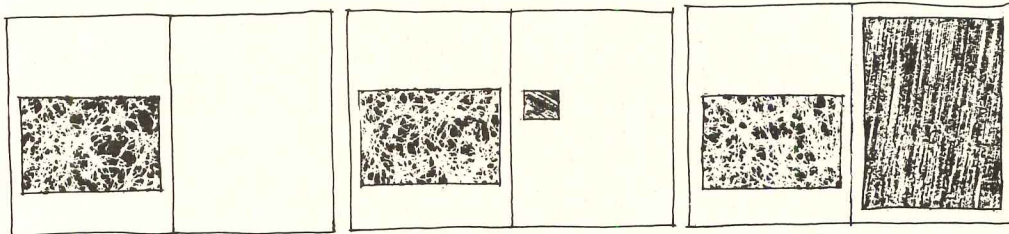
The reader has the memory of what he has just seen



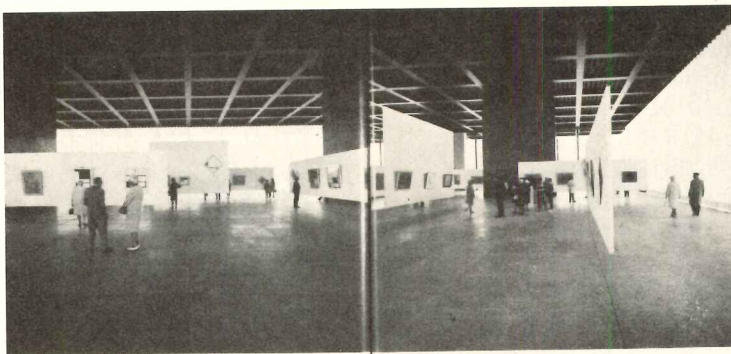
... as well as curiosity about what he is going to see.



So the magazine should perhaps be thought of as a "transparent" series of events



Alone, a picture lacks 'size'. It only looks big next to a small one....small next to a big one.



Picture sizing, placement, scale, horizon alignment combine to emphasize the vastness of the interior spaces — the whole point of showing the pictures in the first place.



Design for communication

EDITING BY DESIGN, by Jan V. White; R. R. Bowker Company, New York & London, 1974, 230 pages, illus., \$17.50

Architects who are increasingly concerned with publications for clients, including the preparation of brochure-type special presentations for business development purposes, would profit from reading—and requiring their staff or consulting editors and graphic designers to read—consultant art director Jan V. White's new book, "Editing by Design." It is a book explicitly intended for the editors and designers of magazines, but it is also a unique and significant essay on "word and picture communication" and "getting a story off the page and into the reader's mind."

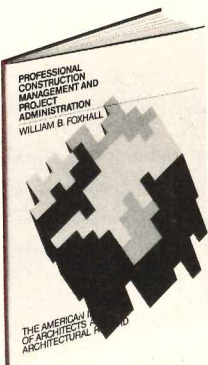
Architects who are *NOT* increasingly concerned with these matters are not really much interested in doing much architecture, for it is a fact of the current architectural scene that word-and-picture communication, in a brochure *tailor-made for a specific prospective client*, has become an essential prerequisite to being seriously considered for most major commissions, whether public or private. "THE office brochure" is being supplemented if not superseded, in serious business development efforts, by an *ad hoc* series of brochures especially developed to respond to the increasingly searching specific questions about a firm's qualifications which are being asked by today's increasingly sophisticated clients of all architectural firms who wish to be seriously considered for an important project.

The concepts, principles and techniques discussed (and profusely illustrated) in Jan White's book are as applicable to the processes required for brochure production as for magazine production, and especially for architects who are concerned with achieving a consistent as well as a creative image in all their separate publications, conveying disparate kinds of information to disparate kinds of clients. The basic concepts and principles do not require the expenditure of vast sums of money on lavish printing or production techniques, nor are they applicable only to elaborate or special publications; they can and should be applied to the whole family of publications which are produced by architects in the doing of architecture, from the simplest to the most elaborate, and from those produced to *GET* work to those (feasibility studies, master plan reports and all the rest) produced in the *DOING* of work.

The author, who has been a design consultant to ARCHITECTURAL RECORD since he redesigned its graphic format in 1965, prepared himself for a distinguished career in

PROFESSIONAL CONSTRUCTION MANAGEMENT AND PROJECT ADMINISTRATION

By William B. Foxhall
Senior Editor Architectural Record



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Here, William B. Foxhall, senior editor of Architectural Record, describes and explains how new trends and innovations in four major areas are affecting the management of today's complex building process.

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- The corresponding shift in contracting method toward the multiple contract system that still requires a single management to unify and solidify the process.
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- Increasing technical complexity of management itself calls for special knowledge in the areas of CPM, computer application, and other techniques.

Construction Management is the successful unification of skills that can serve to deal with these areas of change and the entire complex building process. In this "primer", Mr. Foxhall illustrates and explains, item-by-item, what these skills are, their components and functions, and how they relate to the central professional requirements of time, cost, and quality control.

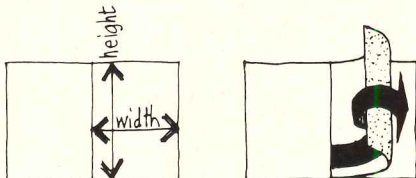
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graphic design by getting two degrees in architecture (B.Arch., Cornell, 1951; M.S., Columbia, 1952). Before becoming a consultant art director and free-lance graphic designer in 1964, he had been successively assistant and associate art director of *Architectural Forum* and art director of *House & Home*. Since 1964, he has redesigned the formats of 27 magazines, designed countless books and other major publications (including RECORD HOUSES every year since 1967), the five borough volumes of the New York City Plan and many others in the field of architecture and planning) and developed a number of graphic image programs.

Mr. White has organized his book to break the material down into what he describes as "the six areas common to all publications: the magazine [architects can read *brochure or report*]—object in three dimensions; the page—patterns and potentials; type—the publication's fabric; illustrations—photographs and pictures; illustrations—nonpictorial; and color." Each chapter first discusses general principles and then—largely through captioned sketches or photographs—a wide variety of design applications, with special attention to the *why* and *when* of their effectiveness.

Any presentation, Mr. White keeps emphasizing, is only a means to an end: getting a message into a reader's mind. Graphic design must be "structural and integral." It must be "an arm of editing, that is, interpreting the meaning of" the material to be communicated. Just making it "look good" is using design as a cosmetic, the shallowest of design functions; it must look good *AND WORK* as communication (just like architecture!).

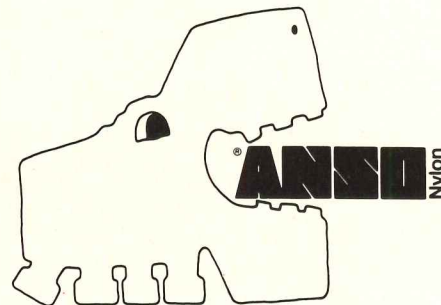
Alas, this reviewer can testify from long experience as an architectural editor, architects' publications all too often come out as though making them look good and making them work as communication were mutually exclusive objectives. The preparation of reports and brochures is an editorial process for which most architects are not equipped either by training and experience or by professional staff and consulting resources. Now that such publications are assuming a more and more critical role in architectural practice, architects need to provide themselves with both staff and consulting expertise in editorial services and graphic design; and, if they are to use such resources effectively, they also need to familiarize themselves with the kinds of problems involved, and with the range of possible solutions.

This book is a sophisticated and creative survey of both, written, designed and illustrated by a gifted designer of long experience who is also blessed with notable literacy, sympathy and wit.

—*Jeanne M. Davern*

Miss Davern is a free-lance architectural journalist and editorial consultant who was formerly managing editor of ARCHITECTURAL RECORD.

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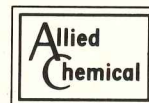
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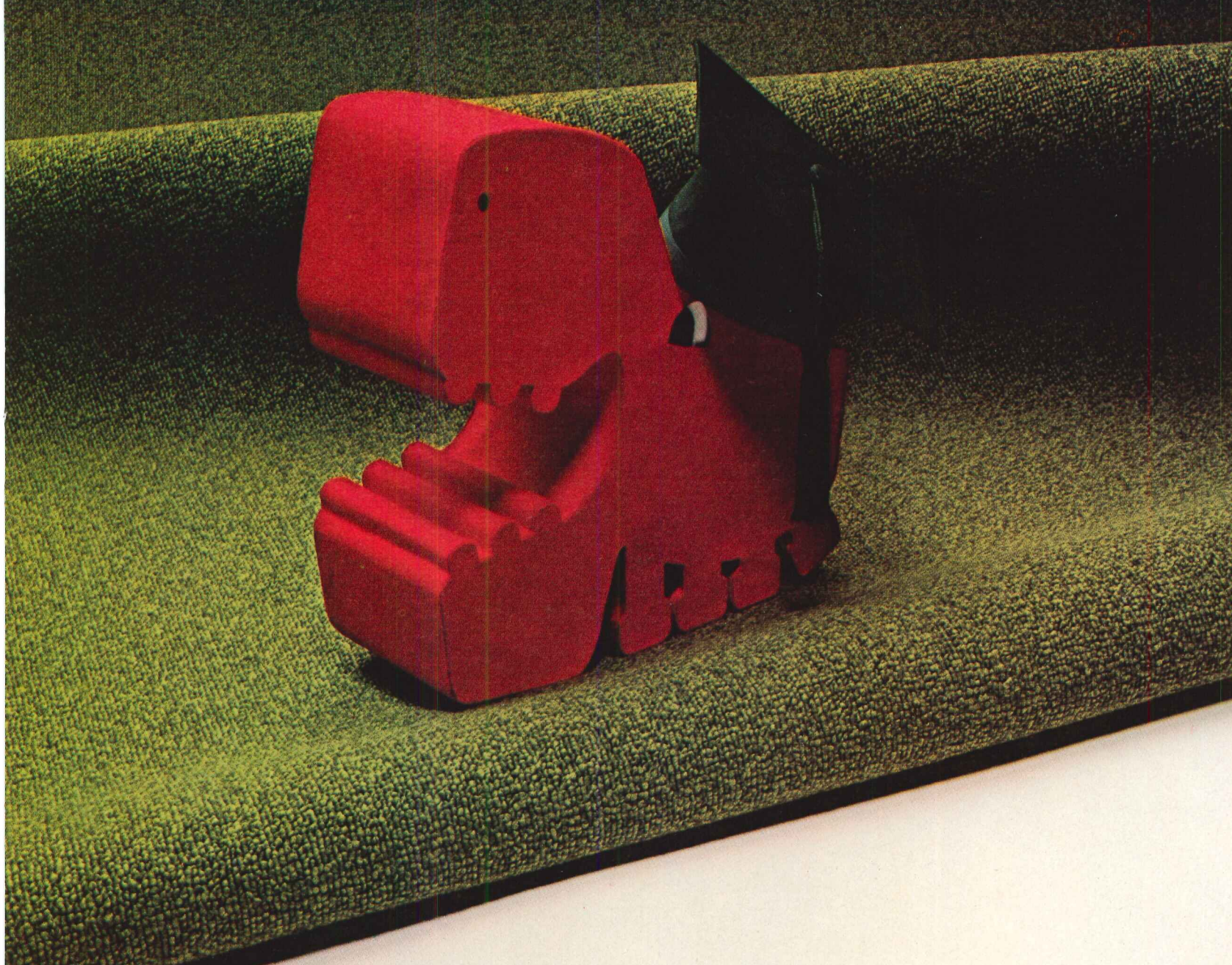
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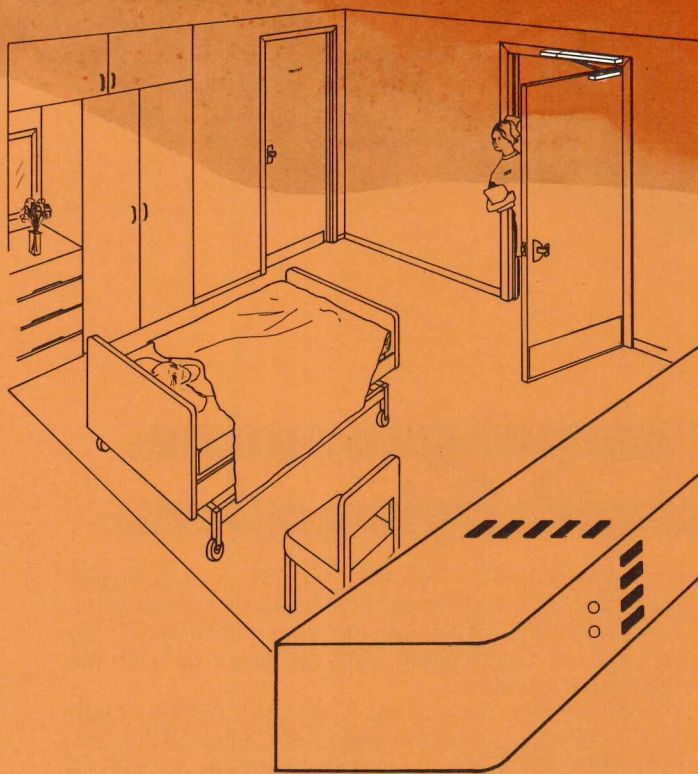
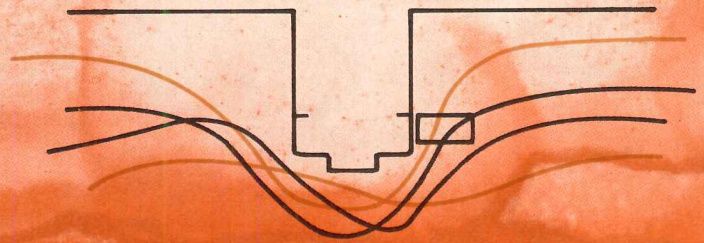
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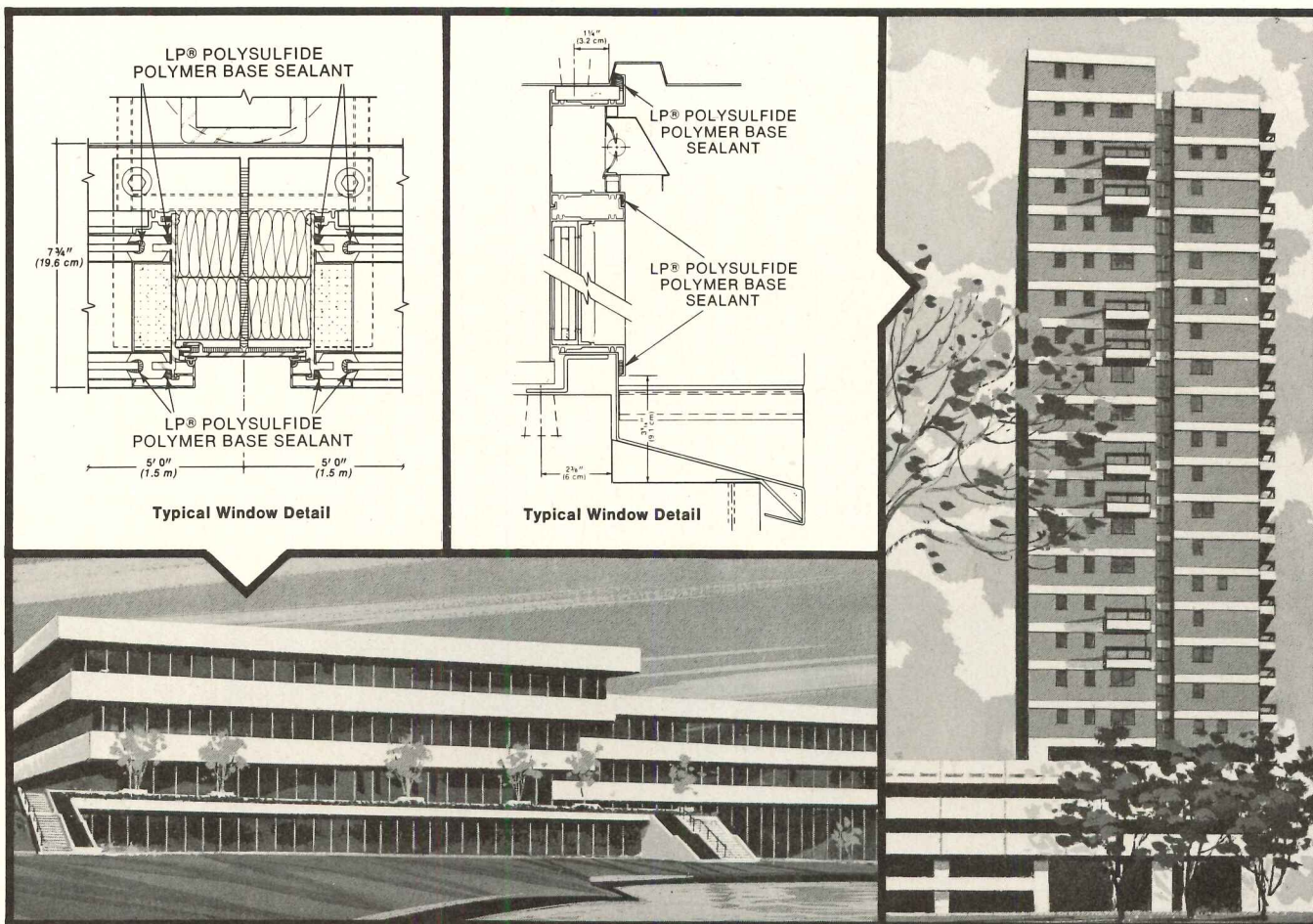
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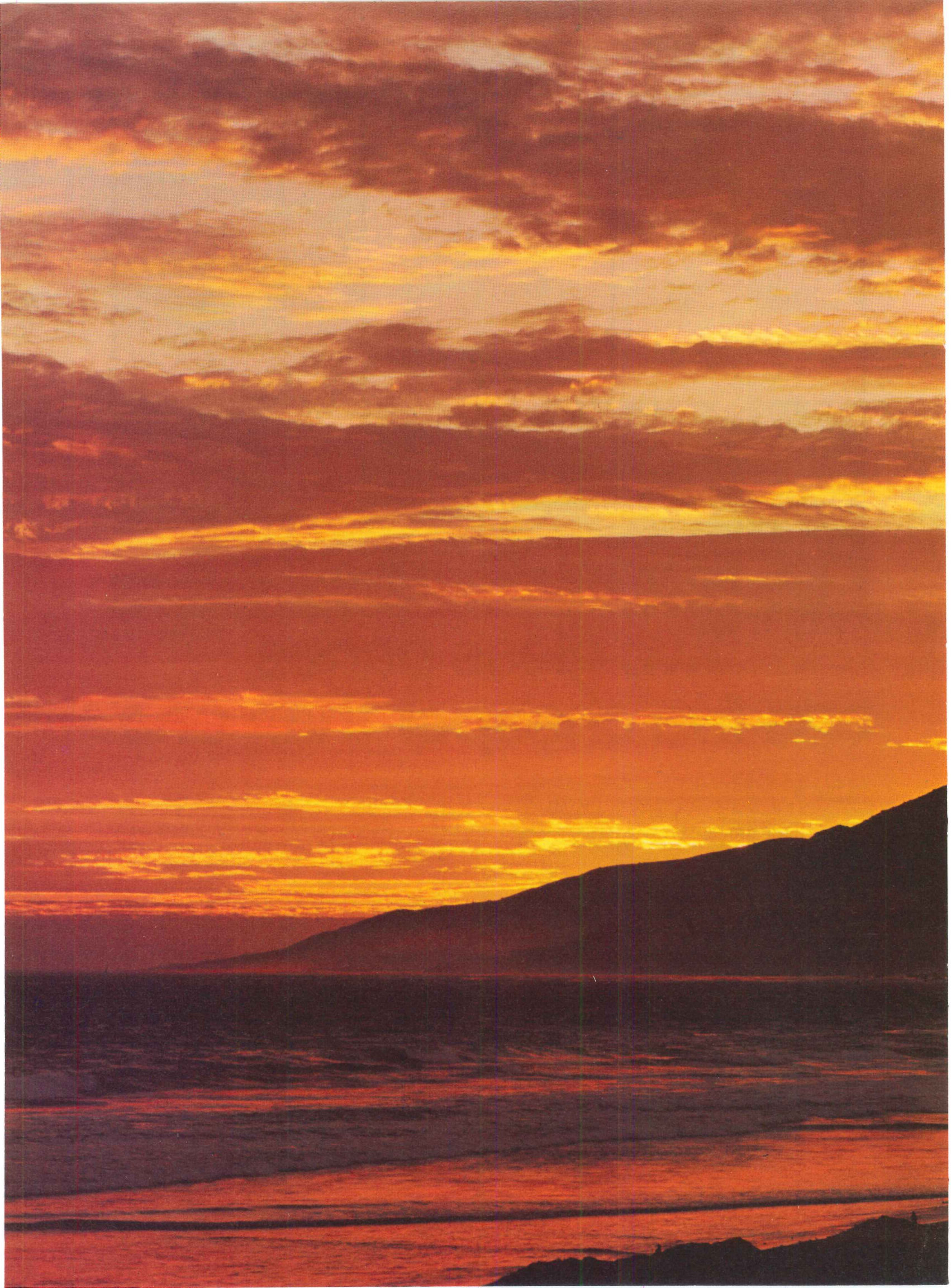
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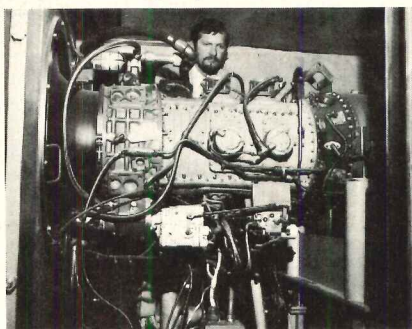
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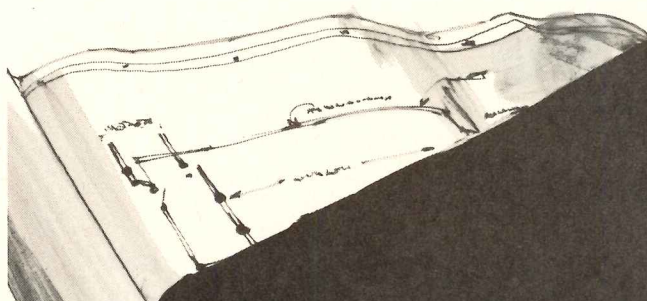
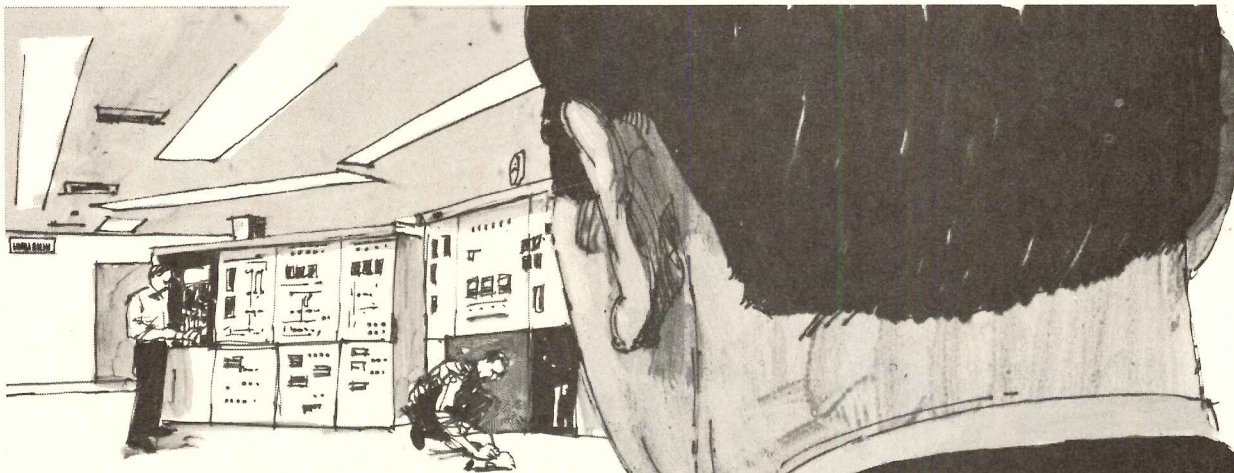
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How do electrical contractors improve life-cycle operations?

NECA study reveals opinions of design professionals.

In a study commissioned by the National Electrical Contractors Association (NECA), the problem of life-cycle building operation and maintenance was considered. Solution?

The majority of participants agreed: the full benefit of complex and sophisticated electrical systems can only be realized when regularly maintained by professional electrical contractors. Reasons? As members of the building team, electrical contractors possess specialized

knowledge and electrical applications experience. They understand the benefits of electricity and the potential operational difficulties that can arise... even in expertly designed buildings. They know that the best way to solve operations and maintenance problems is to correct them before trouble results.

If you can't afford electrical downtime, or a full-time work force for preventive maintenance, you can't afford not to select a professional electrical contractor. Remember him... for maximum maintenance at minimum cost.



National Electrical
Contractors Association, Inc.
Washington, D.C. 20014

If electricity makes it possible, electrical contractors make it practical.

Transform building codes into beauty codes

with Hager's new Torsion Hinge.

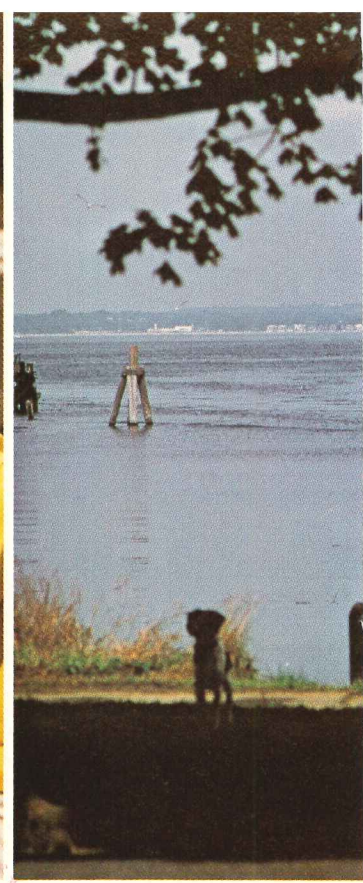
Now, meet institutional building codes with the clean, crisp, uncluttered lines and enduring strength of Hager's new Torsion Hinge. Eleven tempered spring steel torsion bands provide even, adjustable closing strength for doors weighing up to 100 lbs. No more cluttered appearances. One center mounted torsion hinge eliminates the unsightly coils of bulky spring hinges. It installs easily like an ordinary mortise hinge. Specify one of several beautiful decorator finishes.



Ask your architectural hardware consultant for an interesting look at Hager's complete line of fine quality door hardware. Or, write Hager Hinge Company, 139 Victor Street, St. Louis, Mo. 63104.



Hager
EVERYTHING HINGES ON Hager!



Andersen™ Perma-Shield® Windows help an island school avoid window pains.

The residents of Fishers Island wanted the most modern equipment and teaching facilities possible for their new all-grades school.

But the architect also realized that all exterior materials must resist the hard, wind-driven rains and salt spray that can rapidly deteriorate coastal buildings.

That's why he specified Andersen™ Perma-Shield® Casement Windows.

Perma-Shield Windows are made of wood, one of nature's best insulators.

And their exterior sheath of rigid vinyl stands up beautifully to harmful salt water air. Won't rust, pit or corrode. Won't need painting.

Driving rains are no problem either, thanks to Andersen weathertight design and close-fitting tolerances.

And Perma-Shield Windows with insulating glass can reduce conducted heat loss by up to 35% (compared to single-glazed windows).

It all adds up to maintenance and fuel savings Fishers Island taxpayers can appreciate.

So whether you're designing an island school, a suburban development or a city office building, specify Andersen Perma-Shield Windows.

For more information see Sweets, File 8P. Or call your Andersen Distributor. He's in the Yellow Pages under "Windows, Wood." Or write us direct.

The beautiful, carefree way to save fuel.

Andersen Windowalls®

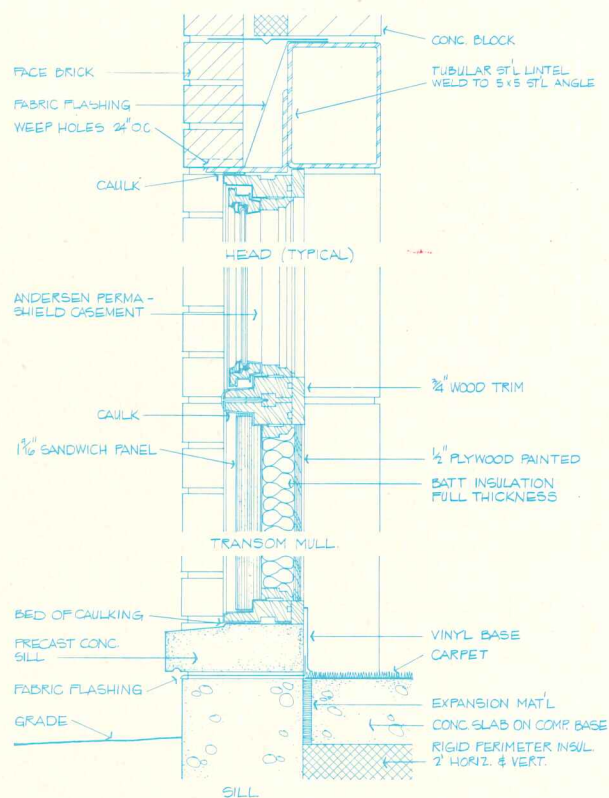
ANDERSEN CORPORATION BAYPORT, MINNESOTA 55003



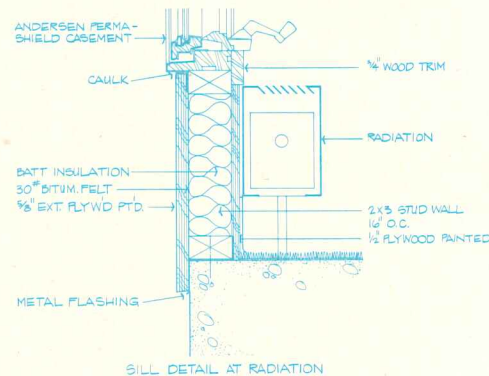
For more data, circle 36 on inquiry card

Fishers Island School, Fishers Island, N.Y.
 Vincent S. Spinella, District Principal
 Architect: Charles King & Associates, Hartford, Conn.
 Awards: Special citations from American Association of School Administrators and the A.I.A. 1973 Exhibition of School Architecture.

WINDOW DETAIL @ EXTERIOR WALL

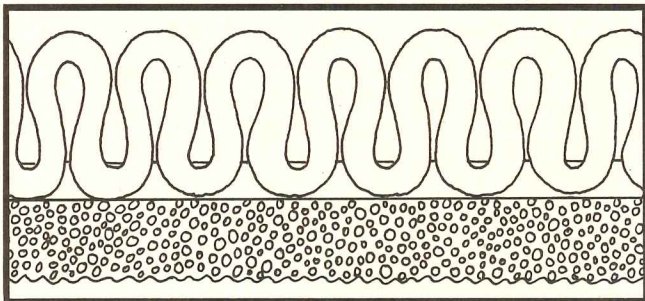


WINDOW DETAIL @ OPEN COURT



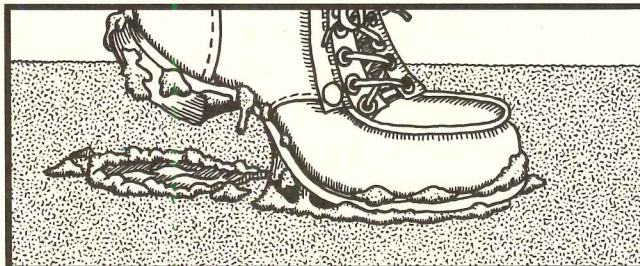
P·O·W·E·R·B·O·N·D™

The problem solver.



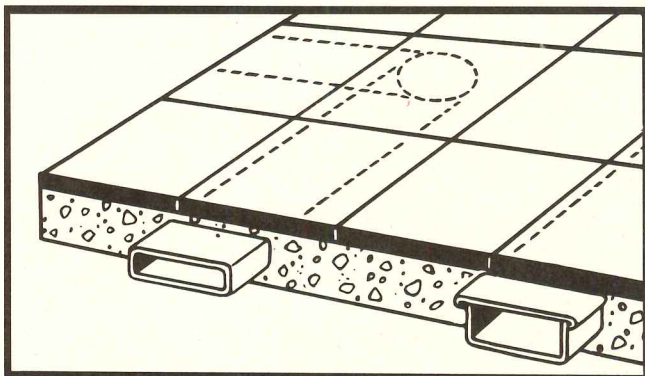
UNIQUE CONSTRUCTION GIVES IT DIMENSIONAL STABILITY.

We make Powerbond by thermo-welding a dense, tough pile surface to a closed cell vinyl backing that adds comfort, quietness and wear-life.



SOIL-HIDING NYLON PILE SURFACE ASSURES APPEARANCE RETENTION.

Powerbond's esthetically beautiful, tough, dense pile surface is made from a second generation anti-soil nylon. This allows for maintenance as low or lower than other floor coverings. And it comes in a great range of colors that stay clean and colorful.

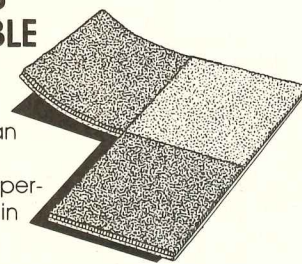


POWERBOND MAKES UNDER FLOOR SYSTEMS TRULY ACCESSIBLE.

When you need to get to your underfloor access just cut and remove as much Powerbond as you have to. Thermo-welding assures the materials stability. Just follow the prescribed directions—fold back—replace. It's that easy!

POWERBOND TEX-TILES MAKE A TRULY PORTABLE FLOOR COVERING.

Powerbond comes in 18x18 inch squares called Tex-Tiles, that you can pick up and put down as required. They've got the same "miracle" properties as Powerbond. And they come in a wide variety of colors that let you design your own patterns.



CUT IT OUT.

If for some reason you need to replace or repair your Powerbond, no problems. Cut out the damaged spot and put in a new piece. No one will ever see the patch and it won't take any more time to do than cutting out and sending in this coupon for more information about this beautiful problem solver. Or call (212) 953-4356



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I'd like more information on Powerbond Floor Covering.

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TITLE _____

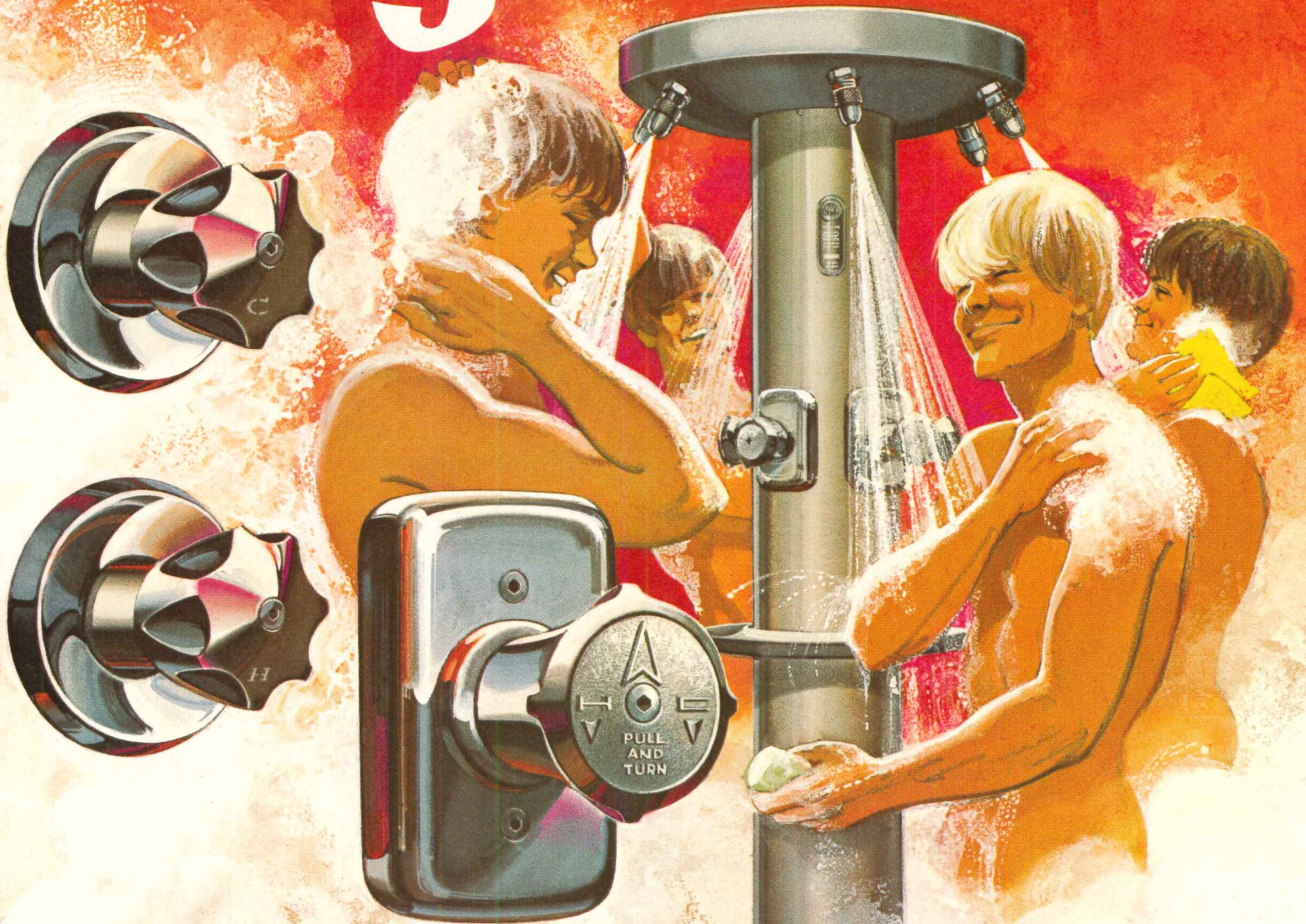
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Bright idea



Shower valves guaranteed for 83 $\frac{1}{3}$ years.

We guarantee our Bradtrol and Pos-I-Pak shower valves for 83 $\frac{1}{3}$ years . . . an even 1000 months. If either valve leaks or drips during that time, we furnish replacement parts free of charge. We can give you a guarantee like this because our Bradtrol permanently lubricated single control valve has just one moving part. No washers, O-rings, springs or seals. Nothing to wear out or corrode. And the Pos-I-Pak valve for hot and cold or tempered water. No washers here either. No seats, threads or packing. So no leaking.

You can specify either for any shower we make. For Column showers that serve from 2 to 6 people with a single set of connections. For Panelon® Econo-wall® Wall-saver® and Corner showers that put every inch of floor and wall space to use. Showers that save money during installation and afterwards. Ask your Bradley washroom systems specialist for complete guarantee details. And write for latest literature. Or call (414) 251-6000. Telex 2-6751. Bradley Corporation, 9109 Fountain Blvd., Menomonee Falls, Wisconsin 53051.

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◀ Phipp's Plaza Theatre, Atlanta, Ga.
 Owner: Atlanta Enterprises, Inc.
 Architects and Engineers:
 Six Associates, Inc., Asheville, N.C.

Who says acoustical panels have to be rectangles?

This striking ceiling was shaped from textured, micro-perforated Gold Bond Solitude Panels.

Ordinarily, these acoustical panels are installed in exposed suspended grid systems. Their appearance, noncombustibility, NRC's up to 70 and STC's up to 40 contribute greatly to building

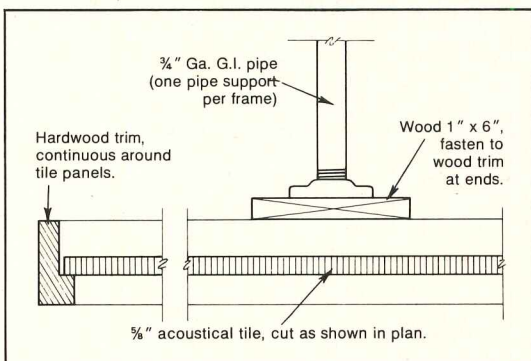
aesthetics and performance.

But why not be extraordinary? Stretch your imagination. Shape Solitude to fit your own ideas.

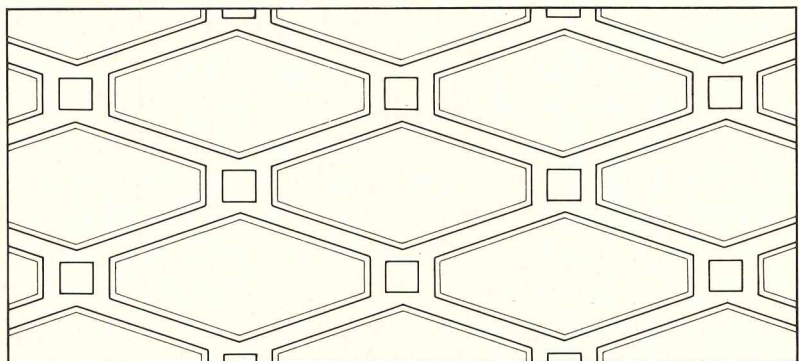
Solitude Panels come in fished, needled-perforated, textured and nondirectional patterns. You can order ventilating versions and scrubbable plastic coated finishes, too.

Solitude Panels: Another way we're constructive so you can be creative.

Discuss your ideas with your local Gold Bond man. Or write Gold Bond Building Products, Division of National Gypsum Company, Dept. AR-84CT, Buffalo, N.Y. 14225.

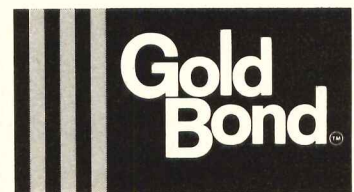


Section of lobby ceiling shows how $\frac{3}{8}$ " acoustical tiles, cut as shown in plan, were installed in continuous hardwood trim and supported by $\frac{3}{4}$ " pipe.



Standard Gold Bond 2' x 4' acoustical Solitude Panels were custom cut on the job to create a distinctive mosaic for Phipp's Plaza Theatre in Atlanta.

**We're gypsum,
 and then some.**



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The General Electric Zoneline Neither rain nor snow nor hail nor sun can keep it from



For a long life of

When you specify GE Zoneline™ units you can look for a long life of service because each one gets heavy duty protection.

To begin with we use galvanized steel for many parts. On top of this is a special double-coat paint job that is electrically applied to exposed parts.

The prime electrophoretic coat provides complete coverage of all surfaces including welded areas. Because of the electrochemical process used, the paint is a uniform thickness.

The prime coat is epoxy. The second coat is acrylic. All exposed parts are extra-treated and finished by three major multi-stage processes that render them especially resistant to the deteriorating effects

Electrophoretic Paint Process. nor wind nor temperature changes doing its job.



heavy duty service.

of various weather conditions.

This electrophoretic method of painting completely coats every nook and cranny to help provide long life by means of this heavy duty protection system.

And behind every air conditioner is General Electric Customer Care...Service Everywhere!™ This means that wherever your customer is in the continental U.S.A., there'll be a qualified GE serviceman nearby.



For further information, contact your local Contract Sales Representative, or write the Contract Products Operation, General Electric, Bldg. 53, Louisville, Kentucky 40225.

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[®]Registered trademark. TM a trademark of E.T. Barwick Industries, Inc.

Traveling first class is a Barwick tradition.

After all, we make the most extensive selection of contract carpet and tufted wall coverings for every design imaginable.

This is just one of them: "Educator,TM" a 100% Celanese Fortrel[®] polyester carpet recommended for heavy commercial traffic. Carries a 5-year wear guarantee. With the added protection of anti-static Brunslon.[®] In

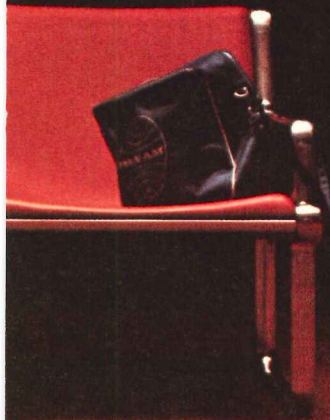
12 functional colors.

For more information on the carpet that meets the requirements of the job you're working on, call Bob Alpert collect at 404/451-4761, or write: Barwick Contract Carpet Systems, Chamblee, Ga. 30341.

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A Division of E.T. Barwick Mills!TM World's leading maker of tufted carpets.

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**Something a little extra
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Danby Marble.**

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When you think of architectural masterpieces, it's difficult *not* to think of marble. Whenever men have sought beauty, versatility and durability they have looked to natural marble. Today, the benchmark of perfection in marble, is Danby. Wherever it has been used — wherever it will be used — Danby exudes magnificence.

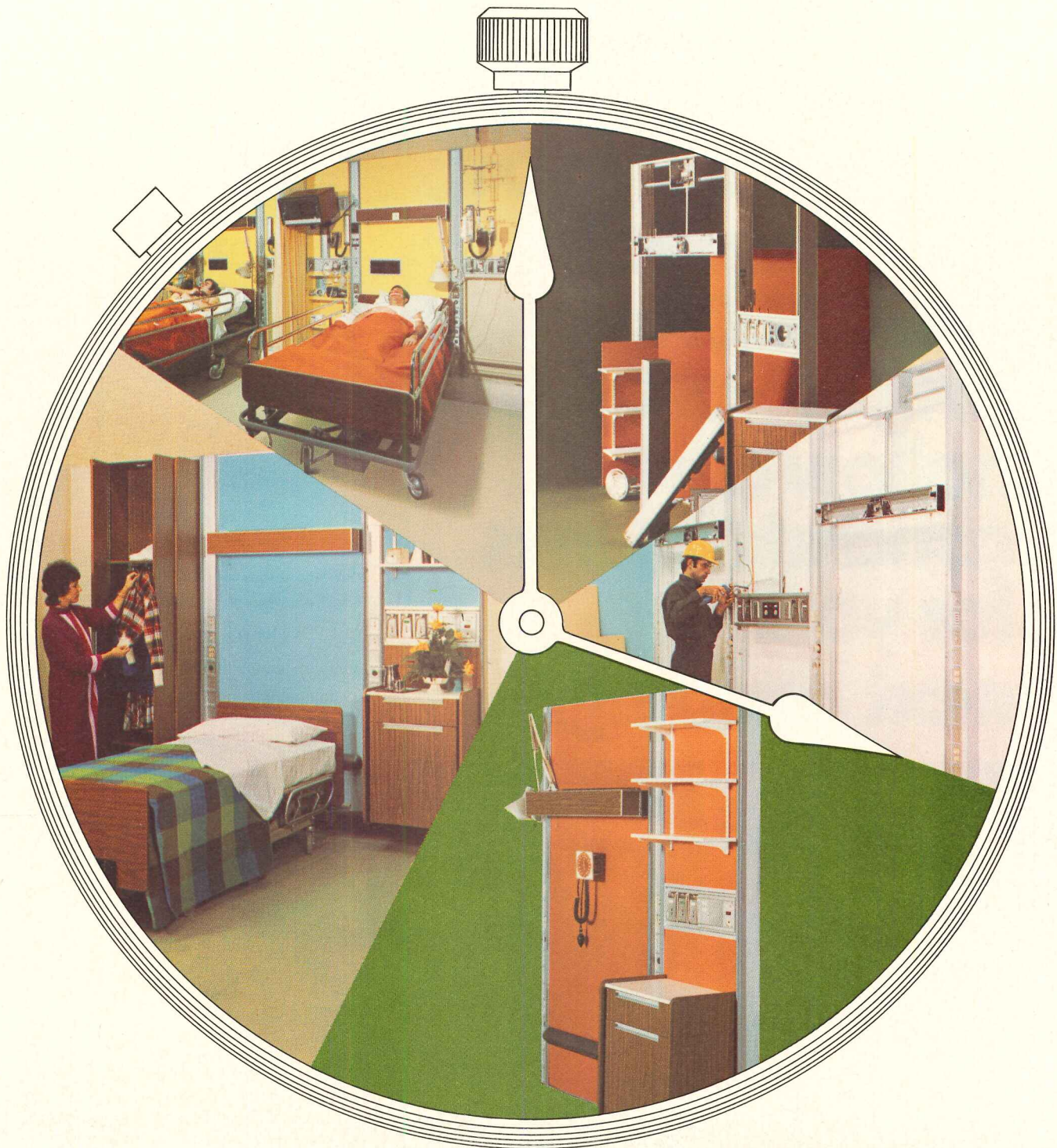
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Danby. Magnificence from Vermont.

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DANBY



Ours In Hours.

With AMSCO's Patient-Service Wall System, you can erect a complete general-patient, ICU, CCU or special care environment in hours. Not days, but hours. And all you need are ordinary hand tools.

Viewed in the long run, the same wall system can be modified, modernized, upgraded, expanded, or completely dismantled and reassembled elsewhere. Also in hours.

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some, contemporary appeal to the entire room. See why our new Patient-Service Wall Systems are all we say they are. Request our highly informative, well-illustrated brochure. It's an education in advanced patient-room service technology.



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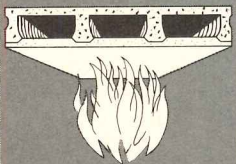
ERIE • PENNSYLVANIA

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Here are 6 good reasons why you should specify SPAN-DECK® precast-prestressed hollow core concrete planks for your next building.

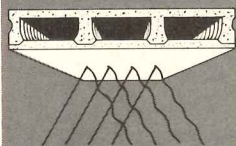
1 FIRE RATINGS

SPAN-DECK planks meet the conditions for the new restrained and unrestrained fire ratings criterion of ASTM E119 and are listed by Underwriters' Laboratories, Inc. for two hour fire resistant classifications (untopped) for both restrained and unrestrained conditions. Three and four hour ratings are also available with the use of field cast topping.



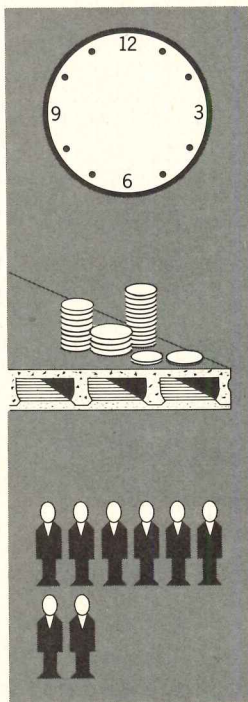
2 ACOUSTICAL PROPERTIES

SPAN-DECK's surfaces and hollow cores resist airborne noise and transmission of impact noise... qualities superior to those of a solid concrete slab of equivalent thickness. Sound absorption and acoustical tests have been conducted by Riverbank Acoustical Laboratories.



3 USE OF CORE AREAS

SPAN-DECK's large core areas offer many design advantages. These core areas are easily penetrated for whatever application you have. Use a hammer and chisel, a core drill, or just a hammer.



4 TIME SAVINGS

Time is money. When you order SPAN-DECK products, you can expect on-time delivery. SPAN-DECK planks greatly reduce erection time too, reducing the builder's overhead and putting the building to work for the owner sooner.

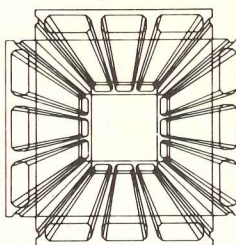
5 MONEY SAVINGS

Compare the cost of today's major building materials with the cost of SPAN-DECK planks. Your savings can be substantial, without the risk of jeopardizing the structural integrity of your building. Contact your nearest SPAN-DECK manufacturer and let him show you specifically where you can save money in your building.

6 CONSULTATION SERVICE

SPAN-DECK manufacturers are always ready to meet with you and discuss your particular needs. They have structural details for virtually every situation in which SPAN-DECK products have been used, and some new ideas on ways they haven't been used. So call your nearest SPAN-DECK manufacturer and tap his brain.

SPAN-DECK planks are available in 4' and 8' widths with lengths varying according to application. See our catalog in Sweet's Architectural File and Sweet's Canadian Construction File.



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Indianapolis, Indiana 46203
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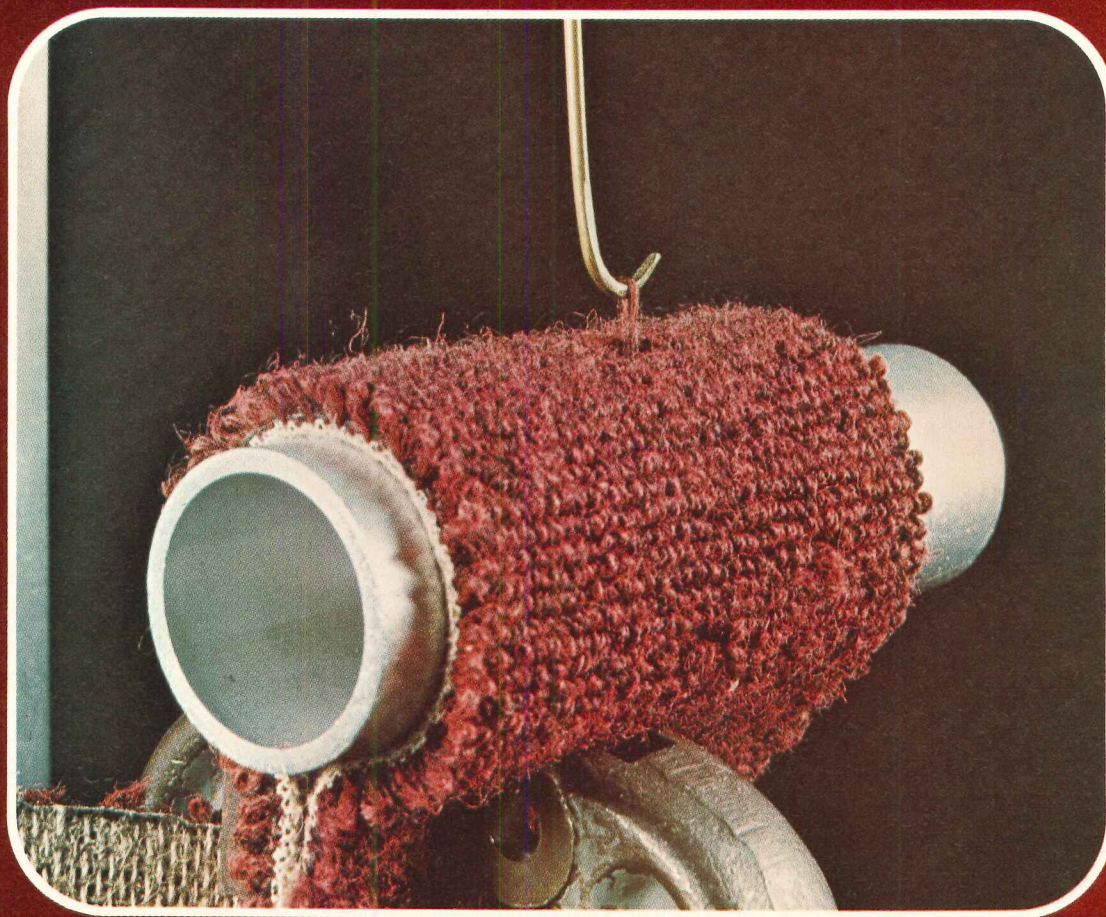
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A carpet that passes our Tuft Bind Performance test can take the rough-housing in any school.

School carpets have to take a lot, year in and year out, ranging from students rough-housing to cafeteria spills. That is why we performance-test carpets made of Dow Badische fibers and yarns in our lab—before they are deemed worthy to cover the floors of Academe.

Our Tuft Bind tests, for instance, indicate how much pulling and snagging a carpet can resist. With a hook and Instron tester, we measure the force required to pull a single, independent carpet tuft out of a carpet sample. In order to pass, a carpet must withstand a minimum of 6.3 pounds of force.

This is just one of eight tough tests we put carpets through before they can carry the Dow Badische Performance Certification label. The carpets are also tested for flammability, static generation, light fastness, compression and abrasion resistance, delamination, wearability and appearance retention.

