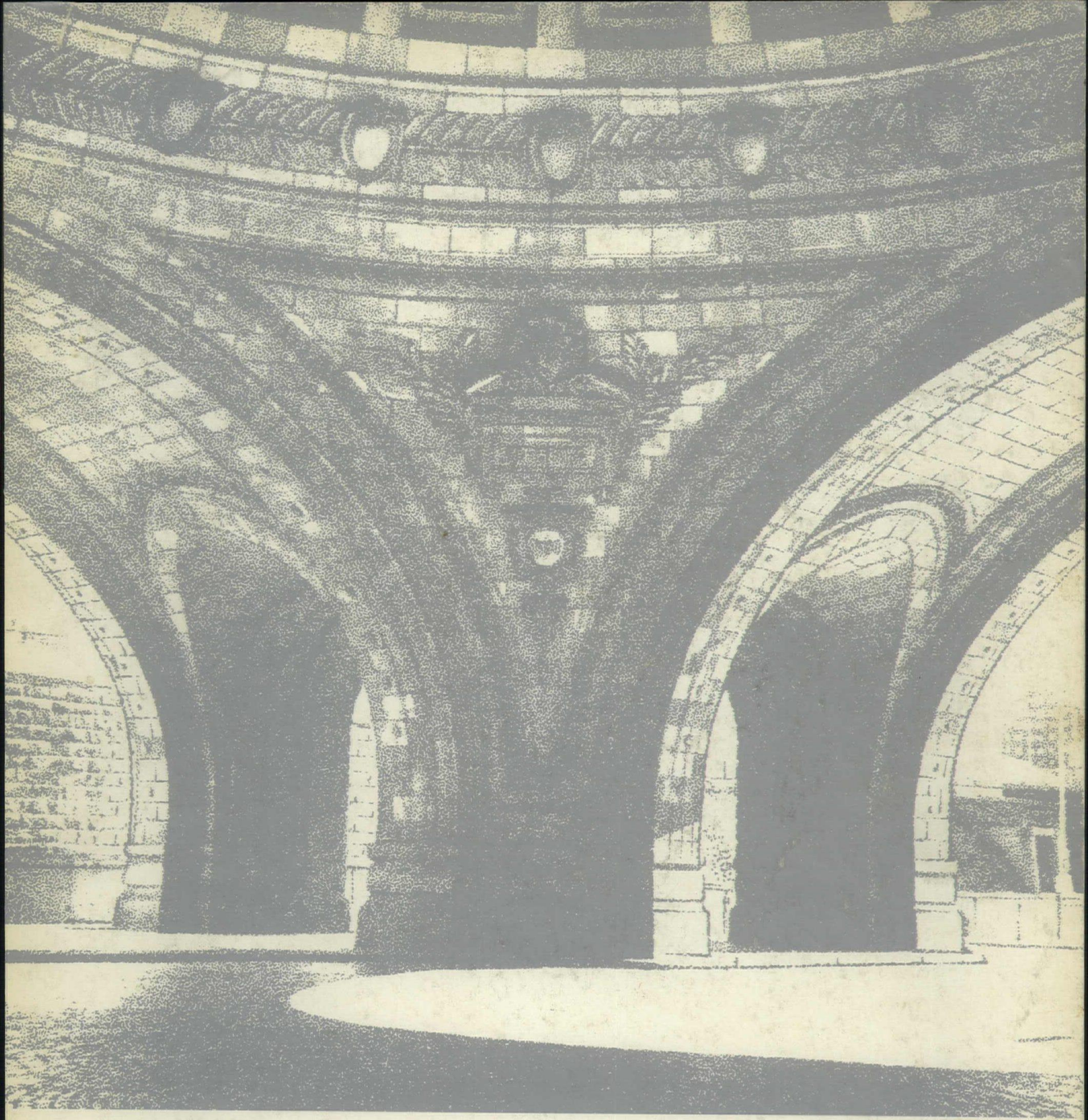

BUILDING TYPES STUDY 469

CONSERVATION IN THE CONTEXT OF CHANGE

A REDEFINITION OF "CONSERVATION" AS A POSITIVE TOOL FOR PRESERVING THE ESSENTIAL CHARACTER AND HUMAN VALUES OF OUR CITIES AND TOWNS

FULL CONTENTS ON PAGES 10 AND 11
SEMI-ANNUAL INDEX ON PAGES 189-192

ARCHITECTURAL RECORD

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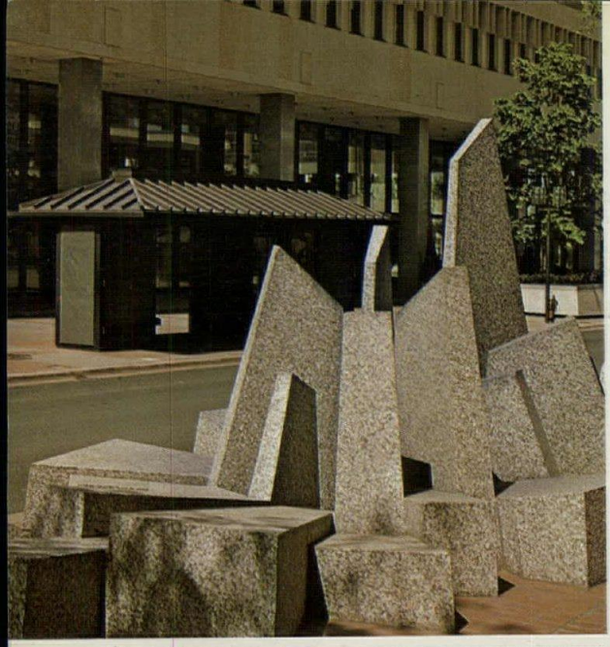

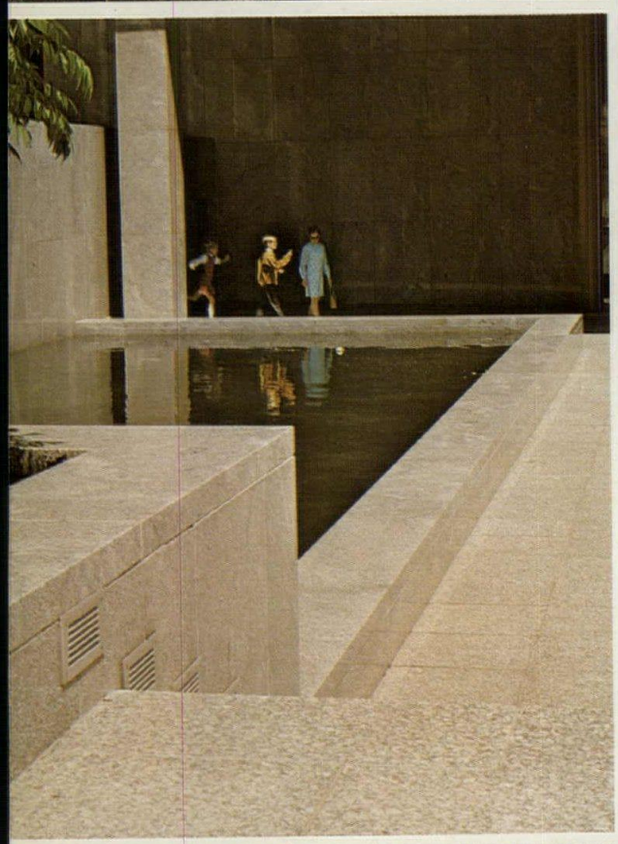

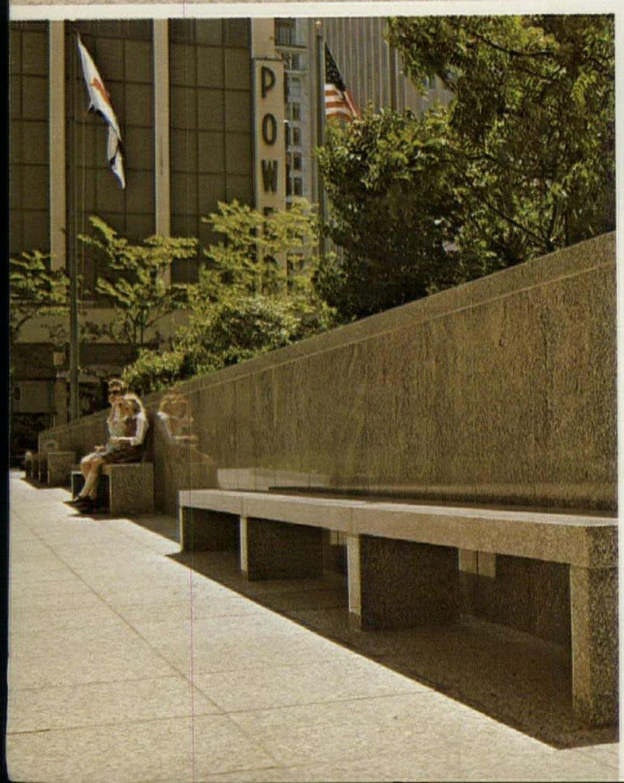
POW

If granite is so expensive, why didn't someone tell the Minneapolis Downtown Council?

The decision to make ample use of granite along the Nicollet Mall in Minneapolis wasn't exactly a snap judgment based on vague notions about cost: it was made after careful consideration of the facts about granite.

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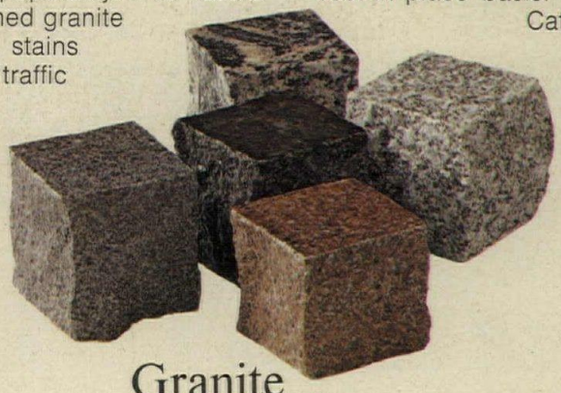

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Nicollet Mall
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Lawrence Halprin & Associates
Engineering & Planning:
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General Contractor:
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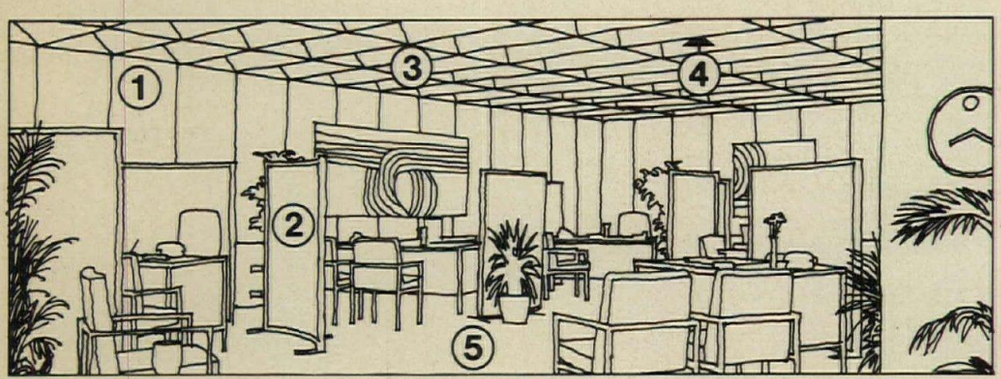
For more data, circle 2 on inquiry card

New from Armstrong. The first pre-engineered package of products for the open plan office.



It combines acoustical and visual privacy, air distribution, and quality lighting, with good looks, too.

Until now, you've had to deal with as many as five or six different suppliers to put together the various elements required for a successful open office plan.

Now, Armstrong offers a complete product package that functions well, looks as good as it works, and provides, for the first time, a *single-source responsibility.*

1. Soundsoak™ Wall Panels*

These panels are made of an acoustically efficient mineral fiberboard mated to a soft modacrylic fabric. They can be easily installed on interior walls and other flat surfaces and make a substantial contribution to the control of reflected sound.

Available in a wide choice of modern colors, Armstrong Soundsoak Panels are decorative as well as functional. They're 30" wide and available in either nine- or ten-foot heights.

2. Soundsoak Divider Screens

Screens are an indispensable element in efficient open office planning. They

*Patent pending

provide effective separation of work stations, contribute to acoustical and visual privacy, and add splashes of color to the room. Freestanding and easy to move, they are covered with a tufted-nylon fabric in a wide choice of colors which coordinate with the wall panels. Both curved and straight types are available in five-foot width, and there is a choice of a five- or six-foot height. All models offer a trim selection of either walnut-finished wood or bronze anodized aluminum.

3. C-60/30 Luminaire Ceiling System

The most important factor in open planning is acoustical privacy, and the ceiling is the key element in achieving that privacy. The Armstrong C-60/30 Luminaire Integrated Ceiling System provides not only acoustical efficiency but also other important open plan environmental factors such as quality lighting and draft-free air distribution.

In the 100%-vaulted configuration, using a special 1" Classic Open Plan ceiling board, the C-60/30 System complies with the GSA PBS-C.1 performance specifications for a Speech-Privacy Potential of 60**.

4. Sound-Masking System

The Armstrong open plan package includes a completely integrated and matched electronic sound system that introduces into the working area sound of the proper intensity and frequency content to help attain the desired level of speech privacy. The system can be "tuned" to provide evenly distributed, nondisturbing background sound to any open plan space.

5. Armstrong Floors

To complete the open plan visual package, Armstrong offers a selection of flooring materials. If carpet is your choice, there is a wide range of colorful Armstrong Commercial Carpets that will add warmth and quiet to any open plan.

Where the practicality of resilient floors is called for, Armstrong Quiet Zone® Vinyl Corlon® is the answer. Thanks to its generous foam-cushion backing, it's both quiet and comfortable.

That's the Armstrong five-in-one open plan package. For more information, mail this coupon to Armstrong, 4212 Rock St., Lancaster, Pa. 17604. In Canada, write Armstrong Cork Canada, P.O. Box 919, Montreal 101, Quebec.

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FROM THE INDOOR WORLD® OF

Armstrong

Letters to the editor

Your report on China in the September issue told me more about what that vast, mysterious country is actually like than all the newsmagazine, TV and newspaper coverage that accompanied the Presidential visit to Peking. Your personal style of reportage in photos and text gave the reader a "first hand" feeling of the lifestyle that cannot help but have important future implications for the rest of the world. Thank you for reporting the really important story of the China visit—what it's like, how they look, where they live and how they live.

Patricia Young
California Redwood Association

Lest you think your Salisbury article [October 1974] went unnoticed in these parts, I must say that we have had an unprecedented reaction to your reviewing our architecture in terms of painting. Since many people put down our work on the basis that it appears like "something washed up by the tide," it is appealing to see in print that this is all right.

You have, however, let yourself in for it by claiming we're unique and I hope you are prepared to be besieged by exposed ducts, conduits, and joists as proof we are not alone.

But beyond all that, your piece must mark the first serious attempt to comment upon what we do as something valuable in its own right instead of the rejection of the status quo ("a rebuke to red velvet"). For such a professional indiscretion you may have a lot of explaining to do.

Hugh Hardy
Hardy Holzman Pfeiffer Associates

Your special issue of ENGINEERING FOR ARCHITECTURE was very well done. The introduction was so good that I quoted it at the Vail Conference on Performance Design. The issue you sent was given to the sponsors, Building Research Advisory Board and the National Science Foundation—and they were impressed.

Our staff is excited and inspired—keep up the good work.

R. M. Gensert
Gensert Peller Associates
Structural Engineers

We have found your articles in your October issue, on projects by Hardy, Holzman and Pfeiffer, and Venturi and Rauch, fascinating.

Damn it!!! The Salisbury School by HHP is what we believe Architecture is all about: HUMAN . . . And human in all its meaning: "It was built on time, within the budget and it works" . . . Human in its directness . . . and it is tremendously attractive.

There is a first time for everything in life, and if Venturi and Rauch's "post-construction evaluation" of their Humanities Building for SUNY is not the first of its kind, it certainly is the first time that we know of one. We applaud Venturi and Rauch.

Alvare Rojas-Quires
(for The Group—a group of recent non-registered architectural graduates)
Memphis, Tennessee

So, Venturi and Rauch incorporated their ideas (non-benches in the Bradley wash-fountain style, Pullman Puce wainscoting) into the Humanities Building at Purchase, New York, and now, they don't understand why faculty and students won't "make the building their own?" Armed with jackhammers they might succeed.

But you have to give the Venturi office credit for taking a backward glance and admitting their big mistakes such as not figuring on a wavy gyp board job. Cheer up Denise Scott Brown—those things happen even to architects!

Tom Ramsey, Stevens & Wilkinson
Architects Engineers Planners Inc

"We feel that the users of large institutional buildings like this one should form their own committees to apprise the administration and the architects of their concerns. Doing so cannot help but improve subsequent plans, because of the users' participation in and control over the design of the environment—and therefore their destinies in it."

This statement in the "post-construction evaluation" of Venturi and Rauch's Humanities Building, is an extremely significant admission of an attitude that generally pervades the profession.

Any owner who lives in the real economic world needs a building that is properly and completely designed to be turned over as a turnkey project essentially complete and ready for use. Good design of such a building has no other basis than a thoroughly prepared analytical program completely describing the functions to be carried on within the building.

The architect is the self-proclaimed expert in designing and administering the construction of buildings. It must be his responsibility to insist with the owner that necessary interviews be arranged and that complete and analytical, descriptive program of the functions to be housed, is prepared before design begins.

Carl D. Williams, Planning Office
Kettering, Ohio Medical Center

Calendar

DECEMBER

16-18 Public Sector Housing Policy seminar for housing and planning professionals, Continental Hyatt House, Los Angeles. Sponsored by the Wharton School of the University of Pennsylvania. Contact: Wharton Registrar, New York Management Center, 360 Lexington Avenue, New York, N.Y. 10017.

17-20 International conference on housing for the emerging nations, Tel Aviv, Israel. Sponsored by the International Technical Cooperation Centre in cooperation with the Association of Engineers and Architects of Israel. Contact: ITCC Secretariat, 200 Dizengoff Street, Tel Aviv, Israel.

JANUARY

9-10 Seminar on How to Market Professional Design Services, New Orleans. Sponsored by Architectural Record. Contact: Building Industry Development Services, Suite 104, 1301 20th Street, N.W., Washington, D.C. 20036.

19-23 National Association of Home Builders convention, Convention Center, Dallas, Texas. Contact NAHB headquarters in Washington, D.C. or NAHB Dallas Convention Office, 1507 Pacific Street, Suite 1750, Dallas, Tex. 75201.

26-30 ASHRAE semi-annual Meeting, Chalfonte-Haddon Hall Hotel, Atlantic City, N.J. For more information, contact: ASHRAE, 345 East 47th Street, New York, N.Y. 10017.

27-30 International Air-conditioning, Heating, Refrigerating Exposition, Atlantic City Convention Hall, Atlantic City, N.J. Co-sponsored by ASHRAE and ARI. Contact: International Exposition Co., 200 Park Avenue, New York, N.Y. 10017.

FEBRUARY

4-7 Thirtieth Anniversary Conference of the Reinforced Plastics/Composites Institute, Shoreham-Americana, Washington, D.C. Contact: Charles Condit, Reinforced Plastics/Composites Institute of the SPI, Inc., 250 Park Avenue, New York, N.Y. 10017.

6-7 Seminar on How to Market Professional Design Services, Miami, Florida. Sponsored by Architectural Record. Contact: Building Industry Development Services, Suite 104, 1301 20th Street, N.W., Washington, D.C. 20036.

11-13 Contract Marketplace—New York, an exhibition of contract furniture and accessories, Americana Hotel, New York City. Contact: Contract Marketplace, Ltd., P.O. Box 908, Larchmont, N.Y. 10538.

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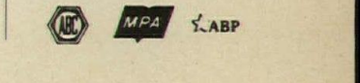

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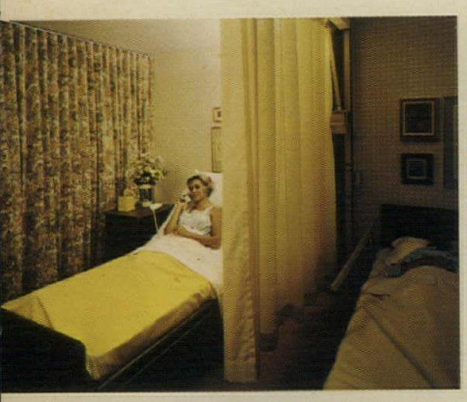

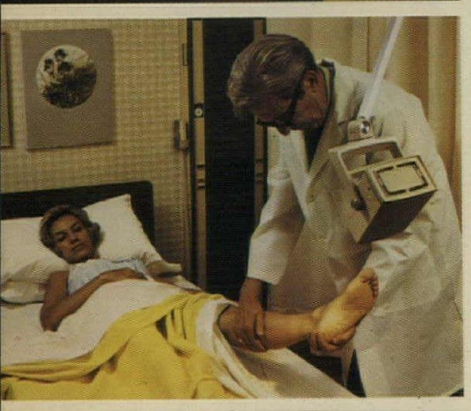

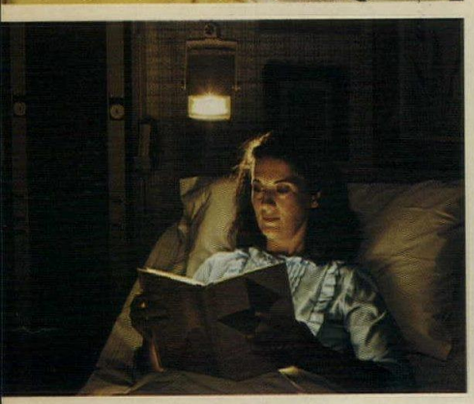

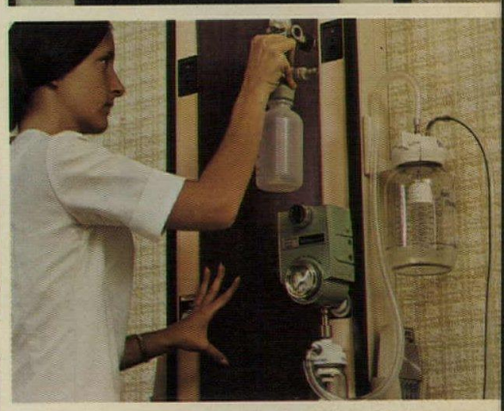

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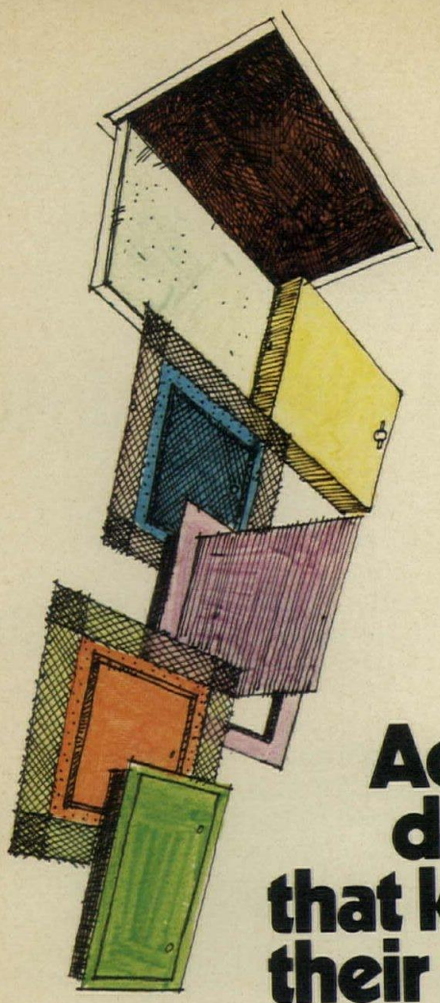
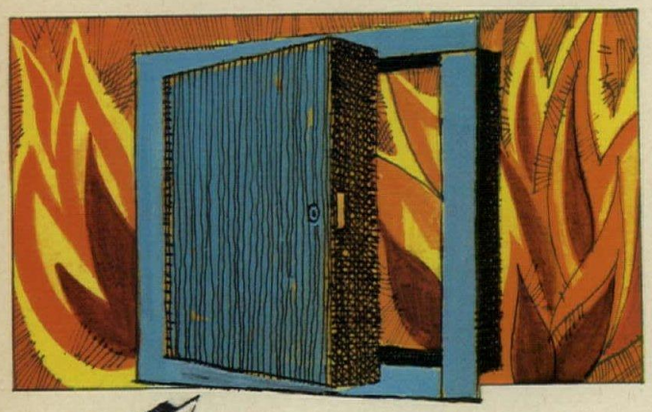


Access doors that keep their cool.



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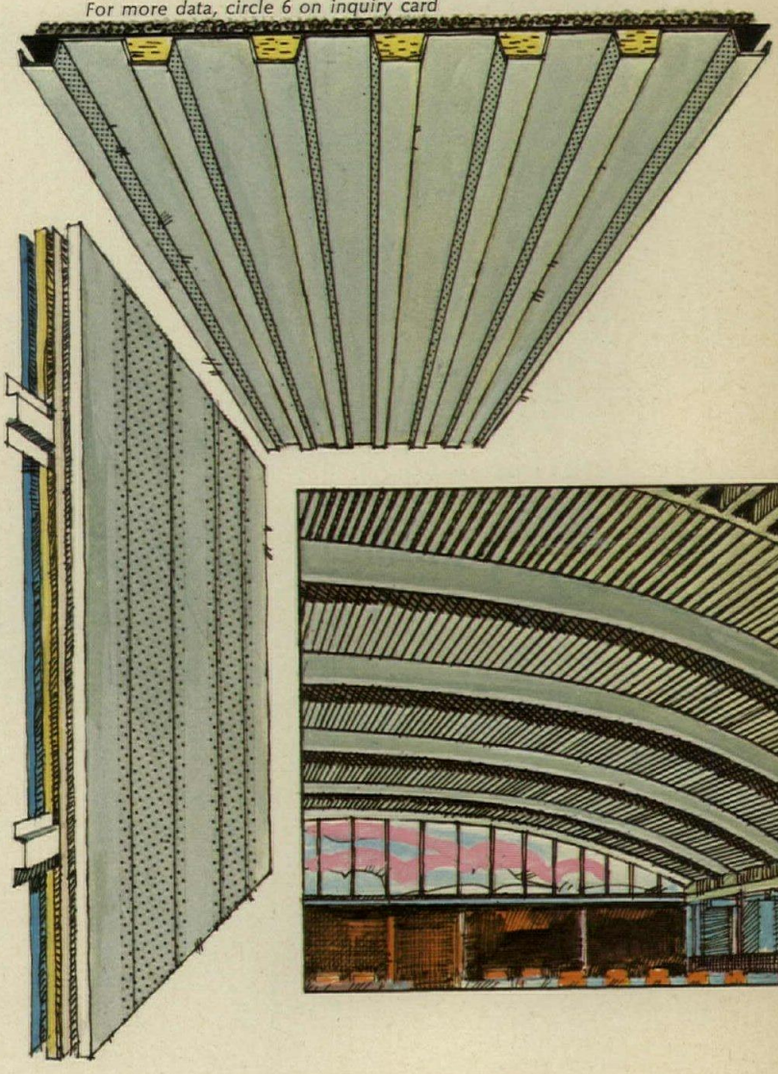

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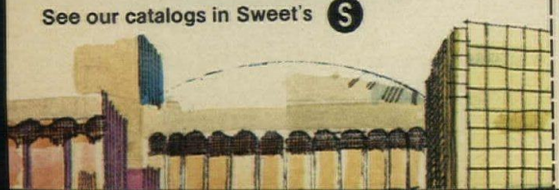

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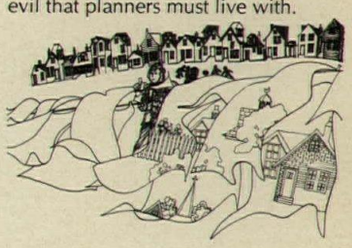
Cover: Pittsburgh's threatened gateway: the Rotunda of the Pennsylvania Railroad Station from a photograph by George Hetrick for Pittsburgh History & Landmarks Foundation.

BUILDING TYPES STUDY 469: CONSERVATION IN THE



DECEMBER 1974 ARCHITECTURAL RECORD

CONTEXT OF CHANGE

NEXT MONTH IN RECORD

Record Interiors

Winners of RECORD's Fifth Annual Interior Awards Program. This group of award-winning designs covers a cross-section of building types and reflects the architect's special approach to interior design—an approach that is undergoing considerable change as building materials grow scarcer and more expensive.

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As 1974 sinks into the sea (thank goodness)...

. . . where do we go from here? It's easy to be gloomy, and heaven knows there's plenty to be worried about. But one thing is for sure: Sitting around being gloomy and worrying about things isn't going to help. And the smart architects aren't—instead (in the temporary absence of that great new commission for a school or an office building) they're into new and expanded activities. Like what? Like:

▪ Rehabilitation or restoration or remodeling—"new life for old buildings." This issue, as you have probably discovered by now, is devoted entirely to those subjects—under a broad umbrella, which this year we've chosen to label as "conservation in the context of change." Is this a very special kind of problem? If it ever was, 'taint any more. There are few people concerned with building who don't understand that finding productive new uses for old buildings make sense economically and culturally—and few architects who don't see this as an important new kind of work for their firms. To be specific, according to RECORD research among 1000 architects:

An astonishing (astonishing to me, at least) 81 per cent indicated that they had been involved in building remodeling within the past two years.

Some 45 per cent indicated that they are doing more remodeling work than they did three years ago.

Well over half anticipate an increase in remodeling work and feel they'll be doing more of it next year.

These cold figures on activity make great sense within the context of real need. For as we say in the introduction to this issue: "Too often in the past, as we have enlarged and 'improved' our cities and towns and neighborhoods under overwhelming pressures for growth and change, we have ignored or destroyed the existing context, scale, and character of the place."

This growing activity of architects clearly indicates that we are learning at last not to be so quick to tear down the old, but to look for new uses for buildings that are not necessarily of landmark worth, but are essential to the character of our cities and towns and neighborhoods.

So, in the midst of the slowdown in new construction, that is one useful and important activity that architects are into. Others:

▪ Architects are more and more getting into interiors. We've been publishing "Record Interiors" for 6 years now—an annual look at what the editors feel are the best architect-designed interiors of the year. And we're now in the midst of studying this year's submissions for publication in next month's issue. And I'm impressed again by the notion that there is "an architect's kind of interior"—rational but inventive, disciplined but exciting. And, again, an astonishing number of architects are into it. Back in 1965 (when RECORD first researched the subject) only 28 per cent of architectural firms indicated that they had an interior design department. This figure increased to 33 per cent in 1967, to 36 per cent in 1970, and stands at 45 per cent according to a survey made this year. And, in addition, 72 per cent of architectural firms—while they may not have an interior design department set up as such—indicate that they offer interior design as a part of their regular service.

▪ While the volume of housing is now in a slump of unprecedented dimensions, many smart architects are getting ready for the upturn—due the second half of 1975. There's a host of experience in the profession—60 per cent of architects designed apartments during the last year surveyed—1971; so surely a far higher percentage have at some recent time designed apartments. And how their input is needed with the increasing trend to higher and higher densities. Not just for better design—but for basic rethinking.

With land costs and building costs what they are, builders are looking for density, and they are finding out with a bang that it better be good. For a measure of what can be done with thoughtful design, see RECORD HOUSES AND APARTMENTS for any recent year. As we begin to see the early entries for the 1975 issue of RECORD HOUSES, we can clearly see a degree of thoughtfulness in design and planning that makes first-rate architect-designed apartments something special—and something special is what the market is going to demand more and more.

Or take single-family houses, which—whether or not it makes planning sense—is what most families still want. The median price of a built-for-sale house is now around $35,000—and everyone knows that is more than the median person can afford. What is there to do? There is no simple answer, for the high price of land and financing shows no signs of coming down. But one answer might be to make houses smaller. Anyone familiar with

built-for-sale houses of recent years knows that bedrooms have been getting bigger, and that a family room *and* a living room have been musts. Could be that we'll have to compromise on those goals of gracious living—if indeed they are desirable goals. Could be that—as in many of the best custom houses—we can live with smaller bedrooms. Or that we can rearrange space so that we make better multiple use of space—more efficient use of space.

Now we all know that this kind of saving of space does not save money proportionally—indeed, that extra space (once you've built the expensive parts of the house like the kitchen and bath) is relatively inexpensive. But eliminating it will save something in building—and save more in furnishing and sure save more in heating.

Making smaller houses that really work will require a high level of design input—for it is far harder to design a good small house than it is to design a good big house—and any builder knows that. My guess is that, when the crunch is over, the smart builders will be coming looking for the best design help they can find—and if architects are ready to provide that help (in builders' terms of cost and building method) we may at last see the long-hoped-for detente between architects and homebuilders—and everyone will benefit, including the homebuyer.

▪ And architects are beginning to learn how to take on very small jobs—and that's good for all of us. When things are chugging merrily along, it's hard to blame an architect who has one or more big jobs ahead of him for graciously declining a small job. That's the reasoning that has caused too many architects to turn down a house job with the excuse that he's "too busy" and the reason that "we can't make money on houses." There just is no "unimportant" building—and architects are beginning to react to that.

One almost ridiculously small example close to my heart: The Boosters Club of Weston (Connecticut) High School wants to build (and has raised the money to pay for) a Booster Barn (it's good to call things barns in Connecticut because everyone likes barns). The barn will be used (via a rolling door) for the sale of hot dogs between the halves, and for the storage of equipment (such as tackling dummies and high hurdles) that everyone is tired of carrying back and forth between the field and the gymnasium.

Anyway the point is: everyone knows (as it says in the memo from the Boosters to the Board of Ed and thence to the Public Building Committee) that "no architect will be needed for such a small and simple building, which will be only 24 by 32 feet, made of cinder block, with a simple truss roof." Close quote.

There's only one trouble, as the editor of my favorite architectural magazine and a resident taxpayer pointed out:

This simple and humble building to be used for the sale of hot dogs and the storage of objects athletic is (a) at the entrance to the football field where, each Saturday for much of the year, large numbers of people will pass it and purchase from it, and (b) located in close proximity to an exceedingly handsome $4 million high school designed with great skill by TAC.

And while even I would not subject that the designer of the high school should come down from Cambridge to design the Booster Barn, it did turn out that several local architects were willing to spend the necessary time at a modest rate to *design* the building. The matter is now (in the manner of New England democracy) pending.

And that kind of conviction is good—it is good for the client and good for the public and good for architects.

So maybe a period of concern about the future has some benefits:

Maybe we find the time to think about architecture as architecture and not architecture as business.

Maybe we have time to think about whether we should find time, when things get rolling full tilt again, about doing the little jobs that even if "they aren't important" are important to someone.

Maybe we take the time to think about what contribution architects are going to make to housing next time that juggernaut gets rolling again. Architects have been complaining forever about the product of most homebuilders, and homebuilders have been complaining for years that architects don't understand their building methods and their marketing problems. So now might be a good time to follow some advice I've been giving in editorials for 10 years: Take a builder out to lunch. See if, when housing starts back up again next year there isn't some way you can work together to mutual benefit and the benefit of the homebuyers. Things being what they are, go Dutch.

Maybe we find time to think about buildings in our town that, if properly redesigned and restored, could give our towns new vitality while enhancing their existing character. Then maybe we go out and find a client, instead of waiting in a gentlemanly fashion for a client to knock on the door.

It is, in short, in the absence of productive work, a good time to do some productive thinking.

—Walter F. Wagner Jr.

Planned growth and just plain growth: two new policy groups

Two news releases with the same dateline (November 6th) found their way into my inbox, and both are encouraging in that they concern themselves with (as the preceding editorial does) where do we go from here?

The first is from the AIA, announcing that the first formal meeting of the National Forum on Growth Policy has been held. That worthy organization, growing out the AIA's Task Force on National Growth Policy, has as objectives "the exchange of information and ideas on problems relating to national growth, encouragement of debate within the member organizations on growth-related issues, and increasing the awareness of such issues among government officials and the general public." What is so important about this organization is not just those most-needed goals, but the breadth of input and involvement—for it is made up not only of professional organizations of architects, interior designers, landscape architects, and engineers, but also of organizations like the International Downtown Executives Association, the Junior League, the League of Women Voters, the Mortgage Bankers, NAHRO, the United States Conference of Mayors, the National Committee Against Discrimination in Housing, and the Urban Land Institute. That adds up to a body of knowledge and a body of influence that can really accomplish something at every level from local to Federal. From a starting point of the AIA's report on national growth policy this group can go far and do much—and is worth whatever support any of us can give.

The second release concerned recommendations made by the president of the Associated Builders and Contractors, Michael Callas, outlining the possible duties and responsibilities of the proposed Assistant Secretary of Commerce for Construction—a new position argued for at the economic summit conferences. And doesn't such a single source of responsibility for such big a segment of the economy make sense? There sure is a need for direction, a need for leadership in raising productivity, a need for organization of the endless and confusing governmental impacts on construction, a need for a voice that argues for the industry when it comes to anti-inflation policies.

It often seems to me that we have too many organizations, too many discussion meetings, too much talk. But there is a real need for interdisciplinary efforts in the construction industry, and both these proposals seem bold and thoughtful. *—W.W.*


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Show Places
with Verel®
New from Maharam . . . "Gemini" casements from the Opal III Collection. Bold and vivid in a blend of 70% Verel modacrylic, 30% rayon. Verel provides flame resistance, dimensional stability and a crisp, full hand. Available in an exciting array of colors, plus custom colors to order. From Maharam Fabric Corporation, P.O. Box 300, Rasons Ct., Hauppauge, N.Y. 11787 (516) 582-3434. Showrooms also in Atlanta, Honolulu, Houston, Los Angeles, San Francisco.
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Kodak

HOW STEEL FABRICATORS, INC. TAUGHT EVERYONE A LESSON AT THE HARRISBURG MIDDLE SCHOOL.

The lesson was how to cut three to six months off the design and construction time for completing a school.

The teaching materials were Vulcraft's steel joists and joist girders as utilized in Steel Fabricators' "Fab-Lok" structural subsystem, which made "fast track" construction scheduling possible for this job.

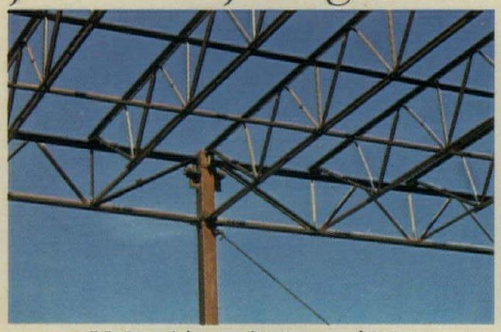
By using Vulcraft steel joists and joist girders instead of concrete, the structural work on the building could be started before the final design was completed. Because Vulcraft's joist girder system utilizes a standard five-foot panel point spacing.

Knowing this allowed designers to standardize lighting/ceiling components as well as heating, ventilating and air conditioning components. And layouts for wiring, ducts and pipes. Also, because Vulcraft's steel joists use an open web construction pattern, installation of all wiring, ducts and pipes goes easier and faster. They actually can

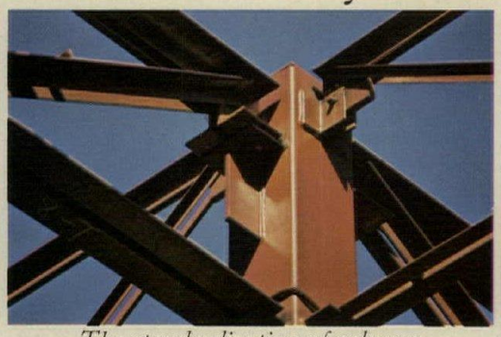
pass right through the joists and joist girders.

The light weight of Vulcraft's joists and joist girders offers other advantages, too. Erection is easier and faster. Supporting columns can be spaced further apart to provide for larger bay areas. And foundation size can be decreased.

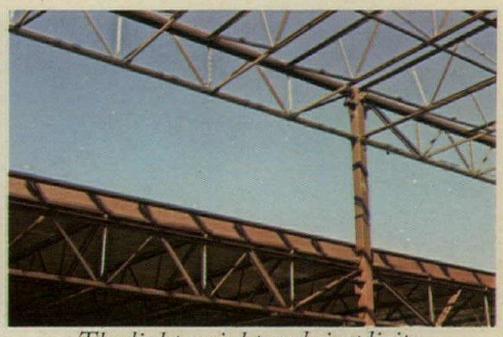
The "fast track" technique worked in Harrisburg, Pennsylvania. Plus ten other schools throughout the country where Vulcraft steel joists and joist girders have been used by Steel Fabricators, Inc.



Vulcraft's steel joists and joist girders allow a standard five-foot module between connecting points.



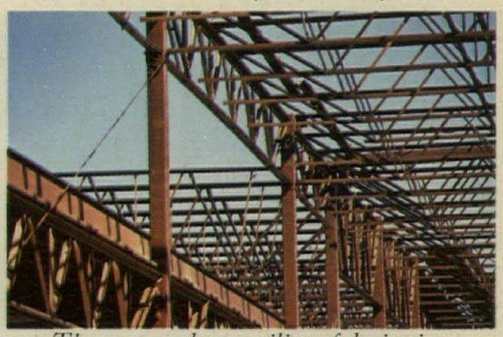
The standardization of column connection also speeds up construction. And requires fewer connecting bolts.



The light weight and simplicity of Vulcraft's steel joists and joist girders make erection fast and easy.

The open web feature of steel joists and joist girders allows ducts, pipes and wiring to pass directly through the steel members.

The high strength of steel joists and joist girders provides increased clear span area, allowing larger bays.



The ease and versatility of designing with steel joists and joist girders solve otherwise complex design problems.

And it can work for you. Just contact your local Vulcraft representative for your Joist Girder Specification Guide. Or write Vulcraft, P. O. Box 17656, Charlotte, North Carolina 28211 to learn how to speed up your work. Or call (704) 366-7000.

We have the know-how. And we have five plants located throughout the country to make sure your deliveries are there on time.

After all, when school time rolls around, nobody wants to be late.

VULCRAFT

Architect: William Lynch Murray & Associates, Harrisburg, Pennsylvania. Erector: Walsh Steel Services, Pittston, Pennsylvania. General Contractor: Ritter Brothers Construction, Harrisburg, Pennsylvania. Steel Fabricator: Steel Fabricators, Inc., Fort Lauderdale, Florida. Consulting Engineer: Quentin Bowers, P. E., Harrisburg, Pennsylvania.

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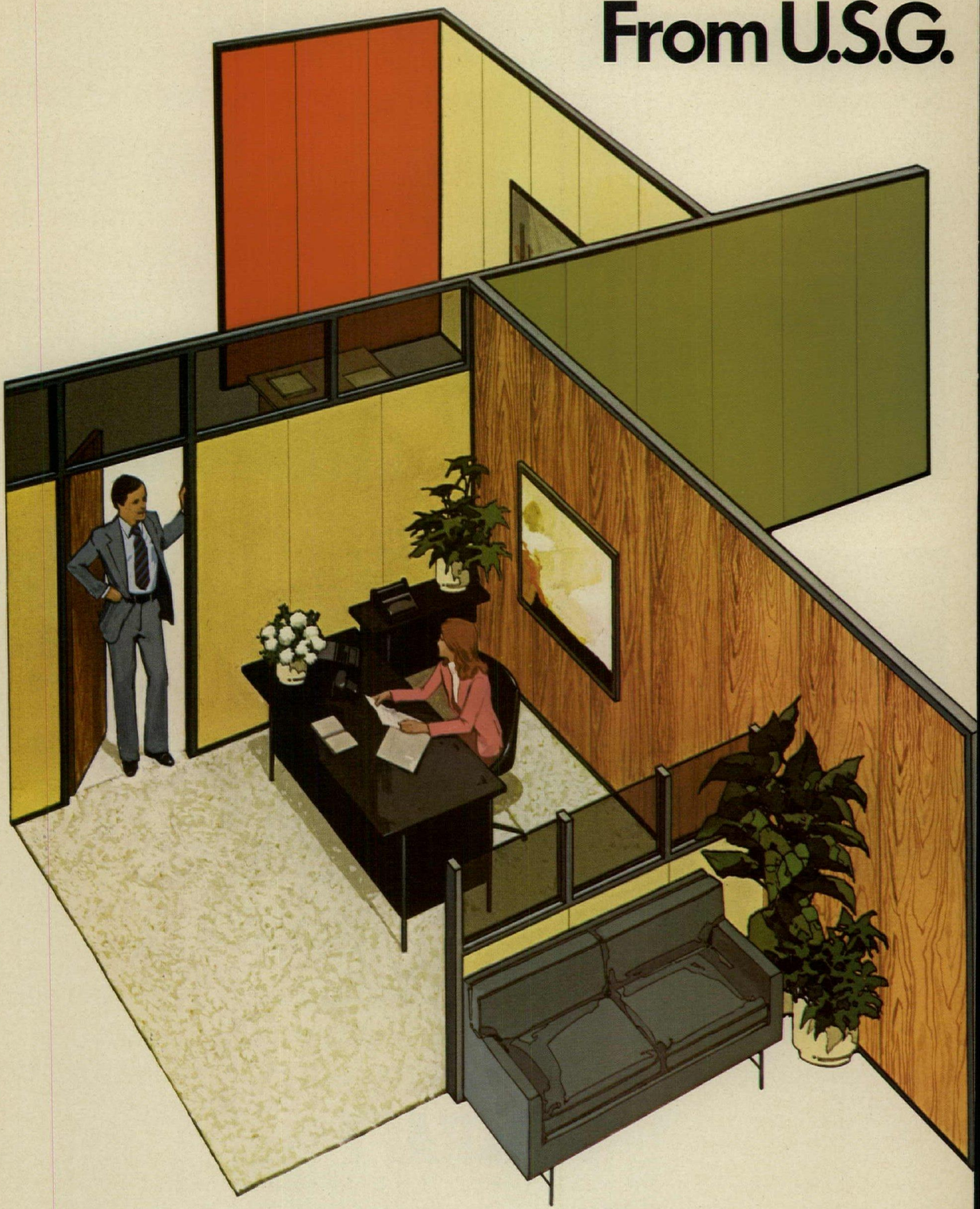

From U.S.G.

More life-cycle cost values.

These U.S.G. products reduce long-term maintenance and space-change costs.

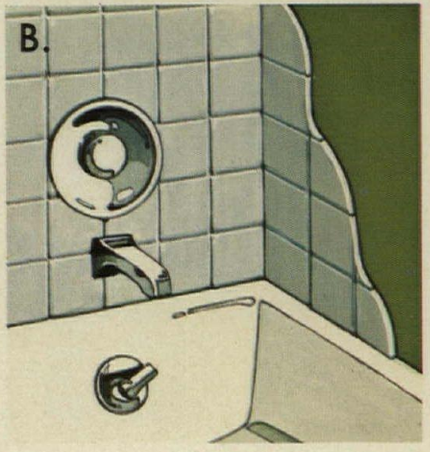
Most companies don't have the capability to anticipate what relocations and maintenance can do to their life-cycle cost figures. But there are options, such as ULTRAWALL® Movable Partitions. They look and they perform like permanent walls, even to good STC ratings. They're virtually maintenance-free because they're protected with a tough washable vinyl covering. And space-change costs are minimal; with a single move ULTRAWALL pays its own way with reusable materials and minimum labor costs. Foresight in building with systems such as shown here, can add up to worthwhile life-cycle cost savings on any new building.

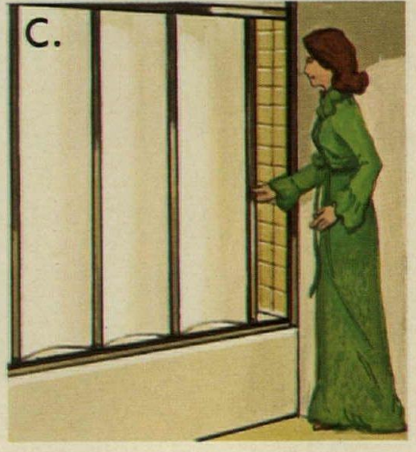
A. Environmental ceilings, made by our Ceiling Dynamics Division, integrate lighting, air distribution and sound control in grid suspension systems. Sensors automatically vary air volume at constant temperature to suit occupancy needs, providing comfort while conserving energy.

B. SHEETROCK® W/R (Water-Resistant) Gypsum Panels are ideal for backing tile and other coverings in bath, kitchen and laundry areas. Because protected walls won't deteriorate, the tiles stay put.

C. SHOWERFOLD® Tub & Shower Enclosures, made by our subsidiary, Kinkead Industries, are designed to be virtually maintenance-free. Runners are enclosed to keep dirt out. The shatterproof panels are guaranteed for the life cycle of the building and are replaced free if broken.

For details on any of these products or systems, write to Dept. AR–124, 101 S. Wacker Drive, Chicago, Ill. 60606.





UNITED STATES GYPSUM
BUILDING AMERICA

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Plaza Madera at Corte Madera, California. Matt Copenhaver Associates.

Simpson Custom Ruf-Sawn Redwood Plywood. For offices as beautiful as all outdoors.

Architects today are depending more and more on materials that blend harmoniously in natural environments. And almost nothing looks more natural than Simpson's Custom Grade Ruf-Sawn Redwood Plywood.

No other commercially available wood surpasses redwood for beauty in any setting. Left natural, it weathers to a soft driftwood gray. And redwood is exceptionally resistant to surface checking, making it outstanding for durability and maintenance in any climate.

Simpson Custom Ruf-Sawn, with its rough-sawn surface and pleasing contrasts of heartwood and sapwood, enhances redwood's natural charm. And because it's plywood, you get all the advantages of plywood, too. High strength-to-weight ratio. Easy handling. Excellent workability. Plus economy when compared with solid lumber.

Simpson Custom Ruf-Sawn Redwood Plywood. A beautiful way to get back to nature.

For details on patterns and sizes, contact Simpson Timber Company, 900 Fourth Avenue, Seattle, Washington 98164. Phone 206-292-5000.

Simpson

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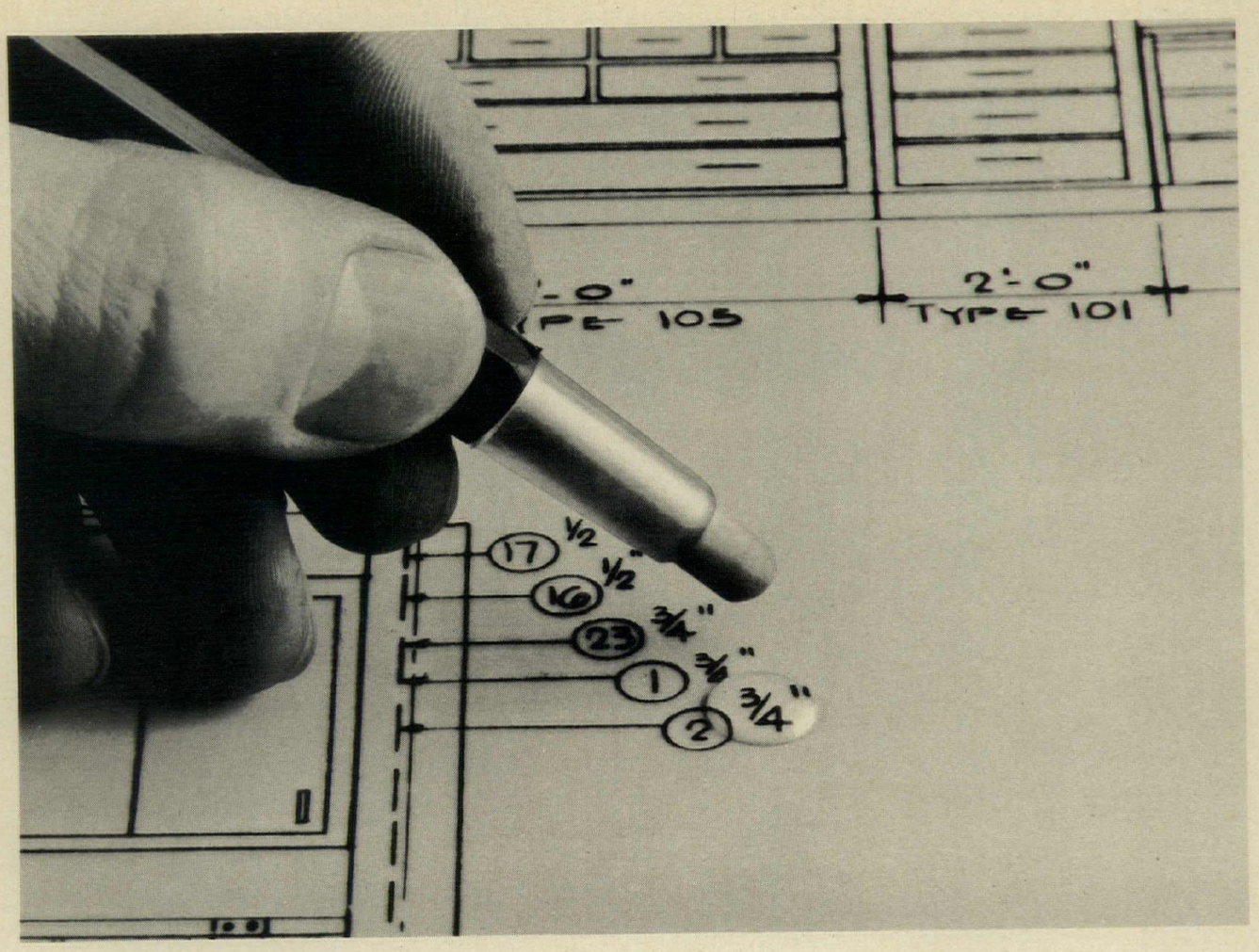

Get the drop on redrawing drudgery.

Shortcuts with Kodagraph materials can turn drafting hours into minutes.

Nobody likes to retrace a whole drawing just because a few revisions are necessary. You don't have to if you make a second original on Kodagraph wash-off film. Simply wet-erase what you don't want—using plain water and a soft eraser—draw in the new details and the job is done.

If on the other hand, you're faced with repetitive details, draw them once. And then order as many Kodagraph film or paper reproductions as you need. Cut them out, tape down on drawing form, rephotograph and you have a new original.

When you need to restore a battered, old drawing, have a reproduction made on Kodagraph film. Stains virtually disappear. Weak lines come back strong. And you end up with a crisp, legible black-on-white print.

Get the details.

Write for information on how you can reduce drafting time with photoreproduction techniques. Eastman Kodak Company, Business Systems Markets Division, Dept. DP808, Rochester, N.Y. 14650

Kodak products for drawing reproduction.

Kodak

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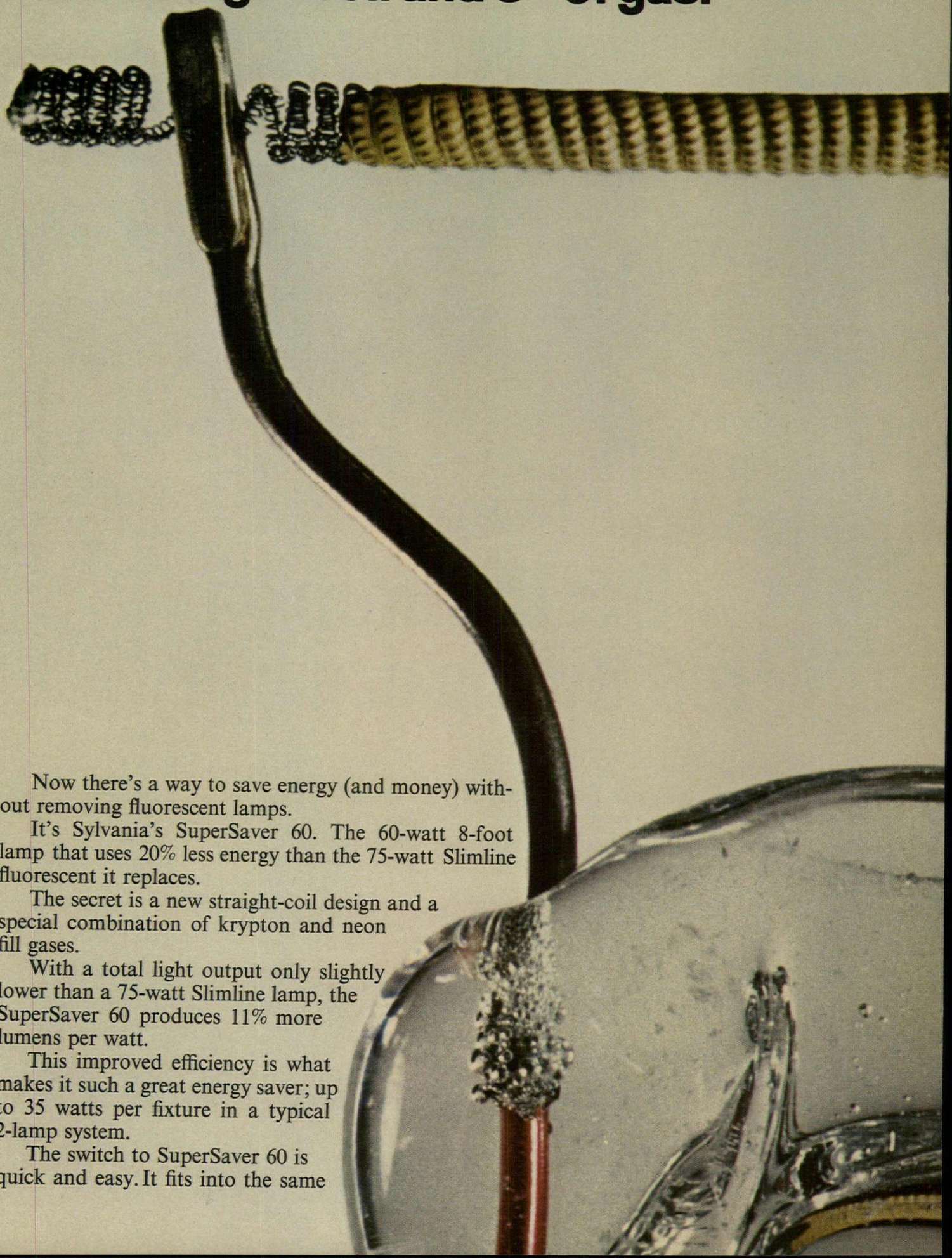
The shortest distance to saving energy is a straight coil and 8ft of gas.



Now there's a way to save energy (and money) without removing fluorescent lamps.

It's Sylvania's SuperSaver 60. The 60-watt 8-foot lamp that uses 20% less energy than the 75-watt Slimline fluorescent it replaces.

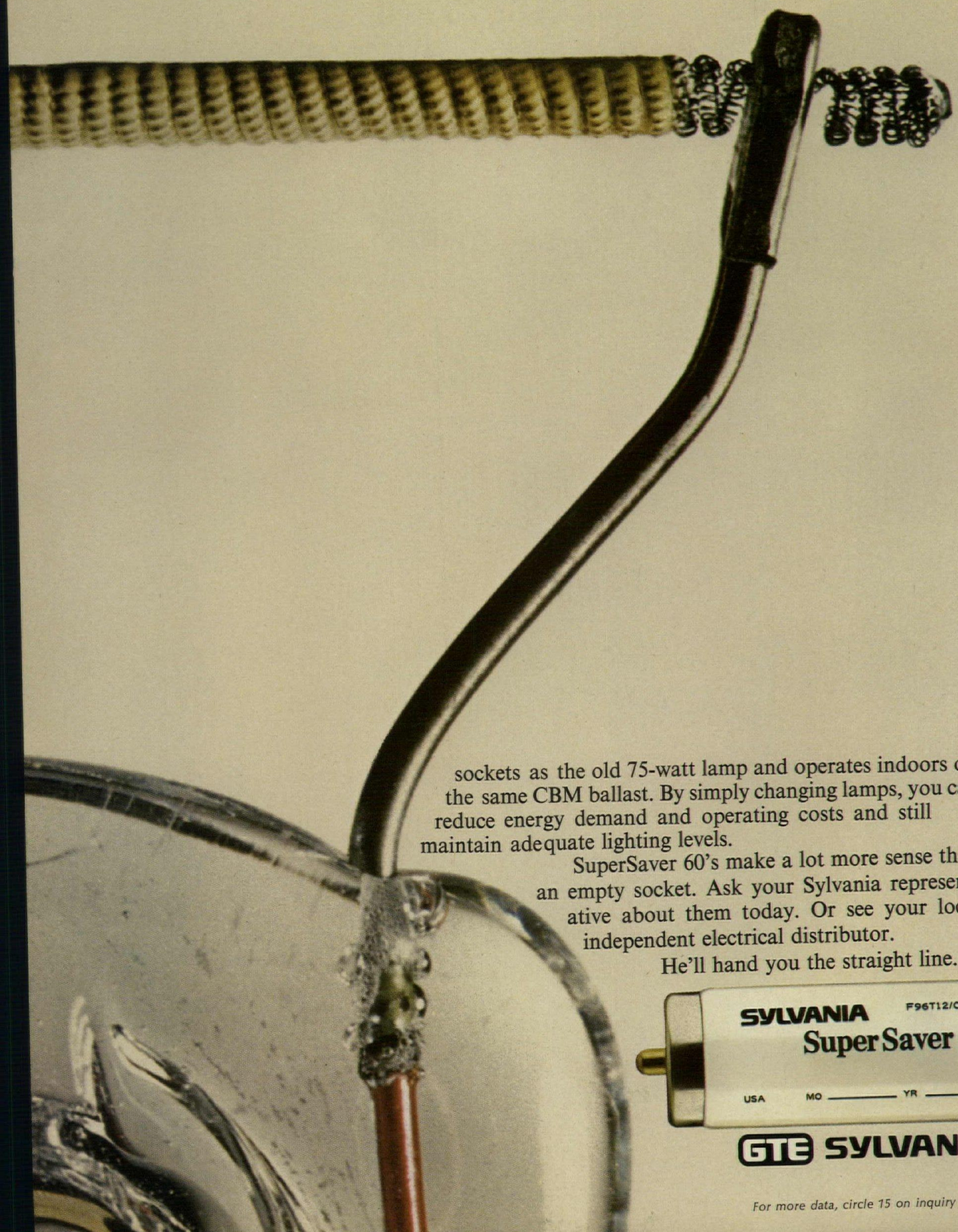
The secret is a new straight-coil design and a special combination of krypton and neon fill gases.

With a total light output only slightly lower than a 75-watt Slimline lamp, the SuperSaver 60 produces 11% more lumens per watt.

This improved efficiency is what makes it such a great energy saver; up to 35 watts per fixture in a typical 2-lamp system.

The switch to SuperSaver 60 is quick and easy. It fits into the same

Sylvania Lighting Center, Danvers, Mass. 01923.



sockets as the old 75-watt lamp and operates indoors on the same CBM ballast. By simply changing lamps, you can reduce energy demand and operating costs and still maintain adequate lighting levels.

SuperSaver 60's make a lot more sense than an empty socket. Ask your Sylvania representative about them today. Or see your local independent electrical distributor.

He'll hand you the straight line.

GTE SYLVANIA

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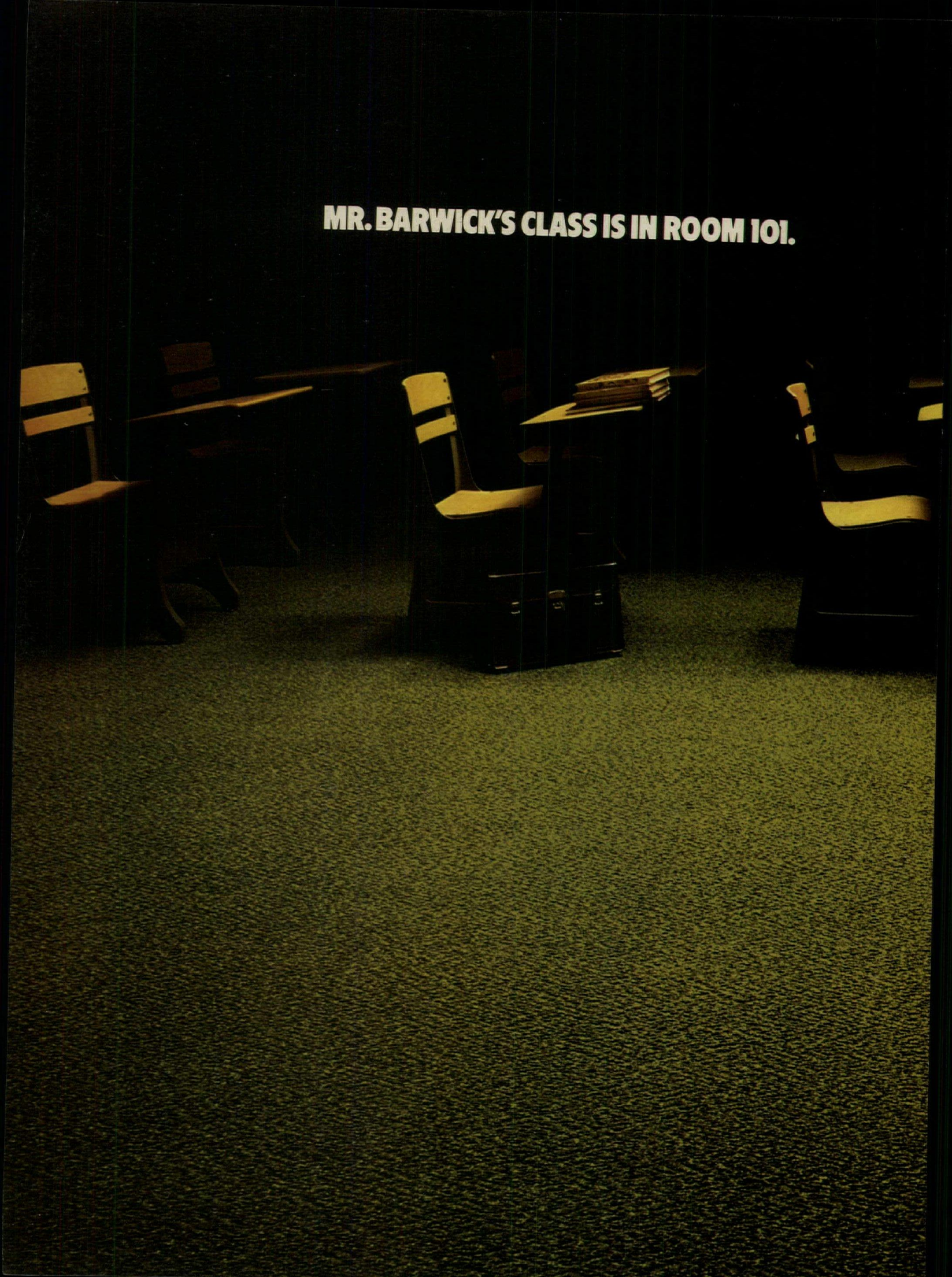
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This is just one of them: "Academic™ II," a soil-hiding carpet of four-ply Antron® nylon with a static inhibitor built into the polymer.

Available in 12 tweed colorations.

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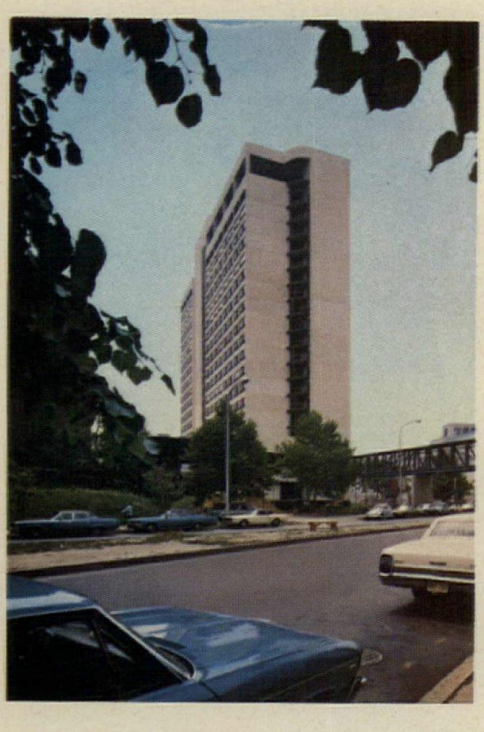
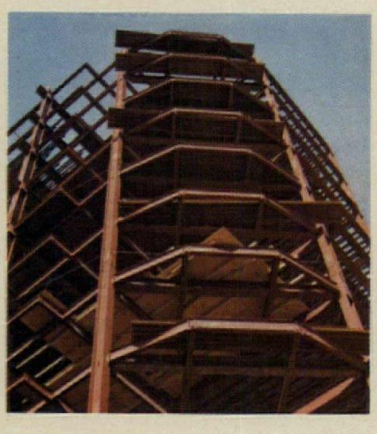
For new Hilton Hotel of Philadelphia:

Steel framing proves more economical than concrete





The new 20-level Hilton Hotel of Philadelphia, on the University of Pennsylvania Campus, was conceived to meet a variety of needs: accommodation of nearby hospital out patients; hospital and university visitors, visitors to exhibitions and meetings at the Trade and Convention Center, spectators for sports events at Franklin Field, and for families attending commencement ceremonies. An integral parking facility also serves several needs.

Tower Located over Service Area

To provide the required 400 guest rooms, the architects determined that a high-rise tower would be needed in the congested site. It became apparent during the design stage that the tower structure would have to be located over the service area of the hotel, which includes the motor entrance, lobby, ballroom and meeting rooms, restaurant, and housekeeping facilities.

After various design considerations, structural steel was chosen for the tower framing because it provided vertical and horizontal flexibility, while at the same time offering substantial economies. E. Fred Brecher, chief structural engineer for Geddes Brecher Qualls Cunningham, explains the reasoning that led to steel's selection:

"A cast-in-place concrete structural system would have required 18-inch by 48-inch columns in the lower story—resulting in a transverse column bay of 27 feet center line of column to center line of column. In the hotel tower, the room layouts suggested a column spacing of 27 feet in the longitudinal direction. The resultant 27-foot by 27-foot bays would have been heavy concrete slabs (flat plate or waffle) or expensively formed beam and slab, or slab bands in the tower area.

Eliminate Heavy Transfer Slab

"To avoid this big bay in the tower, a transfer slab would have had to be inserted at the fourth level to cut down the column spacing to a more economical size for a concrete structure. Concrete contractors in the area advised that a full transfer slab might add as much as $.75 per gross square foot to the cost of the structure. This cost and the additional time required for the construction of such a slab stimulated a search for another answer to our structural problem.

"With the help of Bethlehem Steel's Philadelphia District Sales Engineer, a scheme utilizing composite structural steel framing in the high live load levels of the base and simple joist and girder framing in the tower area was developed. This allowed straight-through framing from foundation to roof."

Steel Weight Held to 12.2 psf

The final design of the structure resulted in a steel weight of approximately 12.2 pounds per square foot, including joists. The use of a steel frame structure simplified the connection details for the attachment of a precast facade.

Want more information on steel framing for buildings? Call or write the Bethlehem sales office nearest you. Bethlehem Steel Corporation, Bethlehem, PA 18016.

Owner: Frankel Enterprises—Developer, Philadelphia; *Architects and Engineers:* Geddes Brecher Qualls Cunningham, Philadelphia—Architect in Charge: Alan Fishman; *Fabricator:* Bethlehem Contracting Co., Bath, Pa.; *Erector:* Valley Erection Co., Broomall, Pa.; *General Contractor:* Frankel Enterprises.

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

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PPG
INDUSTRIES

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.

DU PONT
REG. U.S. PAT. OFF.

Specify Du Pont Pneumacel Carpet Cushion

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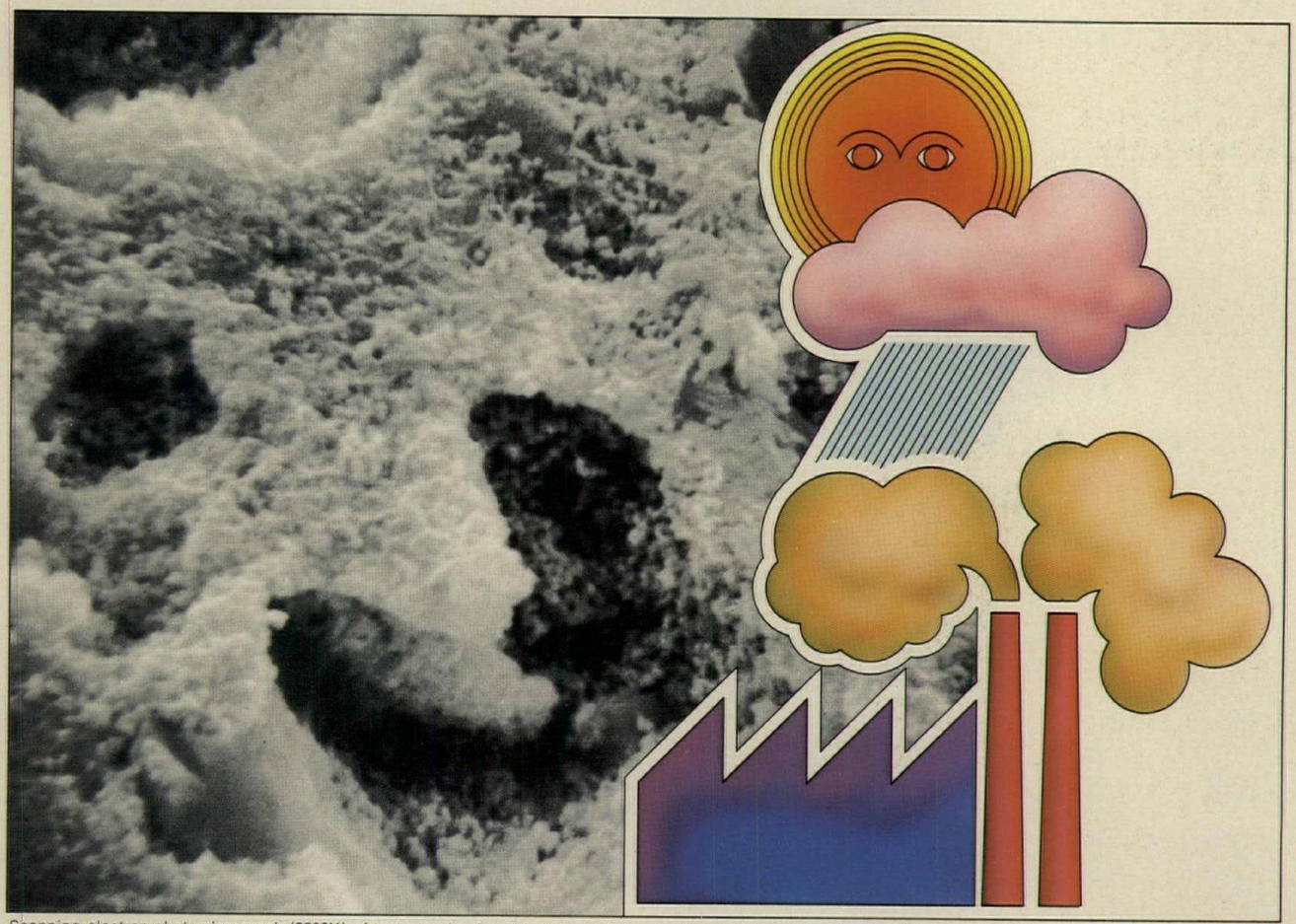
See how corrosion starts, then stops, because of an aluminum substrate.



Scanning-electron photomicrograph (2500X) of test sample of metal siding with an organic coating, exposed to a highly corrosive industrial atmosphere for four years.

The scanning-electron photomicrograph you're looking at shows how any organic coating weathers in time.

The coating has become spongelike and retains moisture. Wet cycles last longer. The hydrophilic cells trap such contaminants as sulfur dioxide, which combines with water to form sulfuric acid. Now the corrosive effects of electrolytic action include chemical attack at the interface . . . underfilm problems that can cause flaking or loss of adhesion . . . and staining or streaking, depending on the performance of the substrate.

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THE RECORD REPORTS

New Federal programs and A-E procurement will be discussed by GSA, January 9-10 in Miami Beach. At this third national conference on Federal programs, the A-E community will be briefed by spokesmen of the General Services Administration, HUD, DOD, EPA and several other Federal agencies. All architects and engineers are welcome at the conference, sponsored by the Committee on Federal Procurement of A-E Services, COFPAES (The American Institute of Architects, American Consulting Engineers Council, American Society of Civil Engineers, Engineering Division ARBA, and the National Society of Professional Engineers). For more information, contact (before January 1): A-E Federal Programs Conference, Department of Government Affairs, 1735 New York Avenue, N.W., Washington, D. C. 20006.

Professional fee setting may be affected by a Supreme Court decision to hear the case for lawyers. In agreeing to decide whether or not anti-trust laws are violated by established fee schedules for attorney services, the Supreme Court could influence the timing of a court ruling in the Government's case against the National Society of Professional Engineers, a civil anti-trust suit charging NSPE with eliminating price competition among its members in the sale of engineering services. A final court ruling, expected this month, may be delayed.

American business plans to spend $125.38 billion for new plants and equipment in the U.S. in 1975. The McGraw-Hill Fall Survey of Preliminary Plans for Capital Spending in 1975-76 sees an increase of 12 per cent above the 1974 spending level. The gain for 1975 just equals the expected price rise for capital goods and construction next year, which means no growth for total business capital expenditures in real terms in the coming year.

S. Kenneth Johnson, II, co-founder and chairman of Daniel, Mann, Johnson & Mendenhall died November 1. He was 62 years old and lived in Laguna Beach, California. During Mr. Johnson's varied career, he appeared as a child star in the "Our Gang" comedy series, and helped found one of the world's largest architectural-engineering firms, DMJM, in 1946. He was a Fellow of the American Institute of Architects.

The Wainwright Building renovation has been awarded to Hastings and Chivetta and Mitchell-Giurgola, a team which competed nationally for the job of incorporating the St. Louis landmark within a new Missouri state office complex. The winning architects were chosen from a field of five finalist firms or associations (RECORD, October, 1974, page 33). Details of the design are not yet available.

Nikolaas John Habraken will become head of the MIT Department of Architecture in August, 1975. The Dutch architectural theorist will succeed Donlyn Lyndon who indicated last spring his intention to resign. Professor Habraken served as chairman of the Department of Architecture and Building Technology at the Technical University of Eindhoven, The Netherlands, from 1967 to 1970, and is presently professor of architecture and urban design there. Details on page 43.

Congress has established a new Energy Research and Development Administration, and President Ford has nominated Dr. Robert C. Seamans to be Administrator. ERDA will supervise a number of Federal energy research programs already underway, and administer the recently passed Solar Energy, Research, Development and Demonstration Act, the Geothermal Energy Research, Development and Demonstration Act, and the Solar Heating and Cooling Demonstration Act. The legislation creating ERDA also abolished the Atomic Energy Commission, substituting a Nuclear Regulatory Commission which will only license nuclear power plants. Unless it receives a Congressional extension, the Federal Energy Administration will expire July 1, 1975.

OSHA has turned down design professions requesting an advisory committee to help with A-E concerns. Assistant Labor Department Secretary John H. Stender, answering a plea (RECORD, News Reports, November 1974) for better communications on the subject of building regulations and OSHA inputs, wrote Archibald Rogers, AIA president, that "It is not opportune to form such a committee at this time." Stender did promise to allow the design groups to review the agency's proposed standards revisions which have "an interface with building codes," and promised to circulate any proposed OSHA changes to the groups.

James V. Rice, vice president, Pease Company, was re-elected president of the Producers' Council, at the organization's 53rd National Member Conference in Colorado Springs, Colorado, October 15-17. A report on this meeting appears on page 34.

December 26 is the deadline for nominating buildings for the 19th R. S. Reynolds Memorial Award, sponsored by the Reynolds Metal Company and administered by the AIA. Deadline for submitting data binders is January 22, 1975. All entries must be structures designed by architects practicing in their respective countries, and must be buildings in which aluminum has been an important contributing factor. An honorarium of $25,000 accompanies this award. Preference will be given work completed during the three years prior to January 1, 1975.

Producers' Council meets in Colorado Springs

A more hopeful, but by no means spectacular, 1975 lies ahead for the construction industry, according to many of the speakers and panelists heard at this year's National Member Conference and Chapter Presidents' Conference of the Producers' Council, Inc. held in Colorado Springs, October 15.

Theme of the meeting was "Construction—Boom or Bust in '75." A consensus developed among the speakers which predicted a somewhat sluggish first half for construction activity next year followed by a more encouraging latter six months with an upswing in 1976.

Keynoter Robinson F. Barker, chairman and chief executive officer of PPG Industries, while avoiding any specific predictions for construction activity, singled out the housing slump and commented: "We can do better than this. Clearly we are going to have to improve the efficiency and the output of the housing industry."

The second phase of the Council's Delphi study, a major effort of its marketing research committee, was announced. Its conclusions were drafted from responses by more than 100 experts to 55 questions dealing with various facets of industry conditions, present and future. Conclusions: inflation in building will continue to outpace the national average until the end of the 1970's; fairly even division on the prospects for wage and price controls in the next three years; the majority said material shortages would continue through 1980, then decrease with new materials reaching the market.

Ernest P. Mickel, Washington editor of ARCHITECTURAL RECORD, was given an honorary membership award, only the third such recognition in the Council's 54-year history. Mr. Mickel is shown left, with Mrs. Mickel and Producers' Council president James V. Rice.

New Federal forms may help smaller firms

Newly proposed information forms for architects and engineers hoping to do business with the Federal government should result in greater opportunities for small or highly specialized firms, Acting Public Buildings Service Commissioner Walter A. Meisen said last month.

GSA Administrator Arthur F. Sampson said the PBS hopes to put the new forms into effective use shortly after the first of the year. Standard Form 251, the "U.S. Government Architect Engineer Questionnaire" in use since mid-1961, would be phased out in favor of two new forms—SF 254 and SF 255. With SF 255, firms will be submitting, if requested to do so, information on experience and performance for each project in which they are interested and qualified to perform.

Said Acting PBS Commissioner Meisen: "The Standard Form 255 proposes not just a new form, but a new procedure. In addition to submitting the general qualification form, at least once a year, the SF 255 requests a complete statement of experience and performance on specific projects. All of this information which includes specific information about a firm's assignment of personnel, special technical expertise, current workload, past experience and other capabilities, is needed for the government to screen qualified firms and intelligently choose the best one to do the government's work. Small or highly specialized A/E firms and other professional service firms are expected to have greater opportunity to be considered for Federal work under these new procedures."

Two-day program for architects in industry

Another facet of architectural practice was explored in October when the Architects in Industry Committee of the AIA held its annual seminar in Palm Beach. Committee members are active in the building departments of commercial, industrial and institutional organizations in the U.S.—such companies as Michigan Bell; Westinghouse; United Airlines; E.I. DuPont; J.C. Penney; Armstrong Cork; Caterpillar Tractor; Union Carbide; RCA; Ford Motor Co.; Dow Chemical; Sears; Hercules; Marriott Corporation; Upjohn; Singer; Bethlehem Steel; Johns-Manville and Exxon.

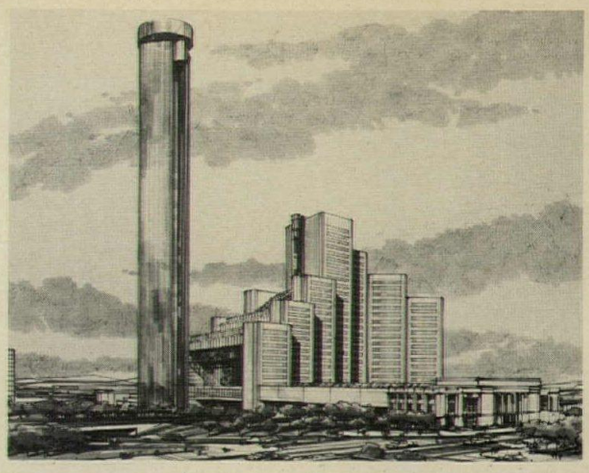
The purpose of the organization is to foster better communications and working relationships between in-house building capabilities and the independent private architects retained to plan and design corporate facilities. Further, the group provides registered architects employed by commercial, industrial or institutional organizations with the tools they need to effectively promote better design and planning within their organizations.

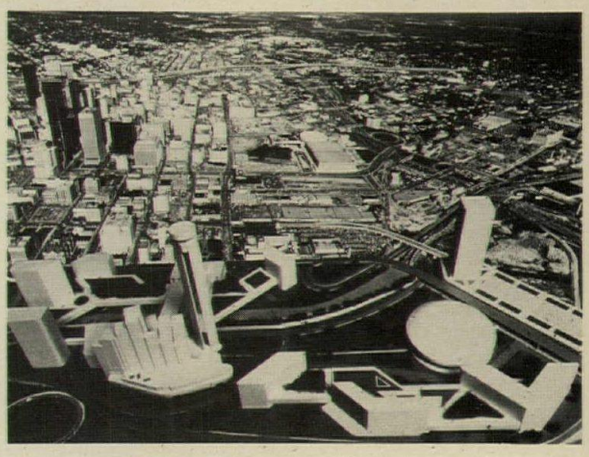
The two-day program included a presentation by Eliot Noyes, who described his role as a consultant to the building departments of Mobil Oil, Westinghouse and IBM.

Another case study dealt with the role Hellmuth, Obata and Kassabaum is presently playing in the city of Midland, Michigan following an initial contract to work with the building department of Dow Chemical on a community/industry interface study.

The unique position of architects in industry was further explored in two other sessions. A workshop on corporate design emphasized the importance of good design from an efficiency and marketing point of view and stressed the ability of in-house professionals to communicate this to their managements. Another session entitled "Making Every Dollar Count" underlined the unique capability of the in-house architect to control building expenditures through his intimate involvement with the owner's goals and building criteria.

Current plans call for holding the 1975 meeting at AIA headquarters in Washington. Those interested in learning more about the organization should contact Robert A. Fearon, chairman, Architects in Industry Committee, AIA in Washington.—*L.K.*





Dallas will build $200 million development

A 50-acre, $200-million-plus development in downtown Dallas was announced October 22. Ray L. Hunt, president of Hunt Investment Corporation, announced that construction on the Reunion development's $75-million first phase, begun last month, will be completed in 1977. It will include a 1000-room Hyatt Regency hotel, a 50-story landmark tower with revolving cocktail lounge and restaurant, a retail shopping bridge connecting the hotel to the city's Union Terminal Building, parks and fountains, parking for 2000 cars and the Dallas Transportation Center (housed in Union Terminal). The project was planned by a team consisting of city planners Vincent Ponte and Warren Travers, and the architectural firm of Welton Becket and Associates.

Specifically, the city of Dallas owns 32 acres, and Hunt Investment Corporation and The Cambridge Companies own 18 acres. All privately-owned structures will be 100 per cent privately funded and will be developed by Woodbine Development Corporation. All municipal structures will be owned, financed and developed by the city of Dallas.

Young Street, the major point of access to the project, will be extended around each side of the Union Terminal, thereby preserving the historic building while also saving the city several million dollars compared with previous alternatives.

Commerce Department moves to implement fire act

The Commerce Department has moved to implement the new Federal Fire Prevention and Control Act—signed by President Ford in October—with the promise it would not impose a national building code upon the nation's builders even though some observers feel it now can.

As a result of the new law, however, fire research activity at the Bureau is certain to increase. A public education program to be undertaken by the new National Fire Prevention and Control Administration will focus on building fires where human action or carelessness is a prime factor. The new agency will carry on an important thrust toward near-term results in the research area.

The Technological Development Program called for by the Act will build on the present NBS Fire Services Technology Program to produce an expanded effort in development, testing and evaluation of equipment and devices ranging from fire-fighters' turnout coats to smoke detectors.

Contract Marketplace-New York announces program on interior design

The advisory committee of "Contract Marketplace—New York" has announced that the educational program sessions of the forthcoming event will be presented February 11th, 12th and 13th in conjunction with the exposition at the Americana Hotel, in New York City.

There will be sessions on: "Multi Disciplinary Approach to a Design Project Benefits the Interior Designer," presented and moderated by Len Corlin, co-publisher and editor of *Contract;* "The Architect's Growing Role in Interior Design," presented and moderated by Walter Wagner, editor of ARCHITECTURAL RECORD; "International Contract," presented and moderated by Fergus McKeever, publisher of *Service World International.*

Another session will present five major consumers of contract merchandise, executives in nationally recognized firms who will each discuss a recent or current design project, and the relationship with the specifiers in this activity. To date, speakers include: Le Roy A. Paris, project manager, Penzoil Corporation; and Joseph A. Configli, assistant vice president, Johns-Manville Corporation.

The Canadian government, which has officially approved "Contract Marketplace—New York" as a showcase for members of the Canadian contract furniture-furnishings industry, may be represented on this program with a special session devoted to Canadian interior design objectives and practices.

The advisory committee includes: Marvin B. Affrime, president, The Space Design Group; Louis Beal, executive vice president, ISD Corporation; Jim Carleton, vice president and general manager, Project Purchasing Service, Inc.; Larry Lerner, chairman and president, Saphier, Lerner, Schindler Inc.; and Michael L. Willis, president, Interior Architecture, Inc.

The U.S. Public Health Service has revised hospital construction rules

The U.S. Public Health Service (a part of HEW) has updated its minimum requirements for construction and equipment of hospital and medical facilities built with Federal assistance.

Regulations on the amount of smoke generated by building insulation and interior finishes during a fire situation are among several that have been added in the new publication. The major additions and revisions also include a new emphasis directed toward functional and performance requirements which promote good medical practices. The HEW Secretary may now waive specific requirements to permit innovations.

You can order the document, "Minimum Requirements of Construction and Equipment for Hospitals and Medical Facilities," from the U.S. Government Printing Office, Washington, D.C. 20402 at $1.25.

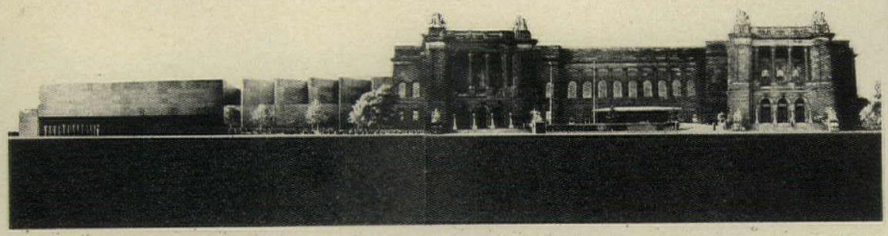
New study provides analysis of "strip city" growth impact

The Department of Housing and Urban Development, the Council on Environmental Quality and the Environmental Protection Agency have announced the results of a study described as the first factual analysis of the economic-environmental factors in urban sprawl.

Aimed at helping community planners, the study shows that planned urban fringe and suburban development can save communities up to 50 per cent in land costs, construction costs, energy consumption, air and water pollution and municipal operating costs, compared with random growth of the "strip city" type, or single thoroughfare development.

Among other comparisons, the study is said to contain consistent estimates of various community costs of different housing types, from single-family homes to medium-rise apartments, and different community development patterns, from low-density sprawl to high-density cluster development.

The year-long study was made by an independent consulting firm, the Real Estate Research Corporation of Chicago. Its report, "The Cost of Sprawl" is being published by the Government Printing Office at a price of 50 cents.



In Pittsburgh, the Sarah Scaife Gallery opens at Carnegie Institute

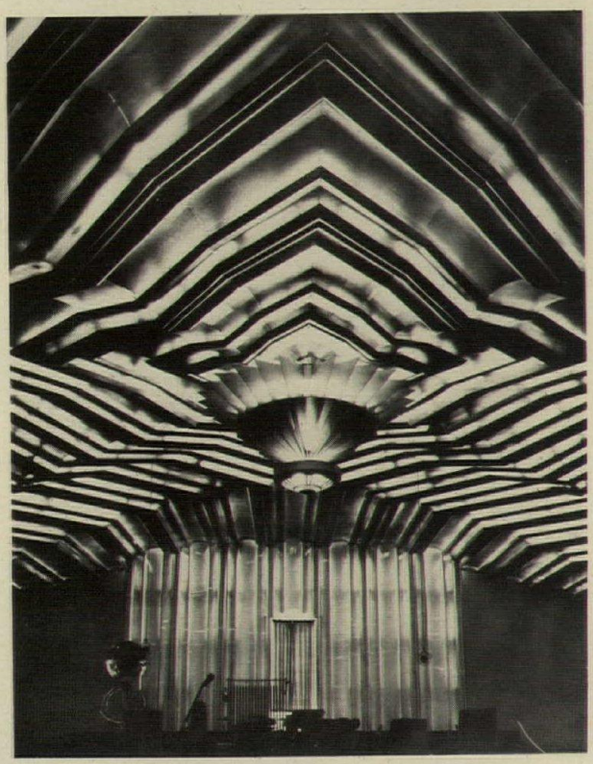
The $12.5 million Sarah Scaife Gallery, Museum of Art, Carnegie Institute, Pittsburgh, opened its doors to the public on October 26.

Designed by Edward Larrabee Barnes, the granite structure covers approximately 155,000 square feet with an additional 16,000 square-foot outdoor sculpture area (photo).

A 200-seat lecture hall and children's educational room are located on the ground level; administrative offices and workshops are on the first floor.

"Skylights illuminate the galleries wherever possible to let visitors see paintings the optimum way, by natural light," Mr. Barnes said.

The Sarah Scaife Gallery marks the first major expansion of the Institute since the early 1900's when additional space for the Museum of Art, for the Museum of Natural History and for a Music Hall was added to the original structure, which currently serves as the Carnegie Library of Pittsburgh. Another area of the original building is now under renovation and will be opened in 1975.



American Art Deco exhibited in New York City

Nationwide in scope, this survey of architecture of the 20th century, now referred to as Art Deco, or Style Moderne (late 1920's and 1930's) is open to the public in The Contemporary Wing of the Finch College Museum of Art, New York City, through January 5.

The exhibition encompasses skyscrapers, dams, bridges, warehouses and other commercial buildings, movie palaces and private residences, shown in large photo-murals as well as color slides and architectural drawings. Among the famous structures shown are: the San Francisco Bal Tabarin nightclub (above), Timothy L. Pflueger, 1931; the Northwestern Bell Telephone Building in Minneapolis, Hewitt & Brown, 1931; Chicago's Adler Planetarium, (top), Ernest Grunsfeld, 1930; the San Francisco Stock Exchange, Miller & Pflueger, 1930; The Golden Gate Bridge, Joseph B. Strauss, 1937; the Arizona Biltmore Hotel in Phoenix, Frank Lloyd Wright, 1929; the Cincinnati Union Terminal, Felheimer & Wagner, 1933; and the Civic Auditorium, Aberdeen, South Dakota, J. W. Henry & Company, 1938; and the private residence of Eliel Saarinen in Michigan.

Of special significance is the fact that this is the first exhibition comprised entirely of American architecture in the Art Deco style. The project was supported by a grant from The New York State Council on the Arts.

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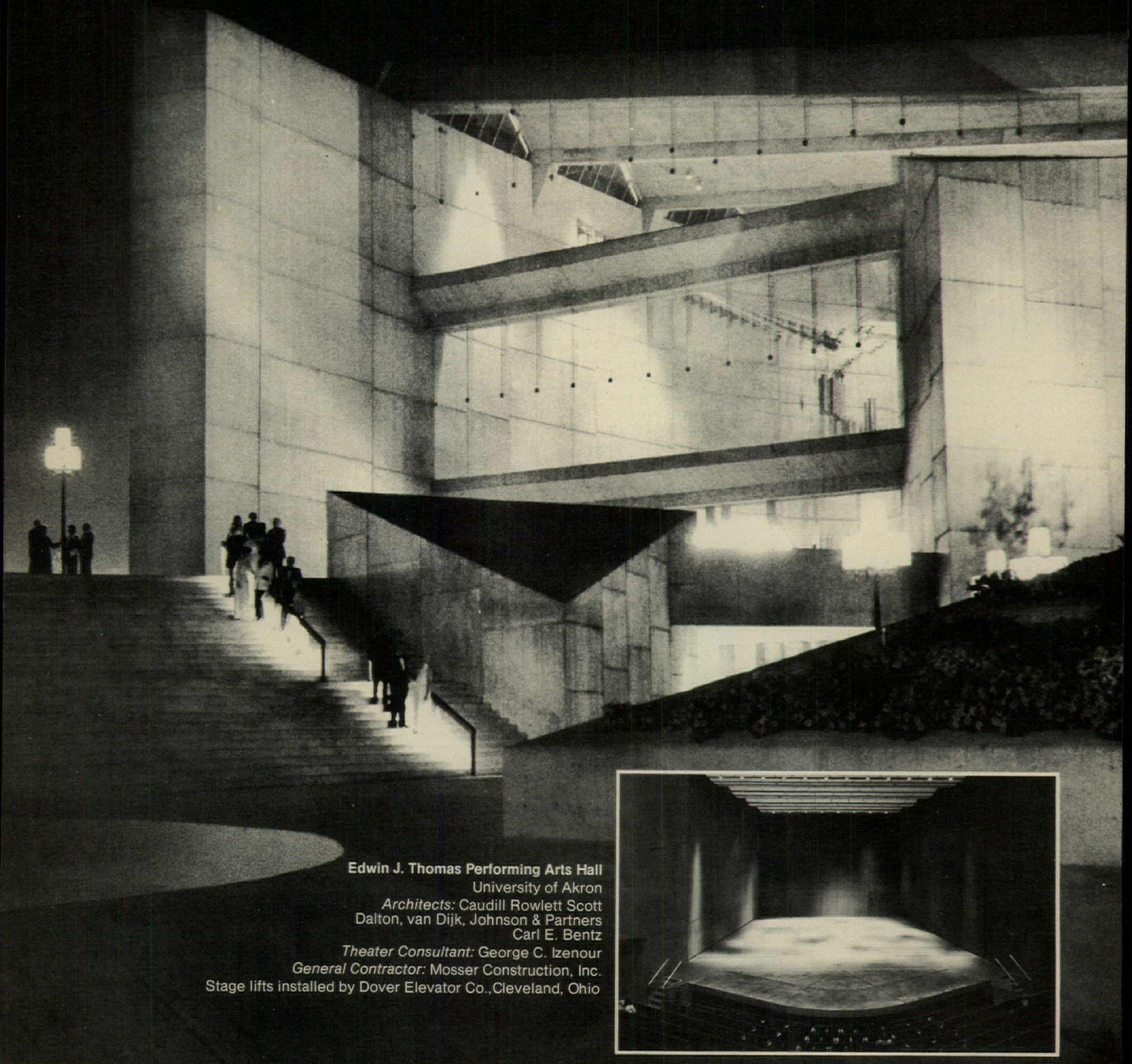

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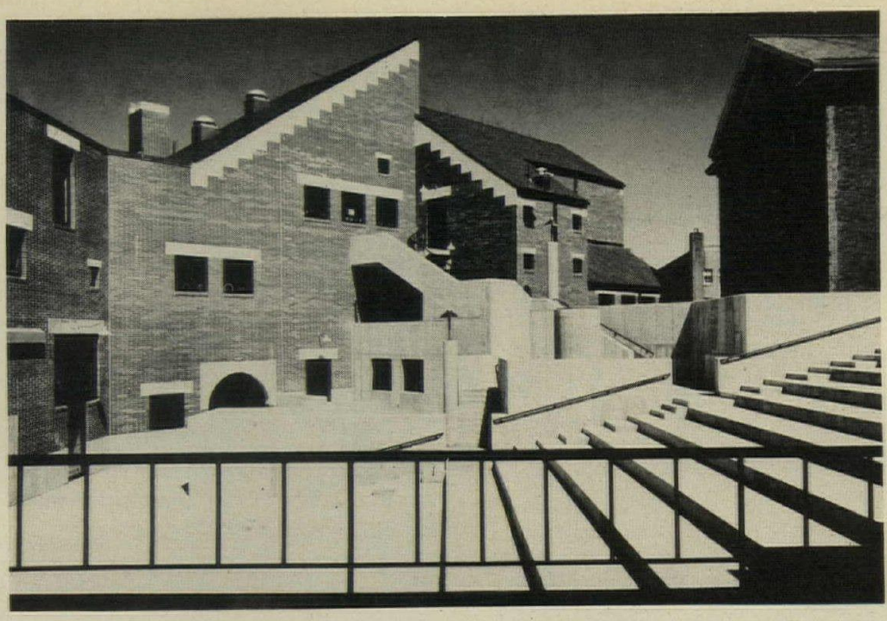
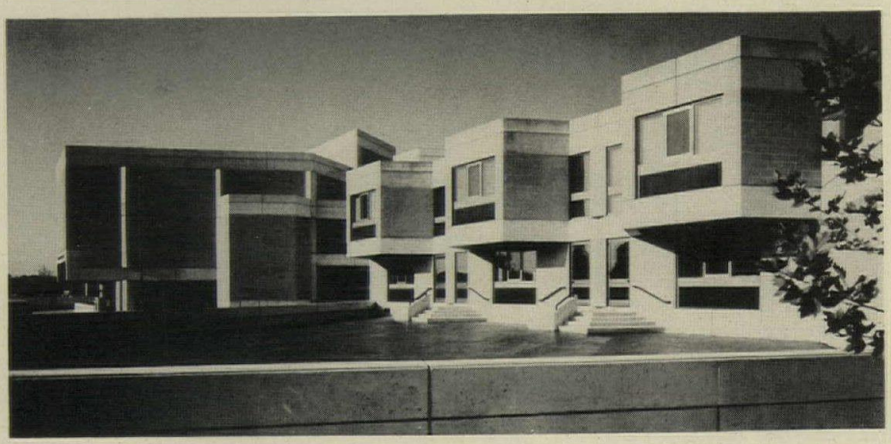




"New Architecture in New England" is shown at the DeCordova Museum

"New Architecture in New England," an exhibition, is being presented by the DeCordova Museum in Lincoln, Mass., through January 15, 1975. Organized for the general public, this exhibition emphasizes architecture as it is experienced, with a multimedia slide presentation in which each building is seen in relation to its surroundings; various views and details are examined.

The exhibition focuses on about 50 institutional buildings constructed in the last decade, selected primarily for their esthetic distinction. The major purposes of the exhibition are: 1) to give recognition to outstanding contemporary buildings in New England, 2) to increase public understanding and appreciation of innovative architectural design, and 3) to emphasize the importance of good design in public buildings.

Among the buildings shown are: The Pierce School (top), Brookline, Mass., by William D. Warner and Davies, Wolf & Bibbins; and John M. Tobin School (bottom), Cambridge, Mass., by Pietro Belluschi and Sasaki, Dawson, DeMay Associates, Inc.

A solution for Piccadilly Circus

After 15 years of indecision, London authorities have agreed on a plan that may cost up to $250 billion to redevelop one of the city's best-known landmarks—Piccadilly Circus.

Planning committee chairman, Norman Howard, of the Greater London Council, said the GLC chose from four options a proposal which would rely almost entirely on private funds to upgrade the area by adding new buildings and improving existing ones while retaining basic architectural characteristics of the site. (RECORD, October 1973, page 35.)

Much of the recent indecision stemmed from disputes between the GLC and the Westminster City Council, which also has jurisdiction over the area where Piccadilly Circus is located. A Council spokesman said the lowest price estimate for all redevelopment is $192 million but emphasized that ultimate cost, especially in light of inflation, will probably be much higher. Some of the development is planned to take 30 years, but most of the work—including modernizing the subway station, enlarging the pedestrian island in the center of the circus, and improving roadways—is expected to be completed by 1979.

The new plan retains what the British refer to as a circus—a broad circular junction with traffic flowing through it. The plan also follows much of the architectural concept developed by John Nash who designed buildings for Regent Street, one of the thoroughfares that adjoins Piccadilly Circus.

To be saved is the Criterion Theatre, one of London's oldest, and construction of new buildings adjoining the theater to the east is envisioned, along with pedestrian arcades and extensive renovation to the buildings that face the Circus. London's theater district is designated for redevelopment, but the GLC has not made public what it has in mind other than the retention of existing buildings.

Congress creates new energy administration

President Ford has signed into law the Energy Research and Development Administration which will supervise a number of Federal energy research programs, including the new Solar Energy Research, Development and Demonstration Act. Also, the creation of ERDA abolishes the Atomic Energy Commission, substituting a new commission to only license nuclear power plants. Dr. Robert C. Seamans has been nominated to be Administrator of ERDA.

The demonstration measure authorizes outlays of $2 million this year for preparing a comprehensive program (by the National Science Foundation) and $75 million more for carrying out other provisions of the law over two years.

Primary purpose of the R&D and demonstration bill is to bring a number of solar energy techniques to commercial development as soon as possible. Commercial demonstrations will be undertaken where development programs have been successfully completed and have met criteria including those related to technological feasibility, environmental impact, potential for technology transfer, and some others. Specific responsibilities are assigned to HUD, NASA, NSF and the Federal Power Commission among others.

Philip Morris dedicates SOM plant in Richmond

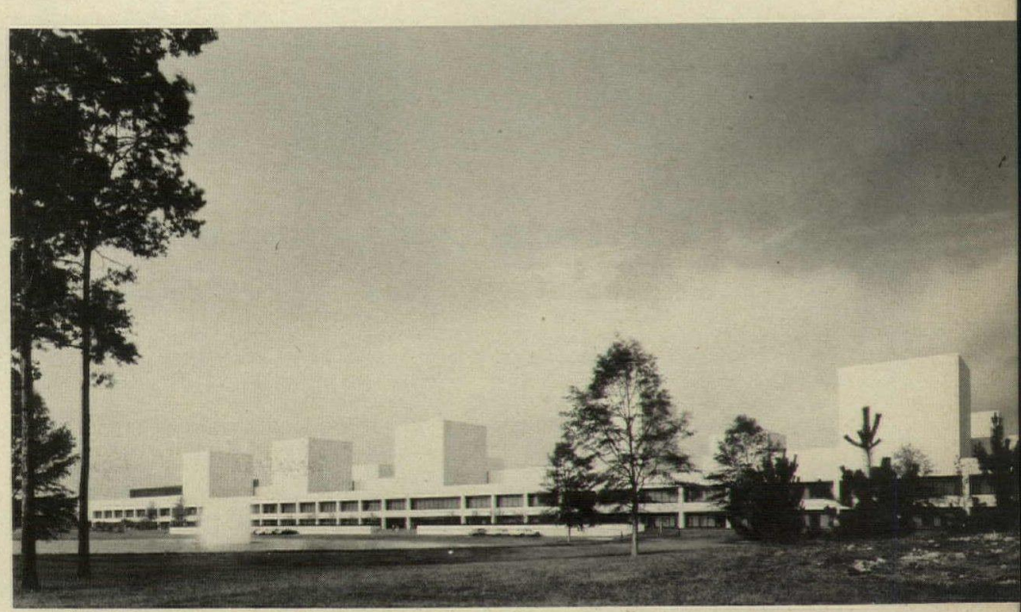
Philip Morris officially opened the doors of what is termed the world's largest cigarette manufacturing plant in Richmond, Va., October 12. Designed by Gordon Bunshaft of Skidmore, Owings & Merrill, the facility is located on a 150-acre site and comprises a complex of six buildings covering 1.6 million square feet.

The outstanding physical characteristic of the plant is the "make-pack" area, a 1000-foot-long space with wood parquet flooring of hard rock polished maple, high glass walls which open onto landscaped gardens, and a 210-foot free span.

The area is divided into five "bays" on the ground floor. Ten cores, each 94 feet high, contain rest rooms, employees lounges, supervisory offices, and heating and air-conditioning units.

The structure is faced with panels of precast concrete which incorporate river bed gravel from Texas to give a rough-textured surface. Landscaping throughout the 150-acre Philip Morris site is the work of Zion and Breen.

The new manufacturing facility joins other Philip Morris buildings on the site: the Finance Building, designed by Ulrich Franzen in 1963, and the Research Center Tower, also designed by Mr. Franzen.



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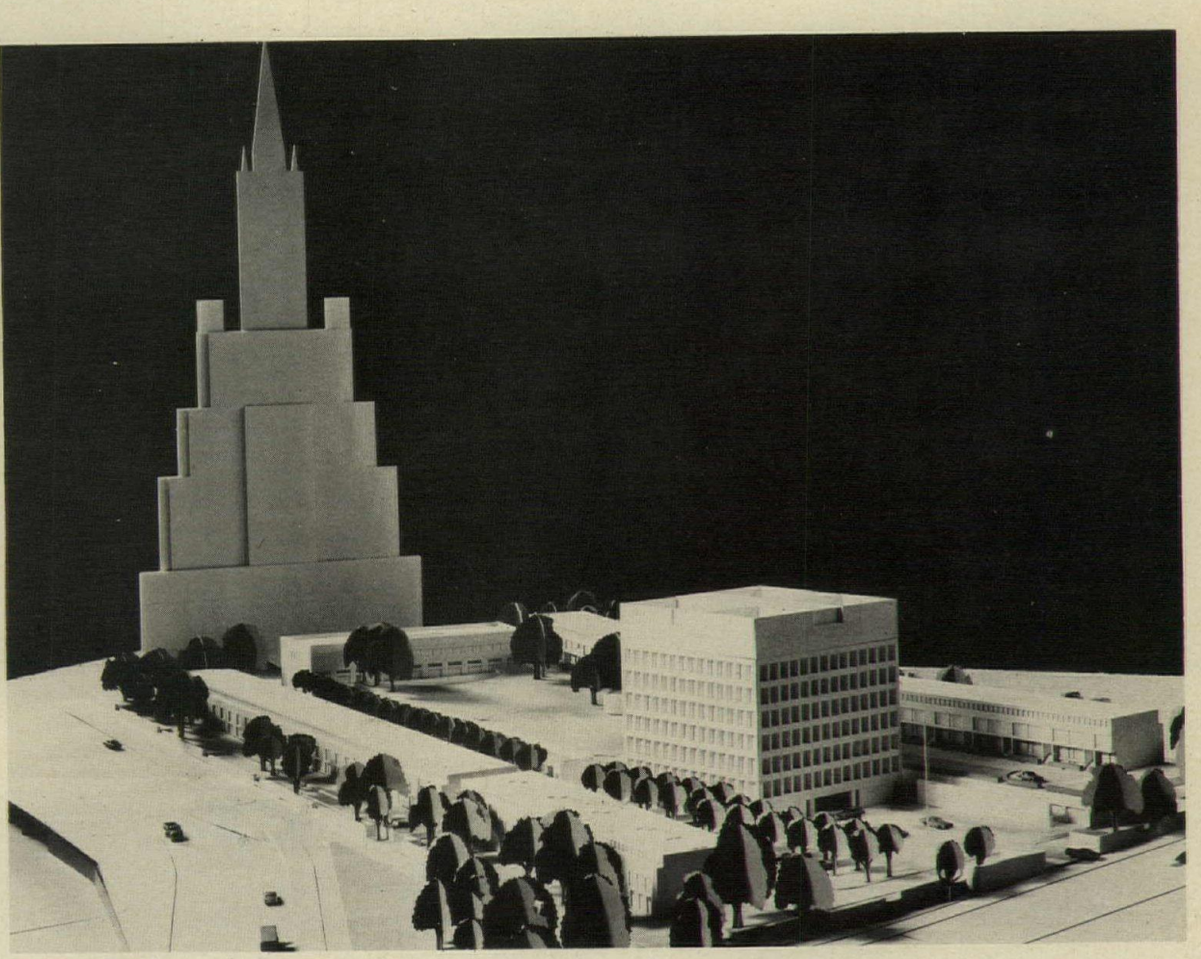
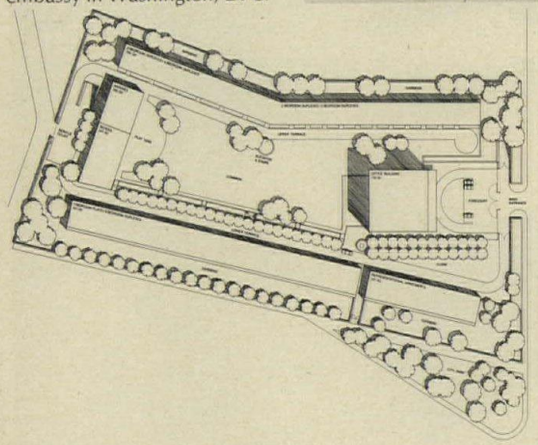
U.S. will build new Moscow embassy

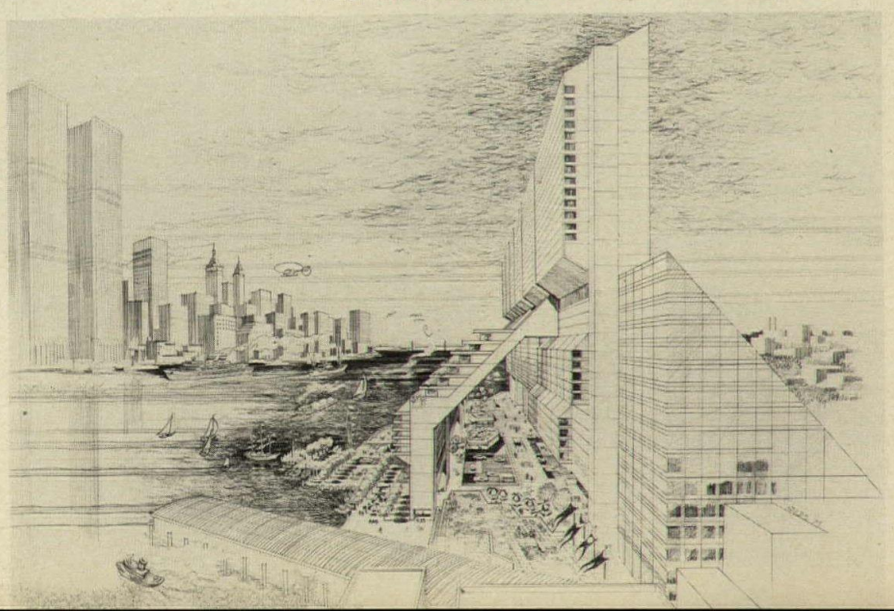
A 10½-acre site neighboring the ziggurat Vosstaniye (Insurrection) Square Apartments has been selected as the site of the new United States Embassy Complex in Moscow. Designed by Skidmore, Owings & Merrill and Gruzen & Partners, the embassy plan provides for a spacious park enclosed by three- and four-story terraced row houses on two sides, a school on the third side, and by the Embassy Office Building on the fourth. One of the primary concerns was to create a strong sense of community for the inhabitants and employees, while appearing to be a good neighbor to the surrounding city. Overt monumentality was to be avoided. Therefore, the housing with individual access provides a natural enclosure for the central common. The complex will contain approximately 633,000 square feet of space, 150,000 square feet of which will be offices. Simultaneous with the development of the American project, the Soviet Union is completing designs for its new embassy in Washington, D. C.

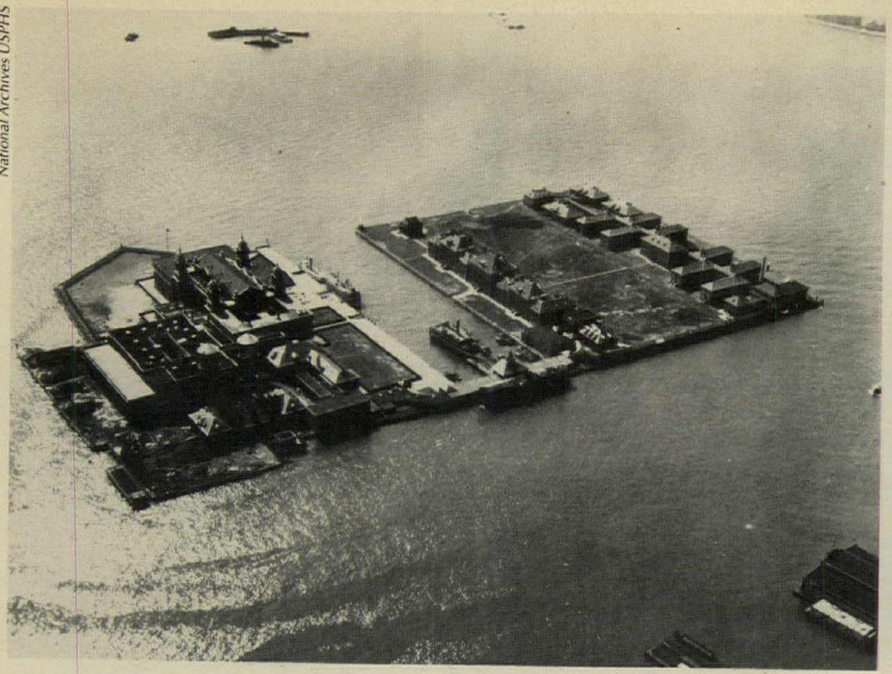




Housing, hotel and convention space will extend into Hudson River

Jersey City, New Jersey has approved the development of an 18-acre complex envisioned on new land extending into the Hudson River directly across from New York City's financial district. Tentative plans for the $150 million project call for up to 2000 units of upper-middle income housing, a major hotel and convention facility and recreational, retail and entertainment areas. Elbasani/Logan/Severin/Freeman designed it.





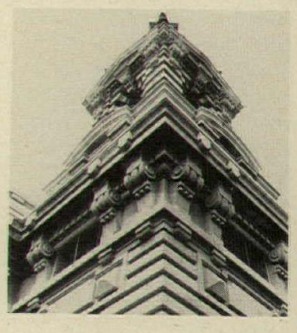
National Archives USPHS

Mark Johnson

Mark Johnson

Main building on Ellis Island, dedicated December 1900, near ruin

Ellis Island, a 27½-acre memorial to millions of immigrants, remains abandoned and badly deteriorating in New York harbor on the 74th anniversary of its main building, dedicated December 17, 1900. Designed by Boring and Tilton, the brick and limestone main structure is in the center, left side of the photo above. At the right is one of the towers. Above right, the main hall, as it looks today, was created in 1917, by the addition of a third floor to the building. The hall's terre cotta ceiling as well as most of the other building interiors are rapidly being destroyed due to exposure and lack of heat. The National Park Service, which administers the island, states $100,000,000 will be needed to restore the various buildings as a proper monument. In 1965, Ellis Island became part of the Statue of Liberty National Monument, also under the direction of the National Park Service. A plan for restoration has been prepared, but no funds have been provided. All the island's buildings are endangered.



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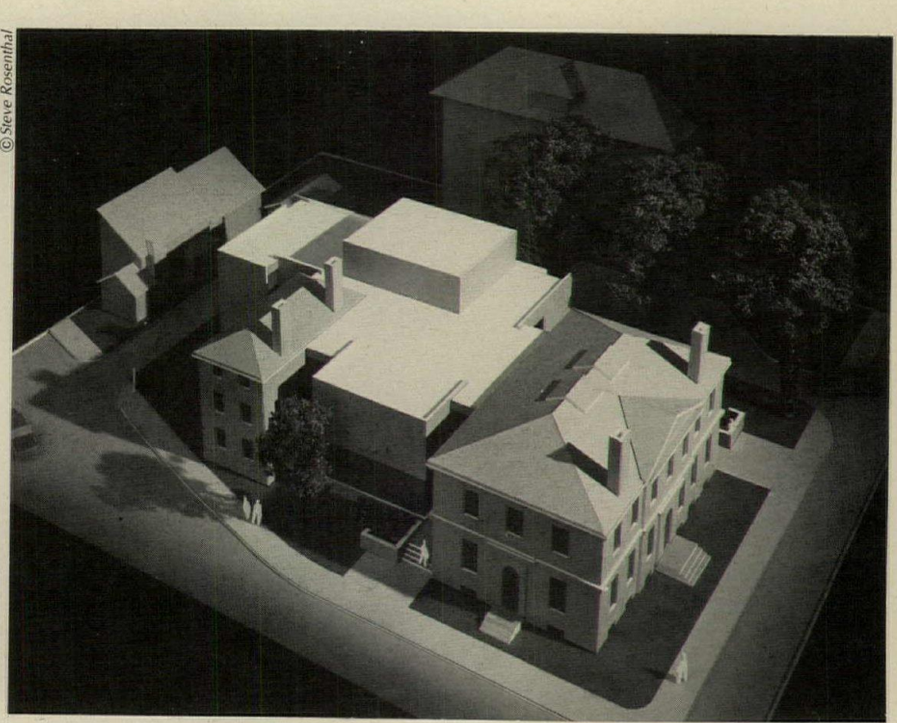

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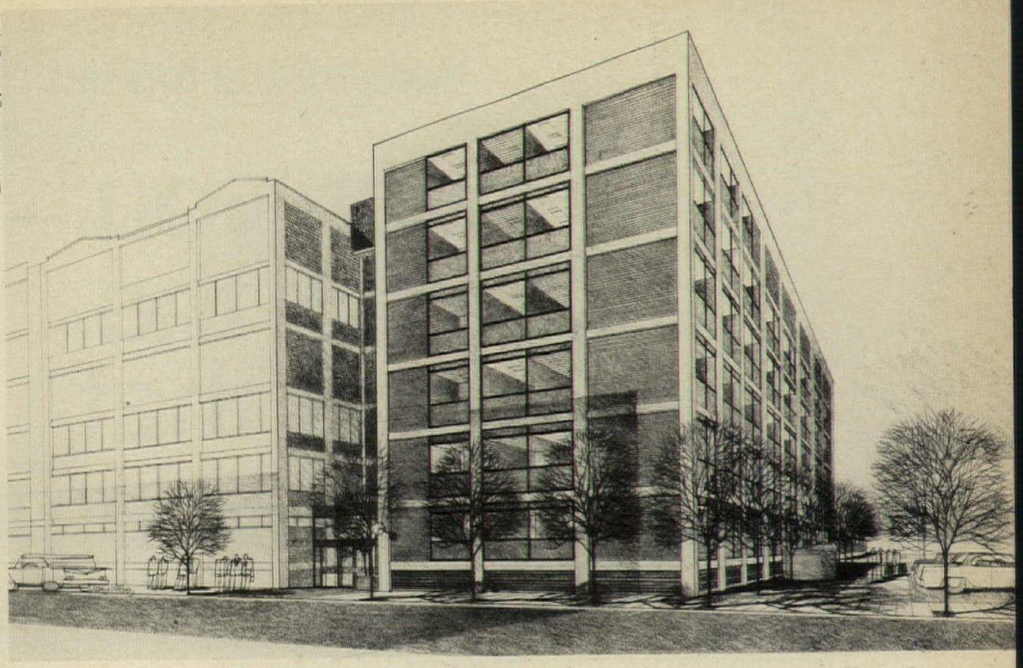
A Boston church expands on a small city plot

The Park Street Church in Boston acquired 22,000 square feet of multi-use space by putting an addition at the rear of the landmark structure built in 1805. Stahl/Bennett designed the new concrete and brick building for a site 40 feet wide and 80 feet deep, fronting on Boston Common. All concrete elements are exposed and sandblasted, and the existing rear wall of the Church, with its record of alternations, was cleaned and left exposed. The building was completed in 1972.

In-fill structure will link two historic buildings for a new library

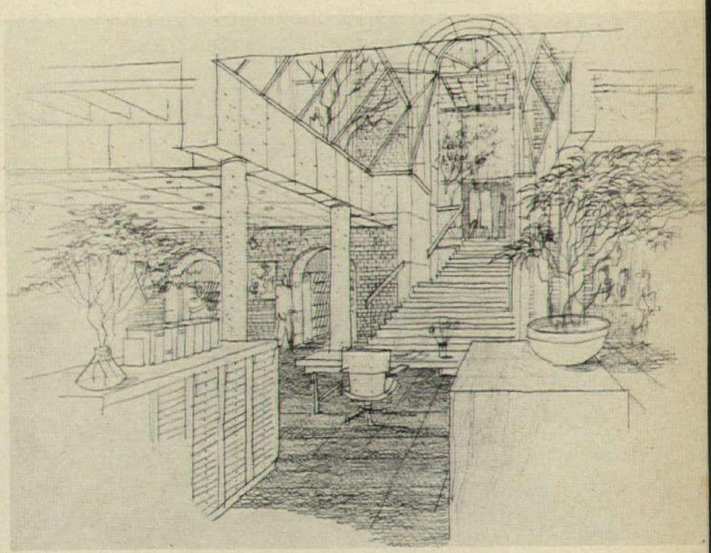
Under a proposed expansion program for the Portsmouth, New Hampshire Public Library, Stahl/Bennett, Inc. have created the necessary floor area of the complex by restoring and renovating the Academy Building (1810) and the Benedict House (1811), and adding a contemporary L-shaped infill structure two stories high. Landscaping is planned to minimize the new construction's effect. Glass fenestration will bridge the spaces between the new and historic buildings.

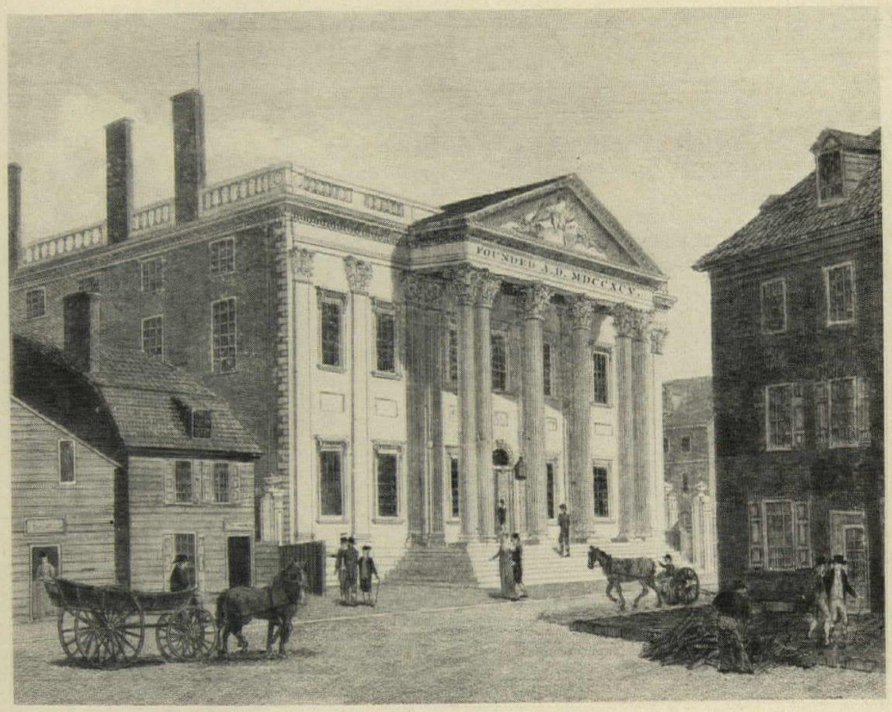
G. M. Cushing photography



MIT Center for Cancer Research was candy factory

Demonstrating the utility of a 45-year-old factory building, Marvin E. Goody, John M. Clancy & Associates designed a new health research laboratory within the former Brigham's candy factory (foreground, photo). The building is one of a series of concrete industrial buildings on the block, all about 45 years old, and now renovated for use by the Massachusetts Institute of Technology. The rendering shows the new Seeley G. Mudd cancer research center, now also completed, with the same color infill brick as the other structures, and with the addition of tinted glass. The 80,000-square-foot renovation was budgeted at $4.5 million approximately.



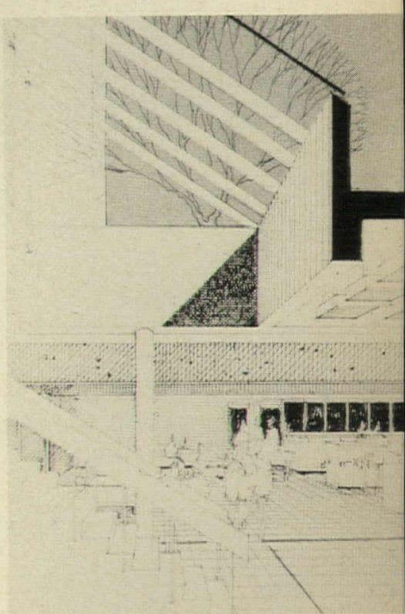


Restoration of nation's oldest bank begun in Philadelphia park project

An exterior restoration project at Independence National Historical Park in Philadelphia involves what is reputed to be the nation's oldest bank building, completed in 1797. The interior underwent renovation in 1902, so no attempt will be made to return it to its original appearance. The building will be opened as a museum of U.S. banking, operated by the National Park Service. Restoration working drawings were done by Day and Zimmerman Associates, Philadelphia.

Avery Library will be enlarged

Columbia University's Avery Library and Graduate School of Architecture and Planning will be enlarged in a $5.6-million project underway and designed by Alexander Kouzmanoff & Associates. A two-level structure extending under a brick courtyard behind Avery Hall will be connected to the existing building by a skylit stairway. Lightwells penetrating the new courtyard will admit natural light into the new below-grade reading rooms. Included in the work is restoration of the main reading room of Avery Hall, designed by McKim, Mead and White, and occupied by the school since 1912. Completion date of present work is 1976.



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Economic growth for Third World imperiled

According to the World Bank Annual Report (July '73-June '74), a major upheaval in global economic relationships has seriously jeopardized the prospects for economic and social gains in developing nations.

The jeopardy is greatest for those that are poorest, and without a major effort by the international community, 800 million people around the world can expect almost no improvement in conditions of life for the rest of the decade.

This information, reported in the September-October 1974 "Development Forum" published by the United Nations Centre for Economic and Social Information, comes at a time when many international groups are calling for massive investments of technological and financial aid in the poorer nations.

A year ago, continues the World Bank report, the developing countries would have been able to achieve an annual rate of growth of GNP in real terms somewhat higher than 6 per cent. The indications are that the target was in fact reached between 1968 and 1972. It is now expected that GNP growth in many developing nations will fall below 6 per cent per year over the rest of this decade. The World Bank estimates that if even modest rates of growth are to be achieved, there will have to be a substantial increase in the flow of external resources to developing countries.

Such countries will require nearly $6.8 billion of additional long-term external capital in 1975. Whether the additional external resources can be mustered remains to be seen; the higher income countries may not find it easy to raise the capital they require. It appears that at least in the near future, the flow of concessionary aid will decline, and this will happen at a time when the needs of the countries which depend most heavily on such aid will be greater than ever.

White House report due on urban growth: National Forum meets

The National Forum on Growth Policy, holding its first formal meeting in Washington D.C. last month, considered carefully its possible role in advising the White House on the form of the Administration's policy on land use and urban growth.

It was learned at the one-day session from John Price, former President Nixon's adviser in this field, that the White House is soon to publish the second comprehensive statement on urban growth in recent years. It was decided to make this document, promised by the time the Forum meets again next February, a principal topic on the next agenda. Meanwhile, Price said he was confident that any suggestions from the Forum group would be welcomed and given due consideration at the White House.

American Institute of Architects' president, Archibald C. Rogers, who presided, suggested that the organization move "cautiously" in this regard and Price said individual suggestions could be sent to him at his present location—Manufacturers Hanover Trust, New York City—implying they would be turned over to proper Administration personnel. There has been talk of naming an Administration executive to guide the urban development and land use activities, he said, but so far no choices have been announced.

The Forum is an outgrowth of the AIA's earlier work in the urban expansion area and in its present form includes 19 construction industry groups that have signed the resolution establishing it. It was indicated that several other organizations would ratify in the coming months and a considerably larger membership was expected by the time of the Forum's second meeting in February. More than 50 attended last month's meeting at the AIA headquarters in Washington.

Price, as guest speaker, reviewed the White House activity in the urban growth field while he was a Nixon staffer and indicated that President Ford now has expressed keen interest in the subject and wants the second report published as soon as possible.

In a discussion of topics for the February 1975 meeting, it was decided that in addition to the White House report, Forum members and guests would find an agenda including legislation then pending in Congress pertinent to planning for growth, expansion of Forum membership, a report on major efforts in the field outside the work being done by the Forum organizations, and finance related to the group's operations.

AIA accepted organizational responsibilities for one more year and, as the secretariat, will work out the chairmanship and other leadership roles, Rogers said. Members for a five-man steering committee will be suggested.

There was argument in the meeting for the Forum to structure a project aimed at creating a better public awareness of the great problems that lie ahead because of an inevitable heavy increase in population. This will be dealt with in detail, it is expected, at the next session.

The Forum was established to undertake analysis and recommend programs to guide national growth. Its concern centers around the high rate of population growth and the fact that by the year 2000, 83 per cent of the American people are expected to reside in urban regions where just over 75 per cent live now.

It is felt concentration on these problems can help to avert urban sprawl, traffic congestion, environmental degradation, exclusionary zoning, increased taxes and reduced services.

MIT names new head of architecture: expert on housing

Nikolaas John Habraken, Dutch architectural theorist, will become head of the Massachusetts Institute of Technology Department of Architecture in August, 1975, succeeding Donlyn Lyndon, who indicated last spring his intention to resign. Announcement of Professor Habraken's appointment and of Professor Lyndon's resignation was made by Dean William L. Porter of the School of Architecture and Planning. Professor Lyndon will remain as head of the department until August.

Professor Habraken served as chairman of the Department of Architecture and Building Technology at the Technical University of Eindhoven, The Netherlands, from 1967-70, and is presently professor of architecture.

Professor Habraken's theory on the industrialization of mass housing differs from that of most automobile-house analogists in that he sees the failure of mass housing to equal the performance of the auto industry as an indictment of the principle of mass housing as it is understood today. In his book, *De Dragers en de Mensen: Het Einde van de Massawoningbouw (The Supports and the People)*, he said:

"The industrialization of housing which is so often discussed is nothing but mechanization of the mass housing project. If we wish to investigate conditions necessary for an industrialized housing process we must bear in mind that this does not automatically imply industrialization of mass housing.

"The 'natural relationship' presupposes that the dwelling is independent and that it is possible to alter, improve or replace it independent of its surroundings. Up to now, this has been possible only with the detached one-story house, a fact which goes far to explain its popularity. To revise the housing process this flexibility must be made possible in the case of high rise dwellings as well. This, stated briefly, is a concrete problem which must be solved.

Berlin conference focuses on transit

"The promotion of public transit is necessary, but to what extent and with which means?" That statement by one of the participants characterized much of the discussion at the "Traffic in Congested Areas" congress held September 23-25, in connection with the German Industries Exhibition.

More than 400 attended, and amid displays of advanced transportation vehicles and systems, a controversy reared over the effectiveness and economies of mass transit versus the automobile: Before the congress began, an official explained to the press that one aim of the meeting was to provide a basis for balance between the two traffic areas.

But as one speaker from the Berlin Technical University pointed out, even if every household in the Federal Republic of Germany had a car, two-thirds of the actual population would not have the unrestricted use of a car. This inequality of mobility raised some questions among congress participants: How can an equal mobility be reached for all walks of life? Who is to assess how much traffic is desirable in congested areas? Can and must mobility be restricted deliberately?

In summary discussions, West German traffic experts and parliamentary representatives revealed again the opinion differences in that country concerning the extent to which public investment should be used for either individual auto mobility, or for public transport.

As a spokesman for the German Federal Ministry of Research and Technology emphasized, the national budget for promoting new types of transportation had been principally increased for the next fiscal year, but in view of the general economy, one had to reckon with a reduction of these funds. But on the other side, government groups admitted that public transport served the public economic interest.