The next time you specify school carpet, look for the carpets with our Performance Certification label on them. You can be sure then they have passed their school tests with honors. Write for our Contract Carpeting Selection and Specifications Guide.



Dow Badische Company
Create Center
Williamsburg, Va. 23185
(804) 887-6573



CARPET

**PERFORMANCE
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WILSON ART
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INC

With Wilson Art... design control and cost ratios work beautifully together.

When you specify Wilson Art, you specify more than a product. You give yourself the latitude of a total approach to design. With Wilson Art you control the whole design: walls, doors and case-work coordinate, contrast or match—just as you want them to.

With more than 150 wood-grains, solids and patterns to select from, you can achieve exactly the effects that you design. And at a ratio of initial-to-ultimate cost that is its own attraction!

Walls

WILSONWALL
PANELING SYSTEMS

You can specify any of four Wilsonwall systems. Each comes in the full range of Wilson Art woodgrains and solids for coordination with furniture and fixtures surfaced with Wilson Art laminated plastic, and with Dor-Surf door facing. You maintain design control.

System 110 accents the panels with laminated-plastic reveal strips. System 210 has a standard V-groove joint system. System 310 uses concealed aluminum mounting hardware that simplifies installation in new construction and remodeling, and gives the appearance of a continuous surface. System 610 has a Class-IA fire-hazard classification. And all Wilsonwall systems include a full line of coordinated moldings.

With Wilsonwall systems from Wilson Art, design control and cost ratios work beautifully together.



Doors

DOR-SURF®
DOOR FACING

Doors are an integral part of your design. Allow them to work beautifully with your Wilsonwall systems by specifying Dor-Surf—impact-resistant extra-thick Wilson Art laminated plastic surfaces for doors. Dor-Surf helps you maintain design control in economical, durable, maintenance-free doors that never need kick- or push-plates. Match, contrast or coordinate with your Wilsonwall systems for complete design integrity.

With Dor-Surf from Wilson Art, design control and cost ratios work completely together.

Casework

WILSON ART
LAMINATED PLASTIC

Preserve complete design control by specifying Wilson Art laminated plastic for all case-work, furniture and fixtures. Spill-, stain- and scratch-resistant Wilson Art gives you the functional quality you need and the aesthetic effect you desire. Select from over 150 solids, woodgrains and patterns in a variety of surfaces; realize the totality of your design with ideal cost ratios.

With casework surfaced with Wilson Art, design control and cost ratios work practically together.

Specifying Wilson Art brings you famous Wilson Art service—when you need it, where you need it. Check us out: contact your Wilson Art Architectural Design Representative today.

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you can depend on Wilson Art.**



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WILSON ART... TEMPLE, TEXAS... 76501



Federal Reserve Bank of Minneapolis. Architect: Gunnar Birkerts & Associates, Birmingham, Michigan

DOORWAY NOTES . . .

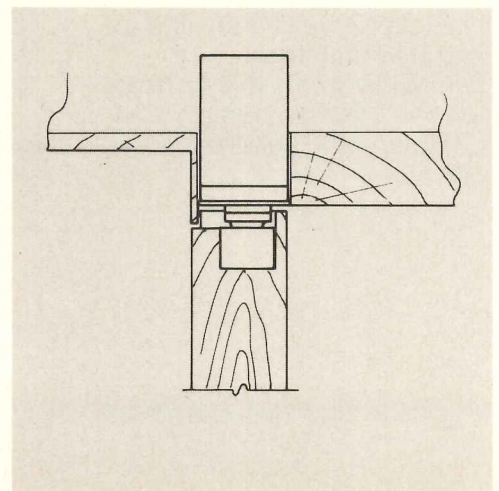
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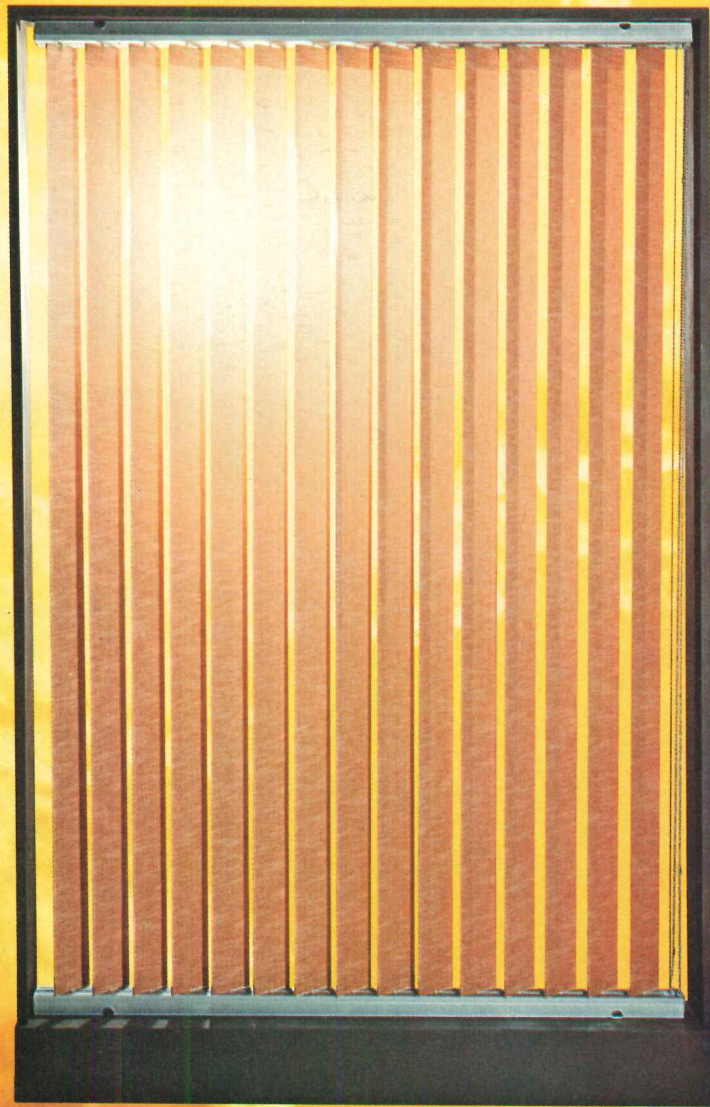
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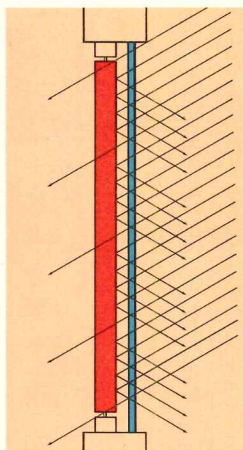


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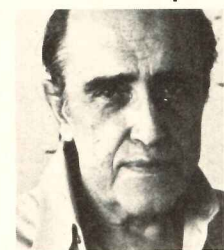
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Niemeyer

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Besides meeting with these renowned professionals in formal seminar sessions, you will meet members of the Institute of Architects of both Rio and Sao Paulo—your counterparts in these important South American cities—and establish the informal one-to-one dialogue that makes a trip like this so invaluable.



Marx

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Brasilia

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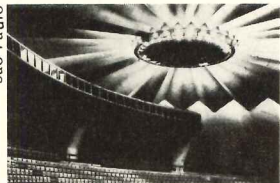
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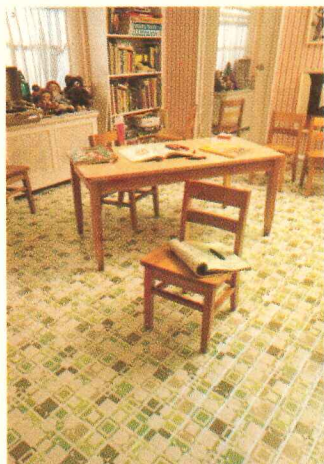
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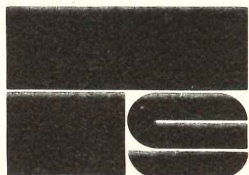
Owner:
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Architects:
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Bank interior
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Architects/Engineers:

Graham, Anderson, Probst & White, Chicago, Illinois

General Contractor:

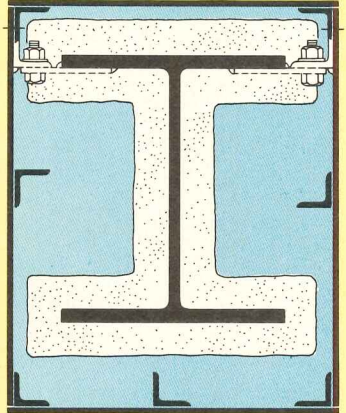
Power Construction Company, Elmhurst, Illinois
Steel Fabricators:

Frame: Wendnagel & Company Inc., Chicago, Illinois

Exterior: David Architectural Metals Incorporated, Chicago, Illinois

Architectural Walls:

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Section through typical free-standing column, illustrating steel plate cladding method.

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The clean, crisp lines of this white-painted steel building command instant attention.

It's the Regional Reservation Center in Elk Grove Township, Illinois — the newest addition to a group of United Air Lines buildings not far from O'Hare Airport.

A 1973 AIA Honor Award winner, the building has a modular steel frame and a white-painted carbon steel plate exterior skin — enhanced

by grey insulating glass. The steel — both structural and exterior — is ASTM A-36 from United States Steel.

Spandrel and column cover components were shop-fabricated into sub-assemblies and painted with a primer coat. In the field, these parts were bolted to brackets on the frame, joints were welded and ground smooth and the entire exterior was sealed with two coats of white, acrylic-latex paint.

The striking simplicity of this new structure demonstrates one of the features of a painted steel building: it's well worth a second look!

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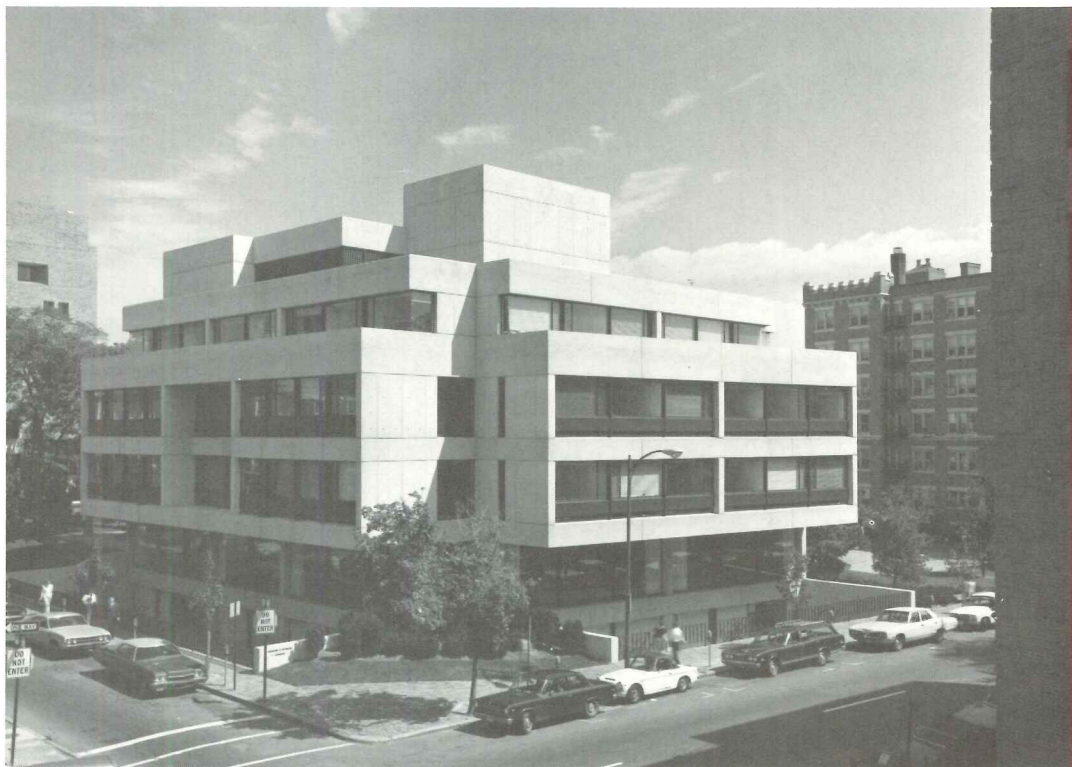
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Phokion Karas

TWO COLLEGE LIBRARIES: ONE DESIGNED TO OCCUPY A CITY CORNER SITE, THE OTHER SHAPED TO OVERLOOK A CAMPUS GREEN

The Harvard Graduate School of Education Library by Benjamin Thompson & Associates, Inc. (top) and the Bates College Library by The Architects Collaborative (bottom) have much in common. They are roughly comparable in size (Harvard: 99,000-square-feet, a 300,000-volume capacity and 500 readers; Bates: 101,676-square-feet, a 420,000-volume capacity and 700 readers). Both are "open plan" libraries and each has faculty offices located on its top floor. Both design solutions include the preservation and re-use of older buildings of esthetic and historic value. Each of the two libraries is well designed to conform to the scale of its immediate environment. Because the two environments are so dissimilar, however, the two libraries are quite different in form. Shaped by context as well as function, both libraries have an authority and presence as works of architecture which is lacking in buildings which merely "work" in a limited functional sense.—*Mildred F. Schmertz*



MONROE C. GUTMAN LIBRARY

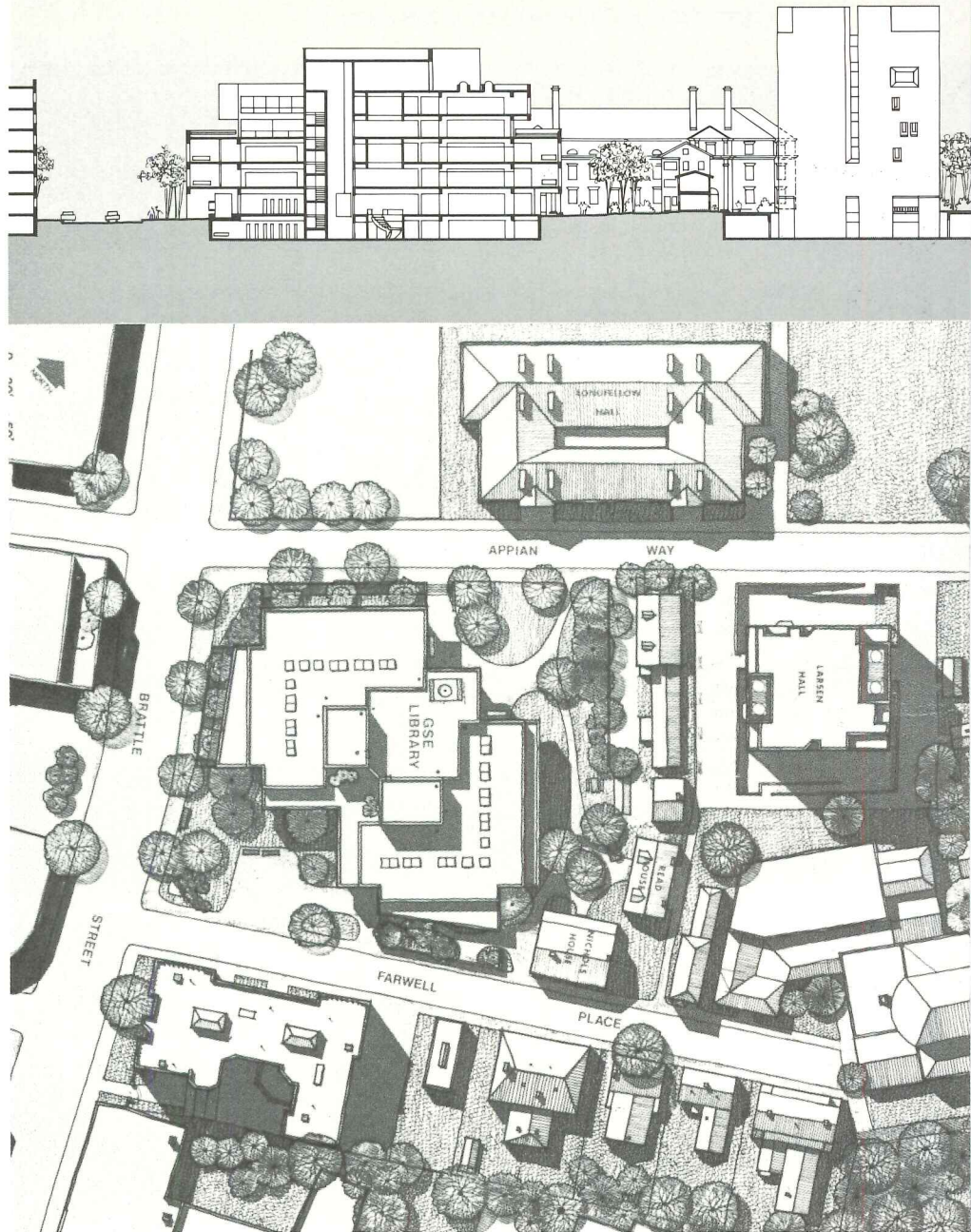
**A specialized library
for an urban campus:
the Monroe C. Gutman Library
for the Harvard Graduate School
of Education by
Benjamin Thompson & Associates**

The Harvard University Graduate School of Education, in agreement with its architects, Benjamin Thompson & Associates, Inc. chose to develop an open library plan with a minimum of administrative and architectural restrictions to bring about close proximity and easy access by the reader to the books. The building has been planned to give the reader complete access to the various collections and reference materials available, and diverse spaces and facilities for study, discussion, writing and contemplation.

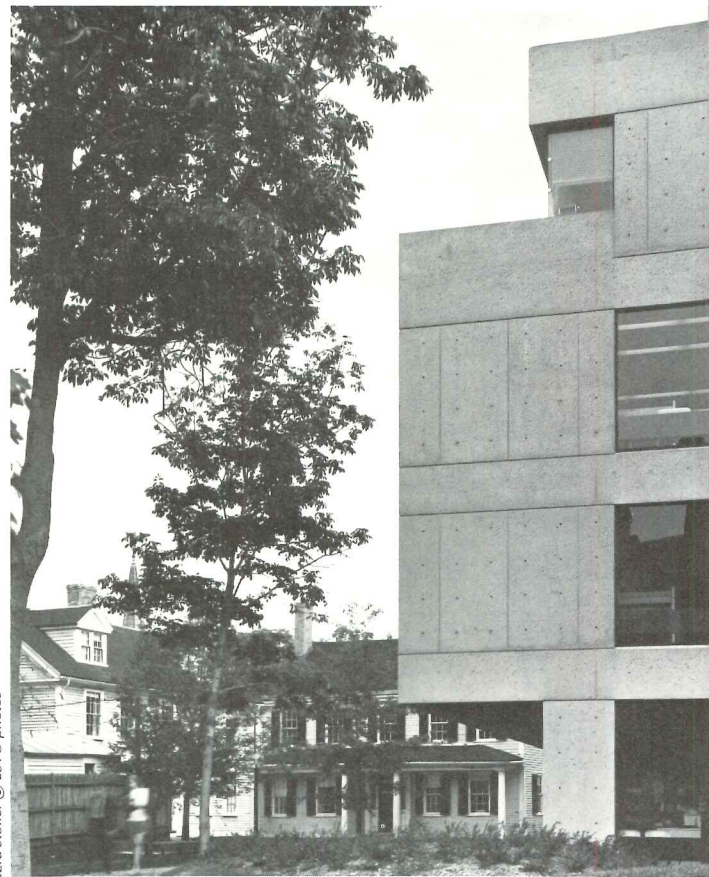
According to Benjamin Thompson and Thomas Green, principals-in-charge, the site and building design was influenced by four factors of equal importance: first, the historic value of the area; second, the desire to maintain or at least not radically change the existing scale and spirit of Brattle Street (a neighborhood of small shops); third, the educational and administrative objectives of the faculty and students of the Graduate School of Education and the library staff; fourth, the programmatic requirements of the library.

Taking into consideration the combined factors of historic value and scale led the architects to successfully urge that two important historic houses be relocated on the site to function as part of the educational facility. As the plot plan (right) indicates, they form a link with other frame houses within the block and across Farwell Place. These historic houses are used as faculty office and seminar space, augmenting the facilities of Larsen and Longfellow halls which with the Gutman Library comprise the Graduate School of Education.

In designing the library itself, the architects paid attention to its important frontage on Brattle Street where lively shops once flourished in small-scale frame buildings. To avoid the deadness and inactivity that institutions often impose on once vital streets and commercial areas, the designers used large areas of glass at street level and in the sunken courtyards to make highly visible the activity within. Unusually bright interior colors attract



The library has been constructed of sandblasted, poured-in-place concrete with bronze glass windows. Major portions of the building cantilever out over the first two floors. The floor system of the library is composed of solid slabs spanning to integral beams or to the concrete bearing walls. The floor slabs typically have supporting elements on all four sides thereby allowing relatively thin slabs for large spans. Nine inch deep slabs span 31 feet and a 12 inch slab spans 40 feet with no prestressing. Reinforced concrete beams span to concrete columns or bearing walls, and columns and walls are on spread footings.



Ezra Stoller © ESTO photos



the attention and interest of passers-by. Every effort was made to make the library appear smaller than it actually is to bring it into scale with the street. One floor has been placed below grade and the penthouse for mechanical equipment has been set back.

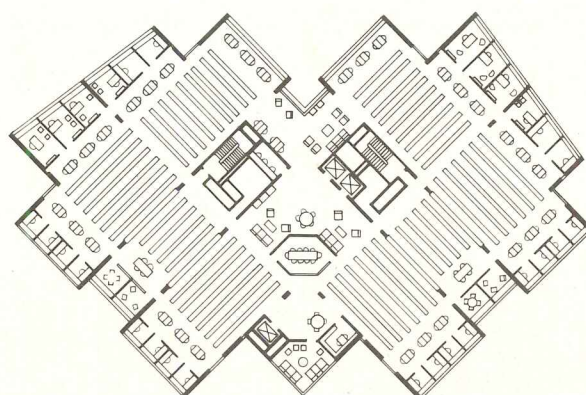
The attitudes, goals and objectives for the library of the Harvard Graduate School of Education can be suggested from the following phrases culled from its initial instructions to the architects: "[The new library] must assert the importance of education as a social and intellectual endeavor and it must reflect Harvard's commitment to the cause. . . . Education is an intensely human activity, involving people with a common quest for understanding and seeking mutual support. . . . The building should be warm, inviting and human because it is expected to serve people. It should not strive to inspire . . . the people who work in the building will bring their own motivations with them. . . . The library should provide a number of environments to support the variety of purposes that bring people to the facility. . . . This diversity should find unity in the common spirit of the building; each element should be consonant with the whole."

Following these general directives, the architects organized the programmatic requirements of the building into three vertical zones: public services, bookstack-reader areas and student-faculty space. The lower two floors (zone one) are essentially public while the upper three floors (zones two and three) are essentially non-public. The lower four floors (zones one and two) serve library functions; the upper floor (zone three) is non-library in function. Levels one and two contain the more active public services, readily accessible from the main entrance. As already noted, level one has been depressed to a point just above the water table to reduce the over-all height of the building and its apparent size to bring it into scale with the street. Levels three and four are the typical bookstack floors which have been located between the public services and student-faculty areas, since direct access to and from these areas was considered desirable.

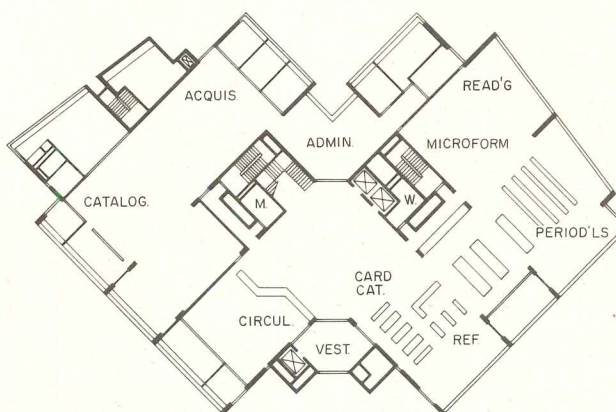
The total cost of the 99,000-square-foot library building was \$4.5 million. It was constructed between 1970 and 1972. All interior and graphic design is the work of the Benjamin Thompson office.

The library has received two significant commendations: the First Honor Award of the AIA, ALA and NBC Library Buildings Award Program for 1974 and the 1973 Harleston Parker Award given by the Boston Society of Architects.

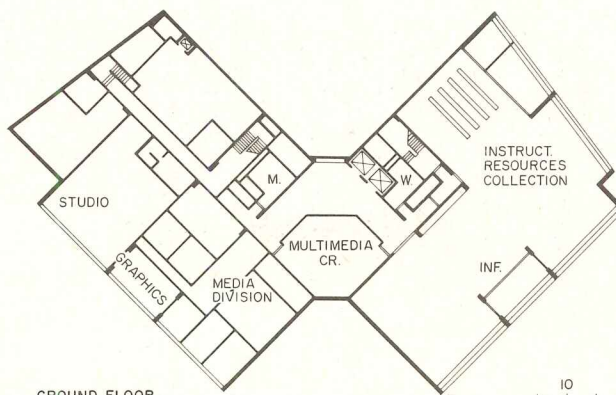
MONROE C. GUTMAN LIBRARY, Harvard University, Cambridge, Massachusetts. Owner: Harvard University Graduate School of Education. Architects: Benjamin Thompson Associates; principals-in-charge: Benjamin Thompson and Thomas Green; project architect: David Jacobson. Engineers: Le Messurier Associates, Inc. (structural); Golder Gass Associates, Inc. (foundation); Reardon & Turner (mechanical/electrical); Lawrence G. Copley (acoustical); Thompson Engineering Co. Inc. (lighting). Consultants: Carol R. Johnson (landscape); Leslie M. Buckingham, Jr. (costs); James Gui (specifications). General contractor: Jackson Construction Company, Incorporated.



TYPICAL FLOOR



FIRST FLOOR



GROUND FLOOR

The library is built on an open plan organized in such a way as to minimize administrative and spatial limitations on the use of its materials and services. The five-story, 99,000-square-foot building consists of three basic layers organized vertically. The first two levels (opposite page)—the basement and the first floor—house the service facilities: circulation, reference, audio-visual and similar functions, which are accessible from the main entrance. The next two levels—the second and third floors—house the bookstack and study areas. These floors include a large number of private cubicles and open carrels surrounding bookstacks with a capacity of approximately 300,000 volumes. The library will accommodate about 500 readers at one time. The top floor (not shown) is devoted to faculty and student offices and research space. This floor is accessible to its users during and after regular library hours. The high ratio of cubicles to bookstacks required by the program, together with the preference for keeping individual study spaces on the exterior and at the same level as the book stacks, dictated a plan configuration that gives a high ratio of wall to floor area. The sense of being in a sea of bookstacks has been reduced by making the ranges as short as possible. The stacks are used as a buffer between the peripheral work spaces and the internal discussion spaces. Level five is devoted to student-faculty use on a 24-hour seven-day-a-week basis. It has a total of 78 offices and seminar rooms, 33 of which are on the perimeter.





Building interiors produced by the Thompson office are always exceptionally well done. In this library, the colors are stronger and gayer than in any of their work to date and seem particularly appropriate in a library for teachers. The sandblasted, poured-in-place columns and bearing walls are exposed on the interior and contrast effectively with the color palette and the natural wood finishes. Generally in the public areas the undersides of the floor slabs are exposed with acoustical tiles applied directly to the surface. Mechanical ducts are exposed. Where suspended ceilings are required open wood slats are used. With a few exceptions, carpet is used throughout the building.





**A general library
for a rural campus:
the Bates College Library
in Lewiston, Maine
by The Architects Collaborative**

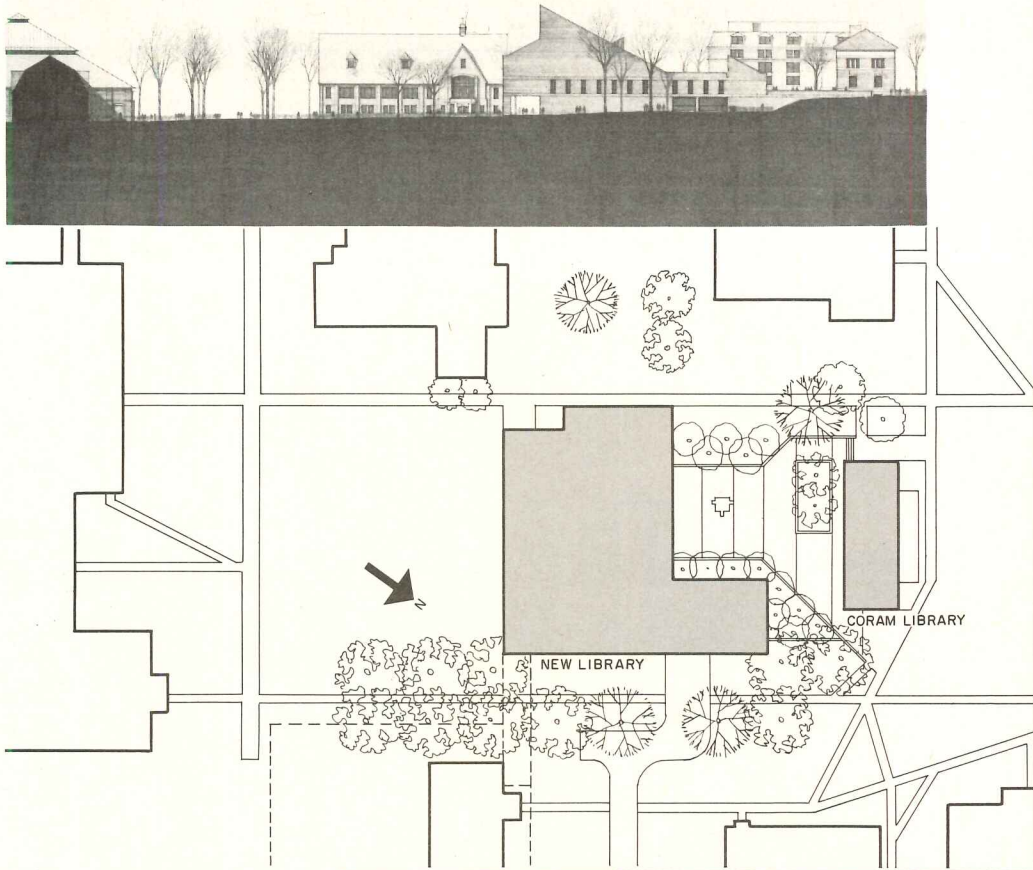
Bates is a small co-educational liberal arts college with an enrollment of about 1,200 students. The library program, which was prepared by the chief librarian Iva Foster and library consultant Keyes Metcalf, called for a building which will serve library needs for the next 20 years. Presently programmed for 700 readers, 420,000 volumes, a 26-member staff and 10 student assistants, it can be expanded in the future without interfering with its present operation and appearance.

The librarian, consultant and planning committee called for a square 22½-foot center-to-center column module to accept multiples of the standard three foot shelf sections in either direction between 14"-16" square columns. They wished the building's main entrance to be readily accessible from four directions and level with the approach. They considered it essential that there be open access to all library materials except for storage and the special collections, but as a corollary to this, they demanded only one public entrance-exit as essential to security.

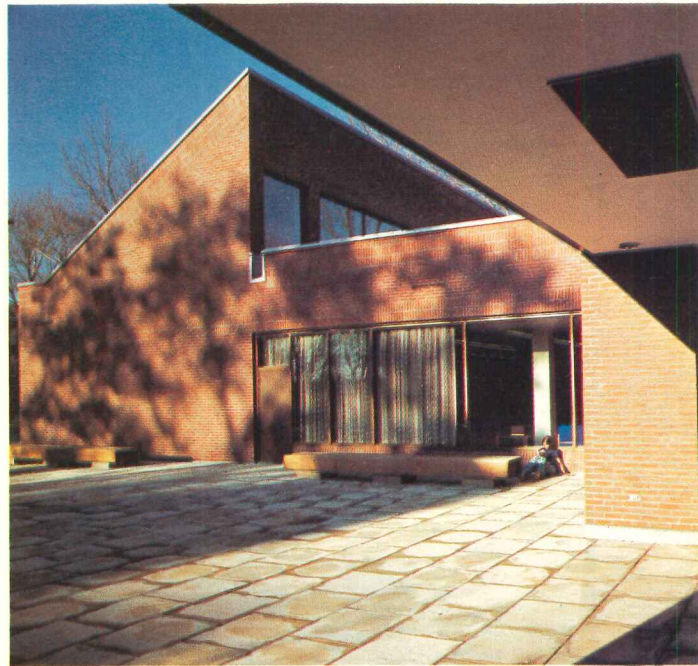
The program stated that approximately 15,000 square feet was to be provided on the main floor in order to accommodate the major services of the library. Exhibit areas were to be limited and of modest dimensions.

In commenting on the building program and her design solution, architect Sarah Harkness points out that the library should provide easy access to the collection as part of an inviting reading and research environment which encourages an independent exploratory approach to the library materials. The facilities of a campus library, she believes, should be conceived in terms of their primary educational potential, rather than as an adjunct to classroom activity. At the same time if the library is to be more than merely functional, it must, according to Mrs. Harkness, have "poetry in its spatial sequences, reflecting the active or quiet functions that take place."

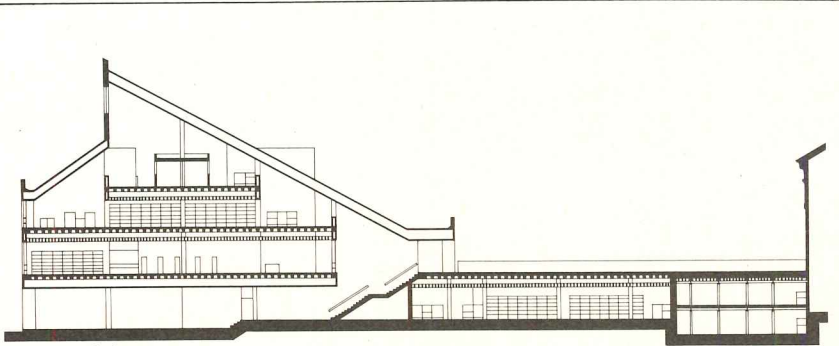
In the Bates Library readers are led from
(text continued on page 108)



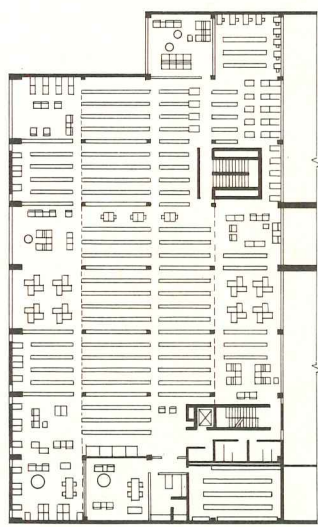
The section and plot plan show the relationship of the new library and its plaza to the old Coram Library. The new building although it is quite large (101,676 square feet on four levels including a separate science library) is very compact; and due to the skillful arrangement of its interior spaces as expressed on the exterior and the inclusion of a large stack capacity below the plaza level, it appears to be in good scale with the buildings which surround it. The smaller scaled elements face the rather intimate plaza (opposite page top and top photo right) while the larger and more imposing facades (opposite page bottom and bottom photo right) face broad campus open spaces and large neighboring buildings. Fine old trees are conserved.



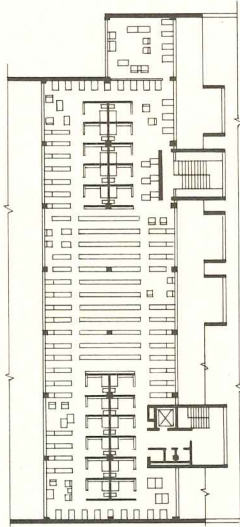
Phokion Karas photos



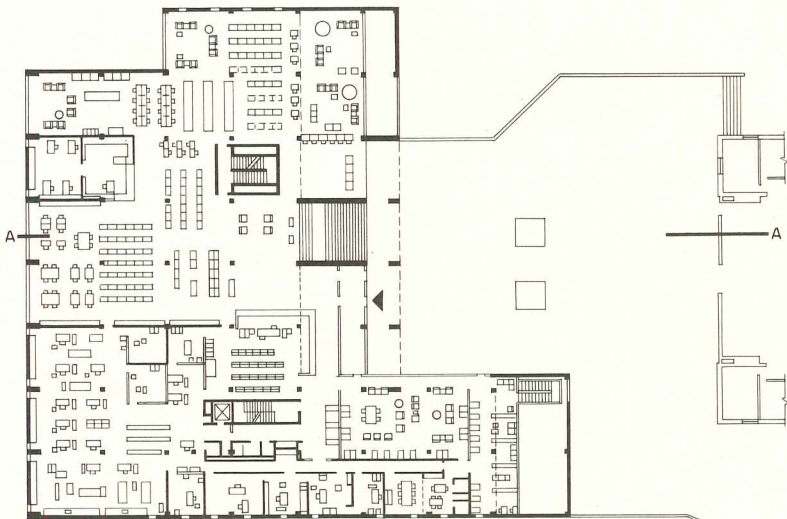
SECTION A-A



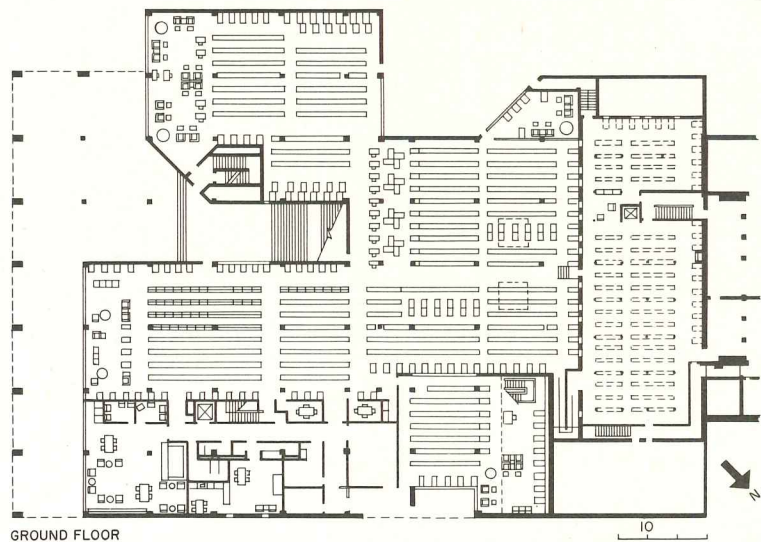
SECOND FLOOR



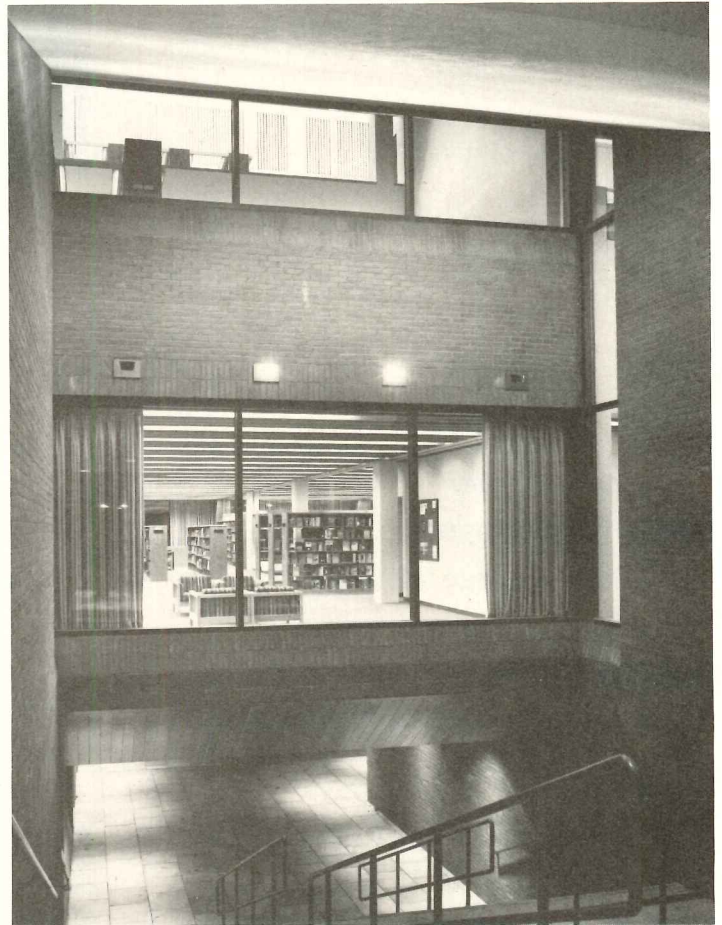
THIRD FLOOR



MAIN FLOOR



GROUND FLOOR



The passageway (above) leads under the library from the plaza to the arcade facing the quadrangular playing field. The library entrance-exit is from the plaza. Diagonally placed study carrels (below and opposite) occupy perimeter spaces. These areas achieve spaciousness without additional cubage.





(text continued from page 105)

the entrance to the control desk to the catalog, reference and bibliography areas in an obvious manner. Periodicals and newspapers are on the main floor along with a reserve collection open for night reading. Reading areas on all floors are conveniently adjacent to the stacks.

The shape of the building was determined by the fact that the largest volume of space was required to be on the first floor. The upper floors which house stacks and reading areas with faculty offices on the top floor need progressively less space. The long sloping roof follows the floors as they step back, making the sense of height and volume most evident at the entrance. The stacks, which require much more square foot area than the reading spaces, occupy the central parts of the building where the floor to ceiling height is uniformly only nine feet, while reading areas are placed on the periphery by windows or on the edges of balconies under the slope of the roof.

In addition to the programmatic considerations just enumerated, the site itself played a large part in the final solution. In their master plan for the college, the firm of Sasaki, Dawson & DeMay recommended a site directly behind the old Coram Library, an elegant little building built in 1900. This site was complicated by the fact that the old building had an ugly but still useful rear addition constructed in 1948. Sarah Harkness and her team made extensive studies of this proposed site and alternate sites before electing to tear down all but the basement of the 1948 addition, roof it with a plaza and interconnect it with the basement level of the new structure. The original Coram Library will become an art museum. Its rear elevation, minus the unfortunate addition has been restored so that the building is once again intact and beautiful.

The new plaza has become the heart of the campus connecting the main level of the old Coram building to the main level and entrance of the new library. As an important advantage of this site, access from the student union, athletic building and dormitory areas is easily accomplished by means of a passage and stairway under the building from the lower level arcade to the plaza level entrance. The low side of the sloping roof respects Coram's small scale while the four-story height of the opposite elevation, with large windows overlooking the quadrangle, relates to the scale of neighboring buildings. The quadrangle itself has not been encroached upon and remains a recreational space and playfield linking the library to the athletic complex.

The total cost of the 101,676-square-foot library was \$3 million. Completed in the fall of 1973, it has received a citation from the Maine State Commission of the Arts and Humanities.

THE CORAM LIBRARY, Bates College, Lewiston, Maine. Architects: *The Architects Collaborative*; principals-in-charge: Sarah P. Harkness and John C. Harkness; associate-in-charge: James E. Burlage; job captain: Richard F. Puffer; landscape architect: Robert Thompson; interior design: Katrinka Ebbe; graphics: Pamela Webster; construction supervision: Wendell F. Jacques. Consultants: Alonzo J. Harriman Associates, Inc. (structural, mechanical, electrical, estimating); Keyes Metcalf (library programming). General contractor: Stewart & Williams, Inc.



High-intensity quartz lamps wash the sloping ceilings with light.



Open board ceilings conceal the mechanical equipment and carry lights and acoustic material.

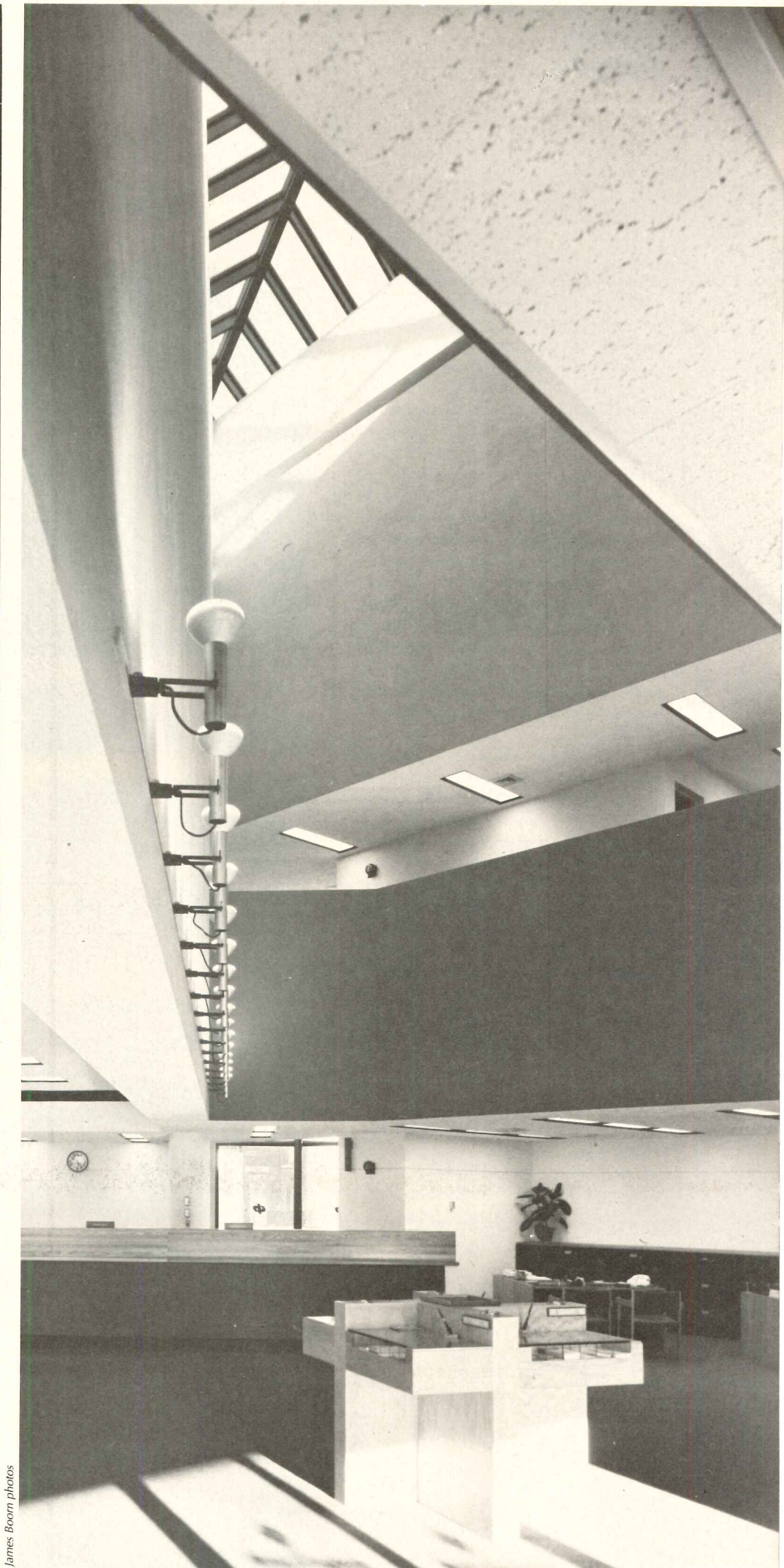


BRANCH BANK BUILDINGS

Until recently a majority of banks have maintained the appearance of being aloof from the public by presenting a formidable facade of classical inspiration—or a “weak sister” compromise. The interiors have often given new meaning to the definition of stolid. The intention, of course, has been the achievement of a substantial image.

In the current scramble for depositors' funds, many financial institutions are re-examining the message which their new buildings should convey. A recent proliferation of branch banks is meant to bring business “closer to home” and to attract customers with a fresh and dynamic image. Bank clients may remain one of the few capable of supporting the sometime high costs of architectural quality, but the best examples of new banks—decreasingly encumbered by expensive materials and formidable facades—are clearly less lavish than their predecessors. While a release from old design restraints always carries the dangers of directionless wandering (and obvious examples of the indecisive approach certainly do exist), each of the examples shown here is a strong resolution of the goals of the client with the problems of particular situations.

—Charles Hoyt



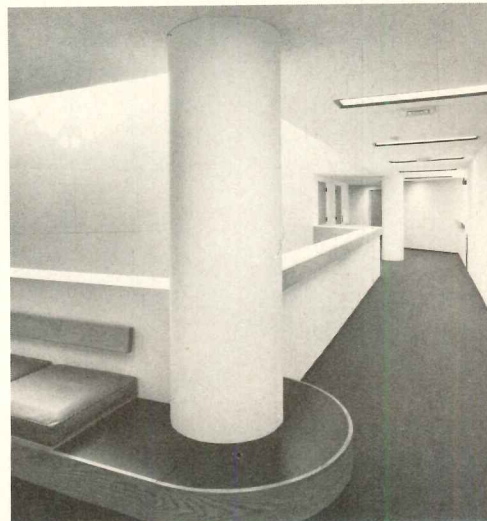
James Boorn photos

ALBANY SAVINGS

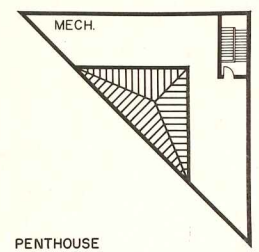
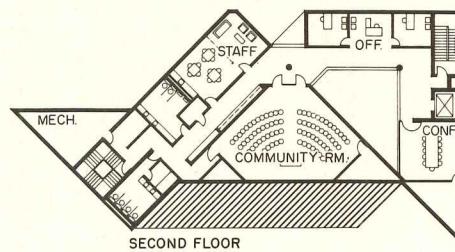
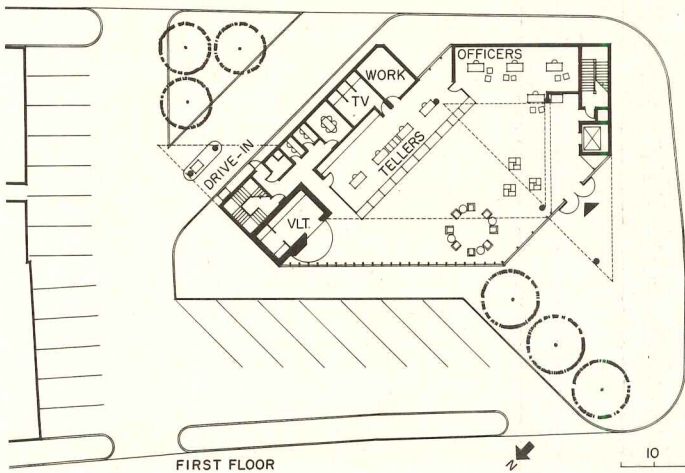
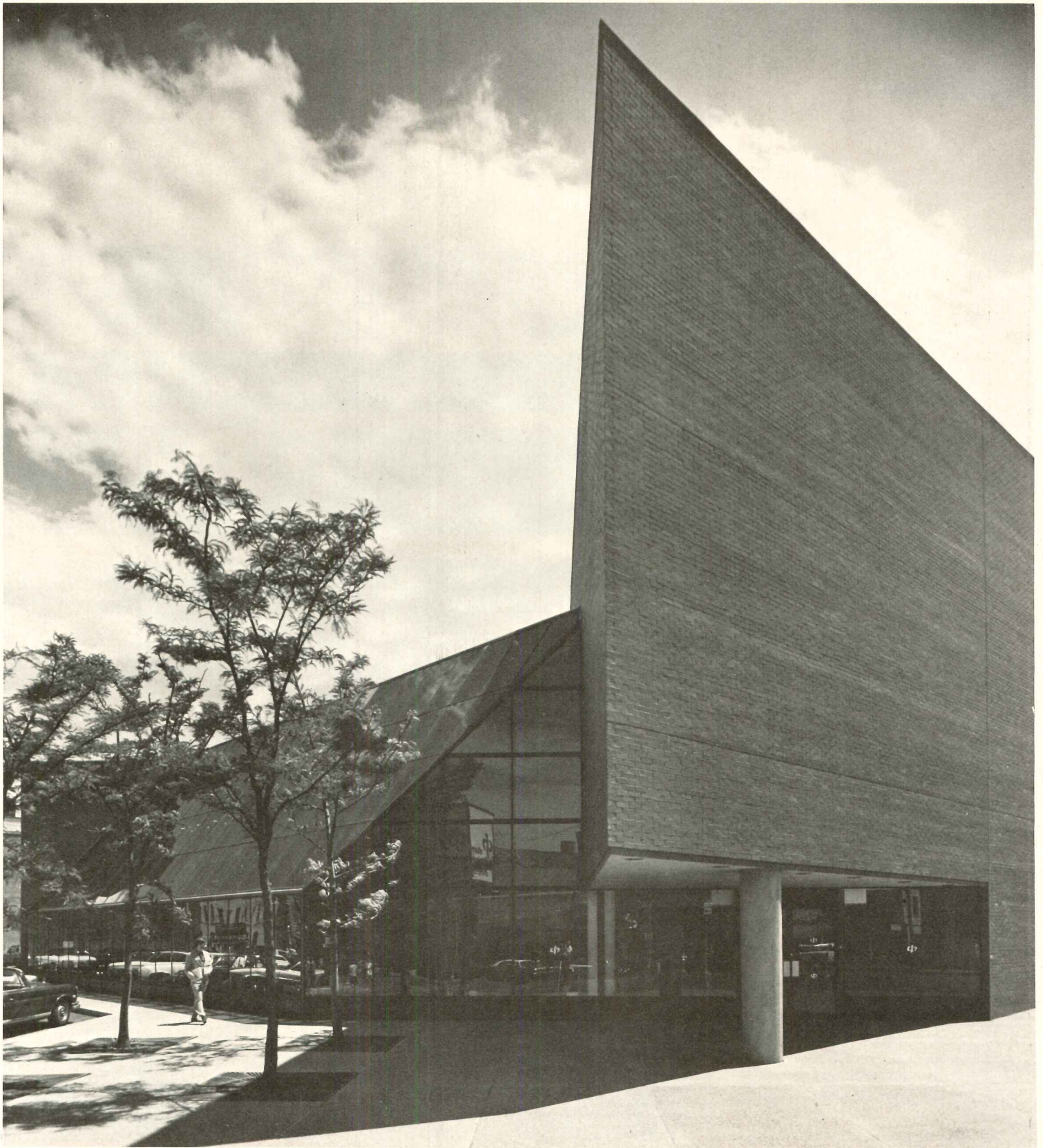
Banks form one of the few client-groups which are willing to invest construction monies in older urban areas that need the impetus of construction when other commerce is considering the new shopping centers. This building of 12,500 square feet in Schenectady should indeed help stem the flight by its strong physical being and by reinforcing the presence of other buildings on the surrounding streets. The varying heights of the facades (achieved by placing the mechanical equipment in a third story on the main street) align with those prevailing on adjacent sites, and the intersections of the surrounding thoroughfares are defined by the new building's strong presence on the corners. Architects Feibes and Schmitt's desire to avoid right angle turns of the entrance-drives produced the building's 45-degree-configuration.

The interior relies on a smooth-plaster finish of walls to emphasize the spaces. The main element is a triangular shaft which extends to the skylight on the third story roof and which is painted brilliant orange—the only strong color in the building relating to all of the otherwise neutral surfaces. The glazed "lean-to" is designed to give some "openness" to a building in a climate which dictates enclosed living for a good part of the year. An element that is emerging in bank design is a room for community use—here located on the second floor (plan, opposite). Construction costs were \$817,000.

ALBANY SAVINGS BANK, Schenectady, New York. Architects: *Feibes & Schmitt*. Engineers: *Summers & Molke* (structural); *Rist-Frost Associates* (mechanical/electrical). General contractor: *Reimherr & Schmidt, Inc.*



The Albany Savings Bank does not rely on lavish materials to make its visual statement, which the enlightened client required. The palette is intentionally limited. The exterior cladding (over a structural steel frame) is dark, hard-glazed "iron spot" brick chosen for its unobtrusive character. It emphasizes the dramatic shape of the building by providing a smooth and taut skin and simultaneously gives a substantial appearance.