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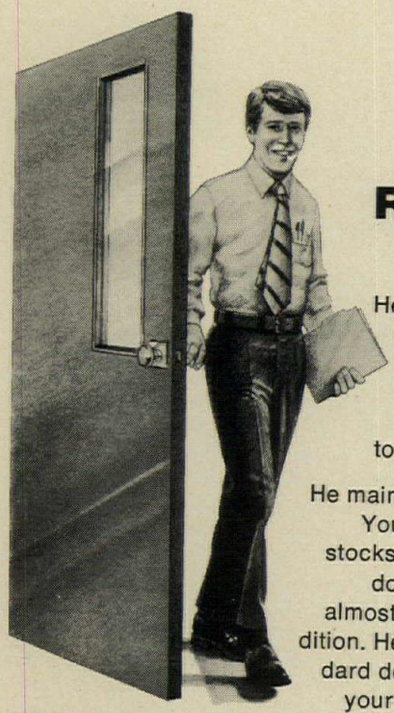

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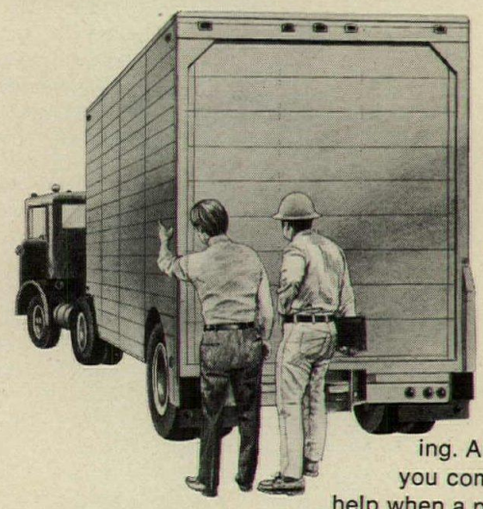

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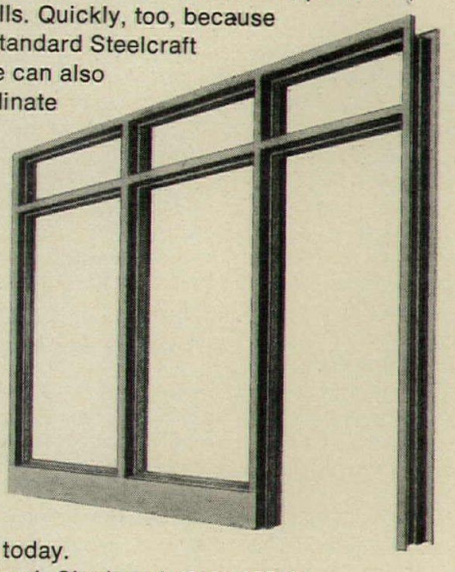

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Vincent Scully versus Charles Moore

THE SHINGLE STYLE TODAY, OR THE HISTORIAN'S REVENGE, *by Vincent J. Scully, Jr.; George Braziller, New York, 1974, 112 pages, illustrated, cloth, $7.95, paper, $3.95.*

THE PLACE OF HOUSES, *by Charles Moore, Gerald Allen, Donlyn Lyndon; Holt, Rinehart and Winston, New York, 1974, 278 pages, illustrated, $17.95.*

Whatever happened to the architect as culture hero, form giver and environment shaper? What has become of his client as willing patron, grateful acceptor of culture imposed from on high, cheerful recipient of forms he must learn to live in? Such architects and their clients may be on their way out, or already gone, but Vincent Scully will not believe it.

What Professor Scully does believe is that there is a new group of architects, all former Yale School of Architecture students or teachers who have created a brilliant contemporary domestic architecture which he calls the "new Shingle Style." Confident that their surnames alone have an authoritative ring, he lists them in his preface as follows: Moore, Robertson, Stern, Hagmann, Israel, Pasanella, Prentice, Gwathmey, Giurgola and Venturi. Kahn is included in a special sense and Wilson and Cox.

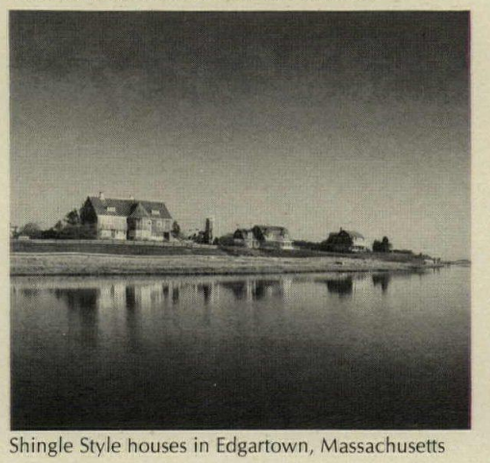
Some of these architects in the act of creation make even Harold Roark look impotent:

> So when Robert Venturi designed the first major project of the new Shingle Style, his Beach House of 1959, he too focused on the Low House [McKim, Mead and White] but 'swerved' from it to thrust an enormous chimney up through the center . . . Surely Venturi's instinctive objective was to use the Low House but at the same time to destroy it with an act which would make its form his own. . . . Where Venturi was to blast a chimney up through the center of the gable . . . Nelson [George] simply lets McKim, Mead and White roll over him.

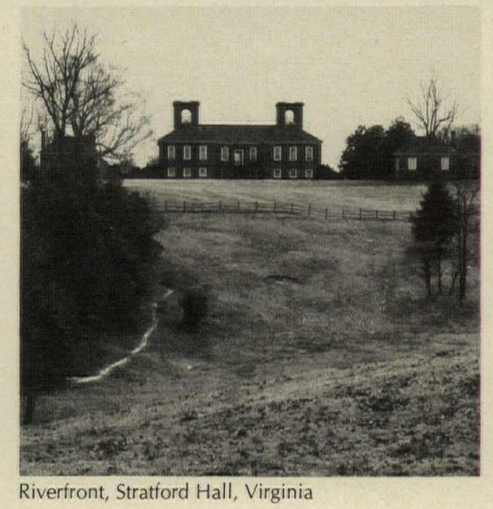
And what did Richard Weinstein do with that chimney? "He pulled it out by the roots." Scully's contemporary epic heroes, feebly fathered by the perpetrators of the discredited International Style, are out to overthrow the real men—their architectural great-grandfathers: Stanford White, H. H. Richardson, Bruce Price and the rest. His theory goes like this:

> The strong young architect . . . inevitably fastens on the work of his chosen precursor, purposely misreads it, and finally 'swerves' from it to create a new field of action for his own design. In fact, a study of the Shingle Style, in relation to the present generation of architects who have been influenced by it, indicates that it is the strongest among the latter which show its influence the most directly. It is also the strongest who seem to have sought out the most forceful of the precursor-architects to emulate and to outdo, and who have focused with what now begins to appear an almost fanatic intensity upon their strongest and most symbolic forms.

Exterior, Moore house, Orinda, California



Shingle Style houses in Edgartown, Massachusetts



Riverfront, Stratford Hall, Virginia

In elaborating this theme, Scully once more defines the Shingle Style as he has done so eloquently and thoroughly in earlier books and then with great perception traces the work of each of his contemporary heroes back to its 19th century source. His insights are important, interesting and in many ways convincing. The trouble with Scully's book, however, is first that both his heroes and his conclusions are grotesquely inflated, and second that architecture is just not done that way anymore, if it ever was.

Take his heroes. They are served up to the reader as though it were common understanding that they are the leading architects of the United States. Scully has helped to create the images of some of them, most notably Kahn and Venturi, and this has been a worthy and useful task, for if promising, but little known architects are to get commissions, their reputations often have to be established in advance of their completion of significant built work. But when Scully sits down to write history, why must he inflate the stature and influence of his friends with the *chutzpah* of a public relations man?

His conclusion that the new Shingle Style has an architectural importance comparable to its precursor, is to compare the formal qualities of a handful of houses designed for a very small elite to a style which characterized entire 19th century towns on the Eastern Seaboard. Further, some of Scully's heroes, though they may be grateful for their place in his pantheon, would be the first to reject Scully's interpretation of their psychic drives and his startling version of the way they go about their work.

One of these is certainly Charles Moore. *The Place of Houses* is a wonderful book which like Scully's is both mythic and poetic. In Moore, Allen and Lyndon's book, however, the ideal architect comes on as a modest and friendly fellow who pays very close attention to his client. In jargon-free language which is both fanciful and elegant, the three architects address the mythical and poetic human being who wants to build a house. "You must explore your dreams and fantasies" they tell him" . . . albeit in miniature and in the simplicity of sheetrock." There is "no one way," they assure him, "no level of low art, or high art, or middle art has a monopoly on the principles of building."

Speaking of their own work, they stress that they are not trying to impose shapes, but to help each client create a home for his imagination in the inner landscape of his house. The book shows how they have done this and how it has been done by others—the carpenters of Edgartown, the nostalgic citizens of Santa Barbara and by architects designing their own dwelling places.

Although the three authors of *The Place of Houses* are speaking to the ordinary layman who wants to build or remodel for himself, their message to their fellow architects is clear. We must climb down from Olympus, even if Scully has put some of us there, and start to pay more attention to people and places and things. —*Mildred F. Schmertz*

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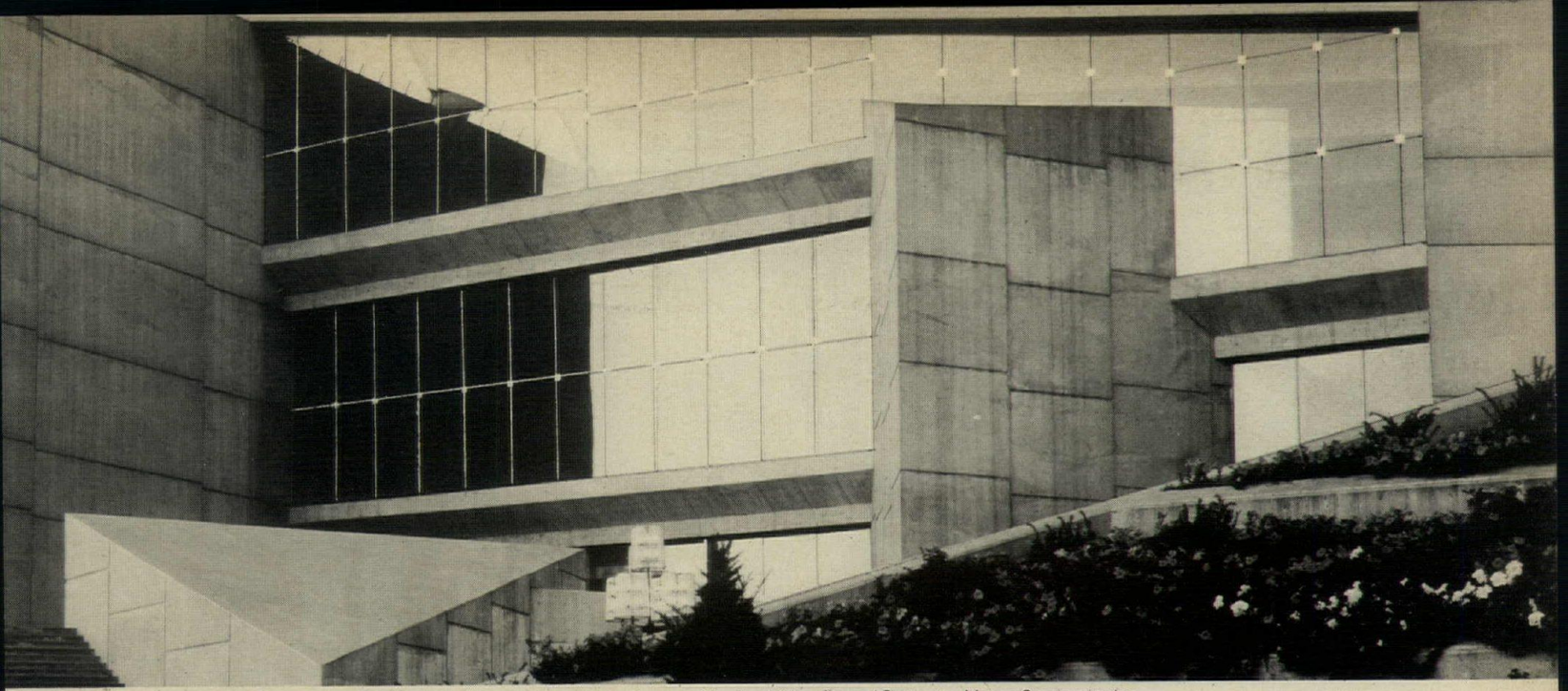

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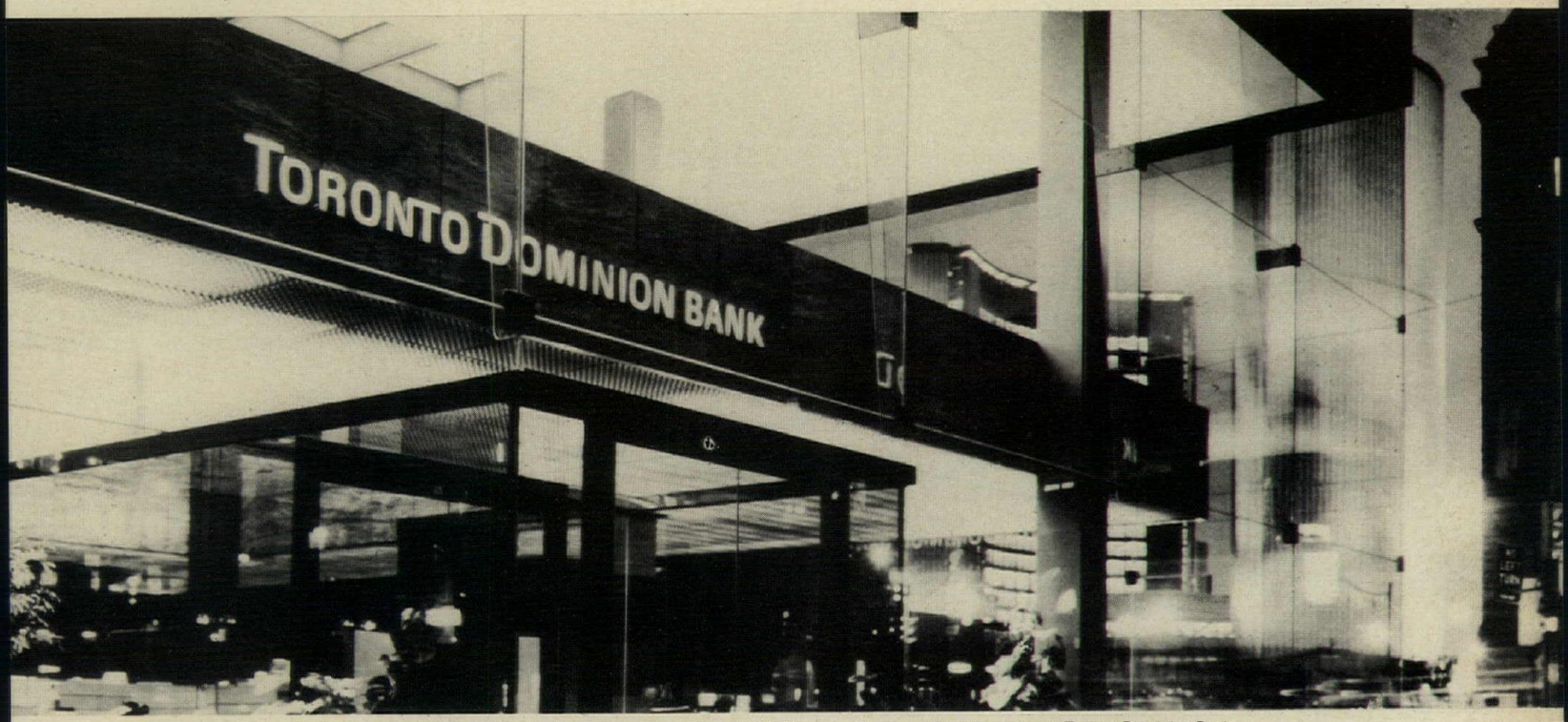

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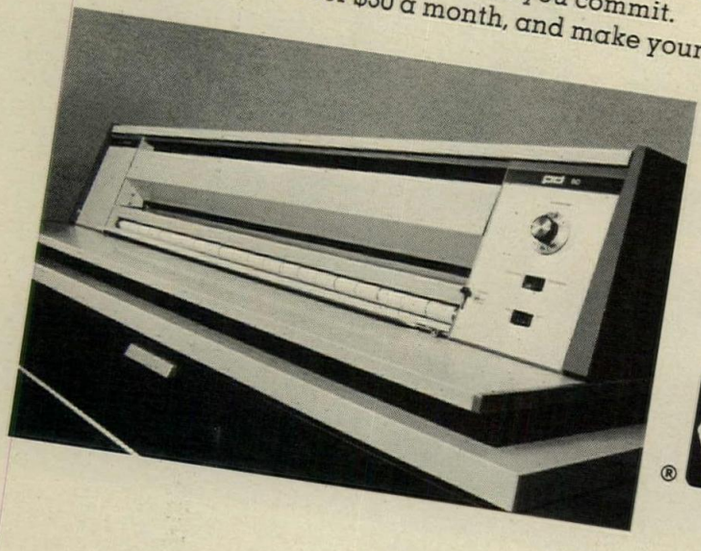

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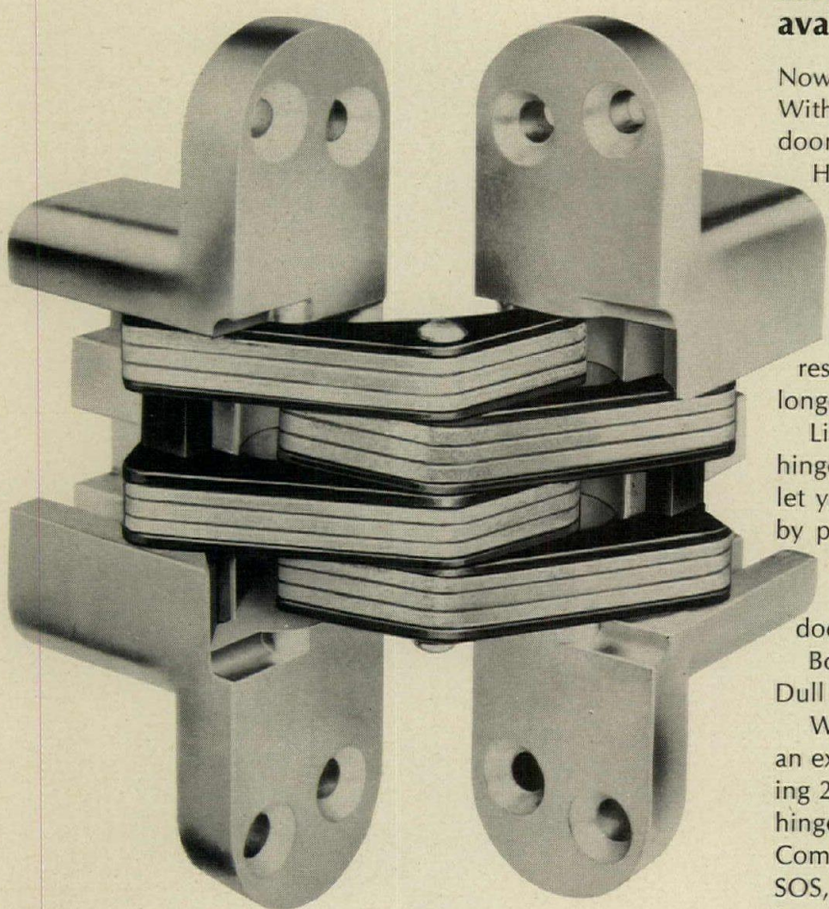

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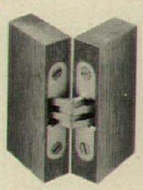
Hinge Models 218 and 220 now have nylon links and bushings at all wear points (Patent Pending). The molybdenum disulfide-reinforced nylon is visible in the black areas in the open hinge shown at left. But when the hinge is closed, the nylon results in just one more invisible feature: longer life.

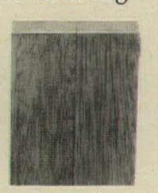
Like every Soss Invisible, these rugged new hinges are completely hidden when closed. They let you create clean architectural lines unbroken by protruding hinges. And their longer life lets you add this invisible beauty on high frequency doors and on doors with automatic closing mechanisms.

Both hinges are available in Dull Brass US 4, Dull Bronze US 10, and Dull Chrome US 26D.

Write for all the details. We'll also include an extra copy of our catalog in Sweet's, featuring 20 styles and models of the tamper-proof hinges that hide. All from Soss Manufacturing Company, Division of SOS, Consolidated Inc., P.O. Box 8200, Detroit, Michigan 48031.



Now you see it.



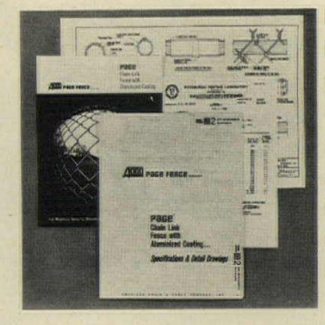
Now you don't!

the SOSS Invisibles

For more data, circle 28 on inquiry card

AE/UPDATE

A classified advertising section devoted to helping architects and engineers keep up to date on building product manufacturers.



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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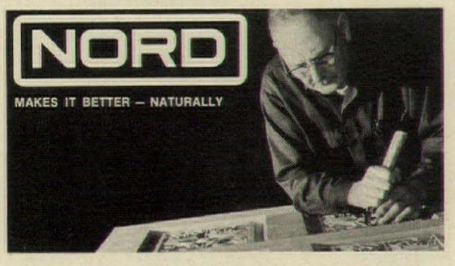
SEND FOR A COMPLETE, DETAILED CATALOG of "Record Impressions." A convenient service offering reprints of Building Type Studies, Interiors and Special Reports. Offered are more than 30 items including back issues of Record Houses 1968 and 1970; Product Reports '73 and the practical reference guide, "Air Conditioning: A New Interpretation." Address your request to: Record Impressions, Architectural Record, 1221 Avenue of the Americas, New York, New York 10020, Att: Joseph R. Wunk

Specify Nord

Architectural spindles.
Turned from clear kiln-dried Western hemlock. In 9 styles. Lengths from 7½ inches to 8 feet. With 2-, 3-, and 4-inch widths.

They make into handsome dividers, classic banisters, elegantly patterned walls and grilles.

For full-color literature, write "spindles" on your letterhead and mail it to E. A. Nord Company, Dept. AR, Everett, WA 98206.



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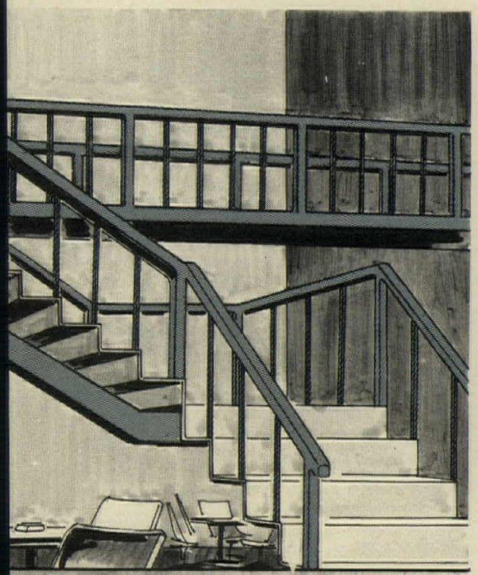
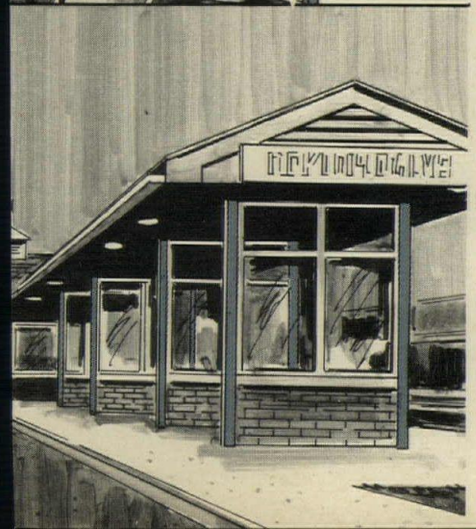
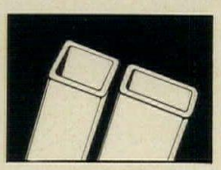




Designing with steel?

Look at the aesthetics and structure/ability of Regal Welded Steel Tubing



1" square thru
12" x 8" rectangle.
.083 thru .500 wall

Our clean-lined, smooth squares and rectangles assure better appearance and give you basic design advantages.

Higher strength-to-weight ratios let you use lighter structural columns and beams, trusses, mullions, and stairways. Also provide handsome concealment of conduit, pipe, etc.

You can simplify layout and speed construction due to easy joining to the four flat surfaces.

These are only a few of the cost-saving advantages of Regal structural steel tubing. Learn more about how Regal structural steel tubing can save you time and costs. Write for our new catalog, free on request. Or contact your steel service center.

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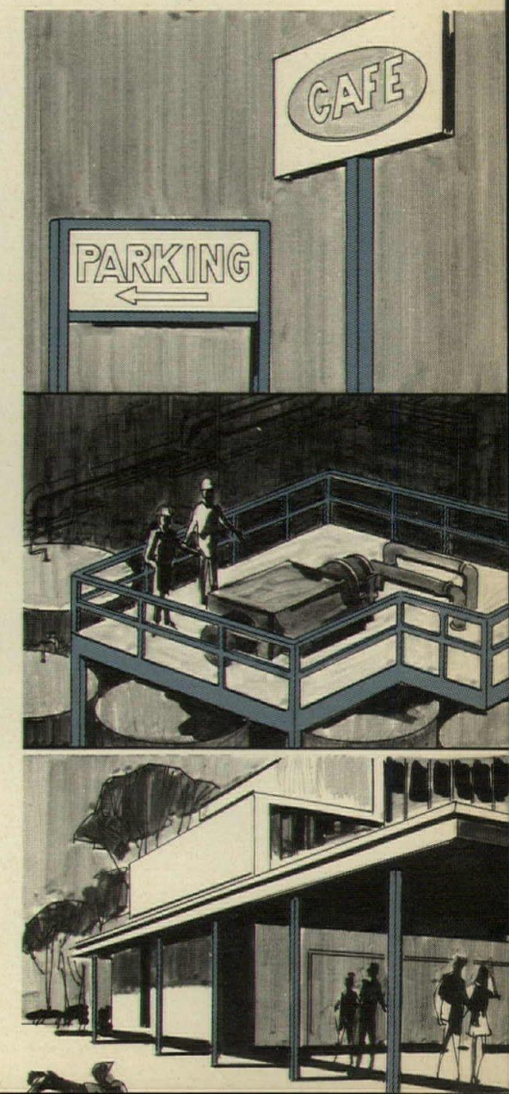
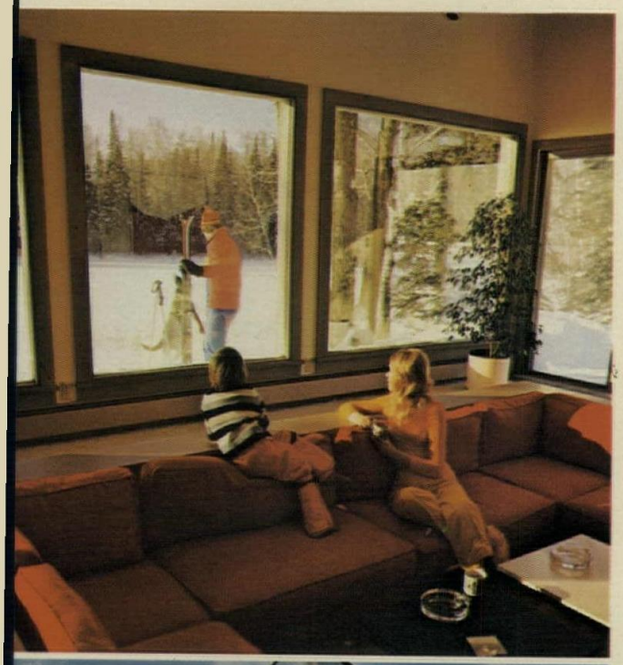


INSULATIO
SEE THROUG

Minnesota residence. Architect: Martin F. Gould, Duluth

The Silver State Building, Las Vegas, Nev. Architect: Leo F. Borns. Owner: Disposal Investments, Inc.

N YOU CAN
H, FROM LOF.



HOW THE RIGHT GLASS CAN SAVE ENERGY DOLLARS

In these days of increasing energy costs, a total energy concept of design must consider the savings potential in all construction materials.

The proper choice of glass is well illustrated by the Minnesota residence and the Las Vegas office building pictured. Both use LOF's Thermopane® insulating units made with reflective Vari-Tran® coated glass.

It was a −13° day in Duluth when the residence, 15 miles away, was photographed. One might have anticipated an uncomfortable room, window fogging and excessive heat loss; however, aesthetics, as well as heat and comfort, were retained by LOF high-performance glass.

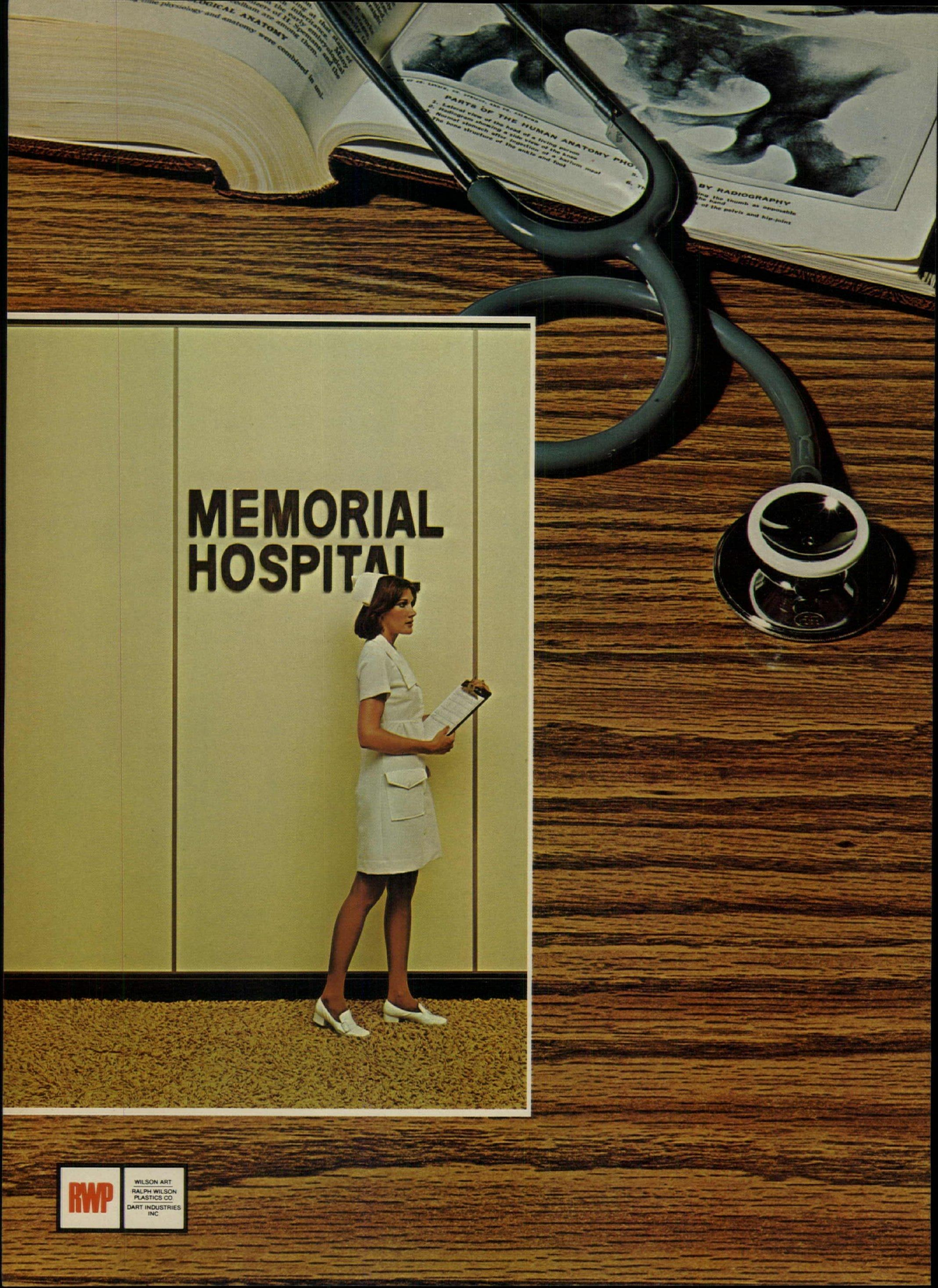
In the Las Vegas building, reduction of cooling load is the most impressive energy and dollar savings story, though Thermopane units have reduced baseboard heating requirements in winter months. Peak solar radiation was reduced by 264,000 Btu's per hour. This reduction of solar heat gain by silvery-coated Vari-Tran effected an initial savings of $28,600 in construction costs because of a twenty-two-ton reduction in air-conditioning needs compared to ¼"-tinted glass. It also made possible continuing savings in lower electrical costs for operation.

And in both cases, the unobstructed view and the natural light available were bonuses that continue to pay dividends.

For more information, contact Libbey-Owens-Ford Company, 811 Madison Avenue, Toledo, Ohio 43695. One of our architectural representatives will be glad to work with you on your particular design/energy problem.

LOF

For more data, circle 32 on inquiry card



RWP

WILSON ART
RALPH WILSON PLASTICS CO.
DART INDUSTRIES 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 casework coordinate, contrast or match—just as you want them to.

With more than 150 woodgrains, 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 remodelling, 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 casework, 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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When the chips are down, you can depend on Wilson Art.

Wilson Art®
LAMINATED PLASTICS

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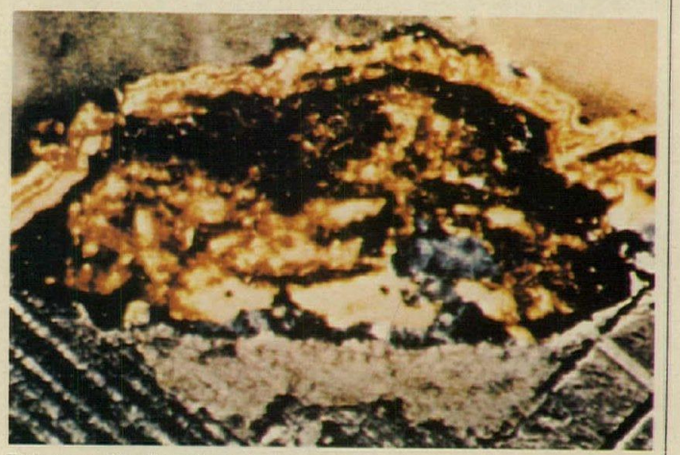
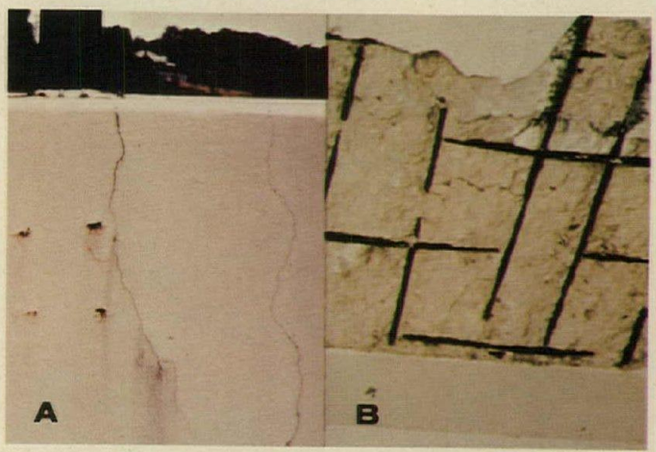
CONCRETE FAILURE

CAUSE



This magnification shows how rust expands as steel corrodes.

EFFECT



The rusting of ungalvanized reinforcing bar creates a pressure which can crack and spall concrete. Photo A shows a portion of the facade of the Charleston, S.C. Post Office which has been cracked and stained by subsurface rust expanding and "bleeding" through. Photo B shows the underside of a veranda roof in Bermuda where rebar corrosion caused a large section of concrete to fall off.

PREVENTION

Galvanizing — the metallurgical bonding of zinc *into* steel — has proven its ability to protect rebar against rust before, during and after installation. This is recognized in the revision of General Services Administration guide specification PBS4-0344.01 as follows: When concrete cover on exterior surfaces is less than 1½ inches... reinforcing bars and mesh shall be zinc coated...in accordance with ASTM A-123.

ZN-640

If you would like to know more about this subject, write on your letterhead for our new booklet "Galvanized Reinforcing Bar— Undercover protection for concrete."

ST. JOE MINERALS CORPORATION

250 Park Avenue
New York, N.Y. 10017

Centralized motor control needn't be costly and complicated.

Here's an easy way to provide simplified motor control. This is a line-up of I-LINE® motor starter centers; control units with many of the basic features of the more elaborate motor control centers, but at considerably less cost.

Utilizing I-LINE panelboard construction and locally available starter modules, I-LINE motor starter centers can be assembled in your warehouse and moved to the job site. Moving assembled sections is no problem because each is a rigid, bussed assembly—self-contained and self-supporting. Or if you prefer, we'll factory assemble each section and ship ready to wire.

The I-LINE starter center sections feature integral internal bussing which accepts 15 through 225 ampere plug-on breakers. A Type S magnetic starter, available in Sizes 0 through 4, mounts over the breaker to make up a complete control unit.

For specific data on the I-LINE motor starter center, contact your Square D distributor or field office. Or write us: Square D Company, Dept. SA, Lexington, Kentucky 40505.

SQUARE D COMPANY

Wherever Electricity is Distributed and Controlled

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DON'T MAKE THE SAME WINDOW

Fuel and maintenance costs are too high to use poor windows the second time around.

That's why, when remodeling the buildings shown below, owners and managers selected Andersen™ Perma-Shield® Windows.

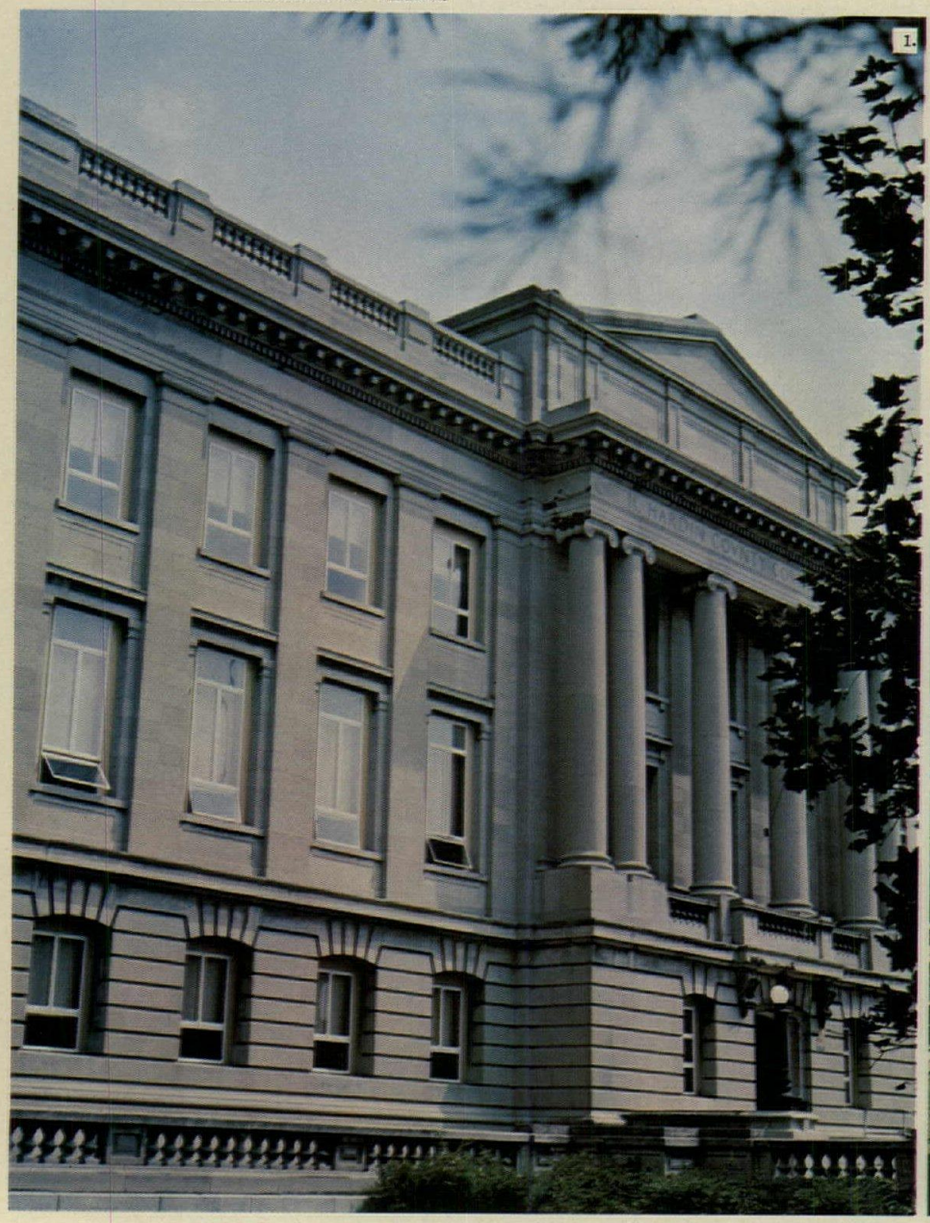
Perma-Shield Windows save fuel. Beneath their protective vinyl sheath lies a wood core, one of nature's best insulators.

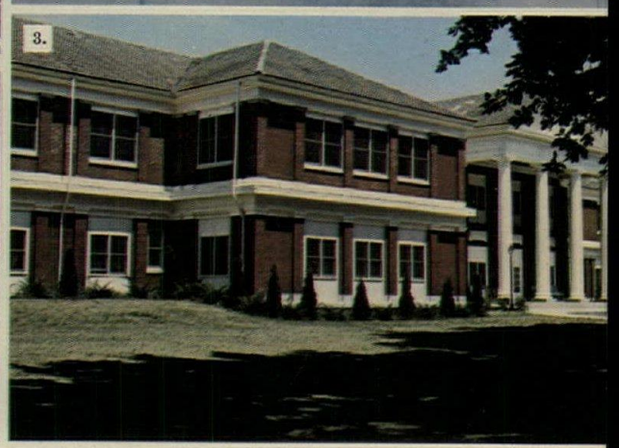
And Andersen weatherstripping is two times tighter than industry standards require. Helps prevent biting outside winds from becoming chilling inside drafts.

Add double-pane insulating glass, and Perma-Shield Windows cut conducted heat loss through the glass area by up to 35% (compared to single-glazed units).

They cut maintenance costs, too. Perma-Shield vinyl won't rust, pit or corrode like metal. Won't need painting.

1-2. Perma-Shield Casement/Awning Windows helped bring beauty, low maintenance costs to the Kenton, Ohio, Hardin County Courthouse.
3. An old sanitarium was converted into Westminster Village North, apartments for retirees, Glenwood, Indiana, with help from Perma-Shield Narroline® Windows.





MISTAKE TWICE.

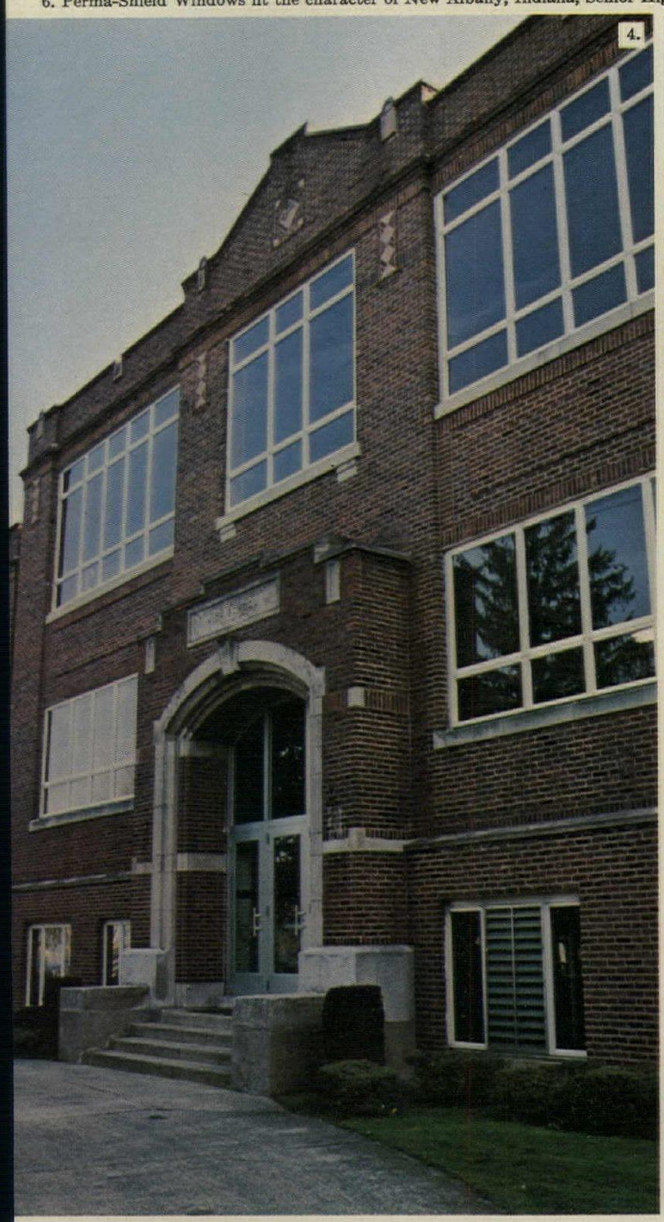
Perma-Shield Windows won't warp, stick or bind, either. Thanks to the perfect combination of rigid vinyl and stable wood.

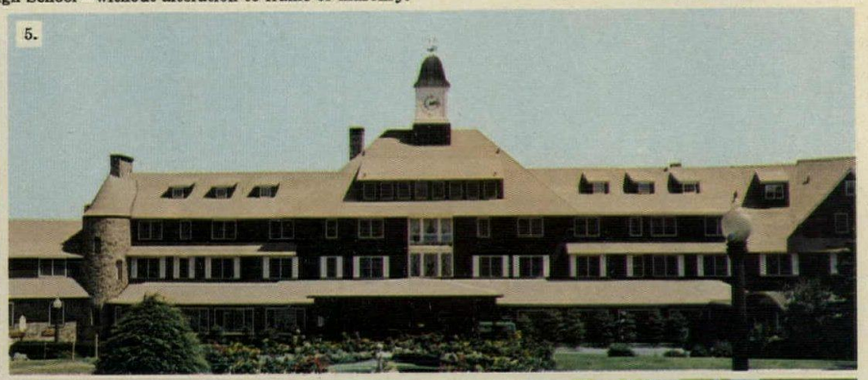
So, if you're remodeling, don't make the same costly mistake twice. This time, specify low-maintenance Andersen Perma-Shield Windows. For more information, see your Andersen dealer or distributor. He's in the Yellow Pages under "Windows, Wood." Or write us direct.

The beautiful, carefree way to save fuel.

Andersen Windowalls®
ANDERSEN CORPORATION BAYPORT, MINNESOTA 55003

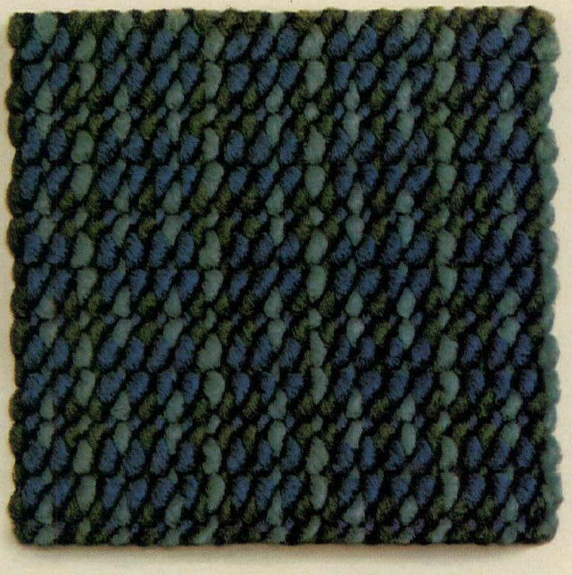
4. Liberty, Indiana, Junior High School lowered fuel and maintenance costs with Perma-Shield Casement/Awning Windows.
5. Perma-Shield Casement and Narroline Windows helped bring new life to the Pocono Manor Inn, Pocono Manor, Pennsylvania.
6. Perma-Shield Windows fit the character of New Albany, Indiana, Senior High School—without alteration to frame or masonry.





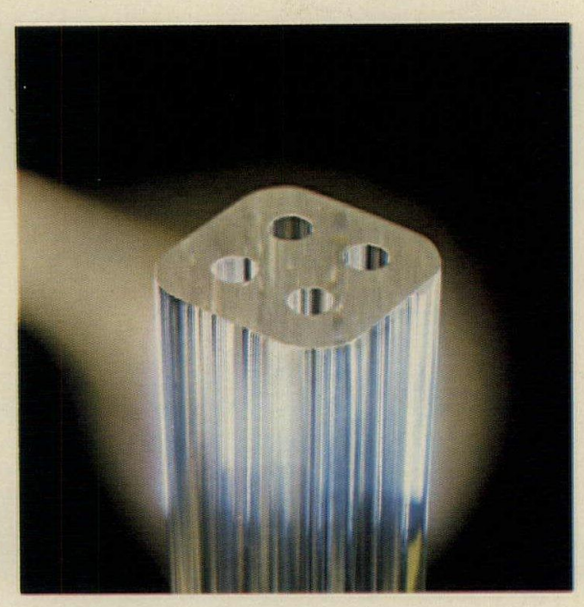
Expect quality carpets And expect their

to be in Antron® nylon. look to last.



What you see is what you'll get for a long time. "Antron" is a soil-hiding carpet fiber. It is the leading commercial carpet fiber brand with more than twice the available styles in "Antron" than those made of the next brand. Its ability to diffuse light helps blend soil concentrations into the overall look of the carpet (normally they would show up as spots). Also, being nylon, "Antron" gives carpet exceptional durability and crush resistance.

Pomeroy's in Harrisburg, Pa., working through the Allied Stores Store Planning Division, wanted their newest branch in the Colonial Park Shopping Center to stay new looking with minimum maintenance. For their Children's Wear and Shoe Departments, this level-loop, patterned carpet woven of continuous filament Antron* nylon was chosen. Allied designers like the performance of "Antron" and say they will use more of it as new stores are built.



How "Antron" keeps carpet looking fresh. Its continuous filament structure is remarkable, as simulated in this greatly enlarged model. The four microscopic holes scatter light to minimize rather than magnify the dulling effects of soil, while maintaining an attractive, subdued luster. This property of the fiber, together with its outstanding wearability, helps the look of the carpet to last.

NEW! "Antron" III nylon for static control is now available in selected styles.

DUPONT
REG. U.S. PAT. OFF.

For more data, circle 36 on inquiry card

For more information about "Antron," talk to your mill representative or write to Contract Specialist, Du Pont, Room FF, Centre Road Building, Wilmington, DE 19898.

*Du Pont registered trademark. Du Pont makes fibers, not carpets.

This just could be....
the perfect integrated ceiling system.

James E. Rolfing Memorial Library, Trinity Evangelical Divinity School, Deerfield, Illinois Architect: Walter C. Carlson, Elk Grove Village, Illinois

It's all there:
Air distribution equipment.
Sound control panels.
Luminaires.

They're all pre-engineered and factory-built by National Ceiling Systems Corporation, a Johns-Manville company.

All the individual advantages of top quality ceiling components are there—plus the specifying simplicity and the security of having single source supplier responsibility.

With J-M standing behind the total system, you can confidently choose an aesthetically satisfying configuration that fulfills your specific lighting, sound control, air distribution and budgetary considerations.

Virtually any module size can be accommodated up to 6′ x 6′.

For assistance of any kind with integrated ceiling systems, call your local J-M sales office or get in touch with John Busch, Johns-Manville, Greenwood Plaza, Denver, Colorado 80217. 303/770-1000 ext. 2311.

National Ceiling Systems Corp.
A Johns-Manville Company

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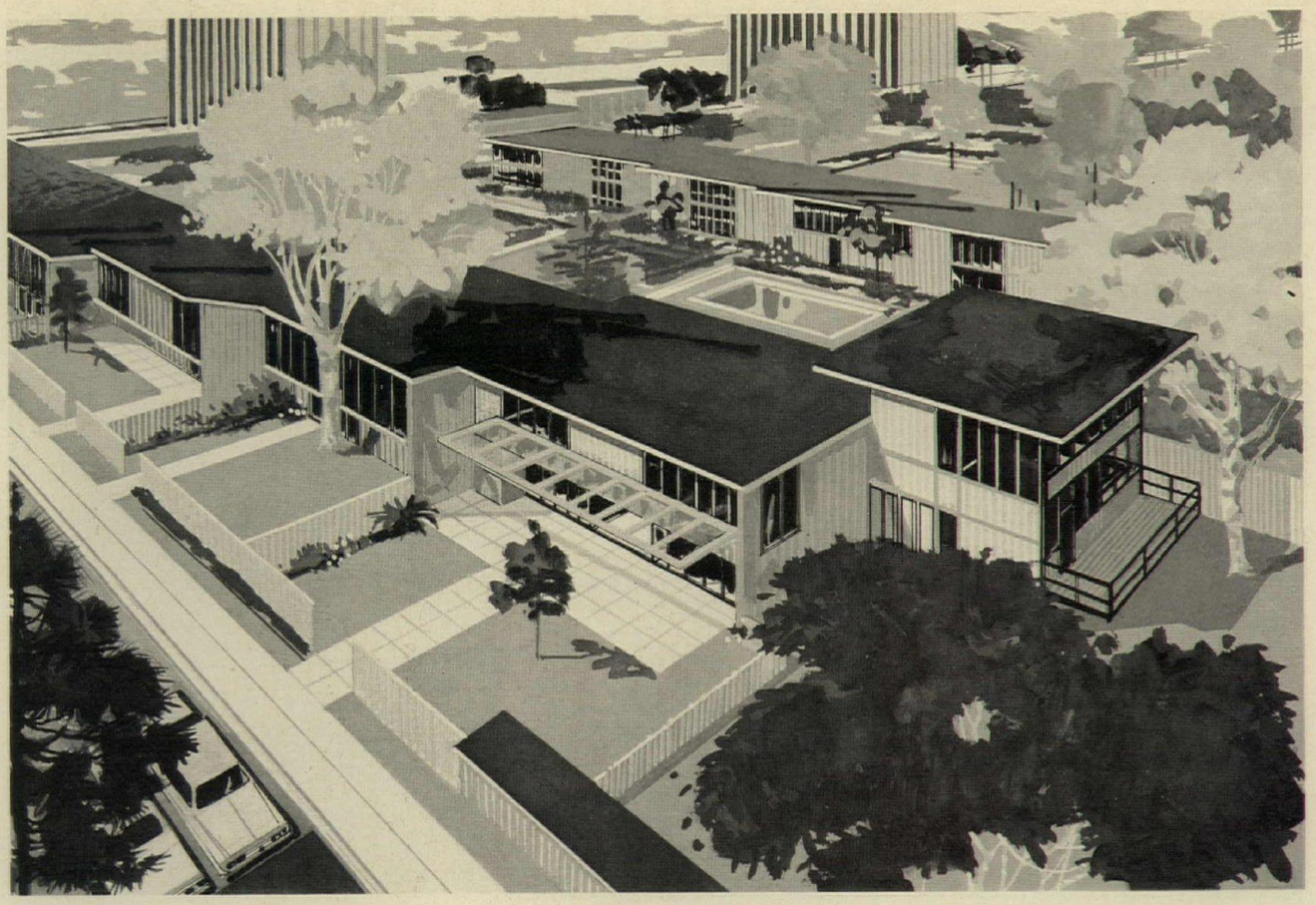

Saving energy all year long with insulating glass

Insulating glass units made with LP® polysulfide polymer base sealants are conserving energy and cutting HVAC operational expenses in buildings everywhere. Double-hung units—with one of the two panes made of metalized coated glass—reduce the 1.09 heat transfer coefficient (U value) of single-pane glass dramatically by 56 percent down to 0.50. This is not too far from the 0.27 U value of the most efficient (but dehumanizing) solid masonry wall.

In the past 15 years, over 80% of all organically sealed insulating glass window units used LP polysulfide base sealants, delivering strong, flexible, long-lasting airtight bonds between glass and frame. Although LP sealed units may cost less than other organically sealed units, they will perform trouble-free for years and years.

Because replacement of only one or two insulating glass units can be very costly, you should seriously consider the outstanding, long term, proven performance of polysulfide base sealants. The present integrity, beauty and economical practicality of curtain wall construction can thus be extended through the innovative use of properly sealed insulating glass units.

Specify—and demand—insulating glass with an LP polysulfide polymer base sealant to see your way clearly through the energy crisis of today—and through whatever tomorrow may bring. For more information and help in solving your insulating glass problems, contact Thiokol/Chemical Division, P.O. Box 1296, Trenton, N.J. 08607, or phone 609-396-4001.

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Specialty Polymers • Off-The-Road Vehicles • Synthetic Fibers & Fabrics • Sprayers • Propulsion • Educational Services
Friction Materials • Ski Lifts • Pyrotechnics • Closures • Rubber and Rubber Chemicals • Medical Electronics Equipment

For more data, circle 38 on inquiry card

Lock-Deck® works in high places.

Our Lady of Fatima Catholic Church, Waterbury, Connecticut. Architect: Alfonso Alvarez.

Achieving the openness of vaulted ceilings and yet infusing warmth into the resulting spaces is a real problem which church designers have to cope with.

But one solid solution can be Potlatch Lock-Deck laminated decking. It combines the advantages of wood with the strength of high-pressure lamination.

So while Lock-Deck is setting a warm, rustic interior mood, it's actually part of the roof. Lock-Deck's exclusive laminating system also gives you added stability, economy of in-place finished costs, greater coverage and less waste and less labor than solid decking.

The Lock-Deck system includes five wood species, four grades and a variety of surfaces—smooth, wire-brushed or saw-textured. Available natural, or pre-stained in one of twenty-one shades of acrylic-polymer. Each Lock-Deck variation can be a pleasing solution to the unique problems of church design.

For more information and the name of your nearest Lock-Deck representative, call (509) 455-4260. Lock-Deck details can also be found in your *Sweet's Catalog.*

Potlatch

Potlatch Corporation, Wood Products Group, P.O. Box 5414, Spokane, WA 99205, (509) 326-3653

International practice: is it worth the ante?

The following observations by Bradford Perkins, managing partner, Llewelyn-Davies Associates, New York, are based on expanding experience of the partnership in Canada and Latin America and the work of London-based Llewelyn-Davies International in some 25 countries.

The decision to expand the Llewelyn-Davies practice internationally was a conscious element of an over-all management plan. It was not a step that we or any other firm like ours has taken lightly. Following is an outline of why many firms have flirted with international practice (some have found it an enjoyable courtship), what problems and pitfalls may be encountered and how to find clients in this complex market place.

The motivation to enter this market can usually be traced to one of these five major reasons:

1. *The Willy Sutton theory:* As the famous—but continuously unsuccessful—bank robber justified his actions, it is "where the money is." This is particularly true today as so many traditional U.S. markets have dried up.
2. *The Miss Universe syndrome:* A remarkable number of firms seek such work for the "glamour."
3. *The Mt. Everest syndrome:* Many enjoy the challenge of a new mountain to climb—simply because it is there.
4. *The Peace Corps drive:* Many U.S. skills are badly needed overseas and many U.S. firms feel an obligation to provide them.
5. *The Topsy condition:* In some cases, it just grows that way.

Any one of the above—as well as many other less common reasons—can provide an adequate justification for the search for international clients. At one of our recent partnership meetings almost all of my colleagues agreed that they would not want to leave the challenge, excitement, and personal enjoyment of international work in spite of our experience with most of the drawbacks outlined below. Before buying a ticket, all of us agree, it is worth carefully reviewing at least a partial list of the problems that a firm can face on overseas projects.

Organize for the venture

The firm must be properly organized before it can even seek work in some countries. For example, in a growing number of countries the work must be performed by an organization which is at least 51 per cent owned by citizens of that country. Even where this restriction does not exist, a local office and/or a local associate and staff are usually required. In addition, an understanding and appreciation of the local situation is always essential. The era of applying U.S. know-how to any foreign problem is over, even when the project is financed by a U.S.-based corporation or public agency. Therefore, most serious and successful business development efforts are preceded by research on the legal and business development environment followed by establishing an association with a local firm or representatives.

The decision to go after international work also has internal implications as well. A firm must have the structure and staff to sell and manage distant projects. This usually means a principal who can devote a significant amount of his time to initial business development and another (possibly the same one) who can serve as the resident manager overseas.

Prepare for business development

Once a firm is organized, there is usually a very long, expensive, and often frustrating effort to get the first major project. Many sources of international work are noted in later paragraphs, but in general, the entire process can vary significantly from U.S. experience.

First of all, the substitute for the *Commerce Business Daily* in many countries is a network of agents. There are many other sources of leads—including local associates, international competitions, personal contacts, etc.—but the agent is an accepted and essential system in many areas. A review of the foreign trade information provided by some consular offices will show that many recommend retaining such agents. The term "agent," of course, ranges from legitimate representatives to outright frauds. My first exposure—while with another firm—was to one of the latter. This man promised to arrange a personal interview with the minister responsible for a major new airport. Unfortunately, he managed to spend his entire expense advance before ever leaving the U.S. and had the effrontery to refuse to act without more money. We refused and never met the minister; but continued to receive requests for more money.

The second factor is the time required. A proposal I wrote for a Mideast project three years ago has only recently—in greatly modified form—become a contract. Many projects can move very quickly, but the typical experience has been that extensive time is required meeting the right people, building the potential client's confidence, and finally negotiating a contract. A minimum investment of 12 to 18 months is not atypical from first trip to project start and the investment in dollars is commensurate with the investment in time.

Staff up realistically

Assuming the firm gets by steps one and two successfully, its potential problems have just begun. The next one is staffing, for most international projects require at least a resident project manager. Few firms can pull out a key man who is willing to move himself and his family to a foreign country. The glamour of a foreign work experience is more than balanced by children's school and health considerations, mortgages and the many other commitments of senior personnel. Moreover, not just any project manager will do. He should have a number of special qualifications to supplement his basic technical and management skills. Among the most important are the appropriate foreign language, prior work experience overseas, an ability to work with minimum support and supervision and an understanding of the technical difficulties he will be facing. Without a project manager with the proper background and personality, the firm can run major risks. I have seen more than one firm quickly become *persona non grata* because of a poor choice of this key man.

The project manager is not alone, of course, and this means a great deal of travel. This rapidly becomes extremely wearing on the partners or others making the long distance commutes often required. Some of my friends have thought that this travel must be glamorous and very exciting, but the excitement usually consists of flying for 10 hours then spending all night trying to find where the airlines sent your bag so that you can change your underwear for an 8-a.m. meeting, and the glamour consists of working at a desk in an office building a long way from home. The fatigue factor is a major hidden cost that should be recognized.

Study local customs and practice methods

Once on the job, the staff can be faced with pressures and problems outside the project. At the administrative nuisance level, there are work permit and local tax problems for foreigners. At the other extreme, there can be problems similar to the one of the well-known American architect who spent 10 days in a crowded 140-degree prison cell during a coup.

Many firms, of course, either do not have

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or are able to overcome the above problems, but there is still the need to do the work and make money at it. Here again there are a large number of pitfalls.

First of all, many basic U.S. practice methods are not followed overseas. For example, most countries are on the metric system; many have neither the wealth of data, such as base maps or accurate census statistics, nor departments who are staffed to help provide them; many former British colonies use the quantity survey method; and the palette of materials is drastically limited.

On a more important level—the quality and value of the services to be provided—the differences can be even more basic. In the mountain area of a Central American country where I had my first foreign work experience, a U.S.-oriented shiny new hospital solution would have been a gross mistake (a mistake made in many countries by many firms). Over two-thirds of the children in the area died before the age of five due to bad water and inadequate diet. Thus, an educational program, food distribution, and a low-cost clinic-oriented health delivery system was what was needed. In another country local customs made a multi-story design solution culturally unacceptable and caused the firm responsible to completely redesign.

Set fees high enough

Every one of the problem areas can result in a project fee requirement significantly higher than that for a comparable project in the United States. This makes the problem of making money from foreign projects all the more difficult. To this general financial concern resulting from non-financial factors must be added the more direct problems that can have a major negative impact on the potential profitability of foreign work.

The first is the fee available. In some areas the competition is, for example, from local professional firms, and they can quote fees 40 to 50 per cent under U.S. firms because of the much lower salary scales and reduced travel costs. Some of the clients are willing to pay the extra cost of a U.S. firm but many are not.

The fees can, of course, never be calculated in the same way as a U.S. project. There is the need to build in protection against the major added costs: communication (usually at least a telex), heavy start-up costs, a premium to induce staff to move to the project site, travel expenses, etc. It is even necessary to build in higher estimates for goods and services that a firm might mistakenly estimate at U.S. rates. Automobiles, reproduction equipment, typewriters, computer time and many other basic requirements are either difficult to obtain or as much as two to four times their U.S. cost. All costs, therefore, must be carefully estimated and even more carefully monitored throughout the project.

Tax and monetary complications

Of all financial problems, the ones that have plagued us the most in recent years are the tax and monetary complications. These include: currency controls, devaluation problems, and taxes, which vary widely.

Currency control problems can be very serious. In some cases, a typical control limits the repatriation of profits to a percentage of the investment in the office. In one country where we have worked, there is a 20 per cent annual limit. In other countries every transfer requires extensive justification and legal support. A few countries have imposed flat prohibitions on any transfers of funds. When faced with this last problem, one of our colleagues was reduced to bringing his fees out in lumber, jewelry and other local commodities. We have heard of another firm paid off in camels.

Not being able to move currency quickly has become a particularly serious problem in this period of monetary instability. It is not uncommon to suddenly have one's fee cut by 10 to 20 per cent due to international currency fluctuations.

And then there are taxes. Whatever its faults, the U.S. tax system is at least predictable. This is not the case in some countries. One major consultant recently closed an office in a Latin American country after a 45 per cent tax was suddenly imposed on their gross fees—fees, not profits. Most tax problems are not this severe, but it is a subject that must be thoroughly researched before writing or signing a contract.

In summary, while some—including my partners—think it is the only type of practice to have, it is an expensive game to play. It is high risk, and it consumes resources at a staggering rate. It is high risk in that firms starting into this field do not have the experience, competitive position, or established relationships to get work quickly. And it is expensive and consumptive of resources because it takes an incredible amount of senior time. It is an inefficient type of work to depend upon, and the extra travel, legal staff and other start-up costs are considerably higher than for comparable jobs in the States.

How to find clients

Assuming that the preceding list of potential woes has not discouraged a firm, the main issue still remains—finding clients.

The primary sources are the following:

1. U.S. government agencies with overseas construction programs including military projects, the embassy construction program, and other agencies.
2. U.S.-based private clients including multinational corporations, international hotel chains, investment syndicates, etc.
3. the international agencies—the United Nations Development Program (UNDP), World Bank, Inter-American Development Bank, Agency for International Development, etc.;
4. foreign private clients;
5. and by far the largest group, foreign government agencies.