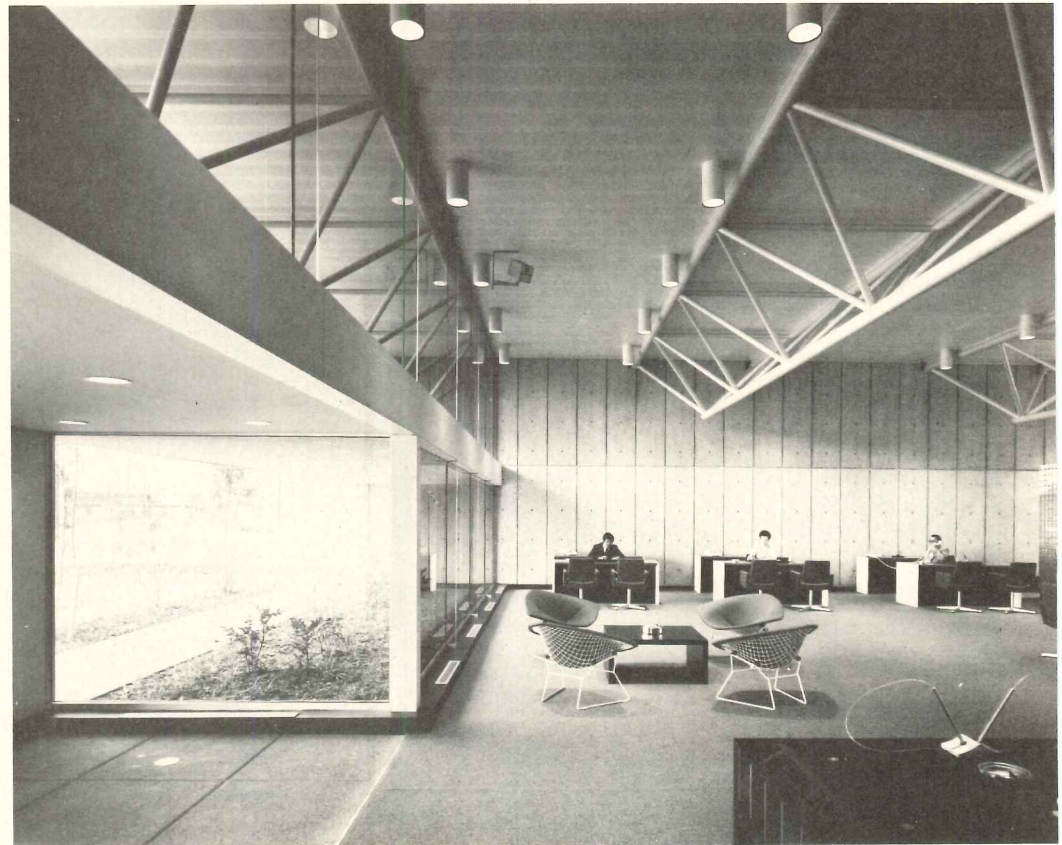


COMMERCIAL AND INDUSTRIAL

Many new branch banks are by the sides of major highways in suburban and rural areas, on sites often connected with shopping centers. And that is the location for this 3,000-square-foot prototype near Memphis by architects Gassner/Nathan/Browne. There are currently six branches of approximately the same design under construction for this client, who originally commissioned the architects to design their headquarters downtown (RECORD, May 1972, pages 109-112). All of C&I's new buildings reflect a conscious effort by an established bank to project a fresh appearance of vitality—a policy which has at least contributed to doubled deposits since the current construction program began.

Beside the obvious advantages of using a prototype (the prefabricated-steel roof-trusses can be ordered by phone), the repetitive appearance helps to establish an easily recognized identity on a type of site which can often lead to visual confusion. The building shape is simple and unobtrusive. The materials are distinctive rather than lavish. The poured-concrete walls and yellow-painted trusses duplicate elements of the headquarters building. Perforated aluminum panels have been applied to the underside of the metal roof-deck and are part of a straightforward over-all treatment. The construction cost was \$165,000 for this prototype which is the larger of two alternatives.

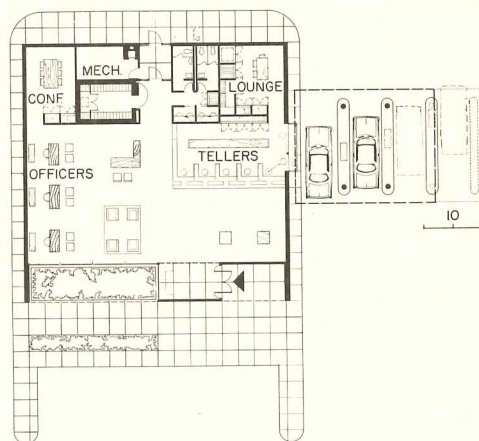
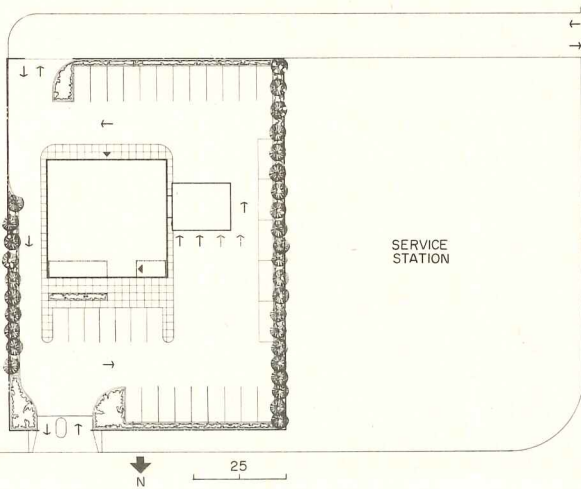
COMMERCIAL AND INDUSTRIAL BANK, Memphis, Tennessee. Architects: *Gassner/Nathan/Browne*. Engineers: *Kenworthy and Associates* (structural); *Griffith C. Burr* (electrical). Landscape architects: *Robert Green and Associates, Inc.* General contractor: *Claude R. Irwin*.



The bright-red and white logo of C&I was designed by the architects and is applied in a porcelain-enamel finish to the steel panels on the front of this prototype. Elsewhere, it is used by the bank on stationery and advertising. These colors contrast with the yellow paint on the roof trusses and the natural finish of the concrete walls at the sides and rear. Aluminum tiles supply a reflective glitter for the rear wall of the banking room.



Otto Baitz photos



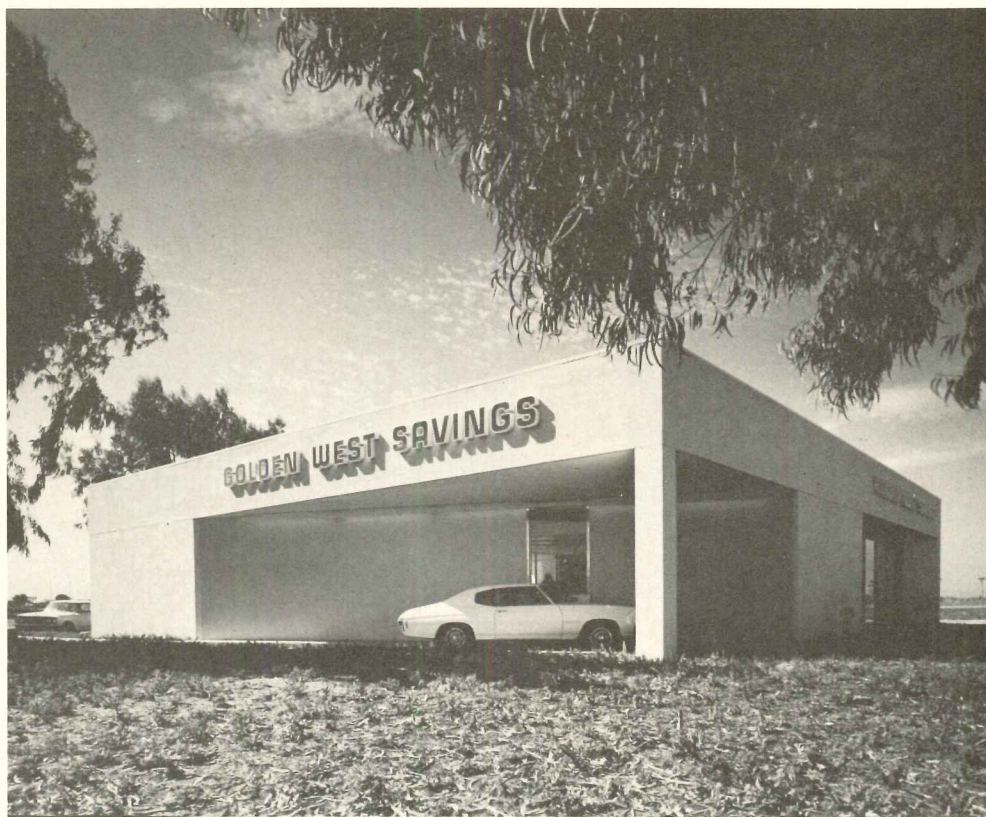
GOLDEN WEST SAVINGS

This 4,300-square-foot bank was conceived by architects Marquis and Stoller as a box into which particular functions are cut without destroying the basic shape. The resulting unified form achieves identity by contrast to the more complicated facades of an adjacent shopping center and to the surrounding eucalyptus trees which were conscientiously preserved. It also allowed construction at a low cost.

Despite a seemingly simple shape, this building is not a prototype—as its planning and appearance involves a number of considerations particular to the site. A 15-foot height limitation was caused by proximity to an airport. The depth of each roof overhang has been determined by sun studies, and a skylight has been located to provide the inside with a maximum amount of natural light.

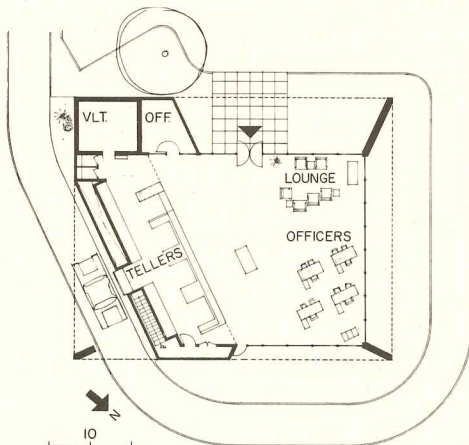
A local design review board would not approve the exposure of the steel structure which was required to bring the construction costs within the final amount of \$33 per square foot. The resulting cement-plaster finish expresses the form of the building and is applied to metal studs which form the in-fill walls. The architects were requested to work with the client's own interior design consultants, MLTW/Turnbull, and they describe their collaboration as a happy one.

GOLDEN WEST SAVINGS, San Jose, California. Architects: *Marquis and Stoller*—project architects: *Janis Ong and Jon Winkelstein*. Engineers: *Forell/Elsesser* (structural); *Montgomery & Roberts* (mechanical); *Tage Hansen* (electrical). Interior design architects: *MLTW/Turnbull Associates*. General contractor: *Harrod & Williams, Inc.*





Philip L. Molten photos

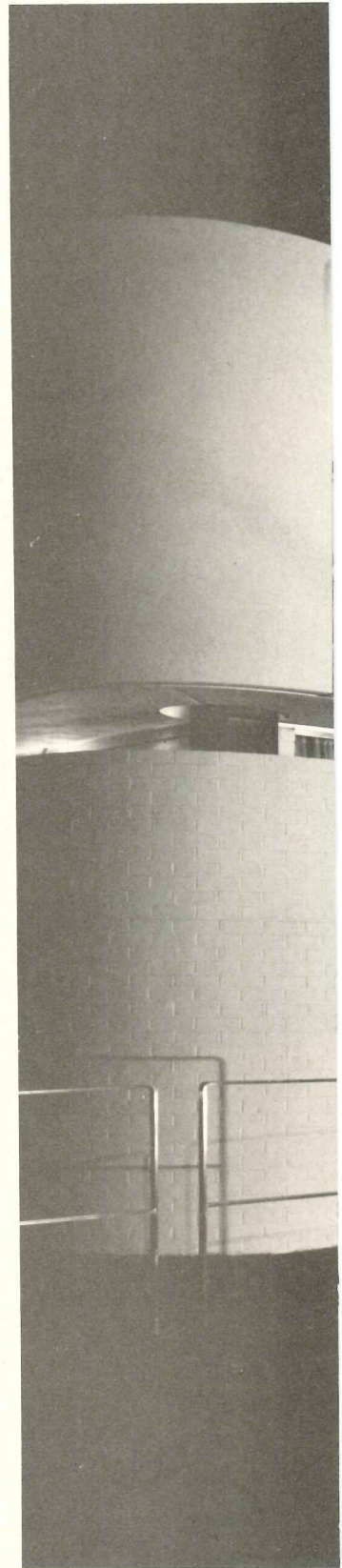
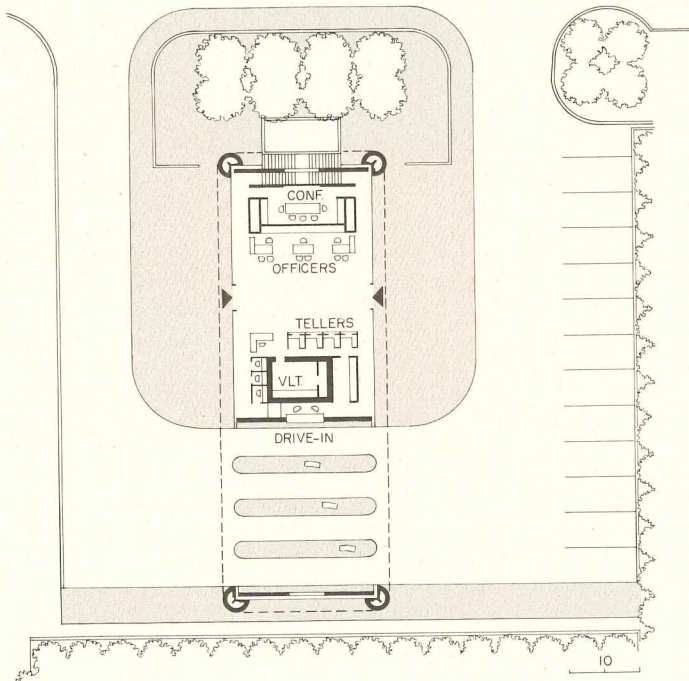


The white surfaces of furniture, which are standardized for all branches of Golden West, achieve a yellow glow from the color of the vertical surfaces under the skylight (left). The same color is used to emphasize the nature of the wall of the drive-through which is cut into the white surfaces of the building's box-like form. New proprietary window-mullions have a one inch face and visually reinforce the contrast between glass and solid wall areas by their "non-presence." Signage is also a client standard.

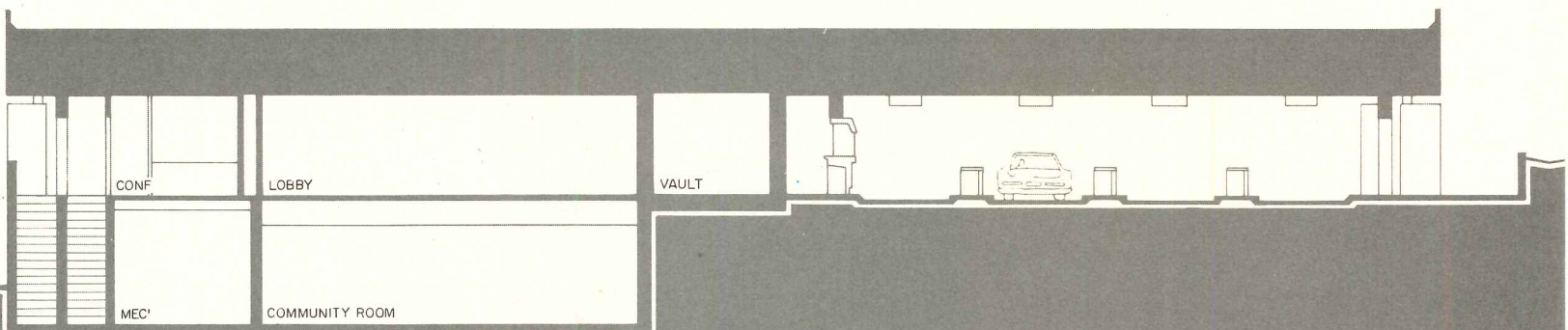
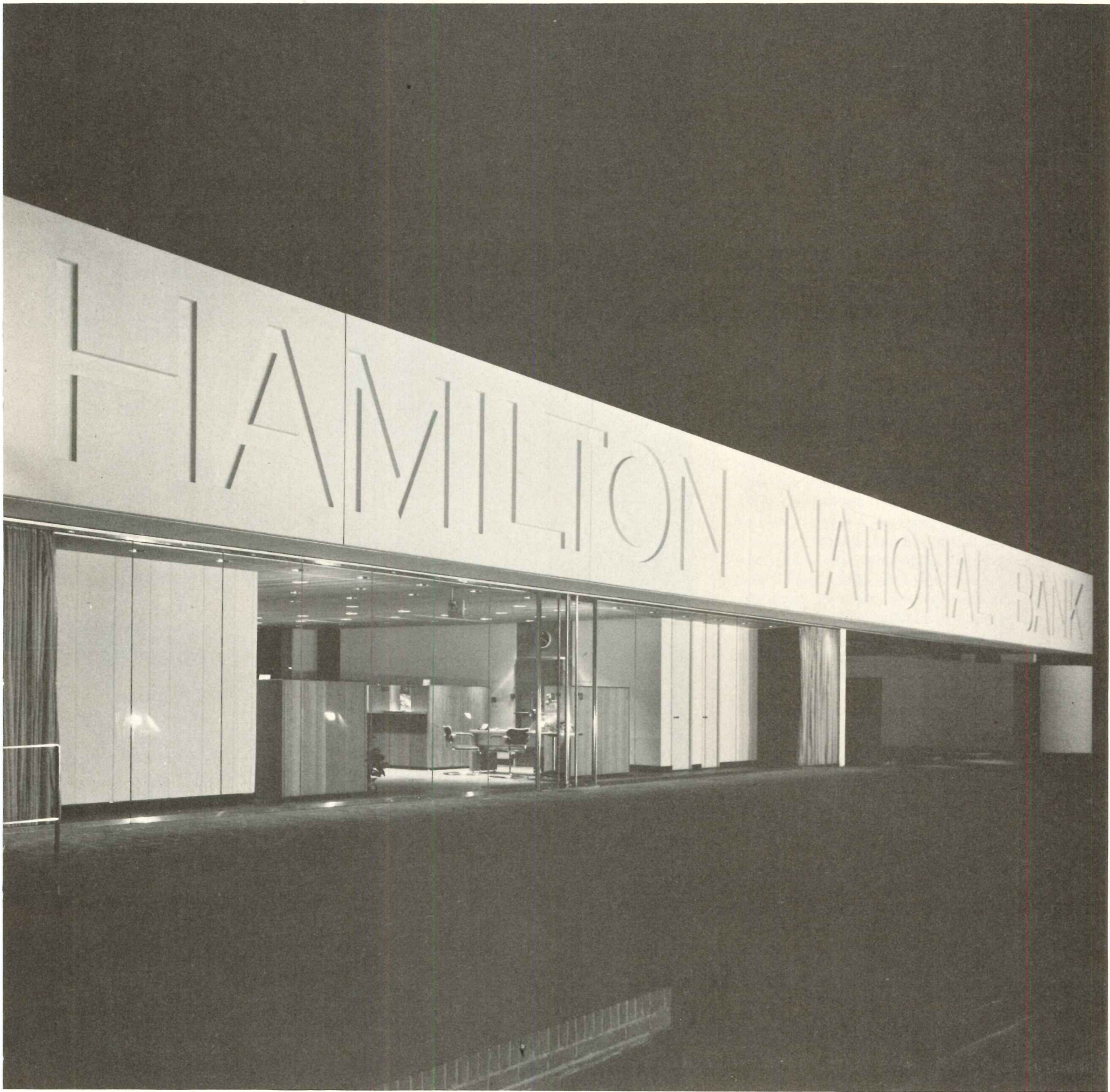
HAMILTON NATIONAL

Located on a major highway near Knoxville, Tennessee, the site of this 4000-square-foot bank separates a shopping center from a residential area of single-family houses. As in the case of the similarly located buildings in this series, Hamilton relies on one forceful building shape to resolve the problems of identification in a confused environment. But here, the building shape is divided into the articulated elements of a predominant roof (defined by a precast-concrete fascia, into which the bank logo is recessed), massive non-structural piers of brick at the corners (above which the roof appears to float and which continue the shape of the roof), and a brick podium. All other elements are out of sight in deference to the clearness of a visual statement. The solid walls of the storage and utility spaces and a community room (an example of a new gesture of public welcome, as also seen on page 111) are contained below the main banking level within the podium (access is gained by exterior stairs when the bank is closed). The air-conditioning condenser is below grade in a grate-covered pit. The main areas of banking room and drive-through teller locations are contained within the thusly unified building-shape as in an open pavilion. The project—winner of an award from the Tennessee Society of Architects—was built for \$380,000.

HAMILTON NATIONAL BANK, Knoxville, Tennessee. Architect: *McCarty Bullock Church Holsapple*—designer: *Robert Church, III*; project manager: *Charles Smith*. Engineers: *Scientific Methods Group* (structural); *Kurzynske and Associates* (mechanical). Landscape architect: *Melvin Kersey*. General contractor: *Rentenbach Engineering Co.*



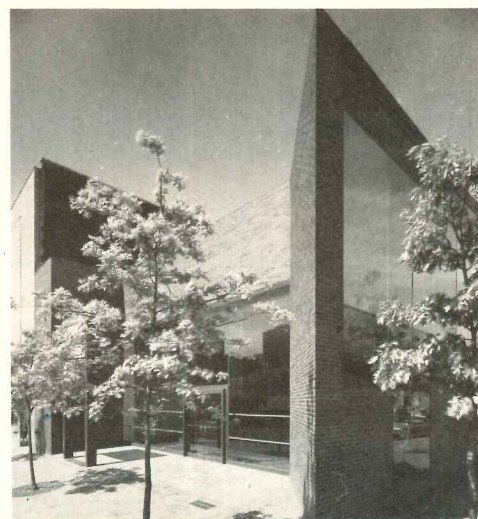
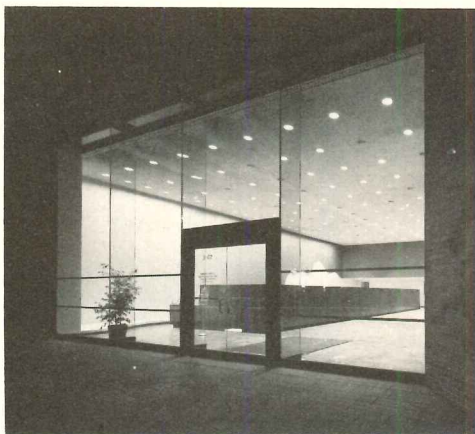
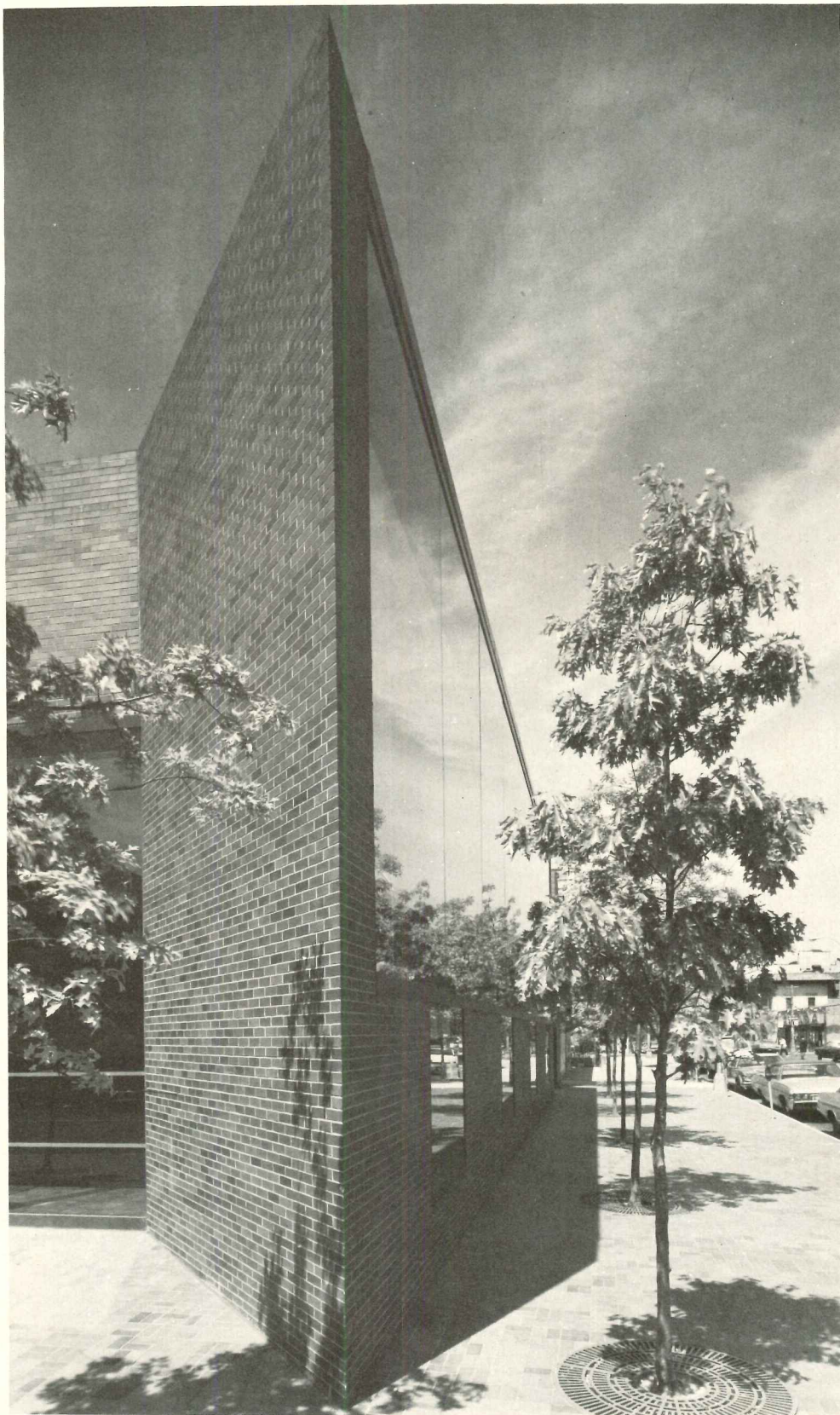
Elegance is carried through in the detailing and structure. This building is the only one in this series to show its steel frame. The four structural columns are welded plates, of a Y section, which are exposed within the brick piers. Air conditioning is accommodated through ceiling slots and base-board reveals, and the wood-strip covered walls. The few mullions are polished stainless steel (much of the glass is butted and doors are tempered glass). The banking-room floor is slate.



AMERICAN SAVINGS

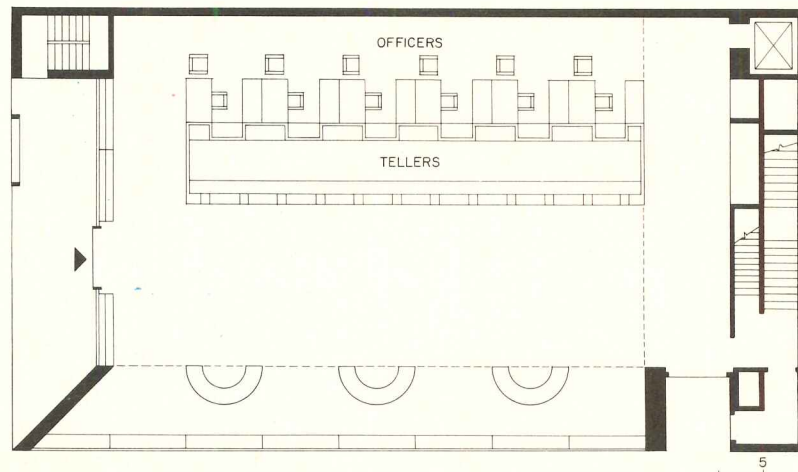
This is another branch bank that is located in a downtown area—a 9000-square-foot building in the densely populated Borough of Queens, New York City, by architect Edward Larrabee Barnes. Here, the site is almost fully occupied by a steel structure. The architect has deliberately used his typically flat planes of brick and glass cladding (in which the exterior surfaces of transparent and opaque materials are aligned) as a contrast to the “busy” treatments of the facades of the commercial buildings which are adjacent. For the users, the location of the glazing emphasizes a skyward view on one facade and indicates the location of the entry on the other. The smaller windows at street level offer confined areas for the usual bank advertising. The homogeneity of building surfaces is carried through with brick paving which covers the sidewalk and banking room alike and tends to invite the pedestrian inside by eliminating part of the psychological separation between the two areas. While the entry wall is pulled back from the line of adjacent facades to provide emphasis and some feeling of openness in this congested location, its end is sharply angled-out toward the street-corner to avoid the incomplete line of adjacent building facades that would otherwise result. This also emphasizes the flat-plane design.

THE AMERICAN SAVINGS BANK, New York, New York. Architect: *Edward Larrabee Barnes*—associate-in-charge: *John Lee*; project architect: *Demetri Sarantitis*. Engineers: *Le Messurier Associates* (structural); *Pavane and Zuckermay* (mechanical/electrical). Consultants: *John Saladino* (interiors); *Chermayeff and Geismar* (graphics). General contractor: *A. J. Contracting, Inc.*





Nathaniel Lieberman photos



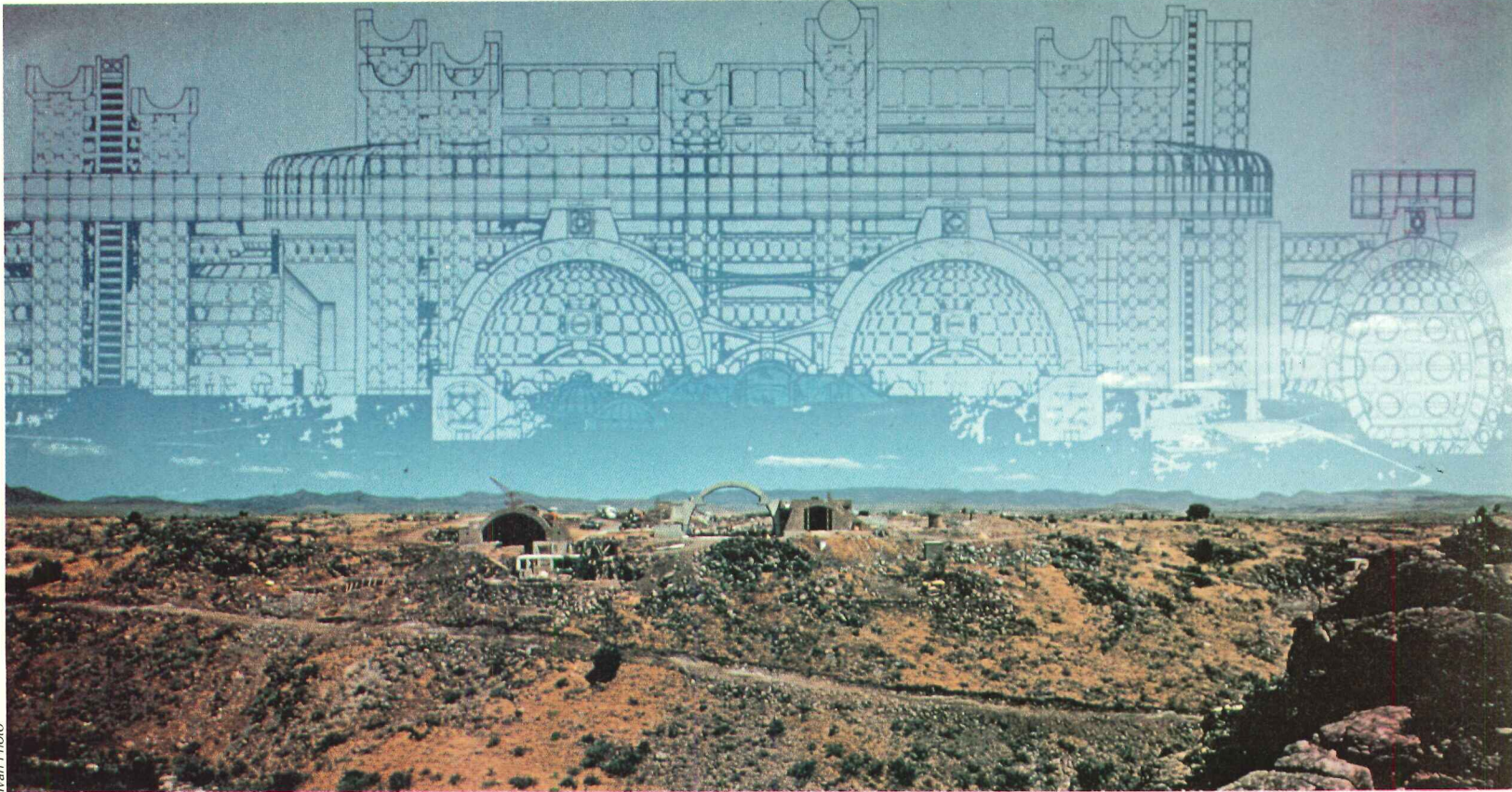
Located on a congested urban street corner, this bank forms a quiet oasis of subdued materials treated in a homogeneous fashion. The main banking room, whose brick paving continues out to the curb, occupies almost all of the portion of the building above grade. Vault, employee lounge facilities (including a cheerful cafeteria) and other ancillary functions are located in a basement. There is a concerted effort here to reinforce and not compete with the scale of the surrounding buildings.



The main banking room has views directed toward a blue sky which is visually continued inside the building (top) in a super graphic by Ivan Chermayeff, which surrounds the room in a gradually changing spectrum of colors—spilling onto the floor on a continuation of the wall surface at the entrance (left). Teller stations and bank-officer desks are combined into a freestanding central unit of wood which contrasts with the semi-circular desks for patrons.



THE ARCOSANTI ANTITHESIS



Ivan Photo

Paolo Soleri and the counter culture *by Robert Jensen*

In 1971 Paolo Soleri began building his visionary city "Arcosanti," which is ultimately intended to house 3,000 people in a single 25-story megastructure that should occupy ten acres of its 860-acre site. Today about one per cent of the total construction is complete.

Soleri was born in Italy, where he received his formal architectural training; in the late 40's he was an apprentice to Frank Lloyd Wright at Taliesin West, and more recently he has become well-known for the wind-bells he designs and manufactures in Scottsdale, Arizona, and for the visionary drawings and ideas that define his notion of "Arcology," a conflation of the words "architecture" and "ecology," which he applies to his designs for "cities of the future." "Arcosanti" is a loose combination of three Italian words, and may be taken to mean "before Arcology."

Former RECORD editor Robert Jensen is fascinated by the cultural—or countercultural—meaning not just of the design for Arcosanti, but also of the process whereby it is being built. He has worked for Soleri, seeking out life among the countercultural, and he returns with the following evaluation.

Paolo Soleri has always been known as an Utopian architect, and the label is accurate enough when applied to the visionary drawings, models and writings by which he is known. These unbuilt visions define Arcology—vast megastructure cities that he himself

says will never be built "until our society has cleansed itself of political, economic and moral inequities." He believes that "in time, the skill of man will take care of [these inequities]"—and in the face of present urban life this belief is sufficient to make the term Utopian applicable to Arcology. Soleri, moreover, denounces much of what is powerfully anchored in Western society: its quasi-scientific rationality, its reverence for (but not the use of) technology, free-enterprise real estate, suburbia, automobiles.

Arcosanti, the city for 3,000 people being built in Arizona, is inextricably linked to the concept of Arcology, with its inherent hostility to the present. But there is a difference, too, because Arcosanti is not just a drawing for the future, but a building in the present. While its architectural forms reflect the Utopia of Arcology quite specifically, and thus are a rebuttal to modern architecture, Soleri is in no way trying to build an Utopian society along with his forms. He is building only the forms themselves.

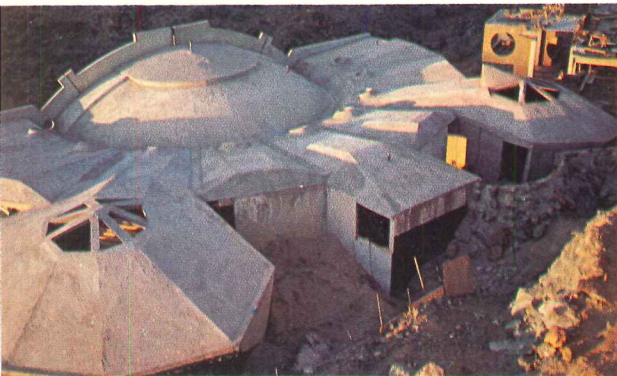
The people who come to help build them sometimes expect a new social experiment, or they want to begin one and struggle to do so. Yet Soleri struggles as well to convince them of its irrelevancy. So while the forms of Arcosanti are visionary, *life* there today is in the present; it is temporary, confusing, boring, permeated with curiosity and hope—but not Utopian.

The daily life of Arcosanti will concern us here, as well as its architecture; the two are inextricably linked. Since the beginning in 1971, groups of individuals have come with

money, have stayed a while to work, and then have left. This is still the way construction is proceeding. The paying participants (of whom about 35 per cent have been women) now come in groups of 15 to 40 people for workshops that last six weeks. The workshops overlap, so that at any one time during the summer there may be as many as 120 people there, including a permanent staff of 25 or so. In the spring and fall there are fewer, perhaps 50. The "workshoppers" pay \$318 each for their six weeks; in 1973 there were some 375 of them (including myself), so in that year the act of building brought in about \$120,000 with which food, materials and equipment could be bought.

In return for their money the workshopers get room and board, and they live in a temporary camp of concrete cubes on the Agua Fria river below the broad mesa on which Arcosanti is sited. In essence, you pay to work, and the more people on the job the "cheaper" the job is. It is a daily framework of activity that is the antithesis of the way large buildings are built today. Categories such as lender, contractor, client all disappear.

But the blurring of categories is even deeper than this. For the people who are building Arcosanti have few connections between them, and they move rapidly in and out of the site. If they did not come, construction would cease in a day, and they are free to leave if they choose, since there's no moral, legal or monetary bond to keep them. Arcosanti, then, appears to have no institutional base at all, only a base in a random collection of individuals.



The Foundry building at Arcosanti, with its cast concrete roof (above), will be used for both bell-making and housing. The five buildings at the right represent the majority of the work now complete. From left to right: the Ceramics Apse; the Foundry (foreground); the west Housing complex; the Vault; and the east Housing complex.

James Carnahan photos



This is important, for one distinction between architecture and the other arts has always been that it is sponsored at the outset (if it is going to be built) by a socio-economic entity instituted by culture—the family in its house, the congregation in its church, the manufacturer in its factory, the corporation in its office building, the government in its capitol. Thus architecture tends to be *about* culture as instituted. Might Arcosanti be a reversal of this historical precedent? To answer this, and to penetrate those other qualities of Arcosanti that make the usual architectural distinctions irrelevant, we must continue to ask very specific questions about this real building that is being built in the present. Why do people come to Arcosanti? What are the forces that maintain it? What does this architecture represent?

Arcosanti is supported by people who are willing to pay to work, to give what they and most of us hold to be important—their money and their time. To the degree that these people have no other similarities between them, we could leave it at that and say, "Yes, it's the spirit of private adventure and relatively free money—mad money—that supports Arcosanti. But there is a deeper pattern of similarity among the workshopers, clearly linked with a phenomenon of the last 15 years which has come to be called the counterculture. This movement is not easy to define, and perhaps it can't be called a culture at all. Theodore Roszak writes:

It is something in the nature of a medieval crusade: a variegated procession constantly in flux, acquiring and losing members all along the route of march.

... Some join the troupe only for a brief while, long enough to enter an obvious and immediate struggle. ... Others, having cut themselves off hopelessly from social acceptance, have no option but to follow the road until they reach the Holy city.¹

Since the "Holy City" metaphor is apt, we can follow some of Roszak's description further as we explore the reasons people come to Arcosanti.

Evidently they come because there might be some other reward for working there than money, or the pleasure achieved after work in the time society usually calls "free." To more than a few workshopers—like Mike, a painter from Ohio—there was little difference between "work" and "after work," little change in attitude towards the different parts of the day, no internal or idealized separation. Arcosanti seems to attract people with this spirit, and it can generate it in others. The permanent staff almost always works when there is work to be done as much as when the time of day calls for it. Work normally ends at two o'clock, but when ten yards of concrete must be bug-gied, spread and finished before the day is over, the beer comes out, the party starts early, and the concrete is placed. So it is not just a matter of work extending into leisure, but of leisure extending into work.

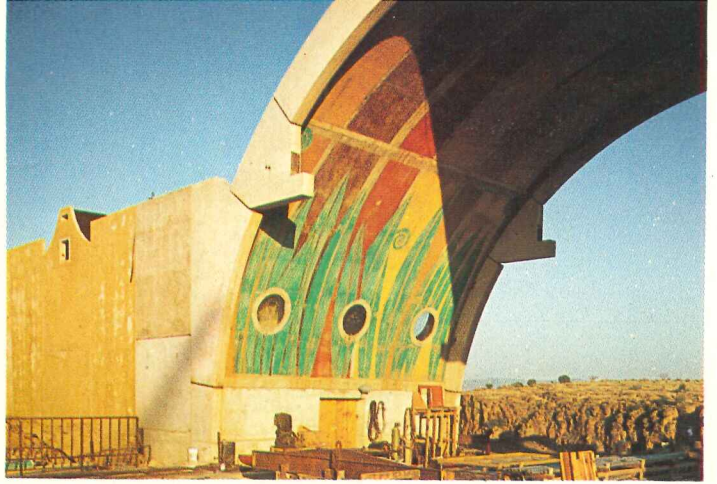
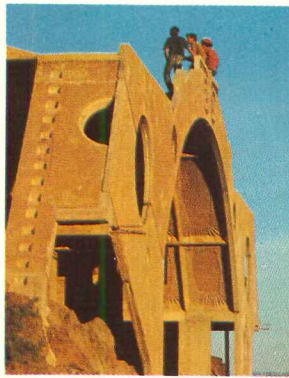
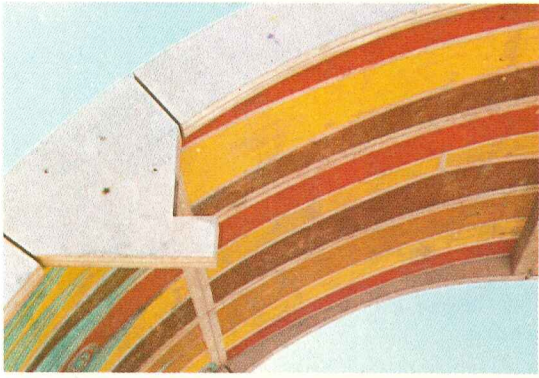
Another reason people come to Arcosanti is that it does not require experts. People can work there on an equal footing with others without bringing the skills of long practice; no

technical knowledge, intellectual credentials, or a history of specific ability are required. Similarly the workshopers might leave behind *subsidiary* experts—friends, parents, the moral codes of a town or university, the boss, the professor. With geographical distance between them and these experts, the workshopers can perhaps escape some habitual power these experts hold over their lives.

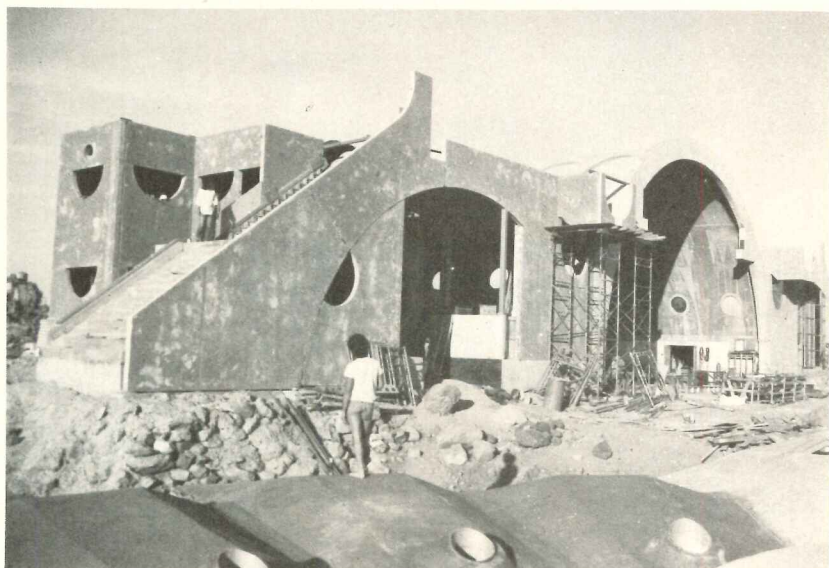
The distinction between "fleeing from" and "going to" is useful to remember, because people who come to Arcosanti are usually doing both in a painful and complicated way. Soleri does not advertise for the "fleeing from," nor does he particularly want them. But the best of the people he gets are irredeemably disenchanted with larger society. Jack, a welder on the permanent staff, lived in San Francisco before he came to Arcosanti three years ago, moving in its late 60's ambience of flowers and revolution, staying alive, even comfortably so. He was at front stage at the Altmont concert in 1969, ten feet from where a man in the audience was killed by a Hell's Angel guard while the Rolling Stones played "Sympathy for the Devil."

It may be hyperbole to say that one rock concert can become the apocalyptic symbol that marks an end or a beginning for countless people of shared consciousness. But it did for Jack, who is still no less hostile to the irrelevancies of politics and culture than he was, but who told me, "to kill it you have to go for the heart of the beast." For him that now means the possibility of action and of daily life within a comprehensive framework. One begins to

¹Theodore Roszak, *The Making of a Counter Culture* (Garden City, New York, Anchor Books, 1969), pp. 48-49.



The bright coloring on the underside of the Vault (above, left and right) was painted onto dried river silt, which had been previously layered over the wood formwork. After concrete is poured over this painted silt and allowed to set, the forms are removed, the excess silt washed off with water, and the color remains in the concrete. This "silt casting" technique is used throughout Arcosanti.



search through ideas—Fuller, McLuhan, Ivan Illitch, Soleri, Watts, Leary (as immediate filters)—and if one still believes, one acts. Among the workshopers, too, there is an inarticulate but real feeling that larger society offers few patterns in daily life that allow significant choice, expansion, or a beginning of a vision of self-worth.

More people than I had expected—among those who came for six weeks, and those on the permanent staff—have built within themselves a system of values that, with their rejection of the dominant culture, can test other contexts, other routines, other value systems against their own. If there has been some noticeable reduction lately of the number of "hippies" of the late 60's, it may simply be that extravagant experimentation and indiscriminate negativism have been reduced. The negativity is still there, but the "indiscriminate" is gone, so that the core of Arcosanti's workers are what Nicola Chiaromonte, in an article on Italian youth movements, hoped for—"resolute heretics."² To put Chiaromonte's description in the present tense (seven years ago he wrote it in the future):

They are detaching themselves quietly, without shouting or riots, indeed in silence and secrecy; not alone but in groups, in real "societies" that are creating, as far as possible, a life that is independent and wise. . . . It is . . . a non-rhetorical form of "total rejection."

Since Arcosanti's workers have developed their *own* doubts, and since their disaffiliation

has come from outside Arcosanti and Soleri, when they come they bring their skepticism with them. It is a sometimes hard, sometimes gentle dubiousness about Arcosanti itself, and the evidence for it is everywhere—a postcard sent to friends in camp by a someone who had left two weeks before after finishing her workshop, addressed to "Arcosanti drones"; a funny, finely drawn parody of one of Soleri's sketches from the MIT Press "Black Book" (as it's called), hung in the camp library where it can be studied in its sarcasm along with the original; a caricature of Paolo in one of the bunk rooms, asking "Would you buy a used Arcology from this man?"; another graffiti in Scottsdale proclaiming "Arcosanti is an Edsel."

Arcosanti's workers have a life of their own, and Soleri understands this. He said in reply to a question about "gurus" the first day that "sometimes it is important to follow them, but you must test life for yourself, and if following is too intolerable a violation of that, then you shouldn't do it." As one begins to sense this "resolute heretic" quality and this skepticism, and as one begins to know these people with a life of their own, it becomes clear that nothing is less true than the cocktail party stupidity which sees Soleri's pay-to-work arrangement as a hustle of the innocent, or the workers themselves as lemming/disciples.

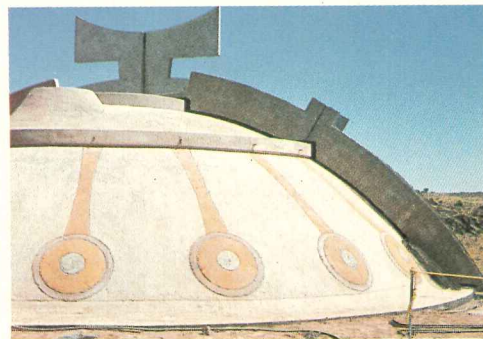
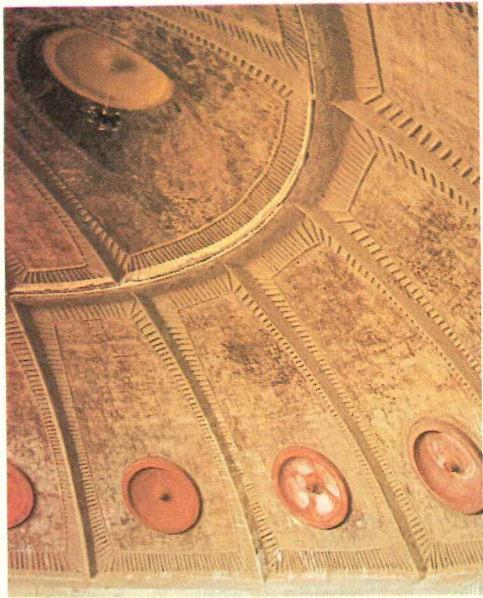
But this poses a problem for Soleri himself. Since leaving Wright and Taliesen, he has worked primarily alone, in a kind of self-imposed desert isolation, supporting himself as an artisan. But now, in a building that is both

a real and a metaphorical affirmation of his *own* consciousness in its rejection of normal forms and values, Soleri must for the first time do something he cannot do alone. He must seek out others who agree with him—not merely those who are willing to suspend disbelief, though they are helping too. In doing this, he places himself precisely in that context of architecture through history—architecture that has always been dependent on others, usually institutions, to be built. What I believe he has discovered, architecturally, is the "institution" of the counterculture.

The word "institution" has come to imply fixed and hierarchical arrangements, establishments for the protection of dissemination of the familiar—bureaucracy, laws, customs and most of all temporal power. The designers and builders of Arcosanti do not represent any of these meanings of the word "institution." Nor does the counterculture represent them. I hold out, instead, for the meaning of the word at its root. "To institute" means to found or begin. "Institution" means a relationship or behavioral pattern of importance to the life of a community or society, and most importantly, "institution" carries with it the meaning that people are finding expression in this pattern. Architecturally, an institution is the building used by these people.

Arcosanti, then, may properly (and radically) be understood as a building used by the individuals who share a relationship or behavioral pattern; it is a "beginning" through which others are finding expression. It is the first substantial architecture—not a "Drop City"—that

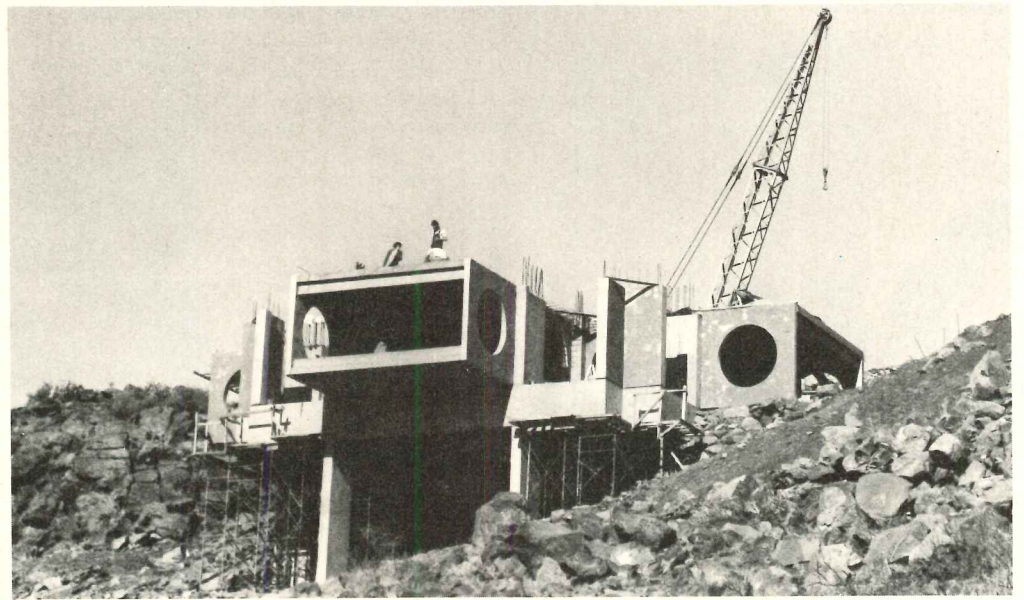
²Quoted by Roszak, p. 37.



Robert Jensen photos



The Restaurant building (below and left) is being completed this summer for use as an eating and reception facility. The majority of its parts were precast, and set-in-place with a crane, which is Arcosanti's sole piece of heavy equipment. Most of the work, however, is done more or less by hand, as in the photo at left. The Ceramic Apse, far left, was silt cast, like the previous buildings.



lends itself to readings about a counterculture whose major content has always been in its "counterness." Arcosanti may begin to help define its "cultureness."

It is hard to imagine a culture without an architecture. The acceptance of the term "counterculture" by society at large implies some common agreement about its force and its potentialities. Perhaps it is more accurately termed a counter consciousness, perhaps not. In that the counterculture rejects institution in their fixed, hierarchial, and bureaucratic aspects, but accepts as a human impulse our struggle for common ground, for shared belief, and for communal expression, then this counterculture is attacking those qualities of institution that much of the larger society in the United States is willing to denounce as well. And at Arcosanti, at least, the counterculture is working to re-institute community without institutions. The construction and architectural forms of Arcosanti establish their similarities with other architecture and its traditional purpose. Soleri, perhaps, is to the counterculture what some establishment architects are to the capitalist corporation. Though their and Soleri's values are here reversed, the antithesis of each other, both architects perform a similar and important act of cultural validation.

It is important to understand that Arcosanti is a metaphorical representation of shared values; none of Soleri's previous work has carried this meaning. The values are shared among architect and those his work serves—in this case a disparate gathering of individuals who select themselves, carrying a similar con-

sciousness among them and representing a much larger and more important amalgamation. It is a force with which Soleri must deal. He alternately rails against it, or treats it gingerly, knowing that his constructions and present work are dependent on something he cannot control, or he accepts this consciousness as the last best hope of the present (though not of the future, for that belongs to Arcology).

Against that tendency of the counterculture to isolate itself in the woods, to cut itself off from civilization, Soleri writes this marvelous paragraph:

Who but the mad and the dead would be willing to give up as of this moment the access (for man) to the written universe, to the music of man, to the world of his mind which he has physically constructed, to the institution of civilization, in the presumption that after all what counts is the direct relationship between what at such a degree of depravation would be not more than two or more naked apes?³

After characterizing the present phenomenon of transient mobility and the dissipation of city into suburb as "the withdrawal of an entire nation from itself," Soleri says that this pendulum swing will return.