The first four of these present business development problems similar to those of their domestic counterparts. Only the last requires a new set of business development procedures. The first of these new rules are the criteria for judging a country's business development potential. Some guidelines used by experienced international firms are the following:

Does the country have a stable government? It is usually very difficult to operate effectively—or even safely in some cases—when one has to worry about major political changes in the client's country.

Does the country have an English- or American-trained civil service? These are not necessarily superior, but they are usually easier for a U.S. firm to understand and work with. The language problem doesn't exist; the contracting procedures and legal processes are usually similar; the cultural gap is narrower; the available data bases are often better; they are less likely to be anti-American; and many other factors make it easier to operate.

Has the country been traditionally pro-American? This may not be a factor in how well a firm can perform in a country, but it can significantly influence its ability to obtain a commission and the cost of doing work.

Does the country have experience using foreign consultants? If not, it indicates that at best there will be an educational process over and above the technical task. At worst, it indicates that foreign consultants are not needed or not welcome.

Can you find a local partner whom you like, and trust, and who you believe can help you develop business or perform a high quality professional service in the country? The importance of this factor cannot be overemphasized.

Does the country have the money to pay international fees? Some have equated this recently with "does the country have oil?" Whatever the guide, it is important to judge the financial condition of a country as one should also do with domestic clients.

Is there an established way to research potential jobs? If the project is to be funded by an international agency such as UNDP, some of these organizations have newsletters similar to the *Commerce Business Daily*. If it is locally financed, it may mean that the best information will come through a well-placed agent. The structure of job-lead information flow can be indicative of the extent and type of the competition to be expected. Some of these are summarized in Gerre Jones' book *How to Market Professional Design Services* (McGraw-Hill Book Co.).

Do you want to work in the country? Many firms—including ours—have backed away from projects because we did not agree with the politics, project objectives, or local business practices. The excuse that "that is the way it is done there" is never an adequate justification for losing one's "moral compass."

And, most important, are the services that the firm offers needed? More than any other area it is essential to have something to sell. In spite of the relatively limited number of firms actively seeking international work, it tends to attract the best from many countries. As a result it is a high-ante game, played by professionals, often for relatively small pots. If you do not have the cards, Brother Brett would say, "Sit out of the game!"

CM: the only way to go fast track

The new Johns-Manville World Headquarters, designed by The Architects Collaborative, as winners of a nine-firm competition in 1972, is well into construction on its 10,000-acre site near Denver and is apparently meeting a completion deadline of July 4, 1976. H. O. McElyea, J-M's architectural representative, attributes a substantial portion of the schedule's success to the construction management of Turner Construction Company in their handling of the phased or fast track construction project. Joseph P. Hoskins, TAC's senior associate-in-charge, concurs in crediting Turner with keeping the job on stream. Both McElyea and Hoskins agree that construction management is the logical, if not the only, way to set up a phased construction project.

Hoskins makes the point that the important element in any such combination of professionals and clients is to get the project built the way the client and the architect want it to be. If everyone does his job well, any assembly of professionals will work. The work with Turner, he emphasizes, has been amicable and productive.

In working with a construction manager, Hoskins observes, the construction documents are different from those in a more conventional job to be done by a general contractor. With a CM, the contract documents provide a matrix by which you tell the CM what you want. While the cardinal features of the design are firmly stipulated and sustained, there is opportunity for the construction manager to price alternatives and make suggestions for expediting or saving on the work. Any adjustments to the specifications are negotiated on the spot by agreement of architect and CM.

In the sense of participation close to the construction project, the construction management process is actually a return to normalcy for the architect, Hoskins says. In the days of the master builders, so often referred to nostalgically, architects actively participated in construction on the site until their building was completed. Similarly, with a construction manager, the relationship of the architect to the project is more intimate and in closer control throughout from concept to completion.

Hoskins draws the parallel of the creative process as a continuing participation. If, for example, you do a presentation drawing by rote, it is likely to be a dead thing. If, on the other hand, you put your creativity actively into the drawing, it comes alive and fulfills its purpose. Similarly, by the architect's continuing relationship with his project through the construction manager, his opportunity for creativity carries through as though the elements of the job were continuously on his palette. If the construction manager is equally professional and not in the adversary position that may be characterisitic of conventional contractors, the job stays alive.

Mr. McElyea moderated a session at the Producer's Council Annual Conference in October, where Mr. Hoskins expressed some of the above views and Joseph Consigli, J-M's vice-president for facilities planning, and Barry Sibson, contract manager of the Los Angeles office of the Turner Construction Company rounded out descriptions of the roles of various members of the project participants.

Mr. Consigli reviewed selection of the site and development of a detailed program for the building as preamble to the competition. "We selected John Rogers of Rogers, Nagel & Langhart to be architectural advisor working in concert with The Space Design Group and our own facilities planning department." In explaining why J-M went outside for consultation in the program, Mr. Consigli observed that a fresh observation of needs and methods was desirable. He cited the experience of many corporations who have found themselves in inadequate space soon after occupancy because they have not applied the techniques and methods of long-range planning for office space that they themselves have used in the areas of marketing and development.

The owner, the space planners and the architectural advisor performed the research necessary for preparation of the program. This included systematic collection of data based on interviews with key executives and organization profiles of department activities, equipment needs and working relationships. Thus the J-M headquarters was planned from inside outward on a basis of real and projected needs.

Mr. Sibson spoke about the theory and practice of construction management on this job. An extract of his talk follows.

While Turner is a general contracting firm of longstanding, said Mr. Sibson, we have been performing work as a construction manager on a growing number of projects. We are often asked, "How does your job differ as a construction manager from that as a general contractor?" To fully answer this, I think it's necessary to understand what it is we are speaking of when we refer to a construction management contract, a modified construction management contract, and a general construction contract.

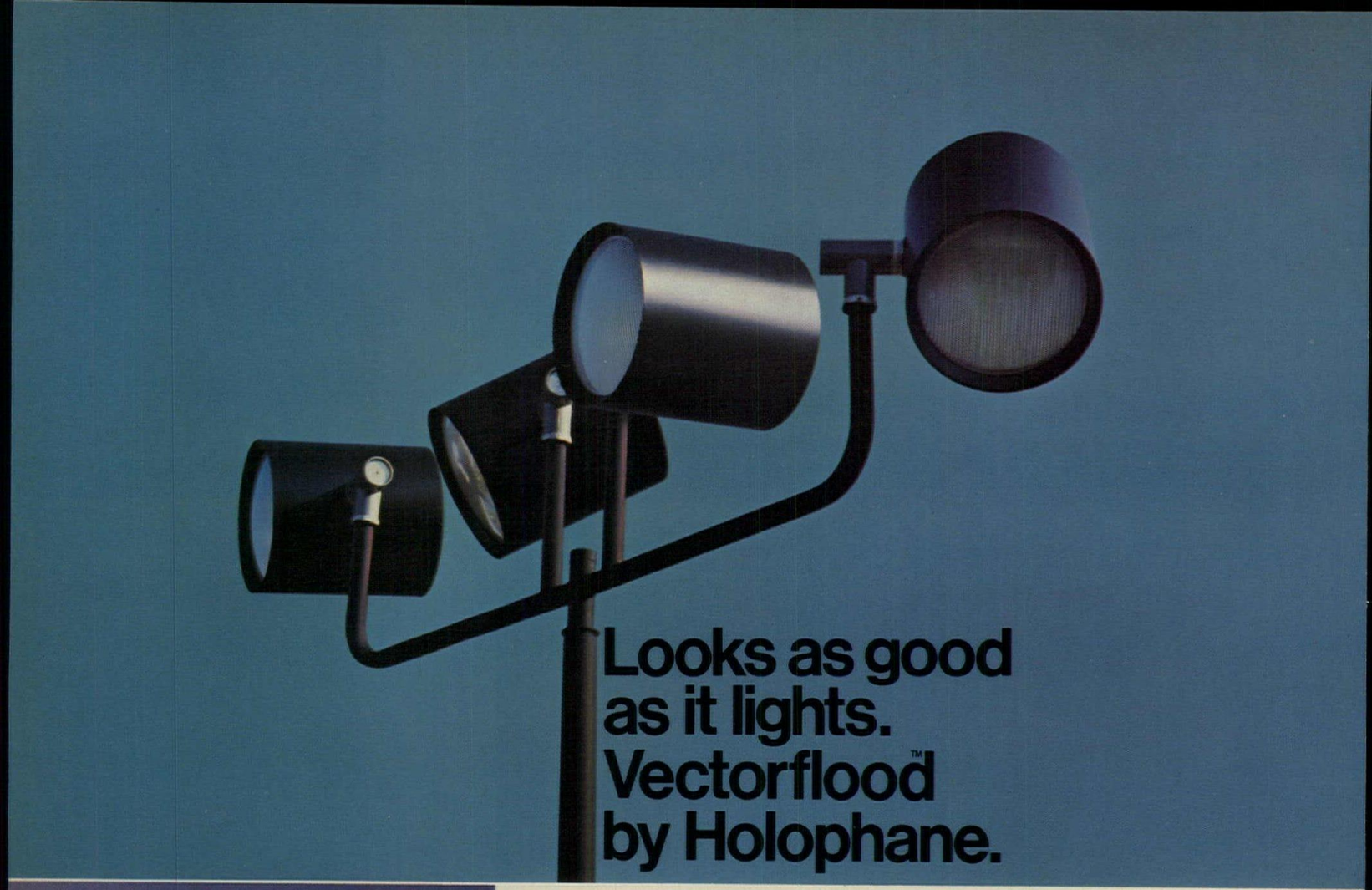
Under a pure construction management contract, the construction manager is retained as a professional to provide estimating and scheduling services during the design phase of a project. He also provides the coordination among the various specialty contractors who perform the actual construction work under separate contracts with the owner. He also is required to supervise the work. The construction manager by contract is not permitted to perform any of the construction activities with his own forces. He does not provide a guaranteed maximum price or a guaranteed time of completion.

Under a modified construction management contract, the construction manager again is required to provide estimating and scheduling services during the design period. He is required to construct the project and to perform all of the coordination and supervision of the subcontractors. He generally is permitted to perform portions of the work with his own forces and may be required to provide a guaranteed maximum price and a guarantee of completion. The subcontracts are held by the construction manager and he is fully responsible for the performance of the subcontractors much as a general contractor would be.

Under a general contract, the contractor is, of course, required to construct the building, provide a guaranteed maximum price and a guaranteed date of completion. In most cases, however, this contractor is not hired until the plans and specifications are complete.

Turner's contract for the Johns-Manville World Headquarters Project is what we term a modified construction management agreement. We have been involved with the project throughout the design period; we will have a guaranteed maximum price and we will have full responsibility for the performance of the construction work. Therefore, the major difference between our role in this project and the role of a typical general contractor, is the degree of our participation in the design phase of the project. It was this participation which, as I understand it, was paramount in Johns-Manville's decision to use a construction management approach for the construction of their new headquarters.

Turner's participation during the design phase was much as Mr. Hoskins has described it, with the additional detail of how the budget was developed and how the guaranteed maximum price will be set at a key point in the process. This will be described in this department next month.



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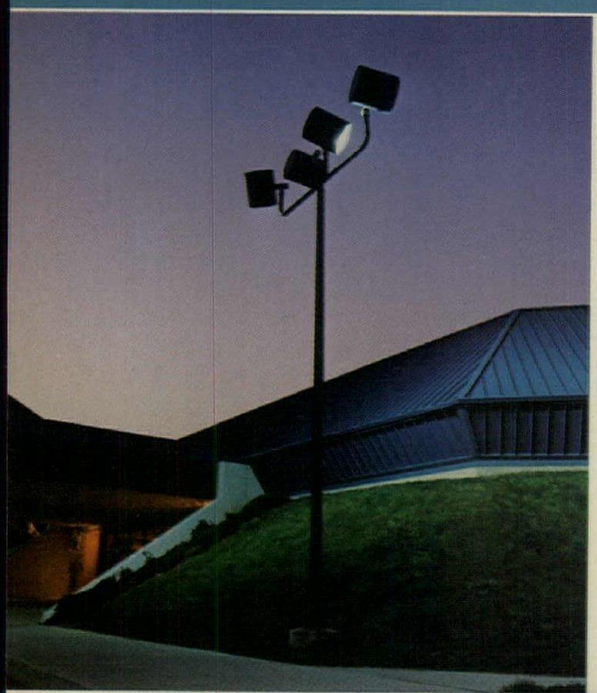

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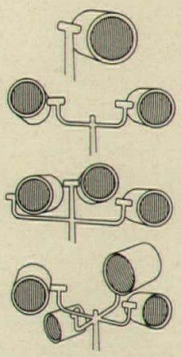

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The index is not a quotation

There has been some misunderstanding recently regarding our construction indexes, so it may be expedient to devote this column to clarify our indexing procedures.

Ideally, in developing an index, a typical structure would be outlined and each material that is a component of this structure would be identified and its cost recorded periodically. This is now being accomplished by many builders who have access to this type of information in a number of cities. Their private indexes, however, represent costs in a limited geographical area..

Large scale information dispensing agencies are in a much less precise position. We must collect and dispense information on a national basis. We do this by collecting precise information from a large number of local sources and relating it to a tested key selection of critical building products and trade labor wage rates. Thus, our indexes serve as a sophisticated yardstick for determining regional rates of construction cost increases. They are not to be used for direct conversions to quotable job prices at the local level. They serve, rather, as a guide to expected change from a previously known base cost. They have the advantage of being translatable from one region or time to another, but the ultimate precision still resides in the direct, local quotation at the time of contract. We urge the users of our indexes to exercise judgment based on these facts.

John H. Farley, senior editor
Dodge Building Cost Services

INDEXES: December 1974

1941 = 100.00 (except as noted)

Metropolitan area	Cost differential	Current Indexes non-res.	residential	masonry	steel	% change last 12 months
U.S. Average	8.3	474.6	454.1	465.7	454.3	+ 8.54
Atlanta	7.5	582.0	548.7	570.6	559.8	+ 5.45
Baltimore	8.6	543.4	510.9	531.7	517.2	+12.26
Birmingham	7.2	426.6	396.8	412.0	408.2	+ 4.63
Boston	8.7	468.5	442.6	465.6	451.8	+ 5.53
Buffalo	9.1	525.2	493.2	517.5	503.1	+10.11
Chicago	8.3	537.0	510.6	518.3	510.8	+ 4.03
Cincinnati	8.6	506.6	476.7	494.8	482.3	+ 8.04
Cleveland	9.0	516.6	486.1	505.1	493.5	+10.13
Columbus, Ohio	8.2	500.4	469.9	491.9	479.1	+10.66
Dallas	7.8	482.2	466.9	472.4	463.6	+ 9.40
Denver	8.2	515.6	485.1	505.7	492.1	+10.52
Detroit	9.7	544.6	518.9	554.6	531.7	+ 7.43
Houston	7.1	430.6	404.4	417.6	411.8	+ 8.63
Indianapolis	7.7	429.5	403.4	420.4	410.8	+ 8.24
Kansas City	8.2	450.6	425.8	443.2	429.9	+ 9.51
Los Angeles	8.4	544.5	497.8	530.6	519.0	+ 5.37
Louisville	7.6	469.7	441.1	458.0	448.8	+ 7.70
Memphis	8.3	487.8	458.1	469.3	462.5	+12.63
Miami	7.8	491.3	468.2	476.3	466.7	+ 8.45
Milwaukee	8.2	523.6	491.7	513.2	499.1	+ 9.46
Minneapolis	8.6	493.9	464.7	484.7	476.1	+ 7.02
Newark	8.8	465.6	437.2	458.0	447.5	+11.04
New Orleans	7.2	447.8	422.7	442.1	431.8	+ 5.02
New York	10.0	527.2	490.2	514.8	502.0	+ 6.08
Philadelphia	9.0	524.2	499.4	520.3	503.8	+ 6.78
Phoenix (1947 = 100)	7.8	270.8	534.1	261.5	257.1	+ 8.02
Pittsburgh	8.8	470.7	442.8	465.6	451.3	+ 9.59
St. Louis	8.5	482.9	455.8	478.1	466.9	+ 7.20
San Antonio (1960 = 100)	7.6	184.0	172.8	179.9	175.8	+14.82
San Diego (1960 = 100)	8.4	199.2	187.1	195.9	191.0	+10.40
San Francisco	9.2	687.4	628.4	683.2	660.1	+ 6.28
Seattle	8.4	461.8	413.4	457.5	440.5	+ 5.96
Washington, D.C.	8.2	468.6	440.0	458.4	446.9	+15.40

Cost differentials compare current local costs, not indexes.

Tables compiled by Dodge Building Cost Services, McGraw-Hill Information Systems Company

HISTORICAL BUILDING COST INDEXES—AVERAGE OF ALL NON-RESIDENTIAL BUILDING TYPES, 21 CITIES

1941 average for each city = 100.00

Metropolitan area	1964	1965	1966	1967	1968	1969	1970	1971	1972	1973 (Quarterly) 1st	2nd	3rd	4th	1974 (Quarterly) 1st	2nd	3rd	4th
Atlanta	313.7	321.5	329.8	335.7	353.1	384.0	422.4	459.2	497.7	516.4	518.0	543.8	544.8	555.2	556.7	573.5	
Baltimore	280.6	285.7	280.9	295.8	308.7	322.8	348.8	381.7	420.4	441.8	443.6	474.5	475.5	516.3	517.8	532.8	
Birmingham	260.9	265.9	270.7	274.7	284.3	303.4	309.3	331.6	358.3	371.7	373.2	401.1	402.1	405.5	407.0	419.7	
Boston	252.1	257.8	262.0	265.7	277.1	295.0	328.6	362.0	394.4	414.0	415.6	436.8	437.8	455.1	456.6	461.0	
Chicago	306.6	311.7	320.4	328.4	339.5	356.1	386.1	418.8	444.3	465.3	466.9	507.6	508.6	514.2	515.7	528.1	
Cincinnati	269.5	274.0	278.3	288.2	302.6	325.8	348.5	386.1	410.7	430.4	432.0	461.4	462.4	484.5	486.0	498.6	
Cleveland	283.0	292.3	300.7	303.7	331.5	358.3	380.1	415.6	429.3	436.7	438.3	461.2	462.2	490.3	491.8	508,0	
Dallas	256.4	260.8	266.9	270.4	281.7	308.6	327.1	357.9	386.6	407.3	408.9	435.4	436.4	453.7	455.2	476.4	
Denver	287.3	294.0	297.5	305.1	312.5	339.0	368.1	392.9	415.4	429.5	431.1	460.0	461.0	476.1	477.6	508.5	
Detroit	277.7	284.7	296.9	301.2	316.4	352.9	377.4	409.7	433.1	463.4	465.0	500.0	501.0	519.5	521.0	537.2	
Kansas City	250.5	256.4	261.0	264.3	278.0	295.5	315.3	344.7	367.0	387.7	389.3	404.8	405.8	435.6	437.1	443.4	
Los Angeles	288.2	297.1	302.7	310.1	320.1	344.1	361.9	400.9	424.5	453.3	454.9	503.2	504.2	514.3	515.8	531.3	
Miami	274.4	277.5	284.0	286.1	305.3	392.3	353.2	384.7	406.4	419.0	420.6	446.2	447.2	467.6	469.1	484.6	
Minneapolis	282.4	285.0	289.4	300.2	309.4	331.2	361.1	417.1	412.9	430.6	432.2	455.1	456.1	469.7	471.2	487.1	
New Orleans	240.9	256.3	259.8	267.6	274.2	297.5	318.9	341.8	369.7	382.1	383.7	419.5	420.5	437.5	439.0	440.6	
New York	289.4	297.1	304.0	313.6	321.4	344.5	366.0	395.6	423.1	453.5	455.1	484.3	485.3	497.4	498.9	513.8	
Philadelphia	275.2	280.8	286.6	293.7	301.7	321.0	346.5	374.9	419.5	459.3	460.9	484.1	485.1	495.7	497.2	517.0	
Pittsburgh	263.8	267.0	271.1	275.0	293.8	311.0	327.2	362.1	380.3	406.3	407.9	423.4	424.4	443.7	445.2	464.1	
St. Louis	272.1	280.9	288.3	293.2	304.4	324.7	344.4	375.5	402.5	427.8	429.4	443.2	444.2	458.7	460.2	475.2	
San Francisco	365.4	368.6	386.0	390.8	402.9	441.1	465.1	512.3	561.0	606.4	608.0	631.3	632.3	647.1	648.6	671.0	
Seattle	266.6	268.9	275.0	283.5	292.2	317.8	341.8	358.4	371.5	388.4	390.0	423.4	424.4	437.8	439.3	448.7	

Costs in a given city for a certain period may be compared with costs in another period by dividing one index into the other; if the index for a city for one period (200.0) divided by the index for a second period (150.0) equals 133%, the costs in the one period are 33% higher than the costs in the other. Also, second period costs are 75% of those in the first period (150.0 ÷ 200.0 = 75%) or they are 25% lower in the second period.

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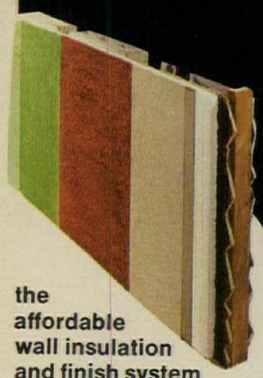

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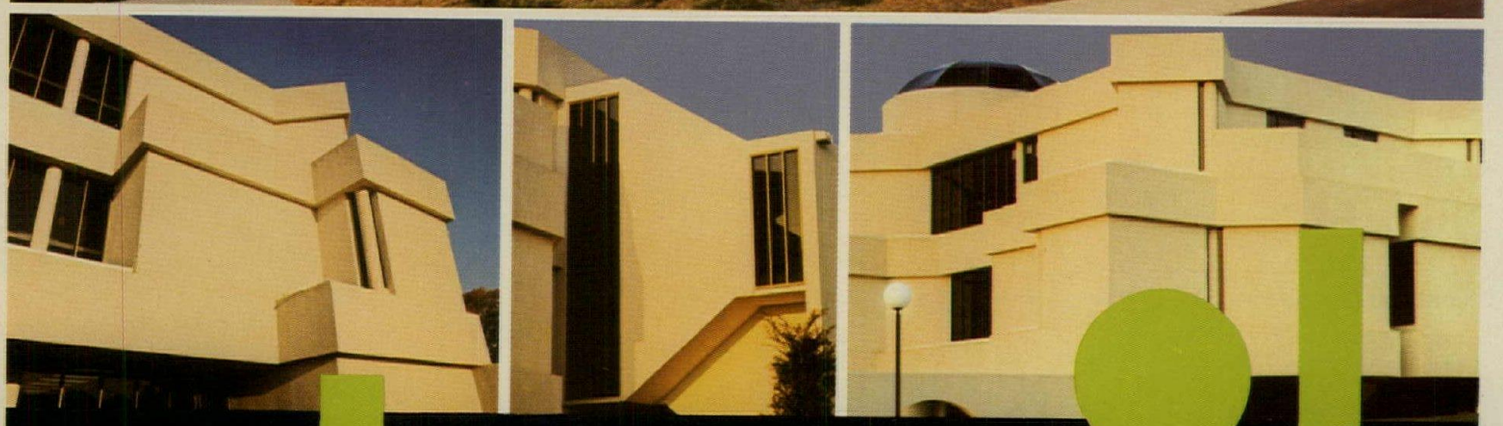

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Dimensions of the current housing cycle

To understand and forecast residential construction trends, we'll take a look first at events leading up to the 1972 peak.

The current downturn in residential building is the steepest in recent memory, although the dollar measures of the market may not show that very clearly because of surging inflation. In terms of three months moving averages, the current annual rate of starts, 1.2 million, is 50 per cent below the 2.4 million peak rate attained back in October, 1972. Its closest rival, the peak-to-trough decline from 1.5 million units to 900,000 units in the 1965-1966 cycle was 40 per cent.

There's some consolation in the fact that this hasn't been the *longest* decline. The 27-month cycle from December, 1954 through March 1957 holds that distinction. But, when the October results come in, it will probably be tied for second place with the 24-month cycle, December 1958 through December 1960.

While the turnaround in housing is expected to come within a month or two, now that credit conditions are easing up, it's worth exploring the dimensions of the current decline a little further, primarily because what happened on the downside had a direct bearing on the breadth and composition of the impending upturn.

An understanding of the posture of the housing market at its peak in late 1972 is a necessary first step in this analysis, though. And, the best way to accomplish this is to briefly trace the path to that peak.

The last housing boom was born in the recession of 1970, when a combination of events—a favorable credit climate due to reduced demands for funds from business sources; positive action on the Federal level, through the 1968 Housing Act; new or improved financial conduits, like Ginnie Mae, Fannie Mae and the Real Estate Investment Trusts—coupled with a huge backlog of pent-up demand to lay the groundwork for an extended period of growth.

The upturn began in the first quarter of 1970 for one- and two-family units, with multi-family housing following one quarter later. Growth in the multi-family component remained fairly sluggish for about another year, though. It was not until spring, 1971 when the boom in multi-family units really began to take firm hold.

The belated response of multi-family building to the general housing upturn is primarily a regional phenomenon. In three of the four major regions, the response of multi-family building to expansionary conditions was immediate and direct—similar, in fact, to the response of one- and two-family housing. One region, however, the South, showed a flat-to-declining trend right through to early 1971.

South a slow starter, but strong

The most reasonable explanation for the South's belated response is simply that, at the time the general housing upturn began in early 1970, the backlog of demand for new multi-family units was not as yet sufficient to generate any large upsurge in new multi-family construction. The level of multi-family vacancy rates in effect throughout the South at the time, for example, was averaging over 6.5 per cent, significantly above the national average of 4.9 per cent, and well above the figure of 2.5 per cent for the critically short Northeast (where response, to the upturn, incidentally, was immediate and direct).

Once multi-family building began to take hold in the South, however, it did so with remarkable speed. In the two years between 1971's first quarter and the first quarter of 1973, the seasonally-adjusted rate of multi-family units in the region increased by 120 per cent. By contrast, the nation as a whole gained only 75 per cent over that period. And, while 1973's first quarter represented the high water mark for multi-family construction in the nation, the South continued strong through the entire year. In the fourth quarter of 1973, for instance, the seasonally-adjusted level of Southern multi-family units was only 12 per cent below the first quarter rate, while the comparable decline for the nation as a whole was closer to 30 per cent.

In contrast to the multi-family market, the performance of one and two-family housing in the South has closely paralleled that of the other regions.

To understand the behavior of Southern multi-family building over the recent housing cycle, it is necessary to evaluate the impact of two factors: (1) The radical demographic changes that took place in the region since 1970, and, (2) the behavior of a still largely unexplored segment of the housing market, condominiums.

Up until 1970, the South was, for the most part, in a net deficit position as far as population migration trends were concerned. Over the decade of the sixties, for instance, the region lost on the average, 125,000 people a year to other areas due to out-migration. And the trend was slightly higher in the *last* half of the decade than in the first half. But all that changed rather dramatically once the decade of the seventies began. Latest census figures show, for instance, that between 1970 and 1973, the region experienced a *net gain* of 850,000 people through migration, or over 280,000 a year.

It is unlikely that any one factor can be singled out as the prime cause of this dramatic reversal in population trends. Rather, it appears to be the net result of a combination of events. First, the 1970 recession accelerated the trend of industry relocation in the South. This meant that job opportunities expanded at a relatively greater rate in the South than in either the Northeast or Midwest, which triggered both an influx of new job-seekers and a relative decline in the exodus of black migrants northward. While the number of employees on nonagricultural payrolls in the South grew at *twice* the rate of the Northeast and Midwest during the decade of the 1960's, between 1970 and 1973 it grew at a phenomenal *10 times* as fast.

At about the same time the trend in retirees and those seeking a second home in the region picked up markedly. The South gained 80,000 migrants aged 65 and over between 1970 and 1973, for instance.

It is this second source of Southern migration inflows that leads us into a discussion of the type of housing that has been most closely associated with the retiree market in the public mind, the condominium. While a running tabulation is not available, recently released Government figures show that, for the year 1973, the South accounted for nearly *half* of all housing units intended for condominium ownership, some 120,000 units. And, three-fourths of those units were in multi-family structures—buildings containing five units or more. Looked at another way, the multi-family condominium accounted for one-fourth of all multi-family units built in the South during 1973. If we can infer that a similar proportion of multi-family condominium units to all units existed in 1971 and 1972 as well, the reasons for the exceptionally strong gains in the Southern multi-family totals over this period become clearer.

Next month's article will analyze the factors involved in the current housing collapse, and the implications they have for the impending upturn.

James E. Carlson, manager, economic research
McGraw-Hill Information Systems Company

The Regency Tower Condominium in Ventnor, New Jersey, provides resident families with a welcome extra benefit.

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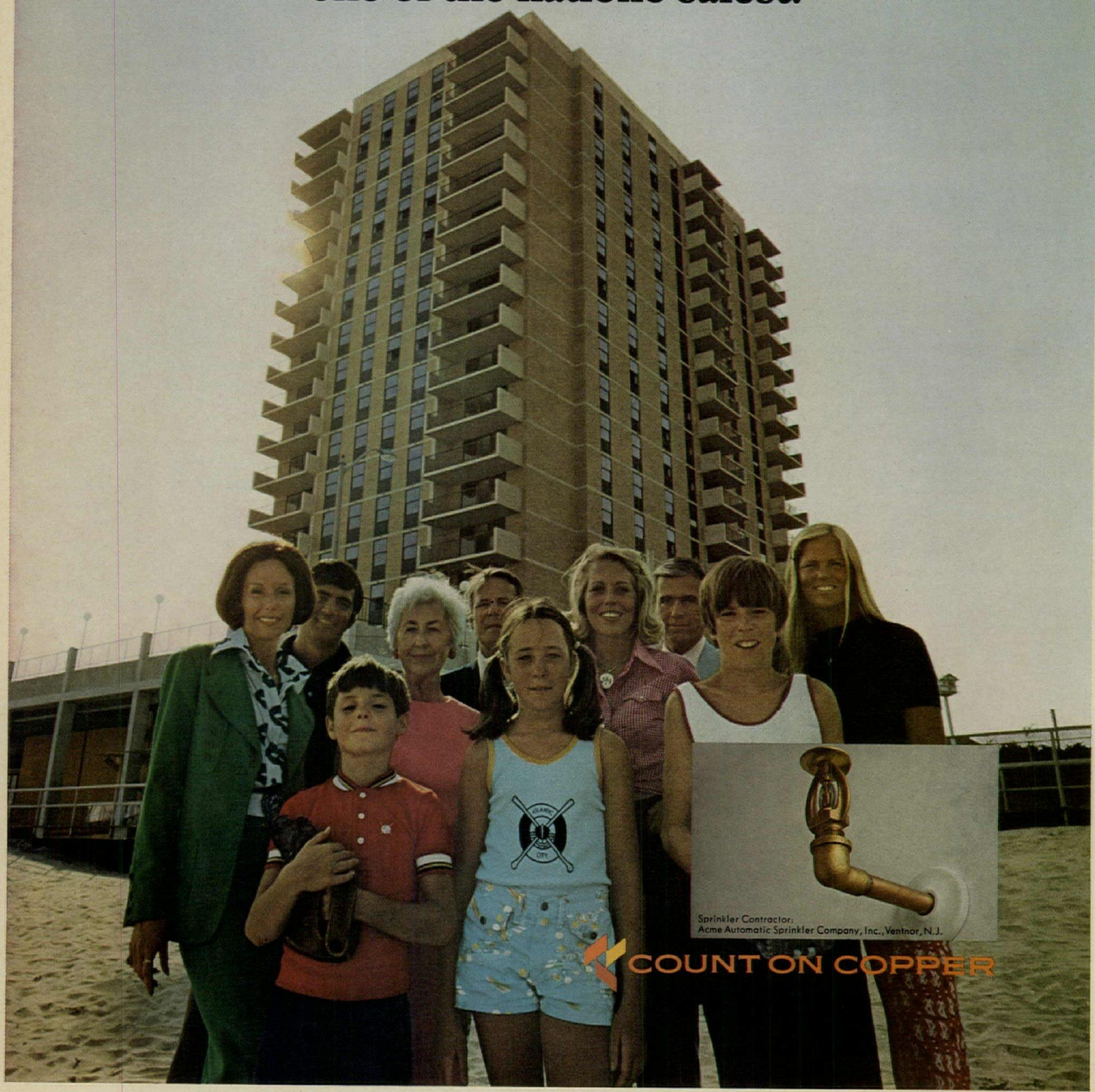

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Steel and nature blend at Wellesley Office Park

Aesthetics, environmental concern, construction speed, and economy were key factors influencing the design of this 140,000 sq ft building in Wellesley, Massachusetts.

Known as Wellesley Office Park's Building 5, this four-level "Weathering Steel" project is the fifth and largest office building to be constructed on the 25-acre, woodland site. A sixth and slightly larger structure is in the planning stages.

The project was designed by Pietro Belluchsi and Jung/Brannen Associates, Inc. of Boston, Architects in joint venture. The two firms also designed Building 4, which won a 1970 Architectural Award of Excellence from the American Institute of Steel Construction (AISC).

According to Mr. Robert Brannen, "Great effort was made to retain the park-like setting of the site. We turned to a Weathering Steel exterior, since its matured, natural earthy brown color would blend with the landscape.

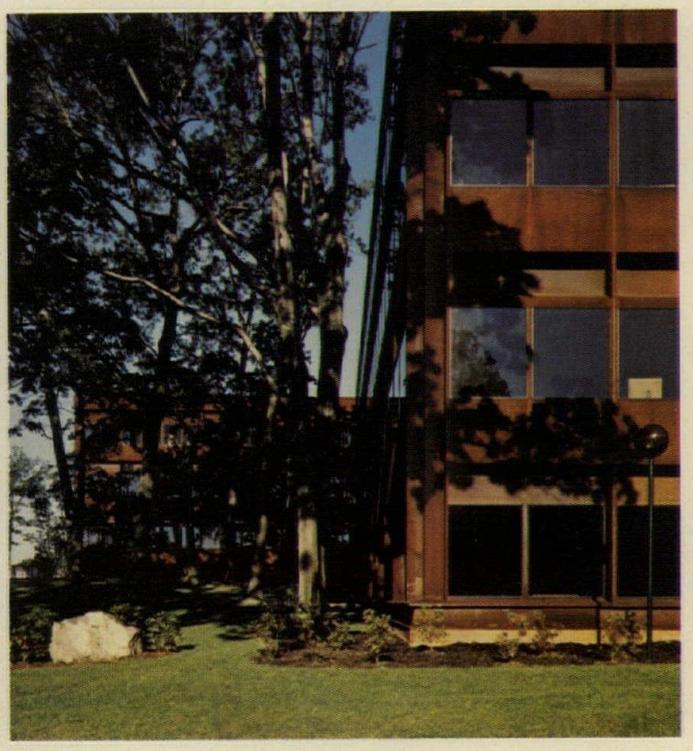
"From a practical standpoint Weathering Steel was beneficial for other reasons. Being readily weldable, extraneous connection material could be eliminated, making possible a weathertight building that requires virtually no paint maintenance.

"Construction speed and economy were also important considerations. Once dollars are committed, owners want their building as soon as possible. That's one of the main reasons we selected structural steel framing. We estimate that by using steel Building 5 was completed about six months earlier than would have been possible with other framing materials."

Steel is a natural for speed, ease, and economy of construction. And it can be beautiful, too! For more information get in touch with the sales engineer at your nearest Bethlehem sales office.

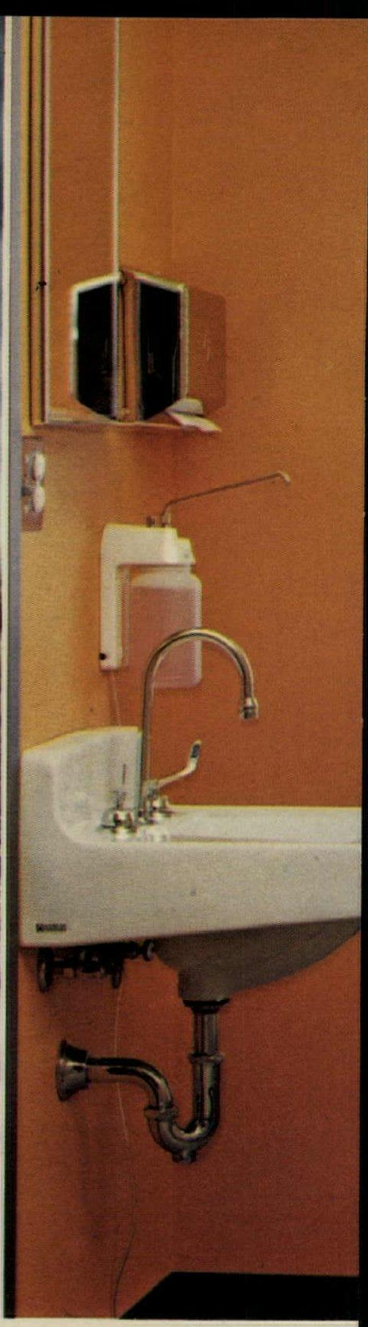
An open atrium provides a feeling of spaciousness in the court area. Maximum flexibility of plan and ease of convertibility were design "musts" for this all-rental office.

"We, at Wellesley Office Park, are extremely proud of our newest building," reports Mr. Edward D. Cochran, building manager for the owners. "We have experienced absolutely no problems with the Weathering Steel process, the coloring, or the maintenance. We have received nothing but compliments from the occupants, as well as from visitors who have come to the park just to observe the building."



The 4-level structure is owned by Wellesley Office Park Associates, a joint venture of Beacon Construction Company and State Mutual Life Assurance Company of America. Architects are Pietro Belluchsi and Jung/Brannen Associates, Inc., in joint venture. Weidlinger Associates is the structural engineer. Babcock-Davis Associates, Inc. fabricated and erected the Mayari R Weathering Steel exterior. The structural steel frame was fabricated and erected by Thames Valley Steel Company. Beacon Construction Co., Inc. is the general contractor. Bethlehem furnished all of the ASTM A36 structural shapes and Mayari R Weathering Steel plate for the project.

Bethlehem BETHLEHEM STEEL



Outside, one of 11 colors to choose from in our low maintenance, acrylic coated aluminum finish.

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(a)

Inside, the familiar warmth and beauty of a wood window in a child's world.

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 Children's Health Center and Hospital, this Pella Clad window system contributes to the relaxed atmosphere, inside and out.

Architect: Ellerbe Architects - Engineers - Planners *Builder: Bor-Son Construction Inc.* *Windows: Pella Clad Fixed Units and Contemporary Double-Hung*

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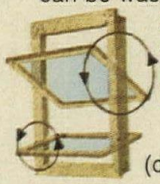
(c)

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)

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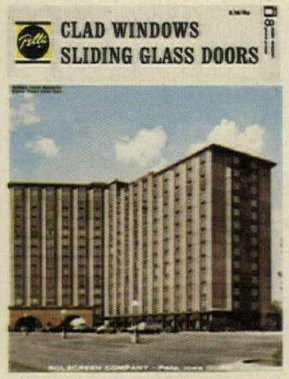

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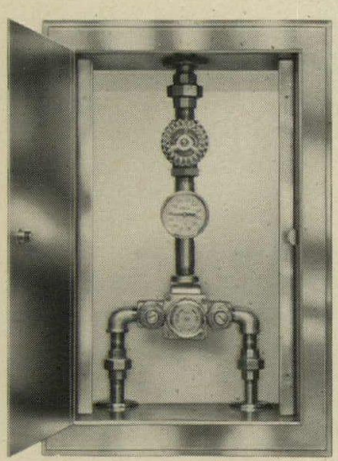

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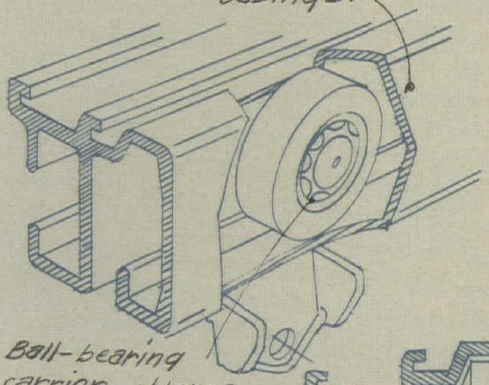

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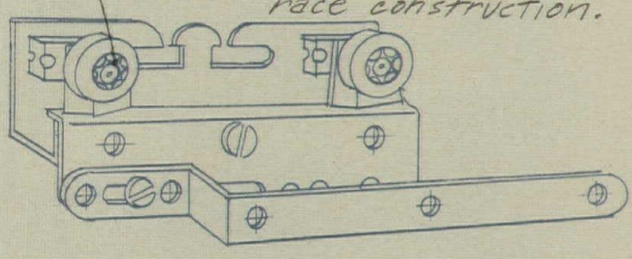

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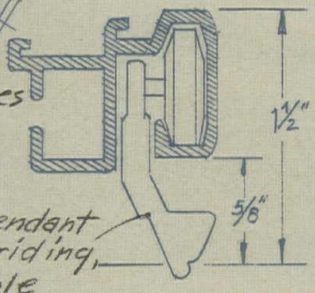

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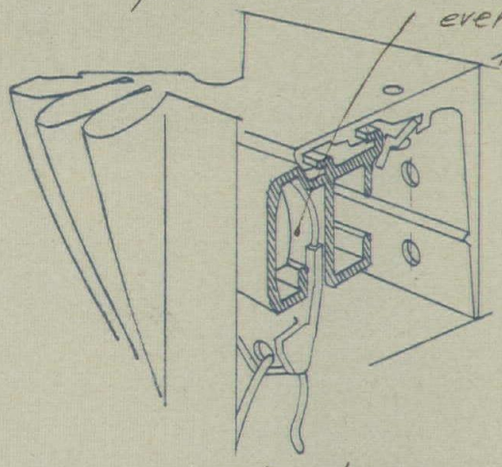

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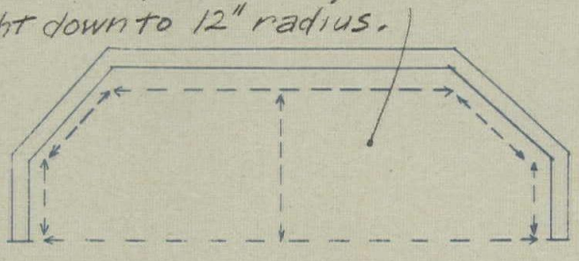

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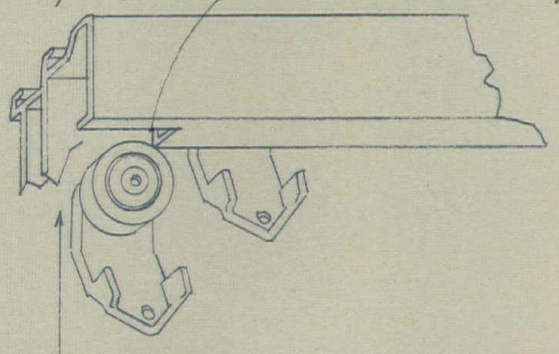

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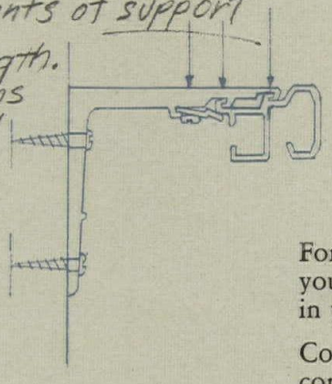

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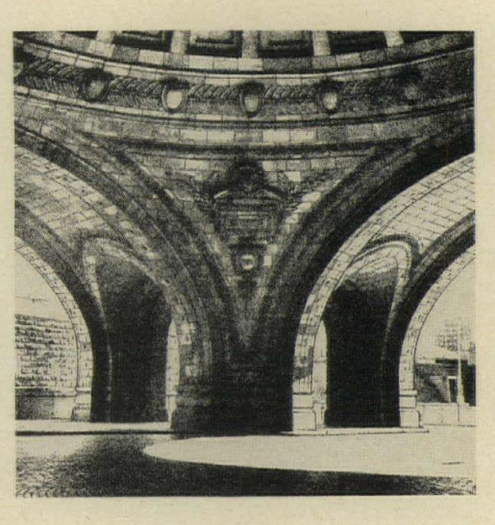
Conservation in the context of change

A redefinition of "conservation" as a positive tool for preserving—in the midst of needed growth and change—the essential character and human values of our cities and towns



Too often in the past, as we have enlarged and "improved" our cities and towns and neighborhoods under overwhelming pressures for growth and change, we have ignored the existing context, scale, and character of the place. We—architects and clients and the public—are beginning to understand that we can no longer, for many reasons, ignore what is good and still useful from the past as we build new.

We are beginning to see that what is "good" is more than we used to think was good—that more and more buildings not of landmark quality, but simply serviceable and familiar older buildings across the country, are "becoming good" as we develop new and less doctrinaire attitudes towards design and development and growth.

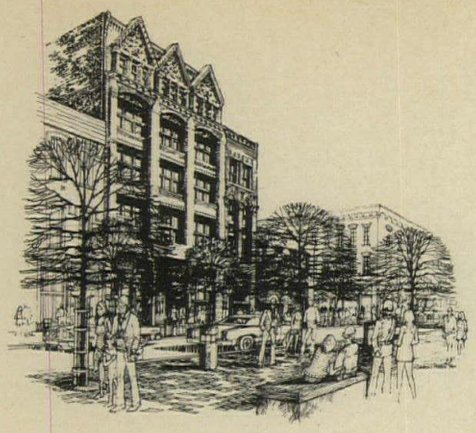
We are beginning to see that conservation and development, for much too long thought of as mutually exclusive goals in physical planning, can (indeed must) be worked together to provide the vitality and variety so much desired, but so often lacking, in our cities and neighborhoods today.

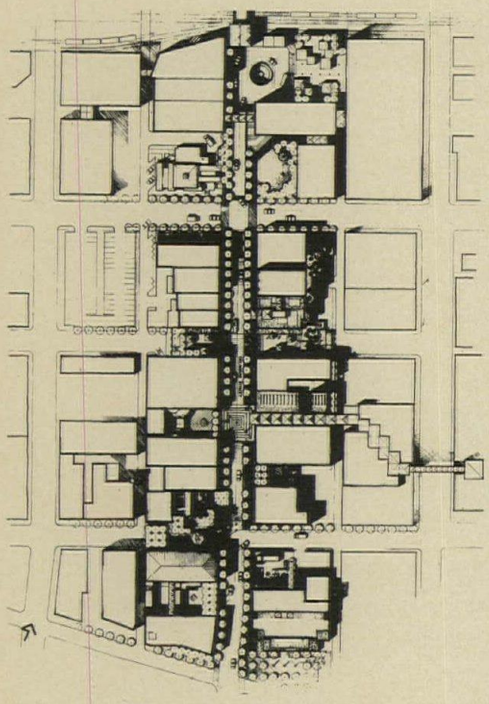
We are beginning to see that in the design of new buildings, we cannot continue to ignore existing context—that not only must any new building or complex respect its surroundings (some but not all architects have long understood this) but that it often makes sense to make fresh and inventive use of familiar images from the past in the design of new buildings, and thus enlarge the architect's palette.

And we are beginning to see that the people *like* this new approach to the old. In his article beginning on page 122, Jonathan Barnett points out that: "Preserving buildings has been a story of lost causes, last-minute reprieves, and many last-minute defeats. The fashionable, and at least partially correct, explanation has been our 'frontier mentality.' Americans were supposed to believe that change means progress, and that new things are better than old. Today, as far as the built environment is concerned, our national attitude is probably becoming just the opposite: anything new is probably going to be worse than what we already have." If that is too broad a generalization or too cynical a view for you, consider this argument in Michael Seelig's similarly thoughtful essay beginning on page 106: "In examining anti-growth sentiments being expressed in many communities today, it seems that citizens are not so much *against* growth per se as they are *for* those elements which presently make urban life pleasant and enjoyable to them. It is evident, from the strong expressions of anti-growth sentiments in North America today, that if a rapidly growing city must be one where nothing familiar is left, citizens want no part of it. . . ."

This surge of interest and attention to the re-use of older buildings—call it rehab or remodeling or recycling or modernization—amounts to nothing less than a revolution in attitude. It is a revolution in the attitudes of architects, of more and more clients, and of a greater and greater proportion of the public. Thus this issue: an effort to redefine conservation as a positive tool for preserving—within the framework of needed change and growth—the essential character and human values of our cities, towns and neighborhoods.

While this issue is concerned mostly with broad and subjective reasons for this new attitude (and what to do about them), today's economic reality is certainly a simple and obvious reason. More and more clients who might routinely have thought in terms of a new office building or new schools or new apartment buildings are now exploring





River Quay is not only an historic part of Kansas City, Missouri, but a part of the city rich in fine old—but run-down—buildings which recall the period when Kansas City was the fastest growing town in the west. The city's first City Hall, the Board of Trade Building, the Gillis Opera House, Pacific House, and other buildings of strong character and construction, are still standing, along with the warehouses which came after the city center had moved away from the river. Now the old buildings are being rehabilitated, given new uses—for which there is demand—to provide for commerce and recreation contracts between the city and the Missouri River. The 32-block area is being restored in three phases by Joseph Canizaro Interests with Don Wudtke & Associates, Inc., architects and planners in association, and Sasaki, Walker Associates, Inc.

the alternative of rehabilitating either their existing space or older buildings in the desired neighborhoods.

And for many architects, the economic boost that rehabilitation commissions offers comes in welcome contrast to the slowdown, in many parts of the country, in other work. Not only is that work varied and inventive and worthy of the best skills of good architects (see, for example, the work appearing throughout this issue and in our earlier, December 1971, issue on "New Life for Old Buildings"). It is a lot of work, for a large number of architects. A RECORD survey* completed just two months ago indicates . . .

- Over 80 per cent of architects have been involved in remodeling within the past two years.
- The median architectural firm has about 17 per cent of its work in remodeling.
- About 90 per cent of the firms are doing as much or more remodeling work than they did three years ago.
- 93 per cent expect to be doing the same or more remodeling work in the future.
- 90 per cent of architects say they handle a remodeling project in the same way, with the same people as a new building.

And for this work, as Jonathan Barnett points out in his article, "The architect's skills will be needed more than ever, for it is much harder to integrate new development with old, be it buildings or landscape, than to knock everything down and start afresh." But the reason for the radically changed attitude towards conservation goes far beyond today's unhappy economic reality. And so in this issue—from various points of view, in three articles—we explore the idea that conservation of suitable older buildings and neighborhoods is critical to the planning and growth of our cities. Michael Seelig argues that conservation and development—typically viewed as competing activities, are nothing of the kind, and that "we should adopt a new attitude towards conservation—one which incorporates conservation into planning while not inhibiting development." His reasoning: "In its broader sense, conservation is important to the humanity and stability of a city and all its inhabitants. One's view of the past naturally colors expectations for the future . . . . Unlike pure historic preservations, where emphasis may be on retaining vestiges of the past unchanged, conservation accommodates change—it serves to direct change, not stop it." Indeed, Dr. Seelig points out, "by protecting and conserving the elements important to people, and by alleviating the fear that everything familiar is disappearing, a conservation policy can become a means for making some types of change more acceptable."

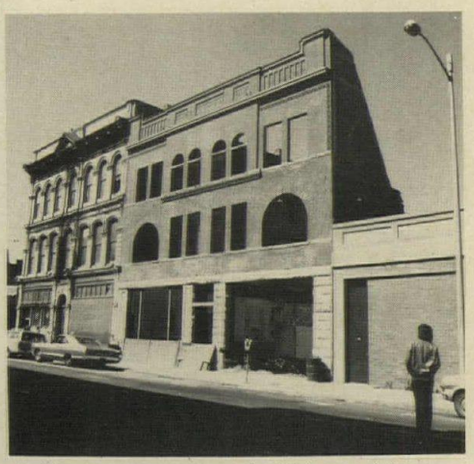
Jonathan Barnett argues the same need and describes mechanisms for accomplishing it. "Many historic or landmark buildings that people wish to save have commercial potential and their preservation need not be dependent upon philanthropy or government subsidy." He calls for two new professionals needed to do the job; not-for-profit entrepreneurs, and district administrators within all levels of government.

And Mildred Schmertz, in her article on the J. F. Kennedy Library versus the citizens of Cambridge beginning on page 98, offers a detailed examination of what can

*The survey questionnaire was mailed to a national cross-section of Sweet's qualified architects, with a 31.6 per cent response. The 316 respondents reported details on a total of 741 remodeling projects for a total volume of $298,838,100—an average of nearly $400,000 per project!

Last month 12 Victorian houses like this one, all designated landmarks but unrenovated, were moved to a newly established historic district 13 blocks from their first sites, and will be sold to individuals by the Foundation for San Francisco's Architectural Heritage, which acquired them for that purpose.

Seattle's historic Pioneer Square, an area of red stone buildings built in the 1890-1910 period, has been restored to life and usefulness by the efforts of preservation buffs, historians, architects (Ralph Anderson was the first architect-tenant), artists and craftsmen. Fine buildings which had been derelict for years have been converted into offices, craftsmen's shops, and restaurants, with a respectable hotel in the offing. The square itself has been restored, thanks to a long crusade by architect Victor Steinbrueck, and a new mall has been created.



Architecture in reverse, or design by not doing design, is the description for this effort of Colburn, Kaji and Sheldon, Portland, Oregon, architects. An old building across from their office was being torn down to make a parking lot. Although the building was of no architectural pretentions, its loss would have made an inescapable gap in the block. The architects persuaded the owner to preserve the facade (backed with a steel structure) and to develop his parking lot behind it.

happen when "the people" really become upset about the character and human values they see being changed by new development. "Until very recently," she writes, "most people who care about architecture believed that a client who hires an exceptionally competent architect is by nature of that fact enlightened. . . . Back in 1964, when the Kennedy family commissioned architect I. M. Pei to design the John F. Kennedy Library, no one expected the eventual furor that the project was to cause. Who would have believed that so many citizens of Cambridge of every class and persuasion would so passionately oppose the gift to their community of a work of architecture by Pei commemorating a martyred President?" Who indeed—and this confrontation (and understanding the motives and attitudes behind it) will have real impact on architects and clients across the country.

This issue also contains three extraordinary portfolios—splendid examples of conservation at the neighborhood scale, and at the scale of individual buildings; and a reminder of the kind of building across the country that—unless we become better organized—are (alas!) sitting ducks.

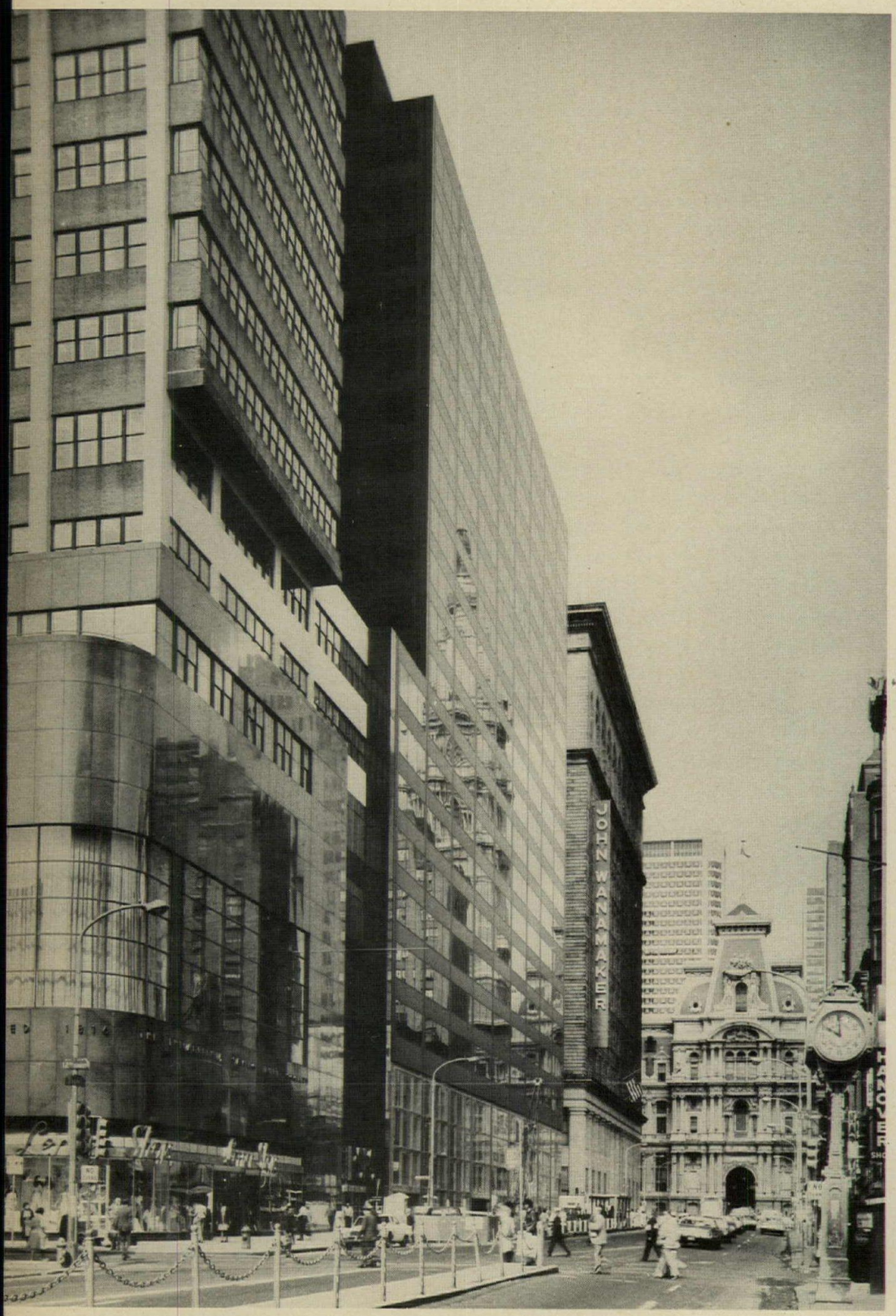
Beginning on page 88, Elisabeth Thompson explores five neighborhoods, each of which is being conserved in a different way: Philadelphia's Market Street East demonstrates that pockets of new development, sensitively handled, can enhance older adjoining buildings. The successful renovation and conversion of The Show Place!, a block-sized warehouse in a rundown industrial area of San Francisco, has led to the renovation and addition of three more buildings; and with this group as an anchor at one end and another handsome renovation, The China Basin Building, at the other, a large section of industrial San Francisco shows handsomely and profitably its potential for conservation. Retaining the character and context of an area certainly does not mean slavish imitation—indeed it may include, as at the Vancouver civic/cultural complex, an entirely new building of completely different but delightfully compatible design approach. Context can be natural as well as man-made, as at the base of San Francisco's Telegraph Hill, where sensitive architects are maintaining scale and character (and views) while building new apartment complexes. Finally, as in several New England towns, simple "fix-up" may be the best architectural solution.

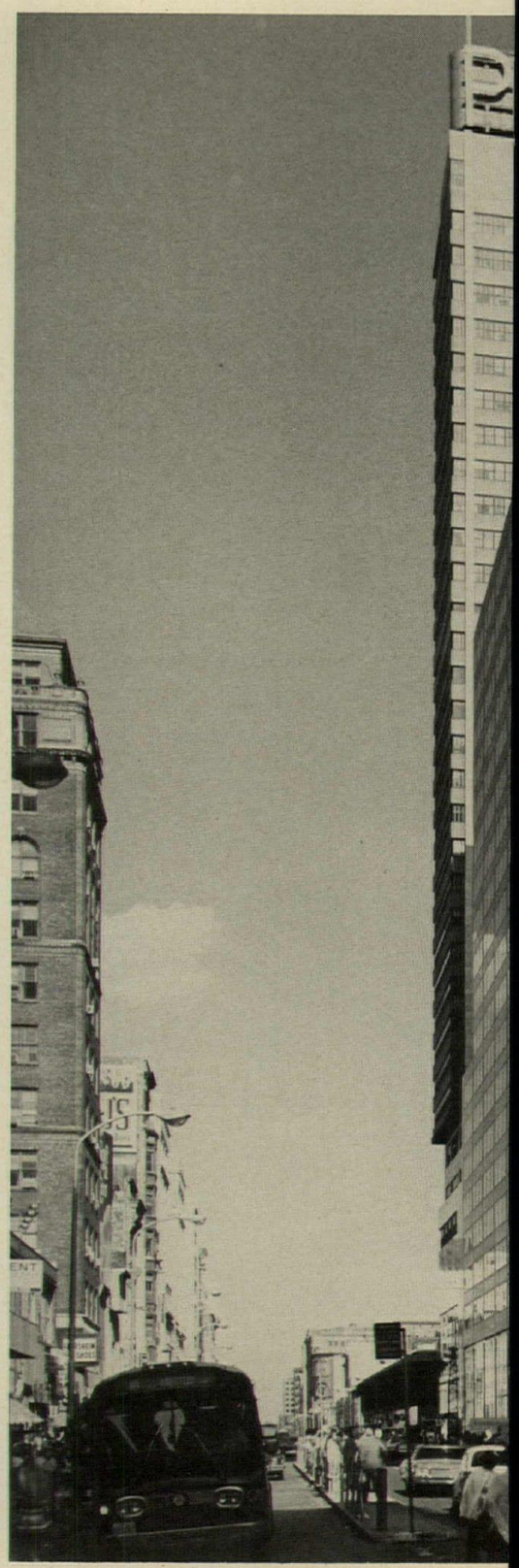
Beginning on page 110, Barclay Gordon has assembled a portfolio of six buildings—"each of which have outlived its usefulness by shallow economic determinants"—but which have vital new lives with skillful design and entrepreneurship.

And beginning on page 132, Charles Hoyt has assembled a portfolio of buildings in trouble that may serve to awaken interest in some less-than-landmark buildings in your area—but also shock you with the extent of demolition fever even in the midst of our new-found concerns. Item: Would you believe Radio City Music Hall is "a sitting duck?"

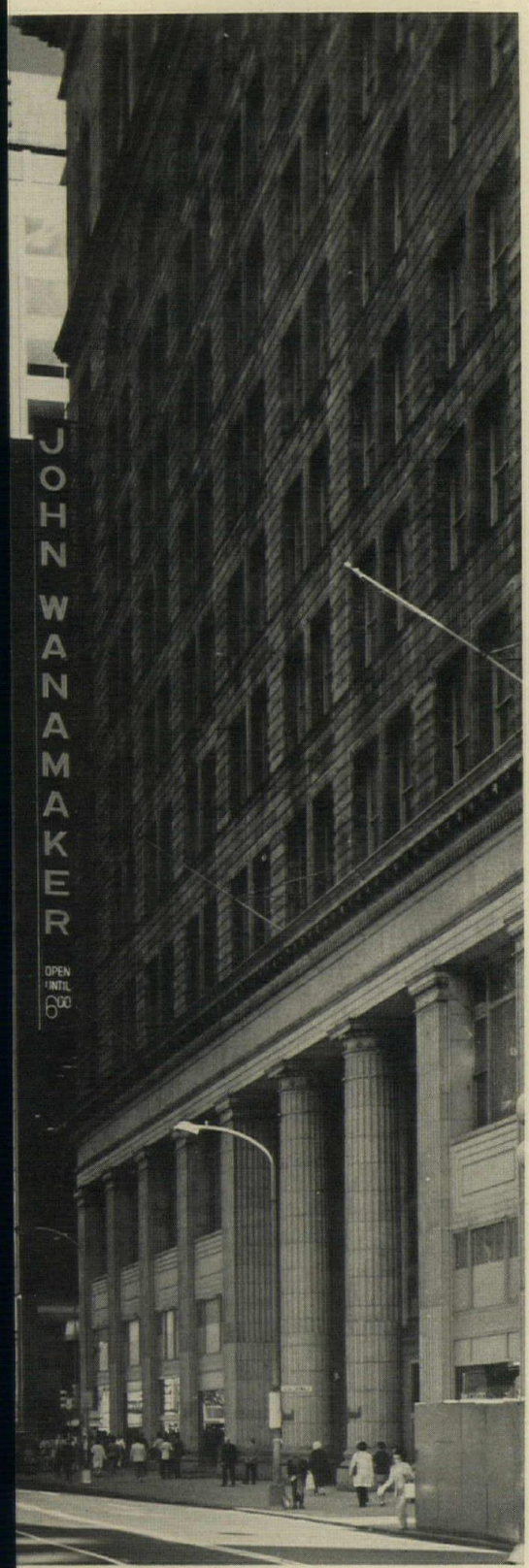
And finally, doesn't all of this interest in the past—by architects and clients and the public—hold some lessons for the architect designing new buildings? In his essay "Found: the world as a candy box" (page 126) Gerald Allen suggests that architects (the first to discover that Victorian houses are fun to live in) relax their reliance on the rulebook of Modern architectural theory and—sometimes looking backwards towards familiar images—see if there isn't more than one "correct" way. —*W. W.*

Preserving context at the neighborhood scale





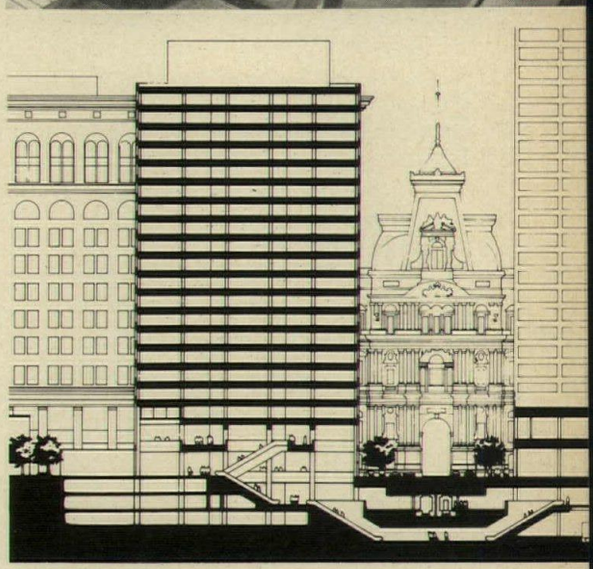
A building respects its landmark neighbors and fits into a plan for revitalizing an entire section of a city



The first major building in Philadelphia's Market Street East Transportation Mall Center—a 20-story glass-walled office building—is an excellent example of design which gives equal attention to the old neighbors (once an important architectural milestone) of the new building and to the integrity of the new building itself, a clearly contemporary design solution.

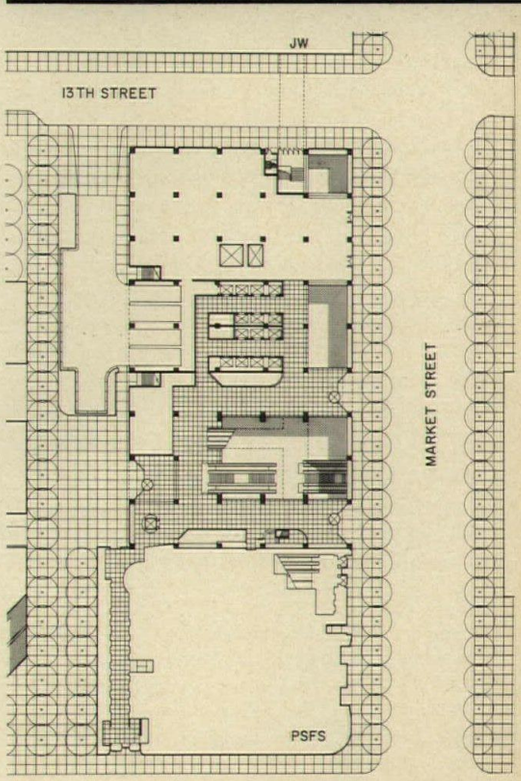
On one side of 1234 Market Street East, the new building, is a 1930 architectural landmark, the Philadelphia Savings Fund Society Building of George Howe and William Lescase, significant for its time not only as skyscraper design but also as an expression of the best in architecture of that period. On the other side is the much earlier John Wanamaker department store, a handsome building of classic derivation.