It will return hurricane-like in force to "pressurize" society in the psychosomatic phalansteries of a reborn society, or it will put to fire and fury the whole continent. Of this return the first coagulations are the communes ever so innocently sold as the "Garden

of Eden 2000," not in Sears or NASA catalogs but in the earth catalogs and in the tender fold, butterfly brains of the flower children. Swept away or unrecognizable after the first assault of the underhumanized suburbanites, they will have sounded for the last time the simplistic ways of a nature, original in pristine times, now out of synchrony with its own soul, man.⁴

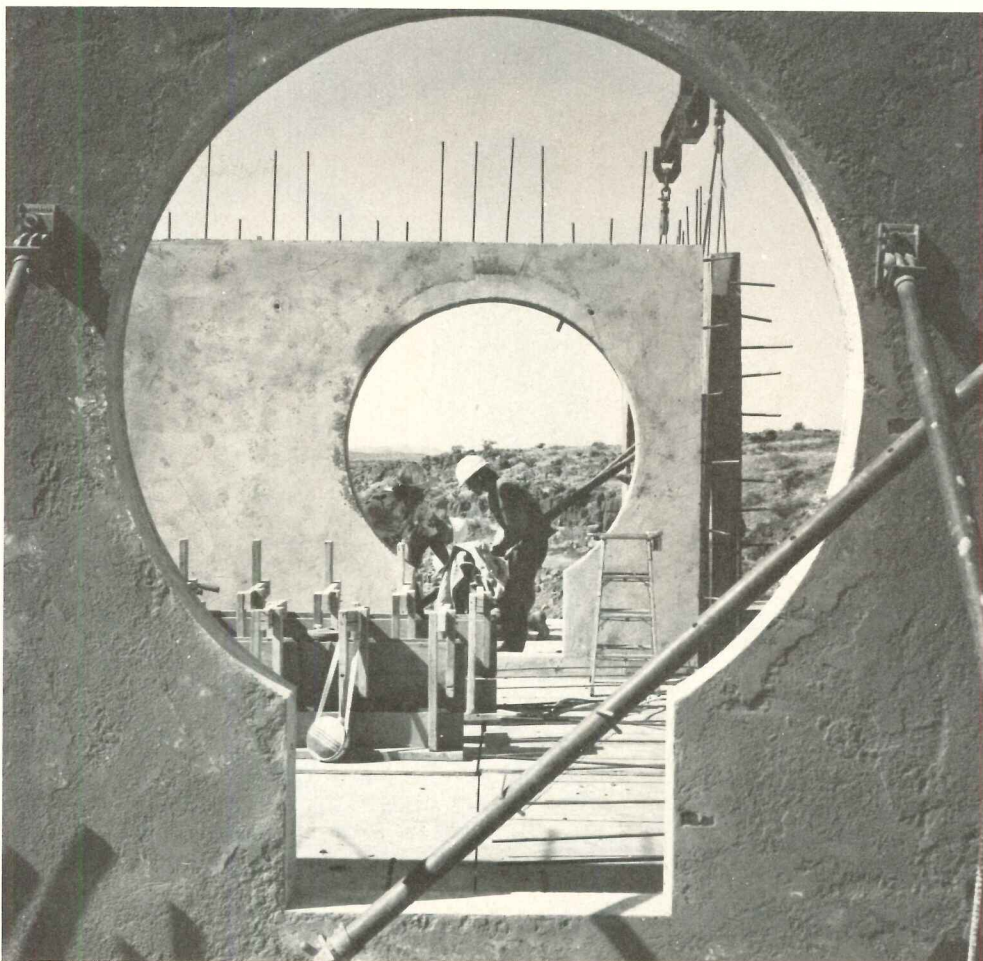
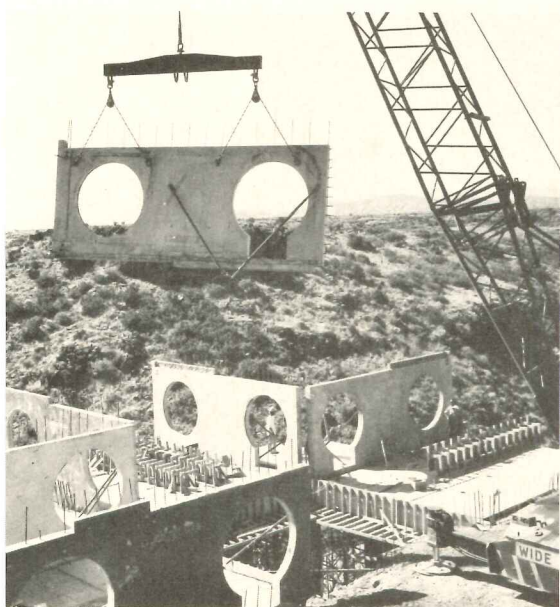
It is apparent that mostly Soleri doesn't like these butterfly brains, but as they are the "first coagulations" of society's future and his dream, he would be their teacher.

There is much to learn from work and daily life at Arcosanti, even to the extent that for the crowded summertime, in the heat, the lesson might be one of survival. As you grow into your six weeks, it is work that becomes the reality, a disconnected adventure and a routine, a sweaty anchor around which the failures and satisfactions of daily life are established. Through it, other things are organized. The day begins at 4:30 in the morning and ends at about two o'clock—to avoid the heat. Breakfast and lunch are served on the mesa at about seven o'clock and at noon, brought up in a truck from the camp kitchen to avoid a long walk for everyone. There are also fresh rolls and coffee available at five in the morning to get you going as you think about that steep walk up to the construction, the principal transition of the day. The food is always good, with a separate main course for vegetarians.

The work is simple, requiring little skill most of the time. Only a few jobs—operating

³Paolo Soleri, *The Bridge Between Matter and Spirit Is Matter Becoming Spirit* (Garden City, New York, Anchor Books, 1973), p. 128.

⁴Soleri, p. 236.



James Carnahan photos

the crane, welding, cabinet work, plumbing—are difficult to teach others quickly, and so are not passed on from workshop to workshop. Other jobs—bending re-bars, building formwork for concrete, erecting scaffolding, finishing concrete, spreading silt for the castings, coloring the concrete—can be learned by most people within a week. In this, the permanent staff is enormously patient; they must continually explain the techniques of a task and its purpose if the work is to be performed right and have meaning to people coming and going every three weeks.

The jobs listed above were usually considered “more interesting” at Arcosanti, and it is the intention of the staff that these jobs be rotated among workshoppers with other “less interesting” jobs that are also plentiful and necessary—digging ditches, moving rocks, straightening nails, sweeping, collecting building materials, fixing tools, hauling trash off the construction site. But in practice (and during the summer) the rotation never occurred consistently, and so was not the normal procedure the staff had hoped it would be, remaining instead an intention, an ideal sometimes achieved. The reason was usually “efficiency.” It is not easy to pull a person off a job he or she is doing comfortably and well, and it slows down work. Work rotation is unquestionably inefficient.

But Arcosanti is to me more efficient than any other construction site anyway; in work accomplished per dollar spent, in that each unit of “labor” (each worker) brings money, rather than absorbing it. These efficiencies

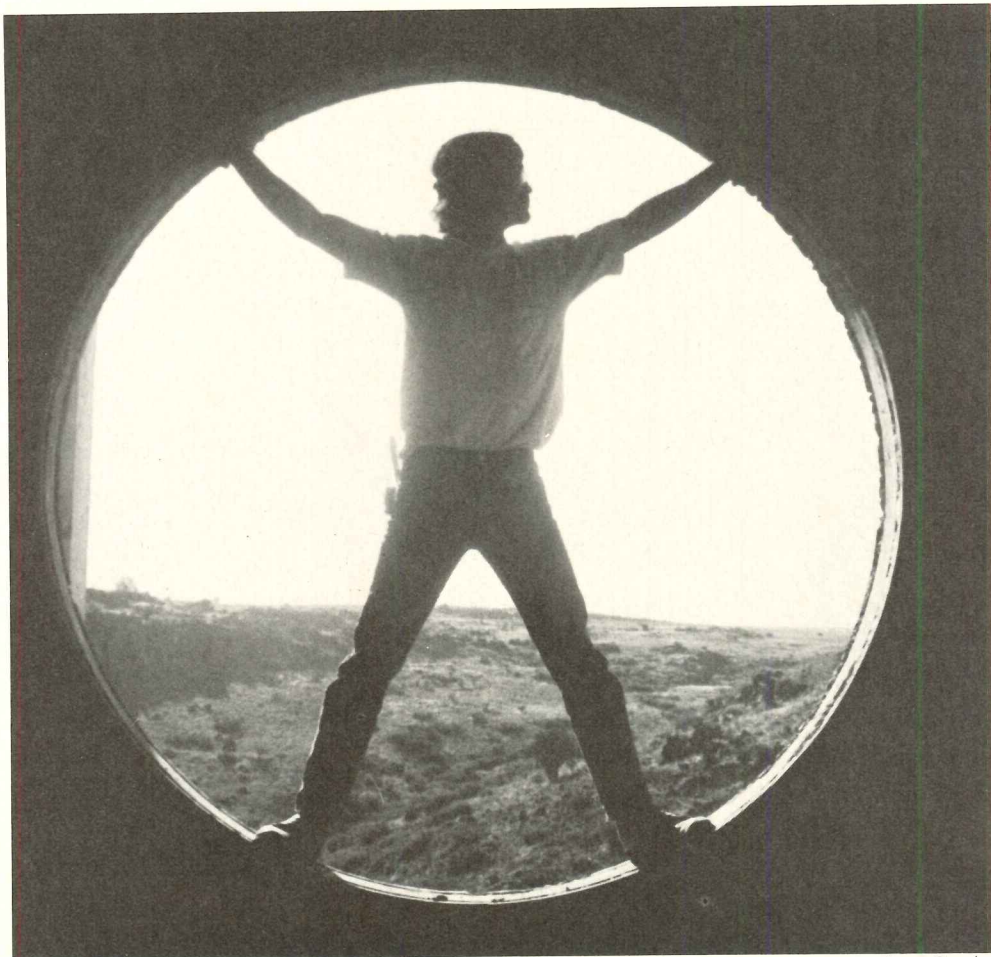
have nothing to do with who is doing what job on the mesa. No, there are ideas other than rapid construction implicit in Arcosanti—that is the least achievable of them all. To Soleri, to the staff, to workshoppers (and also to the Internal Revenue Service), Arcosanti is thought of as an educational experience in the broadest sense, and Soleri has rightly tried to anchor education in the work itself. With IRS pressure, classes after work have been initiated for those who want to take them (and pay for them)—a basic course in statics and structure, another on drafting. But these classes are sporadic, and Soleri’s conviction has always been that the building of Arcosanti itself does rightly and fully establish the six-week educational experience of those who come. Arcosanti might teach them how to finish concrete, weld, or construct formwork, but that is only part of what Soleri means.

It is, rather, a special kind of work that Soleri would hope Arcosanti makes possible—work that others call non-alienating, and that usually requires a differentiation between “work” and “labor” to explain it. Labor is that which you do not “like” to do, but which is nevertheless necessary; often it is thought of as a necessity to maintain the *rest* of your life, which is called “leisure,” so that it, at least, may be “lived” as you want. Leisure is thought of as time after labor, and labor required by forces outside yourself (society, the boss) and most often rewarded externally (by money, by prestige). Work is similar to labor in that work describes a durational activity, the completion of which requires more than casual action or

occasional thinking. But work, in this definition, brings pleasure in itself and tends to complete the wholeness of the individual performing it, because its immediate means, purposes and ultimate values are defined and controlled by that person. Ultimate values are implied and revealed by immediate activities of work, and meaning in one’s life, can be found through it, rather than simply through some other time when work is not being done.

In daily life today, labor is almost always a job, and work is almost always a hobby. Labor may require ten hours, including travel, of the best part of the day; work may get one hour of the worst part in terms of the energy available for it. Even education becomes labor, in that learning is defined not by the individual but by others, and the daily experiencing of it is not personally fulfilling as an immediate consequence. Often education is only conceived of as *ultimately* useful—“I’ll get a better job,” “I’ll get more money,” “I’ll have more leisure available for my life.” Labor is elevated to a “career” by the economic system that requires it; work is made frivolous, even a rather wasteful indulgence—as, for instance, a hobby.

Arcosanti should make it possible for individuals to discover, or even to invent, this kind of work for themselves, in that they are capable of feeling the need in themselves, and beginning. Often, in fact, they are not. But certainly most of the permanent staff—who work alongside the workshoppers and do much the same thing—have discovered fulfillment in the work itself, as it supports the consciousness they



James Carnahan

brought with them, or as the concept of Arcology which they find through Soleri offers them a substantial framework for their consciousness and their need to act on it. The real existence of this kind of work is the core of Arcosanti. Pragmatic, anchored in daily life, it is the reason why most people who stay at Arcosanti do so. It is why the city is being built.

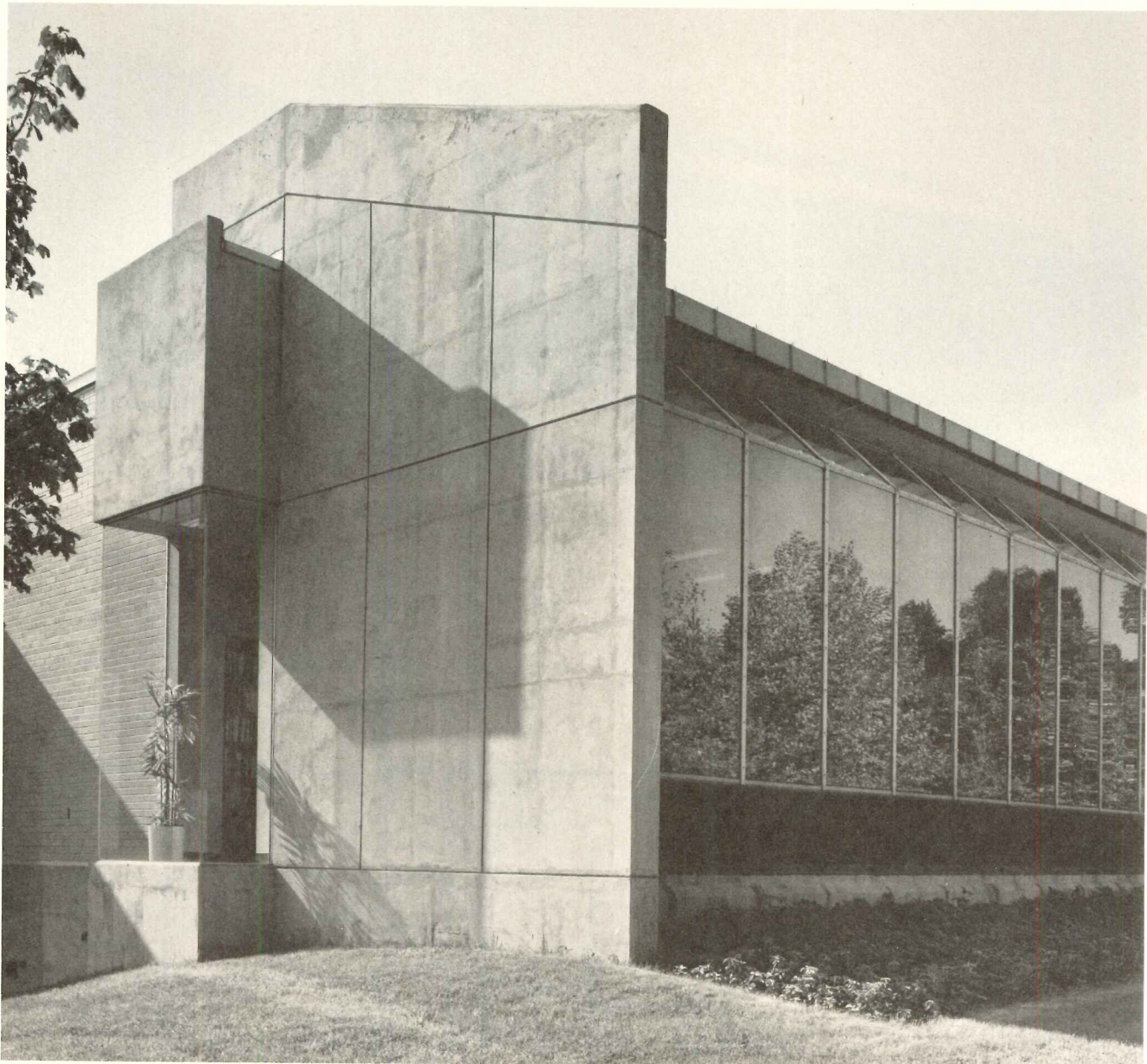
The real challenge is making this transfigurative education accessible—or even recognizable—to those who come for only six weeks. If too much of the “less interesting” work” is done by the same people, and too often by women, this will not do it. If ditch work seems to get passed to the shy, to those who don’t realize that building a concrete form does not require skills beyond their grasps, or to those who have trouble asserting themselves in any social situation, this will not do it either. All these “little” failures do, in fact, occur at Arcosanti. They are failures to accomplish what Arcosanti represents (and often does accomplish) as an ideal, and, when they occur, it is because there are too many people at Arcosanti. The ideal of the spring can get lost in the crowded summer.

Because of overcrowding, because housing and privacy were not available equally, too many workshopers during the summer I was there complained, and some were angry. For the staff it was difficult to transmit the spirit of the place, which they genuinely feel, and this was why they began talking wistfully of the spring and the fall, of “how it is then.” Overcrowding occurred the summer before I was there, with similar results; and everyone ex-

pects it to occur next summer, and the summer after that. But it is so dangerous, even though more people mean more of the needed funds. It brings a scarcity of basic necessities—of shelter, of privacy—which then threatens to become the immediate focus of everyone’s life—of everyone’s survival—pitting one person’s means against another’s. However trivial these competitions might seem (“It’s only for six weeks,” as it’s told) they tend to replicate in miniature those historical necessities that have created alienated labor as a fact of human history—the need merely to survive, the scarcity of the means for survival, the haves and the have nots. Even in their denunciation of this labor, Marx and Freud (who described it from their different perspectives) knew that life based on such labor would not go away, in that the needs of mere survival remained its master. In its summer conditions, then, Arcosanti threatens to become precisely what will kill it. It threatens to become like the world around it.

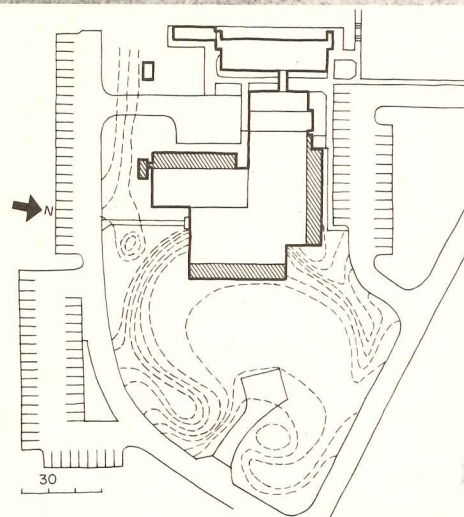
Yet what can only be called the miracle of nonalienating labor, of real work, does exist there, and neither haphazard rotation nor crowding succeed completely in shattering or concealing the miracle. People *stay on*. They may not know why; something, a kind of wholeness, has been discovered in themselves. Soleri is fond of talking about the “it”; weeks may go by here, he says, before you discover “it,” and some never will. But logistical conditions should never be allowed to threaten “it,” which is the engine of the place, and hard to find elsewhere.

Carefully phased construction produced substantial savings on Allied Chemical's New Research Center



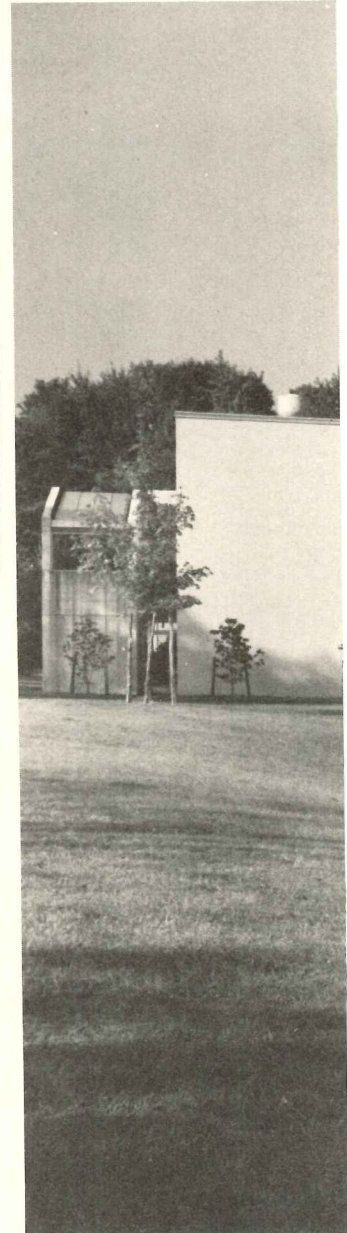
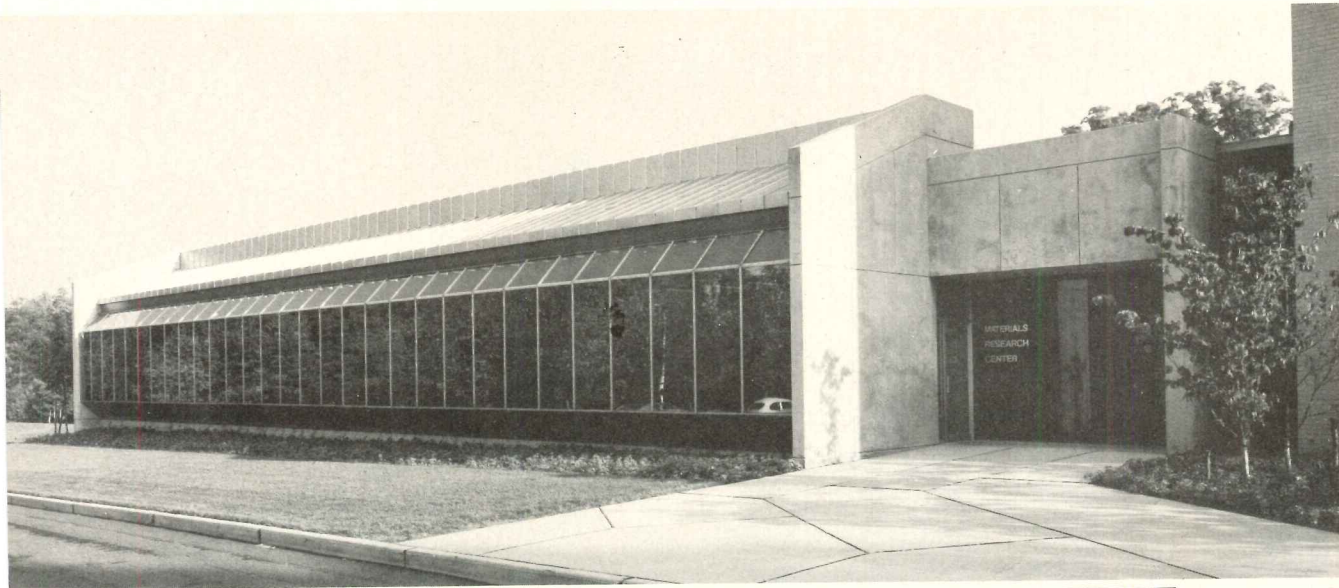
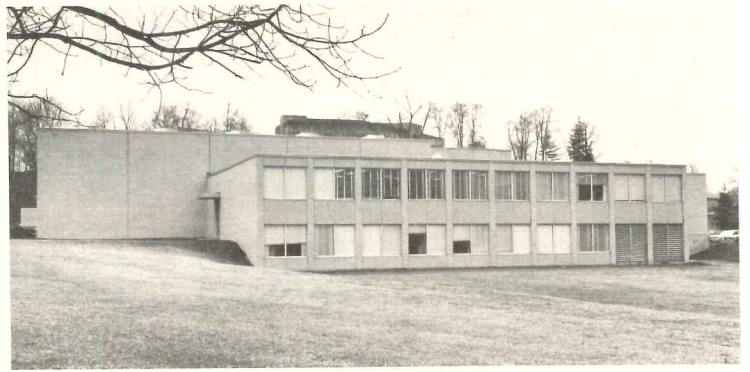
John Gilman, executive director of Allied Chemical Corporation's Materials Research Center, had a familiar dilemma. He needed space for the development of the firm's new proprietary products. If he ordered a renovation of the existing center, the work of his scientific staff would be seriously disrupted for many months. If he built from scratch, he would face greatly increased cost and, in the end, be left with a structurally sound but empty shell on Allied Chemical's handsome industrial park in Morristown, New Jersey.

Working with architects James Stewart Polshek & Associates, a sensible and interesting compromise was hammered out. The architects would add new space in the form of outriggers to the exterior of the existing structure.

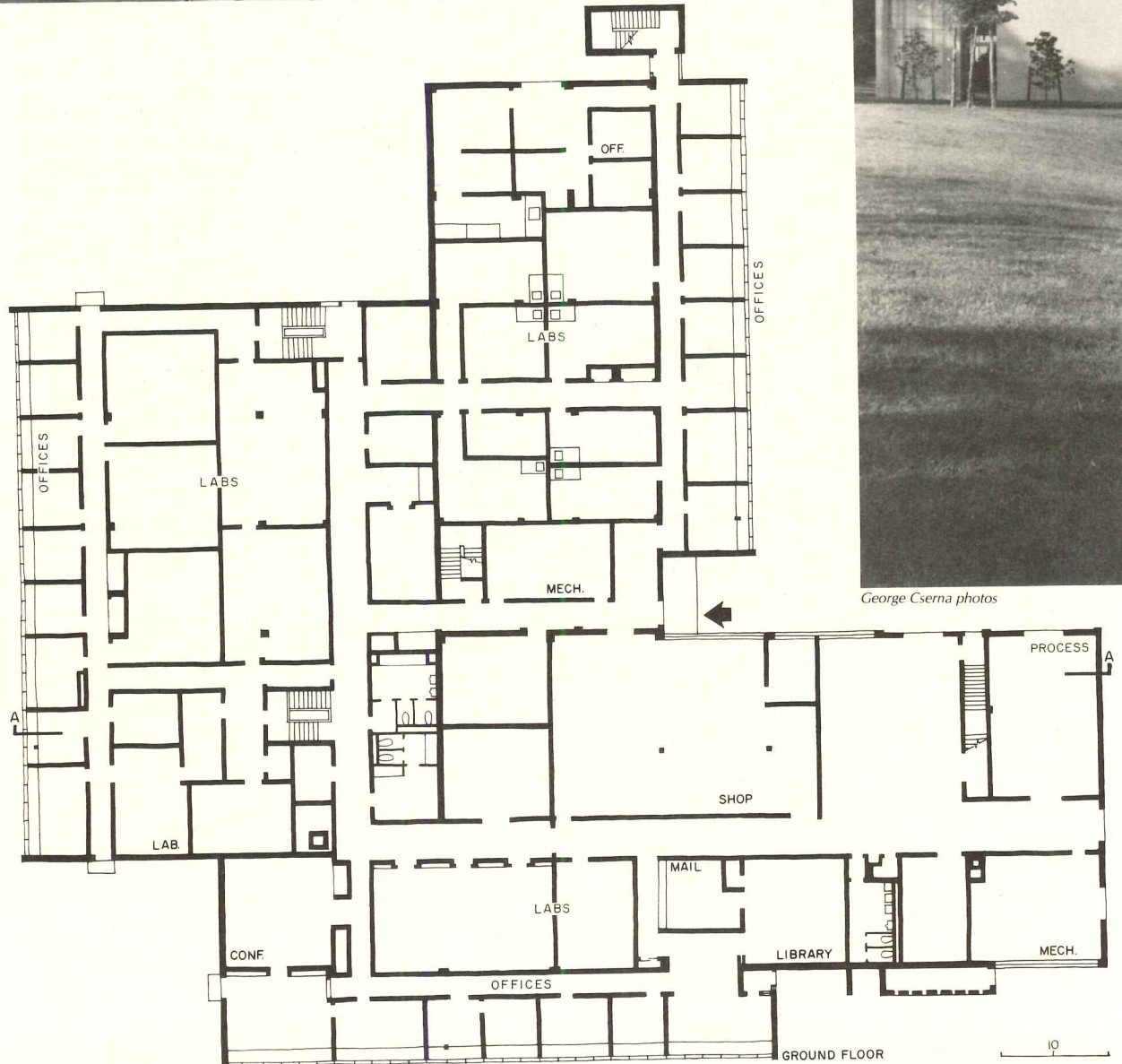


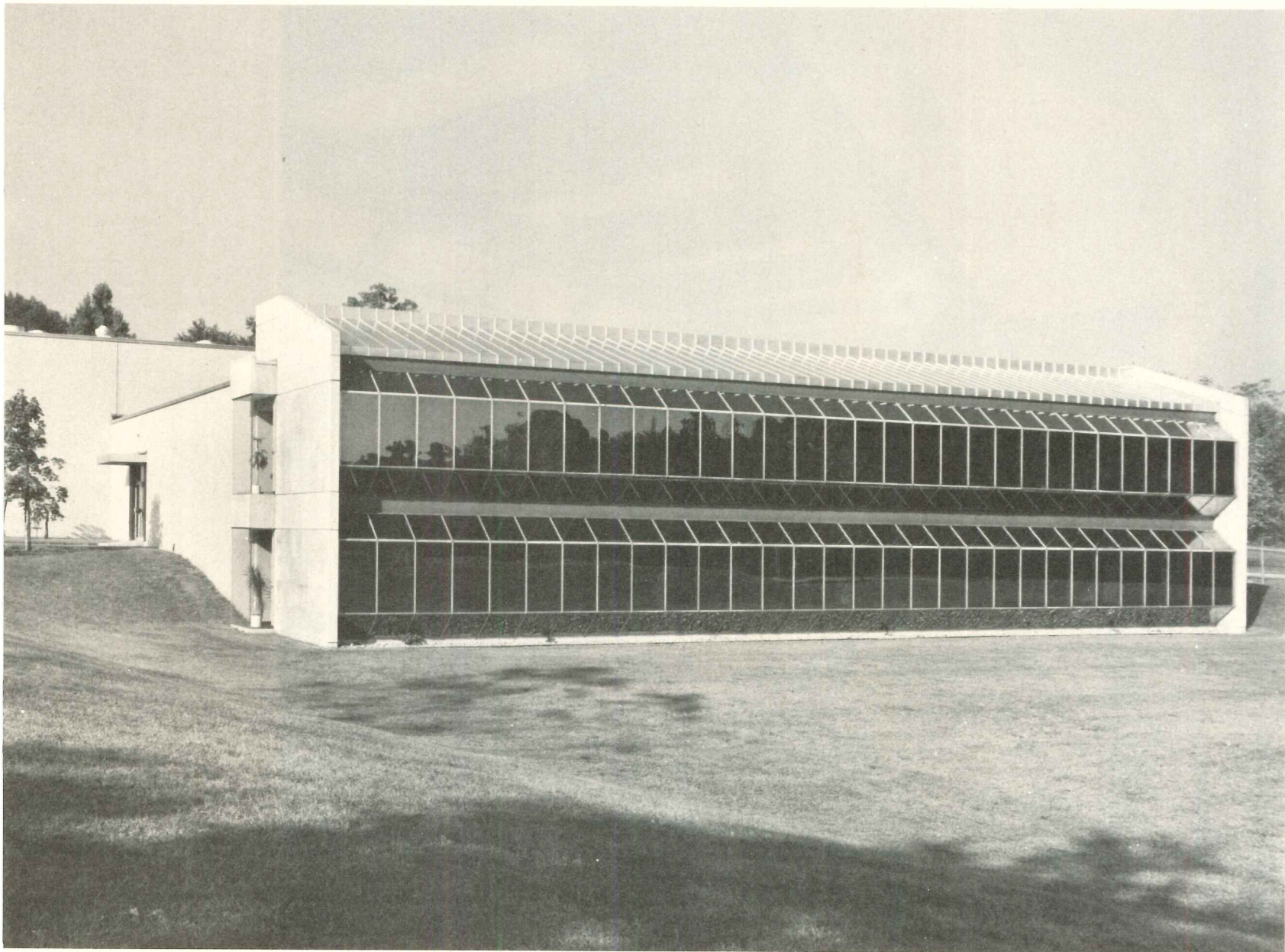
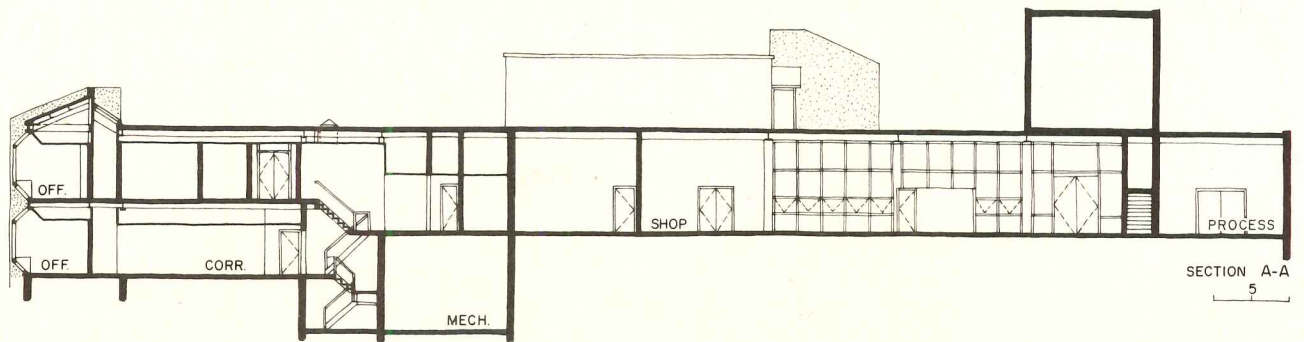
The plan, below, and a comparison of the two photos at right shows the extent of the "outriggers" Polshek has added to the existing structure. As they house the Center's four divisions and occur—in varied form—on all sides of the building, they create new elevations which are grafted, with special skill, to the old. A stainless steel batten roof covers the new portions of the building.

The architect notes that the rhythms of the building were easily adapted to the outrigger solution.



George Cserna photos





When complete, the old exterior walls could be punctured, the staff could flow out to occupy its new outrigger spaces and renovation of the older interior structure could proceed with only minimum disruption to staff operations or the construction process. Phasing was obviously crucial and it was worked out by architect and client in the greatest detail before construction began.

The new outriggers contain office and laboratory space for the Center's four more or less discrete divisions. They have poured concrete end walls matched to the exterior finish of the existing building. But the long curtain walls are designed for quick erection and constructed of aluminum mullions and sections of insulated reflecting glass. (Curiously, this was the first installation of this product in sheets inclined at 45 degrees in section). In the two-story portion, photo above, a long steel spandrel, painted bright red, emphatically marks the division between floors. The outrigger section, as designed, also produces a long skylight over the corridors that brings daylight into the interior.

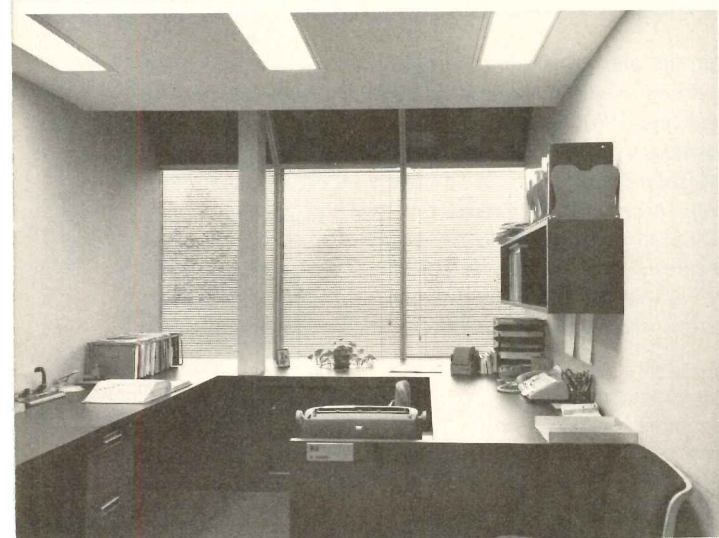
In floor area, the outriggers added about 6,300 square feet of new space. New construction within the existing building comprised another 4,500 square feet and 19,000 square feet of the older structure were thoroughly renovated. Cost for this work was about \$1,300,000.

What Allied Chemical got was, to all appearances, a new building (containing mostly prime space) except that existing parking, roads, access, and vertical circulation could be retained to effect important savings. And because the owners went to Polshek, they got a building that is rationally organized, sensitively detailed, and innovative both in the use of materials and in the volumetric treatment of the spaces it provides.

ALLIED CHEMICAL CORPORATION'S MATERIAL RESEARCH CENTER, Morristown, New Jersey. Architects: *James Stewart Polshek & Associates*—James Polshek, designer; Dimitri Linard, associate-in-charge; Howard Kaplan, job captain. Engineers: Theodore Kwoh (structural); Aaron Zicherman & Associates (mechanical). Landscape architect: *Johnson & Dee*. Contractor: *The Johansen Company*.

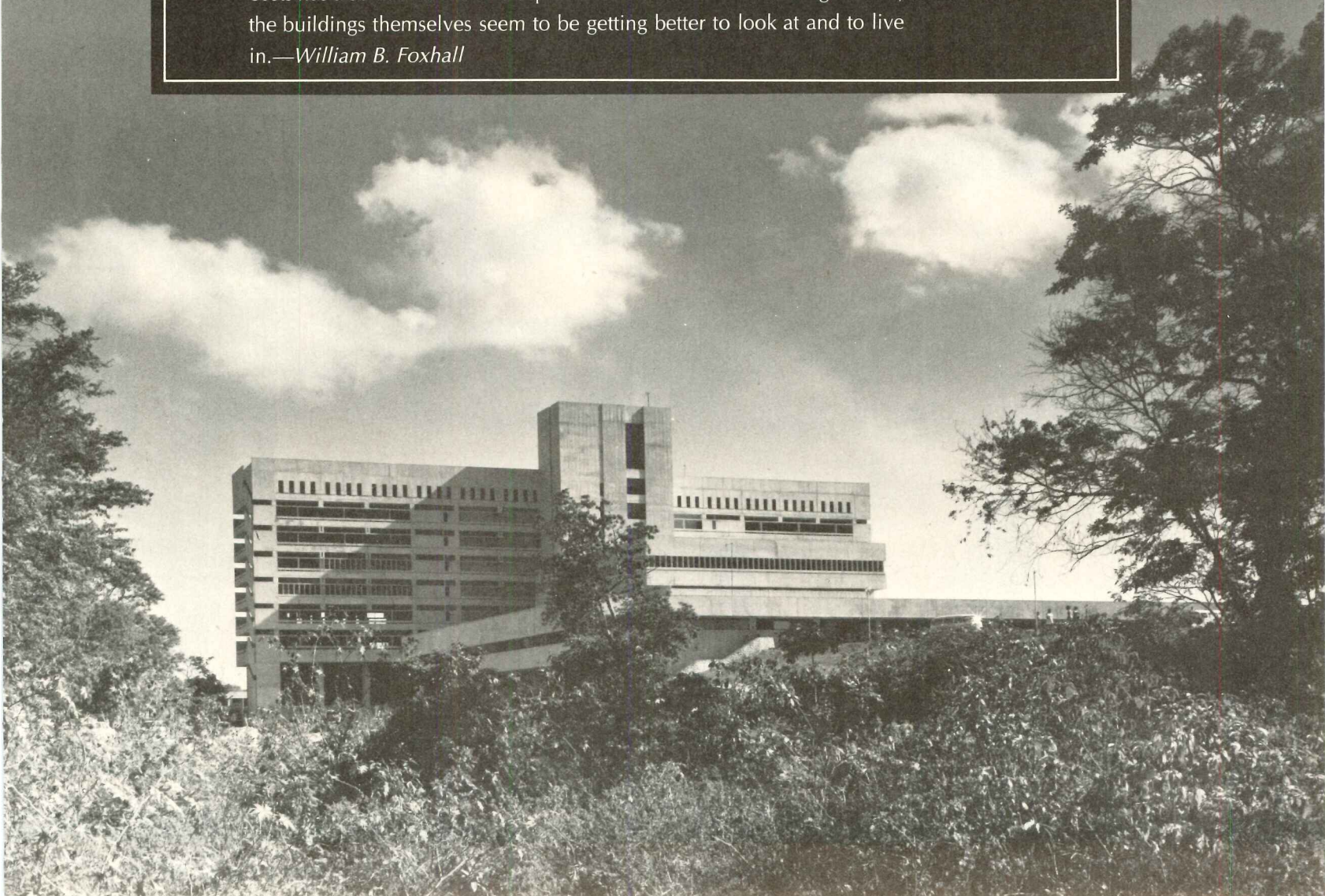
The lower band of glazing that inclines outward and upward is opaque and has been designed to enclose built-in cadenzas and work surfaces (photo below). On the outside, this inclined plane reflects the ground cover which has been planted right up to the buildings foundation.

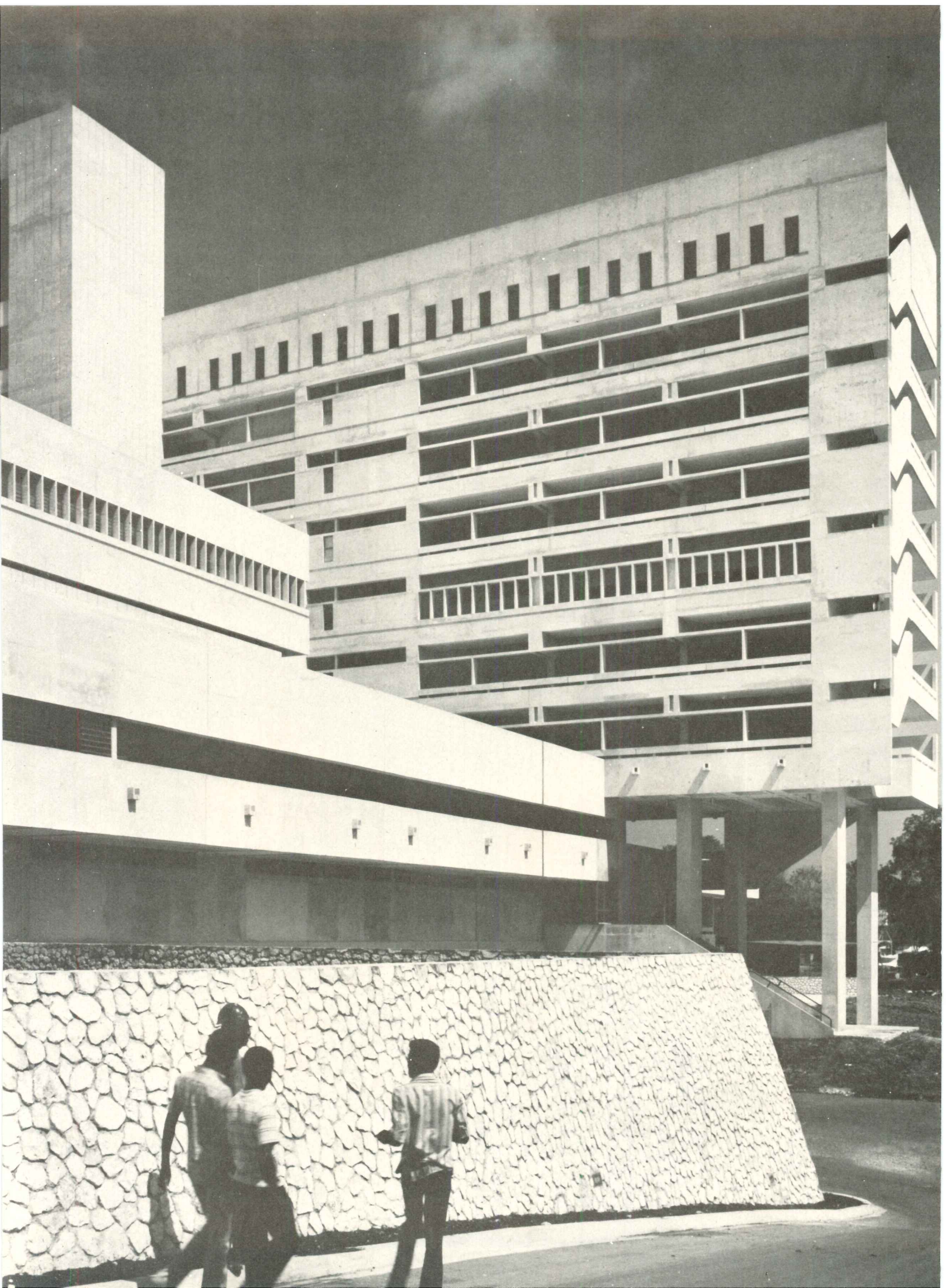
Much of the specialized laboratory furniture was designed by the architect. In other portions of the building, the staff selected furniture from a list furnished by the architect.



HEALTH FACILITIES

The shift in Federal and other financial support from conventional hospitals to community-oriented facilities for health maintenance, combined with other economic and technical pressures, is causing a new mix in architectural commissions for health facilities. Commissions for new 300- to 400-bed community hospitals are by no means extinct, but are being outnumbered by commissions for updating urban facilities and for expanding medical education. Both of these tend to emphasize on-site replacement facilities. This portfolio, therefore, has a variety of current work reflecting these and other elements of change. In spite of what appears to be a rather miscellaneous collection, one can discern a commonality of technical approach that makes of this field the engaging specialty it is. The essential elements of a master plan prevail nowadays through greater penetration by client groups into the planning process. Response to long-range regional needs is also more imperatively enforced. The assault of research and systems technology on critically rising costs has also had its effect. Despite these harassments of shifting fortune, the buildings themselves seem to be getting better to look at and to live in.—*William B. Foxhall*





MONTEGO BAY HOSPITAL HAS A THREE-PART HARMONY

The 400-bed Montego Bay Hospital makes use of a high sloping site overlooking Jamaica's second largest city. John C. Harkness, TAC principal-in-charge, describes the organization of the complex as composed of three main elements. A three-story base contains an extensive out-patient department, dining spaces and general public and administrative areas. A six-story medical-surgical core articulates with, and provides services for, both the out-patient spaces and a ten-story nursing wing. The nursing wing faces the ocean to take advantage of prevailing breezes that make artificial ventilation unnecessary.

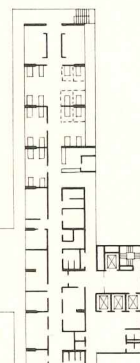
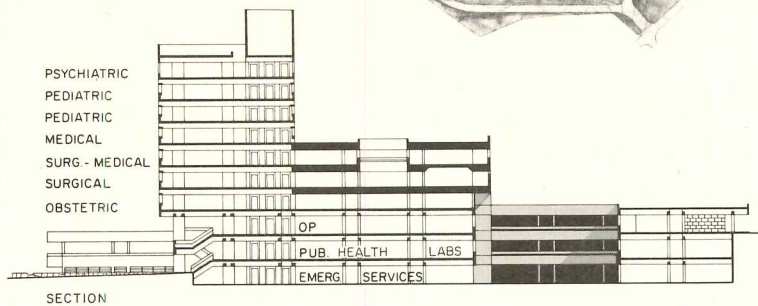
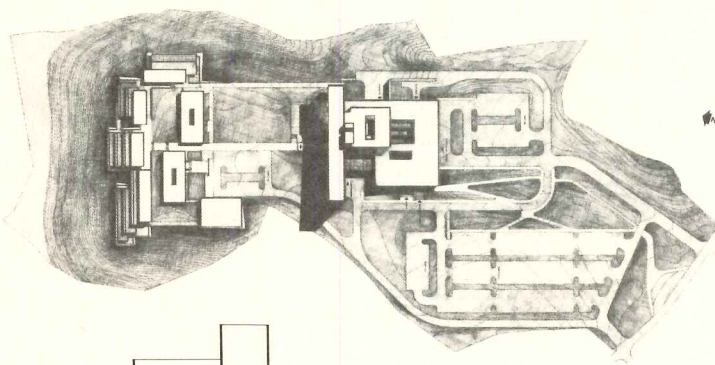
Six blocks of staff housing are terraced down the slope toward the bay taking similar advantage of natural climate conditions and providing a village-like atmosphere for off-duty staff.

On-grade access at three levels permits separation of out-patient, emergency and supply traffic. Floors of the component units of the hospital are sized to take care of their particular functions without excessive vertical traffic.

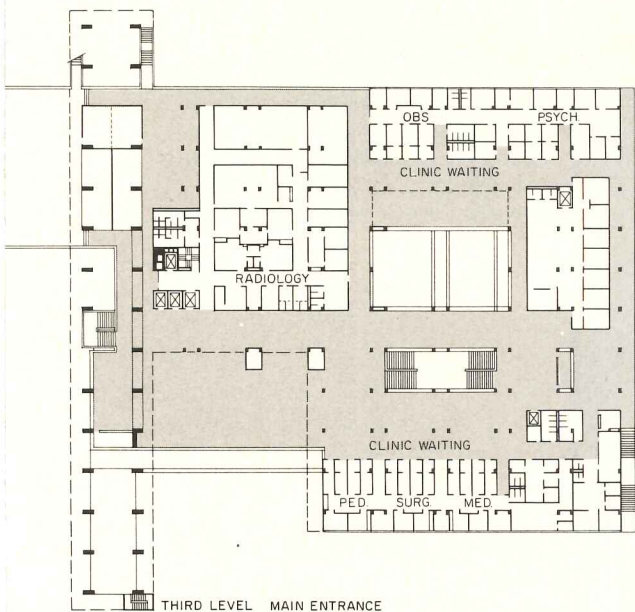


Phokion Karas photos

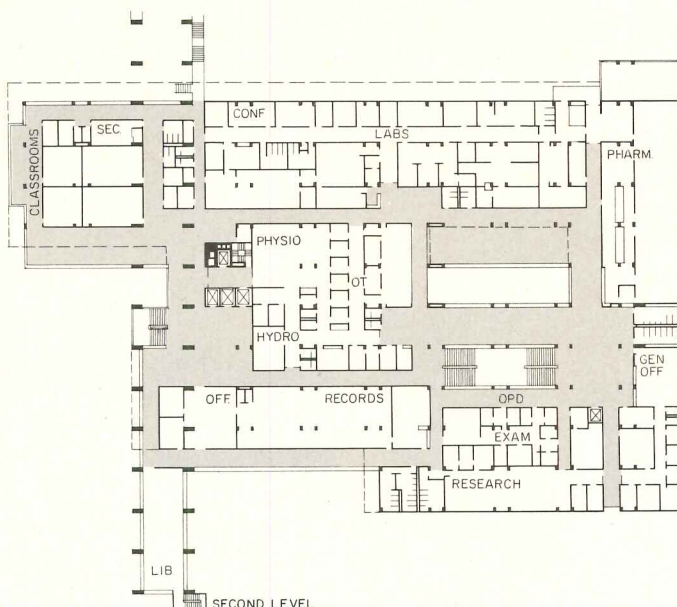
Poured-in-place-concrete accepts the discipline of a 22-foot module while expressing floor-by-floor changes in the functional requirements.



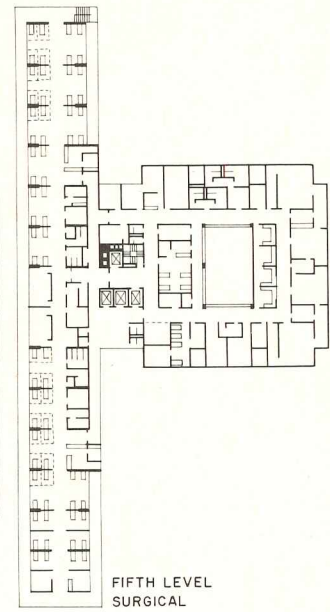
NINTH LEVEL PEDIATRIC



THIRD LEVEL MAIN ENTRANCE



SECOND LEVEL



FIFTH LEVEL SURGICAL



In-patient nursing spaces are unusually open by U.S. standards, partly to accommodate the lifestyle of the residents of St. James Parish, which the hospital serves, and partly to take full advantage of the natural air movement. Nursing units are typically about 25 patients each with two nursing stations on each floor.

A 22-foot bay module prevails throughout the hospital, but floor configurations are varied to accommodate function. Rooms on the sixth floor, for example, which serve both medical and surgical patients, are brought forward to the face of the building, using space that is open on other floors for use as a balcony.

Psychiatric patients are placed on the top floor where they can make use of an outdoor court or roof garden without loss of security.

The structure is cast-in-place concrete columns with concrete floor and roof slabs. Native stone is used as a retaining surface for on-grade embankments. The nursing tower is structured entirely separate from the other two units as part of a precaution against earthquake damage. Lighting and mechanical systems are cast into the structure. Hung ceilings are used only where required for special operating or antiseptic purposes.

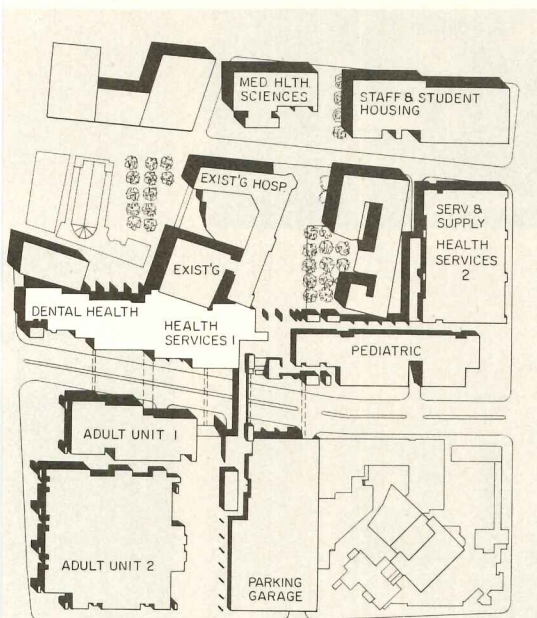
The hospital will be used for many public functions as well as medical treatment. The staff compound, therefore, includes an auditorium where professional lectures or general entertainment can be provided with separate access to the public parking area.

Internal spaces at Montego Bay Hospital are well detailed although less than lavish in their use of materials. Patient-care spaces tend to be open—reflecting the life style of the Jamaican population served.

MONTEGO BAY HOSPITAL, Montego Bay, Jamaica. Architects: *The Architects Collaborative, Inc.*—John C. Harkness, principal-in-charge; Joseph D. Hoskins, senior associate. Associate architects: *Chalmers, Gibbs & Associates*. Engineers: *Paul Weidlinger* (structural); *Guy B. Panero* (mechanical/electrical). Consultants: *William Lam Associates* (lighting); *Crabtree, Dawson & Michaels* (food service and equipment); *Eric Hammond* (radiographic). General contractor: *Higgs & Hill, Ltd.*



Phokion Karas photos

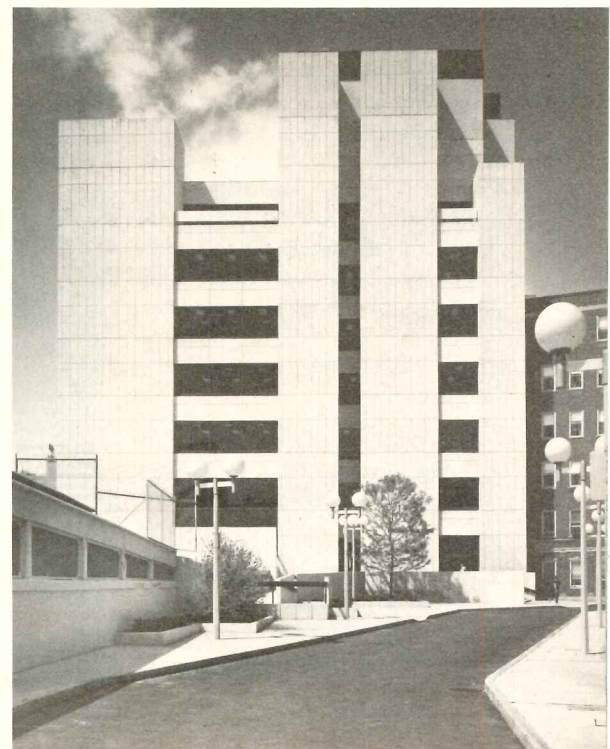


Master plan of the ultimate development of Tufts-New England Medical Center shows the placement of two new buildings now completed and the on-site replacement and/or linkage of existing and new buildings with the street system.