Between these two strongly individual and richly atmospheric buildings, 1234 Market East makes a quiet but confident architectural statement of its own time. The glass facade, clear at the base where the public spaces are located and dark for all the floors above, is so restrained and simple that it allows both older buildings to stand in undiminished dignity, respectfully observing the proportions and the lines of its neighbors without in any way diminishing itself.



In other ways, not visible from the street, 1234 Market East fits into its neighborhood, not only as it is, but as it is coming to be. The building, because of its location in Philadelphia's big Transportation Mall Center project (RECORD, April 1974, pages 146-149), acts as a link in the three-level pedestrian walkway system which leads to a variety of transportation means, and along a skylighted shopping mall. It also connects with the PSFS Building (its original design had anticipated a below-grade concourse) and the Wanamaker store, both below and above the street.

The clear glass base of 1234 Market East is not only a break with the two older buildings but a means of disclosing the real function of the street level of this office building: it is public space more than it is a lobby, designed to work integrally with the transportation mall concept, moving people in off-the-street spaces both vertically and horizontally.



1234 MARKET STREET EAST, Philadelphia, Pennsylvania. Owner/developer: *1234 Associates.* Architects: *Bower & Fradley, George M. Ewing Co.* Engineers: *George M. Ewing Co.* Lighting consultant: *Sylvan R. Shemitz & Associates.* General contractor: *Turner Construction Co.*

Old buildings in an urban industrial area revive a decaying part of a city and provide new commercial locations

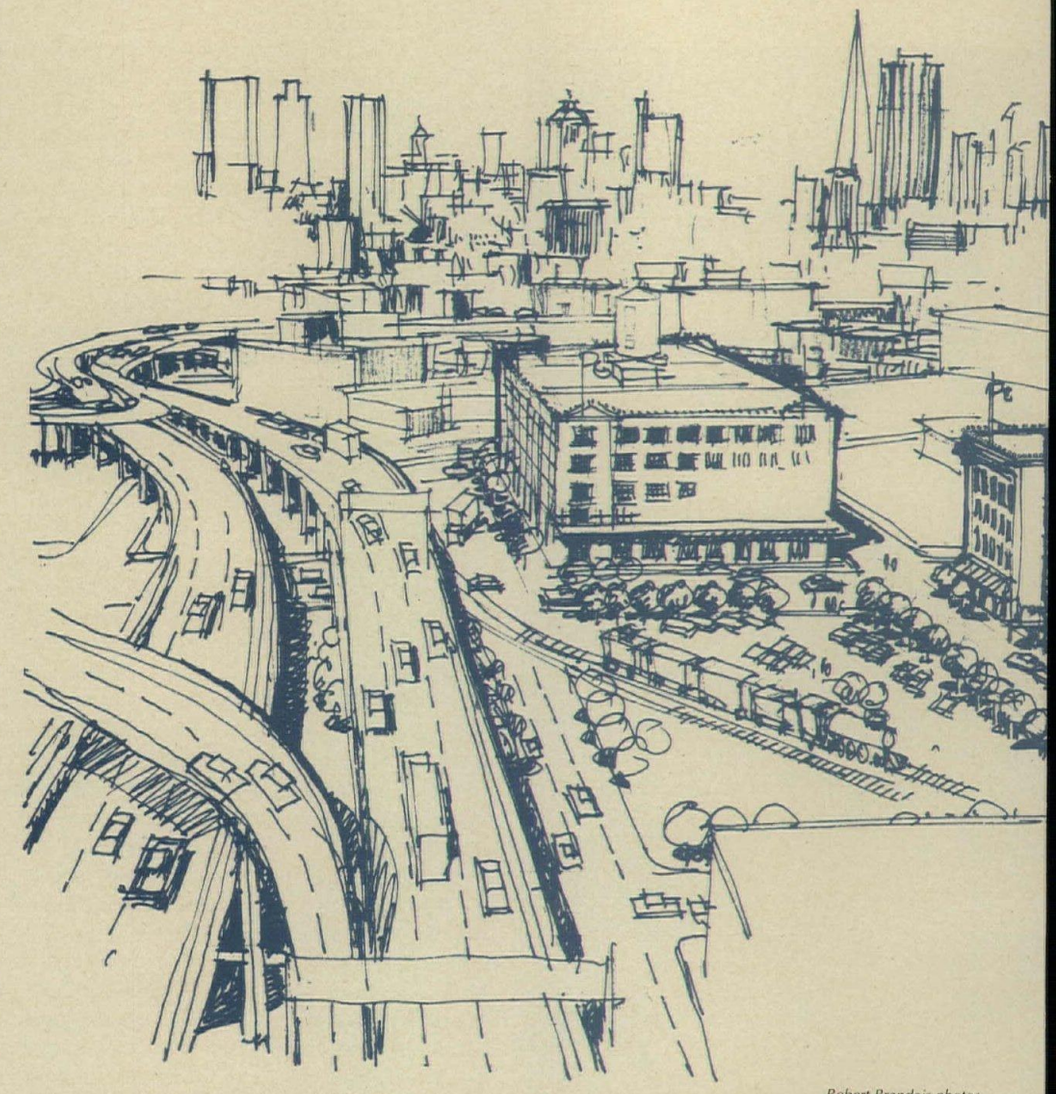
Until very recently, older industrial buildings did not attract developers of new commercial areas, yet these old buildings had and have great potential for new business neighborhoods, often with a built-in picturesqueness hard to achieve in other parts of cities. Their intrinsic values are often both esthetic and practical, for the warehouses of the late 19th century were often handsome buildings of architectural strength, as well as sturdy construction, and even their later counterparts of the early 20th century have virtues that the imaginative eye can find. Furthermore, these old buildings enclose a volume of space that cannot today be economically equaled, and they are, therefore, unique opportunities for conversion to new and contemporary uses.

San Francisco has been notable for such conversions in Ghirardelli Square, The Cannery, The Ice House and, much earlier, Jackson Square—all successful and profitable projects. The developer of the Ice House has now carried his experience and success across Market Street (the City's main thoroughfare) into a frankly industrial part of the city, where a 1916 block-size warehouse was converted to provide contract furnishings display-space. The Show Place!—as it is called—has been so successful that the same developer is now developing three handsome old brick buildings across the street into an office and display space complex called The Design Center.

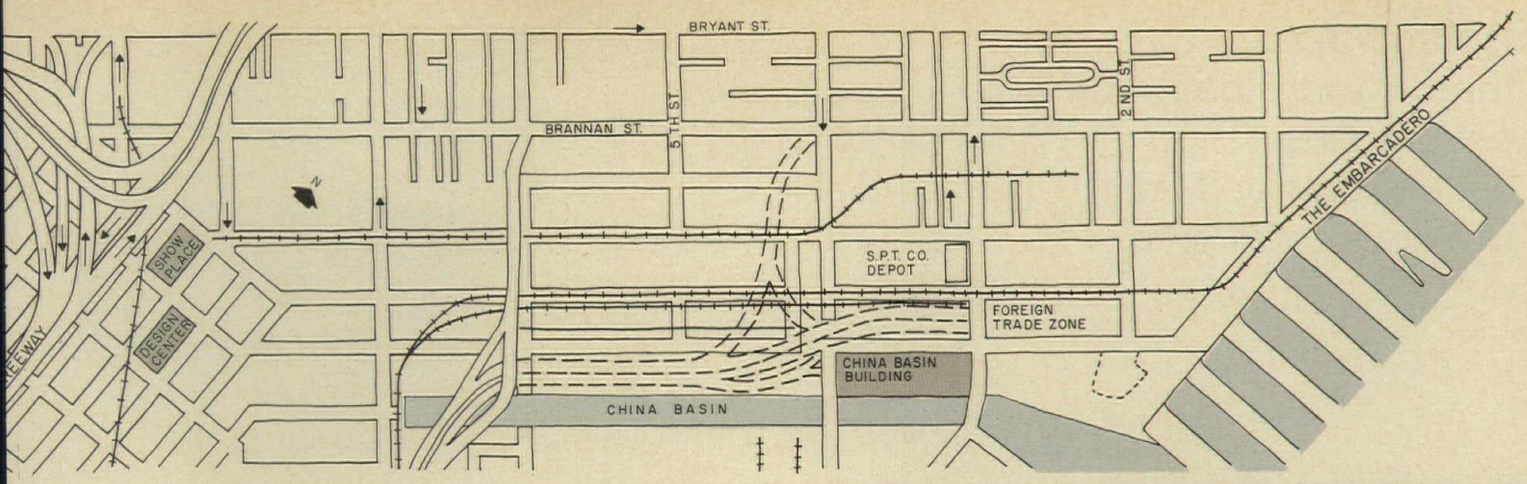
With The Show Place! and The Design Center at one end of an extensive industrial area from which many businesses have already moved because of high land values or obsolete plants, and with a strong and good-looking office building project called China Basin Building as the other anchor, a new neighborhood is being created. Bold color and graphics, effective landscaping, and a new waterside plaza for sitting and eating, have transformed the neighborhood. Flexible interior space and access to freeways and transportation make it attractive to tenants from other parts of town.

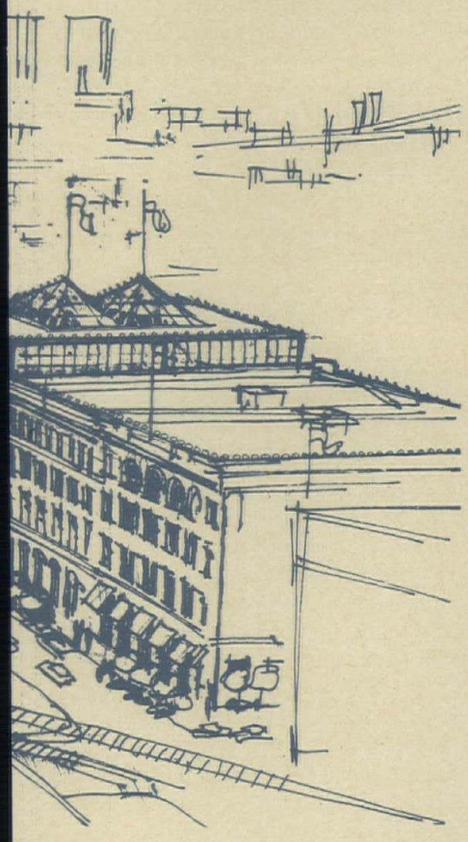
CHINA BASIN BUILDING, San Francisco, California. Architects: *Robinson and Mills.* Engineers: *Bentley Engineers.* Landscape architect: *Frank Peccorini.* General contractor: *Turner Construction Co.*

THE SHOW PLACE! AND THE DESIGN CENTER, San Francisco, California. Owner: *Henry Adams & Company.* Architects: *Taylor/Huston.* Engineers: *GFDS Engineers* (structural); *David Ovenden & Associates* (electrical); *Harding-Lawson Associates* (soils); for The Design Center. General contractor: *Ralph Goldenberg, Inc.*

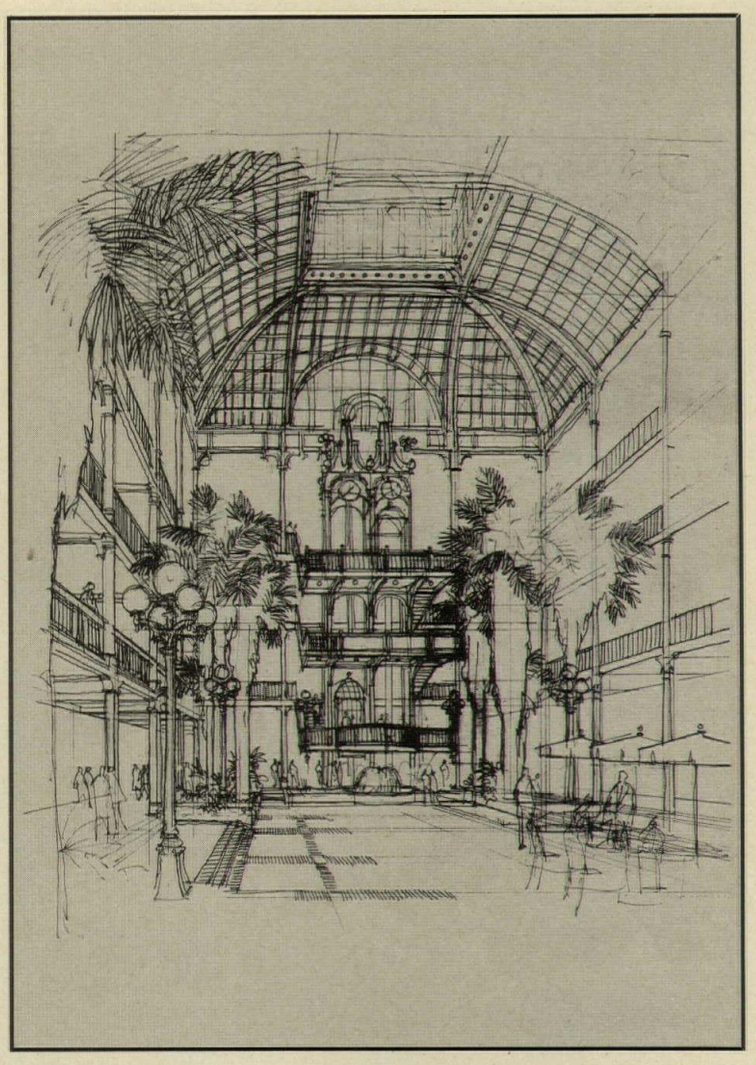


Robert Brandeis photos

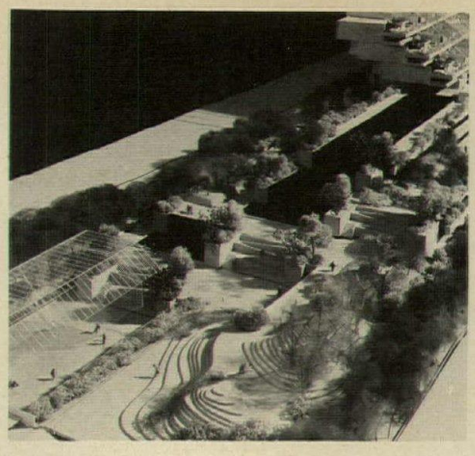


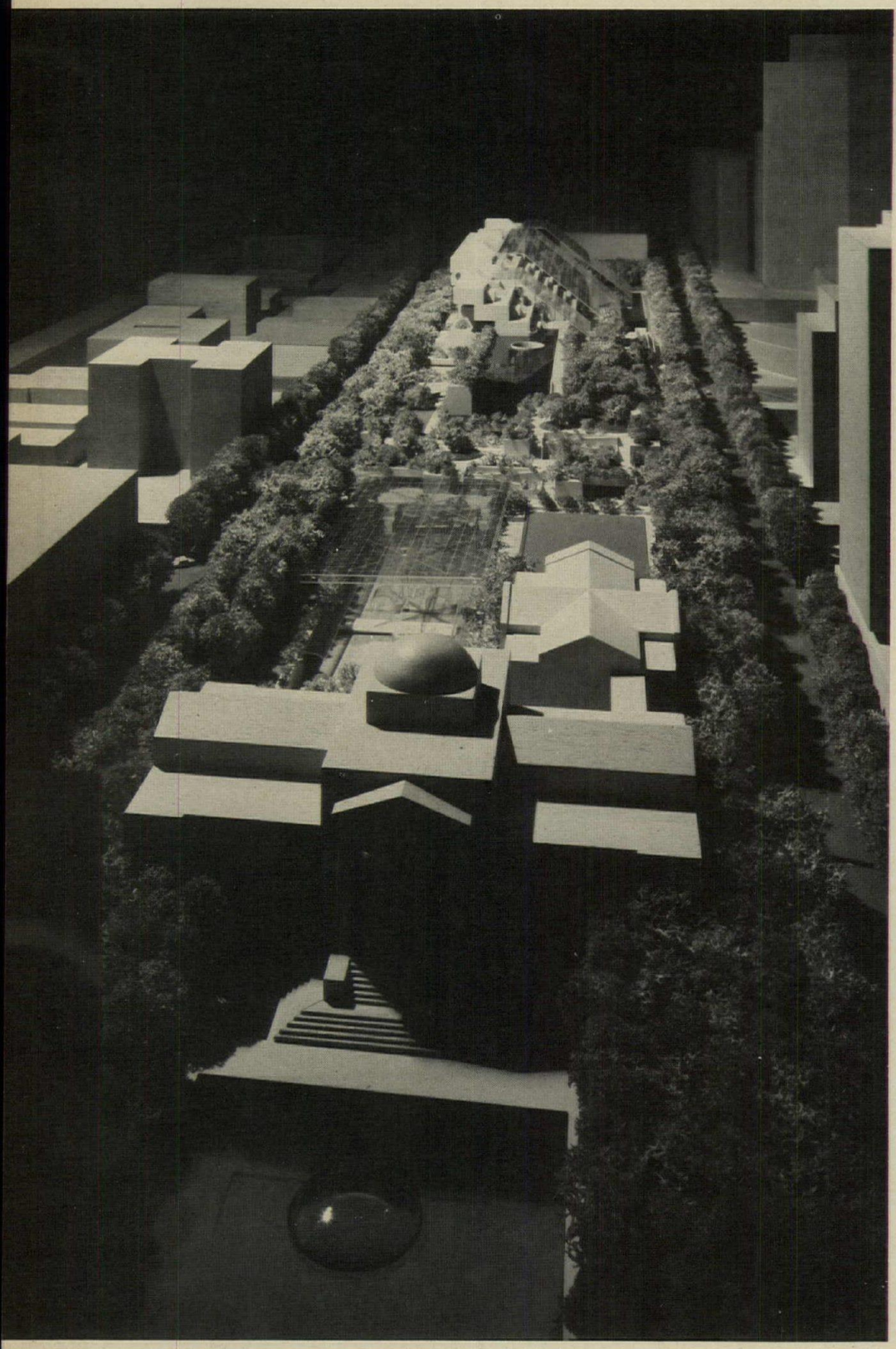


The projects illustrated here are all in San Francisco's south-of-Market-Street industrial area, where gradual rehabilitation of old, structurally sound buildings is giving new life to buildings long vacant. One of the first conversions from industrial to commerical use was The Show Place!, where contract furnishings companies can display their merchandise. Built in 1916, the one-time warehouse, imaginatively redesigned, has been successful enough to spur additional development in the block diagonally across the street. The large perspective drawing shows The Show Place! at right, and The Design Center—three handsome buildings currently being renovated for display space use—at left. Proposed for the empty lot between the first and second buildings is a skylighted landscaped court to serve as the focal point for the center. These four buildings are at one end of the area. At the other end is a huge structure, China Basin Building, 825 feet long, once a storage and distribution plant. In remodeling it, the architects broke its massive scale by dividing it into four quadrants, each separately entered, and painted the exterior a deep blue.



A three-block, three-dimensional park unifies old and new buildings in a downtown area





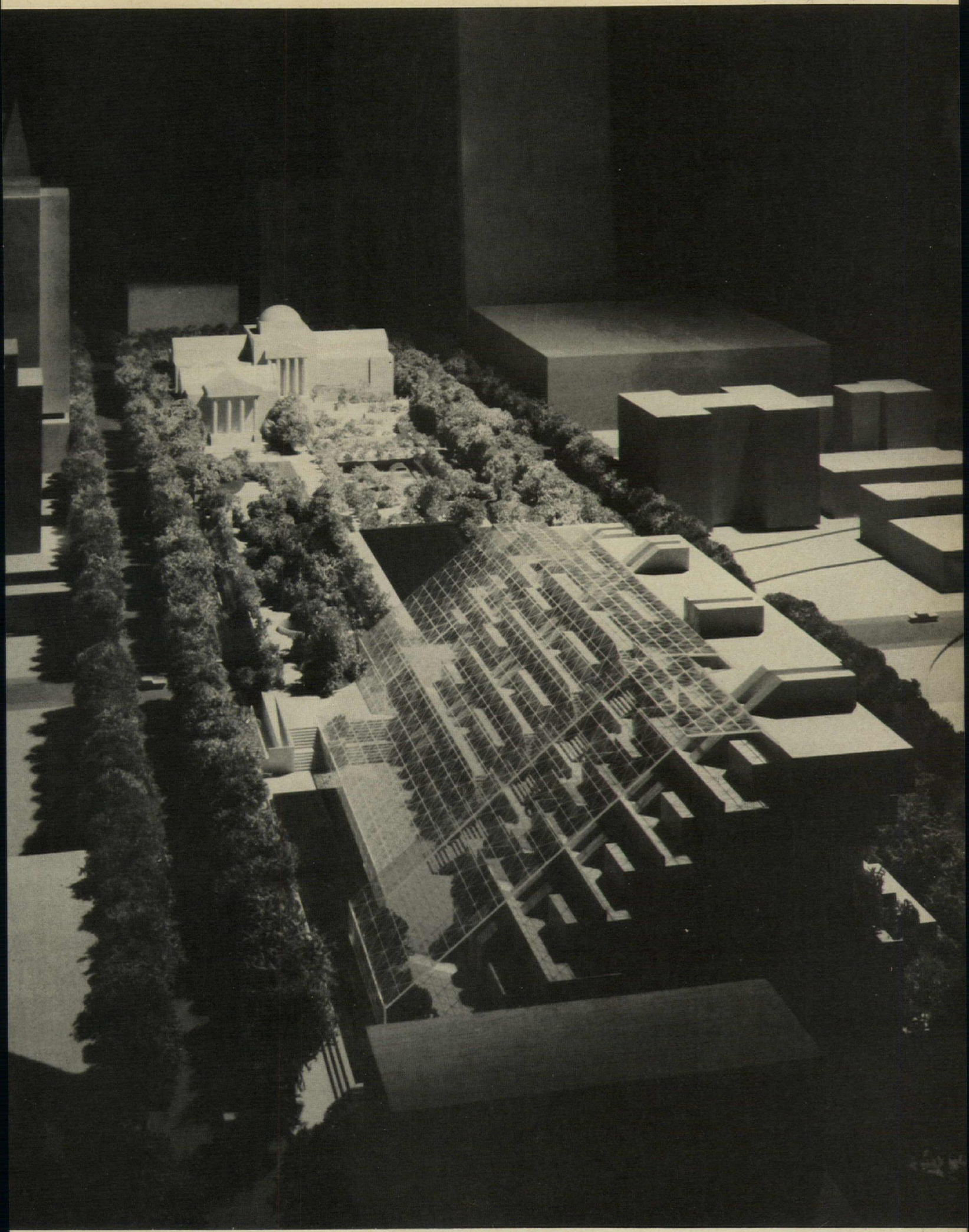
The 51-61-71 project in downtown Vancouver, British Columbia, is part conservation, part new development. It includes preservation of the old courthouse and its formal plaza, with conversion of the building to civic/cultural uses, and construction of a new courthouse at the far end of the new three-block-long park which is to be developed on three blocks behind the old building.

Each of the three blocks of the park will have quite specific functions—51, for instance, will be essentially a civic-cultural complex; 61 will contain a low building with public roof gardens for the Provincial Government; the new Law Courts Building will be on 71—but the concept of the park as three-dimensional is the governing factor in the design. The buildings are important in themselves, but in the over-all plan, they are elements, not dominants. It is the park that becomes the unifying means of relating old and new, open and closed space, high and low building levels.

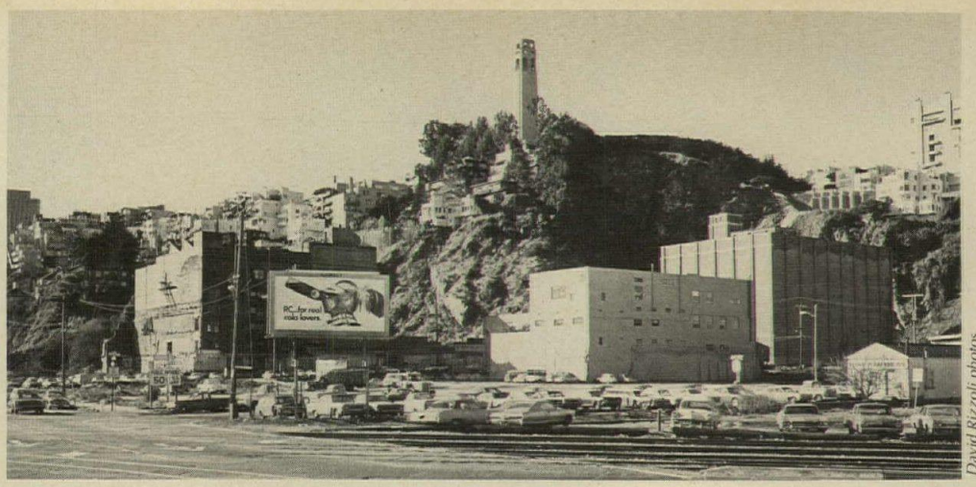
The concept of the complex as a park directly reflects the stated wishes of Vancouver's citizens, who expressed their desire for a place for public gathering, for outdoor events such as art and craft shows, for ice skating in winter and sculpture shows in summer. They also wanted an art gallery and performing theaters. The "three-dimensional park" provides for all these, with the art gallery and the performing theaters in the converted old court house, and the sculpture court adjoining it. There are many open spaces for gatherings and for shows of various kinds. The Provincial Government Services Center is to be a low building designed as a series of roof gardens.

The most dramatic structure in the complex will be the new Law Courts Building, a terraced building with a sloping glass roof through which there are views to the North Shore Mountains. With careful regard for scale, the height of the new building has been kept to that of the old.

51-61-71 PROJECT, Vancouver, British Columbia. Architects: *Arthur Erickson Architects.* Engineers: *Bogue Babicki & Associates* (structural); *Reid Crowther & Partners, Ltd.* (mechanical); *W.T. Haggert & Co. Ltd.* (electrical); *Morgan A. R. Stewart & Co.* (engineers and surveyors). Consultants: *William Lam Associates Inc.* (lighting); *The Environmental Analysis Group* (programming). Director of design for Government of British Columbia: *Walter W. Ekins.* Construction manager: *Concordia Management Company Ltd.*



A new development designed to preserve the scale and context of a special kind of residential area



David Rizzoli photos

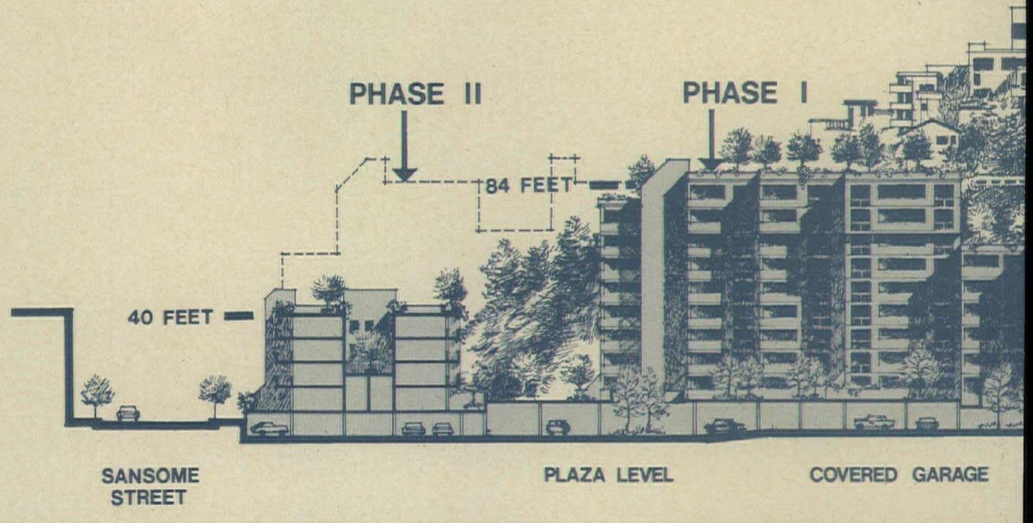
Natural landmarks, often important design elements in cities, present urgent design problems in scale and character for any new development nearby. When these problems are understood and sensitively handled, growth and change are acceptable events in urban life.

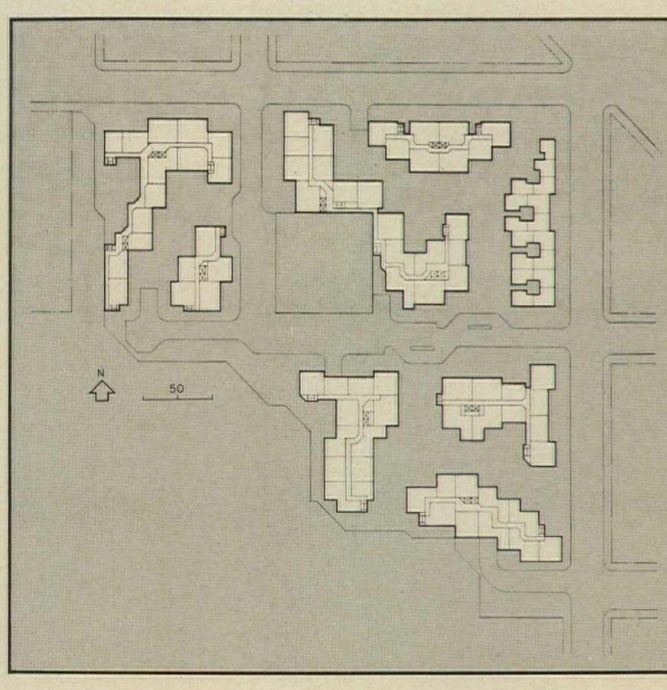
San Francisco's Telegraph Hill presents such a challenge. The residents of the Hill, deeply concerned with conserving those aspects of the area and its surroundings that make it precious to them, have successfully fought down a number of proposals which in their view would have materially altered both character and scale of the neighborhood.

But the problems of Telegraph Hill's scale and character are complex: on the Hill itself, below Coit Tower, are both single-family houses of varying size, and low-rise apartment buildings, so placed on the slopes that they seem integral with them. At the base of the Hill is the North Waterfront industrial area, with bulky warehouse buildings rising as high as 90 feet. Of recent years, the most sought-after sites for new development have been at the base of the Hill, where some sites have been razed and others hold only empty buildings.

The problem on new buildings is that Hill residents are little disposed to look down on and across new roofs of commercial or residential projects unless they are convinced that what they will see neither offends nor obstructs their outlook. As a consequence, the developers of Telegraph Landing, a residential complex of 600 units at the foot of the Hill, wanted a design which would be economical for them to build, satisfy the Hill residents, and need no variances from stringent height limits.

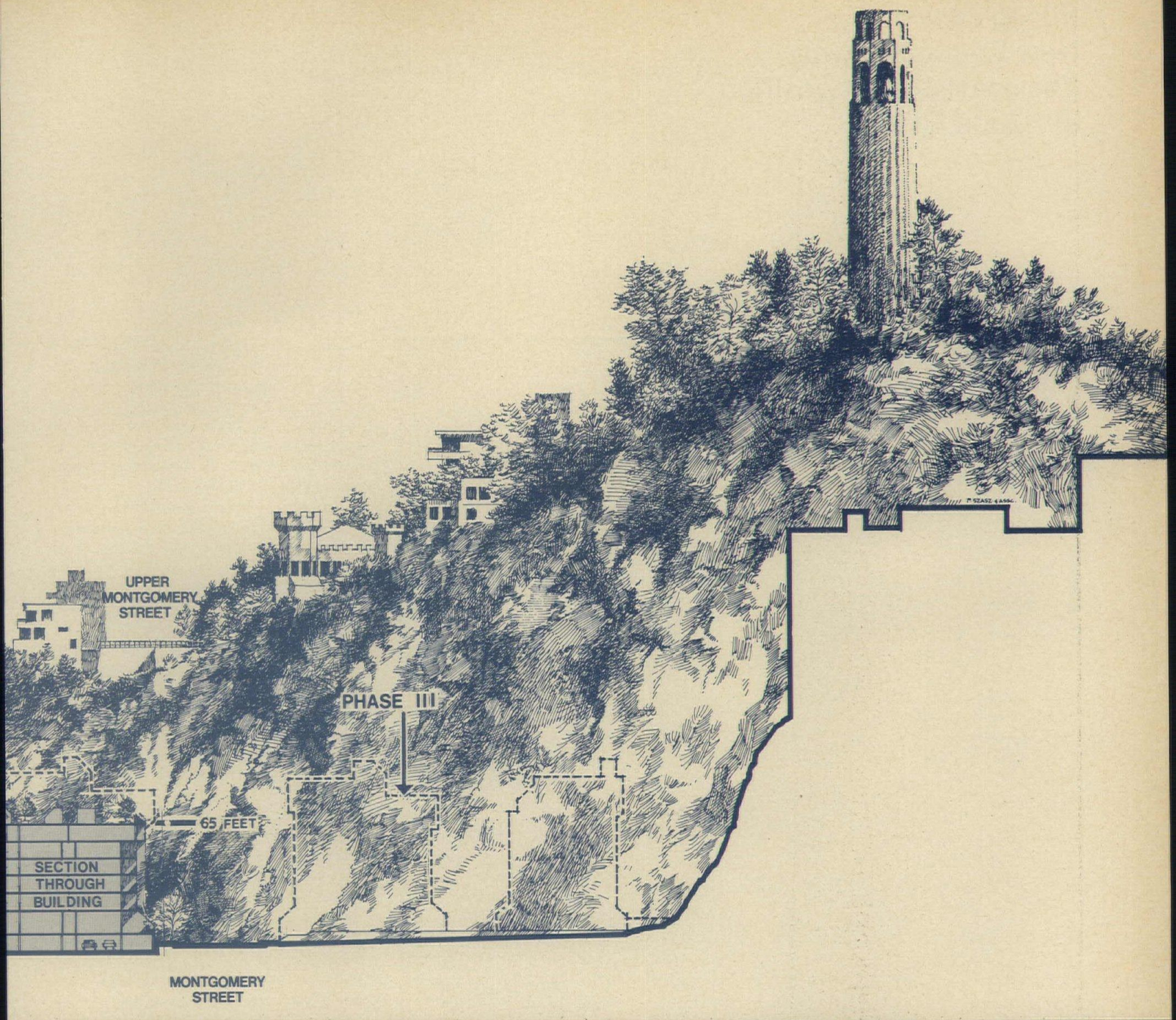
The solution by architects Bull Field Volkmann Stockwell—and their handling of conferences with neighborhood groups—met all three requirements, and produced what will be, on completion next year, a handsome, integral new part of the Hill community. Elevator penthouses were located in basements, and roof gardens were designed for rooftops of lower buildings to make the view from above as pleasant as possible, an effect enhanced by varied building forms and staggered heights.





Telegraph Hill got its name from signals sent from its summit to announce the arrival of ships as they came through the Golden Gate. Departing ships often needed ballast which was provided by rocks quarried from the side of the hill. One of these quarries forms the backdrop for Telegraph Landing, the first phase of which is now under construction. The scale of the small houses and flats that now cover the hill, combined with the height limits set a few years ago, where strong design determinants—and constraints—which were resolved within zoning envelope by the variation in building (and unit) types and heights, and in facade articulation and materials.

TELEGRAPH LANDING, San Francisco, California. Architects: *Bull Field Volkmann Stockwell.* Engineers: *George S. Nolte & Associates* (civil); L.F. Robinson & Associates (structural); *Montgomery & Roberts* (mechanical). Landscape architects: *Royston Hanamoto Beck & Abey.* General contractor: *Cahill Construction Co.*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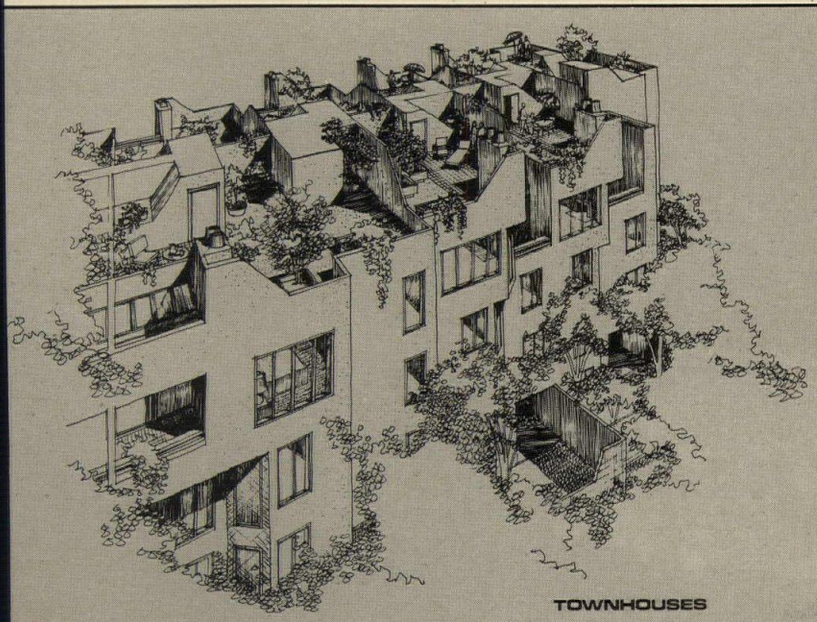
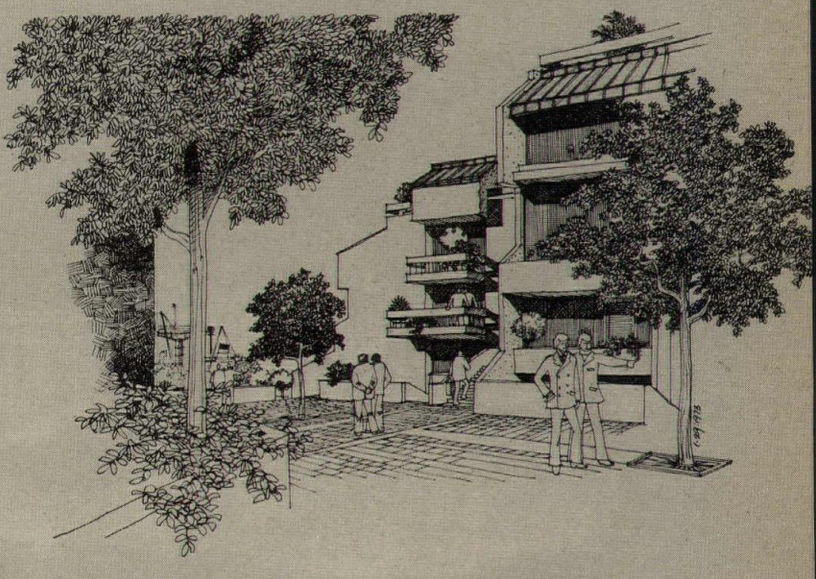
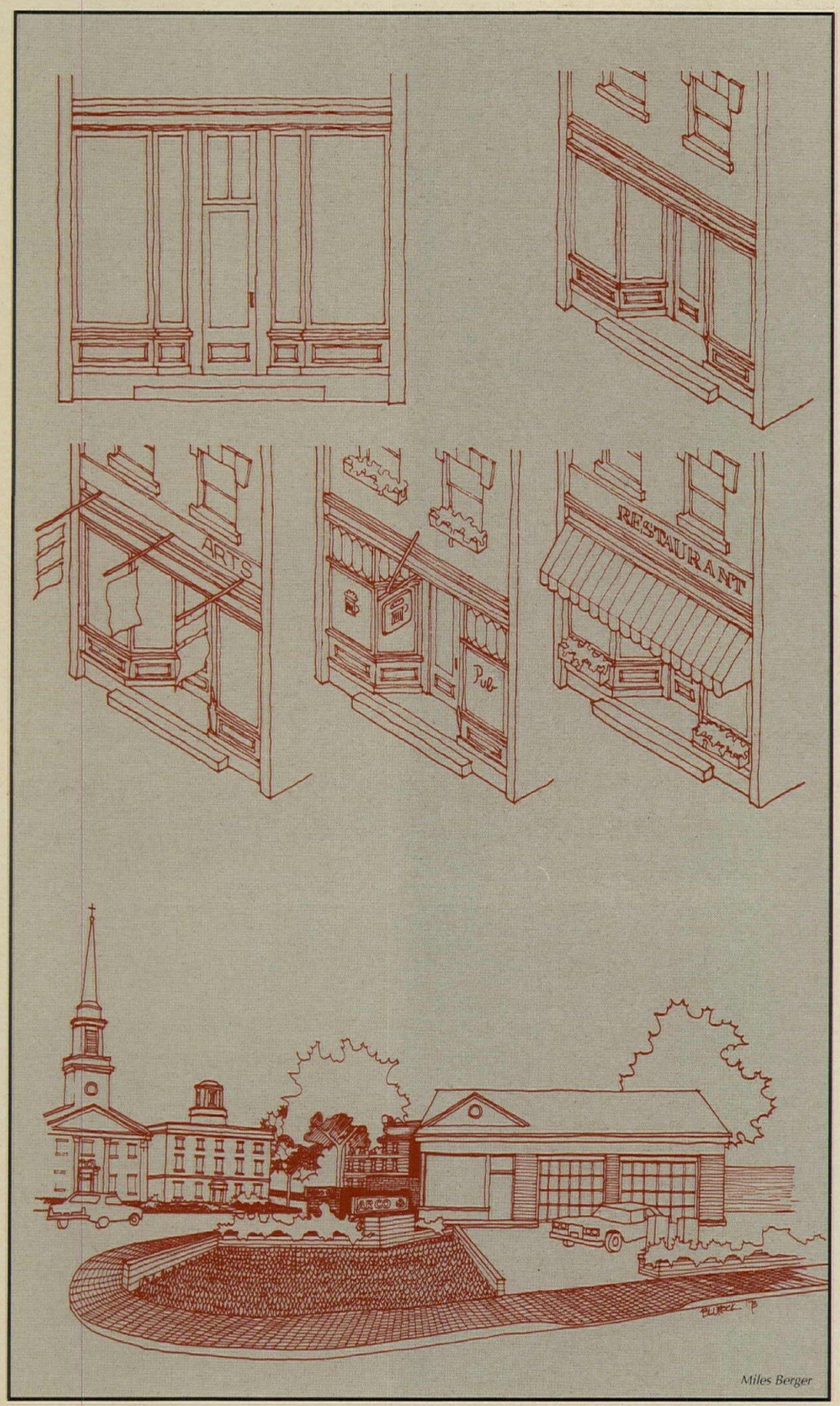


TOWNHOUSES



Fixing up four New England towns: The consistent imposition of "Good Taste"



Miles Berger

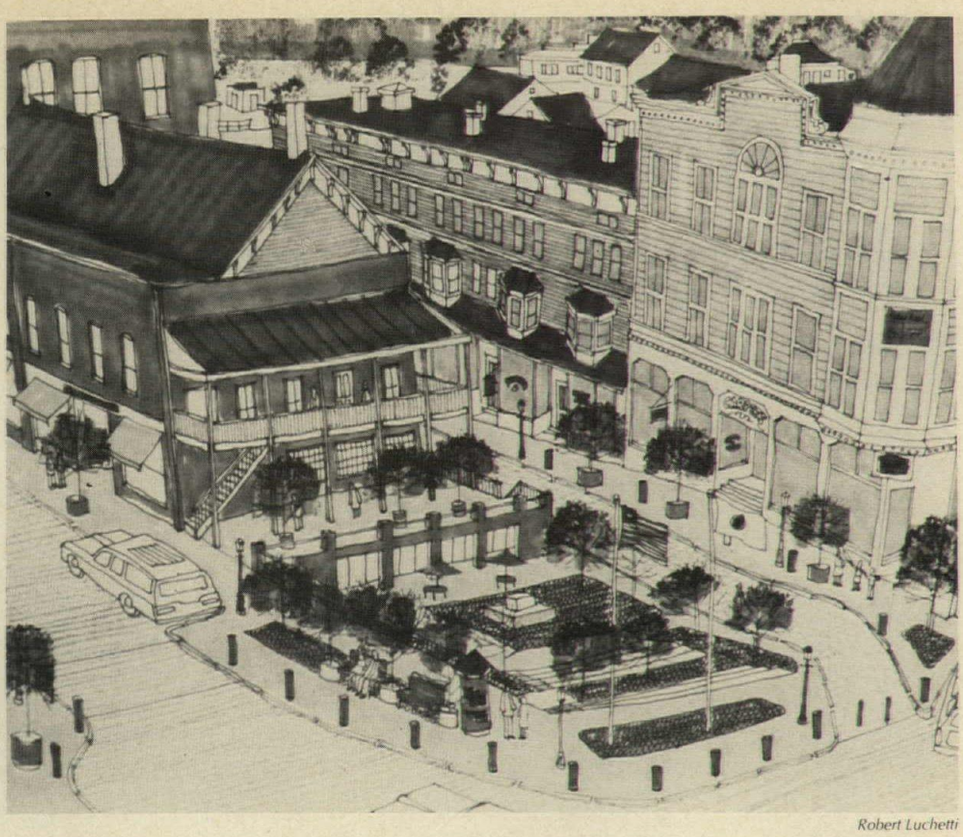
The project shown previously on pages 92-93 is a bold effort to "renew" downtown Vancouver by adding a starkly modern building, in what is hoped will be a consonant way, to the existing town fabric. The projects shown on these pages reveal an altogether opposite approach. Vision, Inc., the designer, is a nonprofit public foundation based in Cambridge, Massachusetts, whose conservation energies get directed into three different realms: advocating community sentiments to planning authorities, counseling corporate clients on the impact their buildings have on towns, and actually designing town preservation schemes.

Vision, Inc. takes to a fare-thee-well Michael Seelig's assertion (see pages 106-109) that townscape conservation is an asset to planning; the designs shown here all reflect the conviction that existing towns are basically all right, but superficially marred by garish additions (like big neon signs) or unfortunate subtractions (like buildings torn down to make a parking lot).

Vision feels it has ready solutions. The directions which accompany the adjacent storefront details, for instance, go: "1. The original design, materials and details should be used wherever possible. 2. A facade should not be made to look older than it actually is; colonial details on a Victorian facade only look artificial and do justice to neither style. 3. The introduction of modern elements to the facade must be done with extreme care so as not to violate the original intent of the building." Similarly Vision's project for a gas station renovation in Portsmouth, New Hampshire, seeks to tame the building's commercial image by removing the large signs, hiding the pumps behind brick retaining walls, and planting daffodils and chrysanthemums—in some cases the best solution in the world.

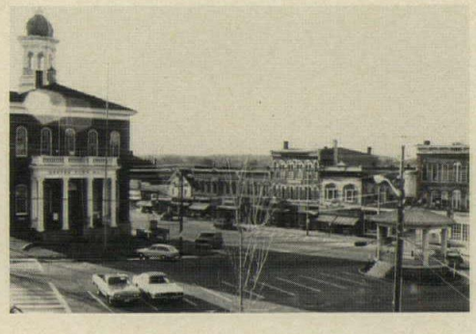
All this makes sense, and, at best, the results can be very handsome. At worst, though, Vision's efforts can be repressive, for, as every good lawyer knows, it is hard to devise a set of clear and simple rules that accommodate the unruliness of human desire, good or bad. But what Vision has done, and is energetically continuing to do, is to focus attention on the values of existing townscapes, particularly in small towns, which have a rich stock not only for good buildings, but good *places*.

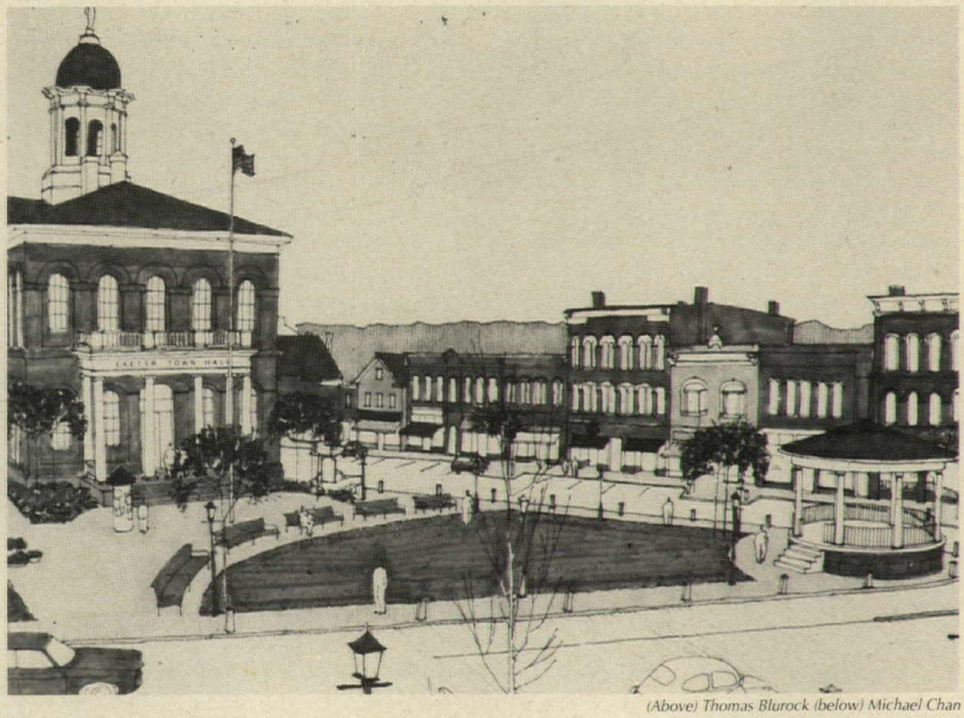
TOWNSCAPE DESIGNS, Portsmouth, New Hampshire, Bellows Falls, Vermont, Exeter, New Hampshire, Middlebury, Vermont. Project consultants: *Vision, Inc.*



Robert Luchetti

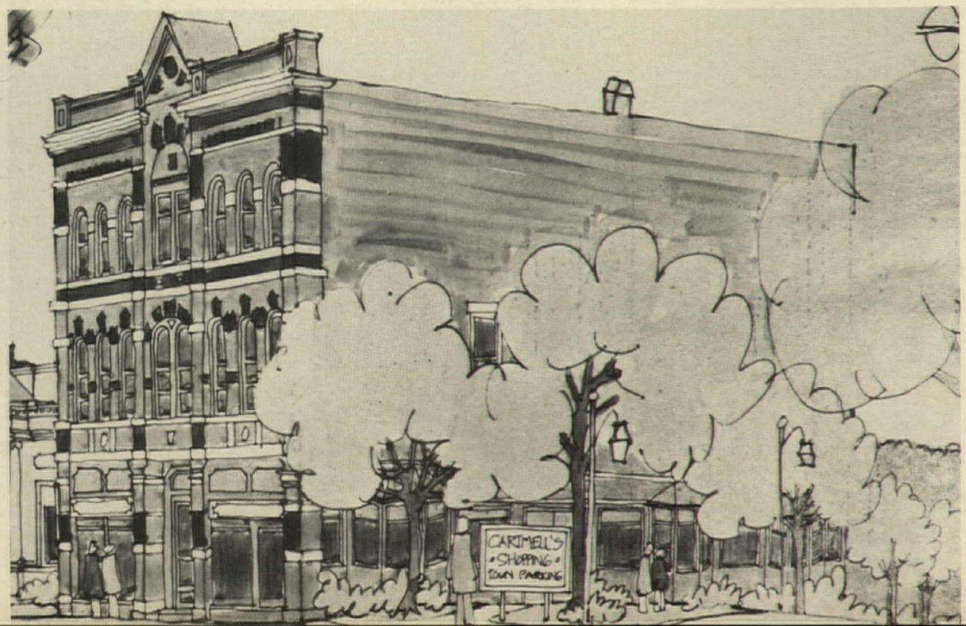
Vision's vision for a street corner in Bellows Falls, Vermont, involves the removal of an existing building and replacing it with a small sunken plaza; the building then facing the plaza would sprout an old-fashioned two-story porch, from which its occupants could view the passing pedestrian scene.





The Town Hall of Exeter, New Hampshire, now faces an open parking area; Vision would remove the parking and substitute a park. Note how, in the rendering, power lines have been removed, and how the cacaphonous details of the storefronts have been replaced by visual consistency.

(Above) Thomas Blurock (below) Michael Chan



Middlebury, Vermont, has a familiar snaggle-tooth problem along one of its streets; Vision's designers attempt to fill the gap by planting a row of large trees which (in summer, at least) would continue the line of the building facades along the street.

Getting ready for the John F. Kennedy Library: Not everyone wants to make it go away

Conservation of neighborhood values means different things to different people. More and more architects are being faced with sophisticated yet conflicting community reaction: a case example—

Until very recently, most people who care about architecture believed that a client who hires an exceptionally competent architect is by nature of that fact "enlightened." Such a client was assumed to have the public interest strongly in mind. By hiring a fine architect he was believed to be making a significant contribution to the environment, whatever the nature of his project. The exceptionally competent architect cut an even more heroic figure in the popular imagination. By the very act of interpreting and transforming his client's needs and desires into a building, such an artist was enhancing the physical world—or so it was believed. Back in 1964, when the Kennedy family commissioned architect I.M. Pei to design the John F. Kennedy Library, no one expected the eventual furor that the project was to cause. Who would have believed that so many citizens of Cambridge of every class and persuasion would so passionately oppose the gift to their community of a work of architecture by Pei commemorating a martyred President?

There have been two designs which have been successively unveiled to the public. Little has been said about the formal esthetics of the complex itself as expressed in either design, except that the first was too "monumental" and grandiose. It seems to be assumed that any building designed by Pei will at least be good looking and spatially exciting, but this is no longer enough. The Cambridge community has been goaded into finding its voice over such issues as excessive tourist impact, traffic congestion, inadequate parking, and runaway development with its potential for destroying the scale and character of Harvard Square and adjacent neighborhoods.

Thoughts and feelings about this Kennedy gift to Harvard and the citizens of the United States are highly polarized. Although on the one hand there are plenty of citizens who are so adamantly against the Library that they are ready if the time comes to go on hunger strikes, lie down in front of bulldozers and tie themselves to trees, there are others who see the Library as an important catalyst for the regeneration of Harvard Square in particular and the City of Cambridge as a whole. The opponents, so far, are making a strong case.

"J.F.K. would hate it too," the Library's opponents claim

The arguments of those opposed are based on subtle and complex issues as well as obvious and simple ones. Opponents point out that the Library is really a museum designed as a major tourist attraction and hardly a library at all. I.M. Pei's second design, greatly reduced because of the combined pressures of inflation and citizen protest against its monumental scale, was presented last June. It is now about one-third smaller in bulk and half the height of the first scheme. What got pared were the auditoriums and more importantly the archives. Father Richard J. Shmaruk, an associate pastor at St. Paul's Church in Cambridge and a member of the Harvard Square Development Task Force puts it strongly: "In order to salvage the museum, which we now see as the big thing, the Kennedys will be leaving 16 million documents in Waltham and bringing in only six million documents which the scholars presumably will use. This has opened our eyes. The Kennedys want people, droves of people to come to a new kind of Disneyland. The scholars can go to Waltham. This emasculates the President's dream—it has become a mockery, a farce, a facade."

Other thoughtful persons, who loved President Kennedy, point out that a museum was not what he had in mind when he expressed the wish to establish his library at Harvard. They remind people of Kennedy's fondness for understatement as expressed most often in his wit, and assert that this man would have wanted a simpler memorial in which scholars would congregate, protected from the vulgar sell of tourism.

Harsher critics ask if it is seemly for the Kennedys to help themselves to a site which is literally one-half of the gateway to Harvard. As one approaches the University by car from Boston by driving west along Soldiers Field Road, a beautiful vista unfolds along the Cambridge side of the Charles River. It consists of the neo-Georgian residential colleges along Memorial Drive—Eliot, John Winthrop and Dunster. Driving across the Lars Anderson Bridge they appear on the right with the handsome old Weld Boat House in the foreground. On the left are the Metropolitan Boston Transit Authority's unsightly trackless trolley yards surrounded by an ugly wall, and it is here that John F. Kennedy will have his memorial.

The Kennedys have shown before that they have a strong sense of the evocative power of a particular kind of place. The noble Kennedy grave site at Arlington National Cemetery is proof of this. The simple tombs of the Kennedy brothers on the grassy slope crowned by the beautiful portico of the Custis-Lee Mansion have a symbolic value which is immensely enhanced by their axial relationship to the Lincoln Memorial and their oblique juxtaposition to the axis connecting the Washington Monument to the Capitol Dome. This gravesite puts John F. Kennedy in the pantheon. It will help him go down in history as one of the greats, in defiance of a fate which took his chance away.

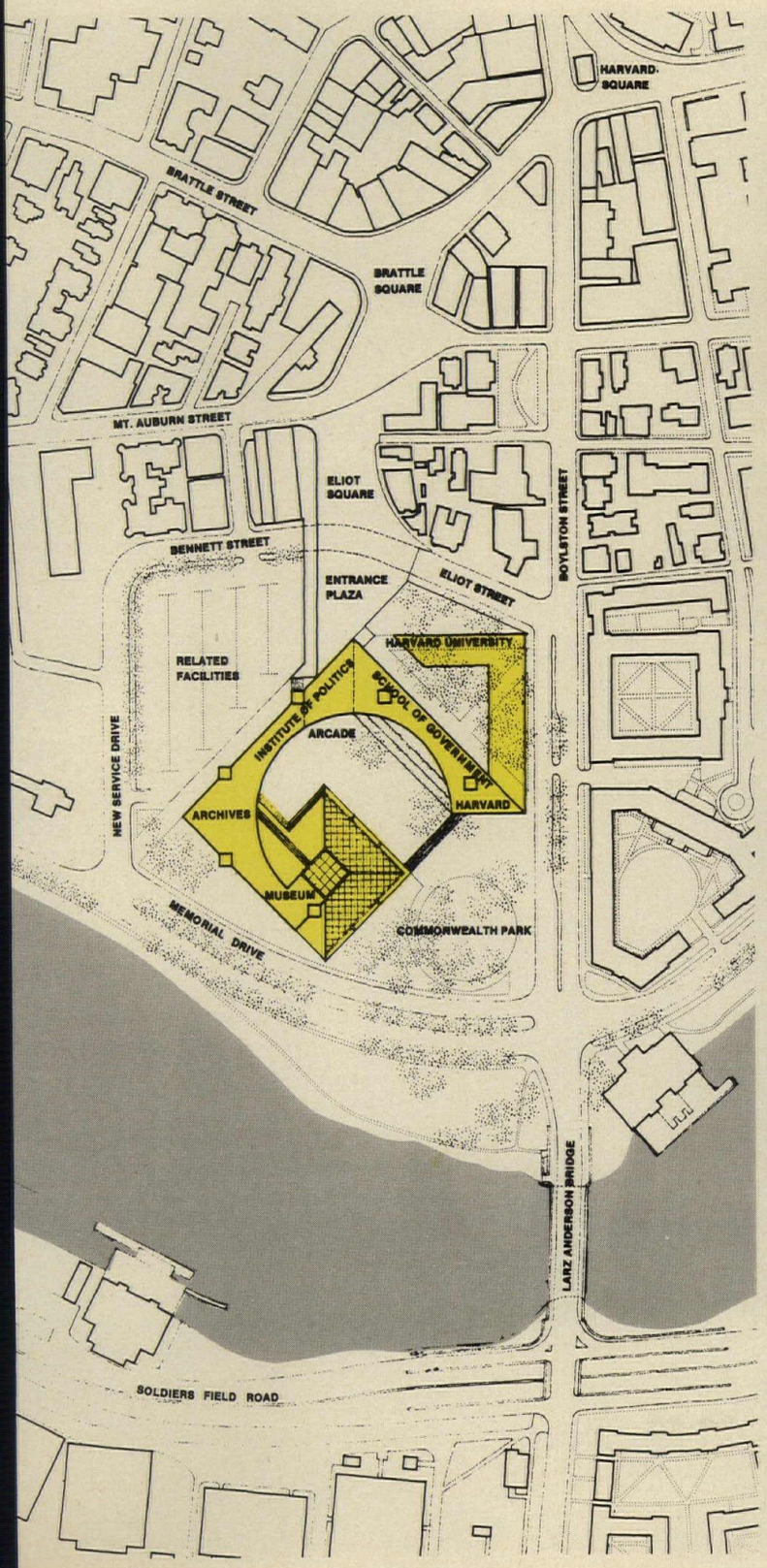
The Kennedys, understandably, want to do it again—at Harvard. But Harvard has produced other presidents, most notably Franklin Delano Roosevelt, whose long incumbency shaped history. His library is modestly housed at Hyde Park, N.Y. The Kennedy Library is overblown and pretentious like the Johnson Library in Austin, the argument runs. "Cambridge is not Texas!" is the battle cry. These critics say they will accept the archive on the MBTA site, but think that the museum does not belong on the Harvard campus, and certainly not at its gate.

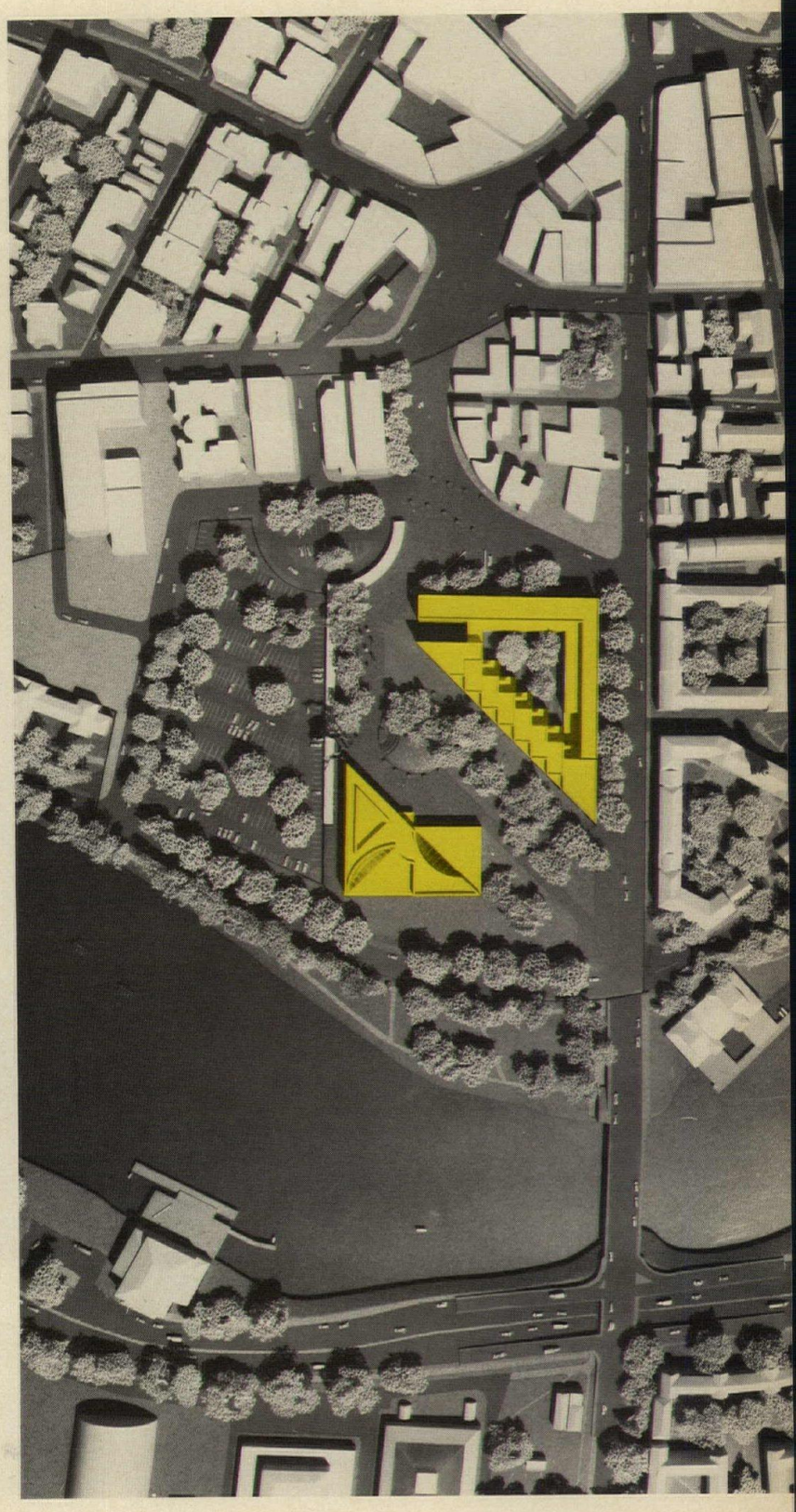
Too many tourists and no place to park

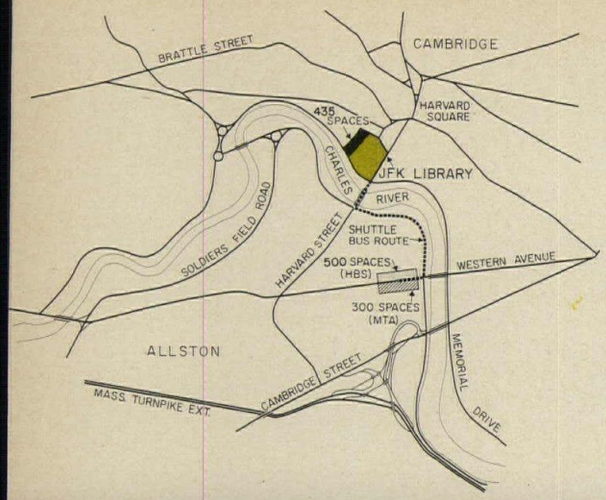
Several worried opponents of the Kennedy Library have spent their holidays visiting other Presidential libraries. They have reported back to the Cambridge community that each of these libraries has a special parking area for buses, trucks, campers, trailers and motorcycles. There have been first-hand reports of parking lots containing—in the words of Cambridge community leader Martha S. Lawrence—"elaborate homes-on-wheels, a substantial percentage carrying or towing cars, beach buggies, bicycles, motorcycles or boats. These are the vehicles Americans travel in," she has discovered, "and travel to the libraries is certainly something Americans do. The day I was at the Truman Library there were cars—or whatever!—from 29 states; at the Eisenhower Center from 21 states."

And how many people come to these museums and libraries? Scholars are in the minority and can be counted in the hundreds. They make little impact on the surrounding community. Visitors to the associated Presidential museums, however, are counted in the hundreds of thousands. LBJ's library is located on a campus too spacious to be considered urban and does not suffer from the impact of people and parking. The Hoover, Roosevelt, Truman and Eisenhower libraries are on spacious semi-rural sites. All are gradually getting larger to provide tourist facilities for increasing numbers

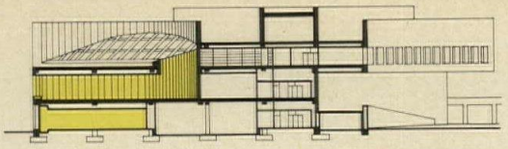
The first scheme for the John F. Kennedy Library (below left) was unveiled in May 1973. Community opposition was intense, not so much on esthetic grounds but on the question of the impact of a building of this size and drawing power on the urban fabric of Cambridge. The second scheme (below right), was made public in June 1974. The Library has been diminished in size, in response to community opinion and inflation. The major revisions include the elimination of the glass pavilion; the elimination of the crescent-shaped building and the substitution for it of two buildings, one for the Library (museum and archives) and the other for the Institute of Politics, the Kennedy School of Government, and other facilities.