A DOWNTOWN MEDICAL SCHOOL

TUFTS- NEW ENGLAND DEVELOPS CITY SITE IN BOSTON MASTER PLAN

Two new buildings have been completed in a long-range master plan for restructuring the Tufts-New England Medical Center in Boston. The Architects Collaborative has been closely involved in the growth of the center since 1965 when it was formed by the merger of three hospitals with the Tufts University School of Medicine and Dental Medicine.



The objective is to upgrade and serve a densely urban community (Boston's South Cove section) and to continue matching long-range needs with urban renewal plans for the area. Accordingly, when the Boston Redevelopment Authority drew up its renewal plan for approval by Washington it included assurances to local residents that the medical center would not expand unduly into residential areas.

The plan involves reshaping some streets, closing others and replacing an old elevated railway with a new subway station directly under the center. The center will also provide various kinds of commercial and public spaces to serve both the staff and the neighborhood.

The physical contours of the center are developing as continuous horizontal layers of health facilities above the ground floor commercial and traffic level. This is to preserve as much as possible a horizontal flow of medical traffic and for increased flexibility and efficiency. Informal contact among specialties is encouraged, and nursing floors can be linked vertically to treatment floors while both can be expanded in increments of planned growth.

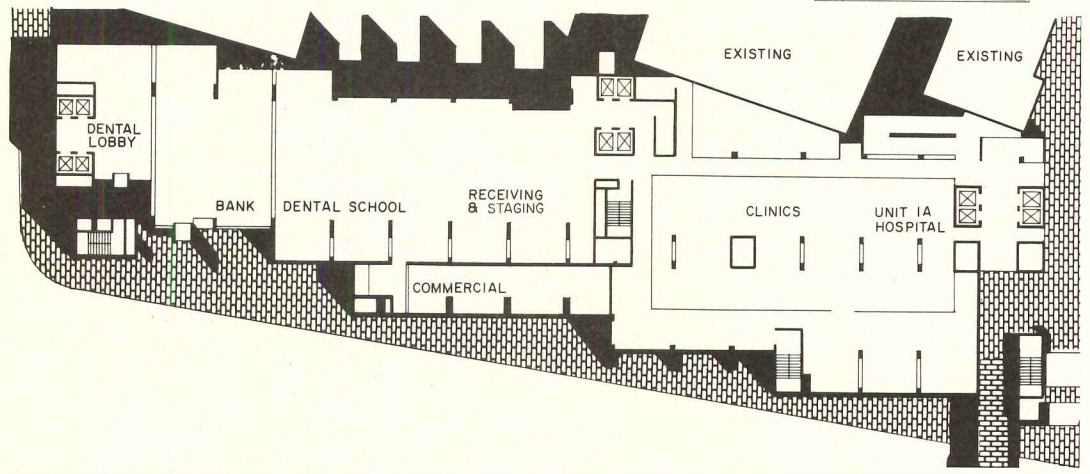
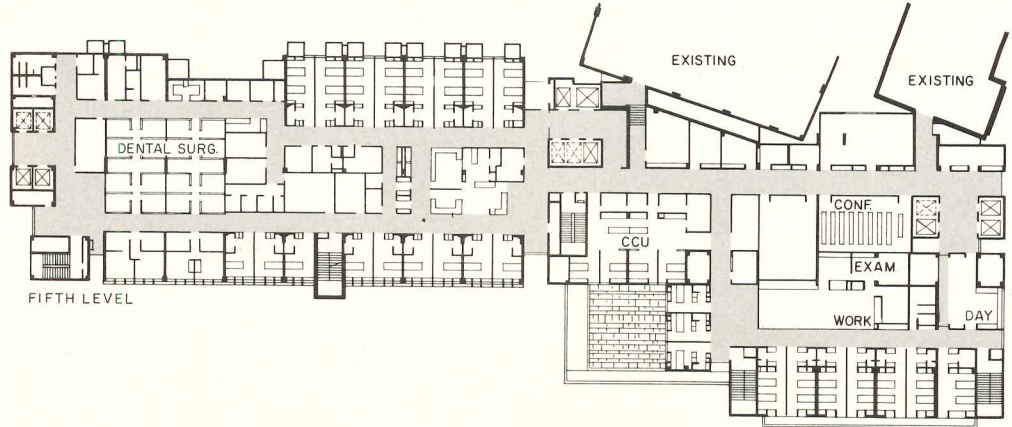
The completed elements are a health services building and a dental sciences building both served by a new parking garage for 925 cars that also contains restaurants and retail space.

These first elements are closely interrelated and they anticipate the subsequent phases of growth that will bridge Washington Street and allow full realization of the horizontal mega-structure concept. This integrated approach to the master plan requires great flexibility over time to respond to changing patterns of funding, evolving needs and space programs, changing economic patterns, developing structural systems and building technology, all still guided within the established framework and resulting in an integrated unified building that functions well at any and all stages of growth. The Medical Center may take 20 years to complete, depending on the availability of funds.

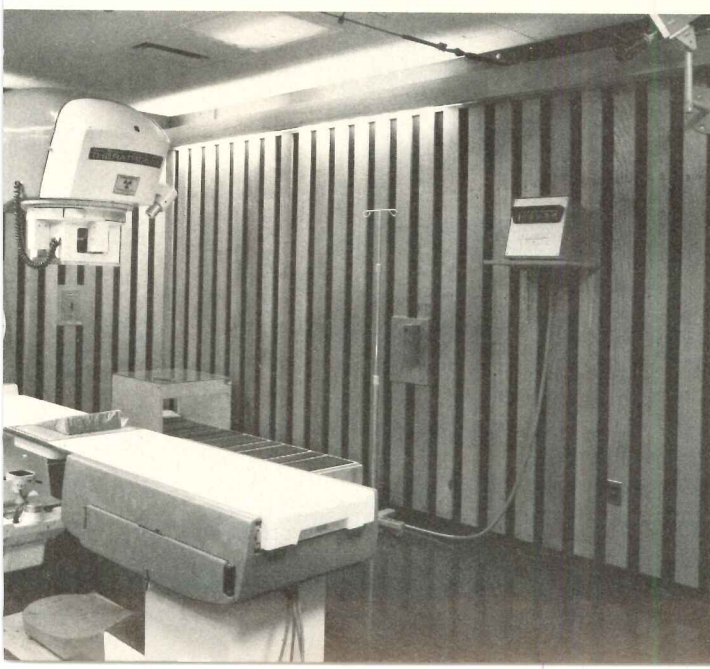
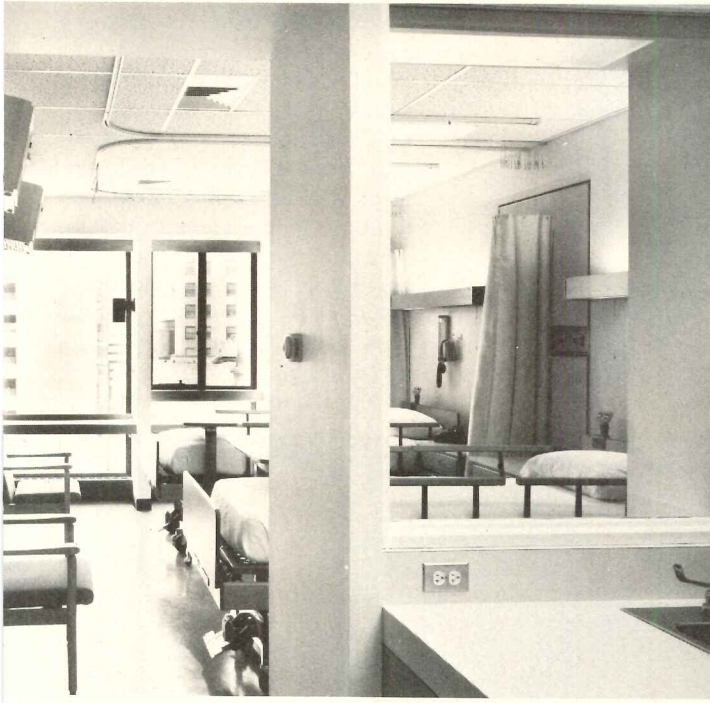
TUFTS-NEW ENGLAND MEDICAL CENTER, Boston, Massachusetts. Architects: *The Architects Collaborative Inc.*—Herbert K. Gallagher, principal-in-charge. Engineers: *Le Messurier Associates* (structural); *Francis Associates* (mechanical); *Engineers Inc.* (electrical). General contractor: *Barr & Barr.*



Phokion Karas photos



Interplay of traffic between dental school and hospital clinics is facilitated by single-level corridors and disciplined by control points. Photos show (1) main lobby of the hospital building; (2) second level control point and waiting area; (3) work spaces in clinical section; (4) high visibility in acute care areas; (5) deep therapy radiology unit; (6, 7) highly developed electronic surveillance in intensive care area.



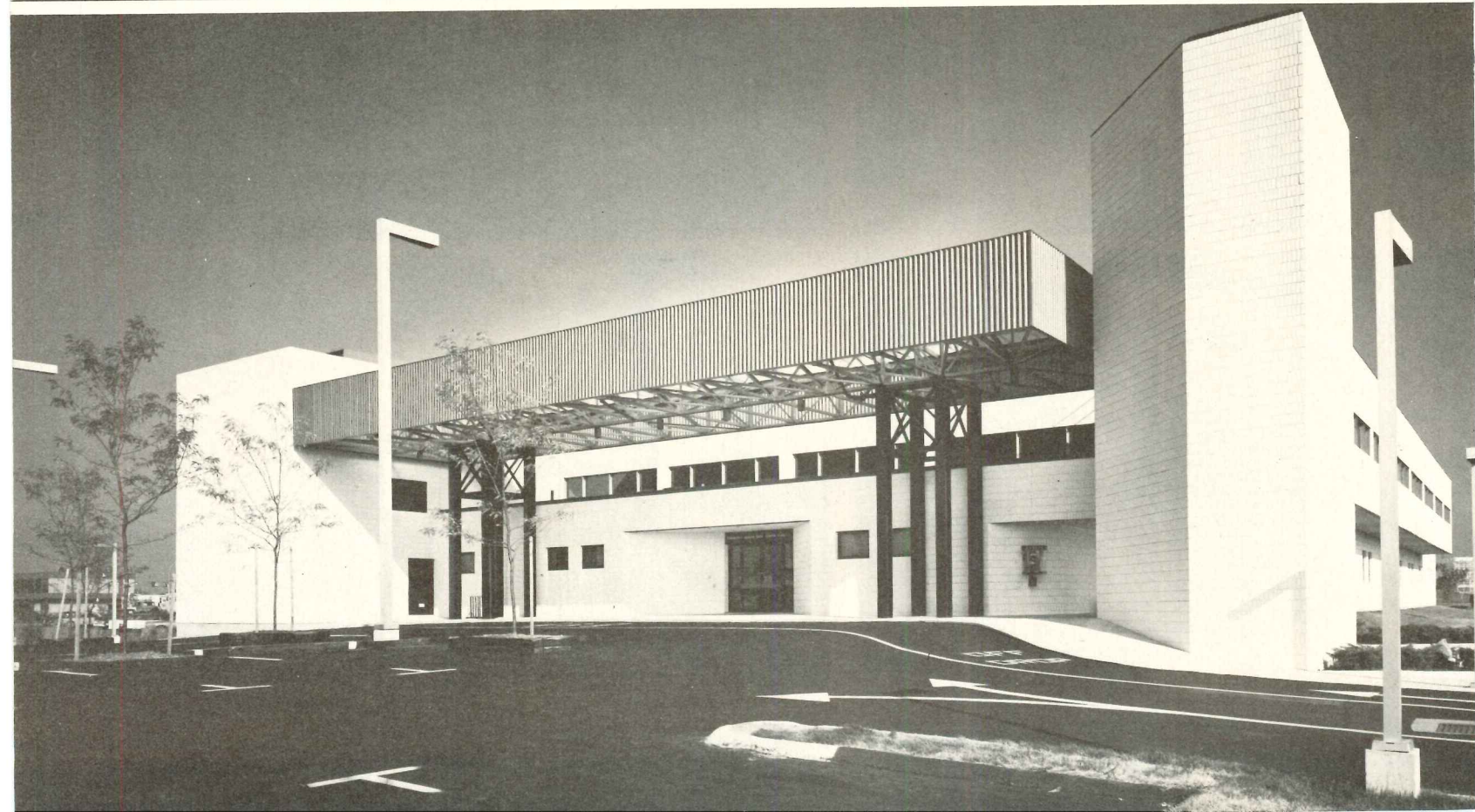
A PROTOTYPE HMO

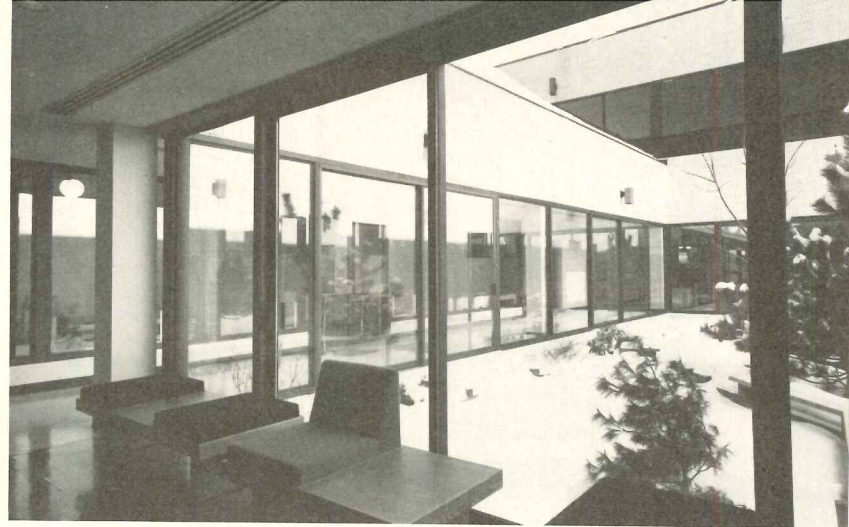
PRE-PAID CARE COMES TO LIFE IN A NEW HAVEN COMMUNITY CENTER

Everyone has heard about health maintenance organizations, and the initials HMO have crept into the jargon of medical facilities without clear definition or widespread understanding. The theory is, apparently, that any coalition of medical skills that is brought together to serve a community on a pre-paid basis falls within the definition. Some Federal financial support, however, has encouraged hard analysis of what the HMO really is and what constitutes a representative community.

The Community Health Care Center Project in New Haven, Connecticut, is as close to a prototype as one is likely to find. Its program is a thoroughly researched response to the complexities involved in turning the entrenched practices of pay-as-you-go medical services toward the idea of high quality, pre-paid services in an effort not only to stem the tide of rising costs but to spread the

Bill Maris photos





base of available treatment equitably throughout the community.

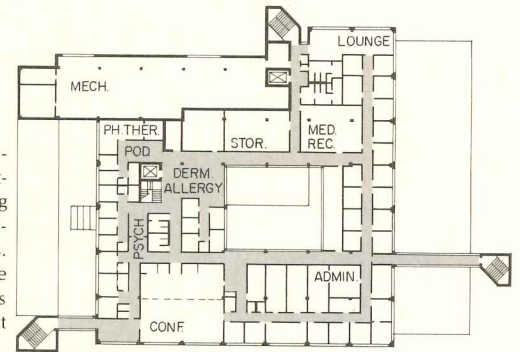
The client is a non-profit corporation which offers family health care service policies to some 30,000 to 40,000 people annually. The board of directors is a cross-section of community leaders including industrial, utility and financial executives. Executive director is Isadore S. Falk, who has had long experience in assembling complex projects of community importance. Basic to the program is affiliation of the client group and medical objectives with the Yale-New Haven Medical Center complex in a combined program of medical research and training services.

The two-story, 50,000 sq ft structure is located near the Connecticut Turnpike in the Long Wharf redevelopment area. This provides ready access by automobile and has the effect of turning the building around so that the

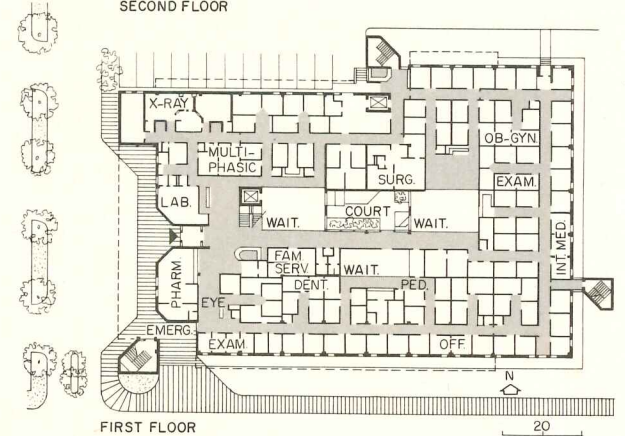
main entrance is toward parking at the rear of the site. Bruce Arneill describes the architectural concept as based on a box with a court in the center dictated by a very narrow site and limited budget. Scale and proportion are developed with some visual interest by utilizing the stairwells and functionally related floor sizes to avoid severely industrial aspects and massing of the box-like structure. The stairwells are set out at corners of the building to provide both fire stairs and direct access to public conference rooms.

COMMUNITY HEALTH CARE CENTER PLAN BUILDING, New Haven, Connecticut. Architects: *Office of Bruce Porter Arneill Architects—Bruce P. Arneill and Peter H. Nuelsen, project managers.* Engineers: *Rudolph Besier (structural); Office of John L. Altieri (mechanical); Robert A. Hansen Associates (acoustical).* Interior designer: *Raymond Doernberg.* Program consultant: *John Thompson.*

A basically simple plan of controlled traffic around a central courtyard permits well-lighted seating areas to be located at key points adjacent to specialized service areas. A translucent canopy over the main entrance from parking permits patient transfer in inclement weather.

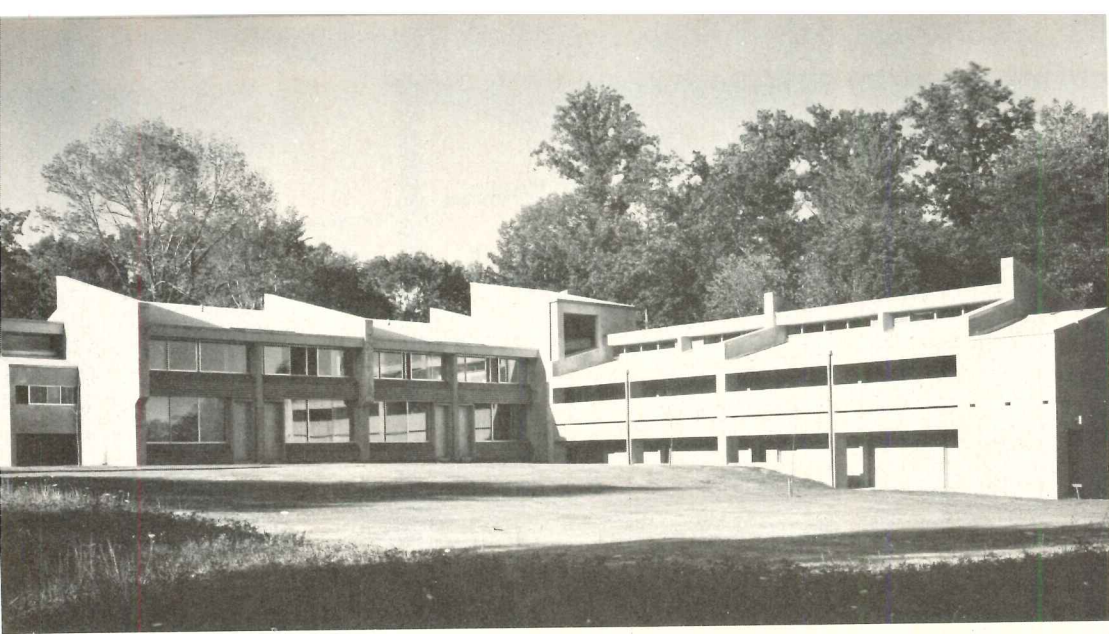


SECOND FLOOR



FIRST FLOOR





A NEW JERSEY NURSES' DORMITORY

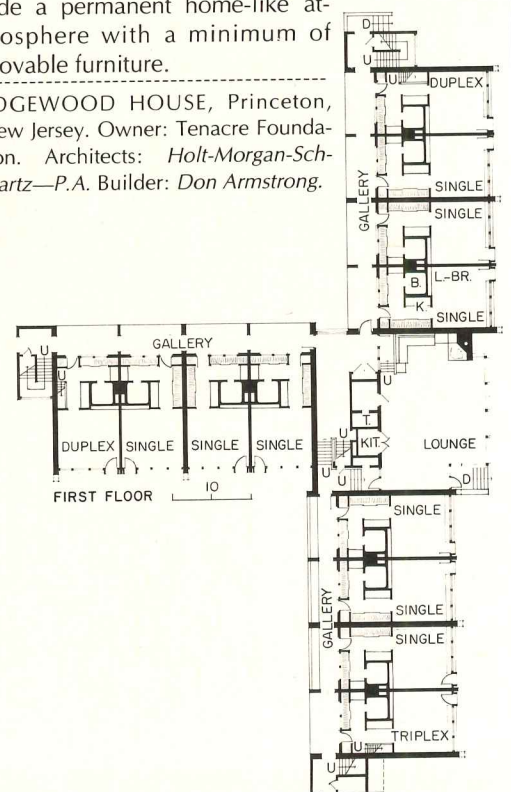
EDGEWOOD HOUSE: RESIDENTIAL SCALE FOR A NURSING STAFF



Edgewood House is a nurses' dormitory for senior staff of the Tenacre Foundation, a Christian Science health care center of about six residential-scale buildings on a wooded site in Princeton, New Jersey. To maintain single-family character and still provide a sense of community, the residential units are grouped into three two-story wings radiating from a central commons area. Residential units within the complex are mainly single dormitory spaces. There are three-duplex family units for married staff. Separate access to each unit is from exterior balconies. Each apartment has a view of the surrounding landscape. A common core and lounge provides space suitable for informal meetings. Exterior finish materials are tan stucco and stained wood relating to other buildings on the site and to the natural surroundings.

Special cabinet work, kitchen and laundry within each unit provide a permanent home-like atmosphere with a minimum of movable furniture.

EDGEWOOD HOUSE, Princeton, New Jersey. Owner: Tenacre Foundation. Architects: Holt-Morgan-Schwartz—P.A. Builder: Don Armstrong.



Robert P. Matthews photos

SALEM CITY SETS UP FOR LOW COST EXTENDED CARE

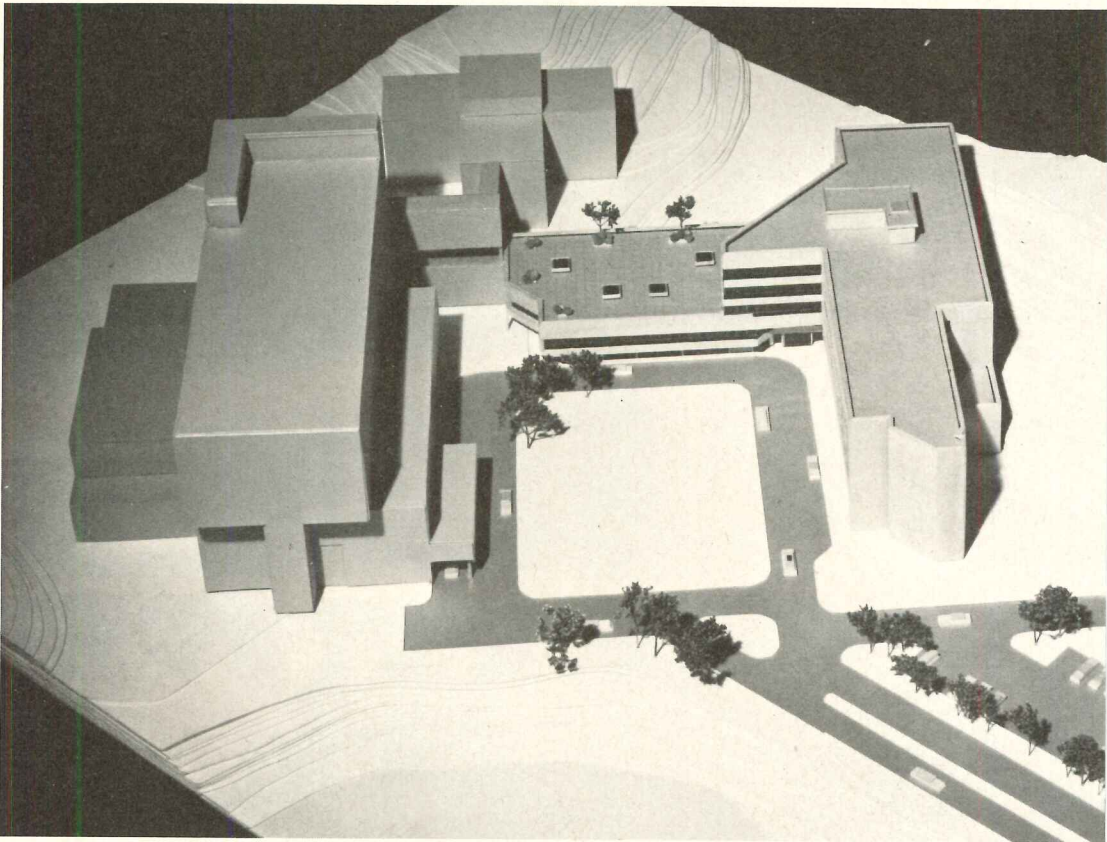
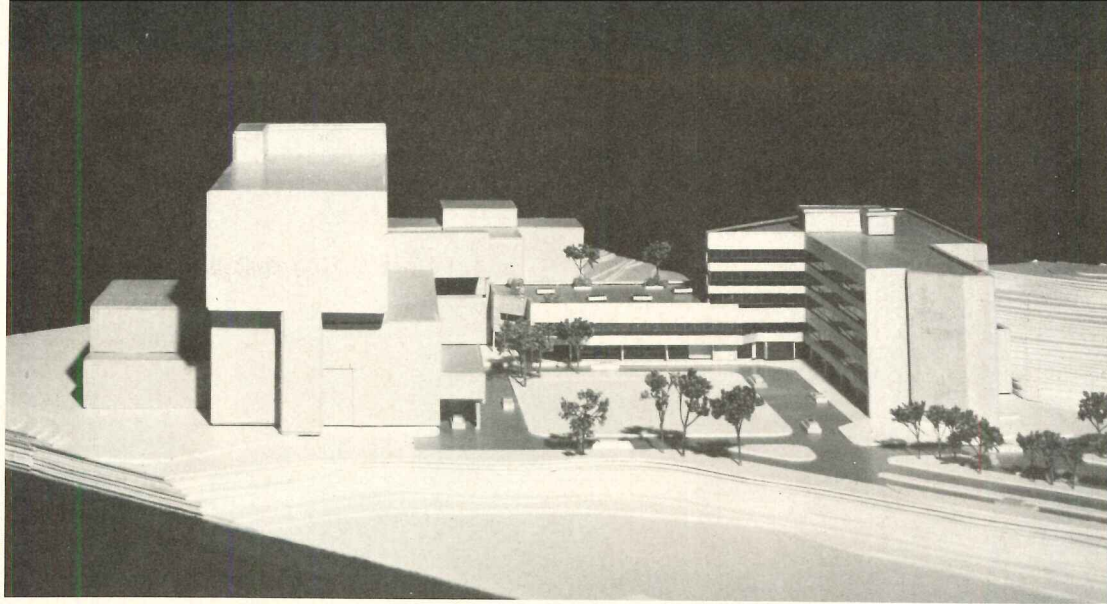
The problem of reducing costs of long-term illnesses, usually associated with the aging, has been met by various approaches to simplified quasi-residential spaces where patients are in contact with nursing staff but not under intensive care programs. The city of Salem, Massachusetts, has provided such a facility sharing a common entry court with a new addition to Salem Hospital. Some basic services including laundry, diet and pharmacy, will also be shared with the parent institution.

The ground level contains facilities requiring direct public contact, such as the hospital administration, city health agencies, and material supply handling services. The administrative services are grouped around the elevator core for direct access to the nursing units on the levels above. The opposite side of the elevator core faces the main entrance for direct access of visitors.

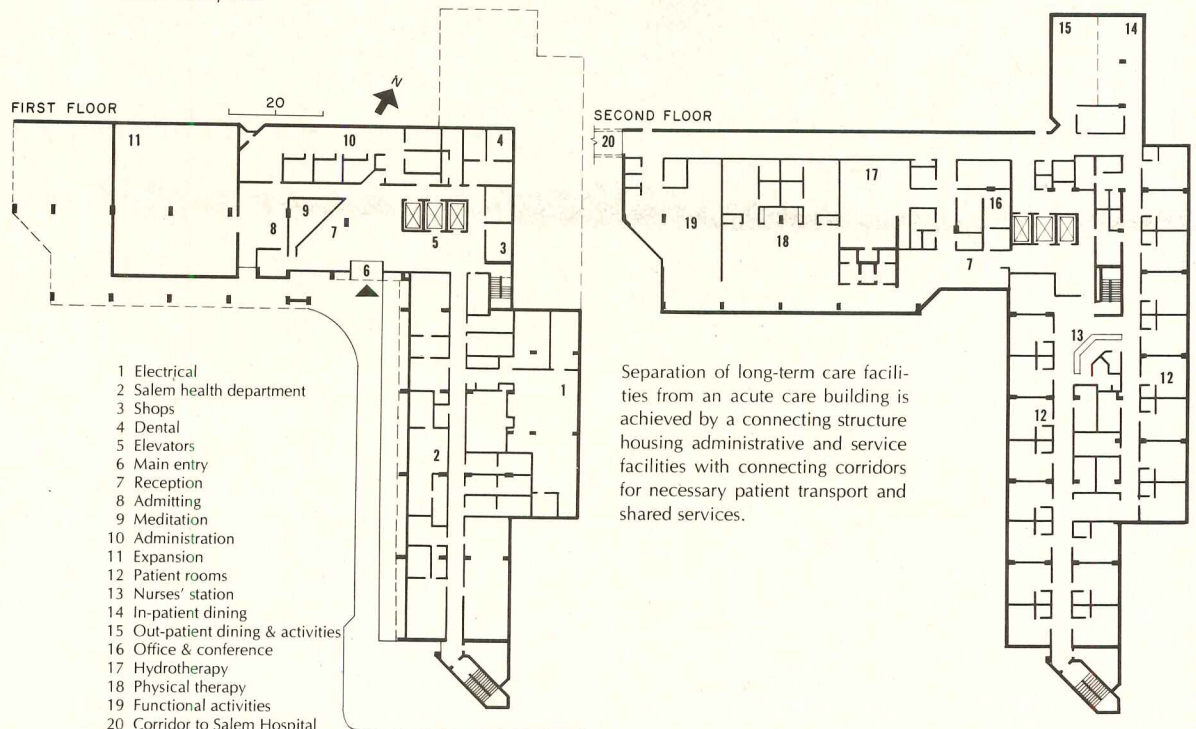
The second floor contains a rehabilitation center and one nursing unit, while three upper levels house the remaining three nursing units. The second level provides direct corridor access between rehabilitation center and the main corridor of Salem Hospital. This space is wide enough to provide a secondary exercise area for patients under rehabilitation treatment.

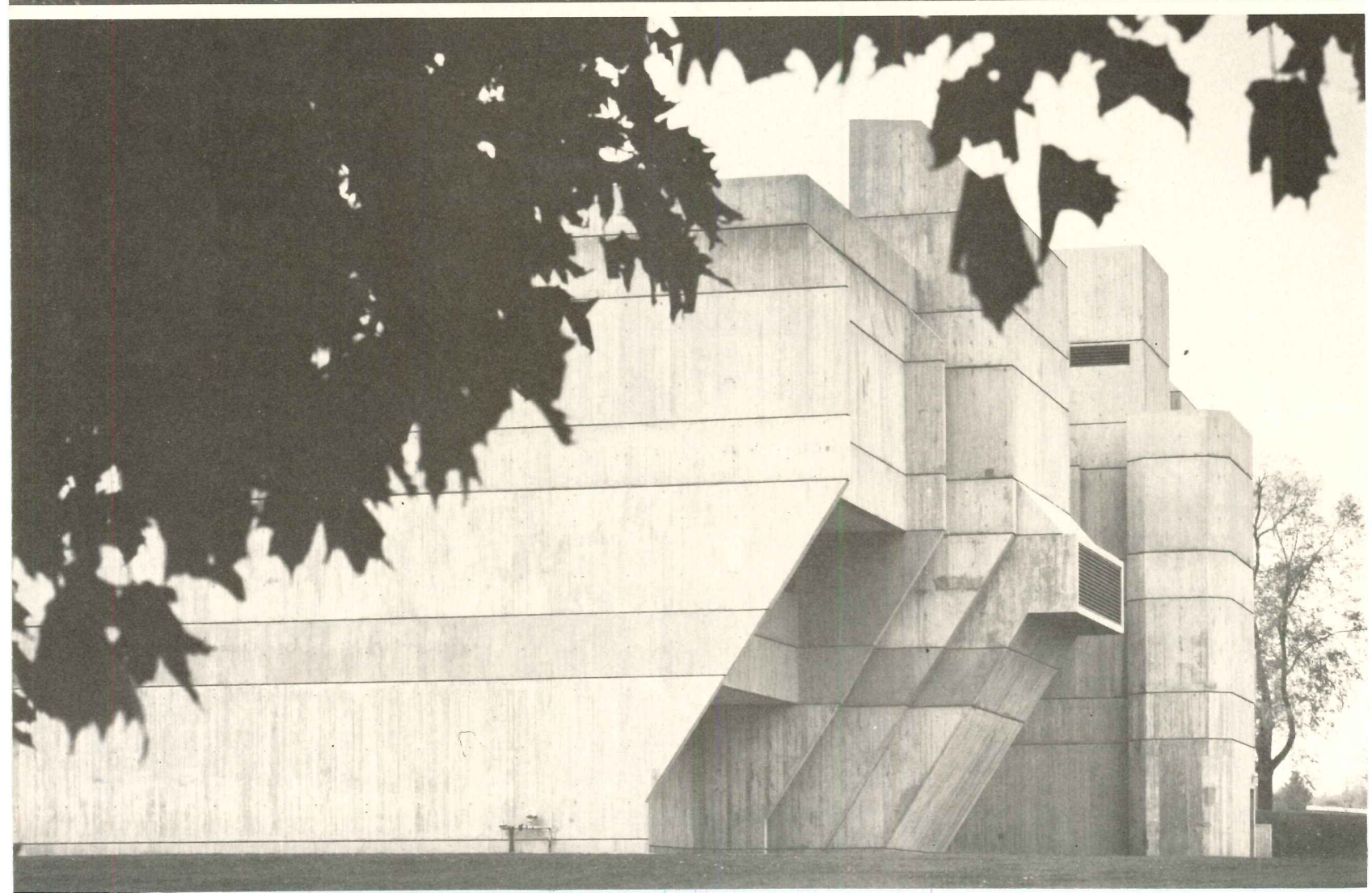
All patient rooms have either an east or west exposure. Dining areas are located off the elevator lobby so that they can be used for evening activities without disturbing patients in bedrooms.

CITY OF SALEM LONG-TERM CARE FACILITY, Salem, Massachusetts. Architects: *Campbell, Aldrich and Nulty—Nelson W. Aldrich and James J. Fitzgerald, partners-in-charge; Herman F. Woerner, designer and project manager.* Hospital consultants: *Isadore and Zachary Rosenfield.* Engineers: *Weidmann and Brown* (structural); *Shooshanian Engineering* (mechanical/electrical).



Phokion Karas photos





IOWA UNIVERSITY MAKES PLANS FOR SIT-DOWN DENTAL TEAMS

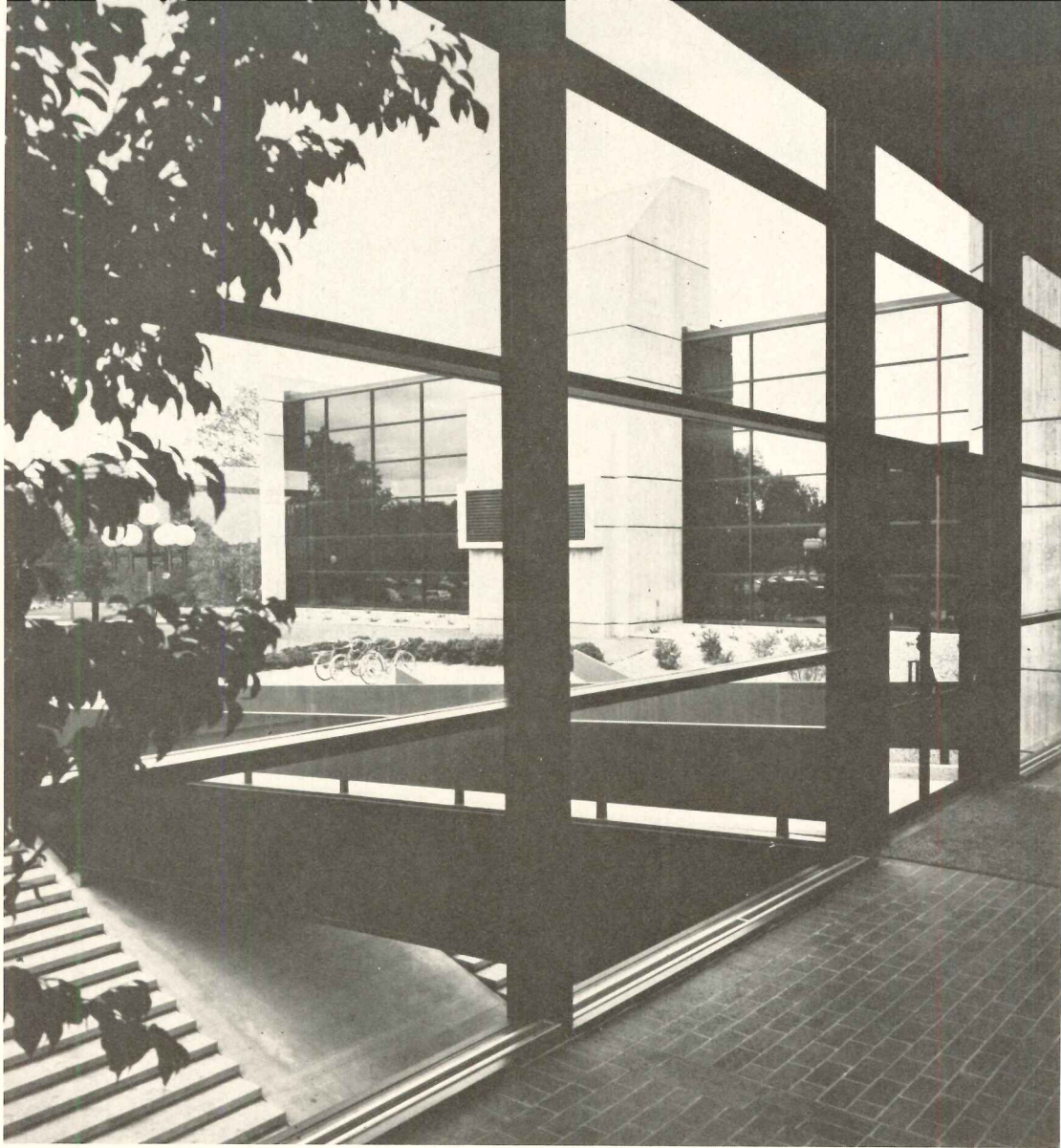
The University of Iowa Dental Science Building is programmed to handle a projected major increase in college enrollment. Since existing facilities could not be intensified in their use to handle this surge, a major new facility was required to be integrated physically and administratively with the university's evolving medical center complex.

The thoughtful massing of two reinforced concrete wings avoids the aspect of a fortress by an open connecting structure of glass enclosed walkways and bridges. One of these bridges houses a reception area and lobby for central auditorium facilities. Layering of the central section provides not only access to the auditorium but also pedestrian linkage between the two wings.

Dental instruction cubicles, called operatories, are different from older conventional cubicles in that they are designed with emphasis on sit-down four-handed dentistry. The resultant increase in both instructional and dental personnel is accommodated by a "racetrack" layout of corridor and cubicle spaces.

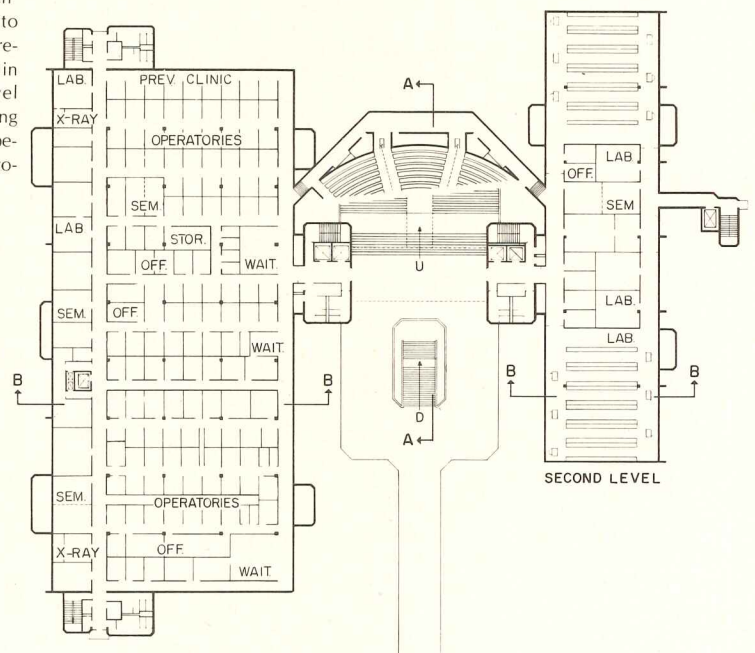
Initial designer of the prototype operatory was Dr. Dale Redig, formerly chairman of the University of Iowa's Pedodontics Department. The concept was refined by Earl Walls Associates, and design development for the production model was done by SH&G.

UNIVERSITY OF IOWA COLLEGE OF DENTISTRY, Iowa City, Iowa. Architects and Engineers: *Smith, Hinchman & Grylls Associates, Inc.*—project manager: *Carl Pirscher*; project designer: *Dale Johnson*; project architect: *Howard Droz*; project mechanical: *R. Colasinski*; project structural: *T. Marzotto*.

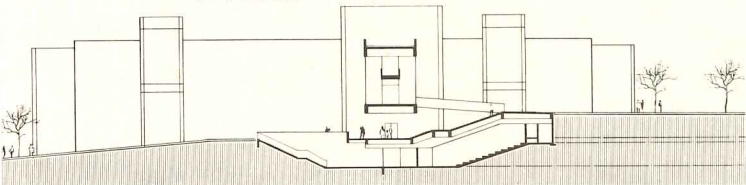


Michael C. Mitchell photos

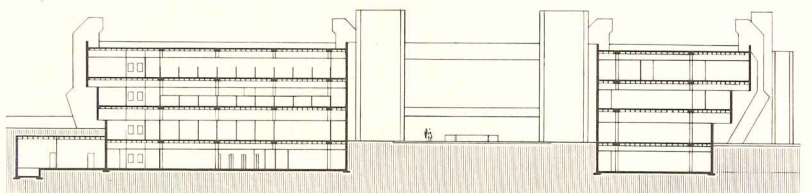
Evolution of the dental training operatory called for disciplined traffic planning for exchange of central supplies and increased personnel for the seated, four-handed dental technique now coming into vogue. Exceptional air exchange requirements are expressed in vents in the concrete structure. Level changes in the structure connecting the two towers accommodate pedestrian traffic and access to auditorium spaces.



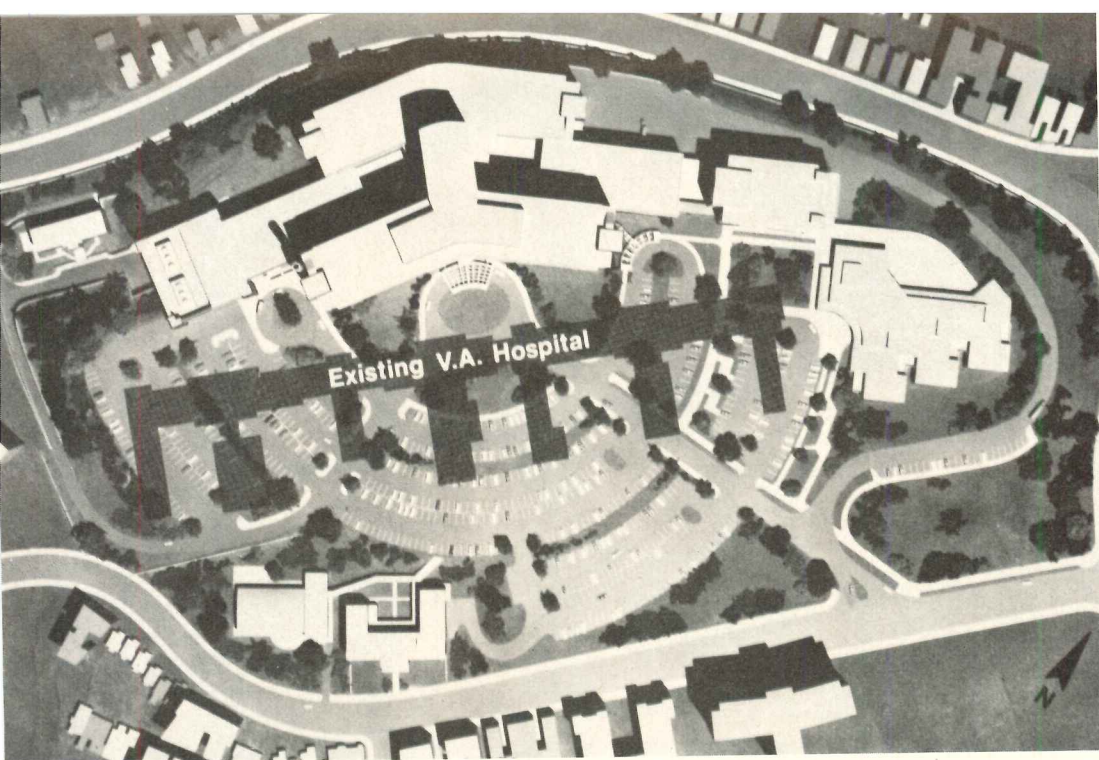
SECOND LEVEL



SECTION A-A



SECTION B-B



A VA REPLACEMENT HOSPITAL

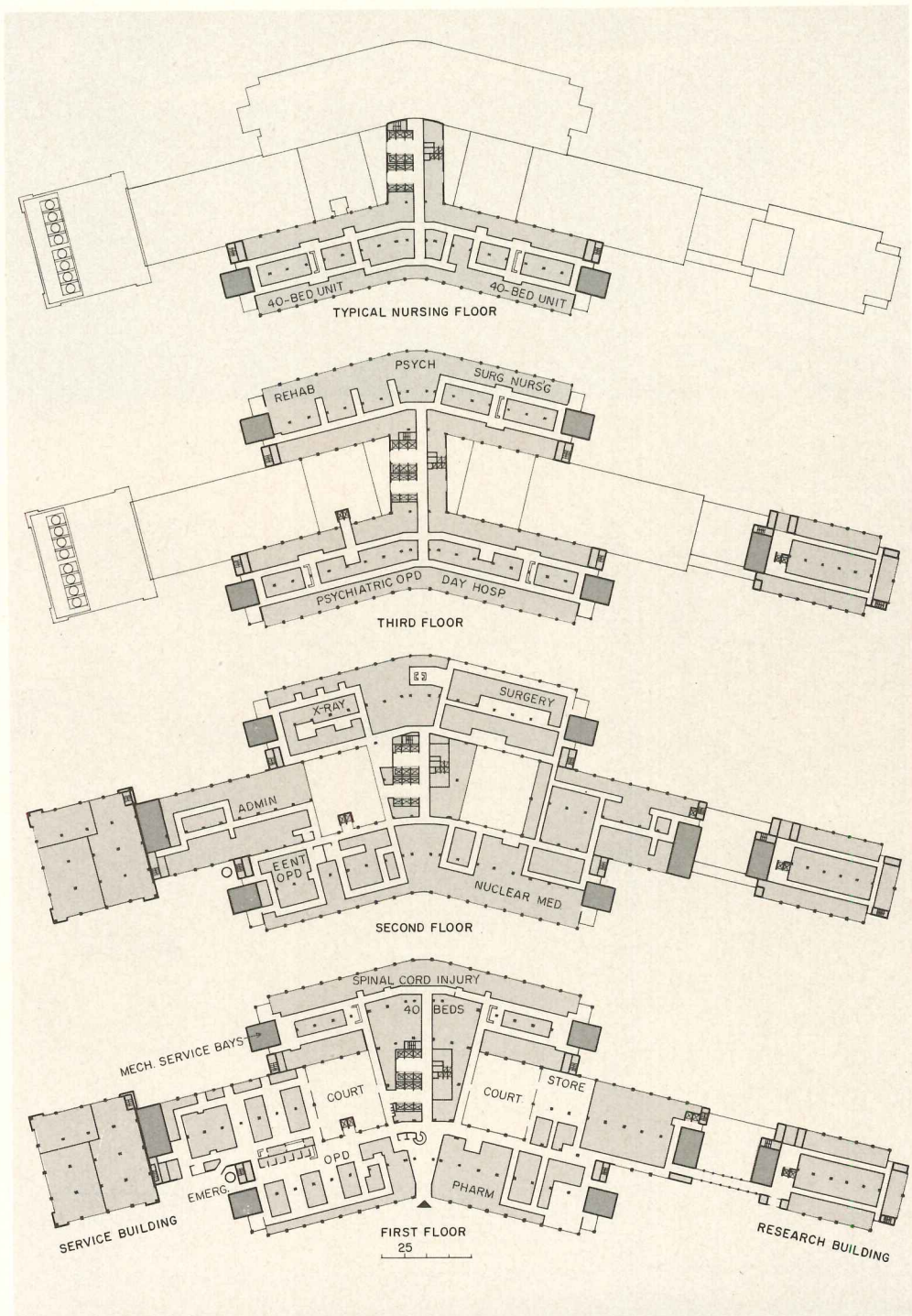
PLANNING IN DEPTH FOR NEW SYSTEMS ON A CITY SITE

The Veterans Administration is probably the largest client for medical facilities in the world. As responsible owner, the VA has supported research programs in the science and logistics of patient care and in the techniques of construction that will control costs and facilitate care.

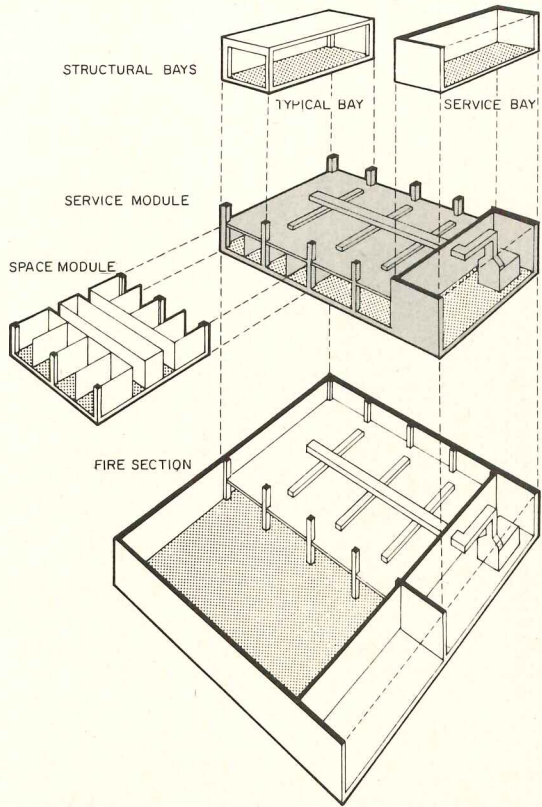
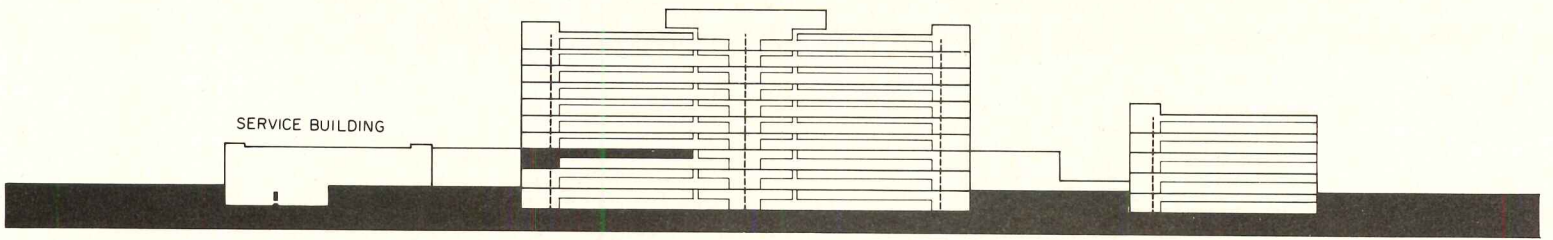
In the RECORD for June 1972, George Agron of Stone, Marraccini & Patterson reported on a research project for systems development for the VA performed by that firm in joint venture with Building Systems Development, Inc. And in September 1973, further development of the system was reported in its application to the Loma Linda VA Hospital by that same joint venture.

Adaptability of the system (schematic principle is shown in the panel opposite) has been demonstrated in various configurations in hospitals since that time. One of the most demanding of such applications has been in the planning of the VA Replacement Hospital for The Bronx in New York, shown here.

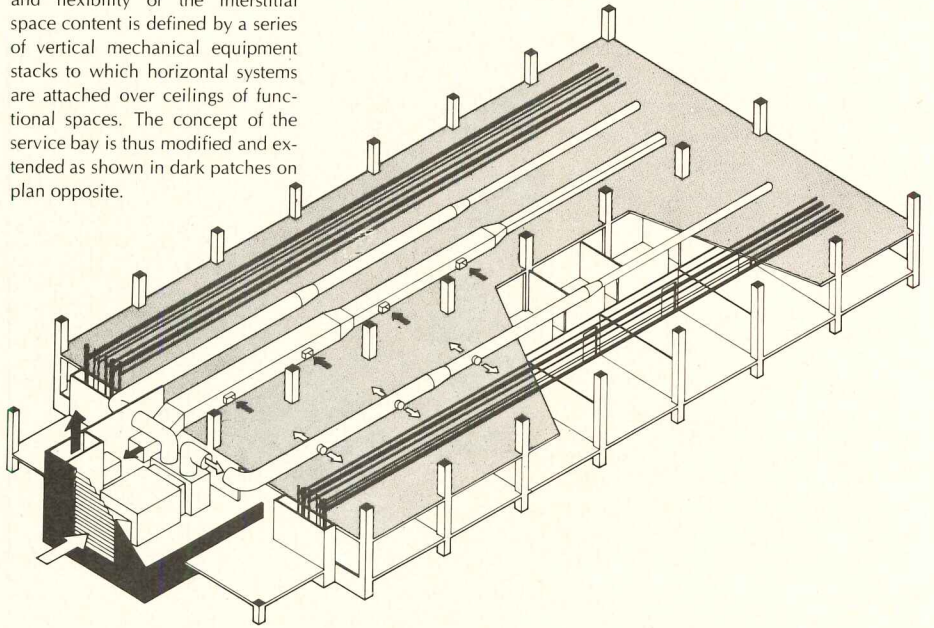
The Bronx project is scheduled for completion in mid-1977, three years from start of construction. The speed of construction (exceptional in view of a rigorously paced phasing of occupancy transfer from a large existing facility while new construction proceeds) is secondary in importance to the whole new mode of interaction between this client and the private consulting universe. The VA and consultants are making of this project a proving ground of fast-track and other construction management techniques. Further, the close collaboration between Emile de Armas, director of VA Preliminary Planning Services, and the consulting architects, Max O. Urbahn Associates, Inc., began as a planning commission during the preliminary phases of design. In former times, VA architectural commis-



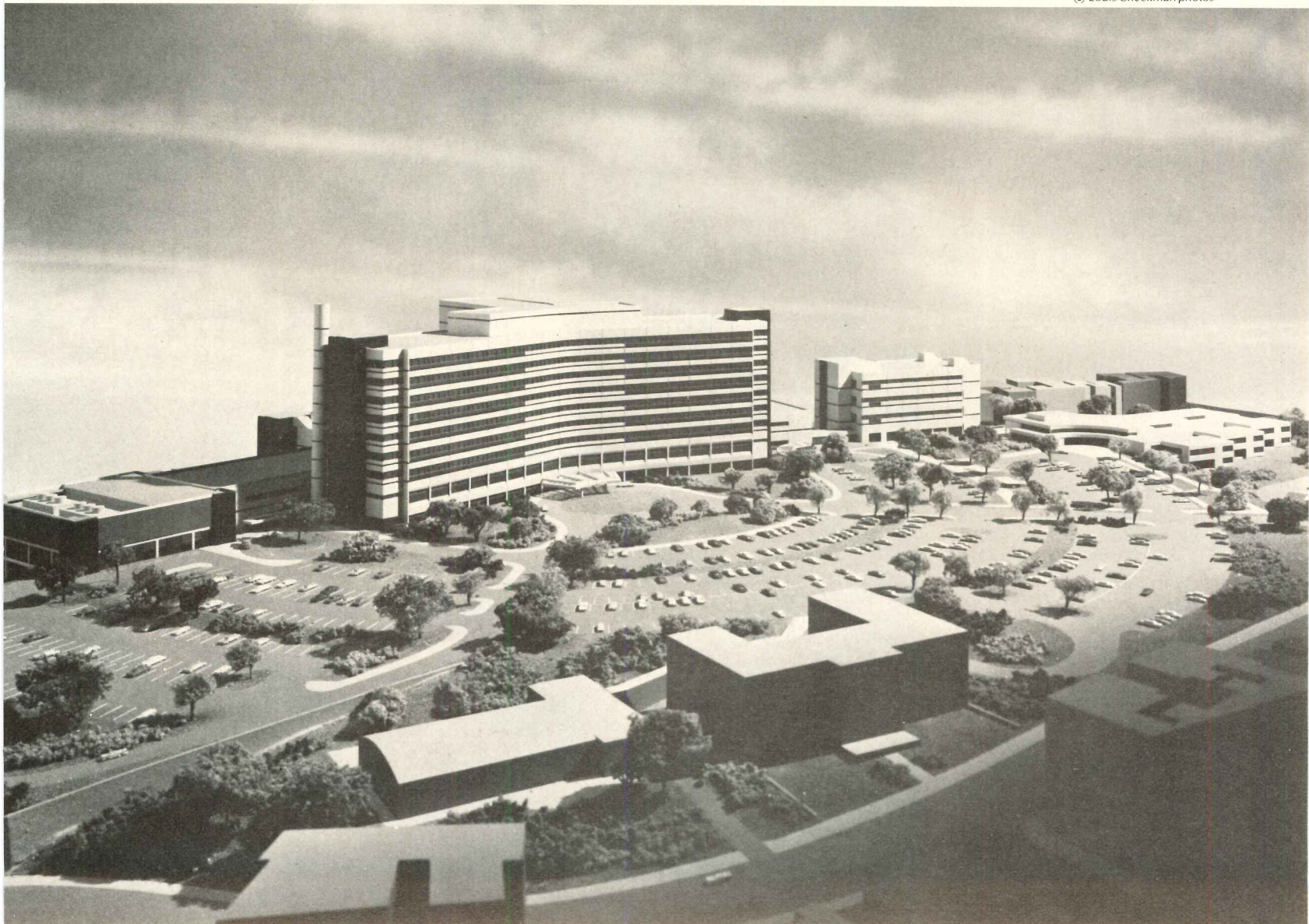
SERVICE BUILDING



Adaptability of the basic VA structural module to a variety of shapes and dimensioning is demonstrated in The Bronx hospital. Discipline and flexibility of the interstitial space content is defined by a series of vertical mechanical equipment stacks to which horizontal systems are attached over ceilings of functional spaces. The concept of the service bay is thus modified and extended as shown in dark patches on plan opposite.



© Louis Checkman photos



HEALTH FACILITIES

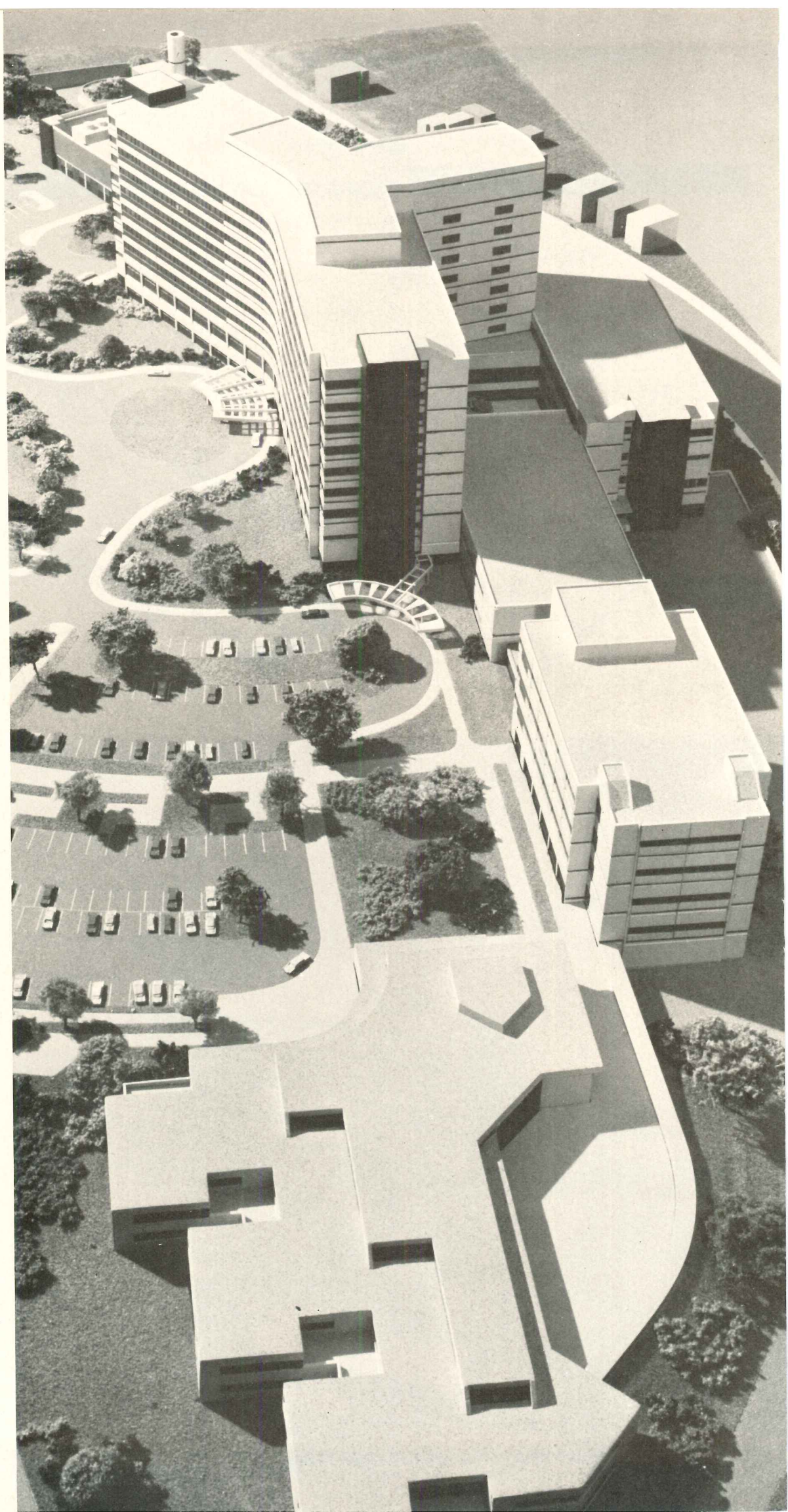
sions began with a completed program and consisted only of the production of contract documents.

The complex consists of a 702-bed, nine-story teaching hospital (787,000 gross square feet) with service and research wings (another 100,000 gross square feet). It will be built on the 30-acre site of an existing hospital which must continue to operate until the new facility is completed. Existing hospital will then be demolished.

An important element that makes this VA hospital different from conventional facilities is an extensive 40-bed spinal-cord-injury unit located on the first floor. This will be one of the great centers in the world for this kind of injury. The unit has a separate entrance at the opposite end of the wing from the emergency entrance, which in turn is adjacent to the outpatient department near the service building. The service building is the main source of energy and central services for the whole hospital and is on the opposite end of the complex from the research building. The research building will be phased into service as requirements develop. The hospital supplies and food are received at a truck service area in the basement which also provides processing and assembly spaces for closed carts moved by an automated vertical system. Here too will be a collection point for soiled linen and trash that will be moved by a high velocity vacuum system.

The basic planning module consists of a vertical mechanical system serving horizontal ceiling spaces over a floor area of approximately 13,000 sq ft of patient and medical staff area plus a mechanical service bay. Mechanical and electrical distribution is by tunnels from service building to vertically stacked mechanical service bays at the ends of each floor.

VETERANS ADMINISTRATION REPLACEMENT HOSPITAL, The Bronx, New York. Preliminary Planning: *Veterans Administration Preliminary Planning Service, Emile de Armas, director, with Max O. Urbahn Associates, Inc.* Architects: *Max O. Urbahn Associates, Inc.—design: Martin D. Stein; project manager: Roy E. Nelson; job captain: Daniel Rodriguez; designer: Victor Belcic; hospital planner: Albert C. Levenelm.* Engineers: *Bellante, Clauss, Miller & Nolan.* Landscape architects: *Environmental Design Associates.* Consultants: *Wilbur Smith & Associates (traffic), Woodward Moorhouse & Associates, Inc. (seismic); George A. Fuller Construction Company (construction).*



A flexible lab is built fast using off-the-shelf components

A high degree of flexibility and modularity are practically *sine qua non* for laboratories these days. But beyond these requirements, the Stamford Hospital Laboratory Addition by architects Perkins & Will had to be both designed and built rapidly. For this reason the architects and their engineers turned to simple, off-the-shelf items requiring a minimum of special fabrication: precast floor planking, package air-handling system, and modular laboratory furniture.

The over-all concept was to develop a strip of support offices, specimen-taking facilities and computer room in existing space on the ground floor of the main building. The new laboratory facility adjoins this, comprising 9000 sq ft of space plus full mechanical support and distribution space underneath.

The design approach for the addition was to build an open room with modular utilities. Installed, as needed, in this space was a metal

frame system to support furniture, counters, shelves, equipment, storage and utilities. The grid, installed by the contractor, allows relocation in a variety of configurations.

For speed and economy, the structure is a steel frame with precast concrete floor and roof planks. The package air-handling system is supplied with chilled water from the hospital's central system. Ducts are modular in design, with outlets located so as to serve independent modules on a 10- by 12-ft module, if required.

Electrical distribution is by a floor-duct system on 10-ft centers, with outlets for normal and emergency power every 2 ft. A low-voltage tray, and additional normal power are run at the ceiling. Pendant-mounted lighting fixtures are run in continuous rows to provide 100 footcandles, and they are switched so that three of four fixtures can be turned off in a checkerboard pattern for reduced illumination.

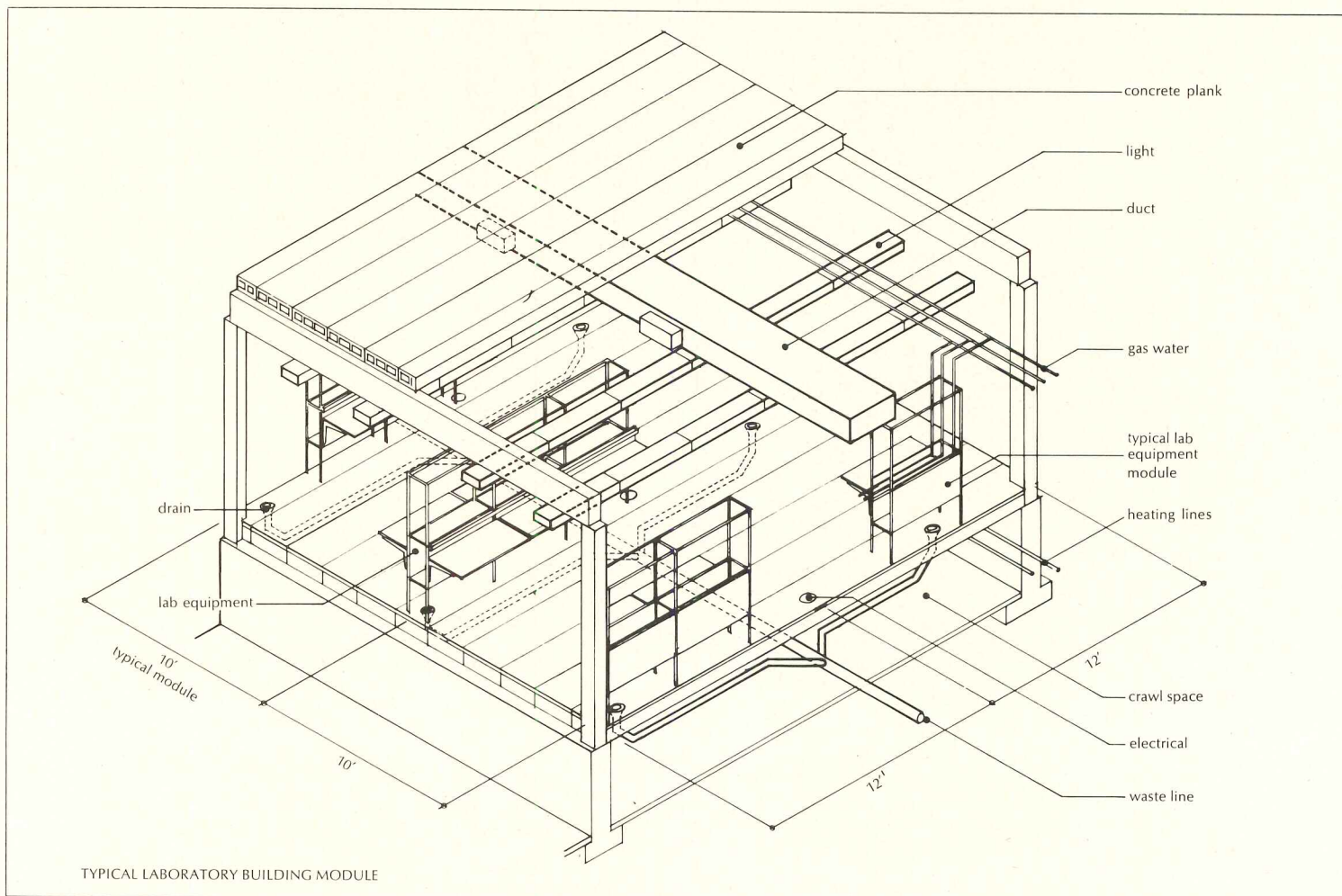
Medical gases, hot water, cold water, and

natural gas are run in a ceiling rack with takeoffs at 10-ft intervals. Connections are of the quick-disconnect type. Floor drains are capable of being adapted for direct connections, and are provided on a 10-ft module.

The entire building has a sprinkler system, fire-detection and alarm system, and a series of other safety devices. Safety systems include fire blanket, extinguisher, emergency shower and eye-wash station available to every part of the laboratory.

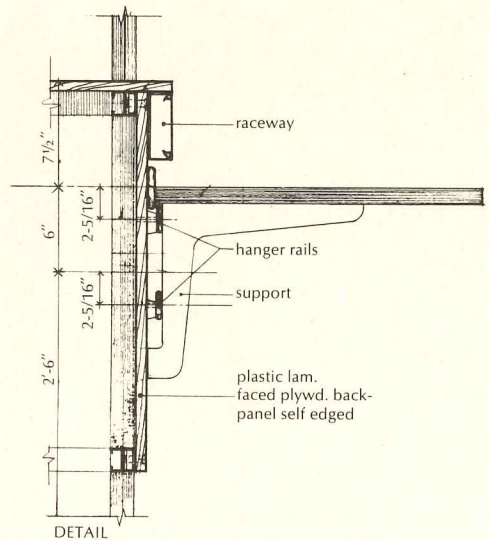
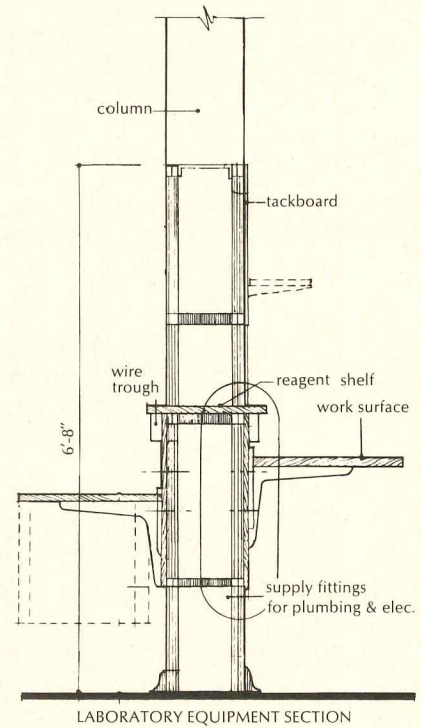
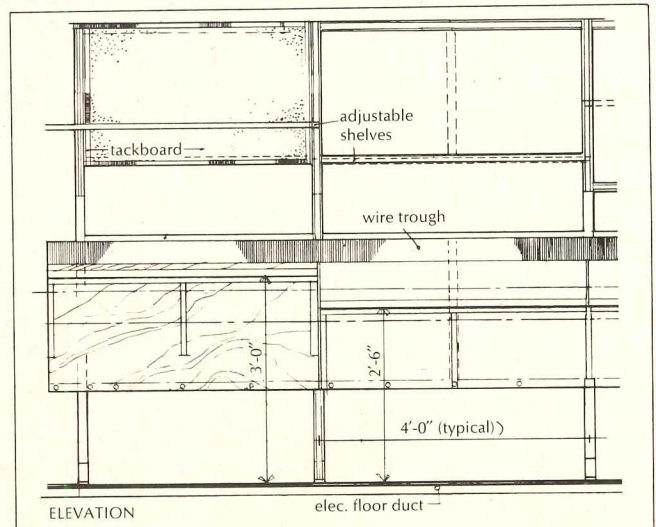
The duct system has sound traps and other acoustical provisions. The open ceiling design was developed to allow, if needed, the future addition of acoustic panels.

STAMFORD HOSPITAL LABORATORY ADDITION, Stamford, Connecticut. Architects: *Perkins & Will*. Engineers: *Sol Marenberg Associates* (structural); *Perkins & Will Engineering Division* (mechanical/electrical).

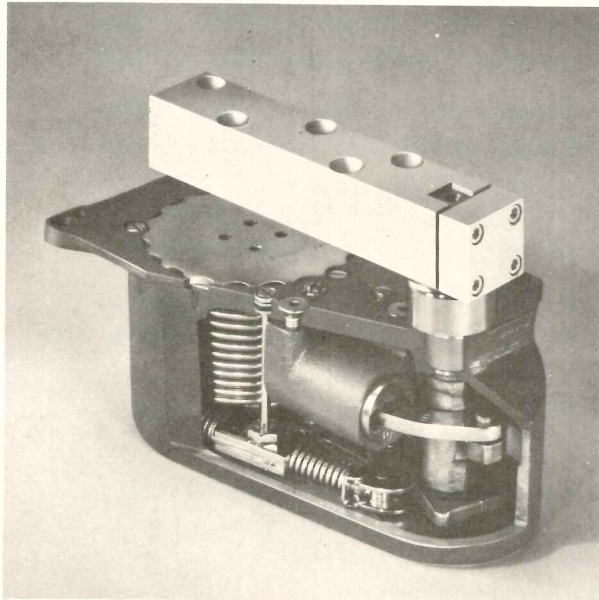


All the storage, shelves, counter and desk units are hung from a steel frame installed by the contractor. The configuration of the units can be changed at will. The laboratory furniture design provides space for wire troughs, and supply fittings for plumbing and electrical services. A continuous raceway at the counter has outlets for electrical equipment.

The continuous rows of pendant-mounted lighting fixtures are circuited so that three out of four fixtures can be switched off in a checkerboard pattern, if needed, for reduced illumination.



For more information, circle item numbers on Readers Service Inquiry Card, pages 223-224.



Heavy-duty, concealed closer for hefty doors

An extra heavy-duty, concealed floor closer for exterior and interior doors is recommended for lead lined and extra heavy doors 2 in. thick or larger, weighing up to 1000 lbs. The fully concealed, center-hung, single-acting unit provides door openings at 85, 90, 95 or 105 degrees. Positive stop and hold-

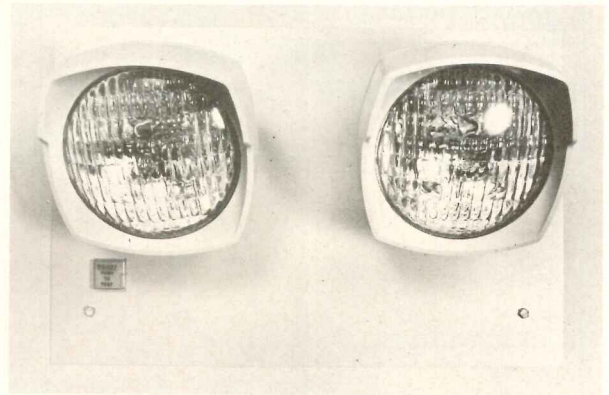
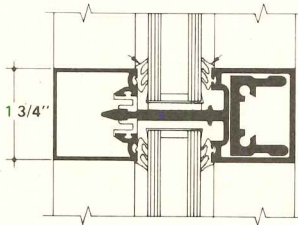
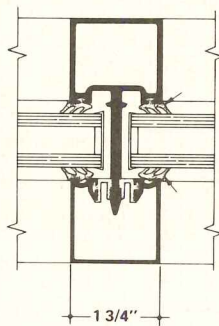
open is available at the same degrees with three options: non-hold-open; automatic hold-open; and selector hold-open which stops and holds when manually set. It is available in all standard and plated finishes. ■ Rixson-Firemark, Inc., Franklin Park, Ill.

Circle 300 on inquiry card

Storefront system saves energy, labor

Available in clear, bronze and light bronze finishes, as well as painted finishes, the system uses 5/8-in. or 1-in. insulated glass with an adaptor for transition to 1/4-in. glass. Few extrusions or parts are used. ■ Amarlite/Anaconda, Atlanta, Ga.

Circle 302 on inquiry card



Almost invisible emergency lights are recessed

Powered by a sealed lead calcium battery, Model 460 is made to be completely recessed in a 4-in. wall. The flush cabinet can be finished to match any wall. A selection of decorator finishes is offered. Once installed, all that extends are two

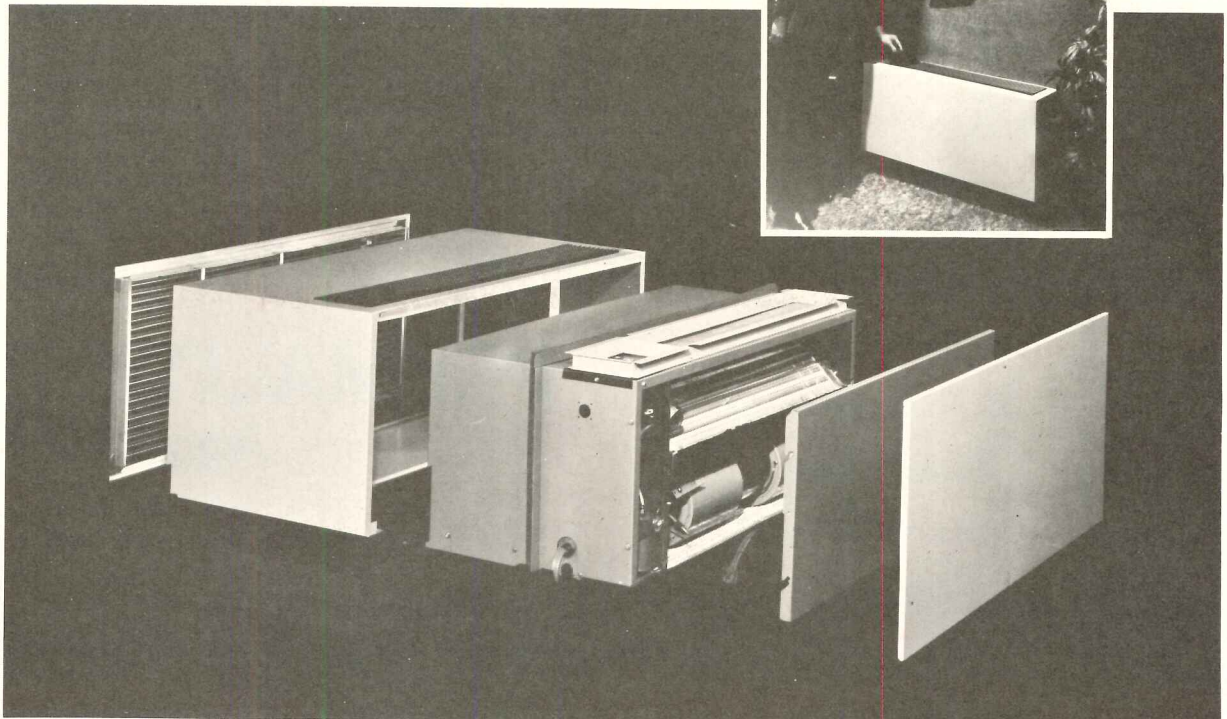
18-watt heads with a swivel which permits positioning. The battery is maintained at full charge automatically by a solid-state built-in charger. ■ Tork Time Controls, Inc., Mt. Vernon, N.Y.

Circle 303 on inquiry card
more products on page 161

Through-the-wall unit cools and heats

Called the *Modulaire II* packaged terminal unit, this product is said to offer complete environmental comfort-conditioning functions including ventilation, air filtration and dehumidifying in addition to heating and cooling. The unit is equipped with a 60,000-hour life-rating compressor, and separate motors to perform evaporator and condenser functions. The chassis is mounted in an enclosed, insulated housing within a well-insulated room cabinet to provide quiet operation. Cooling outputs offered are 9000-15,000 BTU/hr and heating outputs are 7000-17,300 BTU/hr. ■ Chromalox Comfort Conditioning Div., Emerson Electric Co., St. Louis, Mo.

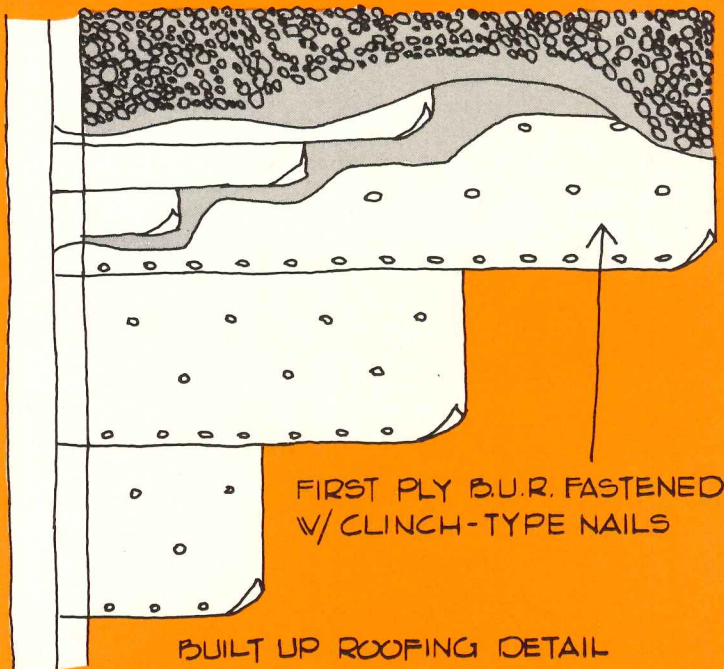
Circle 301 on inquiry card



LIGHTWEIGHT SOLUTIONS TO WEIGHTY PROBLEMS

NO. 3-A IN A SERIES

Insulation for tomorrow—today.

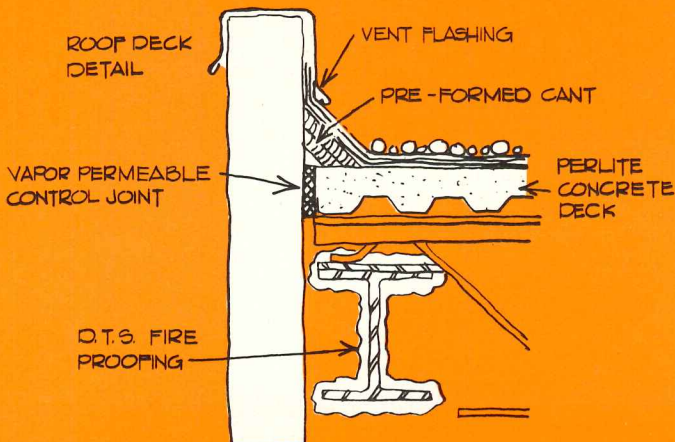
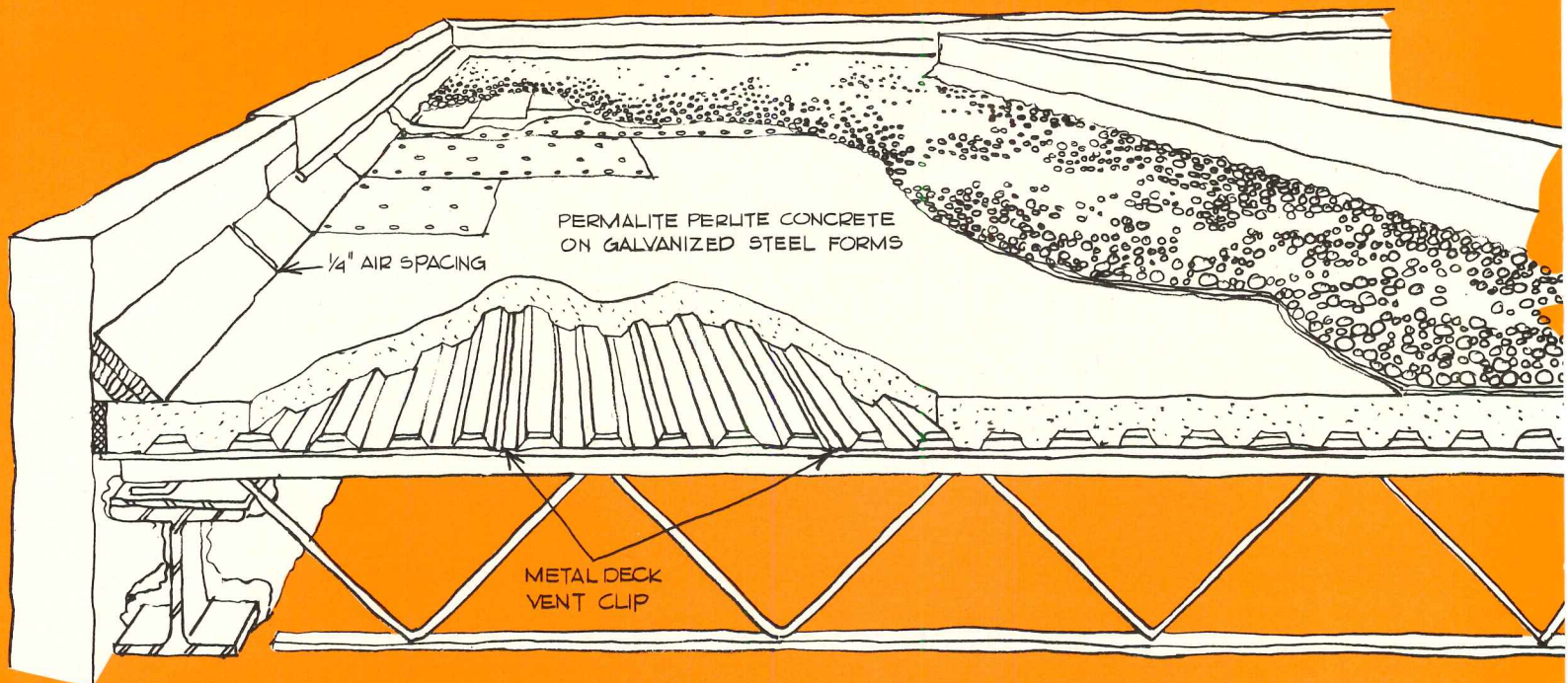


Permalite® perlite insulating concrete roof decks have stood the test of time for over 25 years. One of the first major installations was the perlite concrete roof deck of the United Nations Assembly Building erected in 1949.

Today, architects specify Permalite perlite concrete decks for fire and wind resistance, for controlled drainage, excellent insulation and permanence. There is nothing in perlite-portland cement concrete to rot or decay.

New roofing systems permit quicker curing of perlite concrete. New equipment means faster, more economical placement. Franchised manufacturers assure ready availability in most major cities.

GREFCO has a data sheet for you. It details fast-drying, wind-resistant construction of roof decks of Permalite perlite concrete. It's yours for the asking.



PERMALITE® PERLITE Aggregate

THINK OF IT AS AN ENERGY SAVER!

Permalite®
— the world's leading perlite.

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



A subsidiary of General Refractories Company

For more data, circle 65 on inquiry card

For more information, circle numbers on
Readers Service Inquiry Card pages 223-224.

SHOPPING CENTER LIGHTING / The company has published a new 12-page "Lighting Guide for Shopping Centers & Chain Stores" illustrating its lighting fixtures in indoor and outdoor applications. The brochure also describes a "systems" approach of offering single-source responsibility for fulfilling all of the lighting-fixture needs of such installations—for both new projects and remodeling. In addition, according to the new publication, the company makes available computer cost analysis and concept design assistance, all coordinated through a retail lighting specialist. ■ Keene Corp., Union, N.J.

Circle 400 on inquiry card

SOLAR HEATING/COOLING / A new brochure detailing a new completely packaged solar energy system designed for the heating and cooling of buildings covers the entire system and all applicable auxiliary equipment. System characteristics including a schematic layout and useful application information are also included in the brochure. ■ Edwards Engineering Corp., Pompton Plains, N.J.

Circle 401 on inquiry card

PORCELAIN ENAMEL PANELS / The bulletin shows the company's newly-developed embossed porcelain enamel panels with a sand textured finish. The bulletin shows how this textured finish brings new application possibilities with porcelain enamel on steel for the architectural design of fascia, spandrel and wall paneling. ■ Ferro Enameling Co., Oakland, Cal.

Circle 402 on inquiry card

CONCRETE SHEAR STRENGTH / "Shear in Reinforced Concrete," SP-42, a two-volume publication containing 39 papers by authors representing ten different countries is now available from the American Concrete Institute. Of direct interest to designers are papers covering construction joints in shear walls, design of corbels, shear strength of cracked membranes, and design of dynamically-loaded beams. Several papers have application to members subjected to seismic loads. Volume 1 covers the basic mechanics of shear transfer and shear in medium slender to slender beams. Volume 2 deals with shear in deep beams, brackets, walls, columns and slabs. ■ American Concrete Institute, Detroit, Mich.

Circle 403 on inquiry card

ROUND CEILING DIFFUSERS / A 28-page catalog covering a complete line of round ceiling diffusers and accessories includes stationary, two-position adjustable and fully adjustable models, available in steel or aluminum. Also included is a quick selection guide, specification drawings, specifications and engineering performance and balancing data for the complete line. ■ Krueger Div./Lear Siegler, Inc., Tucson, Ariz.

Circle 404 on inquiry card

LIGHTING PRODUCTS / A 250-page catalog is said to facilitate the selection and specification of various components required for myriad lighting systems. In addition to product and application information, it considers architecture, design, esthetic and mechanical-structural requirements. Forty-six individual catalogs are contained in the ring binder, the contents of which are presented in four-color and two-color photographs, descriptions and drawings and charts. Photometric information on the various products is also included in the catalog, indexed by fixture shape and application, color coded. ■ Sterner Lighting Systems Inc., Winsted, Minn.

Circle 405 on inquiry card

EXPANSION JOINTS / A fully illustrated 24-page brochure describing *Elastalum/Allway*, an expansion joint seal with 360-degree movement, is factory bonded and mechanically secured to a specially pre-treated continuous aluminum retainer. Complete specifications, accessories and installation details on the various types of joint covers and seals are also included. ■ Construction Specialties, Inc., Muncy, Pa.

Circle 406 on inquiry card

ARCHITECTURAL METAL / The National Association of Architectural Metal Manufacturers announces that it has revised three of its technical publications. The Metal Bar Grafting Manual originally published in 1967 has been revised to provide architects and engineers with essential current technical data concerning bar gratings and stair treads of both steel and aluminum. The Hollow Metal Manufacturers Association has revised its brochure "Specifications for Custom Hollow Metal Doors & Frames." The specification provides an authoritative guide for the architect in properly specifying custom hollow metal work such as doors, frames and related items. The "Fire-Rated Custom Metal Doors & Frames" brochure attempts to clarify the essential aspects of fire-rating procedures and regulations and their design implications. ■ NAAMM, Oak Park, Ill.

Circle 407 on inquiry card

STEEL SUB-PURLINS / An updated technical brochure offers complete load data for 16-, 18-, and 20-gauge steel sub-purlins manufactured from hot-dipped galvanized rolled sheet metal. The purlin anchors the concrete slab against uplift forces and provides strong lateral bracing for 4- to 6-ft span designs. Assemblies using sub-purlins qualify for two-hour UL fire-rated designs P207 and P002. ■ United States Gypsum Co., Chicago, Ill.

Circle 408 on inquiry card

FIRE DOORS / A new four page bulletin containing photos, specifications and construction details of a line of fire doors describes lightweight double and single horizontal sliding models, manually or electrically operated. All models are delivered as a package unit designed to install quickly. All have a core of non-combustible materials in steel braced sections 3 ft wide (maximum), encased in 20-gauge steel and strengthened on all perimeters by 14-gauge steel channels. The track is of 10-gauge steel to prevent sagging and the electric operator is a heavy duty "1000 operations a day" unit. ■ Clark Door Co., Inc., Cranford, N.J.

Circle 409 on inquiry card

ARCHITECTURAL METAL / A manufacturer of metal components for the building industry, recently published a full-color brochure that includes photos and specifications of three exclusive architecturally styled panels. ■ Engineered Components, Inc., Stafford, Tex.

Circle 410 on inquiry card

COMMERCIAL, INDUSTRIAL LIGHTING / Methods of reducing the amount of energy used in commercial and industrial lighting are reviewed in a new booklet that explains the advantages, trade-offs, and pitfalls of the various methods of reducing power consumption while maintaining adequate, safe lighting levels. Topics covered include lamp removal and turnoff, replacement with lower wattage lamps, conversion to high-efficiency lighting, and methods of getting more light from existing fixtures. ■ Westinghouse Electric Corp., Pittsburgh, Pa.

Circle 411 on inquiry card

STEEL PARKING STRUCTURE / "The Steel Parking Structure" is featured in a new building report published by the Committees of Structural Steel and Steel Plate Producers of the American Iron and Steel Institute. The four-level facility described was constructed with a skeleton of weathering steel and measures 252- by 128-ft, providing 112,800 sq ft of floor area and a parking capacity for 319 automobiles. ■ American Iron and Steel Institute, New York City.

Circle 412 on inquiry card

BATHROOM IDEA BOOK / The book features the company's new series of high style, but practical bathrooms, designed to fit into the area normally allocated for bathroom construction. A total of eight designs are included in the series, six for rooms 5- by 8 ft and two to fit a room 5- by 10 ft. All designs can be modified to accommodate rooms that vary from these basic sizes. ■ Eljer Plumbingware, Pittsburgh, Pa.

Circle 413 on inquiry card

GYPHUM VENEER PLASTER / The 12-page brochure explains what veneer plaster is, how it should be applied, and the various components used in this system. Topics covered include: veneer base, joint reinforcement, one and two component systems, hand and machine application, finishes, direct application to masonry surfaces, and radiant heat cable systems. ■ Gypsum Assn., Evanston, I.

Circle 414 on inquiry card

RUBBER STAIR TREADS / This publication features six varieties of molded rubber stair treads, two types of molded rubber landing tile and color coordinated covered and flat risers along with sheet rubber and tile. Featured also are four types of vinyl stair treads along with color coordinated landing tile, cove risers and landing mats. In addition, two types of corner guards, four types of rubber nosing, and two gauges of rubber reducer strips are contained in this publication. ■ AFCO Rubber Corp., North Canton, Ohio

Circle 415 on inquiry card

BOOKSTACK COLORS / New color chip cards, issued by the company, present a spectrum of 1974 colors now offered on company library bookstacks, and other library furnishings and equipment. These colors, supplied in gloss finish are burnt orange, golden avocado, desert tan, English grey, French blue, crimson red, harvest gold, and arctic white, with a jet ebony black also available. ■ Estey Corp., Red Bank, N.J.

Circle 416 on inquiry card

MOISTURE-IGNORING ADHESIVES / A trio of 100 per cent solids, epoxy-resin-based adhesives unaffected by dampness before, during, and after cure will bond, patch, grout, seal, and protect dry structural materials; they are also formulated for sure-cure adhesion on damp, wet, even underwater substrates, according to the company. The compounds are described in a new eight-page, illustrated brochure. The products are currently being used in the rehabilitation of several sewerage plants and for the construction of potable-water pipelines and other facilities. Controlled modulus is another unusual product characteristic of the epoxies, available as a high-modulus rigid, non-brittle system and as a low-modulus, more flexible adhesive with "give" to adapt to the stresses of temperature change and impact. ■ Sika Chemical, Lyndhurst, N.J.

Circle 417 on inquiry card



Less energy to install. Less energy to operate.



The Energy Saver Ceiling System by Holophane.

We call our new integrated ceiling system "The Energy Saver" for two reasons.

First, because it saves human energy at the time of installation.

Unlike most ceiling systems, The Energy Saver snaps together without tools. There's no "erector set" complexity, or jockeying with nuts and bolts in awkward positions. The result: a cleaner, better-looking assembly in less time, with lower labor costs.

The second reason we call this system "The Energy Saver" is that it gives you better light and allows you

to see better than with conventional lighting systems, while consuming less electricity.

The scientifically-designed Percepta® luminaires practically eliminate veiling reflections, making every footcandle of light more effective. This significantly reduces power consumption. In fact, The Energy Saver Ceiling requires only 2 watts per square foot!

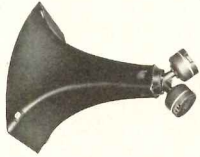
See your local Holophane representative. He has dramatic proof of The Energy Saver's benefits.

Or, write Holophane Service Center, Dept. AR-8, P.O. Box 16525, Denver, Colorado 80216.

Holophane®
Division, Johns-Manville Sales Corporation

For more data, circle 66 on inquiry card

LONG-THROW EXPONENTIAL HORNS / For professional sound systems these long-throw horns cast from urethane foam into exponential configurations provide structural rigidity and integral weatherproofing. De-



signed for the long throw of a narrow beam of sound, these horns feature a cut-off frequency of 190 HZ. Typical applications include arenas, auditoriums, churches, convention halls, race tracks and stadiums. Units are supplied with a low-luster black finish. ■ Dukane Corp., St. Charles, Ill.

Circle 304 on inquiry card

NO-HUB FLOOR DRAINS / No-Hub "Sani-ceptors" are available in various body depths and top sizes. All bodies include flashing flange, with optional flashing device. Top grate variations are available in nickel bronze or acid resisting enameled cast iron.



Full grates are regularly furnished (half grate shown). The No-Hub line now includes floor drains, roof drains and water closet support fittings. ■ Jay R. Smith Mfg. Co., Piscataway, N.J.

Circle 305 on inquiry card

FIRE, CRIME SECURITY / Called the System 7300, the product is said to provide rapid response to a variety of emergencies, including fire, intrusion, holdup, failure of automatic equipment and processes, etc. A compactly sized central console incorporating closed circuit television monitors, panels of coded signal lights and a computer-type printout module produces a permanent record of emergencies as they occur, indicating date, time, location and type of security problem. In addition to protecting major office buildings and industrial complexes, the system is designed for use by hospitals, universities and other institutions. ■ ADT Security Systems, New York City.



Circle 306 on inquiry card

BLACK TUB / Added to a line of one piece fiberglass bath and shower enclosures is "Diamond Black." The bathtub and shower have ledges for toiletries and a matching black vanity top is available. ■ Environmental Enclosures, Falls, Pa.



Circle 307 on inquiry card

DRINKING FOUNTAIN / This sculptured drinking fountain, Model 1005-B, has been introduced in stainless steel with a "Sienna Bronze" finish, for interior or outdoor environments. The waste strainer is integral with the bowl and the unit features a patented anti-splash ridge with a special vent for quick draining. It is particularly adaptable for use with a remote electric water chiller. ■ Haws Drinking Faucet Co., Berkeley, Calif.



Circle 308 on inquiry card

62-63

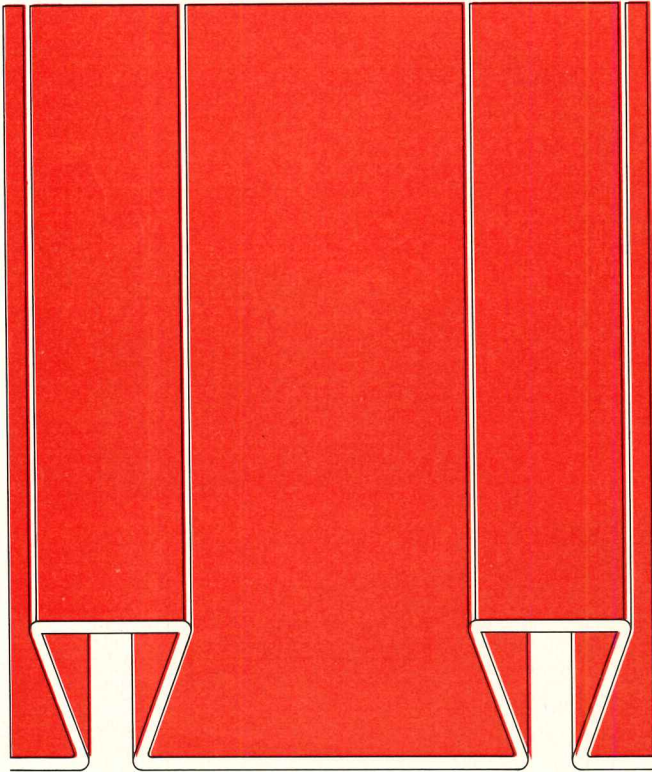
JG Furniture Company Inc. 121 Park Avenue
Quakertown, Pa. 18951

Auditorium seat designed by Peter Dickenson. Installed at the Temple Beth-Am, Abington, Pennsylvania. Architects: Vincent G. Kling



JG

EPICORE is not a fungible.



The strong profile

Because of its triangular ribs, EPICORE® Composite Deck contains more steel, length for length, width for width, and gage for gage than any other two-inch deck. It also develops a mechanical lock with concrete and supplies total positive reinforcement for the slab.

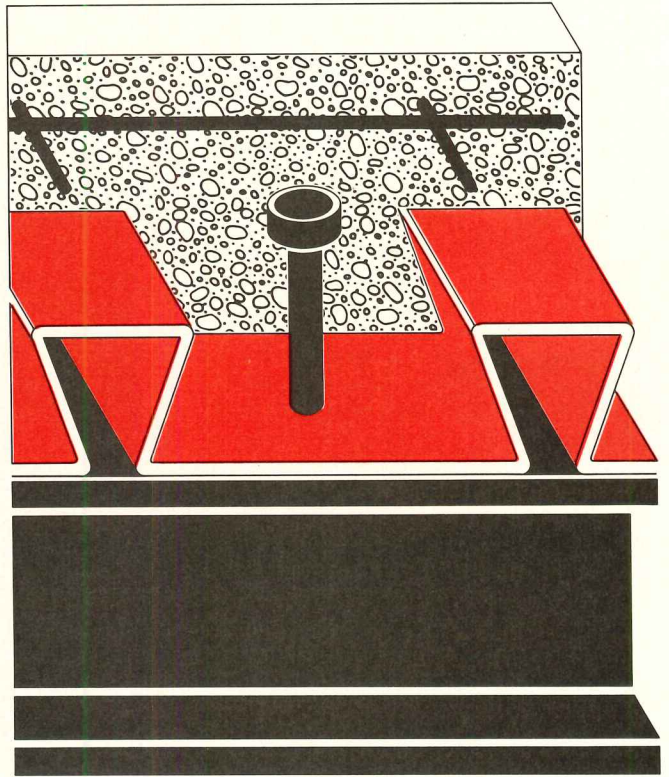
Best fire ratings for any two-inch deck

With the least slab depth, EPICORE has achieved the best fire ratings for any two-inch deck:

Unprotected EPICORE - U. L. Design #D904

- 1½ hour fire resistance
4¾ inches* regular weight concrete
- 2 hour fire resistance
4½ inches* lightweight (110 pcf) concrete, or
5¼ inches* regular weight concrete
- 3 hour fire resistance
5¼ inches* lightweight (110 pcf) concrete

*Total slab depth



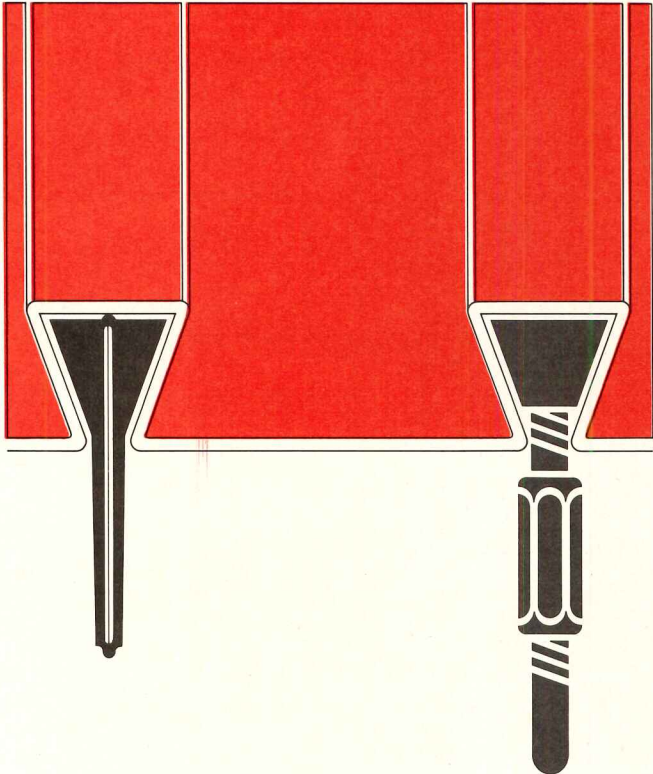
Superior composite beams

Composite beam construction is most efficient with EPICORE. Shallower, lighter-weight beams, placed farther apart, reduce the total height of the building and, therefore, the amount of exterior exposure and cladding. Construction is faster. Heating and cooling require less energy. Overall costs go down.

Safe platform for other trades

EPICORE helps the whole construction team. With proper design and installation, EPICORE can be used as a safe working surface by plumbers, contractors, electricians and all other tradesmen. Coordination is simplified. Each operation can be planned in advance and can be completed on schedule.

Observe.



Lifetime hanging system

Two hangers do the work: the standard for loads up to 200 pounds; the wedge bolt for loads up to 1000 pounds. Either can be inserted during construction or after occupancy, without chopping or drilling holes into floors or ceilings. With no dust or debris you can hang pipes, ducts, ceilings, mechanical and electrical equipment anywhere there is EPICORE, and you can use your own maintenance people for the biggest part of the job.

Hospitals, a natural for EPICORE

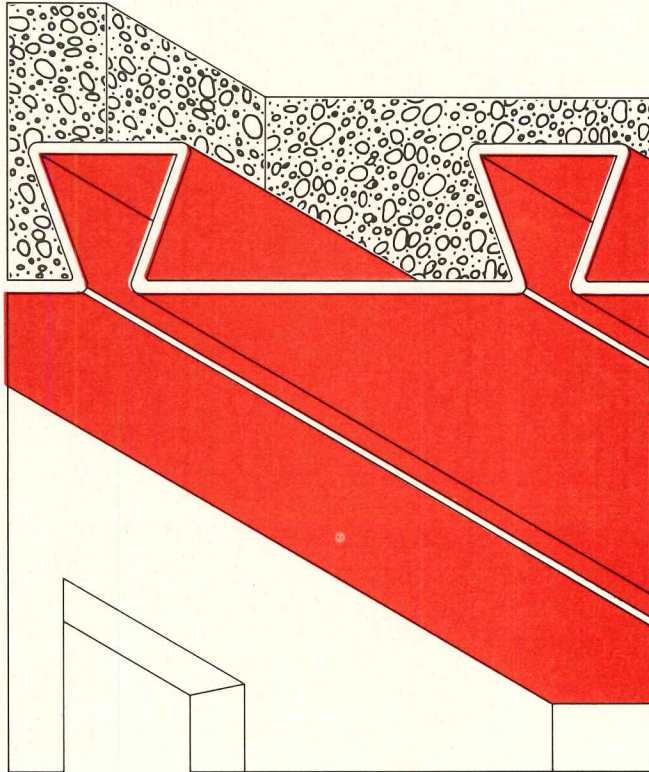
Shifting populations and new equipment require continuous changes in the use of space. With the EPICORE hanging system, relocating mechanical and medical support equipment is routine.

Telephone buildings and power plants

Sensitive components need meticulous care. Exploding technology spawns new equipment. Accessibility is critical for both. EPICORE provides it.

Schools

EPICORE improves their performance by making them more adaptable. The same can be said for office buildings, industrial facilities, shopping centers, even sports arenas. For all, EPICORE can prolong the useful life.



Apartments and motels with spans up to twenty-five feet

EPICORE Concept 2 is Epic's unique system for producing economical residential-type units with large, unobstructed areas.

First costs or life cycle

First costs are misleading. Look at the life cycle. Correctly designed, the EPICORE Composite Floor System reduces maintenance, remodeling and energy costs for the life of the building.

The next step

Epic engineers are available by mail, phone or in person to show you why **EPICORE is not a fungible, why there is no equal.** Call on their expertise to get the best performance from your next project.