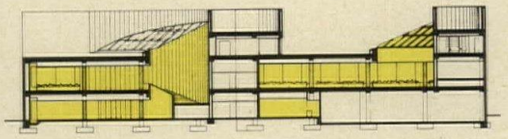






The second design improves pedestrian access from Eliot Square through the Library site to the River; provides about three acres of landscaped green space on the public park and plaza to be called Commonwealth Park; reduces the Library building height from 85 feet to 49 feet; reduces the total floor area by one third; eliminates the two four-hundred-seat theaters and substitutes brick for concrete as the facade material. Parking sites (shown on the map at left) include landscaped on-grade parking for 435 cars on the Library site, a parking area for 300 cars near the Turnpike exit and provisions for an additional 500 spaces on the Harvard Business School parking site to be used as overflow parking during the peak summer months. Both off-site parking locations will be serviced by shuttle bus.





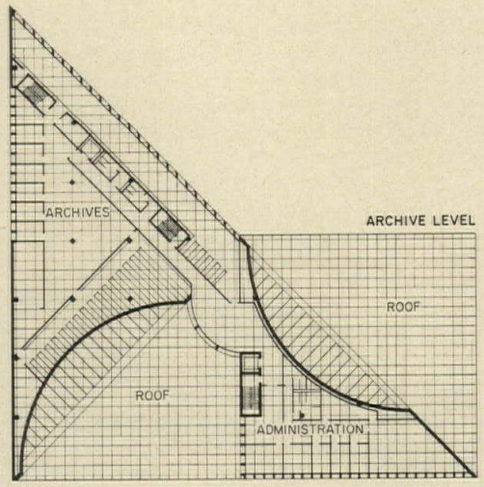
of visitors. The Kennedy Library will be the first to occupy a truly congested urban site already afflicted by snarled traffic, pedestrian crowding, inadequate parking and increasing air and noise pollution.

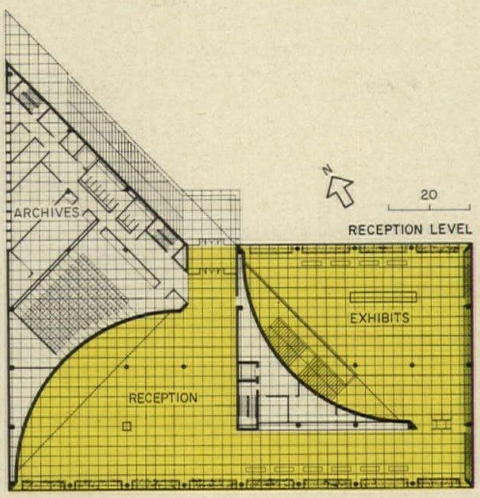
No one can predict how many daily visitors the Library will have, or how they will behave. Architect Pei believes that now that the Library is smaller, it will attract fewer people. Many of the Library's opponents point to the huge crowds who visit the Kennedy grave at Arlington and argue that the Library will attract far more visitors than the grave. Pei asserts, however, that since Washington has far more sights to see than the Boston-Cambridge area, the former will continue to draw a correspondingly greater number of tourists. The Kennedy grave, he points out, is just one more stop in a busy round of patriotic sightseeing in the nation's capital. Pei also believes that the number of visitors to the Library will dwindle as the years go by. This belief runs counter to statistics for the other Presidential libraries, which as has already been noted are steadily expanding in size and facilities in response to an ever increasing volume of tourists.

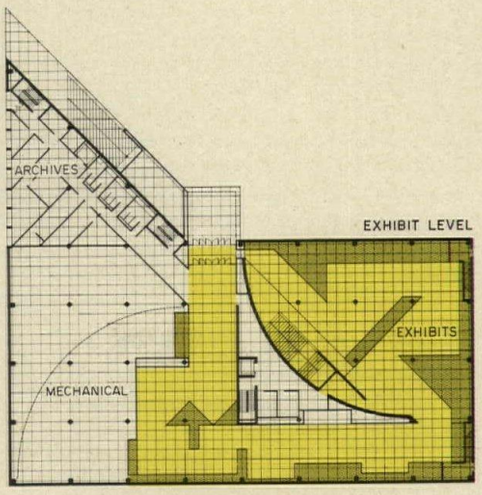
Skeptics point out, furthermore, that the General Services Administration wants and promotes tourism in the Presidential libraries which they manage. And surely, they add, the Kennedys will want big crowds and will urge the Library staff to attract them.

Many Cambridge citizens worry not only about the size of the expected crowd, but how it will look and act. There is a distaste for Middle-America in Brahmin land which leads New England's elite to wonder what the folks driving in from out there will be wearing (not Marimekkos), how they will be doing their hair (in curlers?), what they will be eating (Big Mac's?) and where they will be throwing their soft drink cans (along the banks of the Charles?). Some realists are even asking where Middle-America will go to the bathroom—since neither the first or second Pei schemes appear to have dealt adequately with this contingency.

Pei believes that people behave differently in different places and that visitors to the Library, out of respect for our late President, will find it in themselves to behave in a respectful and decorous manner. In both schemes he has tried hard to make the Library memorable, rather than monumental, and inspiring rather than imposing. "The building must be good if it is to inspire," he says, "and if the building inspires then architecture has played its role."







Even Middle America, however, doesn't want to wait too long in line, whether in traffic, or looking for a place to park, or outside the entrance to the Library, or seeking food, drink and a toilet. To ask a mere work of architecture to deliver enough inspiration to offset such frustrations is asking too much of the Mother Art. The problem of the Kennedy Library is not primarily one of architectural design in the limited sense of the word, it is one of context. If the Library is built, the City of Cambridge must change to accommodate it. Many of the Library's opponents don't like what they foresee.

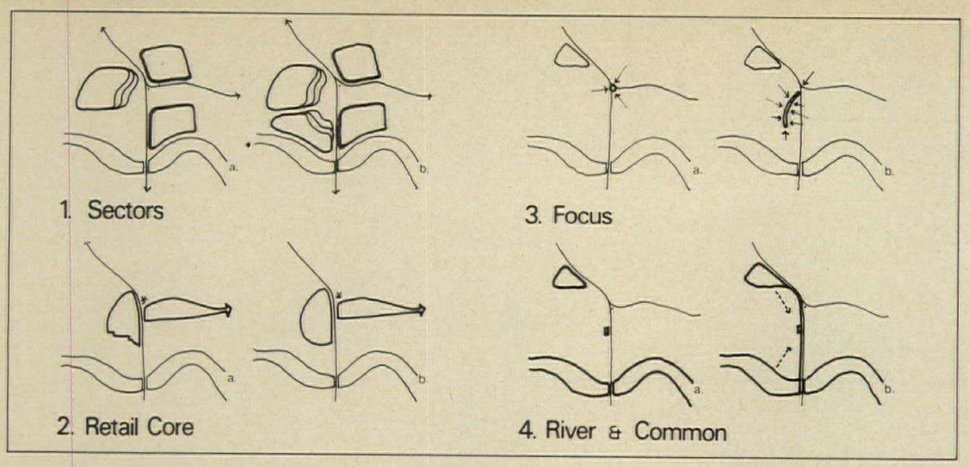
Should high-density development be allowed in Cambridge?

Those who oppose the construction of the Kennedy Library fall roughly into two social classes, the well-to-do, upper-middle class, intellectual and artistic elite who live in what is known as Neighborhood 10, and the poor blacks who live in Neighborhood 7. Both neighborhoods impinge upon the Library site—Neighborhood 10 to the west and Neighborhood 7, also known as Riverside, to the east. The lower middle- and middle-class citizens of Cambridge favor the Library. Many are of Irish, Italian and French-Canadian stock. They are Catholic and firmly loyal to the Kennedy family. Since the Library will not impinge upon their neighborhoods, they are more able to see its potential of enhancing their city. The intensive investment in real estate and construction which is expected to occur in the Harvard Square area as a result of the Library will bring them jobs and generally improve their economic prospects.

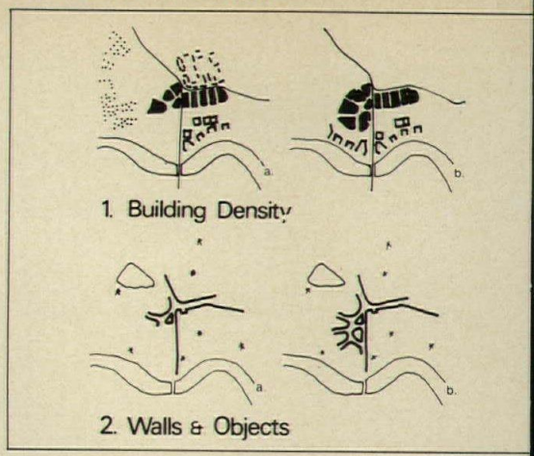
The neighborhoods opposed, 10 and 7, have found allies, however, in other Cambridge neighborhoods. Riverside has joined with Cambridgeport, its neighbor to the east, in forming the Riverside/Cambridgeport Community Corporation. Neighborhood 9, like Neighborhood 10, has formed its own association to examine its needs and defend itself.

These groups wish to preserve certain urban values in the City of Cambridge and Harvard Square which uncontrolled development engendered by the Library will destroy. They have taken a look at their city and concluded that it has a rare intimacy of scale, richness of historic buildings, diversity of people, and coherence of both low- and high-income neighborhoods. It has an unusual mix of commercial centers, industrial areas, world-famous institutions, and residential sections.

Urban Context



Elements of Form



This diversity, which makes the city an exciting place to live in, but a difficult one to govern, must be kept in balance.

Uncontrolled high-density development could destroy the low- and middle-income multi-racial communities of Riverside and Cambridgeport, the charm of historic residential areas, family housing units, smaller shops and restaurants, new experimental businesses and the quiet, intimate side streets that contrast so pleasantly with the bustle of Harvard Square.

Harvard Square is the point at which major streets, bus and transit lines converge, making it a shopping center for the region. Since five residential neighborhoods surround it, as well as Harvard, it is also a local shopping center for residents and students. Because of its rich history, its monuments and landmarks and the presence of Harvard, it is now, even without the Library, a strong tourist magnet.

Harvard Square has growing problems which unless they are solved, will only be exacerbated by the Library. It is central to the city's street system, so that people travel through it, causing traffic problems. Its excitement attracts tourists and young people, causing more traffic, parking problems and crowding. Its thriving commercial activity raises the value of the land, causing speculation and intensive new development. Its closeness to residential neighborhoods means that traffic, land speculation and development spill over. The citizens of Cambridge who love and understand Harvard Square warn that its qualities are fragile and already strained to the limit.

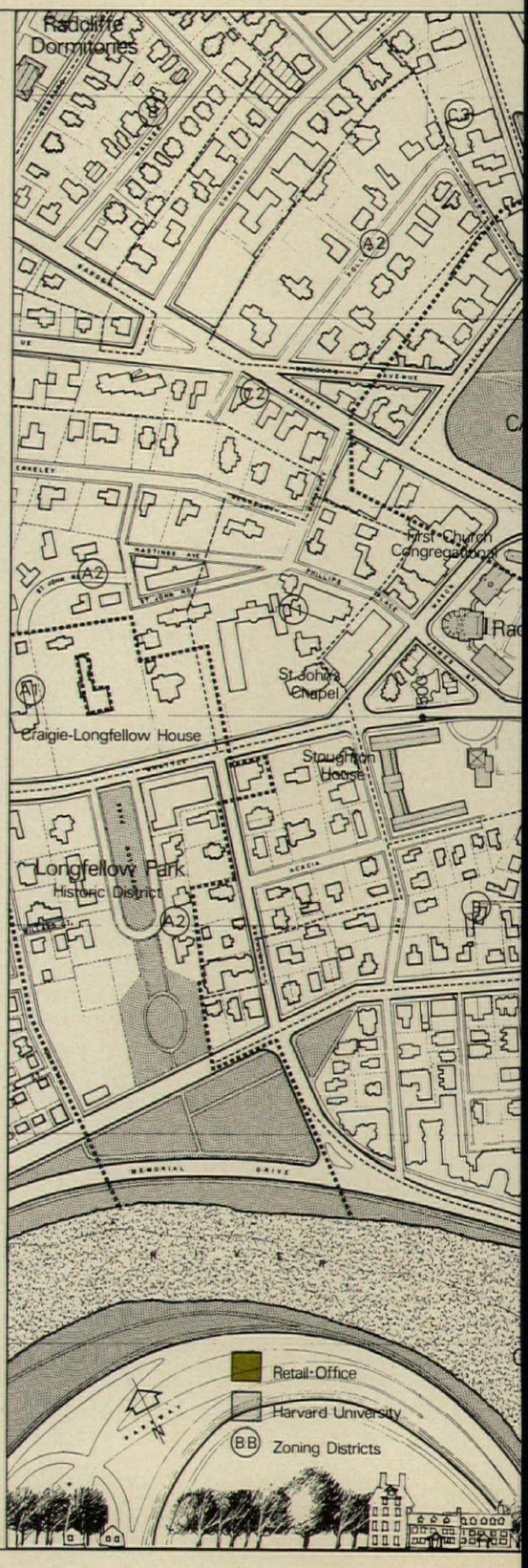
Anticipation of the construction of the Library has caused rising land values and intense speculation in Harvard Square real estate. As land values rise, the possible new uses for the land narrow down to intensive development, high-rise buildings, and high-margin stores. The rising commercial rents caused by land speculation are in turn causing a loss of lower-volume stores. Many community-oriented service stores and restaurants are already threatened. The tourists who come to see the Library will want fast food and souvenirs, rather than the merchandise now vended in the Square and present shops and eating facilities will either change or disappear.

Rising residential rents are forcing low-income people out of Cambridge in spite of rent control efforts. These increases are also caused by pressure on land values. Those low-income people who hope to remain in Riverside fear that crowding of tour buses and autos along

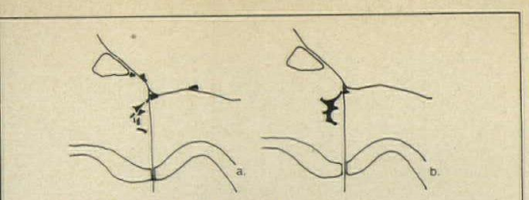
The City of Cambridge must face the physical implications of pressures for new development such as the JFK Library. As consultant to the City, Monacelli Associates has identified 12 major urban design issues and proposes strategies for their resolution. The first chart (top left) diagrams the urban context of Harvard Square: first, the Square is composed of four sectors surrounding a retail core; second, the present size and shape of this core is critical to its character; third, the retail core has a single focus at the location of the kiosk and MBTA entrance; fourth, to the north and south of the core are two important natural resources—the Cambridge Common and the Charles River. The city should reinforce the stable land uses of three of the sectors, and contain rather than extend the core in the development of the southwest sector (the Kennedy Library site). Harvard Square's focus should change from a point to a line which connects the southwest sector. The River and Common should be linked to the core by pedestrian ways.

The second chart (top middle) diagrams the elements of form within the Harvard Square area in terms of building density, walls and objects, squares and channels and tunnels and niches. The redevelopment of the core and alterations to the surrounding sectors should maintain the existing building ground coverage and open space configurations. Economic pressures will tend to favor high-rise construction which will break the continuity of the wall-and-object relationship. Therefore a zone of maximum height of 60-80 feet should be established within the core. The squares and channels should be kept and extended into the southwest sector and the J.F. Kennedy Library site, as should the tunnels and niches.

The third chart (top right) diagrams the four main types of movement and activity: first, pedestrian movement in Harvard Square parallels principal and secondary roadways and occurs on through-block passages; second, traffic moving through the Square to points beyond and traffic to Harvard Square flow together in patterns which circle virtually all blocks within the core; third, most public parking in Harvard Square is curb parking; fourth, service to the retail core contributes to congestion. In the future, a primary pedestrian network should connect the southwest sector with the core, vehicular movement patterns should be separated, short-term parking should be accommodated by a system of multiple use small garages within walking distance of the core and long-term parking should be outside the core. In the southwest sector, service roads and adequate loading docks should be developed.



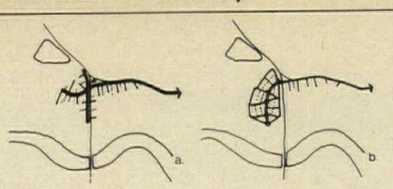
Movement & Activity



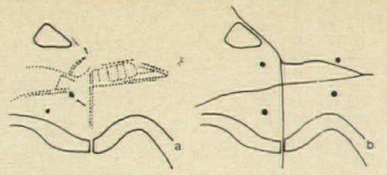
3. Squares & Channels

Wall surface variation & Niches Streetscape & Canopies

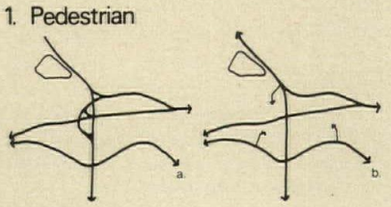
4. Tunnels & Niches



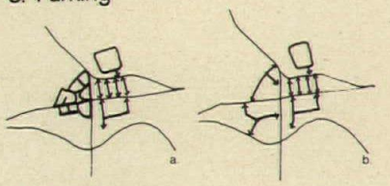
1. Pedestrian



3. Parking



2. Vehicular



4. Service

The illustration below presents a diagrammatic concept of how the pedestrian and vehicular network may be separated and extended to facilitate ease of through movement and provide an environment oriented to the pedestrian. This system builds upon the six distinct types of pedestrian walkways which exist in the Square: sidewalks and sidewalk extensions, exterior through-block paths, interior arcades, interior through-store passages and vertical movement and above-grade passages. Some separation of the pedestrian and the vehicle has already been achieved in Harvard Square through the development of store-lined pedestrian passageways such as 44 Brattle and Holyoke Center.

Memorial Drive will block their access to the banks of the Charles. Increased traffic will clearly threaten the river banks in any case. Air quality in auto-polluted Cambridge is adversely affecting the beautiful sycamore trees along the shore, as well as the lungs of the people.

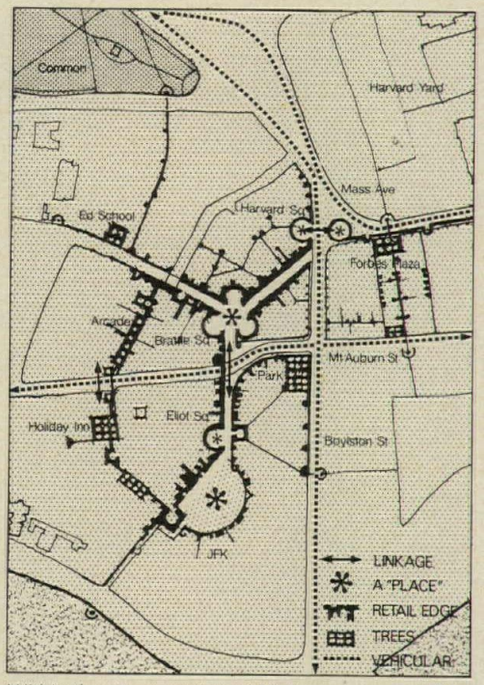
Lastly, the citizens groups point out that the City of Cambridge, at increased cost to the taxpayer, will have to provide extensive, but so far unestimated amounts of city services to the Library and its site. The library as a non-tax-paying institution decreases the tax base. Surface parking, proposed for the site, pays minimal taxes.

An Environmental Impact Study is underway

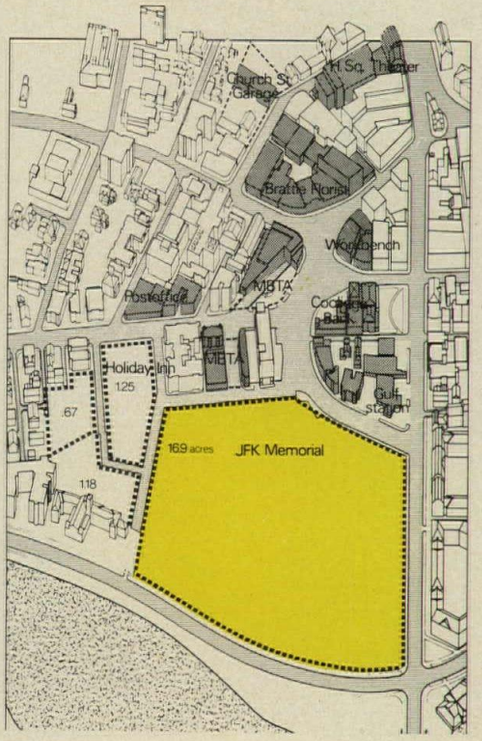
The plans for the Kennedy Library and its administration by the GSA, make applicable the requirements of the National Environmental Policy Act of 1969 that an Environmental Impact Study be undertaken. This Act requires that a complete analysis be made of all environmental factors—human, social, cultural and physical—to be affected by the project. The study is being made by C.E. Maguire Inc., an engineering firm. Should the results of the study prove adverse to the Harvard Square location the Kennedys may have to consider moving the Library to some other site.

If this happens, not everyone in Cambridge will rejoice, in spite of the tremendous weight of adverse opinion just reviewed. Some citizens and planners believe that the Library could be the catalyst which could get the City of Cambridge off dead center and force it to do something about the problems which are already overwhelming it now.

Representing this segment of opinion is the Harvard Square Development Task Force, a 19-person citizen's advisory group appointed by the Cambridge City Manager and representing the City. It is chaired by local civic leader, Oliver Brooks and is broadly representative of the community. Its membership includes architect Morse Payne of TAC, Robert A. Bowyer, Director of Planning and Development for the City of Cambridge and architect Theodore Monacelli, urban design consultant to the City. In a position statement issued last June following the public unveiling of I.M. Pei's second Library scheme, the task force declared that the latter was an opportunity to solve the traffic and pedestrian problems of Harvard Square and Cambridge.



Within the site, a portion of 12.2 acres are available to be used approximately as follows: the J.F.K. Library—.69 acres; Commonwealth Park—4.89 acres; Harvard's John F. Kennedy School of Government and Institute of Politics—2.18 acres. An additional 3.89 acres is available for some form of visitor related development within the site.



The key element is cooperation and coordination

By now, it is hoped that the Kennedy Library Corporation has learned that to achieve its goals it must work more closely with the City, Harvard University, Federal and state agencies and community groups. The task force was impressed and pleased by the fact that Pei's second scheme was smaller and more modest, that its understated exterior treatment was in better human-scale, that a greater emphasis had been placed on open area and green space and that the plan offered the possibility of a more effective interconnection between the Library complex and its urban context.

The task force stated that it finds it reasonable to expect that the Cambridge community can accept the predominately scholarly activities that are a part of the 12.2-acre site: the archives, the Kennedy Institute of Politics, and the School of Government.

The task force is by no means satisfied, however, with the museum portion of the complex and all that it implies—in terms of competition between the permanent resident versus the transient, buses and autos versus the pedestrian, and Harvard Square's traditional role as a people-oriented crossroads versus its possible new dimension as a tourist attraction. The task force hoped that Pei's second design would meet two important parking criteria: first, that it must not aggravate the existing parking problem in the Square; and second, that it should assist in the parking solution.

The task force believes that the proposed parking arrangements (435 on-grade parking spaces for visitors and the staff of the museum-archive) do in fact aggravate the existing problem because: first, this solution eliminates some 225 parking spaces on the MBTA lot; second, it will force the City to eliminate large numbers of existing curb side spaces to handle properly the increased traffic flow and pedestrian movement in the area. Furthermore, the task force believes that providing some parking space on the site—and in their judgment an inadequate number—will aggravate the congestion.

Pei's second scheme proposes that a piece of land owned by the Turnpike Authority at the end of the Massachusetts Turnpike in the Brighton-Allston district be used to park 300 additional cars and also serve as a bus holding area for a shuttle service. Harvard has made a verbal commitment to offer a piece of the Business School site—again, across the river—for

The drawings below, prepared by Monacelli Associates, diagram the basic elements of Harvard Square: the essential building forms, the elements such as windows and doors, cornices and other projections which are part of its scale, and the scale-giving qualities of signs and flags, awnings and people. With the cars taken away, the Square does not seem crowded. Theodore Monacelli believes that the tourists which the J.F.K. Library may bring would add to the vitality of the Square. Says Monacelli: "A lot of people think Harvard Square is too dense right now. Well I don't. If you took the cars out right now it would be a dead place. There is nothing worse than a pedestrian way at night with a couple of stray cats."

an additional 500 cars. The task force believes that all parking for the museum should be provided at locations away from the site.

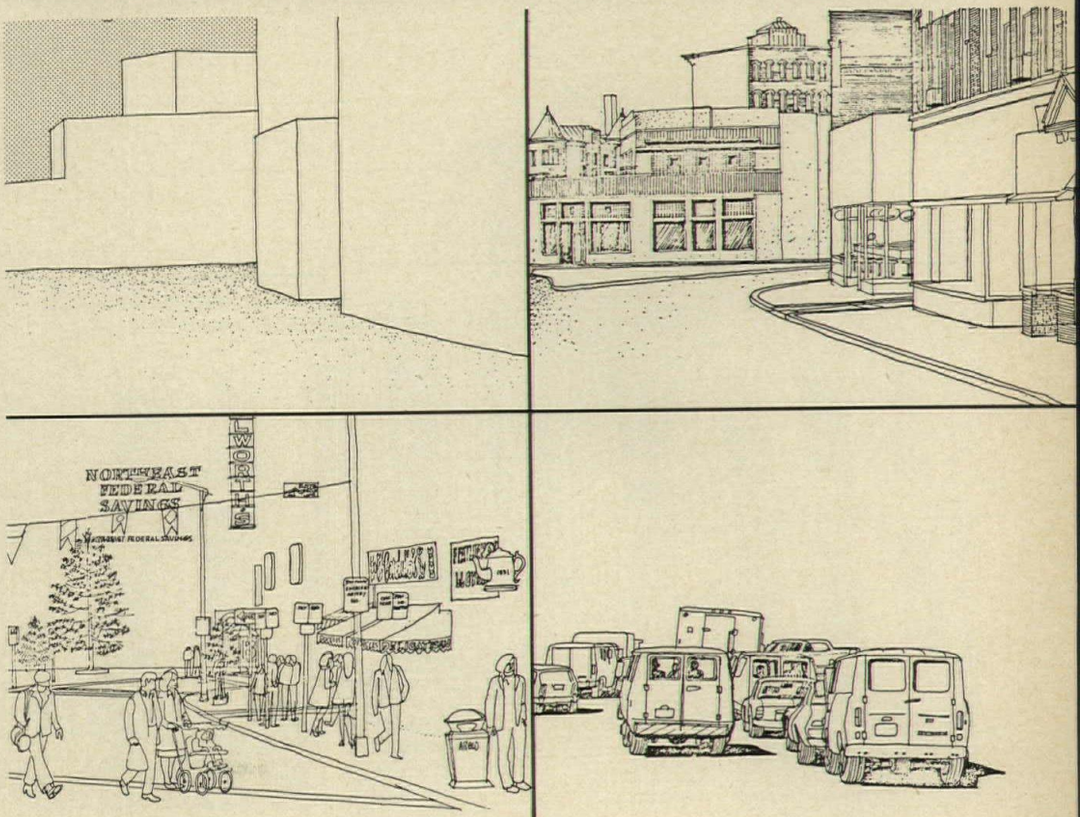
Assuming that the Environmental Impact Study is favorable, the Kennedy Corporation will begin to firm up plans for the related facilities area and phase II of the Harvard-academic area. In developing the related facilities area, the task force urges upon the Kennedys and architect Pei a clear recognition of the need for tourist-oriented facilities *within the site.* There could be a visitors' center with a good hotel, housing for Harvard, community services and a university inn open to the public—instead of parking. It will be up to the City of Cambridge to develop a major pedestrian plaza interconnecting Eliot, Brattle and Harvard Squares.

Some lessons for the future

It has been said that if the Kennedys had devoted enough of their energy and political power to building the J.F.K. Library when the MBTA Yards first became available in 1965, it would be finished by now. The delay was caused by the MBTA's difficulty in finding another site for their buses, but skeptics say that Kennedy power in Massachusetts would have been sufficient to find another bus yard if the Kennedys themselves had a sufficiently strong desire to go ahead with the Library. The death of Robert, or Edward's other concerns, may have slowed it down. No one is quite sure why the Kennedy Library Corporation's president Stephen C. Smith didn't press on.

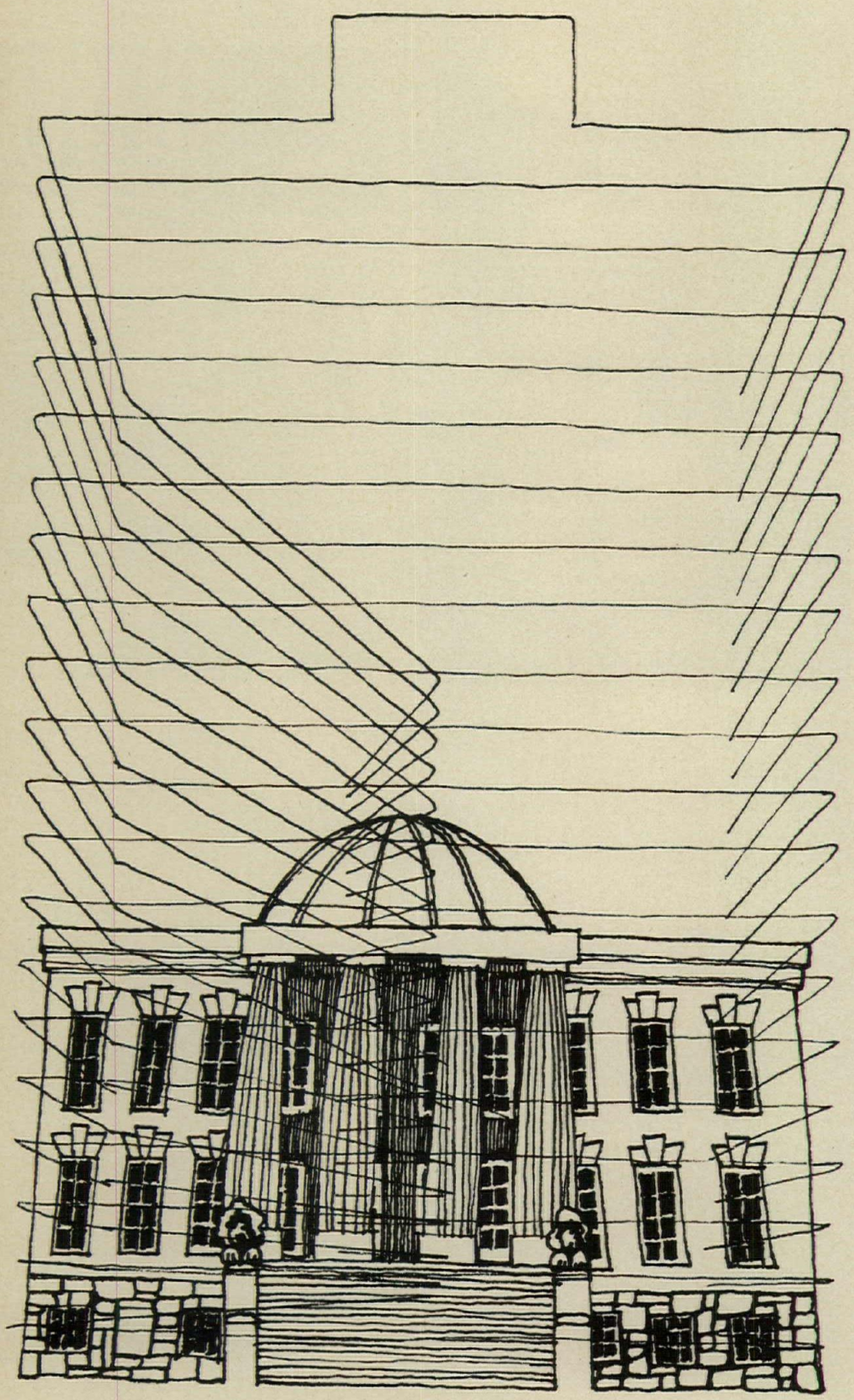
For whatever reason, the citizens of Cambridge were given eight years to think about the Library and when the first plans were presented to them in May 1973, many knew they didn't want it. They had studied their own community, begun to understand the good things about it and what made them good. They were now ready to preserve these values in the face of such a radical intervention as the Library. They have begun to acquire sufficient political and strategic sophistication to make the Kennedys (who really want that library in their town) come to terms with them. These citizens must also make their own city government address and help solve the important issues which the Library brings.

We have come a long way since the 1960's when beautiful new buildings by great architects were still gratefully accepted by the people from their leaders—with few questions asked. —*Mildred F. Schmertz*



Area conservation as an asset to planning–not a "necessary evil"

by Michael Y. Seelig



Illustrations by John Zacharias

Conservation and development are normally viewed as competing activities. Conservation, and more specifically historic preservation, have often been associated with opposition to development and to change or "progress." Development, on the other hand, is always associated with change, and in the minds of many with "progress." Although some planners have made conservation and historic preservation their major interest and most others have accepted these activities as necessary and legitimate, many practicing planners still view conservation as limiting modernization and progress in our urban society.

It is no longer necessary today to justify conservation and preservation as legitimate facets of our planning efforts; yet they are rarely accepted as inseparable parts of the planning process. Conservation is only considered important in specific instances, and in most cases it is viewed as a constraint rather than as a goal of planning.

What we should do is adopt a new attitude to conservation—one which incorporates conservation into planning while not inhibiting development.

Conservation Defined. The dictionary states that to conserve means "to keep from being damaged, lost or wasted . . ." This paper accepts the definition and interprets conservation in its broadest sense, as opposed to the normal interpretation it receives within the planning context, where conservation and preservation commonly deal with historic buildings, buildings of exceptional architectural merit, and the natural environment.

The paper advocates the application of conservation to more than just the physical or the natural environment, and includes such notions as lifestyle, cultural heritage, psychological well-being, social and economic well-being. It also proposes that a positive attitude towards conservation should form the basis for all planning activity, thus making conservation a major goal in planning rather than a "necessary evil" that planners have to live with.

The Need for Stability. The need to define conservation in as-broad-as-possible terms, and the reason for applying conservation principles to all planning activities, is based on the premise that while we do want to improve our future, the results of many of our planned actions

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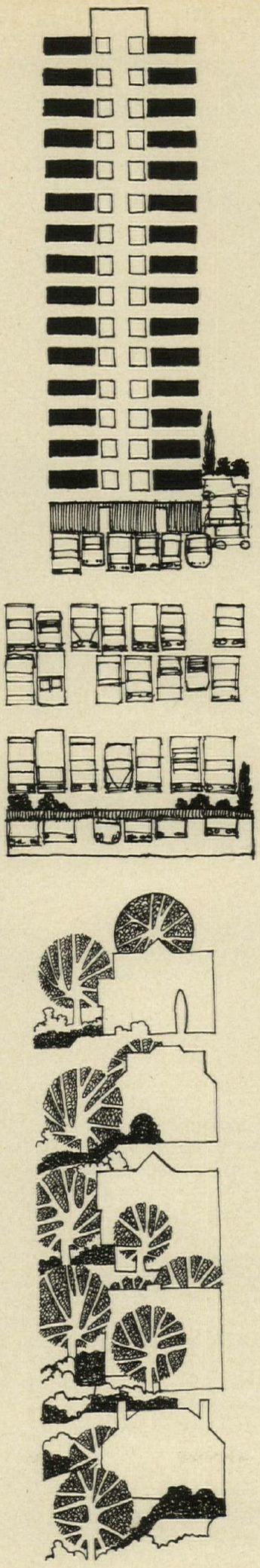
cannot be predicted with certainty. There are many desirable aspects to our present urban environment that we certainly do not want to lose, yet they may be threatened by some of our proposals for future change.

Protection and conservation of all desirable aspects of the urban environment are central to planning for a changing future, particularly at a time when many urban communities in North America are concerned about how to cope with changes brought about by rapid growth. In examining antigrowth sentiments being expressed by many communities today, it seems that citizens are not so much *against* growth per se, as they are *for* conservation of those elements which presently make urban life pleasant and enjoyable to them. It is evident, from the strong expression of antigrowth sentiments in North America today, that if a rapidly growing city must be one where nothing familiar is left, citizens want no part of it.

In light of the desire to retain some of the familiar and enjoyable aspects of our cities, conservation takes on a much broader perspective than pure historic building preservation or conservation of some natural resources and amenities. It advocates the preservation of character of areas, social and cultural traditions, economic and social institutions, and above all, freedom of choice for the individual citizens who are diverse in their needs and desires, while permitting some physical changes to take place. Indeed, by protecting and conserving the elements important to people, and by alleviating the fear that everything familiar is disappearing, a conservation policy can become a means of making some types of change more acceptable.

In its broader sense, conservation is not the province of an intellectual elite or a hobby of the wealthy—it is important to the humanity and stability of a city and all its inhabitants. One's view of the past naturally colors expectations for the future. If the past appears chaotic and without permanence, one tends to avoid looking to the future since it seems only to be the source of more distress. An orderly past, formed of a series of progressive changes, tends to encourage looking toward the future in anticipation of continuing change. Our attitude to the past and present influences our view of the future—in a sense, conservation increases our resistance to "future shock."

Conservation As An Aid to Planning. Whereas planning is concerned with the future and accepts change, and since conservation guards against change, it appears that the two must be at odds. Certainly, conservation does impose some limitations on change and development, especially on physical developments, but it can also be an aid to planning and implementation of new proposals. Often, it is easier to plan in a constrained situation than in a completely open one. Carefully defined criteria for conservation of specific elements in the city would act as guidelines to developers and planners. Knowing that a community has a policy which specifies precisely what must be conserved would help planners, architects and developers to define their particular problems from the outset, and to avoid costly revisions late in the development process.



Conserving certain areas or elements of a community is thus compatible with urban development. Unlike pure historic preservation, where emphasis may be on retaining vestiges of the past unchanged, conservation accommodates change—it serves to direct change, not to stop it. Just as natural resource planning incorporates the three ideas of conservation, development, and use of the environment, planning for the urban environment must seek to balance out these three aims.

What Should be Conserved? Advocates of conservation and historic preservation argue that these activities are important because of the respect for the past which they represent, the sense of continuity that they provide and their educational value for providing insights into the development of a city. More important, perhaps, is a realization which grew out of recent anti-growth sentiments that people need a sense of security and stability—a feeling which they no longer enjoy when everything familiar and pleasant about their life is threatened.

A Conservation Program. A recent study, undertaken for the Social Planning Department of the City of Vancouver, set out to establish a conservation policy for the city, in order to provide a framework which will aid future planning efforts. The study defined specific guidelines for conservation in Vancouver and described several geographic areas as examples of the types of areas to be conserved. The study indicates the kinds of elements which might be considered in a conservation program for any city.

One of the first tasks of the study was to gain an over-all impression of Vancouverites' attitudes toward their city, and to determine which elements in the city are especially valuable to them. This was done by reviewing three

"It is evident...that
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different sources of material:

1. Information obtained through many different surveys conducted over the past years in various areas of the city, and in the Greater Vancouver Region.

2. Review of published material dealing with the image of the city.

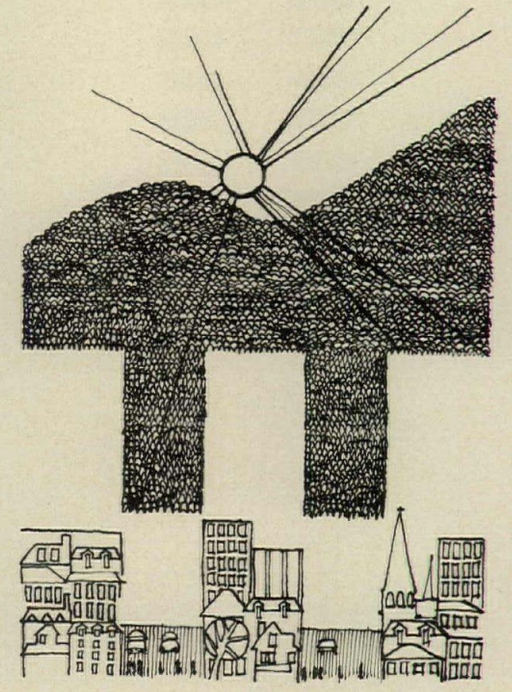
3. Review of commercial picture postcards and material published by the local tourist bureau, the Chamber of Commerce, etc. This was found to be a very useful technique. These pictures usually represent what citizens of the city would like their visitors to see, and therefore what they believe presents the most favorable image of their city.

In terms of the physical characteristics of the city, it was soon discovered that in Vancouver, the most dominant features are determined by its setting—the city is located between mountains and sea, and these provide a most dramatic scenery. The material reviewed further singled out with most pride some of the single-family residential areas of the city. The impression gained was that many of these areas are worth preserving relatively intact. On the other hand, with the exception of a few landmarks, most of the downtown area was considered worthy of change and redevelopment. Some commercial and residential areas with unique historic or ethnic character were another aspect of the man-made environment in which citizens take great pride. While these areas possess a strong "local character," they also attract people from all parts of the region and are considered important contributions to the over-all image of the city.

Elements Considered for Conservation. Six major elements were identified as important inputs into a conservation policy:

1. Views. One of the most important elements contributing to the attractiveness of Vancouver is its natural setting. A visual awareness of the setting contributes to the enjoyment and psychological well-being of the residents and should therefore be maintained at all times in all parts of the city. An important reason for advocating the maintenance of good views of the water and mountains is the fact that it is not always the actual loss of natural amenities that disturbs people, but also the loss of visual assurance that these amenities still exist.

2. Landscapes. One of Vancouver's most striking features is the large number of beautiful private and public gardens. Many of these gardens and landscapes have recently started to disappear, giving way to new developments



in which open spaces are covered with asphalt and concrete. Large old trees, which can be found in many sections of the city, provide a sense of continuity between the natural hinterland of Vancouver and the city itself. In addition, they provide a constant reminder of the historical landscape of the region with its heavy forests. Both the gardens and the trees become important elements to be considered for conservation in the city since they create the "garden" city atmosphere in which Vancouverites have taken great pride.

3. Topography. Vancouver has a great variation in elevation although this is not always apparent through casual observation. This variation allows for a variety of views in all directions of the city. Traditional building forms have too often ignored the necessity of complementing the topographical features of the city, as have earlier city plans and zoning legislation. Since many sections and sites in the city are now ready for development or redevelopment, an opportunity exists to complement the topography with new structures which will help accentuate these important natural features of the city.

4. Structures of historical and architectural merit. It is universally accepted today that buildings of special historical or architectural merit should be preserved in order to provide citizens with a sense of continuity, a sense of security and stability, and an opportunity to gain important educational insights into the development of their city. Vancouver, being a relatively new city, does not have a large number of structures that would normally fall within the category of historic buildings. Nevertheless, and perhaps because of the scarcity of such buildings, the preservation program in Vancouver concentrates on areas of unique and consistent architectural expression, areas which were comprehensively developed during a period of historical significance, and areas that display homogeneity or other valuable aesthetic or historical characteristics, all of which become important considerations in a preservation program.

5. Human qualities. Conservation has traditionally dealt with the physical elements within the city. In the Vancouver program the human elements were included as well. It was found that in Vancouver many ethnic or other socially cohesive groups display a strong sense of stability and provide a strong neighborhood feeling. In addition to providing community identity for their residents, the existence and maintenance of these areas provide all citizens of the city with a feeling of continuity and security which are normally threatened by rapid change. As in other cities, many of these neighborhoods are located in areas of high real estate value, and the pressure for change exerted on them is very high. The conservation program stresses that decisions made about the future of these areas must take into account the many non-economic considerations which often justify conservation, such as the value of the areas in their present state to their local residents and to the city-wide community.

6. Variety in housing stock and types of people. It is most important that some areas not covered by considerations set out previously be considered for conservation simply because they offer a decent environment and relatively inexpensive housing for families with low incomes. Up to now, Vancouver offered a variety of existing types of dwellings differing in size, location, style, condition and cost, and enabling people of different needs, lifestyles and economic standing to own or rent a decent home. Recent trends of rapid population growth in the Vancouver region, and the resultant rise in housing costs, are now threatening the ability of families in the lower income brackets to remain or locate in Vancouver. The conservation program for the city advocates measures which will ensure the maintenance of a varied housing stock, thus enabling people

"Rather than seek out what is wrong and needs to be changed, planners must start their work by taking careful stock of what is good...."

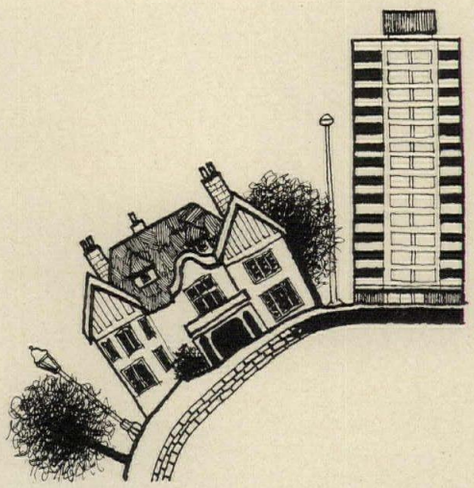
of different means to be part of the city. This is of utmost importance in order to conserve the human composition and character of the city in the way that it has existed to date.

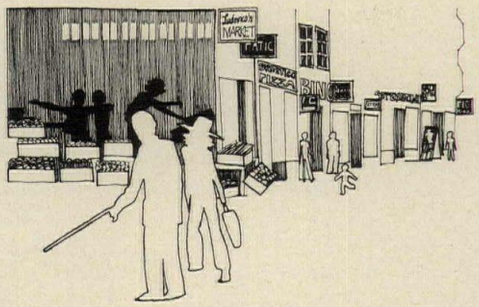
The Vancouver Conservation Program. A work program to establish the steps necessary to carry out a city-wide area conservation program was drawn up with the intent that it become an integral part of the planning process in the city. The program consisted of, and dealt with the following items:

- selecting areas for conservation through a process involving several stages and degrees of specificity.
- determining and establishing the legal means and economic incentives available to the city to ensure area conservation.
- preparing design drawings showing the three dimensional image for future development of areas designated for conservation.
- investigating and preparing an inventory of existing views and cones of vision throughout the city.
- determining in the form of zoning legislation the permissible height and bulk of buildings based upon how they affect views to and from areas in which they are constructed.
- establishing design guidelines in the form of design manuals for landscaping of residential and commercial sites.
- creating a system of bonuses for the provision of trees of specific type and size in new developments.
- preparing a program, policies and administrative structure for the preservation of buildings of historical and architectural importance.
- developing a citizen participation program to deal with area conservation.
- establishing educational programs in collaboration with the school board, dealing with area conservation.

While the above work program is only in its initial stages, the over-all objectives of the conservation program are already manifest in recent planning efforts in the city. Thus, it is possible to conclude that the mere existence of a conservation work program and an awareness that conservation considerations must be included in the planning process from the outset have started to affect the attitudes of planners in Vancouver; they no longer view their task as simply being catalysts for change or progress, but also as guardians of those elements which are enjoyable to all citizens and are therefore worthy of protection.

In recent years, the practice of planning has often been viewed as an activity that seeks to ameliorate the ills of our urban society. Planners were seen as "urban doctors"—people called upon to diagnose the illness and to prescribe the cure. The "clinical" approach to planning, however, often led to solutions which resulted in "after-effects" of even bigger and more serious problems. The fate of many renewal projects and highway construction projects in the United States in the 1960's are good examples and are by now well documented in the planning literature.





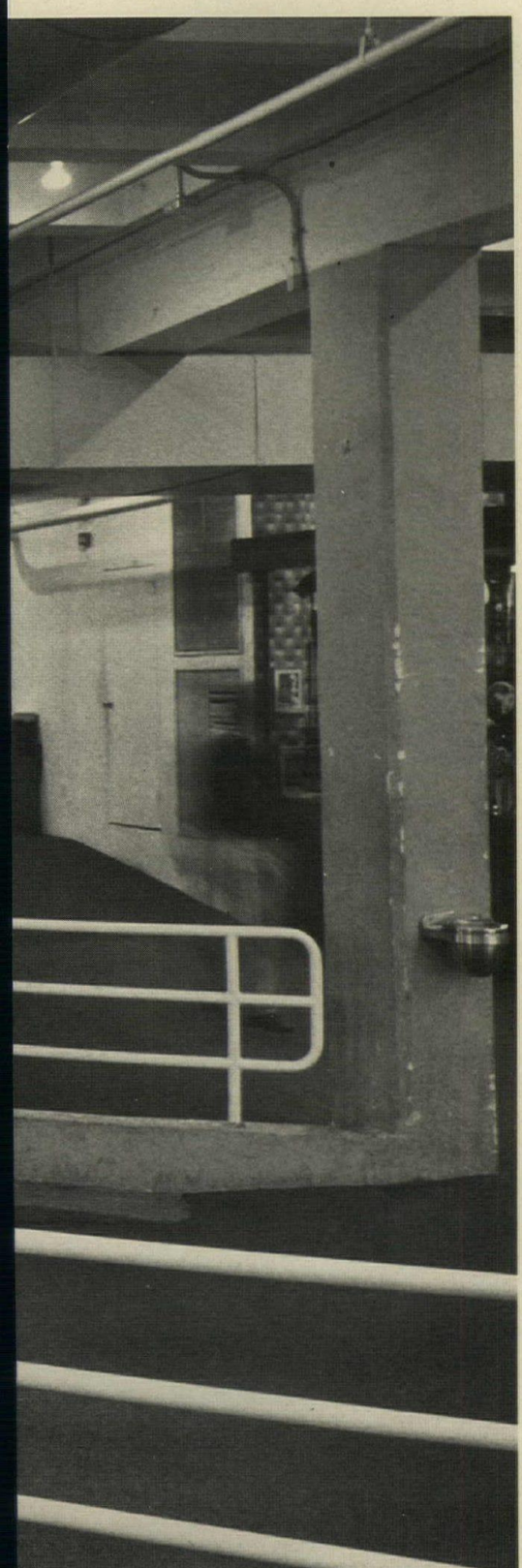
There is no doubt that many problems that need solving do exist in our urban centers, and that the "problem-solving" approach to planning plays an important and legitimate role in the daily activities of planners. At the same time, however, because of a long tradition of practicing planning as a search for solutions to problems, we often tend to neglect an equally important aspect of planning—that of maintaining and enhancing those elements of our urban society which are enjoyable and which provide a sense of continuity and security for citizens.

A new approach to planning, based on the notion of conservation, calls for planners to identify from the outset which elements in the community should not change and to devise methods through which to safeguard them. This approach differs from the traditional "problem-solving" approach in so much as it establishes definite constraints for the actions planners may seek to take. A good knowledge of the types of elements within a community that should be conserved will provide planners with a framework within which to make their decisions.

The traditional approach, in which conservation was viewed as an inhibiting factor to planning and progress must be replaced by one which views conservation in positive terms. Rather than seek out what is wrong with our urban communities and what needs to be changed, planners must start their work by taking careful stock of what is good in our communities that ought to be maintained and strengthened. This approach implies respect for the man-made environment, man's cultural and economic institutions, the natural environment, and above all, respect for the values of the individual and his psychological stability in an era of rapid and drastic changes which constantly affect our daily lives. In short, a policy of conservation is a demand for self-respect as well as respect for and from others.

Preservation and change in the individual building

The Garage: Shoppers replace cars on the ramps of this Cambridge, Massachusetts merchandising center



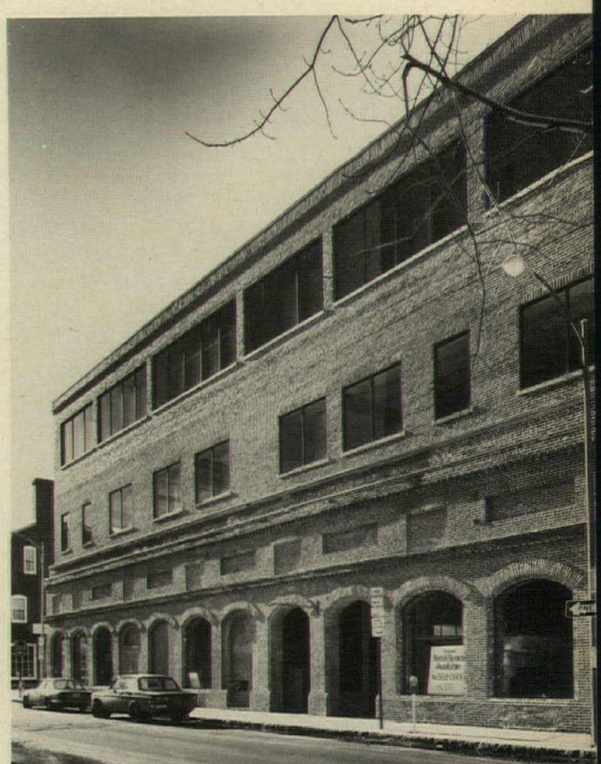
Steve Rosenthal photos

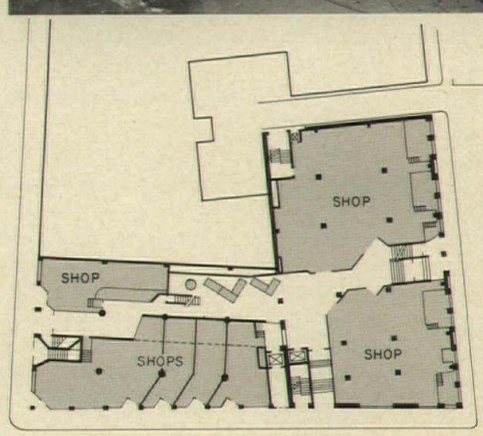
Social and economic values gradually passed this 70-year-old masonry structure by. It began as a stable and a turn-around shed for horse-drawn trolleys, was later converted to a parking structure, then finally drifted into a period of long neglect. In the ordinary course of events it would have been demolished, but its location on Harvard Square—on a prime, block-long site next to the Holyoke Center—was its salvation. Careful analysis of its potential as a retail center encouraged the Wasserman Development Corporation to commission architects ADD Inc (Architecture Design Development) to prepare plans for the building's renovation and conversion to a mini shopping mall.

The Garage's transformation into a retail complex was skillful and sensitive. The exterior masonry walls, lovingly enriched with details were carefully preserved. So were the interior concrete ramps. Bricked up windows, blind arches and closed entrances were reopened. Windows painted for opacity and looking like cataracts were systematically replaced. A fourth level, framed in steel, was added to the top of the old structure but was clad in brick matched to the color and texture of the lower three floors.

The finished project produced about 70,000 square feet of commercial space and cost nearly $3 million. The basement includes a 9,000-square-foot restaurant, a hi-fi store and a camera shop. The new upper level contains two concert clubs known as Performance Centers I and II. The levels between, strung together by the system of existing ramps, form an elaborate and spatially arresting series of small shops and boutiques (a "Persian Bazaar" the architects call it) that offer an extended range of merchandise to a predominately young clientele. Because of the openness of the space, individual tenants intermingle visually without the usual barriers of door and wall. The long sight lines that result tend to lead the browser on and to intensify his desire to examine merchandise. In the strongly pedestrian ambience of Harvard Square, this seems especially appropriate. As with other buildings in this section, it is satisfying to see a derelict building reintegrated usefully into a city's urban fabric.

THE GARAGE, Cambridge, Massachusetts. Owner: *Wasserman Development Corporation.* Architects: *ADD Inc.* Engineers: *Irwin Cantor* (structural); *Bernard F. Greene* (mechanical). Graphic consultants: *Michael Sand and Associates.* Contractor: *Jacet Construction Corporation.*





The Rockingham Apartments: Years drop away in this sensitive renovation— but the building retains its place in the community

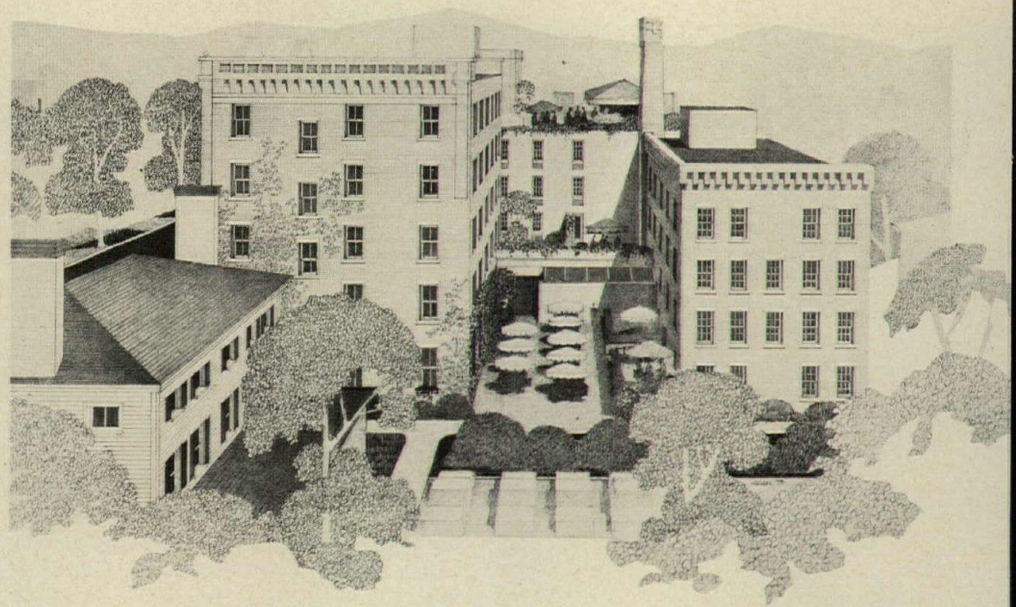
At the high tide of Victorian beach resorts toward the end of the last century, the Rockingham Hotel in Portsmouth, New Hampshire, was cited in nearly every travel guide. Rebuilt after a disastrous fire in 1885 by Portsmouth brewer Frank Jones after plans by Boston architect Jabez Sears, the Rockingham's sumptuous rooms served several generations of tourists and played an important and continuing role in the city's economic life. Gradually, as rail travel declined and as standards of amenity changed, the Rockingham's future seemed less and less secure. It was recently purchased by the North American Development Corporation which commissioned Boston architects Stahl/Bennett, Inc. to convert the venerable hotel into condominium apartments.

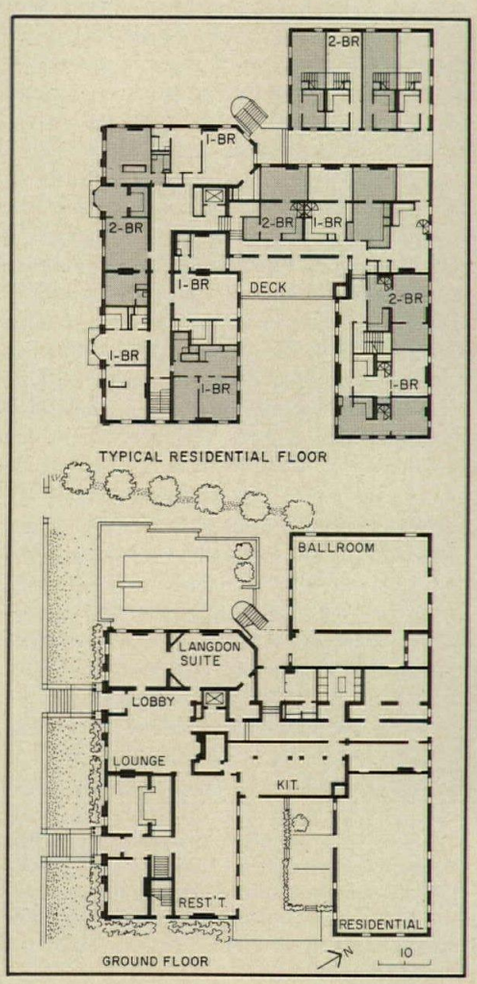
The architect's plans recycle the original 87-room hotel into 35 apartments—mostly one-bedroom, but with some 1100-square-foot duplex designs as well. Where possible, significant interior details and material—patterned ceilings, marble floors, mahogany paneling, leaded glass windows, and original lighting fixtures—are being preserved, but all apartments will be renovated to contemporary standards of comfort, convenience and safety. New kitchen and bathrooms will be installed throughout.

A new wing is being added at the rear, along with new retail space, a pool deck, a dining terrace and other amenities. The old dining room, however, will remain after refurbishing to serve inside and outside trade.

The Rockingham has been built and rebuilt several times. On each of these previous occasions, parts of the old were preserved and new parts were added. The present architects understood this, knew their work was part of the same historical process, and enjoyed laminating a new layer of experience to these century-old walls. The care with which they have gone about their task suggest that this history may well continue and that future architects may find a good deal worth saving in the work just completed.

THE ROCKINGHAM CONDOMINIUMS, Portsmouth, New Hampshire. Owner: *North American Development Corporation.* Architects: *Stahl/Bennett, Inc.—Frederick A. Stahl, partner-in-charge: Allen Trousdale, project architect.* Engineers: *Weidemann, Brown, Inc.* (structural), *AMC Engineers* (mechanical); *Metcalf Engineering* (electrical); *Tsoumas Associates* (plumbing). Graphics: *Corporate Design Systems.* Contractor: *Noram Construction Company.*

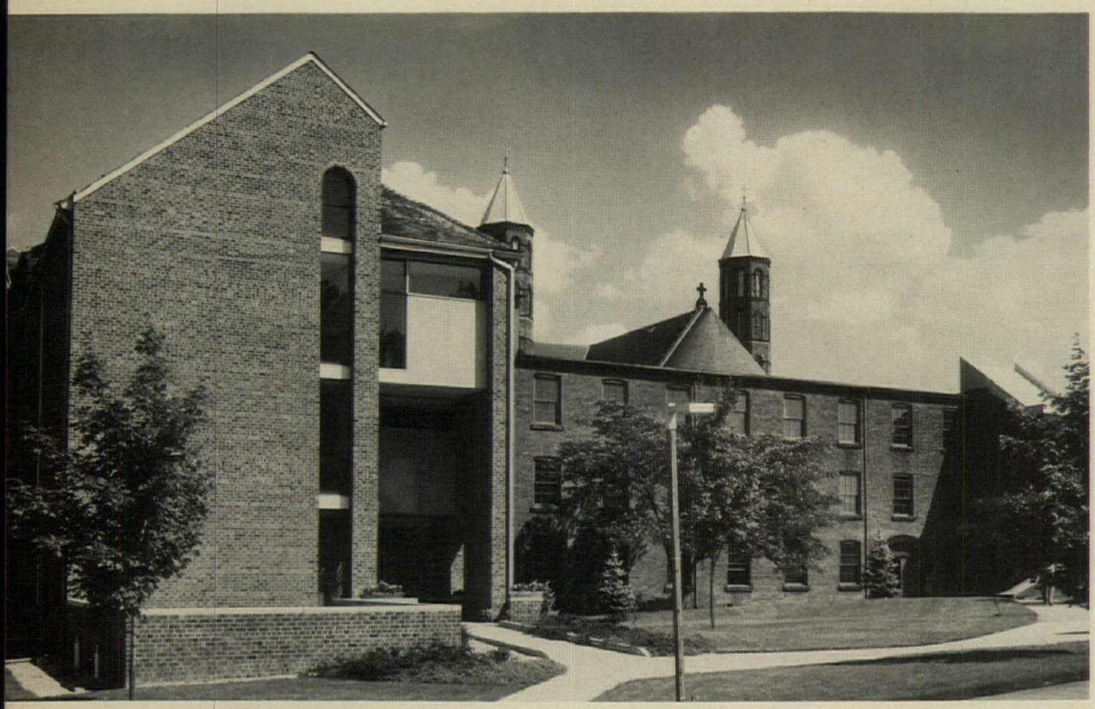


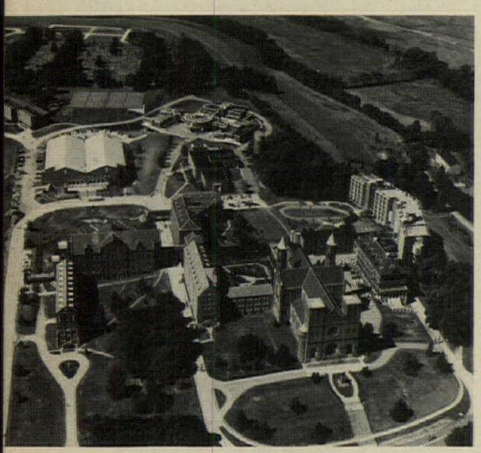


Steve Rosenthal photos

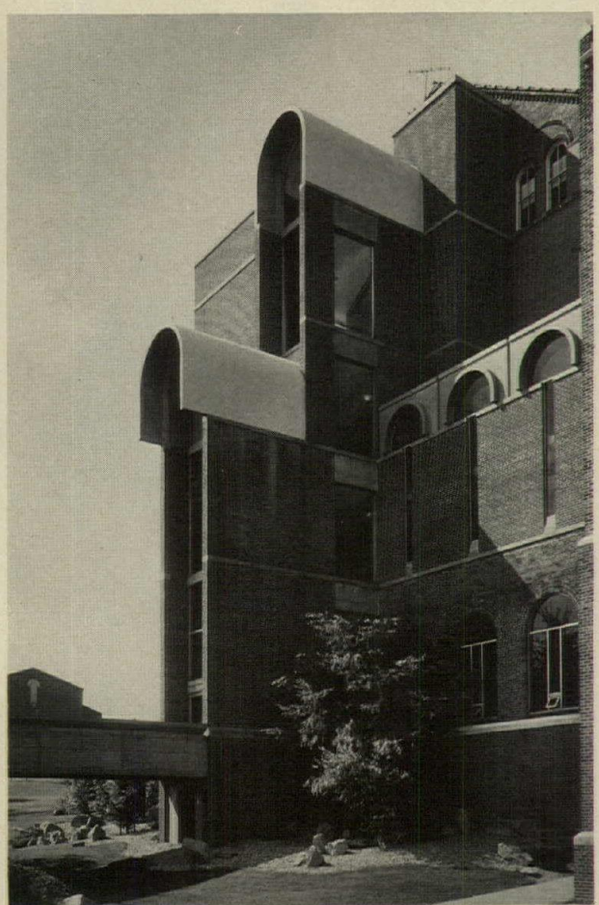
The street level includes a restaurant and lounge as well as an outdoor cafe open during the summer months in the landscaped court (see rendering above).

St. Vincent's Monastery: The creation of new space in this monastic complex provided architectural surprises that nobody could have anticipated





Boniface Wimmer was the monastery's first abbott. On the adjacent property he and his successors acquired, Katselas is now planning a new community to be called Wimmerton.



John Hobbs photos

St. Vincent's Monastery outside Pittsburgh is a complex of buildings, the earliest of which was constructed about 125 years ago. The various buildings are stylistically divergent but each is fashioned of handmade brick by masons who obviously took special delight in the work of their hands.

When fire gutted many of the buildings a decade ago, Tasso Katselas was commissioned to prepare a new master plan—or "master concept" as he prefers to describe it—that envisioned a series of changes extensive in scope and duration. The new Science Center (RECORD, May 1971) was an earlier portion of this rebuilding effort. The newer work—extensive in itself—included a new main entrance to the administrative wing (photo left). This required removing an old warehouse and relocating the nun's quarters to a new portion of the campus-like plan. To create a new reception area, Katselas removed the floor of one space (photo right), but left in place the existing system of wood beams notched to receive floor joists. While visiting is somewhat restricted, this space has become a hub of activities and the monastery staff wonders how it got along for a century without such a space.

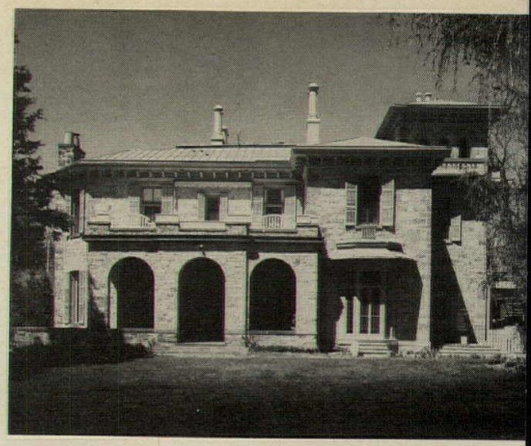
In the course of removing old materials and finishes, Katselas has found a variety of old spaces of unusual interest. An old milk cellar, for instance, was uncovered adjacent to the reception area shown at right and it was subsequently converted into a meditation and conference space.

Under the monastery, and connecting many of its buildings, Katselas found a labyrinthine series of interconnected tunnels, some of them for access to mechanical services, but others that included beautifully built spaces with vaulted stone ceilings. These will be retained and renovated to provide covered (albeit underground) circulation between the buildings.

While St. Vincent's represents renovation at an unusually large scale, Katselas has been careful to retain much of what was good and has resisted the temptation to replace indiscriminately those elements that give St. Vincent's and its brotherhood a sense of continuity and order.

RENOVATION OF ST. VINCENT'S MONASTERY, Latrobe, Pennsylvania. Architect: *Tasso Katselas.* Engineers: *R. M. Gensert and Associates* (structural); *Environment Inc.* (mechanical/electrical); Landscape consultant: *Joseph Hajains.* Contractors: *Pivarnik Brothers and Dill Construction Company.*

Guernsey Hall: The conversion of a mansion to condominium apartments challenges the bias against luxury, multi-family housing

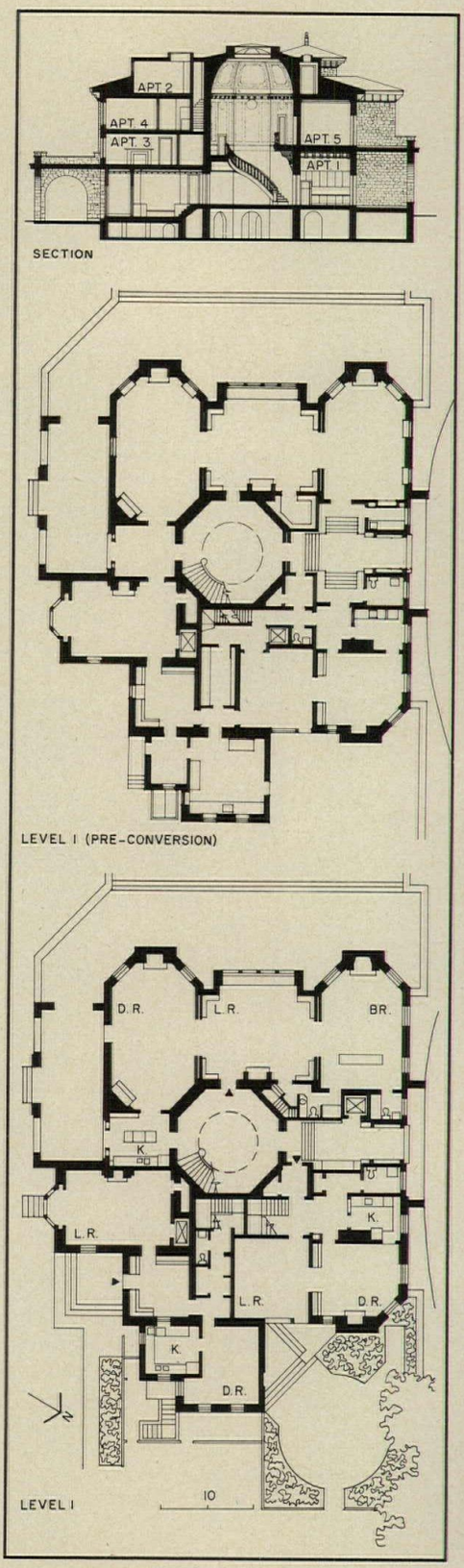


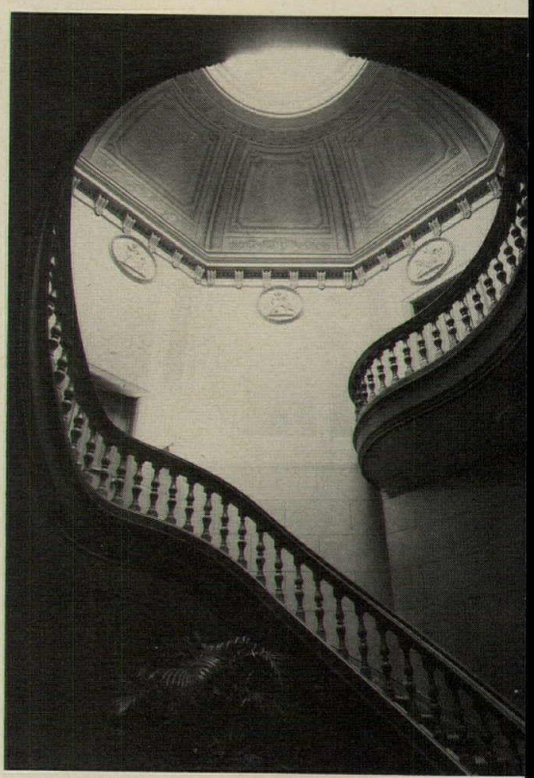
As an era of great estates vanishes, many communities are left with mansions too large for single-family occupancy. In the ordinary course of events, these old houses have been systematically destroyed while the estates on which they stand are subdivided. Except for the efforts of architect William Short, a similar fate would almost certainly have overtaken Guernsey Hall in Princeton. Built in 1849 to plans by John Notman, an architect who did a number of important buildings in Philadelphia and the Delaware Valley, Guernsey Hall came up for sale recently as a single-family residence in an R-1 district. The only offer came from a buyer who proposed to demolish the mansion, so Short—who was anxious to preserve it—joined his neighbors in opposing the potential buyer's petition for a variance. The petition defeated, Short organized financing, sold several apartments in advance, then went ahead with plans to convert the mansion into five condominium apartments.

The conversion, as the photos indicate, was carried out tastefully and with great concern for Notman's detail and decoration. Wherever possible, original materials were preserved intact. New materials were introduced sensitively, and the scale of generously portioned spaces was retained.

Because there was little precedent for this kind of project in Princeton, Short was not certain what the luxury, multi-family market would be. The apartments, as it turned out, sold in the $90-115,000 range without much delay and owners who committed themselves soon enough benefited by custom design features at very little additional cost. Included in the planning is a caretaker's apartment, maintained by the condominium—a feature that seemed mandatory but added considerably to the per-unit costs. The architect estimates that 8 to 10 apartments would be required to support a caretaker's unit feasibly.

Construction costs to the owners were about $350,000, a significant portion of which came from advance sale of the apartments. The remainder came from routine financing. The architect reports that from the beginning he expected to break even (or almost) and that is about how it has worked out.

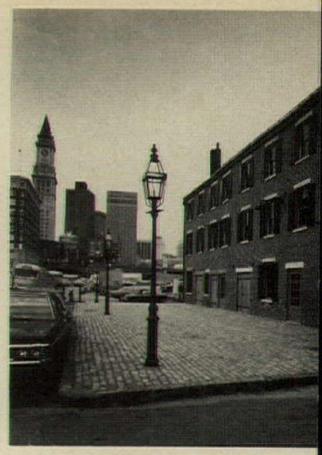




GUERNSEY HALL, Princeton, New Jersey. Owner: *Guernsey Hall Inc.* Architect: *William Short* (now *Short and Ford).* Mechanical engineers: *Stratton, Farley.* Landscape consultant: *William Shellman.* Historical consultant: *Constance Greiff.* Contractor: *S. B. & H Builders, Inc.*

Otto Baitz photos

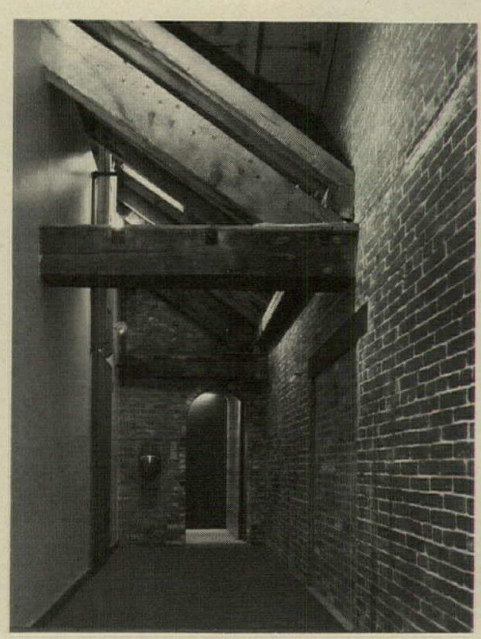
Boston's Long Wharf: Restaurant and housing restore a vitality gone from this waterfront for several generations

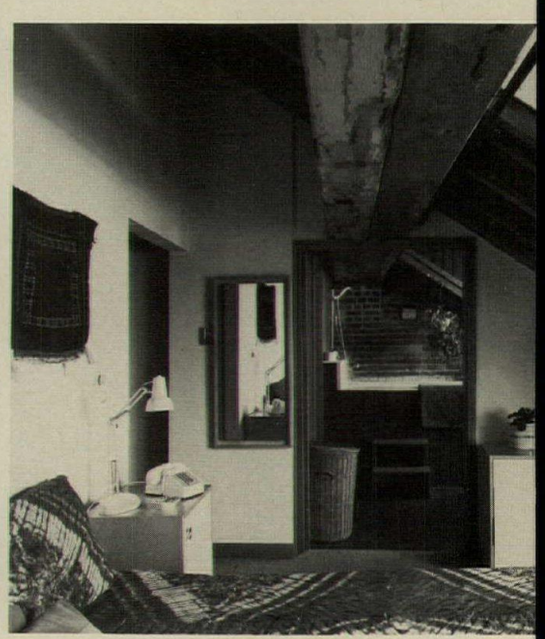


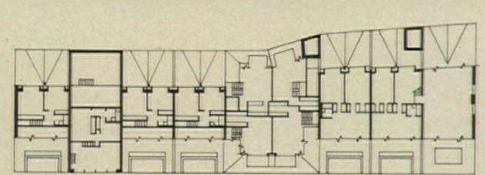
The two buildings shown in the photo (upper left) are situated on Boston's Long Wharf and linger as a link with the city's 18th century past. The larger of the two, the old Custom House, has already been placed on the National Register of Historic places, but by 1966 was largely vacant and neglected. Boston architects Anderson Notter Associates were commissioned to convert the four-story granite building into 27 luxury apartment units. Transverse masonry walls actually separated the structure into nine separate buildings—each with a full attic. The architects pierced these walls with new arches to let corridors through. Modern egress stairs and a new elevator shaft were installed. New electrical services, central heating, sprinklers and intercom system were also installed. The massive timbers framing the roof were exposed in the attic duplexes and old masonry walls were cleaned with care. Because of the building's configuration, each apartment is spatially unique and looks out over the old Boston waterfront in a broad vista of water and shipping.

The smaller building, adjacent to the Custom House, was purchased by a West Coast restaurant chain that specializes in broiled seafood and steak. Because of the restrictions placed on the project by the Historic District, the exteriors were retained very nearly intact. Using the same technique they employed in the Custom House, Anderson, Notter cut through transverse walls of the three existing bays and built new arches from old brick removed to make the openings. Brick walls were sandblasted and old timber joists were exposed and cleaned. The lowest level is used as a cocktail lounge; the second floor and mezzanine serve as dining spaces. A manager's office and support spaces occupy the old attic and create the uppermost partial level seen in the section (top right).

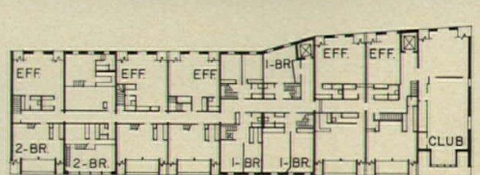
Both conversions were executed with very considerable design concern and with respect for the virtues of the original structures. The result is that two historic buildings, suffering from long neglect, are now restored to usefulness and a disintegrating portion of the city is starting to feel the quickening pulse of new water front activity.







MEZZANINE FLOOR



FIFTH FLOOR

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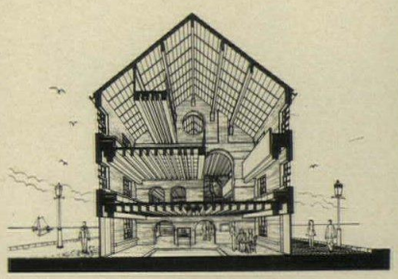
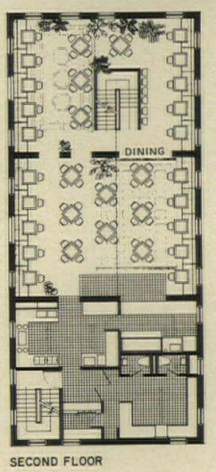
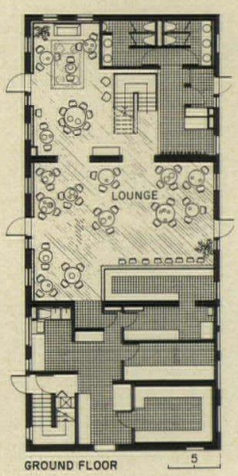
CUSTOM HOUSE BLOCK AND CHART HOUSE RESTAURANT, Boston, Massachusetts. Architects: *Anderson Notter Associates, Inc.* Engineers: *Arthur Choo Associates* (structural); *W. N. Peterson Associates, Inc.* (mechanical); *Joseph V. Herosy* (electrical). Contractor: *Stoneholm Construction Company.*





SECOND FLOOR

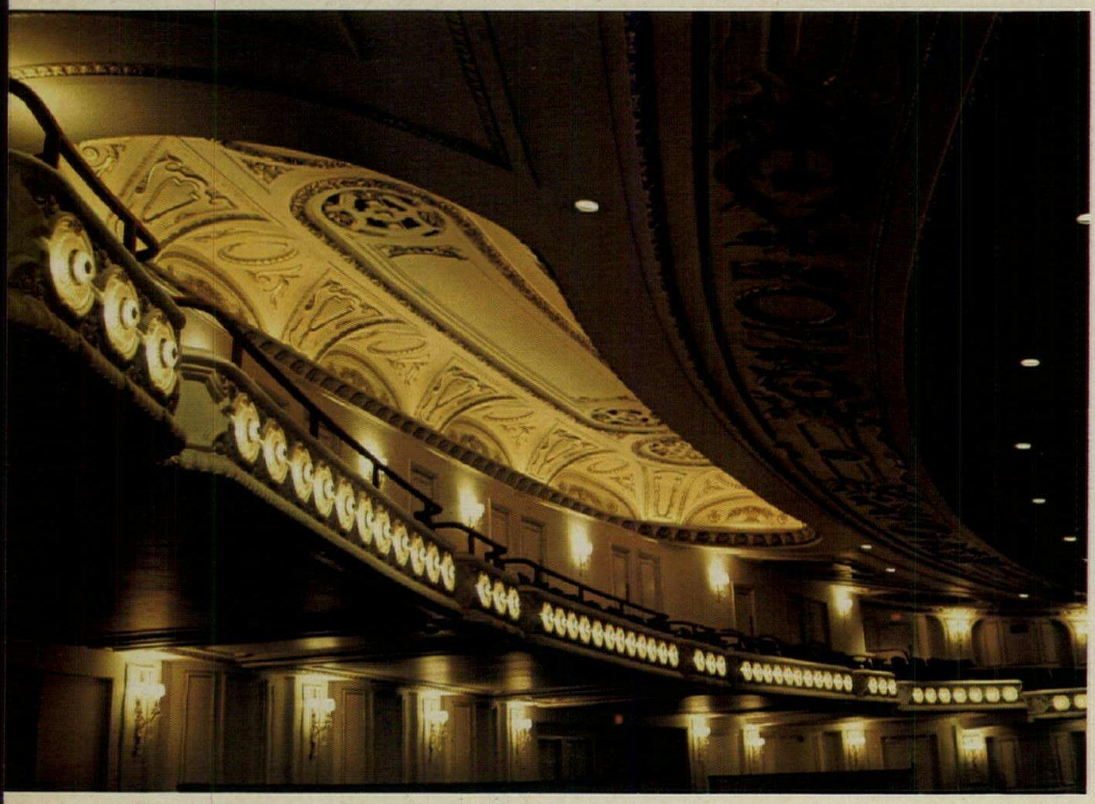


GROUND FLOOR 5

The three structural bays that formed the original building are still visible in the plans although the architects pierced the transverse walls with new arched openings. Restaurant use, to conform with local codes, was restricted to the middle two floors, while the street floor is used as a cocktail lounge.

The detailing of new work throughout is consistent but not fussy so that it matches, in spirit at least, the shims and ad hoc character of the original framing, much of which was concealed before renovation. Nothing seems quite plumb in the old building and the architects made a virtue of these eccentricities in the renovation.

Powell Hall: More was subtracted than added in creating a new home for the St. Louis Symphony



When Stanley Goodman and others interested in the St. Louis Symphony began seeking a new and permanent home for their orchestra, the usual options were examined. New construction of a suitable concert house (estimated cost $15-20 million) was a possibility, of course, but when the old St. Louis movie theater (at top) became available, its virtues were almost irresistible. It had been built in the twenties by architects Rapp and Rapp of Chicago, who had lavished on the building a high level of decoration and detail even for that period of decorative richness. Preliminary tests indicated that the acoustics were good. The structure was sound and required few structural alterations for conversion to symphonic use. Work on the project commenced immediately.

The design goal was to create an excellent modern concert facility with the warmth and opulence of the old Baroque houses of Europe. Lighting designer David Mintz filled out the spindly chandeliers over the grand foyer, carefully replicating their crystal details but increasing their bulk considerably. Additional downlighting was added to the ceiling which was then painted to brighten the space and selectively simplify the detail. Both in the foyer and in the house, the designers simplified where they could by removing unwanted detail and retaining what was best.

The house itself was fitted with new seats, repainted off-white, regilded and relamped. Mintz removed two-thirds of the bulbs (which were red, white and blue) in the magnificent ceiling dome (photo left) and added downlights in a pattern that reinforced the ceiling geometry. Uplighting is provided by wall fixtures, some of them concealed, that illuminate the ceiling and reveal its forms and details without disturbing the dome's gentle glow.

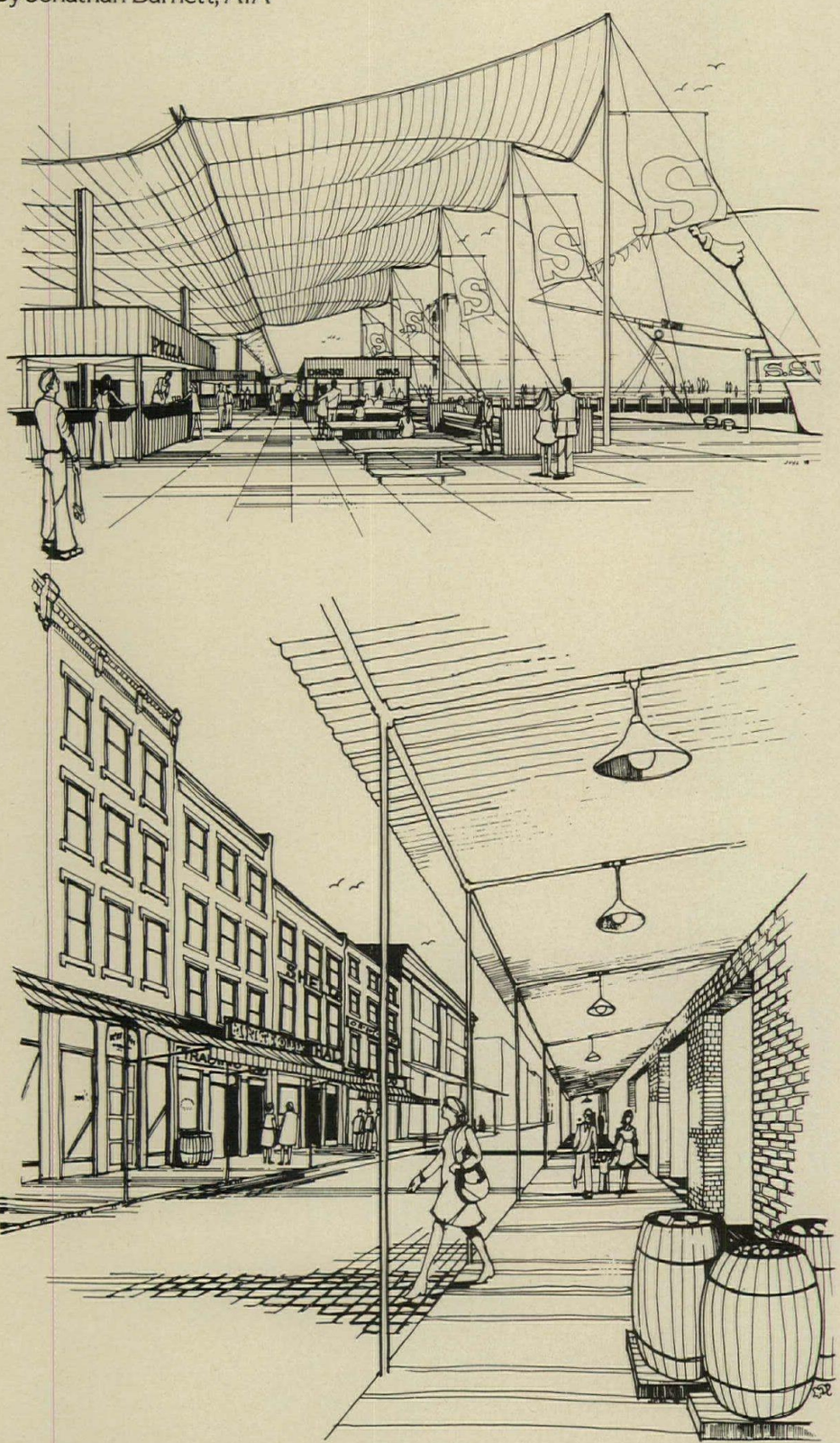
What seems most striking about the completed project is the skill with which the modifications proceeded. The process of selective subtraction has resulted in a modern concert hall with superb acoustics but without any visible sacrifice of elegance or those magical, fantasy qualities to which concertgoers still respond most warmly.

POWELL HALL, St. Louis, Missouri. Architect: *Angelo Corrubia.* Theater consultant: *Ben Schlanger.* Engineers: *Cyril Harris* (acoustical); *Ken Balk and Associates* (structural); *Ross and Baruzzini* (mechanical). Interiors: *Clark Davis, William Bernoudy.* Lighting: *David Mintz with Lewis Smith.* Contractor: *Rallo Construction Company.*

T. Mike Fletcher

Wanted: Not-for-profit entrepreneurs

by Jonathan Barnett, AIA



The South Street Seaport: a not-for-profit entrepreneur using a balance between philanthropic and money-making uses to restore a portion of the old New York waterfront and some fine sailing ships.

Many historic or landmark buildings that people wish to save have some commercial potential, and their preservation need not be totally dependent upon philanthropy or governmental subsidies. But what sort of person can put together a working combination of commercial and non-profit financing? Someone is needed who can use the skills of the real-estate developer to advance causes that, up to now, have belonged to government or non-profit or philanthropic institutions—in short, a not-for-profit entrepreneur.

There are plenty of non-profit groups around, and there is no shortage of entrepreneurs; but the two categories traditionally describe entirely different sorts of people. Members of non-profit organizations, particularly if they work on a volunteer basis, are likely to consider money-making enterprises vulgar at best, while real-estate developers will find that anything not likely to return high profits is unbusinesslike, a waste of time. There are legal difficulties too. Foundations must be careful where they put their money.

I first became aware of this problem when we completed the development plan for the South Street Seaport Museum in New York City, where I was the planner and Edward L. Barnes the architect.

The Seaport involves the preservation and restoration of five city blocks in what is now the Fulton Fish Market (the market will soon move to the Bronx), and the development of one of Manhattan's few remaining stretches of accessible waterfront as an exhibition area for a collection of historic ships.

The plan, drawn with the assistance and close participation of a real-estate consultant, called for certain portions of the Seaport to take in as high a rental as possible, in order to subsidize the restoration and provide space for museum uses in other parts of the project.

There was general agreement among staff and trustees that the plan showed the right balance of uses, and that there was little likelihood that the organization could raise enough money to carry out the restoration on a purely philanthropic basis. But who would administer and carry out the plan?

Several real estate developers looked at the plans and offered to do the profitable parts,

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Mr. Barnett, a frequent contributor to RECORD, is the director of the Graduate Program in Urban Design at the City College of New York. He is the author of *Urban Design as Public Policy*, Architectural Record Books, 1974.

but they could not see becoming involved with administering philanthropy, even for a fee. The South Street organization knew how to administer grants but was not experienced in raising mortgage financing or negotiating leases with commercial tenants.

As a result, the South Street Seaport is having to evolve into a different kind of organization in order to carry out its plans. It has to become a not-for-profit entrepreneur, a complex and difficult metamorphosis. There are two dangers: it can become too much of a real-estate developer, and lose the elan which made it a worthy cause in the first place; or it can remain overly philanthropical, and be unable to put together the money necessary to carry through the restoration.

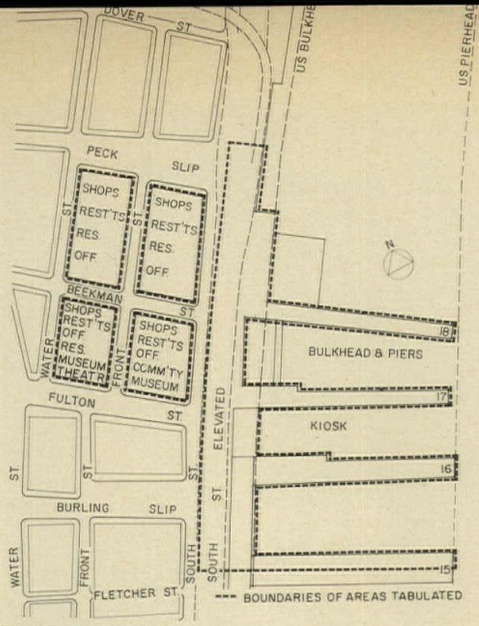
The South Street Seaport also demonstrates another kind of not-for-profit entrepreneurship, exercised by city officials. If it had not been for the intervention of two successive directors of New York City's Office of Lower Manhattan Development, Richard Buford and Richard Weinstein, the most significant buildings in the historic district would have been demolished to make way for a new office building. Instead, a series of complex maneuvers were devised by the City, involving the transfer of zoning air rights and the purchase of these development rights by a consortium of banks.

Not-for-profit entrepreneurship represents a new way out of an old dilemma. Preserving historic buildings has been a story of lost causes, last minute reprieves, and many last minute defeats.

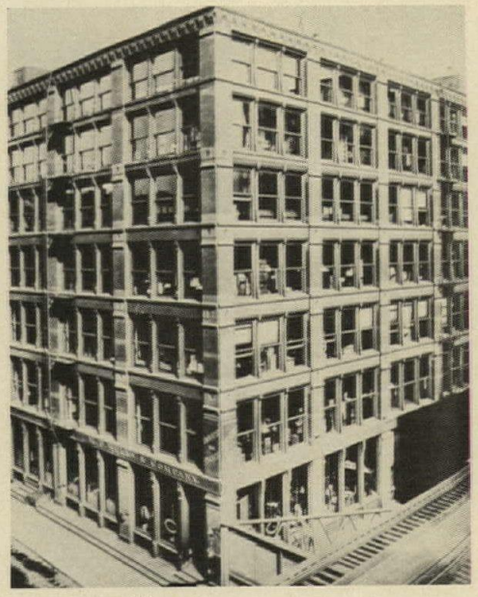
The fashionable, and at least partially correct, explanation has been our "frontier mentality." Americans were supposed to believe that change means progress, and that new things are better than old. Today, as far as the built environment is concerned, our national attitude has probably become just the opposite: anything new is probably going to be worse than what we already have.

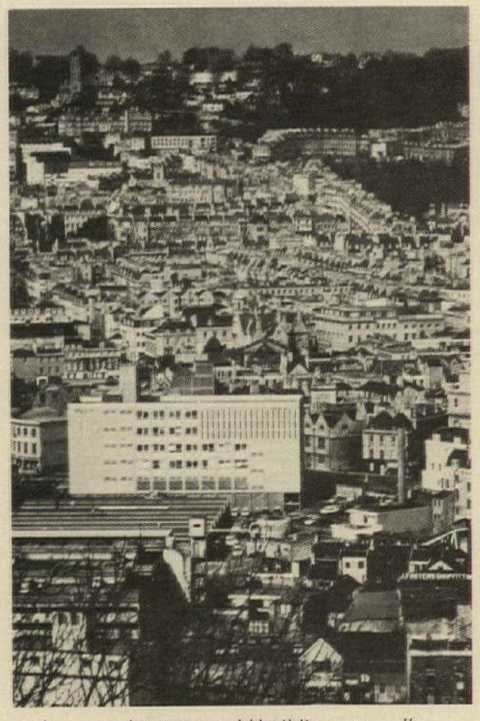
The widespread interest in preserving old buildings is an index of this new concern, and as concern is translated into new and effective institutions, we can look forward to a much more rational and much more successful preservation policy.

Architects and Historic Preservation. Architects have an important role to play in this process, although the much more conservative public attitude towards the environment has had its awkward moments for the profession.



The South Street plan.


The Leiter Building:
it is all in the history books,
but are virtues apparent to the layman?


Bath: even where many old buildings are well preserved, one new structure can spoil the setting that made these buildings meaningful.

Architects, who are used to thinking of themselves as good guys, have been the recipients of a lot of unaccustomed criticism. If they were not a party to tearing down a landmark, or disrupting an existing neighborhood, they were invading the landscape and disturbing the ecology.

There was even an element of what could be called architectural criticism in the enthusiasm for old buildings, for their color and texture, and ornament, and—above all—fantasy: aspects of architecture not usually found in the more puritanical "modern" buildings.

One consolation of the current hard times for the architect is that he can put his white hat on again. As we enter an economy of shortages that no longer supports unbridled growth, it is obvious that in the future there will be fewer opportunities to design from a "clean slate" by bulldozing existing buildings or landscape, and more need for conservation.

The architect's skills will be needed more than ever, for it is much harder to integrate new development with old, be it buildings or landscape, than to knock everything down and start afresh.

Priorities of Preservation. Accepting every old building as a priceless treasure will be just as foolish as considering old buildings to be fully depreciated encumbrances preventing the highest and best use of the land.

There can be a lot of silliness in landmarks preservation, principally because of what might be called the pathology of lost causes. When historic preservation was a lost cause, many people rallied to it who felt a need to support a losing proposition. The prospect of success can be very unsettling, leading to factionalism and opposition to the very course of action that has the best chance of doing some good. Those who lived through the origins of community participation in city planning will know exactly what I mean.

I mention this problem because it would be nice, although it is probably unrealistic, to set priorities for preservation. It is relatively easy to agree on a list of buildings of outstanding merit, but there are a number of other reasons for preserving old structures and they have relatively little to do with the architectural quality of the building itself. One is historical association: George Washington slept here. Another is intrinsic historical interest: an early use of steel frame construction, for example. A third is contextual: a historic district which would be spoiled by intrusive elements.

Pennsylvania Station: an act of patronage by big business—but the patronage was later withdrawn

A fourth reason might be that a building is literally a landmark, a significant point in the cityscape that helps people to orient themselves and is remembered as part of the city's image.

A visit to the West End of London, or to Bath, is enough to convince anyone that context is important and architectural merit or historical associations alone should not be permitted to set preservation policy. On the other hand, a building that is in all of the textbooks because of its technical interest to art historians may not really be worth preserving, particularly if its merits are invisible to the layman.

Some old buildings, of course, are self-preserving, and there is no need to debate their future. College buildings, for example, are often in this category: they are still usable for something like their original purpose, and sentimental associations work strongly in their favor.

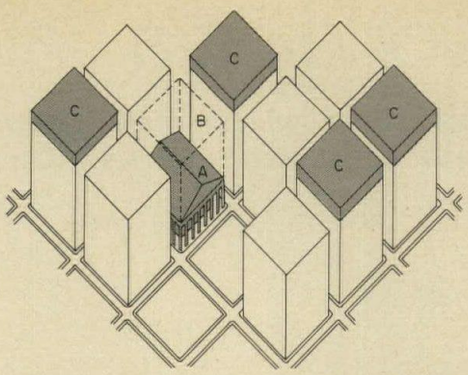
Churches and public buildings are also largely self-preserving, although changing congregations and expansion of public institutions are increasingly severe threats.

Houses and other buildings in districts like Georgetown or Beacon Hill can be protected by relatively simple means, like limited height designations, with individual home owners undertaking the actual work of preservation. Such districts can be preserved to the point where they are actually more impressive than they ever were in the past.

There are also some old buildings whose architectural or historic merits are so obvious that government will step in and buy them, or they can be saved by public subscription. Such resources are terribly limited, however. Ironically, it is only in places like Poland or the Soviet Union that historic preservation or restoration can be given priority over new schools, public housing or hospitals.

Landmarks as Acts of Patronage. Many old buildings never have been economic in real estate terms: they were acts of patronage by clients who were willing to spend more money than was strictly necessary, and had the authority to follow their inclination.

It is not clear why the officials of the Pennsylvania Railroad felt the need to equal the achievements of the Roman Emperor Caracalla (perhaps they were unaware of his reputation as a mass murderer) in commissioning Pennsylvania Station in New York City. Nevertheless, McKim, Mead and White's replica of Caracalla's Baths, however illogical it may have been as a railroad station, was a magnifi-



Air-rights transfer: a diagram from "Space Adrift" by John Costonis. A useful technique, but only applicable in cities with strong real-estate markets and restrictive zoning regulations.

cent gateway to the city, and the train-shed with its echos of Soane's Bank of England was impressive too.

Less than 50 years later, the Railroad rescinded its act of patronage (we now know it was heading straight for bankruptcy) and replaced the station with a utilitarian office building and sports arena.

The architectural patron is an endangered species these days. For every J. Irwin Miller or Ford Foundation there are hundreds of corporate officers or government bureaucrats who have neither the desire nor the power to act as patrons.

If the patron is heading for extinction, the majority of old buildings can survive only if they can somehow be brought to terms with the over-all real estate market; and governments and interested cities must work with such buildings on this basis.

Landmarks and the Real Estate Market. Old buildings are generally threatened by the real estate market for one of two reasons: the land on which they stand is too valuable to permit their continued existence, or their location is not valuable enough to permit the buildings to be occupied by suitable tenants.

The question of real estate value is of primary importance because the laws governing property and due process prevent landmark preservation legislation that seriously abridges the rights of owners, unless compensation is offered.

A number of methods have been invented for dealing with landmark buildings that are smaller than the zoning regulations for the area permit. One was an amendment to the New York City zoning regulations that permits the transfer of unused development rights to adjacent parcels. Later, more comprehensive measures were adopted for the air-rights of the South Street Seaport, including an air-rights transfer zoning district and the "banking" of air-rights for future use.

Ideas of this kind were elaborated and improved upon in an intelligent and comprehensive book about saving landmarks through air rights transfer, called *Space Adrift* (see review, RECORD, July, page 45). The author, John Costonis, was led to these ideas while trying (unsuccessfully) to save the old Chicago Stock Exchange. He has consequently called his proposals "The Chicago Plan," a somewhat misleading label for two reasons: because these measures have not yet been enacted or used in Chicago, and because calling such proposals a plan implies a much wider range of application than is likely to be the case.

Air rights transfer is only needed, or likely to work, in cities with strong private real-estate markets, like New York, Chicago or San Francisco. (It is not needed in cities like Detroit or Norfolk, where the supply of available property exceeds the demand to develop.) In addition, the city must have a restrictive zoning ordinance. If you can build what you want on your own property—in Atlanta or Dallas, for example—there is not much need to buy development rights from a landmark building.

Even in cities like Chicago, where there has been strong real-estate activity, there will always be landmarks—the Glessner House, say—which are situated in areas of no current interest to entrepreneurs.

It is true that such buildings will not be demolished for new real-estate development, but there are plenty of other threats to old buildings, particularly if their original use is no longer viable.

Adaptive Re-Use. The most promising approach to saving such buildings is adaptive reuse.

The National Endowment for the Arts and the Educational Facilities Laboratories recently sponsored a conference on Re-Using Railroad Stations. This conference did an excellent job of publicizing the merits of such buildings, many of them acts of architectural patronage not likely to be duplicated again. It also called attention to the deteriorated and threatened state of many fine old stations.

It was made very clear at the conference, however, that there is no formula or "plan" for adaptive re-use.

It was also clear that concentrating preservation efforts exclusively on particular buildings, no matter how significant, would not be enough; that the problems of a landmark building are closely tied to the problems of the area in which it is situated.

Urban railroad stations have particularly serious context problems, not really examined by the Indianapolis conference, because they are likely to be situated in warehouse districts some way from the city's commercial center.

Adaptive re-use in such circumstances will require not only the work of a not-for-profit entrepreneur, but an office or person whose job is to worry about particular districts of a city.

District Administrators. It is difficult to bring new, economically viable uses to a railroad station or a post office if they are located some distance away from the prime real estate areas. Revitalization of a landmark building may only be possible as part of a program for a whole district or neighborhood.

Replanning and designing whole areas of a city requires people whose full-time job is to worry about the problems of that particular area. Such a person will almost certainly be a government employee, although a full-time executive of a chamber of commerce or civic group may be able to play something of the same role.

Urban renewal districts routinely have an administrator stationed "in the field," but cities are just beginning to realize that district administrators would be useful for other kinds of areas as well.

Enough of John Lindsay's "neighborhood government" proposals have been carried out in New York to demonstrate that this kind of executive decentralization makes a lot of sense, particularly for planning and design. The Office of Lower Manhattan Development, and the Office of Downtown Brooklyn Development in particular, have been active in saving landmark buildings.

Of course, "neighborhood" in New York means subdivisions that are larger than many metropolitan areas, but the principle makes even more sense for smaller jurisdictions.

Officials with city-wide responsibilities for education, or housing, or rubbish collection or what have you, are going to worry about their particular speciality, and not the effect that each may have on the other. The city also needs an executive whose responsibilities are co-ordinative. In a small city, a mayor or a city manager can do the job. In larger cities, district administrators responsible to the mayor or city manager would make co-ordination more effective.

The significance of this reform for design and planning would be a much stronger context which also would make the preservation of landmarks easier, because they would be seen as part of a larger pattern.

Saving landmark buildings is a full-time job. Volunteers, or government and business leaders with many other things to do, are unlikely to save landmark structures on their own. They need the help of two new kinds of professional: first, the district administrator, to provide the context for preservation, and second the not-for-profit entrepreneur, to save the buildings themselves.

Found: The world as a candy box

For the architect designing new buildings, the buildings of the past teach many lessons; the most important one (which he may not have learned in school) is that there is no one, "correct" way

Most architects practicing today received their education since the Second World War, and a good part of their education came from the copybook of Modern architectural theory—which in its various chapters declared that ornament was a crime, that the historical styles were a lie, and that, as Walter Gropius once said, a breach had been made with the past. Architects, nevertheless, are among the first to join the picket lines when an historic building is threatened (just as they were among the first to rediscover that Victorian houses are fun to live in), and their enthusiasm for old buildings seems to fly in the face of what their masters taught them.

The teachings of the Modern Movement represented an intentional attempt to sever the architecture of the present from what had gone before, and to create a new style—independent of history, based on logic, reflective of the technological civilization of the Modern age, and capable of achieving honesty of thought and feeling (read: millennium). The effort was not intended to accommodate the needs and visions of the present in some comfortable continuum of history, but to have it either/or: either Modern or old-fashioned, either okay or bunk. The effort was, in a word, revolutionary.

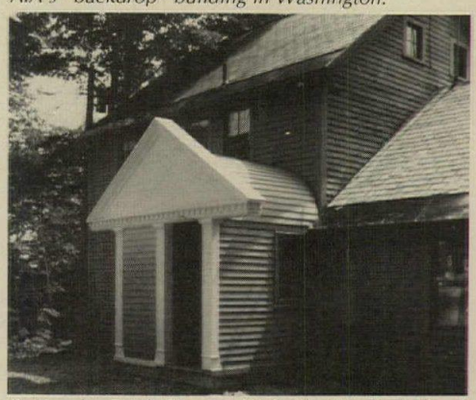
They may have been right. They were certainly fervent, they were certainly doctrinaire, and they were certainly (in their revolutionary way) orthodox. They envisioned a totally new, comprehensive and rational system.

But what about the other systems with which the true, Modern system collides? Curiously, the collision was at the outset almost painless when it occurred with the most obviously competing orthodoxy: historic preservation. The town of Williamsburg, for instance, poses no general threat; restored to correctness right down to the upholsterers' tacks and neatly circumscribed as a place somewhere in Virginia, it is a jellification of the past that can be slipped into the contemporary scene with ease. So it is with landmark buildings in most American towns; lovingly restored, they are like Old Master paintings hung on the walls of starkly Modern houses.

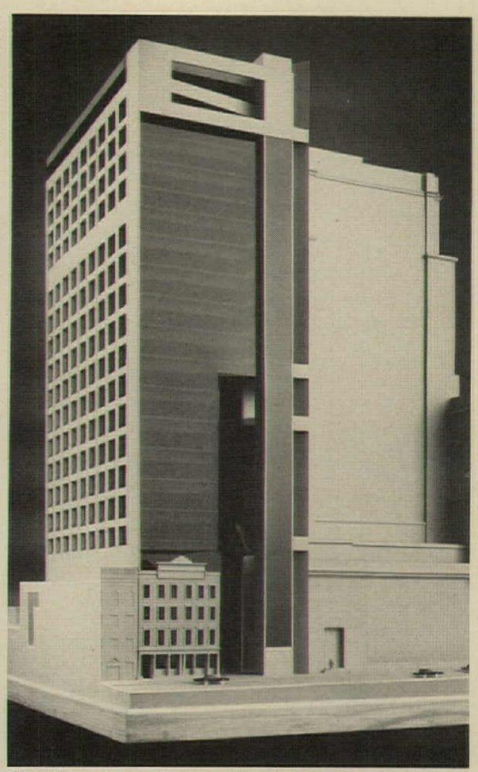
But much of the rest of the past—the part not yet granted Old Master status—does not fit so easily into the system, as the residents of many American towns were not pleased to discover when the bulldozers arrived in the 1950s (and are still not pleased to discover now). Architects themselves feel uneasy, watching

Ezra Stoller © ESTO

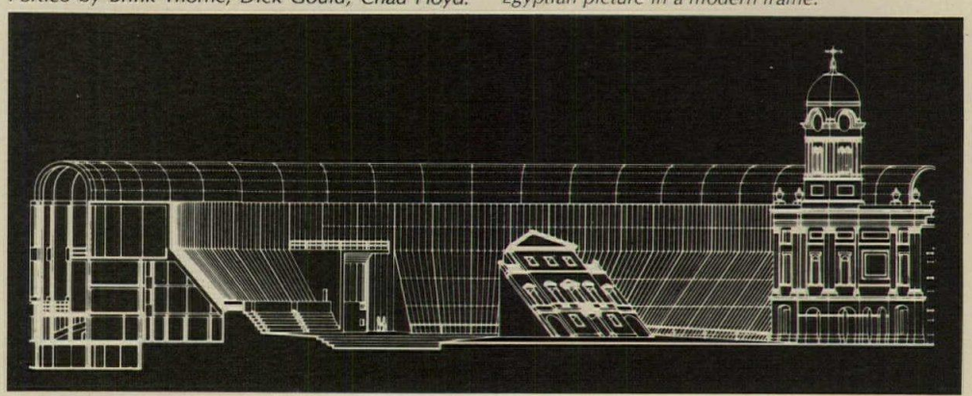
AIA's "backdrop" building in Washington.



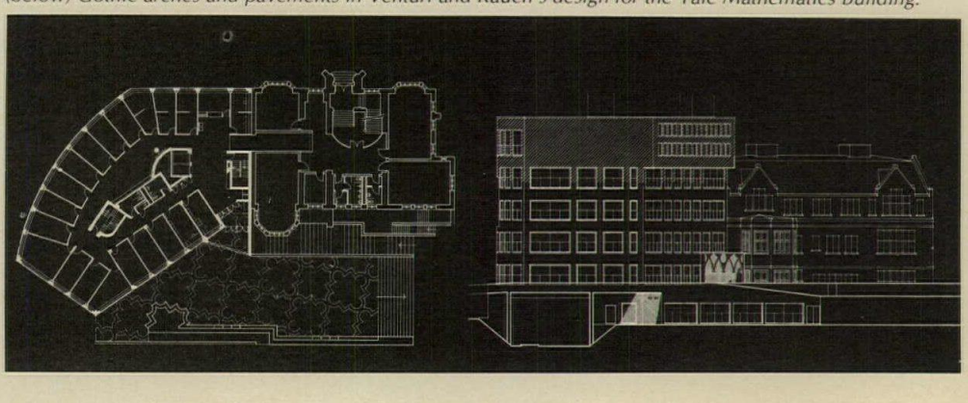
Portico by Brink Thorne, Dick Gould; Chad Floyd.



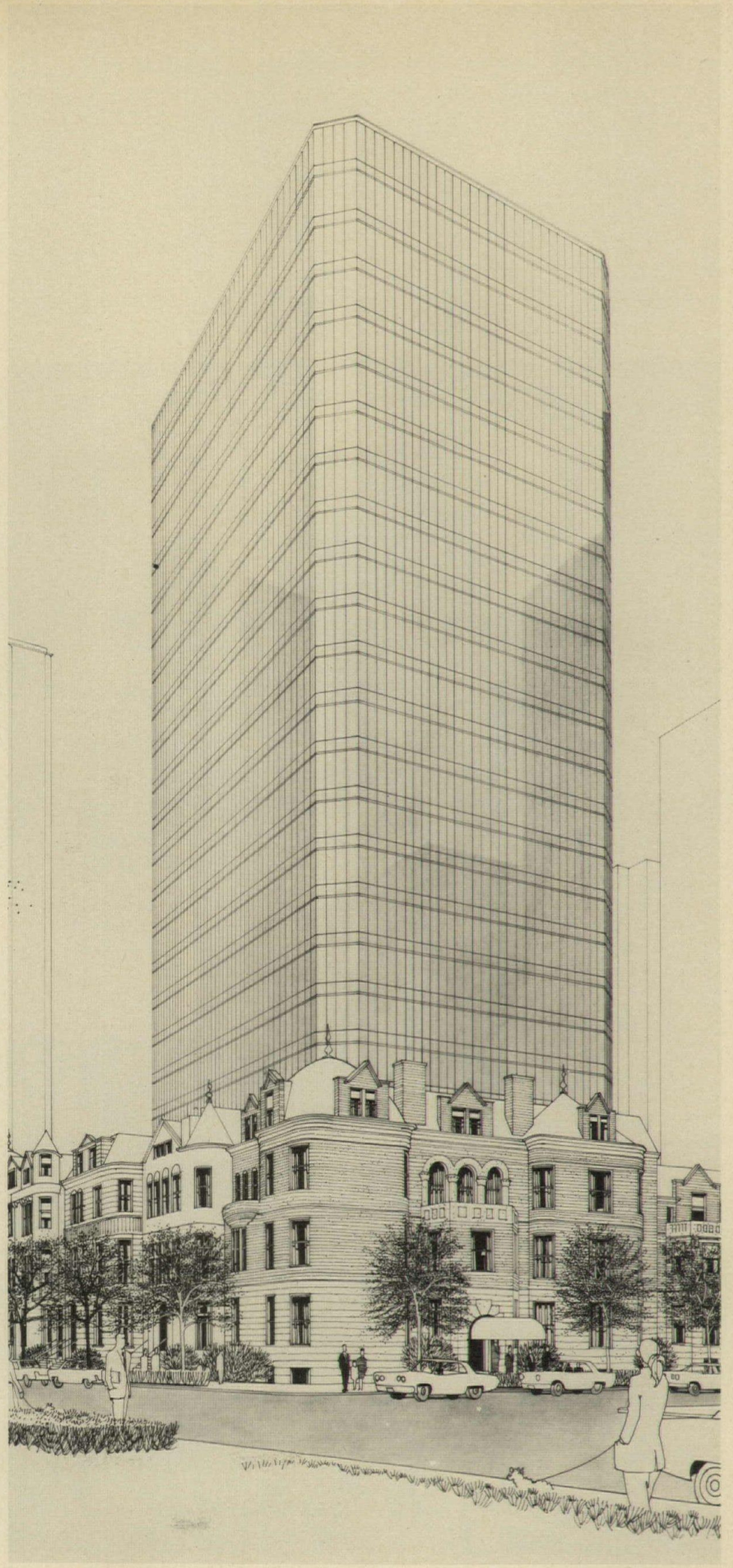
Egyptian picture in a modern frame.



(Above) eighteenth-century facade turned into a band shell in James Stirling's Derby Civic Center; (below) Gothic arches and pavements in Venturi and Rauch's design for the Yale Mathematics Building.



George Shipporeit's addition to Astor Street in Chicago.



whole sections of the built environment that obviously have merit bite the dust. Economics, politics, developers, lawyers—all of them making a different kind of "system"—become the culprits. Architects don't often question their own system, inherited, memorized, and therefore unconsciously practiced.

Its orthodox limitations were dramatically revealed, as everyone knows, when they built a collective house for themselves—the AIA headquarters building in Washington. What is most interesting about the AIA building is not the squabble over the prize-winning Mitchell/Giurgola scheme, or the relative merits of The Architects Collaborative scheme, but the surprisingly limited palette offered by either design. The system seems to have decreed only two options, and Mitchell/Giurgola's design represented the first: a bold architectural "statment"—"a distinctive visual image," as the press releases for such buildings always go, "that enhances and complements the adjacent, older building." The Architects Collaborative building, on the other hand, is more modest; built in a familiar Gropian image, it bends every effort to efface itself and to become a backdrop for the Octagon House (photo above left). Mitchell/Giurgola's chance came again, however, in the Penn Mutual Building in Philadelphia, which is now nearing completion. In this case, though, just the facade of an earlier, Egyptoid building on the site, carefully restored, becomes the "historic" element in an otherwise Modern (and very good looking) composition.

If Mitchell/Giurgola's efforts here seem somewhat relaxed and unorthodox, then a handful of other examples shown on the left will seem downright permissive—a completely "incorrect" Doric portico slapped onto a clapboard farmhouse, an eighteenth-century English facade "restored" on the diagonal to make a band shell, and an addition to a building that sprouts little Gothic arches at the joint, and sports a plaza paved in giant quatrefoils. These designs are very hard to make systematic sense of (and some will make sense of them by calling them just plain silly). What they all have earnestly in common is an acknowledgement of the presence of historical styles, or actual buildings, and a kick-'em-in-the-teeth attitude towards any set of rules for designing around them "correctly." These designs—with wit or irony or subtlety or incompetence or whatever you choose—deny the either/or choice.

Similarly negative of the rules is George

Frank Lloyd Wright's Francisco Terrace—demolished this year, but scheduled for resurrection by Ben Weese.

Schipporeit's project for a high-rise apartment building on Astor Street in Chicago, shown in the large drawing on the previous page. The problem here is familiar enough: a range of nineteenth-century row houses threatened by pressures to develop. Legal restraints would force a setback from the sidewalk for any new construction (thus destroying the form of the neighborhood as well as the existing buildings), and the local soil conditions and economics decree parking in above-grade garages (thus destroying most vestiges of human habitation at street level).

Schipporeit's design is one that will drive orthodox preservationists—and orthodox Modernists—to despair. It sheers off the backs of most of the row houses and converts the front parts, their facades intact, into two-bedroom townhouses. The large house on the corner becomes the lobby for the apartment tower behind; its living room becomes a lounge, and its upper floors can be adapted to other amenities or put to commercial use. The above-grade parking garage conveniently uses up the distance from grade to the roof line of the row houses, so that the first floors of the tower have unrestricted views.

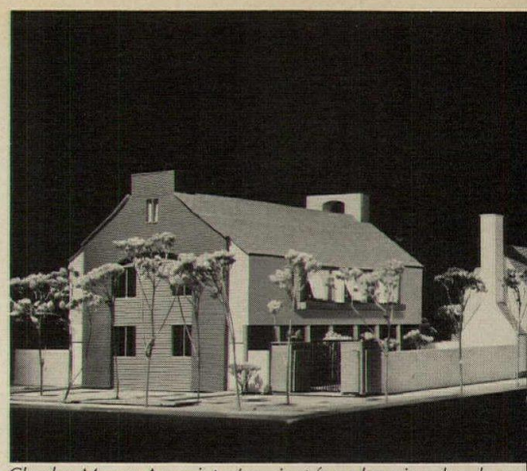
All of this may seem destructive of cherished values on all sides, like a highly cynical Congressional compromise. Certainly, the scheme is not very pure as a diagram; but for the person (literally) in the street a great deal that is worth saving will have been saved. Schipporeit's design is hybrid and relaxed, and it responds directly to a host of individual, social and economic values. It should be built.

Ben Weese, an ardently relaxed preservationist, has produced a hybrid scheme, similar in spirit to Schipporeit's, for Frank Lloyd Wright's Francisco Terrace housing in Chicago (photos left). Wright's early attempt to deal with the problem of low-income housing consisted of spartan living quarters arranged around a central courtyard. The entire complex (like most of the neighborhood around it) was in an advanced state of decay; attempts to rehabilitate the building failed, and it was demolished earlier this year. Weese's "preservation" scheme—which is still alive even though the building is gone—took the position that what was important about the building was its ornament (which could not be reproduced) and its massing (which could).

Accordingly, the terra cotta cornices, arch and decorative columns and lintels were carefully removed before demolition, and Weese

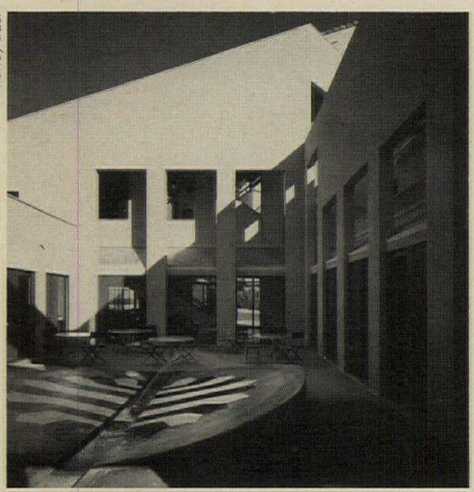
MLTW/Moore-Turnbull's Pop Hollywood Spanish interior for the Faculty Club at UCSB.

Morley Baer



Charles Moore Associates' project for a housing developme

Morley Baer

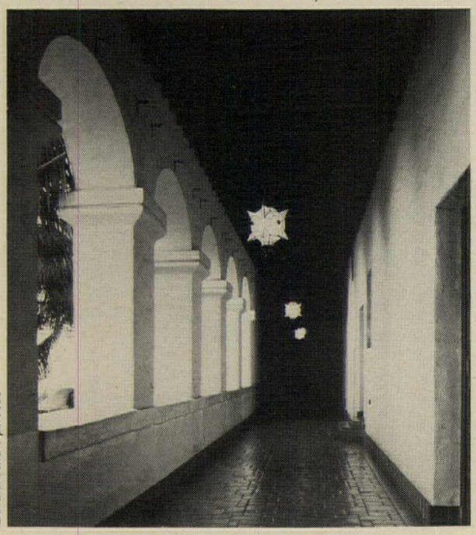


Patio of UCSB faculty club.

"Street in Spain" in Santa Barbara.

Arcade of the Santa Barbara County Court House.

Gerald Allen photos

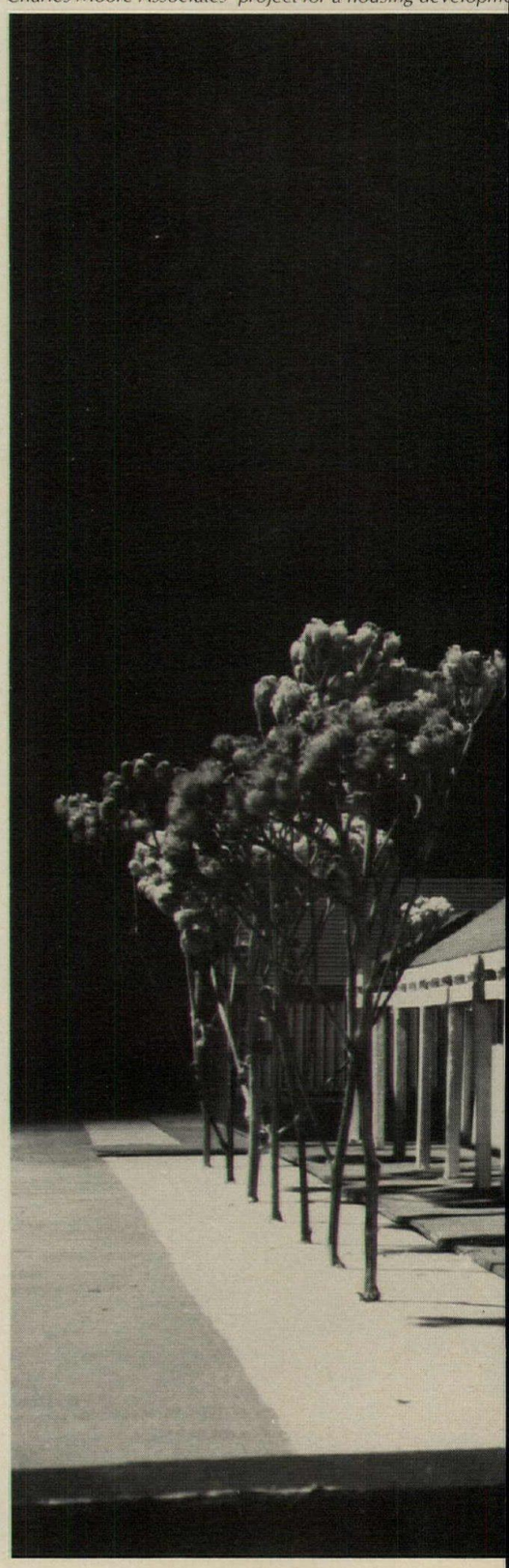


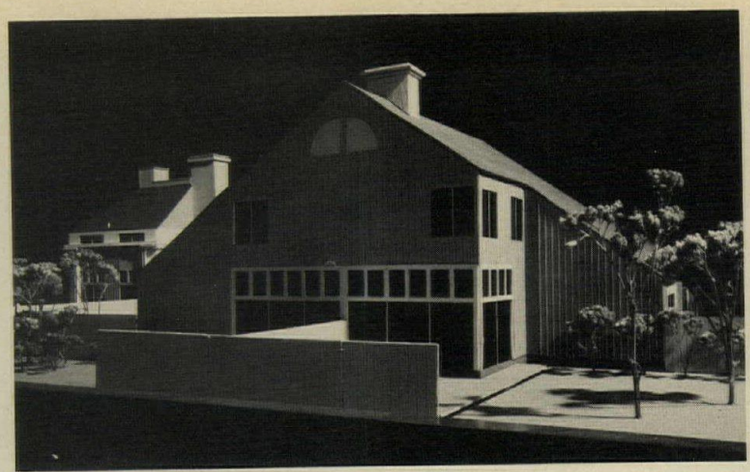
has designed a new building which conforms to the original massing, but consists of contemporary townhouses which, it is hoped, can be feasibly financed and marketed. Some would regard this as a Pyrrhic victory for preservation; but it is also a flexible, active design response to a set of unalterable design problems.

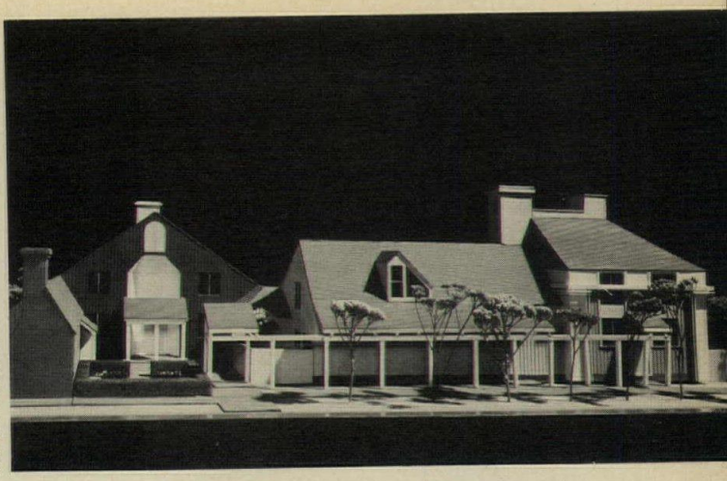
Charles Moore, a notably historicizing architect (as well as an architectural historian), has commented on the difficulty many designers have in making their responses flexible. "I'm fascinated," he says, "by how people clearly don't respond to what is clearly okay, but respond instead to their rigidified, Teutonized diagrams. Sociologists who send out questionnaires to people who are going to move into subsidized housing do the same thing; they ask a set of questions that depend on a very limited set of things people know about already. 'Would you rather do A, like you did in your third-ago apartment, which you were driven out of by the rats?' 'Or would you rather do B, like you did in your second-ago apartment, which fell down?' All they get is either A or B again—and they don't get C, which could hardly fail to be better. The whole process of designing depends on staying open, on being ready to seize on something when it seems to be a good thing, rather than pushing it away and making some 'original,' geometrically okay, but experientially hopeless concoction."

Moore's own work, with his partners William Turnbull and Donlyn Lyndon, at the University of California at Santa Barbara (previous page and above left) seizes on the pseudo-Spanish Colonial architecture of many of Santa Barbara's existing buildings, and emulates not only their theatrical spirit, but their habit of using terraces, patios, arcades and balconies to create varying degrees of indoors and out (photos left). A different project, for a housing development near Williamsburg, uses different models—Colonial architecture, and the architecture of the Greek Revival (right).

These buildings are obviously not slavish copies—and in fact if the buildings of the past (and our enthusiasm for them) have a single lesson to teach, it is that slavish copying is out. There is no generation of latent Beaux Artists ready to proclaim a new eclecticism. There is only a generation of architects learning to cast their nets backwards in time—and outwards—to find what feels right for a given design problem, and what among the many options seems really possible. *—Gerald Allen*







Thomas Brown photos

ear Williamsburg.

Sitting Ducks: Examples of endangered species which should and could be saved

Convincing arguments for preservation have been made in this issue—but all too often other arguments win. This is tragically denuding our towns and countrysides not only of "background" buildings, which are important for providing the continuity of neighborhood scale, but landmarks as well. And once gone.

A look at the following pages will show buildings whose existence has (or should have) lifted spirits for generations—and which are here grouped by the common problems that may now destroy them unless we come up with new uses and new techniques for saving them.

Publicly owned buildings present a clear opportunity for preserving exsiting local character, and offer valuable space-resources when creatively analyzed. Free of the pressures for profit afflicting private developers, all levels of government are logical users of these existing, low-cost space-resources, but. . . . While the Federal government—with the encouragement of the National Endowment for the Arts—is now trying to create a national policy of re-use and mixed use of its obsolescent buildings (see pages 39, 40, 41), many local administrations are doing just the opposite. A bond issue for renovation to provide on-going use of the Baltimore City Hall has just passed local voters, based on an ambitious feasibility plan prepared by Architectural Heritage, Inc. (an innovative restoration firm) and architects Hagenah, Amsler and Mac Lean. The implementation of another Heritage plan for re-use of the old Washington D.C. Post Office is pending a Congressional vote, and even less positive fates await other public buildings across the country. Demolition proceeds—often without any sincere analysis of the existing facilities' capability of housing current needs. The reasons are often described as structural weakness (without a structural analysis), the high cost of renovation (without a careful estimate), limited life span (despite construction to last) and/or the inability to adapt to current office criteria (without a space analysis). In the case of New York City's Tweed Courthouse in New York (opposite), a current replacement proposal would accomplish no more than ridding the local government of bad memories.

On the professional level, preservation can sometimes be accomplished by countering ignorance with hard facts. Ben Weese of Harry Weese & Associates has obtained a grant from the National Endowment for the Arts to continue a program of offering space needs analysis for county courthouses across the country. A near success for Weese is the Buchanan County Courthouse (opposite).

Other buildings with specialized and "over-sized" spaces present severe problems in reuse when they become obsolete, and the answers must be innovative to be successful. The larger railroad stations typify such difficulties because they offer vast rooms, designed as symbols of civic pride, which are difficult to subdivide for lesser contemporary purposes. The concourse of Baltimore's Mount Royal has successfully become open-plan teaching spaces for the Maryland Institute of Art. But the best approach may be continued use as public spaces for connected facilities of such magnitude that the scale of the existing rooms becomes appropriate and affordable. The two railroad stations on pages 134-135 are examples which could prove the point.

Older theaters, suffering reduced attendance and increased costs, are similarly restricted in flexibility. Pressures to use their land more efficiently might be eliminated by incorporation of existing houses into new buildings where problems of inadequate circulation and backstage facilities could be solved. For instance, why *couldn't* the fine Helen Hayes Theater (page 135) be incorporated into the new hotel planned for the site? But a creative approach to programming may be the best answer by increasing revenues—and this has occurred at the Beacon on New York's Broadway (now a youth-oriented theater) and the Olympia in Miami (now a concert hall) where special "markets" were successfully sought.

Older buildings built to house department stores should be able to continue their functions with success (Marshall Field, Chicago; Wanamakers, Philadelphia; Saks, New York). The lack of pressure to build higher has not been radically altered over the years, and natural light, gained by large windows and central rotundas should be coming back (Neiman-Marcus' new store in Bal Harbor). But the search for an "up-to-date" image can bring about radical changes or demolition for other-than-functional reasons—and may have adverse affects on the clientele as well. Neiman-Marcus' plans to demolish The City of Paris store have aroused public outcry (page 135). New York City's Klein's was the subject of a design competition RECORD, September, 1973, page 35) to unify the store's assemblage of nineteenth-century buildings by emphasizing their character. A regretable aluminum screen is currently being built instead.

Urban housing offers one of the most ubiquitous existing resources. In the older cities, with relatively stable populations, only neglect and constant demolition keep the supply below demand. But all urban areas experience the shift of pressures which create the replacement cycle. Yesterday's neighborhood becomes today's slum or office development. Many groups are at work against these shifts, but can they act fast enough?

To halt physical decay, both government and the banks are making renovation loans easier, but the building owners have to be interested. The Neighborhood Housing Services was begun in Pittsburgh, and the concept has spread as far as Dallas: working to initially stimulate neighborhood enthusiasm, groups formed from banks, foundations, city government, professionals and residents work to supply monies and expertise for renovation according to each owner's ability to pay. The object is to attack whole areas at one time before apathy returns. Pittsburgh's Birmingham Restoration Program is a parallel effort. San Francisco's Redevelopment Agency seeks to encourage neighborhood rehabilitation by remodeling the most deteriorated buildings as a catalyst for private improvement. To combat commercial encroachment, municipalities are using such divergent means as attempting to have whole cities declared historic districts (Portsmouth) or moving the existing buildings.

Office buildings and hotels are quickly deemed obsolete as changing zoning laws allow larger and larger buildings. Owners, seeing the possibilities of greater profits by new construction, drop maintenance, returns decrease, and demolition becomes inevitable. The sale of the air rights is one answer (see drawing, top, page 125). Government use of such older office buildings is increasing: Adler and Sullivan's Wainwright Building was recently bought by the State of Missouri after the National Trust had taken an option, and the AIA is recommending a similar consideration by the State of New York for Sullivan's Guarantee Building in Buffalo. The State of Illinois seems close to creating their own policy of reuse in the Chicago area. But many such buildings are deemed obsolete even though they fill their allowable-space envelope. Examples can be found on page 136. The Nation has a long way to go in making best use of assets at hand—in preserving, in the midst of growth and change, the essential character and human values of our neighborhoods.