EPIC
METALS CORPORATION

Eleven Talbot Avenue
Rankin (Pittsburgh), Pa. 15104
(412) 351-3913

For more data, circle 68 on inquiry card



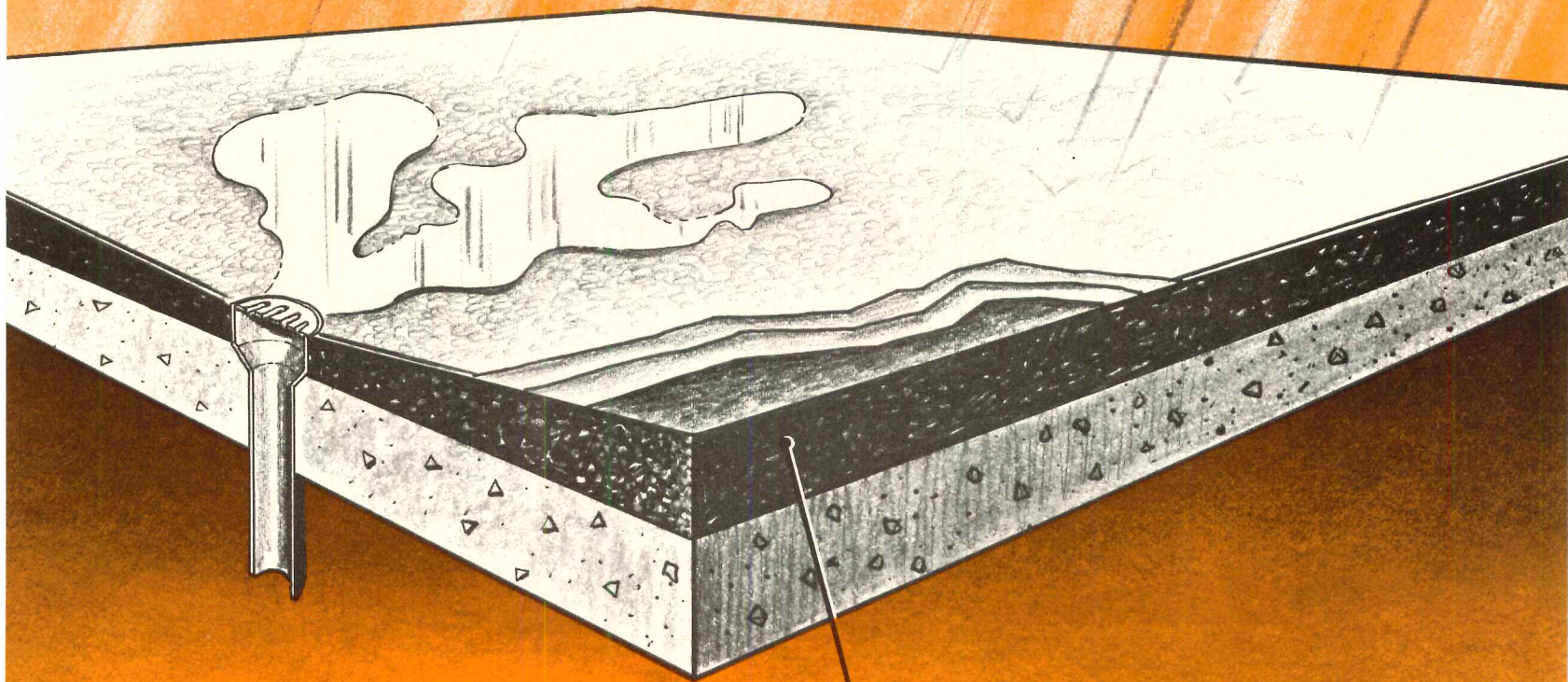
Here's a semi-concealed wardrobe that's just right for your needs. It's simple to install—easy to keep clean—and completely wall supported, nothing to interfere with floor maintenance. Comes complete with walnut hangers, hat and utility shelves. Also available in fully enclosed and floor supported models. Write for catalog.

VOGEL-PETERSON CO., Elmhurst, Ill. 60126

VOGEL-PETERSON

For more data, circle 69 on inquiry card

For more data, circle 70 on inquiry card




All-weather Crete[®]
INSULATION

How to achieve slope to drains when you insulate the roof deck!

Few things deteriorate a roof and cause leaks faster than ponding water. That's why roofing experts, architects and engineers unanimously agree that roof decks should slope to drains. The efficient, economical way to accomplish this is with All-weather Crete Insulation! This unique material not only provides the finest insulating value of any poured fill insulation, but it can be positively sloped to drains, all in the same operation. All-weather Crete is applied hot and dry (even in freezing temperatures) and compacted to form a smooth, seamless, sloped to drain deck which is ready for roofing immediately - no curing is necessary. It speeds construction!

No wonder All-weather Crete is also a top choice for plazas where slope to drains is critical. Compare the life/cycle costs of All-weather Crete with other methods. None can surpass it in the thousands of dollars saved through energy conservation and roof life longevity. Get the facts - contact your local All-weather Crete applicator or Silbrico Corporation, 6300 River Rd., Hodgkins, Ill. 60525, (312) 735-3322.


SILBRICO
CORPORATION

For more data, circle 70 on inquiry card

For more data, circle 71 on inquiry card

Marl[®]lite

is:

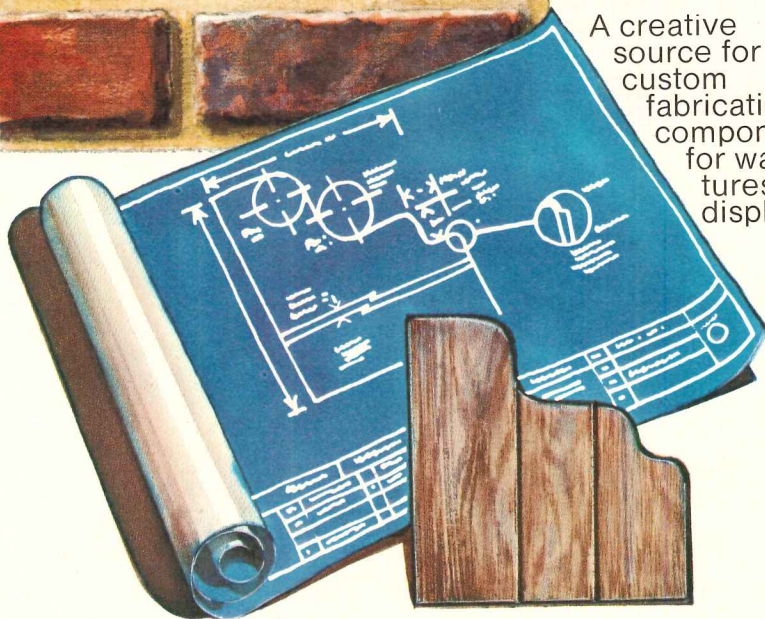


Decorative hard-board paneling in in bold or subtle colors that stay like new for ages.



Fresh ideas in fiberglass panels that add a touch of class to any special place.

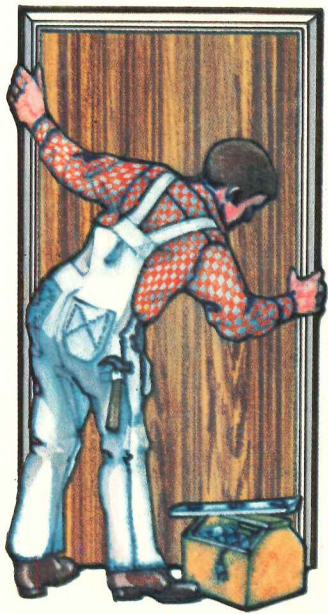
Original designs and patterns for wet-area applications to solve moisture problems.



A creative source for custom fabrication of components for walls, fixtures and displays.



more than



A door and frame system that cuts installation time from hours to minutes.

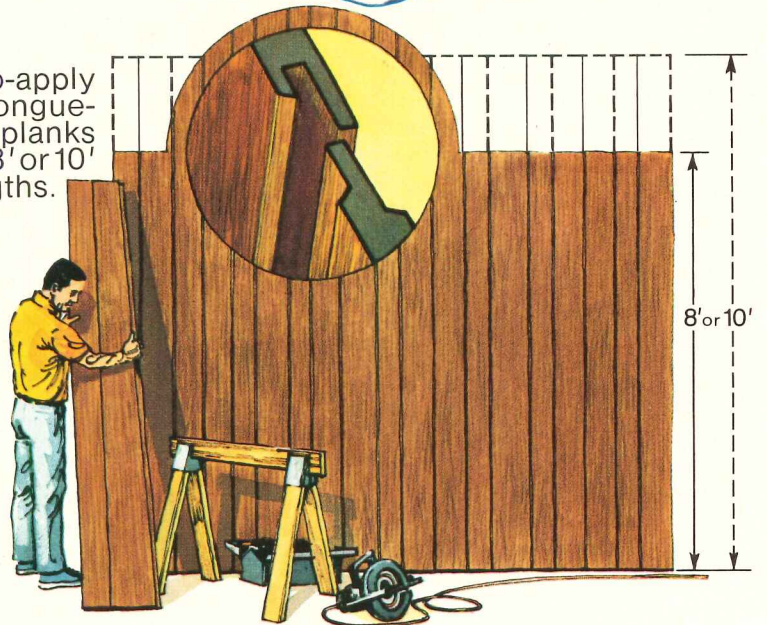


A complete system for office partitions and open planning to make the most of your space.



Authentic designs and deep-embossed textures add new dimensions to walls.

Easy-to-apply 16" wide tongue-and-groove planks in 8' or 10' lengths.



Thinking about walls? Find out about Marlite interior building products. Marlite, Dept. 805, Dover, Ohio 44622.

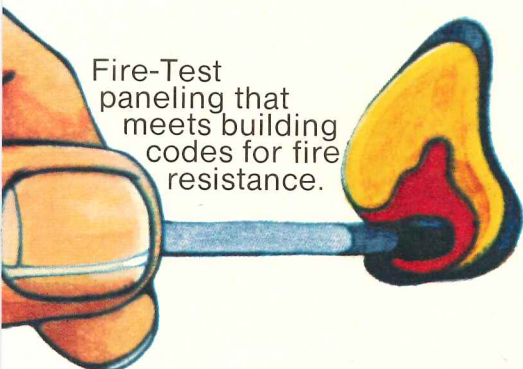
We make walls for special places.



Marlite[®]

Marlite Panels are hardboard with man-made finish. Marlite and Masonite are registered trademarks of Masonite Corporation.

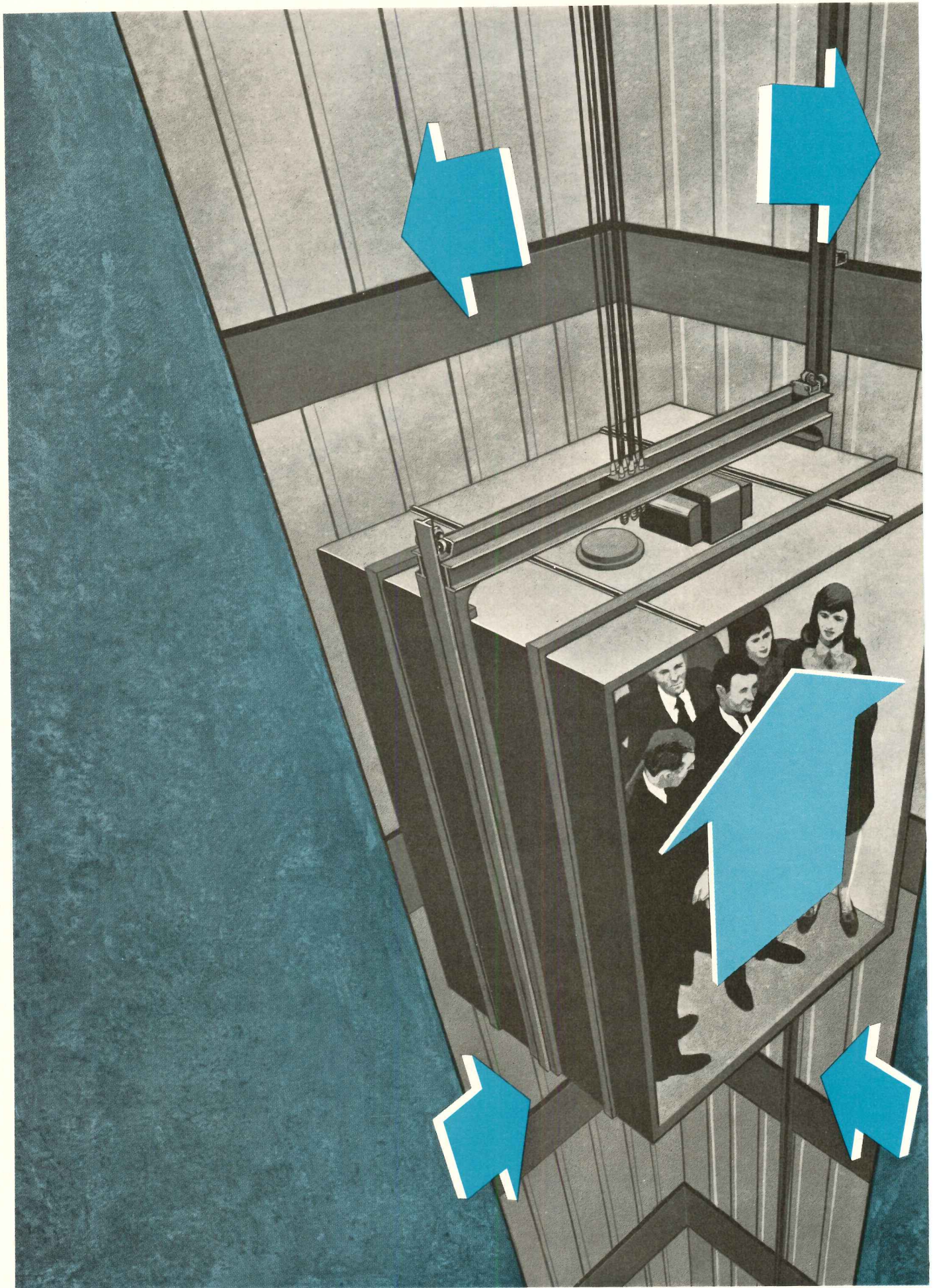
7409



Fire-Test paneling that meets building codes for fire resistance.

you think.

For more data, circle 72 on inquiry card





Positive
air pressure area

USG[®] Cavity Shaft Wall: the completely tested and proved working wall.

As originators of cavity shaft wall, we also developed the first extensive performance tests at the U.S.G. Research Center in Des Plaines, Ill. Only in this way could we assure you that this innovative system would meet such exacting demands of today's elevator shafts as:

- Air pressure loadings of from 5 to 15 lbs. per sq. ft. to accommodate the needs of high and low speed elevators.
- No failure within partitions and fasteners after being deflected over 1,000,000 times under 7.5 psf positive and negative cyclic loading.
- Completed assembly to resist air leakage up to 50 psf.
- Sound rating performance of from 39 to 51 STC.
- Fire resistance ratings up to 4 hours.

USG Cavity Shaft Wall is currently proving its versatility and economies in structures ranging from the four-story Trinity Hospital in Cudahy, Wisconsin, to the 110-story Sears Tower in Chicago. Review the many cost-saving advantages of USG Cavity Shaft Wall.

See our catalog in Sweet's, Sec. 9.5, or write to us for our new Gypsum Shaft Wall Handbook. 101 S. Wacker Dr., Chicago, Ill. 60606, Dept. AR-84.

Negative
air pressure area

UNITED STATES GYPSUM
BUILDING AMERICA

For more data, circle 73 on inquiry card

**PPG Solarban[®] 550 Twindow[®] insulating glass won't let anything stand in the way of beauty.
Not even climate.**

The Phoenix climate may be great for sinuses, but it presents some very special problems for buildings.

That's why Mountain Bell Plaza is such an important achievement.

The building conquered Nature where it had to, and used it for effect where it could. And PPG Solarban 550 Twindow insulating glass made that possible.

PPG Solarban 550 Twindow insulating glass units help keep the Arizona heat from coming into the building and air conditioning costs from going out of sight. (It has a shading coefficient of 0.24, which reduces solar heat gain 76% compared to single-glazed clear glass.)

But the real beauty of it is the beauty of it. Its reflectivity. The subtle, somewhat-muted reflections in this glass belie the harsh, relentless sunlight being reflected.

Far from being a giant, garish mirror, this building reflects its surroundings with a discriminating eye. And gives the whole area a certain beauty it never had before.

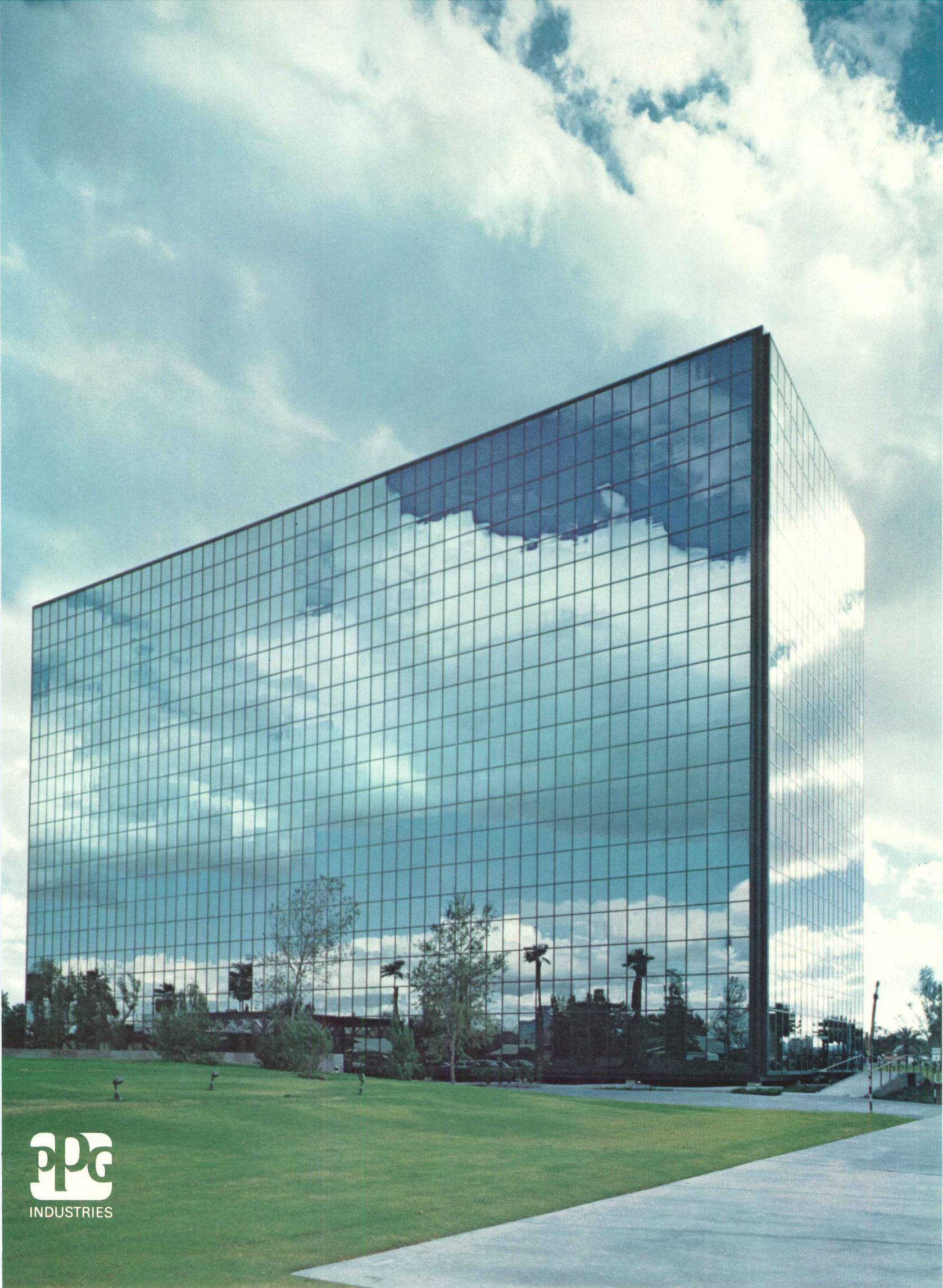
Which is exactly what the architect wanted: beauty, not just beautiful architecture.

Whatever you want your buildings to do, there's a good chance PPG Solarban 550 Twindow insulating glass—or another in our family of High Performance Glass—can help you do it. For more information write for our new book about glass and energy. PPG Industries, Inc., One Gateway Center, Pittsburgh, Pa.

Architect: Alfred N. Beadle, AIA. Project: Mountain Bell Plaza. Owner: The Third and Catalina Construction Partnership, a Joint Venture.

PPG: a Concern for the Future

For more data, circle 74 on inquiry card



The Architect specified galvanized rebar to prevent "bleeding"

To protect the new \$40,000,000 Levi Strauss building in San Francisco against rust "bleeding" through to the surface, John Portman and Associates, architects, specified galvanized rebar.

The building is constructed with precast concrete panels which means that the reinforcing steel is relatively close to the surface. Experience has shown that subsurface rusting of ungalvanized reinforcement can "bleed" through and disfigure the facade with ugly stains. In extreme cases, rebar corrosion can also build up pressures which crack and even spall the concrete.

Galvanizing metallurgically bonds a tough zinc coat to the steel reinforcement, developing an impermeable, corrosion resistant coating. Even if this coat is gouged through during shipping, storage or installation, the zinc continues to prevent rust by its second line of defense, galvanic sacrificial action. This dual protection has been proven over the years in many buildings.

When you design for lasting beauty, specify galvanized rebar.

ST. JOE
MINERALS CORPORATION
250 Park Avenue
New York, New York 10017

Over 1,800 tons of galvanized steel reinforce the precast concrete in the new \$40,000,000 Levi Strauss building in San Francisco.





Designed

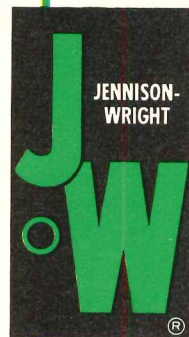
FACTORY FLOORS *by Jennison-Wright*

Wood block floors are often "taken for granted." They're known for their many unique qualities (see panel at right), but not completely understood. To truly understand them requires living with them as we have for over 60 years. We know, and would like to prove to you, that properly pre-designed Kreolite® End Grain Wood Block Floors can serve many of your traffic and production problems and make life beautiful for you and all of your associates. Let us preplan your floors so that none of their advantages will be overlooked. This is part of our service.

The Jennison-Wright Corp., P. O. Box 691, Toledo, Ohio 43694... *you'll find us in Sweet's Catalog and in the Yellow Pages*

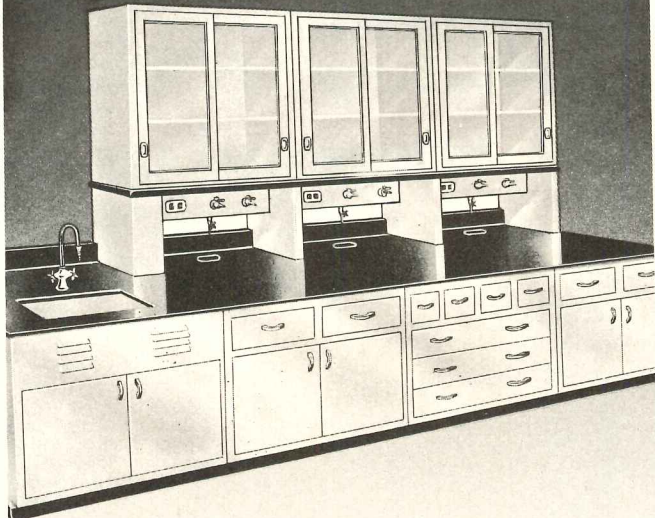
ADVANTAGES OF KREOLITE® FLOORS:

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



For more data, circle 76 on inquiry card

DURALAB



Plan for your Casework needs with Duralab.

Let our factory trained engineering team assist you without obligation.

Call or write the Planning Department now:

DURALAB EQUIPMENT CORP. 107-23 Farragut Rd., Brooklyn, N.Y. 11236
Phone: (212) 649-9600

For more data, circle 77 on inquiry card

Haws Dual Use Water Cooler for Wheelchair Users and Foot Traffic.

Haws HWC-6 water cooler is designed particularly for persons in wheelchairs, yet it effectively provides service to foot traffic.

It extends out from the wall and is mounted at a convenient height from the floor so that a person can easily wheel up to it. Compound-action bubbler valve actuates cooler from a push on the side or top, making it easy to operate by handicapped persons. Simple installation requires no wall recess.

Model HWC-6 (pat. pend.) helps you comply with Public Law 90-480.

Available in stainless steel at extra cost. Write for detailed information.

Haws Drinking Faucet Co., 4th and Page St., Berkeley, Ca. 94710.



WATER COOLERS

For more data, circle 78 on inquiry card

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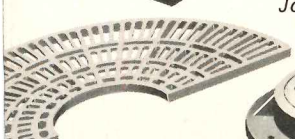
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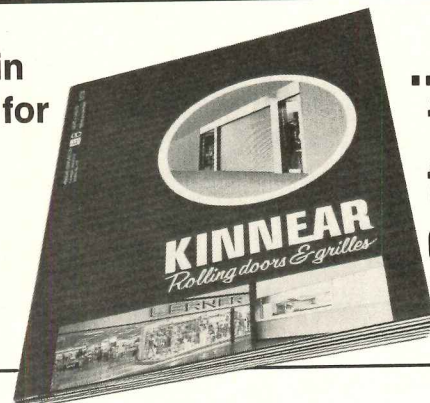
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Architect: Wolff Zimmer Gunsul Frasca
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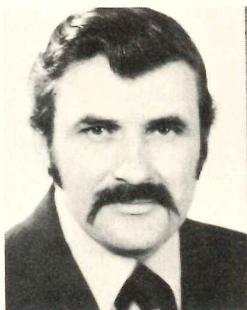
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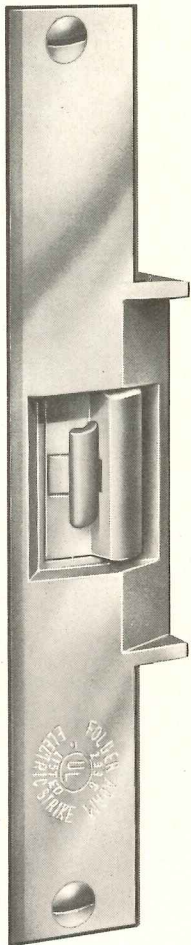
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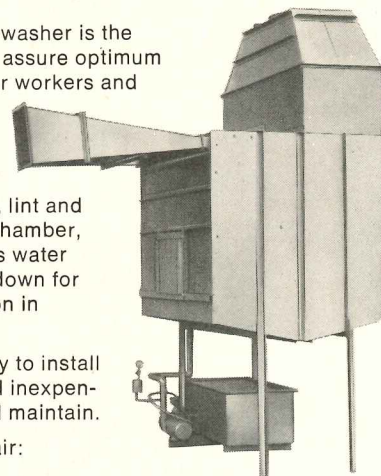
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The editors of Architectural Record regularly throughout the year present a wide variety of editorial content specifically geared to the known interests of architects and engineers.

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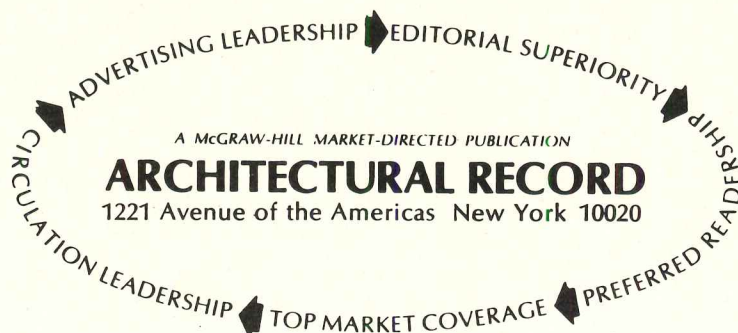
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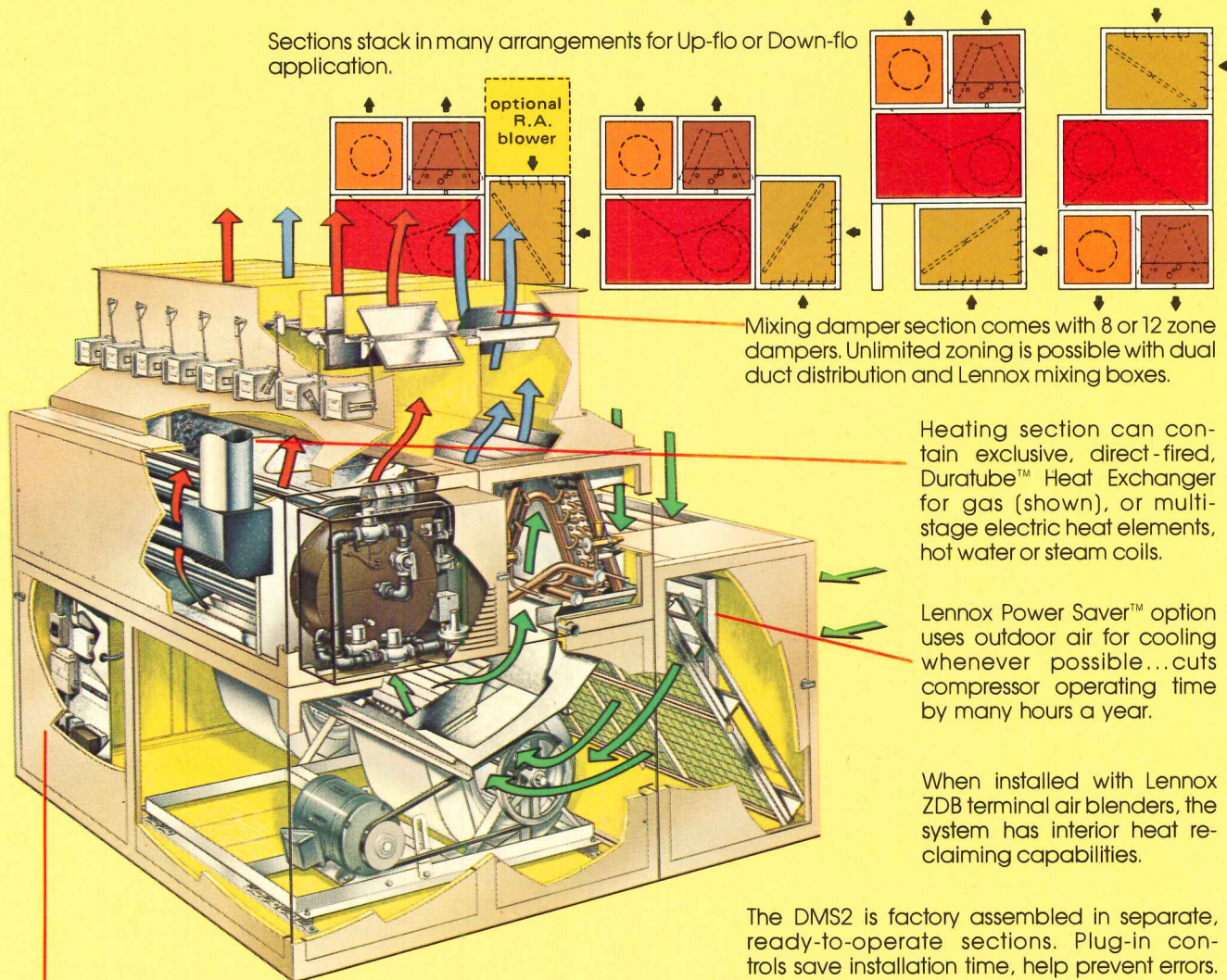
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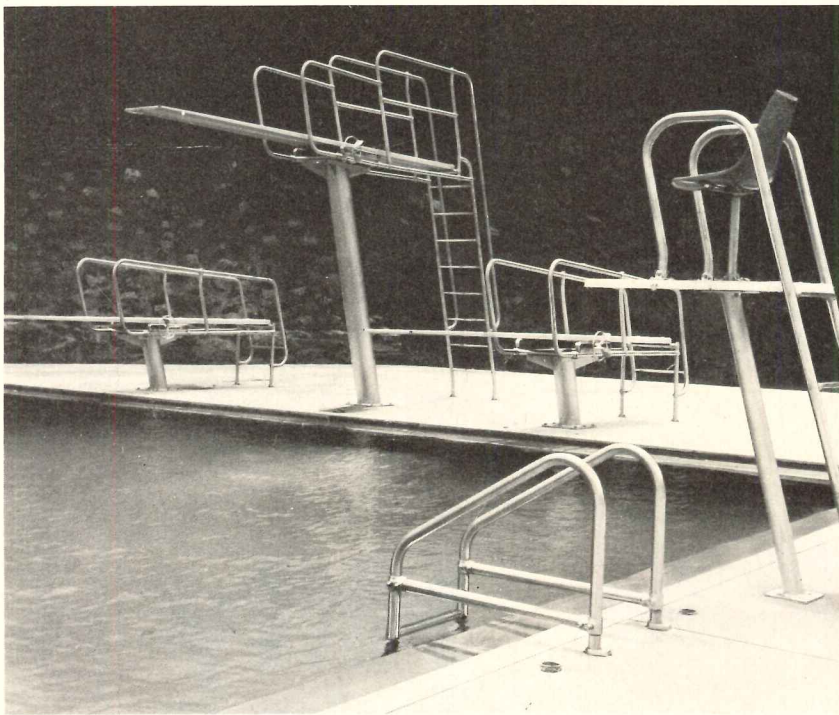
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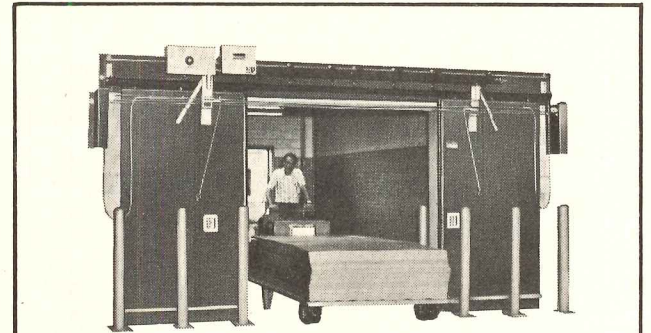
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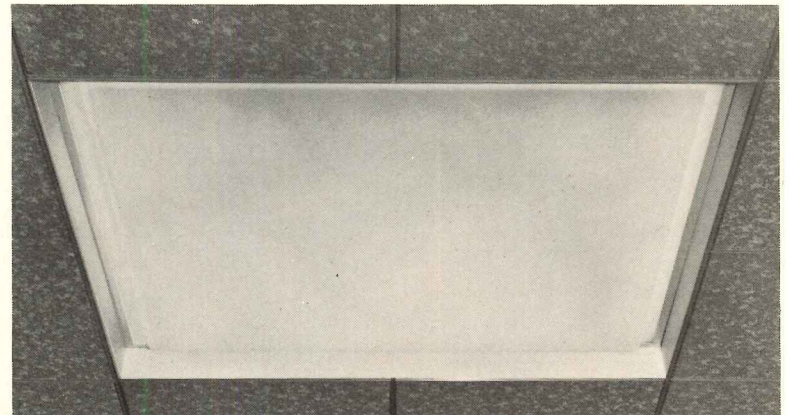
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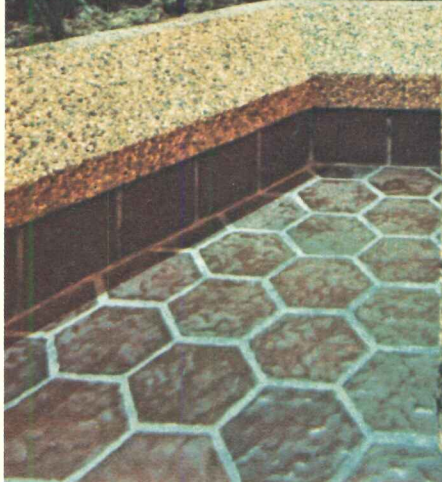
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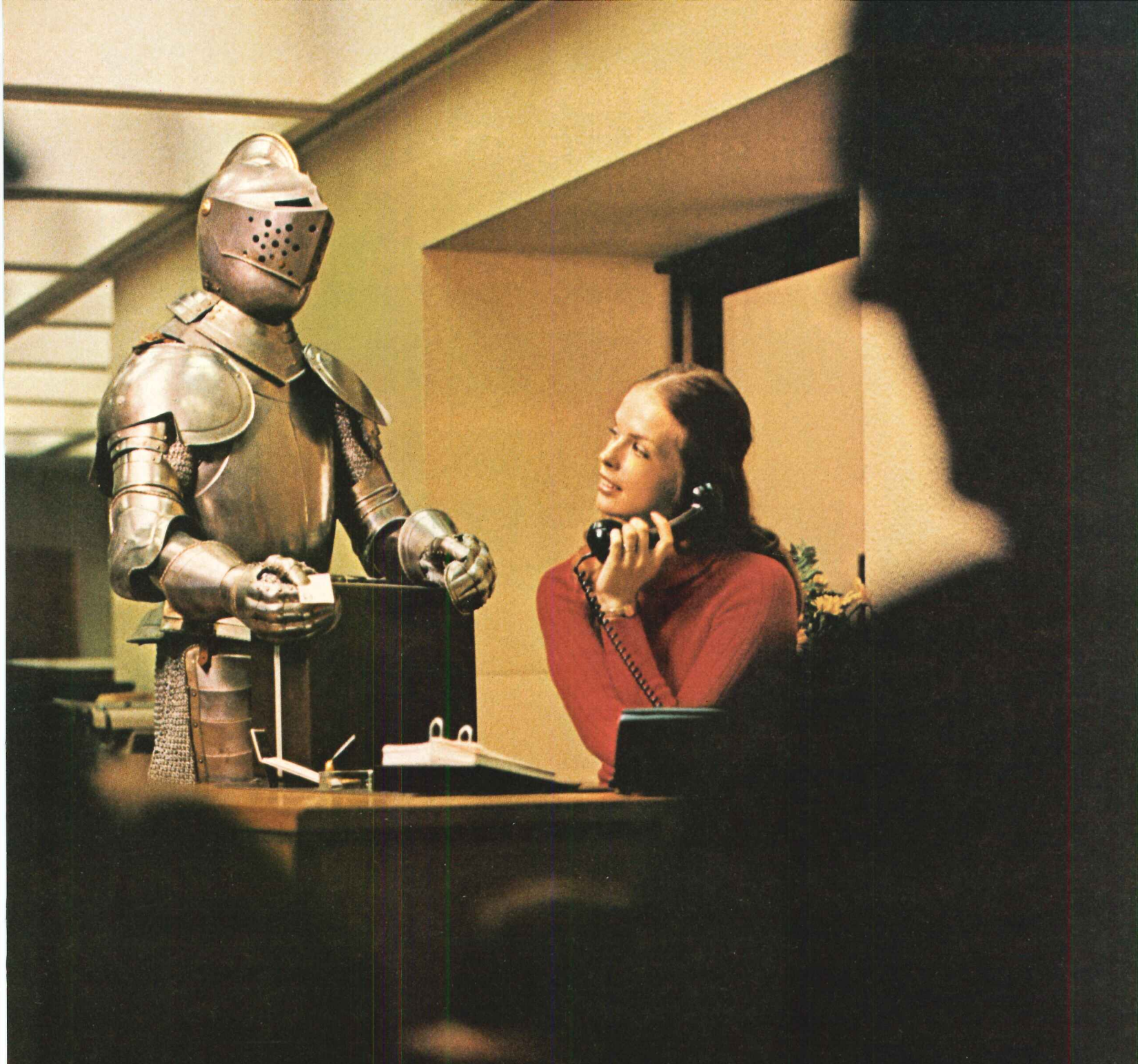
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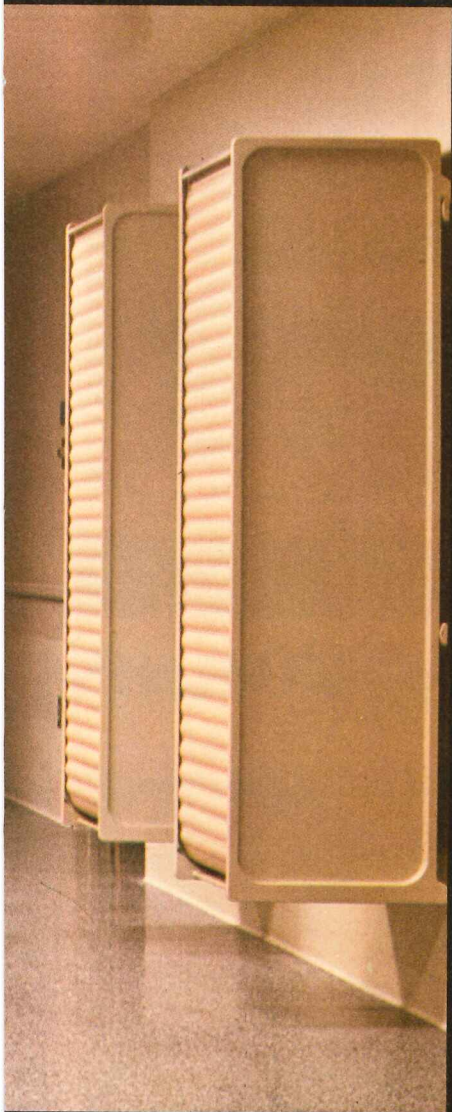
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In 1970, in response to the upsurge of activity and interest in design of interiors by architects around the country, ARCHITECTURAL RECORD established a new editorial awards program—RECORD INTERIORS.

Recently completed architect-designed interiors of all building types will be considered—remodelings and renovations as well as new structures—anywhere in the United States. Selections will be made by the editors on the basis of the excellence of the design solution for the particular client's individual program. Submissions from architects of new, unpublished work will be welcomed through Nov. 1, 1974. No formal presentations are required, though materials submitted should include plan, photographs or snapshots, and brief description of program.

RECORD INTERIORS of 1975 will be published in the January 1975 issue of ARCHITECTURAL RECORD.

Write or telephone:
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1221 Avenue of the Americas
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RECORD INTERIORS

to be featured in the January 1975 issue



Corporate dining at Squibb & Sons, Inc. Headquarters, Lawrenceville, N.J. Architects: Hellmuth, Obata & Kassabaum, Inc. Alexandre Georges photo.

Every architect registered in the United States may submit material for consideration in RECORD HOUSES and Apartments of 1974 awards program. Single-family houses and multi-family buildings that represent today's wide variety of design approaches will be featured in the twentieth issue of the magazine. Include the following: 6 to 10 clear informal photographs, black-and-white preferred, fully describing the architectural intent, both on the exterior and the interior (35 mm. slides must be in 8½ x 11 in. clear envelopes); relevant plans and sections and a descriptive sheet including the architect's name and location of building. Do not send originals or other material which must be returned before issue appears. Deadline is Nov. 1, 1974.

Send material to:
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RECORD HOUSES AND APARTMENTS

for the 1975 Mid-May issue



Schwaikert House, Salisbury, Connecticut. Architect Hugh Newell Jacobsen. Robert Lautman photo.

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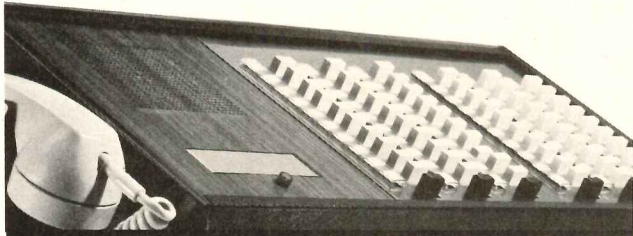
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FLORIDA TILE • P.O. BOX 447 • LAKE LAND, FLORIDA 33802

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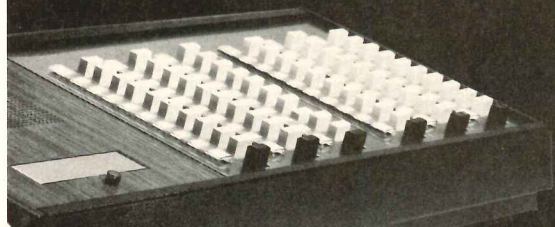
Product catalog in Sweets Architectural File.

Rauland

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the better idea in
communications for
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a dozen better ideas...
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LEARN HOW this advanced new audio-visual patient-nurse communications system maximizes nursing care at lowest cost-per-bed. Better ideas throughout—surprisingly low in cost—easily expandable as the facility grows. Ask for our free descriptive brochure and detailed engineering data. Write to us today.

Rauland-Borg Corporation

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New "Rite-On, Wipe-Off"* Dustless Writing System

System combines AllianceWall porcelain wall panels and dry marker pens to create a COMPLETELY DUSTLESS writing system. Writing dries instantly and can be erased with a dry cloth or eraser. Porcelain panels come with a special finish that enhances both writing and erasing.



Every inch of every wall becomes a productive work surface. Laminated to low-cost gypsum board, the panels are fire-proof, inexpensive to install and maintenance free. No special lighting system is necessary. Boards guaranteed for 50 YEARS and can be used with any partition system.

For complete details write:

Other plants:
Okmulgee, Oklahoma;
Genk, Belgium and
Seden, Denmark.

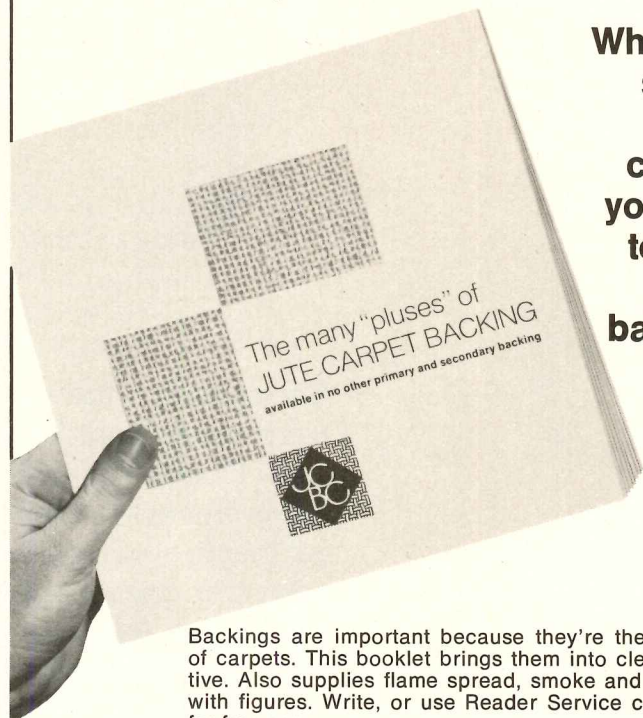
AllianceWall[®]
CORPORATION
Box 247, Alliance, Ohio 44601

*Rite-On, Wipe-Off dry marker pens are now available through local AllianceWall distributors.

For more data, circle 105 on inquiry card

If you "go by the
book," make it this one

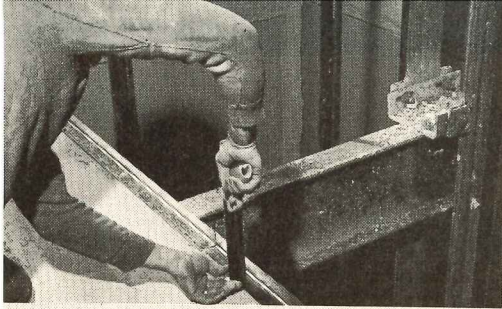
**When you
specify
or buy
carpets,
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backings**



Backings are important because they're the foundation of carpets. This booklet brings them into clear perspective. Also supplies flame spread, smoke and fumes data with figures. Write, or use Reader Service card in back for free copy.

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1. Installing floor track.

Here's why G-P Shaft Liner is saving time, and money, for architects and many building owners, operators, and specifiers. First, solid gypsumboard Shaft Liner is much lighter than masonry. So it's easier to handle. And no scaffolding is needed: Shaft Liner installs from the shaft exterior. Shaft Liner is non-progressive. A panel can be

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Georgia-Pacific has 11 systems designed to meet any of your



2. Installing core panel.

code requirements. All are UL labeled. So, if you're figuring specs for elevator shafts, stairs,



3. Attaching core to T-spline.

4. Applying finish layers.

smoke towers, or air ducts, take time to look into G-P Shaft Liner. Spend a few minutes now, and you can save months on the job. Call your G-P representative for details or look in the G-P catalog in your Sweet's file.

Georgia-Pacific



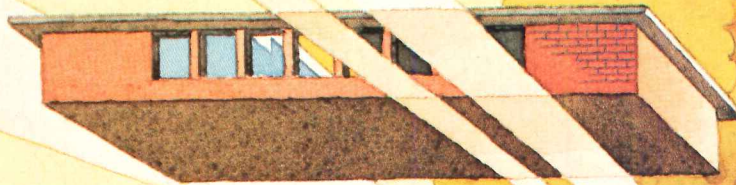
Gypsum Division Portland, Oregon 97204
For more data, circle 107 on inquiry card

Georgia-Pacific Shaft Liner™
can cut elevator installation
time by 25%."

Donald B. Klienschmidt, Architect
City Center, Albuquerque, New Mexico
Empire Square, Dallas, Texas



Build a 10 story building with loadbearing masonry and get the 11th story free.



When you build with a modern loadbearing masonry system, you can save as much as 10% on construction costs.

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

Instead of building separate structural systems and enclosure walls, you can have them both in one step. Masonry walls work together with roof and floor systems to create one solid structural shell. Complete with enclosure walls and inside partitions.

And you can begin finish work on each floor as soon as the masons begin erecting the floor above it. So your building is finished faster. And you can stop paying interim interest and start charging rent.

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



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Send me information on the modern loadbearing masonry building system.

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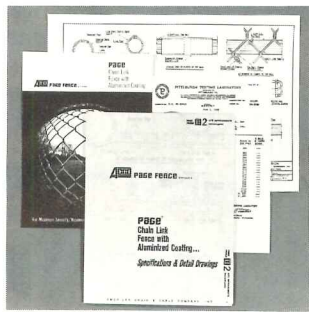
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FREE FENCE SPEC KIT saves time, trouble. Invaluable for planning chain link fencing. Kit includes drawings on styles, wire gauges, gates, fittings, framework. Also includes lab reports, work sheets and specifications. Page® aluminized fabric lasts 3-5 times longer than the best of galvanized. Send for your kit today. Page Fence Division of Acco. P.O. Box 430, Bridgeport, Conn. 06602.

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EPCO PULLS FOR DRAWERS

Here we show four styles from our selection of thirty-three pulls designed for drawers and doors. They are of extruded aluminum finished anodized clear, brass, bronze or black. Standard lengths are 3 7/8" and in 6-ft. lengths, in natural and clear only for cutting on the job or for instances where the designer desires them to extend full width across the top of the drawer. Non standard sizes or finishes are available on quotation. EPCO will also manufacture to your design specifications.

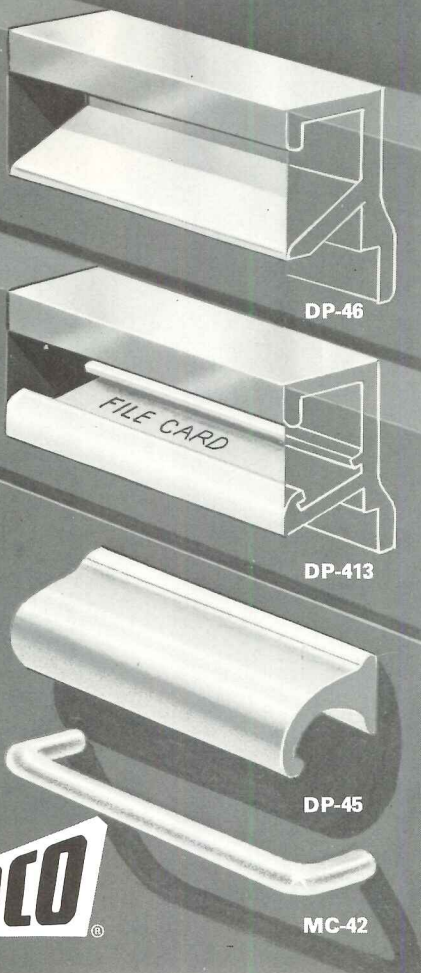
A free 42-page EPCO catalog of pulls, knobs, magnetic catches, track and guides and mirror frames will be sent on request.

See Sweet's catalog in Arch. file 8.34 EN

THE ENGINEERED PRODUCTS CO.



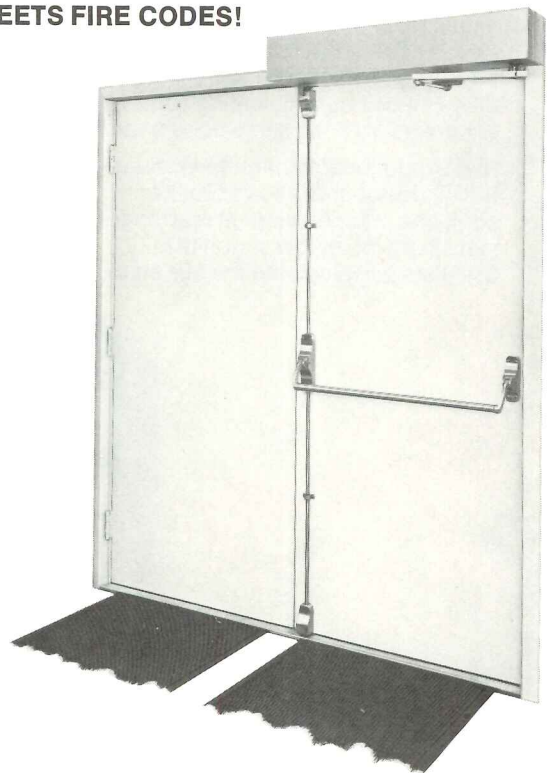
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MEETS FIRE CODES!

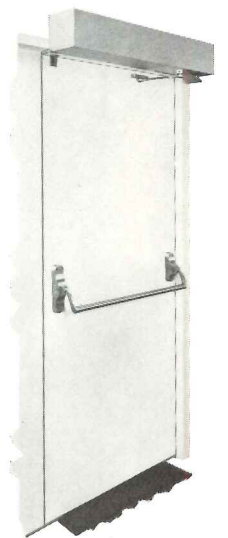


Mat-operated automatic fire door with exposed fire exit hardware . . .

Dor-O-Matic's all-new Electric Release. For A and B label double-egress or simultaneous-swing automatic fire doors use Dor-O-Matic's Dor-O-Pak or 1900 System with exposed or concealed panic devices. Built-in ER feature keeps doors latched in event of fire, smoke and/or power failure. They can be opened manually for safe personal egress, yet will close and re-latch to meet fire codes without damaging the system.

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6964



. . . with concealed fire exit hardware.



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Lighting panelboards second to none.

NH1B panelboards with I-LINE® construction are your best bet for 277/480 volt lighting applications. The NH1B is perfect for 277 volt fluorescent lighting systems in office, industrial or institutional buildings. And in addition, power circuits can also be added so that air conditioning, office machines and lighting can all be controlled from the same panelboard. NH1B panelboards offer the exclusive I-LINE design that allows breaker additions or branch circuit rearrangement in an incredibly short time. Breakers just plug onto the bus stack.

Push-to-trip, an exclusive feature with Square D breakers, permits testing of the tripping mechanism at any time, without special test equipment and without removing the circuit breaker from the panelboard.

NH1B lighting panelboards from Square D have full Integrated Equipment Rating—branch breakers and panelboard are tested together as well as in component form—to assure you of reliable operation.

Easy to install Mono-Flat® fronts are standard on these panelboards. They are good looking, mount flush to

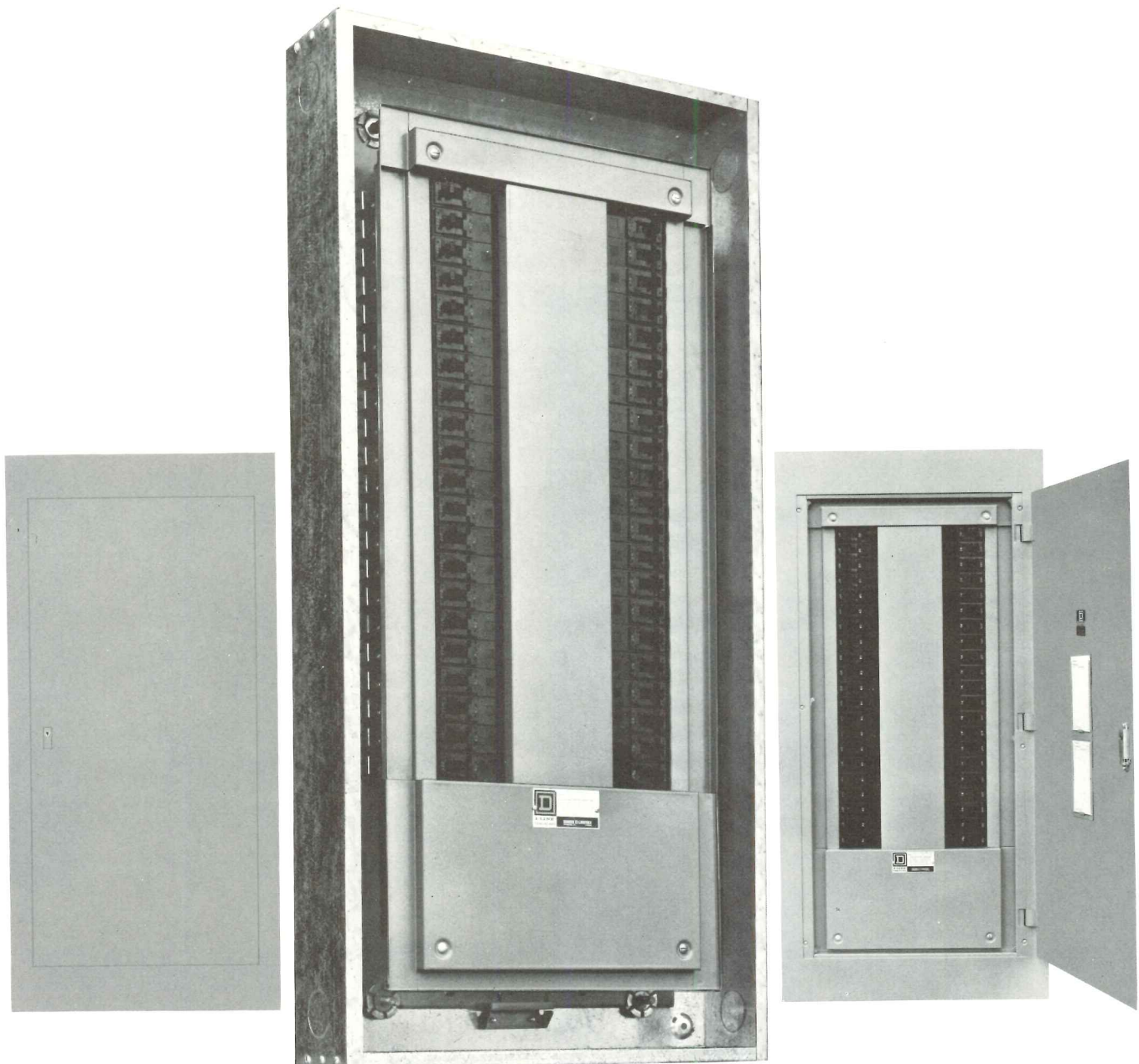
the wall and are people-proof to discourage tampering!

If you're putting in a high voltage lighting installation, make it easy on yourself and keep your customers satisfied with NH1B lighting panelboards from Square D. For specific engineering data, contact your nearby Square D Field Office. Or write Square D Company, Dept. SA, Lexington, Kentucky 40505.



SQUARE D COMPANY

Wherever Electricity is Distributed and Controlled



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NEW...a more effective way to analyze and manage the cost impact of your design decisions...

When are the key cost elements of a building project really "locked in"? In the early stages when you make major design decisions, of course. Simply put, early design decisions are crucial cost decisions . . .

And yet, until now, there have been no aids to help you understand and manage the cost implications of your designs. Until now, you could only look at costs (often after decisions had been made) through guesswork, through detailed unit costing of alternates, or some combination of the two.

Many architects have come to realize that such inaccurate and time-consuming methods render them incapable of *managing* costs. That's why our entirely new method of cost impact management is worthy of your attention.

Announcing 1975 DODGE CONSTRUCTION SYSTEMS COSTS

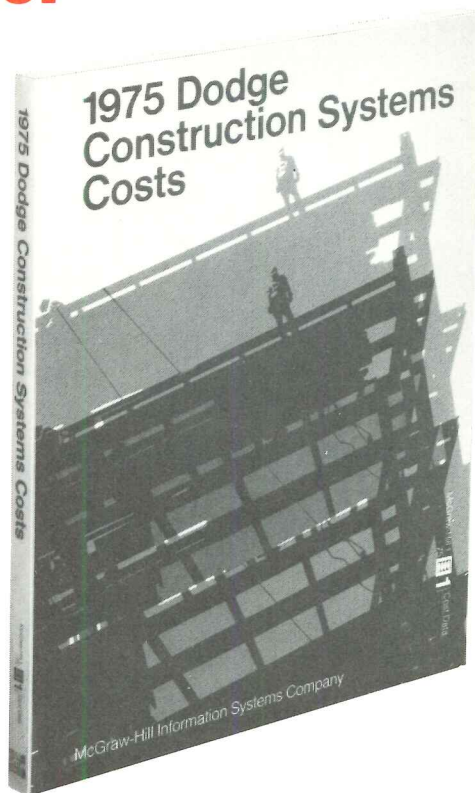
Published specifically for architects—with emphasis on the data architects use and need most.

You'll undoubtedly be reading quite a lot in your professional publications about this completely different type of reference. It provides to-the-minute cost data on hundreds of alternative assemblies within the different systems that could be used for each functional part of a building—superstructure, floors-on-grade, exterior walls, partitions, interior wall finishes, floor finishes, roofing and ceilings. Also provided are accurate factors by building type for electrical, plumbing, HVAC and other engineering systems—in a format designed for the architect's use.

Here you'll also find computer-generated guidelines for efficient planning of useable space . . . and detailed geographical adjustment indexes so that you can localize all cost data.

How You Can Put This New Method To Work

1975 Dodge Construction Systems Costs provides cost data on systems for dozens of different building types . . . and shows the percentage each system is of the total building square foot cost. This expands your capacity for making rapid cost trade-offs.



If, for instance, your design solution results in your exceeding your budget but you want to stick to the exterior wall you've selected, say, you can "trade off" by going to less expensive wall finishes, partitions or ceilings. You can do this now without guesswork. All the alternative solutions are presented in one authoritative, convenient source.

You can also use this book to (1) compare average building systems costs to your design; (2) "shop" for alternative assemblies within a particular system; (3) make preliminary estimates; (4) check out change orders; (5) analyze area overages or underages.

IMPORTANT— This Is Not A "Unit Cost" Book— IT'S MUCH MORE

Unit cost books, which give thousands of detailed labor and material rates for everything that goes into a structure, serve a different purpose. They do not help when you're trying to quickly understand the cost implications of different structural systems.

DODGE CONSTRUCTION SYSTEMS COSTS permits you to analyze and manage the cost impact of major decisions at the crucial early stages. It should not be compared (or confused) with our own Dodge Manual, with the R. S. Means' publication, or with any other unit pricing aid.

Published and Complied by the Leading CONSTRUCTION COST AUTHORITIES

Extensive market research conducted by Dodge Building Cost Services (already a noted publisher of construction cost data and part of McGraw-Hill Information Systems Company) revealed a major informational void and prompted development of this new design analysis aid. Working with Dodge Building Cost Services and the Development Department of Sweet's Construction Services is the noted construction cost management firm of Wood & Tower, Inc., Princeton, N.J. All data is updated and processed through Wood & Tower's computer facilities. The McGraw-Hill Information Systems/Wood & Tower team is one you can rely on for accurate, meaningful construction systems cost data.

When you begin to use Dodge Construction Systems Costs, you may well feel like the man who has been making fires by rubbing sticks together and who discovers the match.

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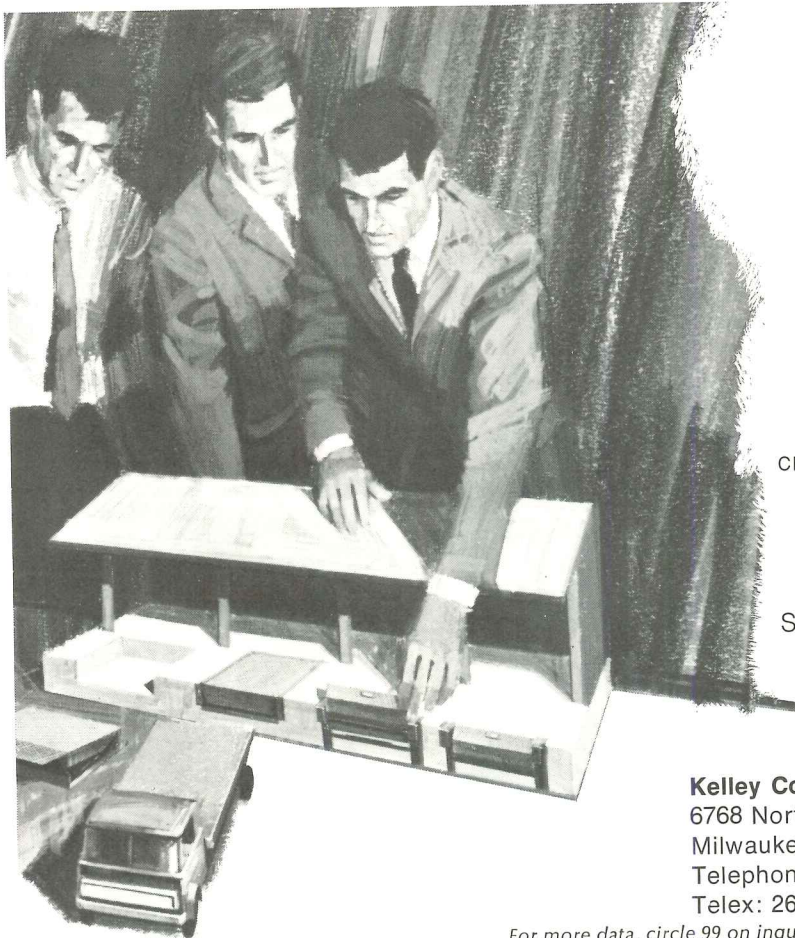
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DESIGNING LOADING DOCKS CAN BE A BIG HEADACHE

Call in one of our dock specialists,
and save time and dollars.

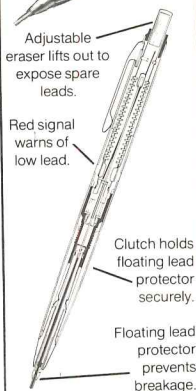
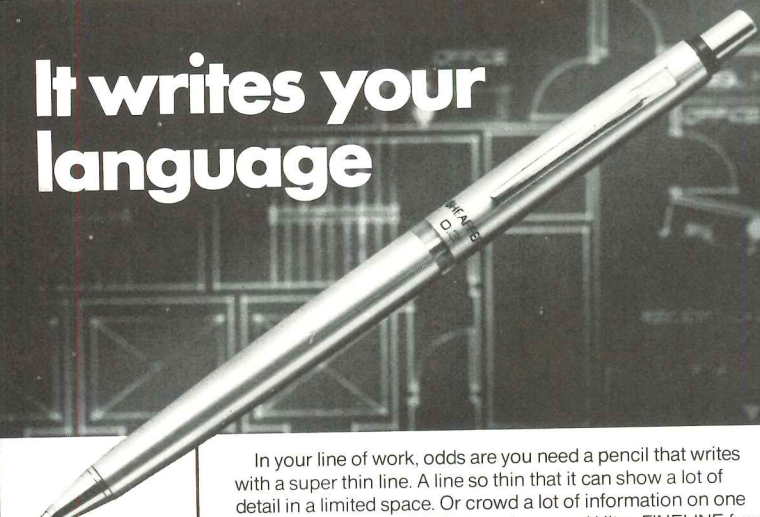
Why put yourself through the hundreds of critical decisions it takes to design and equip a dock. Kelley Dock Specialists do it every day. They have a complete selection of dock equipment to choose from and they'll stand behind their recommendations. So save yourself a headache; get the full story from the responsible Dockboard people:

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6768 North Teutonia Avenue
Milwaukee, Wisconsin 53209
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It writes your language



Adjustable eraser lifts out to expose spare leads.
Red signal warns of low lead.
Clutch holds floating lead protector securely.
Floating lead protector prevents breakage.

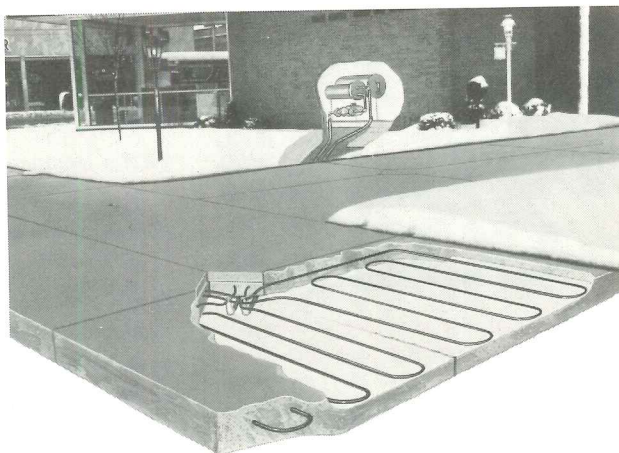
In your line of work, odds are you need a pencil that writes with a super thin line. A line so thin that it can show a lot of detail in a limited space. Or crowd a lot of information on one small line. That pencil is the new improved Ultra-FINELINE from Sheaffer. Available in 0.3mm and 0.5mm models.

It's a mechanical pencil you can get technical with. The exclusive Floating Lead Protector won't wobble or allow the lead to rotate... or break off. If it ever gets jammed with broken lead, you simply replace the Protector. You never need to repoint a lead or adjust the amount of lead exposed. And the Ultra-FINELINE even signals you when it's getting low on lead.

The Ultra-FINELINE. It makes designing and technical drawing so much easier, we sometimes wonder how we designed it... without it. 0.3mm and 0.5mm models. Just \$2.98 to \$5.98. (How's that for talking your language?)
Floating Lead Protector replacements now available... 6 for \$1.

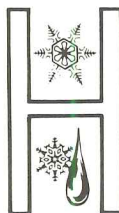
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fine
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SHEAFFER
WORLD-WIDE A **textron** COMPANY

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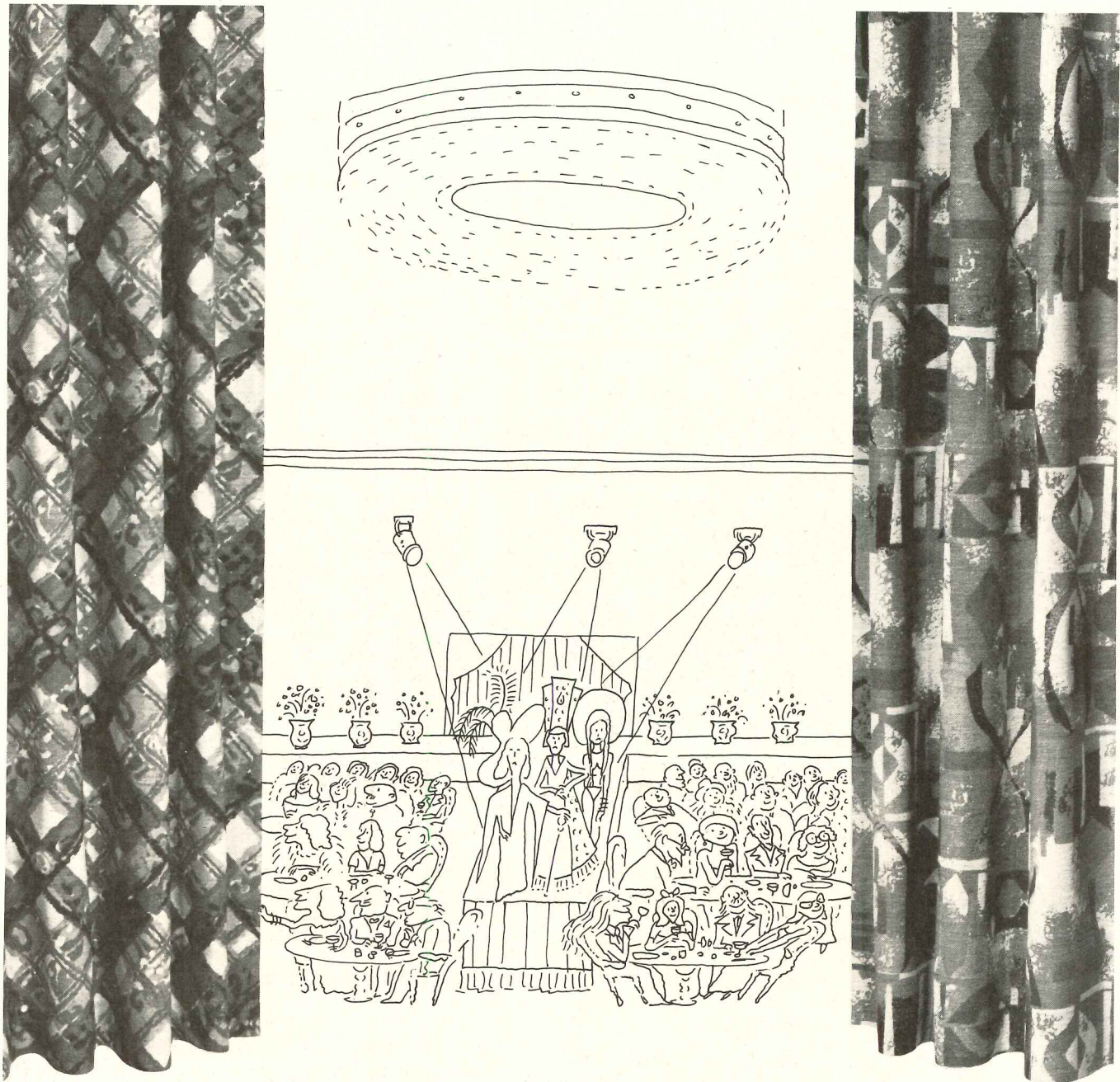
AUTOMATIC SNOW CONTROL with GUARANTEED Reliability

The patented Hume system sets state-of-the-art performance standards for in-ground automatic snow melting. So reliable, it's backed by a full five-year pipe system warranty. Our latest illustrated brochure contains full details and system specifications. Send for your copy today or see us in Sweets under Section 15.13.



HUME SNOW MELTING SYSTEMS, INC.
4405 FERNLEE AVENUE • ROYAL OAK, MICHIGAN 48073
(313) 549-2830

For more data, circle 101 on inquiry card



The new SEF Collection from Fenestration: in a hotel, it'll produce it's own fashion show.

Hotel ballrooms and meeting rooms are so big, draperies often get lost in them. But not when you specify SEF fabrics from Fenestration. This sophisticated group features special weaves, finishes, printing, dyeing and vinyl backings—to exact specifications. It also offers you the flame retardancy needed to pass the California Fire Marshal Test.

SEF® modacrylic fiber from Monsanto is a special fiber in two ways. Its superior flame retardancy and soil release are built in to last.

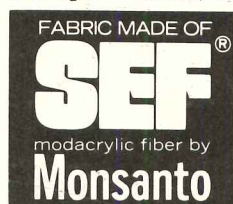
And it creates fabrics that look and feel like acrylic. Colors are clear, fast and sun-resistant. Textures are rich and varied. Hands are soft and easily draped.

And here's something else. Fenestration has its own custom drapery and bedspread manufacturing plant. It makes-to-order and deliveries are prompt.

Next time you specify contract draperies for a hotel, motel, office or hospital, choose SEF from:

Fenestration, LTD.

903 East 46th Street, Tulsa, Oklahoma 74143.



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**Du Pont invents a
bottomless carpet cushion
less than 1/2" thick.**

Du Pont has invented a suspension system for people to walk on.

Polyester pneumacel* carpet cushion. It's neither an elastomeric foam nor a felt. Rather, it is billions of inflated cells in fiber form—masses of tiny pneumatic springs. Actually, pneumacel is a new form of matter.

Nothing cushions like pneumacel. It sinks in easily at first, then pushes back as pressure increases. Never fully compresses. Keeps its resilience.

Any carpet over pneumacel feels luxuriously thick underfoot. Pneumacel spreads the load to help prevent crushing of carpet face pile and stretching of its backing. Prolongs useful life of carpet.

Composition: Cellular polyethylene terephthalate (polyester) inflated with a fluorinated hydrocarbon and air. Fiber strands are bonded together with a thermoplastic binder.

Advantages: Outstanding cushioning together with protective firmness. High ratings as thermal insulator, and as impact-noise reducer. Highly resistant to moisture, mildew, carpet-cleaning chemicals. Unique combination of low flame spread and smoke generation characteristics. Excellent durability.

Specifications: Available through selected local dealers in two styles: "Belmeade" (0.30" thick) and "Lansdowne" (0.48" thick). Comes in rolls 72" wide.

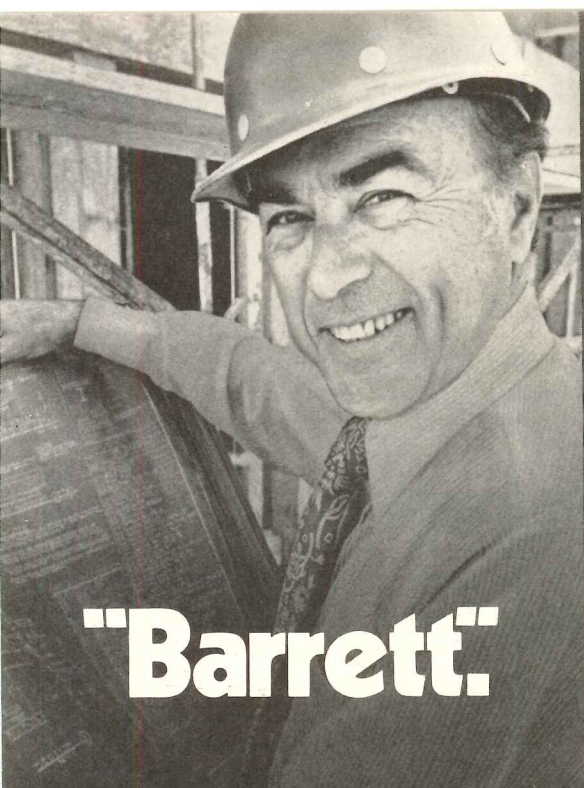
Additional information is detailed in *Sweet's Architectural Catalog File*, reference 9.29/Du. For samples, see *Sweet's Interior Design File*. Or write Du Pont, Pneumacel Marketing, Christina Site, Wilmington, Del. 19898.

*Pneumacel is the generic term for pneumatic cellular polymeric cushioning material.

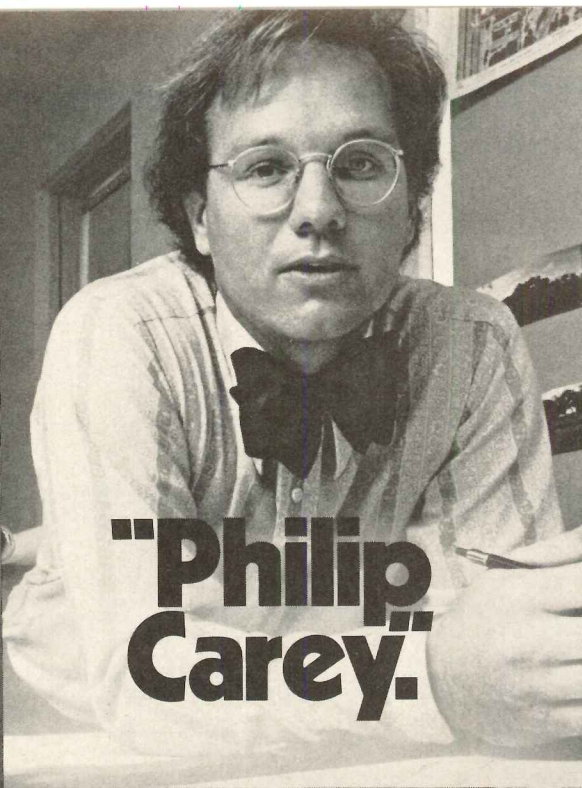


Specify Du Pont Pneumacel Carpet Cushion

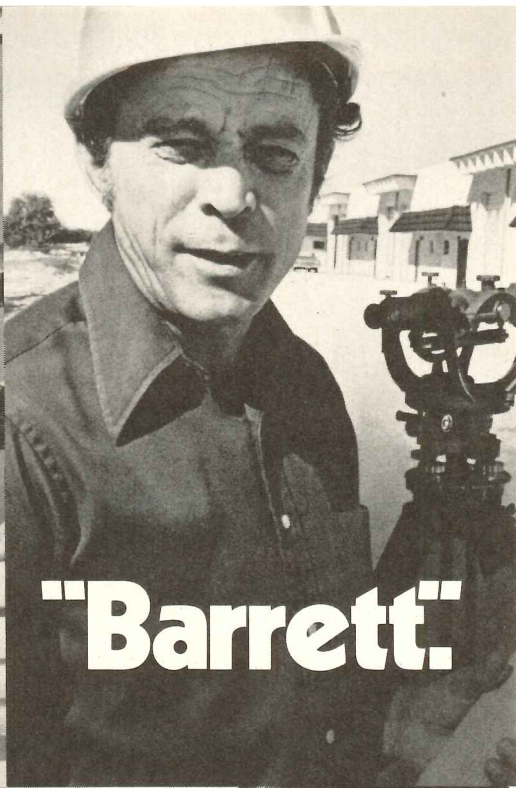
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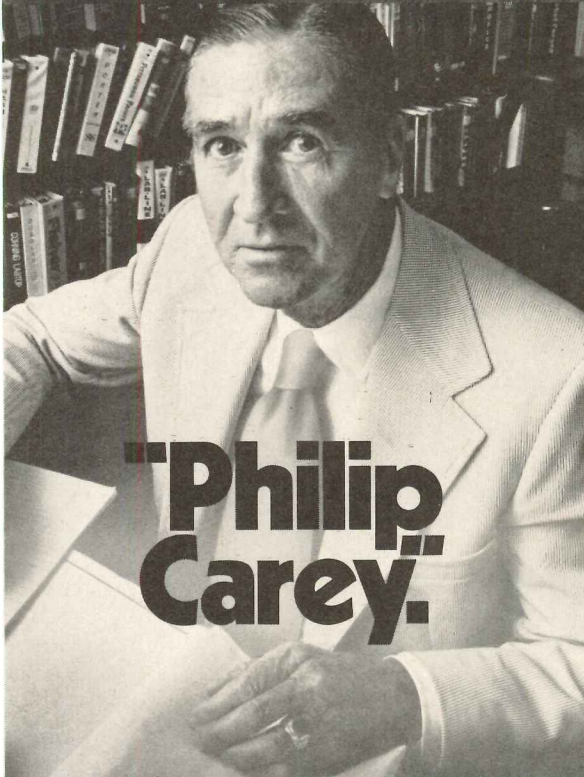
"Barrett."



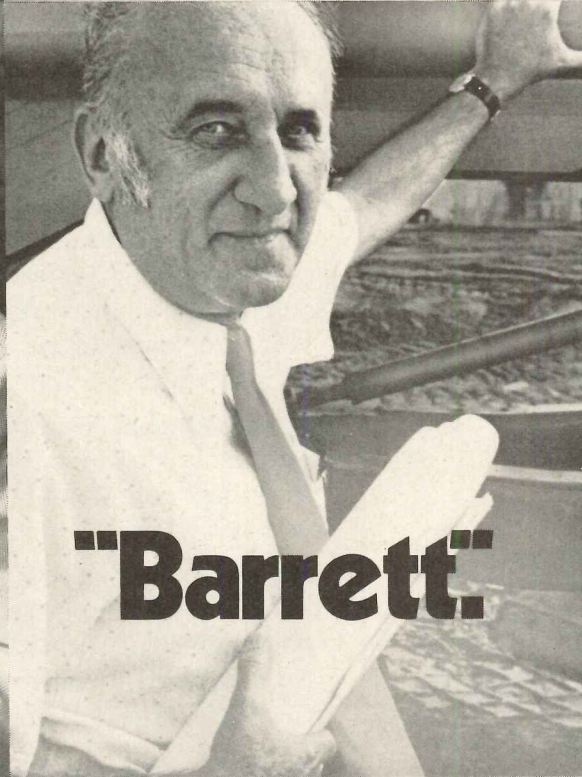
**"Philip
Carey."**



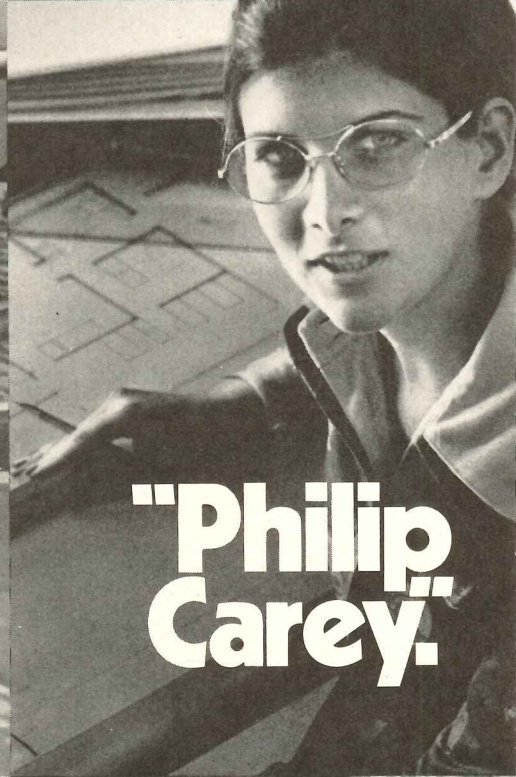
"Barrett."



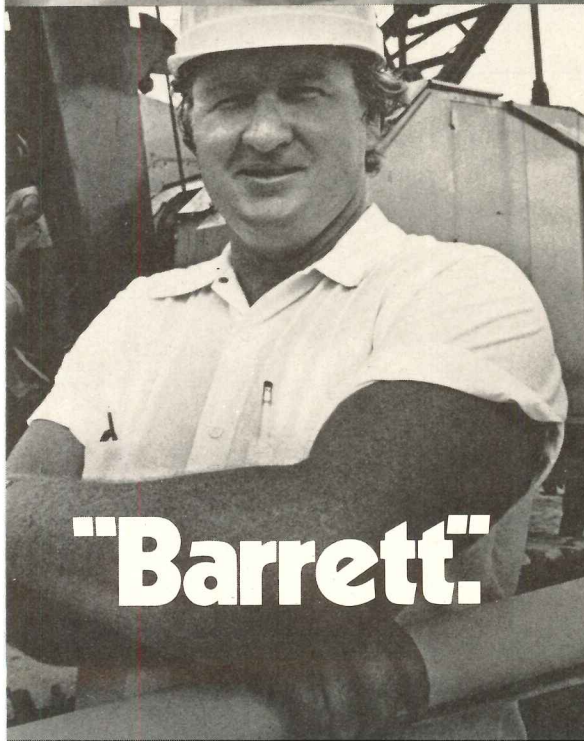
**"Philip
Carey."**



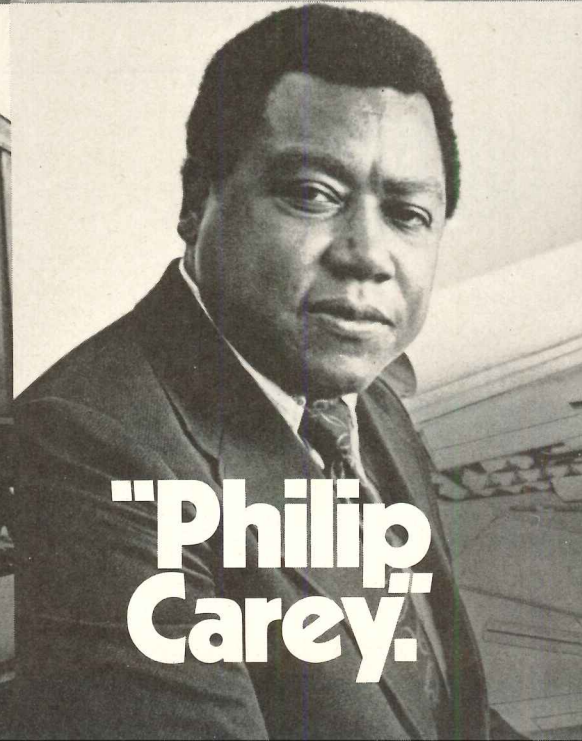
"Barrett."



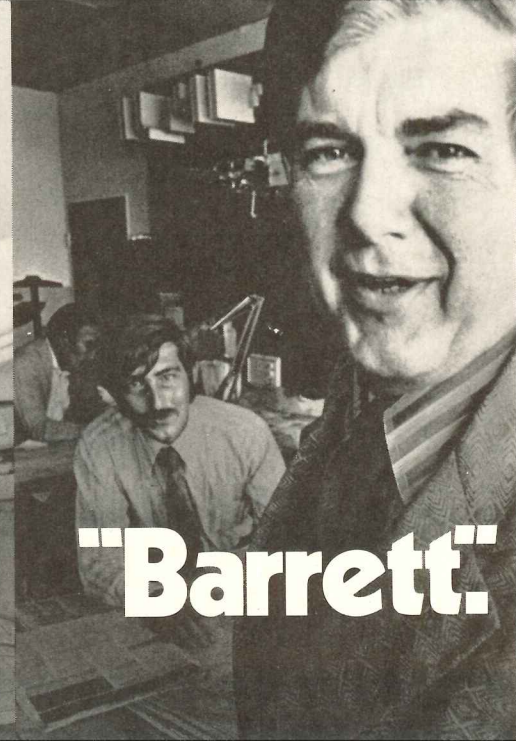
**"Philip
Carey."**



"Barrett."



**"Philip
Carey."**



"Barrett."

People in roofing have been calling us other names.

We'd like you to call us Celotex.

For quite some time now, people involved in roofing have been saying, specifying, and installing, what they thought of as either Philip Carey or Barrett brands of roofing products.

And they were right.

The products were...still are...Philip Carey and Barrett. But now they're all called by one family name. Celotex.

This means that now, when you say Celotex, you're naming the finest working combination of built-up roofing products available.

And you're naming a manufacturer with one of the broadest lines of materials and systems to choose from. With a strong team of product researchers, marketing specialists, and manufacturing experts. And with a matchless plant and distribution network.

Celotex can also offer additional services in pre-spec roof design assistance; technical support, and a Celotex Roof Inspection & Service Contract.

If you're going to call us a name, make it Celotex.

Philip Carey and Barrett will both understand. They're part of the family.

Celotex™

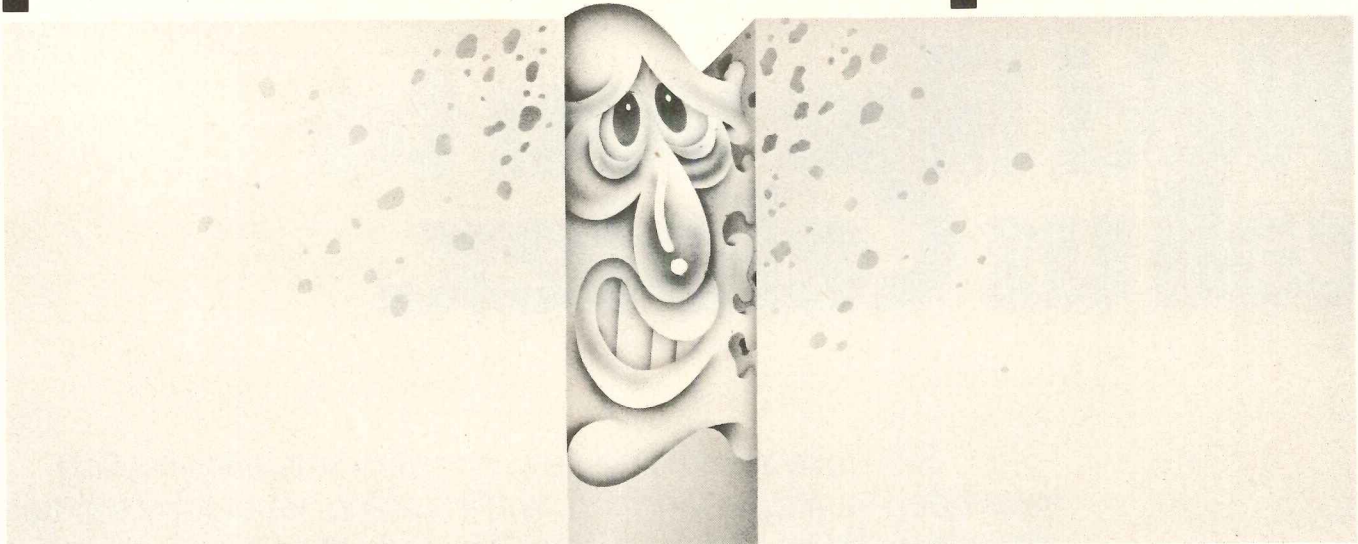
BUILDING PRODUCTS

The Celotex Corporation, Tampa, Florida 33622

a Jim Walter company

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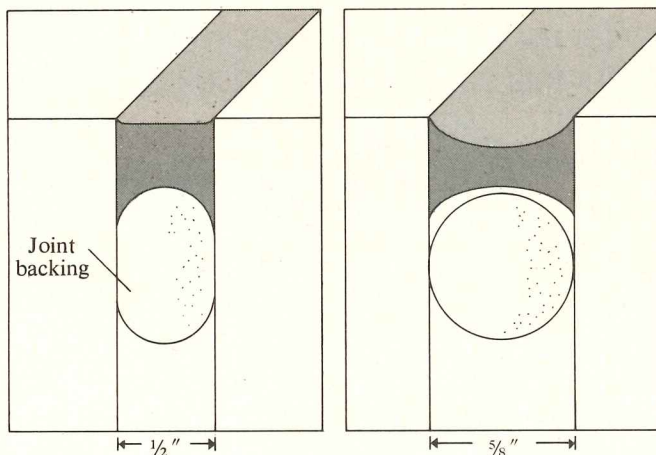
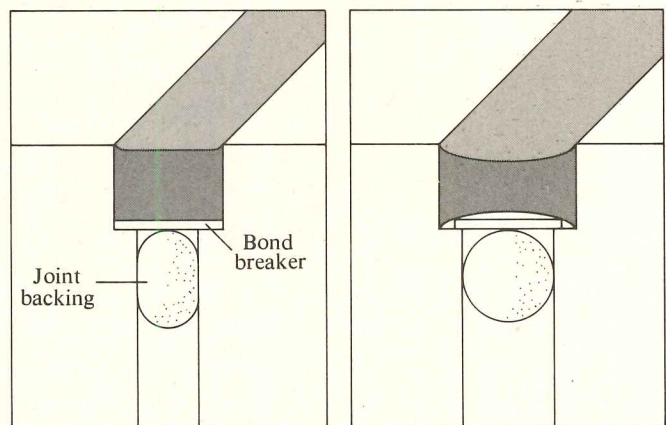
How to avoid sealant problems when you design precast concrete panels.



Obviously, you don't want sealant-adhesive failure in the joints between precast panels. And certainly we — Tremco — don't want it. So here's a brief guide to potential problem areas and tips on how to avoid them.

Let's start with design. When you're designing a joint, be sure it's wide enough to allow the sealant to move within its capabilities. If the joint is found to be too small on-site, it will have to be saw-cut to sufficient width — a costly procedure. A good rule of thumb is to design 1/2-inch wide joints for panels up to 15 feet, 5/8-inch or wider, for longer panels. An even better rule of thumb is to consult your Tremco man while you're in the design stage.

Two ways we help. Tremco has been solving sealant problems for more than 45 years, so our man can bring a lot of



experience to bear on your problems. Second, in response to the special needs of the precast industry, we've developed DYmeric®, a two-part polymer sealant designed to take the stress and movement common to precast cladding. It's also capable of sealing joints up to 2 inches wide in one application, without sagging. And you don't need a primer. With this kind of help, the odds are you can avoid a lot of the following problems.

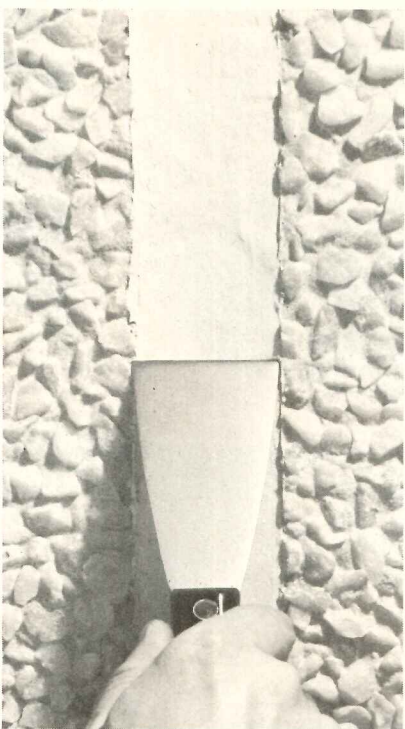
Form release agents: friend and foe. Form release agents are a necessity, but they can also create major problems for sealants.

The same action that prevents adhesion between the panel and the form can impair adhesion of the sealant bead to the joint interface. This could happen weeks or months after caulking, depending on the type of sealant,

the type of release agent and the amount of joint movement.

Some release agents are less troublesome than others. However, you can only be sure of good sealant adhesion if two things are done. First, the joint interface should be thoroughly cleaned the same time as the panel face, when it is removed from the form.

Second, be sure the joint interface is cleaned just before caulking. Your Tremco man can help you find the most



economical way to get this done.

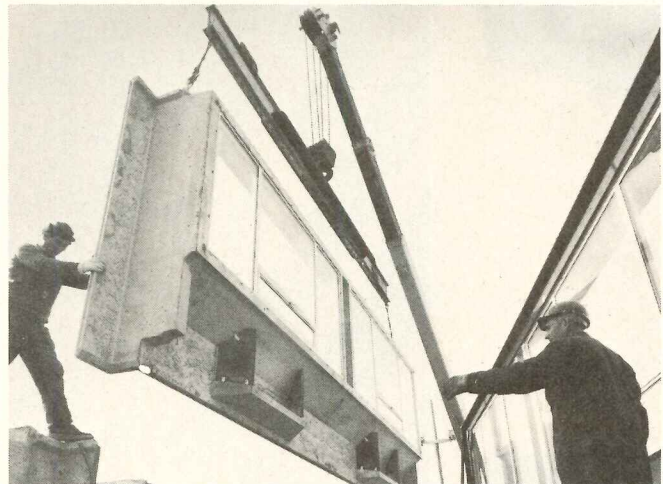
Don't take a powder.

Another common problem that affects sealant adhesion is laitance on the joint interface. A frequent cause of this powdery surface condition is the use of retarder on exposed aggregate panels. A slight change in joint design can often help prevent the retarder from migrating to the joint face.

However, it's a good idea to specify that high pressure water spray be used on the joint surface as well as the face of the panel, during the

process of exposing the aggregate. Even then, though laitance has been successfully removed, the joint has to be thoroughly cleaned just before caulking. Since each case is different, your best bet is still to talk to your Tremco man and use DYmeric.

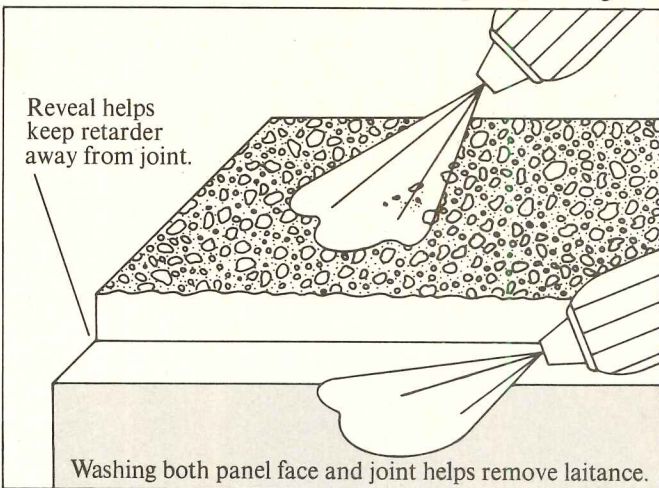
Waterproofing woes. While Tremco makes clear waterproofing coatings for masonry panels, we want to warn you that ours, like all the others, can cause sealant failure when they're improperly used.



Our advice is to caulk first, then waterproof. But sometimes specifications call for waterproofing at the factory, to protect the panels during transit and storage. If so, the joint should be protected from overspray. Your best bet, as always, is thorough cleaning of the joint interfaces just prior to caulking. Your Tremco man can help you decide on the right cleaning method for specific circumstances.

To sum it all up you can count on Tremco to help seal and weatherproof precast buildings better because it's the kind of thing we've been doing for more than 45 years. With some 15 basic job-proven sealants to choose from, such as MONO®, DYmeric®, and Lasto-Meric®, and our unique TREMPROOF® waterproofing systems and our roof edging system, Tremline®, your Tremco man can recommend the systems that are exactly right for your job.

So talk to Tremco first. And you won't have joint sealing problems later. For help, contact your Tremco rep. Or Tremco, Cleveland, Ohio 44104. Toronto, Ontario M4H 1G7.



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AWR

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Concrete Reinforcing Steel Institute announces a Call for Entries in the 1974 CRSI Design Awards Competition—the first of a new annual program.

The Awards will honor creative achievements in the use of site-cast reinforced concrete construction.

Criteria of Awards—Awards will be given for esthetic expression, engineering achievement, functional excellence, or economy (or any meritorious combination of these qualities). Special emphasis will be given to structures that make primary use of reinforcing bars.

Categories of Awards—There are no specific categories of eligible structures. All types of cast-in-place reinforced concrete

structures—large and small—will be judged on an equally objective basis.

Type of Award—Since reinforced concrete can be used to solve so many totally different design problems, no single first-place Design Award will be given. Several Awards will be presented, each equally acknowledging excellence of achievement. Each Award will consist of (1) engraved commemorative plaques for engineer, architect and owner, (2) recognition of the award-winner's achievement through publication of the winner's story and structure in print advertising sponsored by CRSI, and (3) presentation of the Award to entrant (architect or engineer) at a special ceremony at the CRSI annual

convention, Tarpon Springs, Florida, April, 1975. Winning entrants (if a team, a representative of the team) and their spouses will be invited to attend the Award presentation ceremony at CRSI's expense.

The Judges—A distinguished panel of recognized professional architects and engineers from throughout the United States has been selected to judge all entries.

Who is Eligible—The 1974 CRSI Design Awards Competition is open to all registered architects and engineers (entrants may be individuals or a team). Eligible structures must be located within the continental United States and have been completed since January 1, 1972, or essentially finished by contest deadline date.

How to submit entries

Simply mail your entry directly to CRSI. Please follow these specifications in organizing materials for submission:

1 To preserve anonymity during judging, submit the following data typewritten on plain white 8½" x 11" paper.

- a** Description of type of structure.
- b** Size of structure in total square footage.
- c** Description of any unique design features that deserve special consideration during judging.
- d** Date structure was completed or scheduled for completion.

2 Include a brief statement of reasons for choosing reinforced concrete.

3 Include at least two 8" x 10" glossy black-and-white photographs and at least two 35-mm color slides of completed structure. *Do not* include company or firm identification on photographic material.

4 Give any computations or specifications if they enlarge on design problems and solutions. Include, if considered necessary, copies of plans, perspective drawings, detail drawings, etc.

5 Prepare a separate typed sheet (you may use company letterhead) giving proper name of entry; type of structure and location; names, addresses, and phone numbers of architect, engineer, and owner; and date of completion. Seal this sheet in a plain, unmarked envelope and affix to back of entry.

6 Assemble all of the materials in a ring binder (or equivalent) approximately 10" x 12".

7 You may submit more than one entry, but please organize each according to above specifications and submit separately.

Deadline for Entries—All entries must be received no later than November 30, 1974, at CRSI headquarters (address below).

Announcement of Winners. To be made as soon after judging as practical.

Ownership and Publication of Entries—All entries shall become sole property of CRSI. No materials will be returned. CRSI reserves the right to use or publish all entries and accompanying materials in CRSI advertising, CRSI publications, or for any and all editorial purposes and by entering, entrant grants a royalty-free license to CRSI to use any copyrighted materials. Such right includes publication of photographs and names of Award winners without compensation to winners.

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mail entries to:

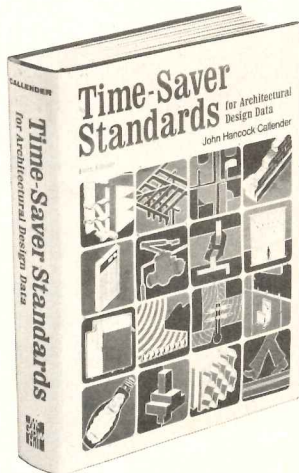
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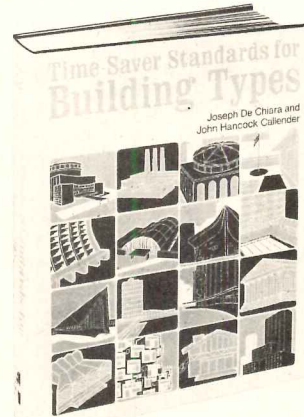
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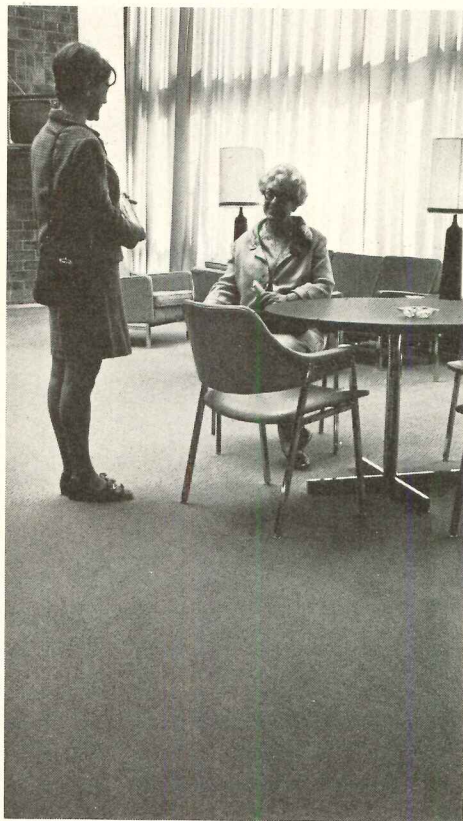
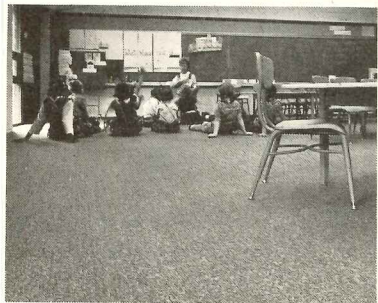
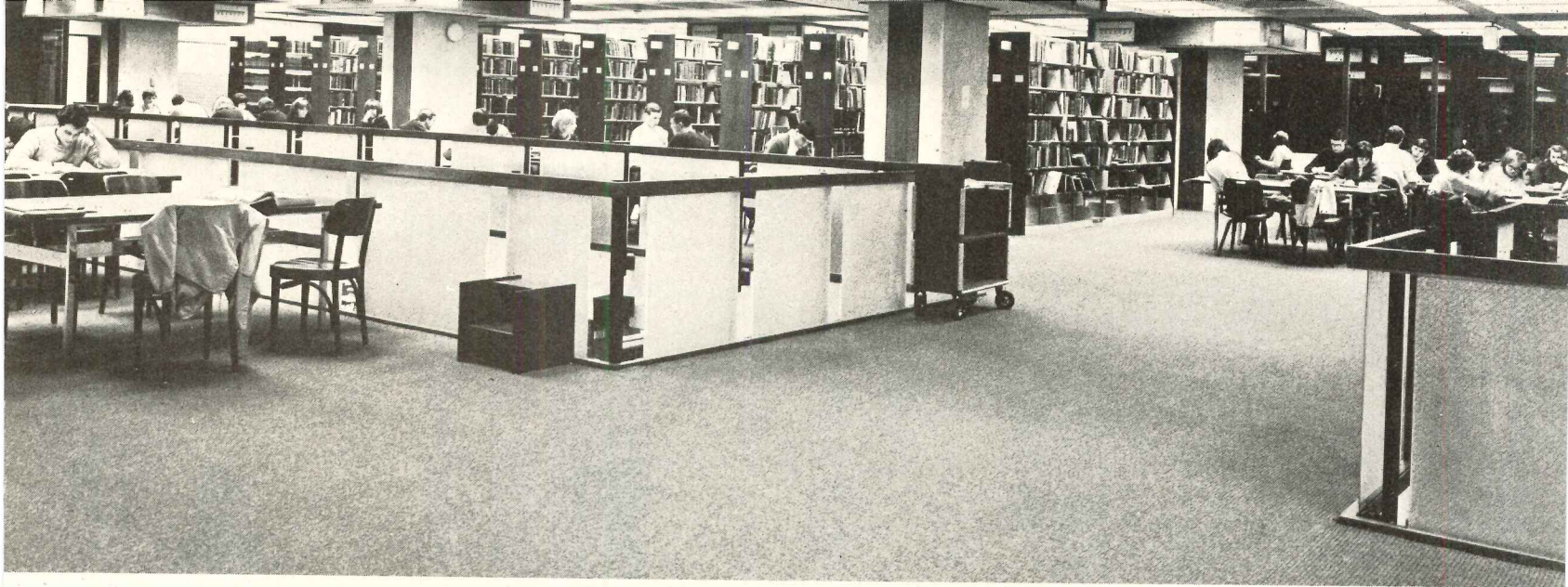
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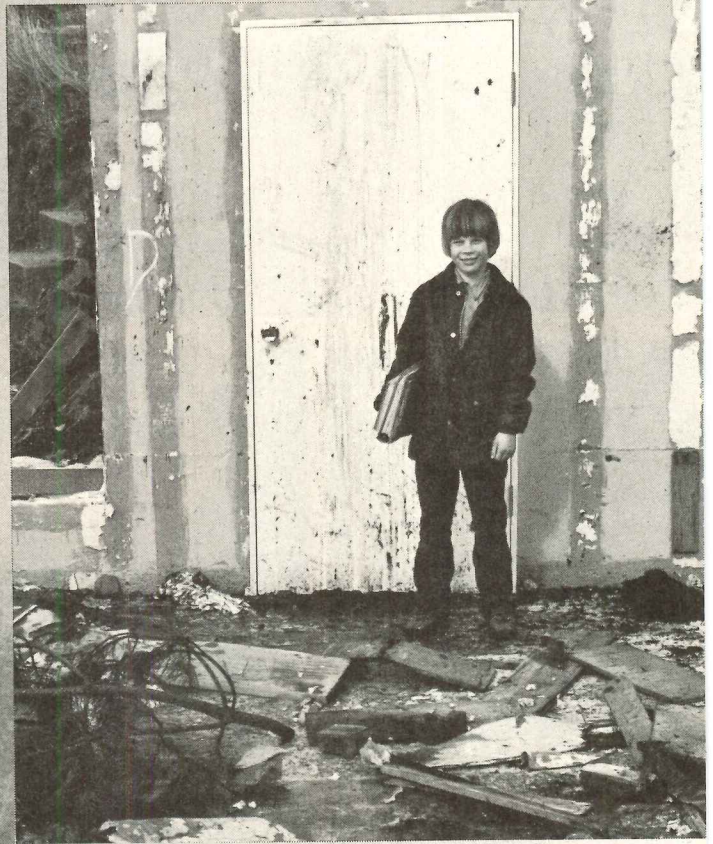
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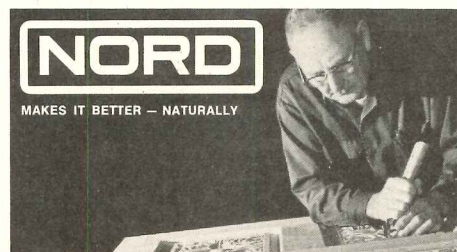
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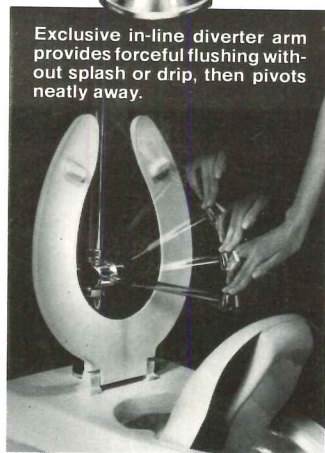
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