Charles Hoyt

Publicly-owned buildings give a clear opportunity to preserve local character and provide valuable space-resources

The Jessie Street Substation, San Francisco. Designed by architect Willis Polk in 1906, the building is now located in the path of redevelopment. The City plans demolition, while The Foundation for San Francisco's Architectural Heritage envisions its re-use for restaurants, stores and offices to serve the new community.

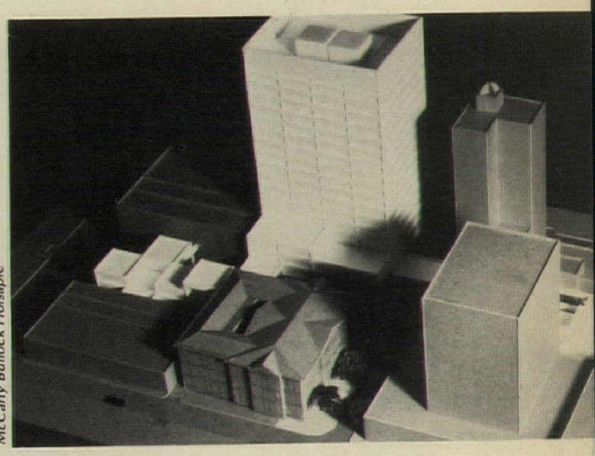
Foundation for San Francisco's Architectural Heritage

Mark Johnson

St. Joseph Museum

The Buchanan County Courthouse, St. Joseph, Missouri. Built as an ambitious expression of public pride in the mid-nineteenth century, current space needs could be met economically within existing exterior, but a pertinent bond-issue vote has failed.

The Tweed Courthouse, New York. Not even benefited by a realistic plan to investigate its existing potential, the massive structure, which cost 12 million dollars (partially graft) in 1861 to 1872, may be replaced by a "modest" building to house 175 City workers, at a much greater cost than re-use.



Stahl/Bennett

McCarty Bullock Holsaple

The Custom House, Knoxville. If the City can carry through re-use for a needed cultural center, this marble-clad building designed by Alfred Mullett in 1869 could furnish historical continuity and give an air rights bonus to a major downtown-renewal project designed by McCarty, Bullock Holsaple.

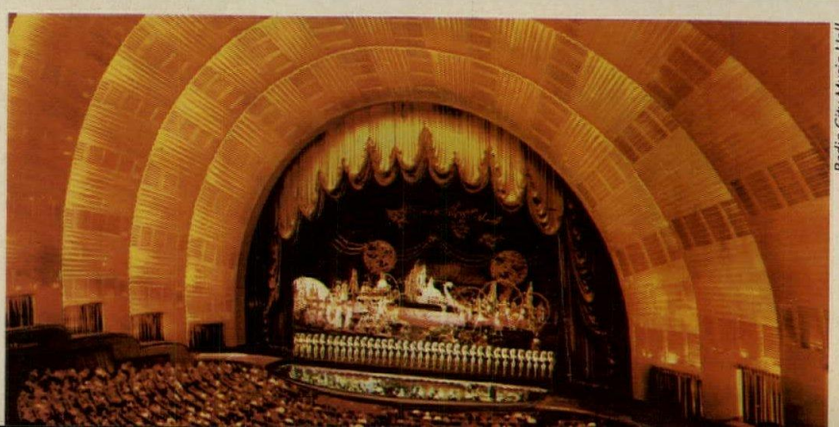
Old Federal Courts Building, St. Paul. Almost an identical twin to the old Washington Post Office, the eclectic landmark has already been saved from demolition once. A plan prepared by architects Stahl/Bennett, Inc. was intended to convert the long-abused spaces into the headquarters for the St. Paul-Ramsey Arts and Science Council—but the mostly-private funding has been slow in coming.

Some buildings do present re-use problems, and the answers may lie in creative approaches to ongoing use

Stan Fisher for Architectural Record

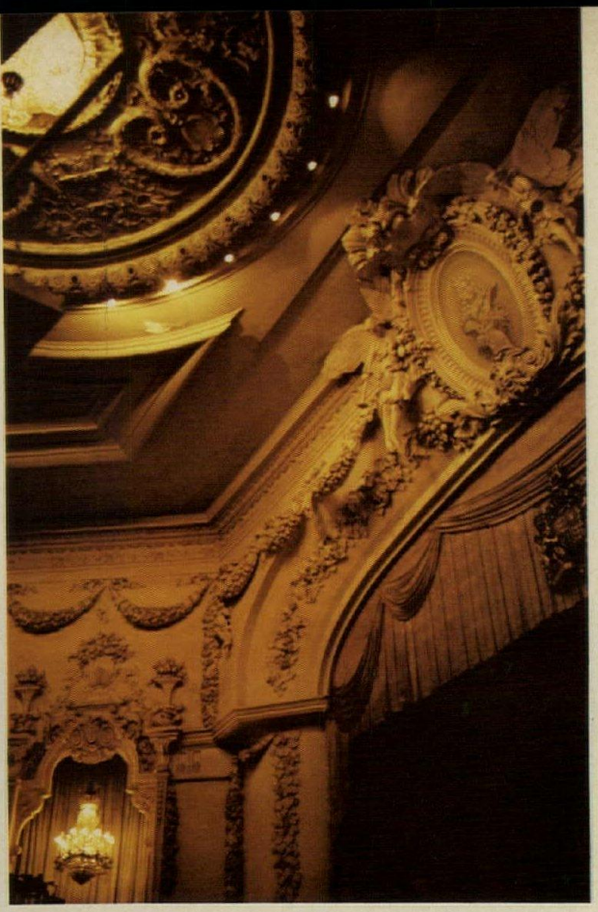
The Pennsylvania Railroad Station, Pittsburgh. The entrance rotunda, designed by Daniel Burnham, has long symbolized the gateway to the City. An effort to rescue it was launched by the Pittsburgh Landmarks Foundation in the face of clearance for urban renewal, and the current possibility of converting the office building over the station into a new city hall could allow continued and appropriate use of the gateway.

Radio City Music Hall, New York. Shrinking audiences in the 6000-seat auditorium have forced the management to investigate alternate use proposals which may radically change the original interior designed by Edward Durell Stone. A program of leasing during non-peak seasons is currently being tried.



Radio City Music Hall

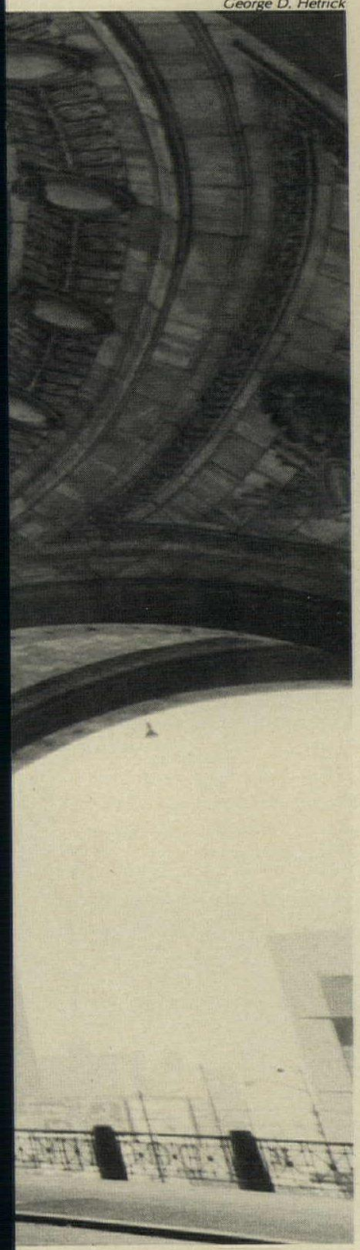
Existing urban housing could be one of our most valuable resources, but it is often the first to go

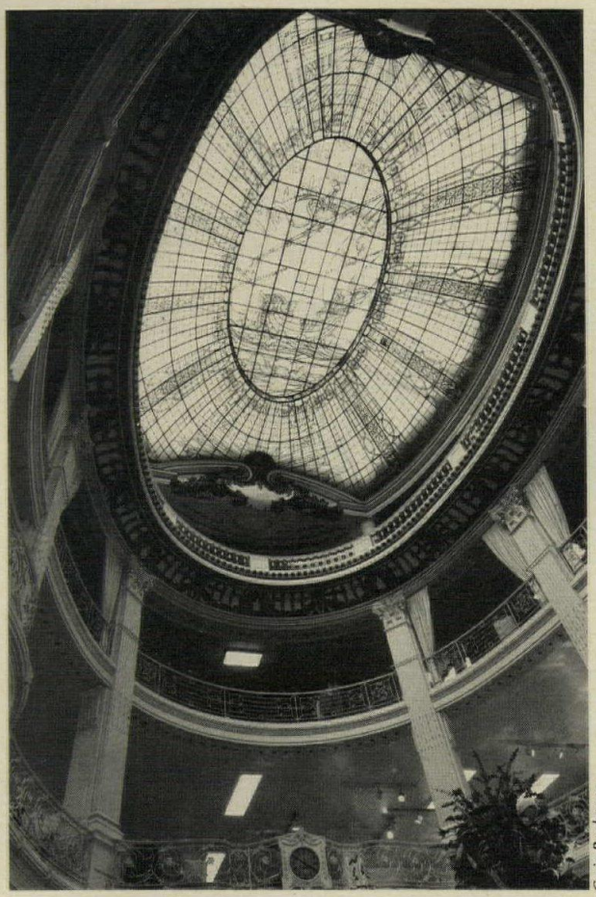


The Helen Hayes Theater, New York. Although a hotel planned for the site is to contain a theater, zoning discourages incorporation of the existing facility by granting to developers area bonuses only for new facilities.

The Fox Theater, Atlanta (left). Rivaling Radio City in size and technology, the 1929 building has only four months left, if a viable new use is not found to attract new audiences.

George D. Hetrick





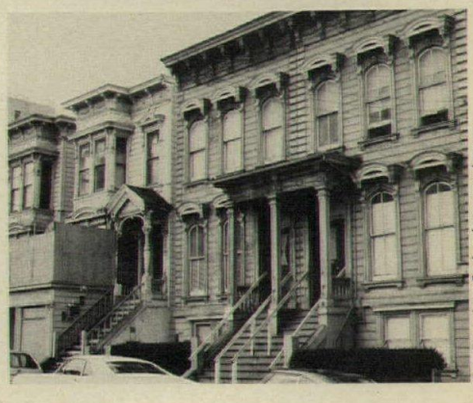
Craig Buchanan

The City of Paris Store, San Francisco. Neiman-Marcus has avoided re-use by means of a professionally disputed feasibility report, while the real problem is their desired "image."

Union Station, St. Louis. An ambitious multi-purpose development could utilize the existing public spaces.

Arteaga photos for Jova Daniels Busby

Roger C. Hawk



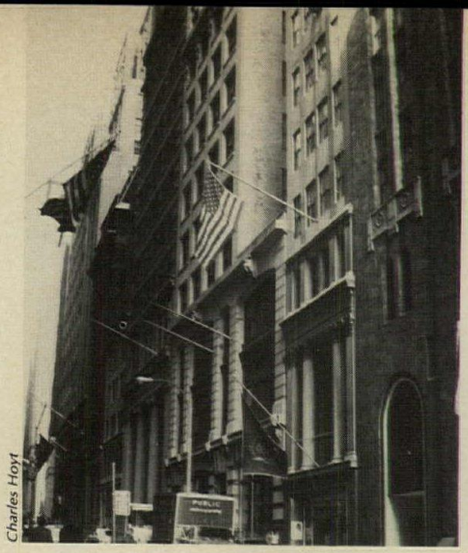
San Francisco Redevelopment Agency

Portsmouth, New Hampshire (top). Located in the same city as the Rockingham (pages 112-113), this house exemplifies many Portsmouth buildings which owners plan to demolish in favor of parking lots.

Pittsburgh (center). Despite active restoration programs, many sound houses wait their chance for new lives before they are lost to deterioration.

San Francisco (bottom). Standing in the way of development pressures, these wood houses exemplify the local architecture, and are prime candidates for a rescue operation by the City's Redevelopment Agency.

Office buildings and hotels: the desire for a commercial image can overcome common sense



Charles Hoyt

Wall Street, New York. Forming part of the north wall of the famous "Canyon," six previously viable buildings are to be demolished for a parking lot, which is thought to have a greater speculative appeal by the absentee owner. Given the local office construction glut, it will long be a lot.

The Willard Hotel, Washington, D.C. This enormous structure, designed by Henry Hardenbergh (The Plaza and Dakota in New York), provides more building than current zoning would allow and could be most feasibly continued in use as a hotel. But the current owner insists that a replacement skin will make re-use as an office building more profitable.

Linda Strompf

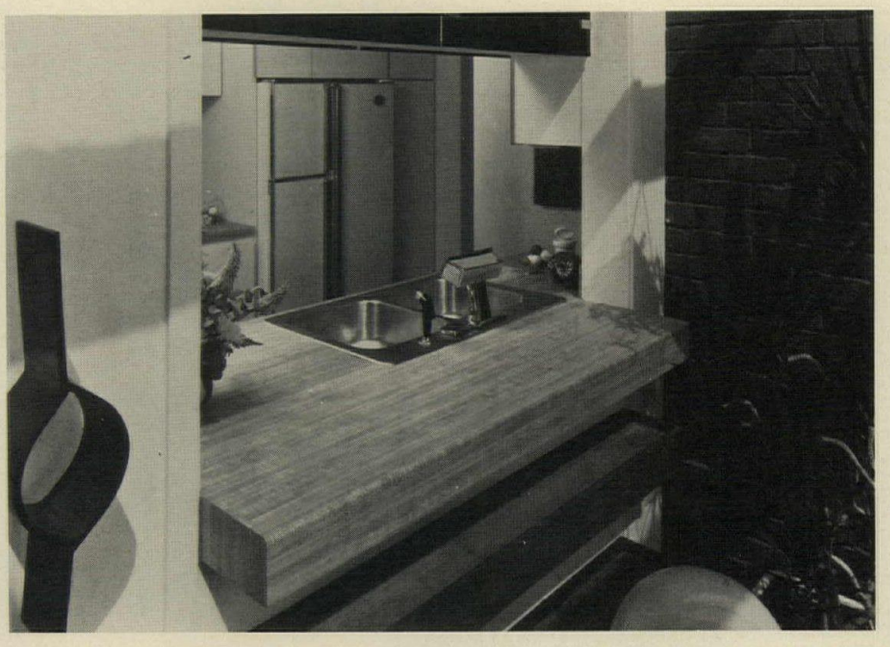
The Fitzhugh Building, San Francisco. Although a replacement department store is planned by Saks Fifth Avenue, the new building could be no larger than the existing, and will house the store at considerably greater cost than reuse of the imposing Fitzhugh—similar in design to Saks, New York.

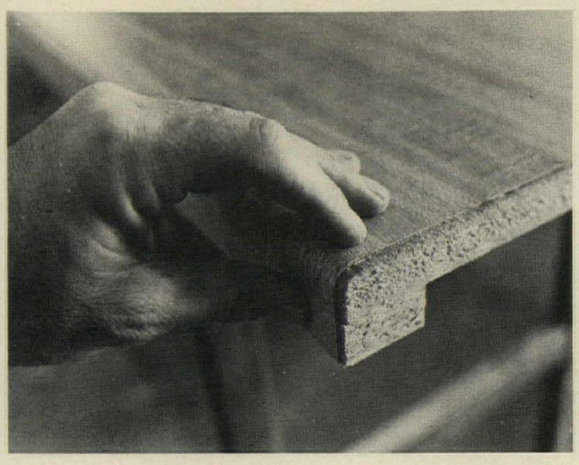
Chicago Architectural Photographing Company

The Transportation Building, Chicago. Confronting the problems of commercial buildings which fail to provide as much floor space as current zoning would allow and/or fail to provide a desired image for potential occupants, the State of Illinois is moving toward the creation of a campus of government facilities in some otherwise rejected structures, and has invited proposals for others. The 500,000-square-foot Transportation Building was proposed by Harry Weese for a new State College, and plans were prepared to illustrate the feasability of classrooms, dormitories and offices, but it continues unused.

Heritage

For more information, circle item numbers on Reader Service Inquiry Card, pages 197-198.





Laminate capable of forming small radii

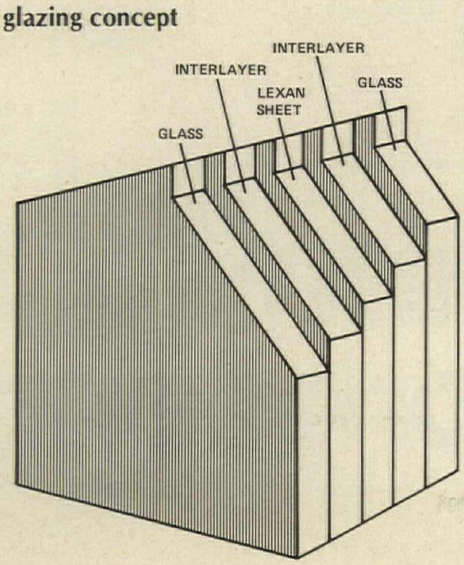
Superform postforming high pressure plastic laminate is said to form easily to a ½-in. outside radius or tighter. According to company spokesmen, rolled edges have not been practical for desk and table top applications because existing laminates could not be rolled to such tight radii. Currently it is stocked in most 1974 *Micarta* patterns and sheet sizes. ▪ Westinghouse Electric Corp., Hampton, S.C.

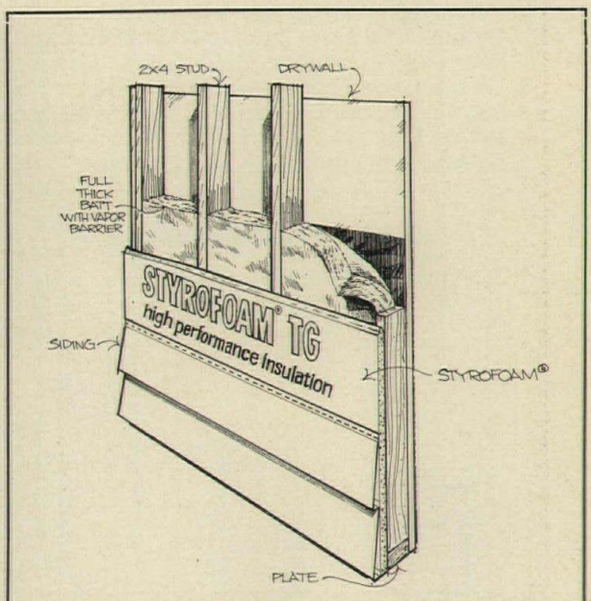
Circle 300 on inquiry card

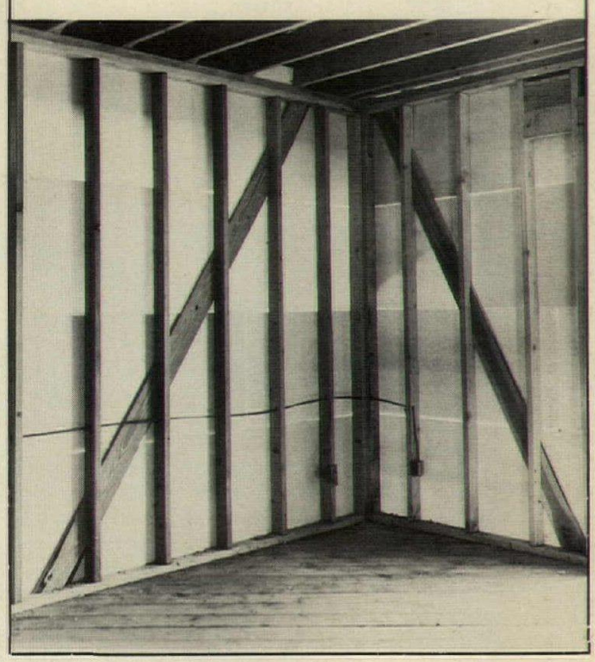
For "barless" prisons, a new glazing concept

Called *Lexgard* security sheet, the product is an impact-resistant composite material of a virtually unbreakable *Lexan* core and two outer plies of glass. The three are laminated together using an interlayer that adheres both glass and the *Lexan* sheet. While the glass provides the weather and scratch resistance plus rigidity of the product, the *Lexan* core resists breakage and penetration. Fabricated in several thicknesses, *Lexgard* security sheet is available in sizes to 46- by 84-in. Larger sizes will be provided upon request. ▪ General Electric Co., Pittsfield, Mass.

Circle 301 on inquiry card







Total wall insulation for home construction

Substituting *Styrofoam* insulation sheathing for more conventional sheathing materials is the basis of this system developed for use in home and low-rise apartment building. Non-structural *Styrofoam* is nailed over the outside of the frame, covering the wood studs, sills, headers, plates, etc.—usually uninsulated areas that can make up as much as 30 per cent of the opaque sidewall area in an average home. Then conventional insulation with vapor barrier is installed in the stud spaces. Interior ½-in. gypsum board is recommended as a durable finish and fire protection for the combustible elements of the wall. The system is said to be compatible with most commonly used exteriors, including wood lap siding, aluminum siding, textured 4- by 8-ft plywood and brick veneer. *Styrofoam* panels are lightweight, with tongue and groove edges. The product is code-accepted. ▪ Amspec, Columbus, Ohio.

Circle 302 on inquiry card

more products on page 144A

Lennox announces a major breakthrough in energy utilization.

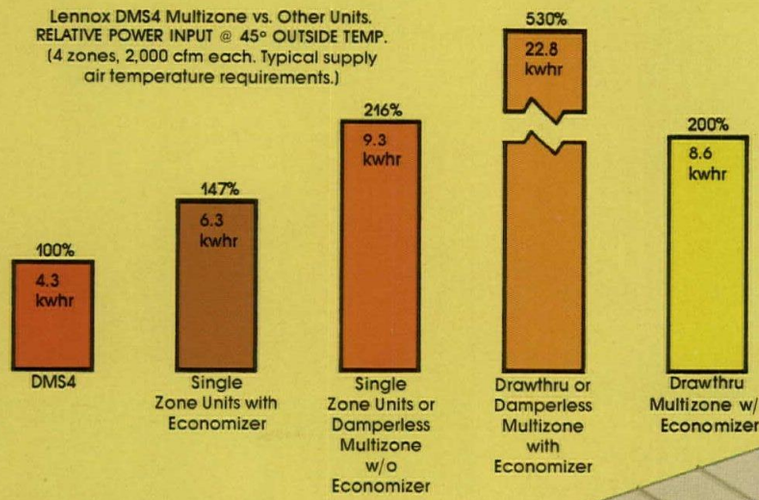
Introducing the Lennox DMS4 multizone rooftop system, with exclusive Outside Air Discriminator.™

Here is one of the most versatile problem-solving machines in space heating and cooling... its efficiency and energy-conserving superiority challenge all other HVAC systems available today.

Feature 1: Exclusive Outside Air Discriminator™ automatically determines heating/cooling modes.
Which is more efficient: Cooling with outside air and heating with primary energy... or, cooling with mechanical refrigeration and reclaiming condenser heat for heating? The DMS4 makes the decision for you automatically. It trades Btu's available within the multizone system for maximum economy... and it reacts promptly when the efficiency of cooling with outdoor air is greater than the energy savings of condenser heat reclaim.

Feature 2: The DMS4 conserves energy.
The DMS4 continually monitors the ratio of heating input to cooling requirement, in order to operate at the lowest energy level. Discharge sensors are placed in zone heads for quick zone response. And the DMS4 solid-state electronic control system is designed for maximum dependability.

Lennox DMS4 Multizone vs. Other Units.
RELATIVE POWER INPUT @ 45° OUTSIDE TEMP.
(4 zones, 2,000 cfm each. Typical supply air temperature requirements.)



The DMS4 will show similar performance efficiencies at other typical outdoor air temperatures.

Feature 3: The DMS4 saves money.
This exceptional energy-conserving sensitivity is achieved without adding significantly to the unit cost, and results in lower operating costs.

Application Versatility.
Lennox DMS4 offers gas, electric, hot water, or steam heat. Seven models range from 16 to 45 tons cooling capacity.

For More Information.
See your Lennox representative, or write Lennox Industries Inc., 474 S. 12th Ave., Marshalltown, Iowa 50158.

LENNOX®
AIR CONDITIONING • HEATING

Nifty problem-solving ideas from Lennox.

For more data, circle 53 on inquiry card

For more information, circle item numbers on Readers Service inquiry card, pages 197-198.

COMPUTERIZED PNEUMATIC TUBE / An eight-page color bulletin describes operation and application of the *Trans-Logic* computerized pneumatic tube systems. The system has the capability to log transactions, analyze use trends, alarm off-normal conditions and report when maintenance routines are due. The system is available in three types of station terminals: console, wall-mounted, and free-standing. ▪ Powers Regulator Co., Skokie, Ill.

Circle 401 on inquiry card

HEATER CATALOG / A four-page brochure describing heavy-duty forced air heaters for homes, offices, motels, schools, and hospitals covers ratings from 1500W (5118 btu/hr) to 4000W (13,652 btu/hr). ▪ Federal Pacific Electric Co., Newark, N.J.

Circle 402 on inquiry card

PLYWOOD SHEATHING / "Plywood Sheathing for Walls and Roofs," offers recommendations on roof decking and preframed roof panels, allowable load tables, and fire-resistant construction and acoustical data. Recommendations are based on changes to the revised U.S. manufacturing specification, Product Standard PS 1-74 for Construction and Industrial Plywood. Each section of the booklet contains photographs, tables and diagrams. ▪ American Plywood Assn., Tacoma, Wash.

Circle 403 on inquiry card

PRE-FABRICATED FIREPLACES / Illustrated technical manuals cover product information, layout guides, installation instructions, application details and catalog information. Details are included on fireplace construction products, freestanding fireplaces, gas fireplaces and barbeque products. ▪ Superior Fireplace Co., Fullerton, Cal.

Circle 404 on inquiry card

HARDBOARD SIDINGS / A six-page catalog sheet describes four hardboard sidings with full color illustrations and descriptions, including architectural specifications. ▪ Forest Fiber Products Co., Forest Grove, Ore.

Circle 405 on inquiry card

DOOR CONTROLS / A range of door control, security and fire/life safety products is described in a 12-page catalog including details on floor closers, overhead concealed closers, concealed and surface-mounted door holders and stops and combination smoke detection door holding, release and closing devices, as well as smoke detectors and electromagnetic door holder-releases. A new line of electric and security pivots is also included. Selection guides and photographs supplement the text. ▪ Rixson-Firemark, Inc., Franklin Park, Ill.

Circle 406 on inquiry card

INDUSTRIAL WATER HEATING SYSTEMS / The brochure gives a step-by-step guide for the selection of water heating systems for industrial applications. The booklet is designed to assist designers, architects and specifiers in providing correctly sized systems. Three charts guide the user in the selection of either self-contained storage systems, circulating tank systems or continuous flow hot water systems for industrial processes and laboratories. In addition, the brochure contains dimensional drawings for water heaters and sample specifications. ▪ Rheem Mfg. Co., Chicago, Ill.

Circle 407 on inquiry card

LUMBER BUYERS' MANUAL / A directory for one-third of U.S. softwood lumber production is available. Covering mills in 12 Western states, the 44-page directory lists such sales information as lumber products offered, species processed, shipping services, addresses and telephone numbers, along with plant facilities and capacities. In addition, the Buyers' Manual lists sources of millwork and cut-up timber laminating and fabricating, pressure treating and wood pipe. Wholesaler associates and producers of Western red cedar specialties and fir and hemlock doors are noted. Data on freight rates and weights, terms and conditions of sales, lumber sizes, grades and grading are included. ▪ Western Wood Products Assn., Portland, Ore.

Circle 408 on inquiry card

LIGHTING STANDARD DESIGNS / A series of designs for *Light Riser* lighting standards are being introduced in a newly revised brochure. The 12-page brochure includes dimensions and illustrations for each of eight models, design specifications, lighting standard installation details and a color selection chart. The light standards range in height from 6 to 30 ft, with a selection of 13 wood stain colors. A 3-ft high "mini mercury" is designed for walkway and garden lighting. ▪ Koppers Co., Pittsburgh, Pa.

Circle 409 on inquiry card

OFFICE SCREENING / A planning brochure describes the use of office screening, as well as the company's *Plan-Scape* screen line, with construction details, acoustic properties, and screen dimensions and configurations. ▪ Vogel-Peterson Co., Elmhurst, Ill.

Circle 410 on inquiry card

METALS LIST / Updated literature describes the contents of more than 200 books, articles, brochures, and data sheets covering the areas of: cast products and abrasion-resistant materials; corrosion-resistant steels and alloys; high-strength steels; high-temperature steels and alloys; and product specifications. ▪ Climax Molybdenum Co., New York City.

Circle 411 on inquiry card

IRRIGATION BOOKLET / A four-color folder is meant to help simplify design and specifying of irrigation equipment for residential and small-area commercial applications. The brochure contains photographic illustrations and a series of tables listing specifications and performance capabilities of sprinklers and controllers. It provides data on water pressure and volume requirements; spray patterns; radius and coverage arcs; and precipitation rates. ▪ The Toro Co., Riverside, Cal.

Circle 412 on inquiry card

EXTRUDED ALUMINUM SKYLIGHTS / This 28-page color brochure documents design, manufacture and erection principles for environmental enclosures ranging from simple skylights to large atrium canopies. Installation illustrations are followed by detail drawings for typical skylight construction. Aluminum finishes, glazing solutions, sample specifications and a list of national representatives of the company complete the literature. ▪ Super Sky Products, Inc., Thiensville, Wis.

Circle 413 on inquiry card

1975 FLOORING PRODUCTS / The 1975 edition of the company's catalog of resilient flooring products contains full-color illustrations of all colors and patterns in vinyl asbestos floor tile, asphalt floor tile, feature strip and cove base. Also included is general

more literature on page 149

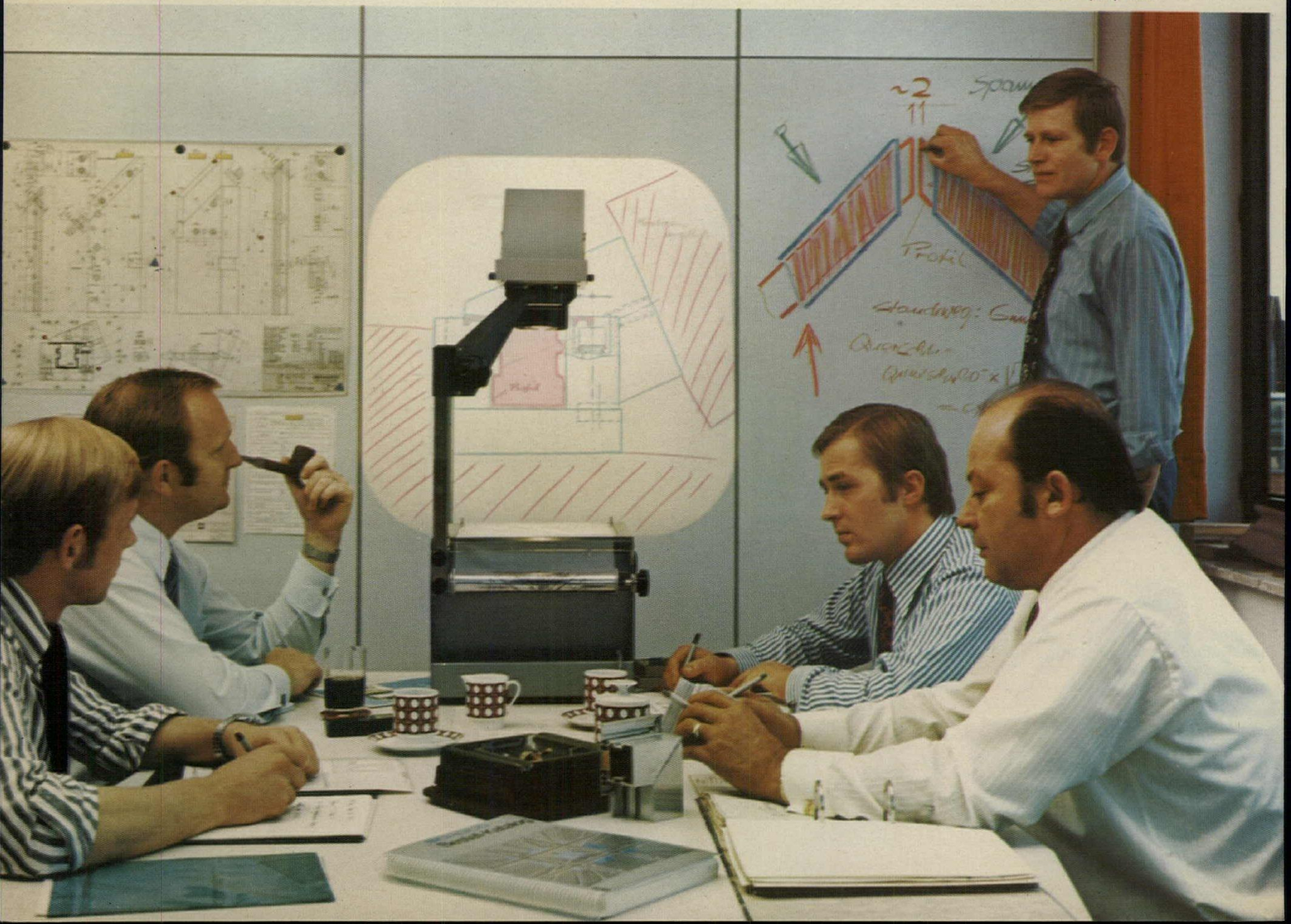
New "Rite-On, Wipe-Off"* Writing System Paints A Pretty Picture

The pretty picture is this: 1. New system combines AllianceWall porcelain wall panels and dry marker pens to create a completely dustless writing system. 2. Porcelain panels come with a special finish that enhances both writing and erasing. 3. Writing dries instantly and can be erased with a dry cloth or eraser. 4. Every inch of every office wall becomes a productive work surface. 5. Laminated to low-cost gypsum board, the panels are fire-proof, inexpensive to install and maintenance free. 6. No special lighting system is necessary. 7. Boards are guaranteed for 50 YEARS and can be used with any partition system.

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

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

AllianceWall®
CORPORATION
Box 247, Alliance, Ohio 44601
For more data, circle 55 on inquiry card



WOOD FURNITURE / A seating system features a process on the natural wood veneers or colors which provides a cigarette-burn-proof and alcohol-proof surface. Engineered internal hardware is said to add strength for heavily used commercial areas. Utilizing standard components of seats, uprights and horizontal connectors, numerous seating arrangements are possible. The system may be ordered in any of nine lacquer colors, or walnut, oak or any combination of colors or color and wood. ▪ Intrex, Inc., New York City.

Circle 303 on inquiry card

WHEEL CHAIR FOUNTAIN / *Model 1118* is a wall-mounted drinking fountain with dual lever handle valves with wire extensions for easy operation by handicapped persons. The fountain is of 18 gauge stainless steel and features a stainless steel receptor with chrome plated brass bubbler and automatic stream regulation. It extends out from the wall 20½ in. ▪ Haws Drinking Faucet Co., Berkeley, Cal.

Circle 304 on inquiry card

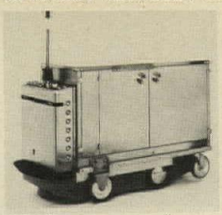
CONTOURED FOAM PANELS / A sound-absorbing foam product with a sculptured surface is based on the anechoic wedge design, increasing the sound absorbing surface up to 400 per cent. *Sonex* is available in charcoal or blue as standard; red, yellow or other colors are available on special order. Lead or leaded vinyl backings are available as noise barriers and adhesive backings are available for installation. It is offered in thicknesses from 1 to 5 in., in any desired length and width. ▪ Charles Industries Corp., Minneapolis, Minn.

Circle 305 in inquiry card

IMPORTED SKYLIGHT / Made in West Germany and now available in the United States, this skylight can be opened with one handle and features a number of options: built-in venetian blind with remote control; and all-aluminum construction or wooden sash covered with aluminum. The unit is double-glazed and comes with complete roof flashing. Eight sizes range from 21¼ by 33½ in. to 41¼ by 52 in. Also included in the line are two-way opening windows which can be opened horizontally or vertically. ▪ IMMS, Inc., Essex, Conn.

Circle 306 on inquiry card

DELIVERY VEHICLE / Guided around by a series of tiny guidewires, the *AMSCAR* can be directed to a pre-selected destination in a hospital. Upon arrival, the unit lowers its carrying platform to allow the module's wheels to touch the floor. Then, the *AMSCAR* moves out from under the module and goes onto its next programmed location for another pick-up automatically. In multi-story hospitals, the unit calls its own elevators, enters when the elevator arrives, directs itself to the proper floor, exits and proceeds to pre-selected destinations. ▪ American Sterilizer Co., Erie, Pa.



Circle 307 on inquiry card

ELECTRONIC DRAFTING / The *Digitrac* is an electronic measuring device which will mount directly to any drawing table. This self-contained instrument is designed to directly derive data from or transfer data to drawings or plans and to translate this linear data into accurate measurements displayed visually for the operator. The unit can internally, by use of a micro computer, utilize this same x & y data and translate it into a visual display of most plane geometric computations. These include area, perimeter, and angular measurements. ▪ Melco Industries, Inc., Denver, Colo.

Circle 308 on inquiry card

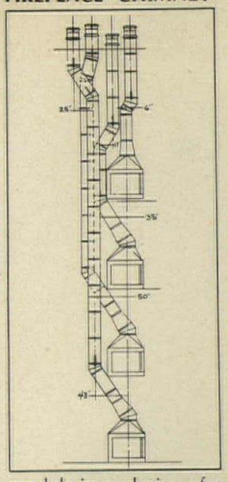
more products on page 144C

its only limit is your imagination.

To meet today's modern design requirements, terrazzo contractors are installing this age-old material in a variety of ways. Poured in place to provide beautiful floors that last and last, and are easy on the maintenance budget. Textured surfaces for curbs, walls or outdoor paving that beautify walks, malls and plazas while adding an extra measure of safety under foot. Precast terrazzo for stairs, decorative accents, even flooring. Because terrazzo is a sensible solution to the rising costs of initial construction and building maintenance, what started as an ancient art is a thriving business today. Get all the facts from your terrazzo contractor or regional technical representative. Or write

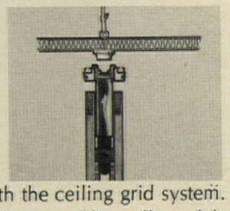
terrazzo 2A West Loudoun Street, Leesburg, Virginia 22075 (703)777-7683

FIREPLACE CHIMNEY COMPONENTS / Prefabricated chimney components now meet UL requirements for extension to 90 ft maximum heights and the use of four elbows (maximum 30° each) per installation for free-standing units in the company's contemporary fireplace line. Chimney components are tubular connections of triple wall construction that permit minimum clearance to combustible materials. Fireplaces include free-standing, wall hanging and ceiling-suspended models in a choice of colors, a variety of sizes and a selection of fuels (wood, gas or electric). ▪ The Majestic Co., Huntington, Ind.



Circle 309 on inquiry card

PORTABLE WALLS FOR SUSPENDED CEILINGS / The system solves the problem of locking portable walls into suspended or "soft ceiling" construction, with a device that interlocks the expanding top rail of the portable wall partitions with the ceiling grid system. When they are installed, the portable wall models are locked into place without the need for tools, according to the company. Movable walls are also available with cam-activated pressure for portable wall panels in solid ceiling installations, and in track-mounted models that glide on ceiling-mounted tracks. ▪ The Kwik-Wall Co., Springfield, Ill.

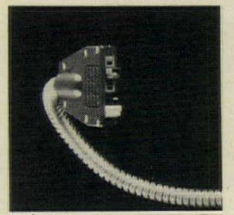


Circle 310 on inquiry card

EMERGENCY LIGHTING / Incorporating rechargeable, sealed nickle-cadmium batteries, an inverter/charger and test switch with charging indicator, the system provides 90 minutes of no-glare light. *Model 724OEL* is a vandal proof fluorescent fixture. ▪ Kenall Mfg. Co., Chicago, Ill.

Circle 311 on inquiry card

PLUG-IN MODULAR WIRING / Flexible plug-in branch wiring for use in interiors with movable partitions and modular lighting, the system provides component wiring and distribution which allows plug-in installation of all lighting, switching, convenience outlets, clock and program systems, PA systems, audio/visual, and TV systems. The system includes all branch wiring preassembled into metallic clad cable, and patented, UL-listed plug-in connectors and distribution units. Insulation shrouds on the connectors and components are color-coded in accordance with the National Electrical Code. Cable plug sets are also color-coded by voltage and function. ▪ Architectural Power Systems, Div. of American Modular Systems Designs, Inc., Needham, Mass.



Circle 312 on inquiry card

SPRAY MIXING FAUCET / Called *Unatap-30,* this faucet is available in six models, including a high-lever, wrist blade action unit for hospitals and clinics (shown), and regular models with a choice of two styles of lever operation. Each model offers a water-saving capability and each uses completely interchangeable parts. The high-rise model was designed specifically for aseptic hospital and clinic applications; a crystal-like knob design is for commercial and institutional buildings. ▪ Richard Fife, Inc., Midland Park, N.J.

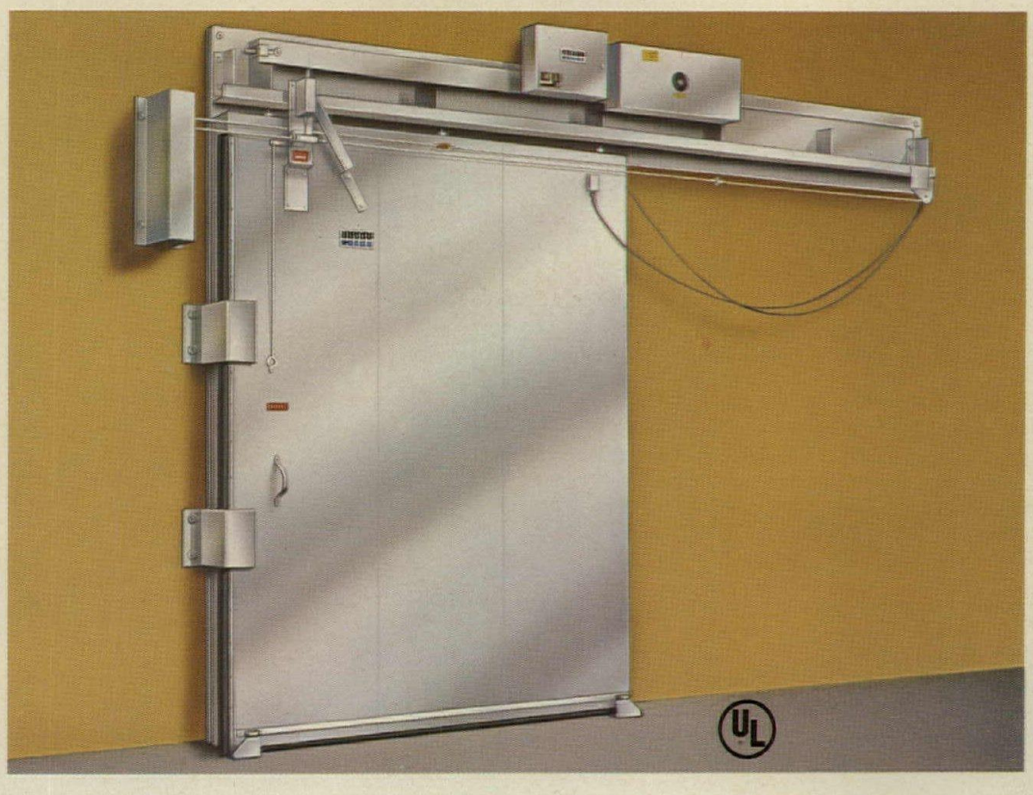
Circle 313 on inquiry card

METALLIZED TUBING / *Mirron* tubing is extruded from clear *Plexiglas* brand acrylic and metallized with a first surface coating. Tubing can be cut with a saw or drilled without danger of chipping or peeling the metallic coat. Thirteen fittings, mirrorized zinc connectors, including a specially designed shelf support clip, permit designs for furniture, lighting fixtures, displays and exhibits. *Mirron* will not oxidize or discolor. Standard 48-in. lengths of 1¼-in. diameter tubing and fittings are available in chrome, gold and brass. Other reflective colors may be ordered on special request. ▪ Thermoplastic Processes, Inc., Stirling, N.J.

Circle 314 on inquiry card

Clark introduces the world's first Cold Storage Fire Door.

New Thermadoor™ has a Class A, 3-hour UL fire rating... and it's filled with urethane foam!



Until today, the only way to get fire door protection for a cold storage area was to use both a fire door and a cold storage door in the same opening. Expensive. But necessary. Especially as industry learned more about the special hazards of many insulating materials.

Which is why our new **Thermadoor**™ cold storage/fire door is about to set old beliefs on their ear.

UL-listed fire door with urethane core.

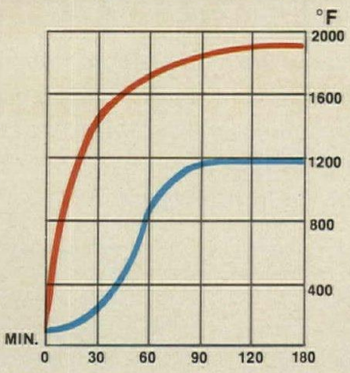
Thermadoor combines the features of the best power-operated, sliding cold storage and fire doors in one easy-to-install, moderately priced package. Now, one door

Inside the UL test furnace.

stops the loss of expensive refrigerated air while assuring you a positive fire barrier.

Thermadoor is only 4" thick. And both the single slide and double slide models are designed for 1000-openings-per-day use. Its monolithic core is foamed from the very same urethane we use to make our standard cold storage doors.

Underwriters' Laboratories tested a full size **Thermadoor** under true environmental conditions. In an exhaustive test—in which temperatures on one side of the door reached 1935°F—250° UL rating criterion.



Red line — temp. on furnace side of door during UL test. Blue line — temp. on "cool" side.

Thermadoor earned its Class A, 3-hour rating. It surpassed rigorous requirements of heat transference, structural stability, integrity and smoke contribution.

Red hot **Thermadoor** *undamaged by 45 PSI hose stream.*

Just one example of its unique qualities: 30 minutes after the gas jets started pouring flame on the test door, the temperature rise on the other side was less than half the

Revolutionary? You bet. We believe **Thermadoor** will kick off a new era in cold storage fire protection. We think it's the door around which they're going to build new fire codes — and set insurance rates.

Write or call today for a report and descriptive literature.

Doorway specialists since 1878.

CLARK DOOR

69 Myrtle Street
Cranford, N.J. 07016
(201) 272-5100 Telex 13-8268

Clark Door of Canada Ltd.,
46 Torbay Road, Markham, Ontario L3R 1G6
(416) 495-1292, 1892 Telex 0623609

Sweet's Catalog Code No. 8
Patent applied for

For more data, circle 59 on inquiry card

Plate No. 671

New Primitive tile colors to highlight your floor naturally.

Primitive® ceramic tile is the natural way to treat the floor or wall of an interior you want to dramatize. With these new colors—Mahogany, Leather, Greenstone, Flame, and Aspen, the refreshing neutral above—you now have a dozen colors to work with.

Primitive has an earthy, variegated texture that looks hand-crafted, and catches the light...softly. It comes in six shapes. It provides the ease of maintenance and durability your clients want.

No wonder Primitive feels right in so many design situations.

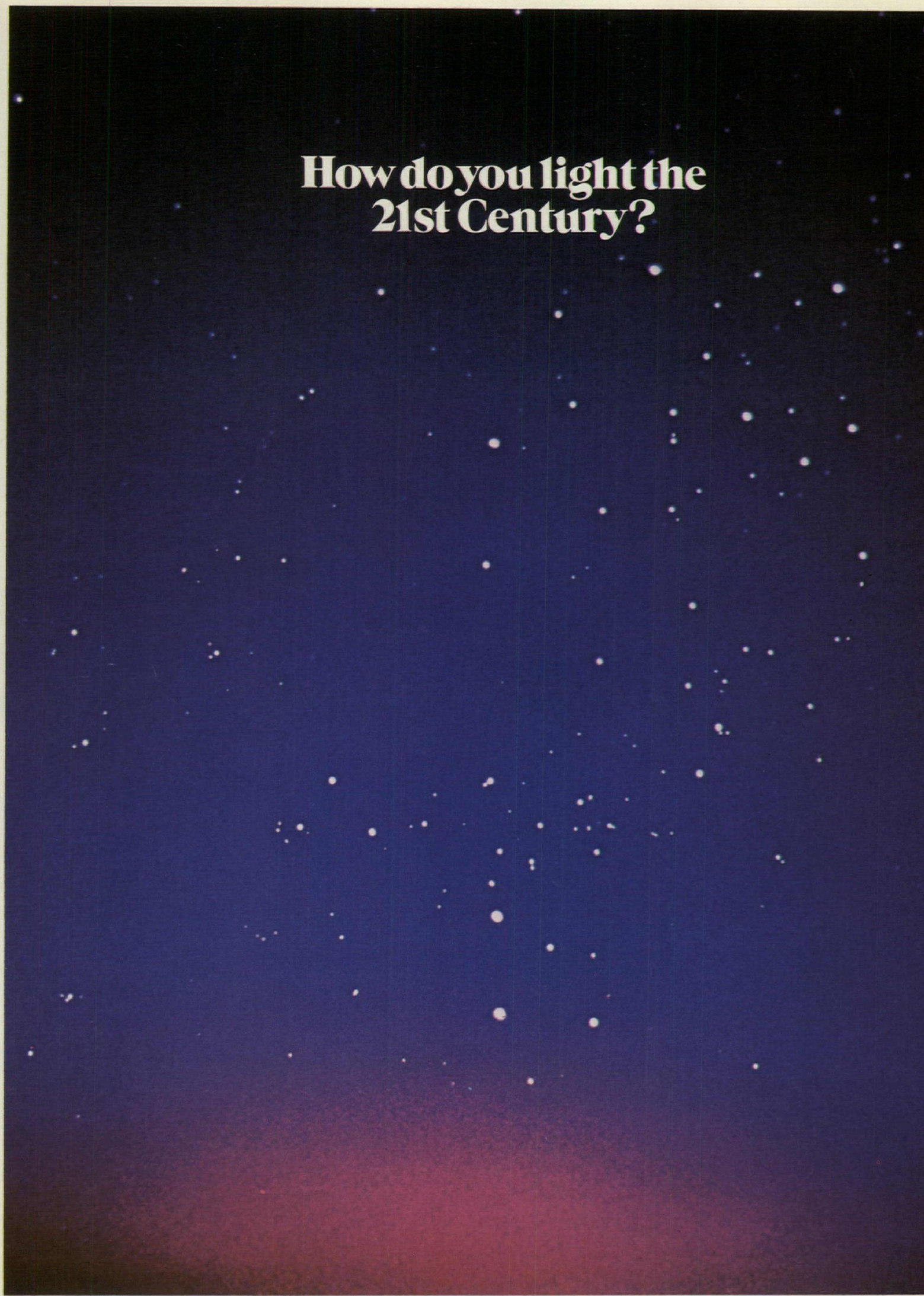
For more data, circle 60 on inquiry card

American Olean Tile Company
2063 Cannon Avenue, Lansdale, Pa. 19446

☐ Send me literature on Primitive.

Name_____
Firm_____
Street_____
City_____
State_____
Zip_____

CERAMIC TILE
American Olean
A Division of National Gypsum Company


How do you light the
21st Century?

information on sizes, gauges, uses, installation, light reflectance values, and brief specifications. ▪ Azrock Floor Products, San Antonio, Tex.

Circle 414 on inquiry card

SLIDING HARDWARE / An eight-page condensed catalog which serves as a guide to the proper selection of sliding hardware summarizes the company's major lines with descriptive data, cross-sections and full color photos of hardware applications. Included are: sliding door hardware complete with suggested applications, capacities and details of special features; drawer slides; a wall-mounted extendable intravenous support system; and pilaster strips and clips for store fixtures, cabinetry and furniture. ▪ Grant Hardware Co., West Nyack, N.Y.

Circle 415 on inquiry card

ANTI-STATIC YARN / A data bulletin covering the use of *X-Static* antistatic yarn in the institutional building and contract carpet market illustrates the product's styling and functional properties of controlling static electricity build-up in cut loop, plush, level loop and saxony carpet constructions. ▪ Rohm and Hass Co., Philadelphia, Pa.

Circle 416 on inquiry card

ARCHITECT/DESIGNER TABLE SELECTOR / A guide for proper table selection, written with a view to the needs of architects and interior designers, provides information on furniture selection for hotels, motels, hospitals, industrial plants, libraries and offices. The text lists the most popular sizes, preferred construction techniques, and kinds of finishes available. ▪ Howe Furniture Corp., New York City.

Circle 417 on inquiry card

CAFETERIA FOOD SERVICE EQUIPMENT / The catalog covers a complete modular equipment line including hot food units, cold pan refrigerators, grill stands, refrigerated display cases, ice cream cabinets, drink dispensers and urn stands. Units are illustrated, and written specifications and scale line drawings include all mechanical connection and capacity information. ▪ Stanley Knight Corp., Des Plaines, Ill.

Circle 418 on inquiry card

ARCHITECTURAL RUBBER EXTRUSIONS / A four-page brochure describes *Sub-Saline* dense and closed-cell sponge rubber, and illustrates how standard and custom profiles of this material are specified by architects and used in the building construction and glazing industries. Information is included on types of rubber, rubber formulations, and details on physical properties of rubber for dry glazing in all types of business and commercial buildings. Performance requirements and engineering data are provided in ASTM tables covering architectural-construction application of both sponge and dense rubbers. ▪ Lauren Mfg. Co., New Philadelphia, Ohio.

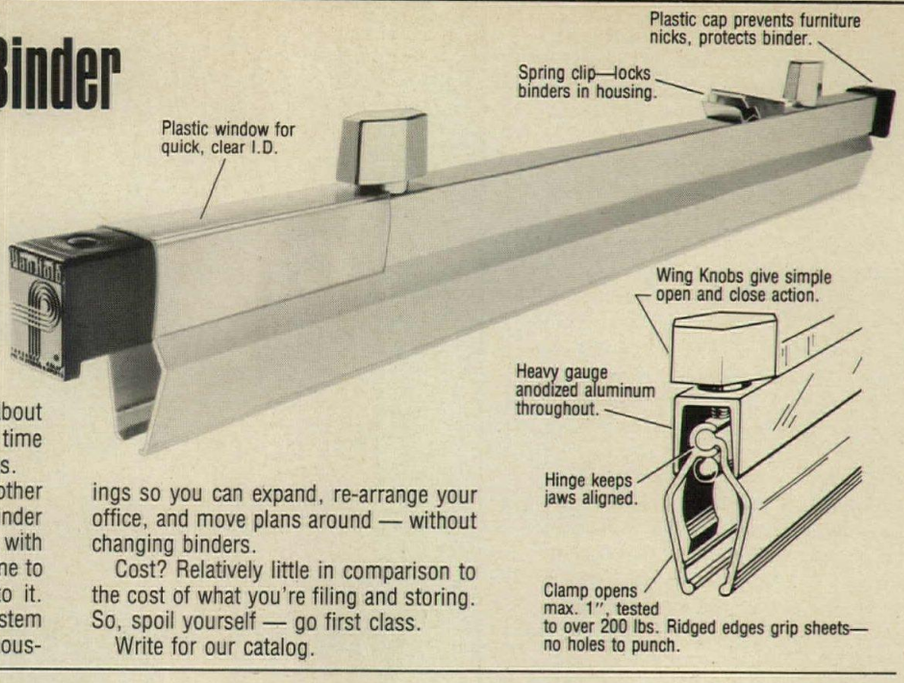
Circle 419 on inquiry card

EXTERIOR COLOR BLEND FABRICS / A new booklet designed to aid architects concerned with interior/exterior appearance of commercial buildings describes exterior color blend drapery fabrics which are exterior-colored grey, bronze or other colors to blend with glass or building exteriors. The interior side can range from pure white to some deep tone of the exterior colors or may even be striped. The fabrics are a non-combustible fiber-glass or flame-retardant modacrylic blend. ▪ Thortel Fireproof Fabrics Inc., New York City.

Circle 420 on inquiry card

more literature on page 151

The Deluxe 1CB Binder and vertical filing system.



How else can you spoil yourself so much for so little extra?

First, our vertical system saves about 80% in filing space and 75% in filing time over conventional flat drawer systems.

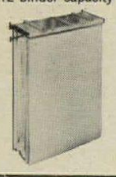
Second, our 1CB binder is in another class from every other vertical filing binder we've seen. Our designers (who work with plans themselves) simply took the time to design the right quality features into it. They also designed the 1CB into a system that includes 8 types of vertical file housings so you can expand, re-arrange your office, and move plans around — without changing binders.

Cost? Relatively little in comparison to the cost of what you're filing and storing. So, spoil yourself — go first class.

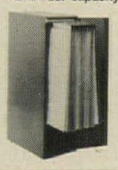
Write for our catalog.

The 1CB system includes:

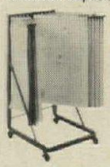
Wall Rack
12 binder capacity



Combo Cabinet
12 binder capacity



Rolling Stand
12 binder capacity



Plan Center
18 binder capacity

PLAN HOLD
TIMES MIRROR
17621 Von Karman Avenue,
Irvine, California 92705

For more data, circle 65 on inquiry card

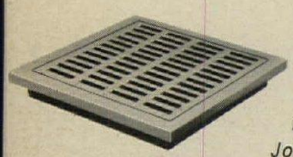
YOU NOTICE NEENAH CASTINGS AROUND THE WORLD

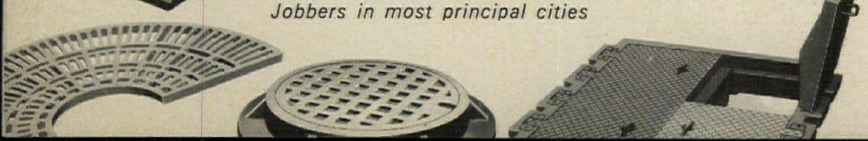
Architects, designers and planners know Neenah castings are found in Pakistan, Kuwait, Turkey, South Africa, Argentina, Bahamas . . . and from Paris to Pittsburgh.

They know Neenah makes the finest quality castings: from gray iron manhole covers . . . to ductile iron airport drainage grates . . . to decorative tree grates . . . and a complete line of building castings.

But did you know Neenah has thousands of design variations to choose from? Over 100 years of experience? Three modern plants?

Write or call for the most complete construction castings catalog, Neenah's Catalog "R", 6th edition.



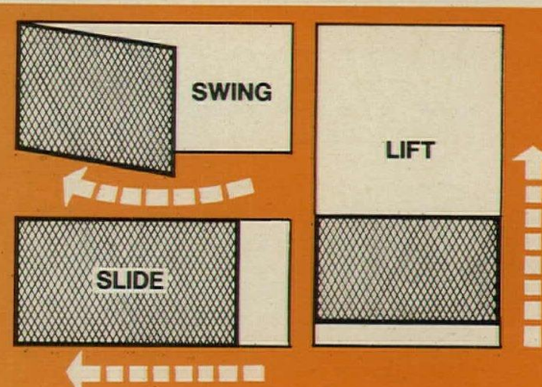


NEENAH FOUNDRY COMPANY

NEENAH, WI 54956 Phone: 414-725-3041
Jobbers in most principal cities

AUTOMATE YOUR GATES

with Richards-Wilcox Electric Operators



■ Take the easy way out (and in) with Richards-Wilcox electric operators for gates and doors ■ Gain controlled security and efficient traffic flow quickly, easily ■ Your nearby R-W Sales Engineer has the savvy to make sure your installation is designed right, built right and operates right—call him today for assistance.

FREE BULLETIN

R-W Richards-Wilcox
MANUFACTURING COMPANY
116 Third Street • Aurora, Ill. 60507
Phone: (312) 897-6951
One of the White Consolidated Industries
WCI

For more data, circle 67 on inquiry card

For more data, circle 66 on inquiry card

OFFICE LITERATURE *continued from page 149*

COMPACT KITCHENS / The catalog featuring compact kitchens and entertainment center describes units ready to plumb-in, hook-up, and use. ▪ Cervitor Kitchens, Inc., South El Monte, Cal.

Circle 421 on inquiry card

ACOUSTICAL GRID CEILINGS / The latest in a series of company reports focuses on medical buildings, showing how acoustical grid suspension and demountable wall systems are being used in health facilities. The full color, 16-page brochure discusses types of installations, comments on sound-absorbing, fire-resistant, and sanitary properties of products as well as maintenance and installation details. ▪ Roper Eastern Building Systems, Columbia, Md.

Circle 422 on inquiry card

SEATING CATALOGS / Four lines of medium-priced office seating are described in a series of new brochures from the company. Featured in separate catalogs are a traditional series, the company's *500/Contemporaries* line, the *900* series of contour shell chairs, plus a grouping of contemporary lounge furniture. More than 50 different seating models are described in the catalogs, including secretarial, clerical, executive, guest, stool and bench models. Bases and frames are steel or aluminum with either painted steel, antique bronze, and mirror, smoked, or brush chrome finishes. Certain models are available within three days of order receipt. ▪ GF Business Equipment, Inc., Youngstown, Ohio.

Circle 423 on inquiry card

GLULAM REFERENCE / Design information for architectural applications of structural glued laminated timber (glulam) is covered in a 32-page full color reference catalog. Among the 20 charts and tables in the catalog are bending and axial stress tables, section properties, simple span beam tables, tudor arch table, radial arch design, A-frame design, plywood roof tables, and "U" values for roof deck systems. Four pages of beam, column, arch and other connectors are illustrated. Completing the catalog are the "fire safe" features of glulam. ▪ American Institute of Timber Construction, Englewood, Colo.

Circle 424 on inquiry card

GRANULAR FLOORING / A bulletin discusses the high bonding strength and slip-safe features of *Lexite Granular Carpet,* a monolithic epoxy flooring containing colored quartz granules. Application is described as a simple three-step process. Illustrations show application of a clear epoxy base, followed by broadcasting colored quartz granules while the base is still tacky. Finish epoxy top coat is squeegeed over granules after surplus is removed. The floor is ready for traffic within approximately 12 hours after top coat application. The surface is said to be highly resistant to the heaviest wheeled traffic loads, alkalis and most acids. ▪ The Metalcrete Mfg. Co., Cleveland, Ohio.

Circle 425 on inquiry card

SIDINGS LITERATURE / The 12-page catalog includes full-color applications, detailed specifications, and describes installation procedures for hardboard *Insulite* and plywood sidings. Described are "Color-Side," a smooth, hard-finished siding, and "Textured," a wood-grain pattern. Both series are available in horizontal lap or vertical panels. The company also offers a full line of plywood siding panels in Philippine mahogany face veneers as well as a shingle siding, simulating roughsawn shingles. Plywood sidings are available in natural or prestained finishes. All meet American Plywood Association standards. ▪ Boise Cascade Corp., Portland, Ore.

Circle 426 on inquiry card

For more data, circle 68 on inquiry card ➧

Rx: INTERSTITIAL SPACE DESIGN—

Thirty-five hospitals and clinics are using a revolutionary new structural framing system. It's called Interstitial Space Design and it can be most effective in reducing maintenance and operating costs.

Interstitial Space Design achieves an absolute minimum of routine servicing interference with normal hospital functions. It is also a highly flexible system, allowing for functional changes. This is why it is admirably suited to hospitals, clinics and other medical facilities.

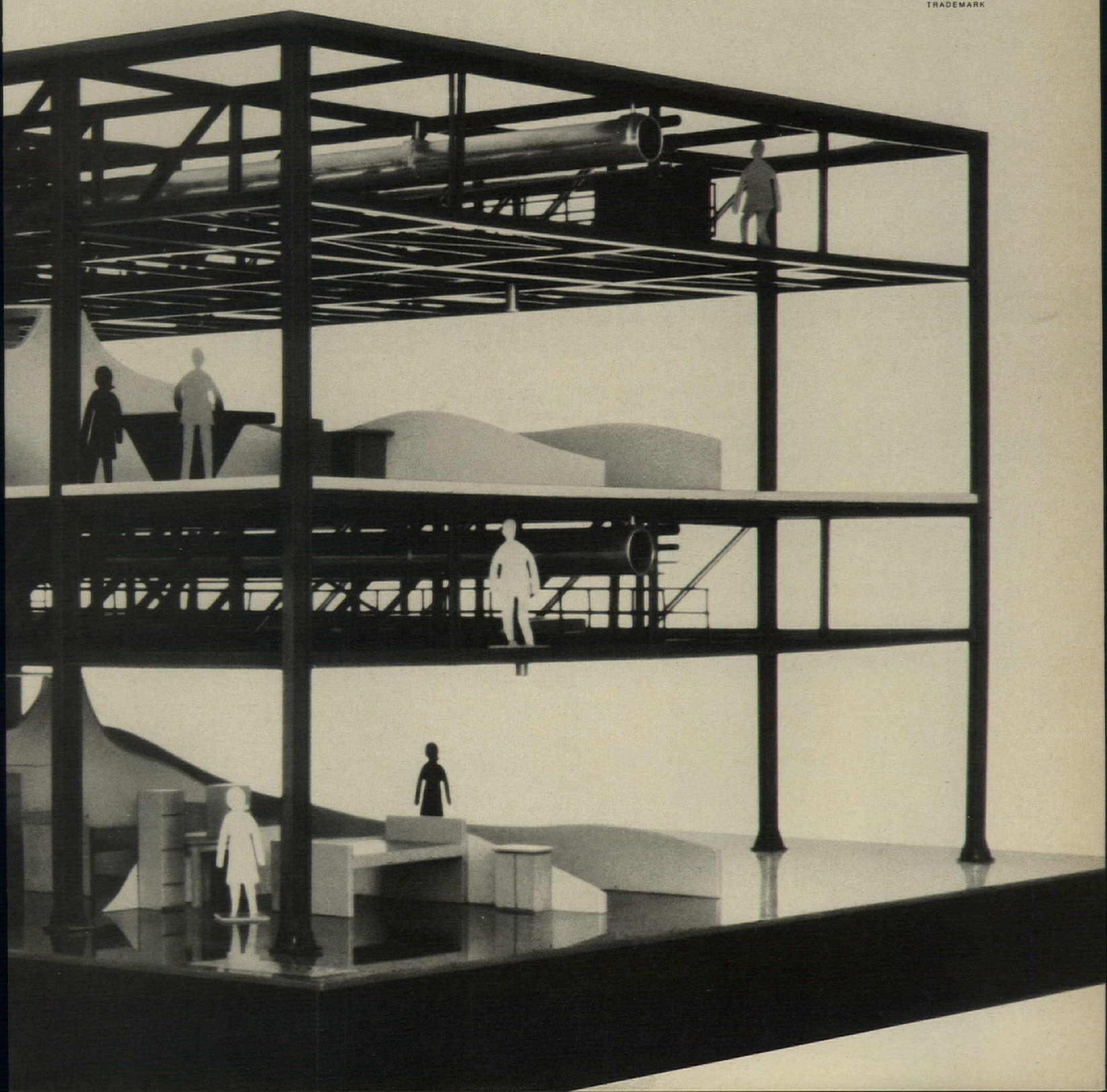
As the model shows, the new system is essentially a series of structural "sandwiches" of mechanical floors between the patient floors. Within these intermediate spaces (service levels), equipment and all mechanical, electrical and communication lines are housed and serviced. Distribution and collection systems are also accommodated between floors.

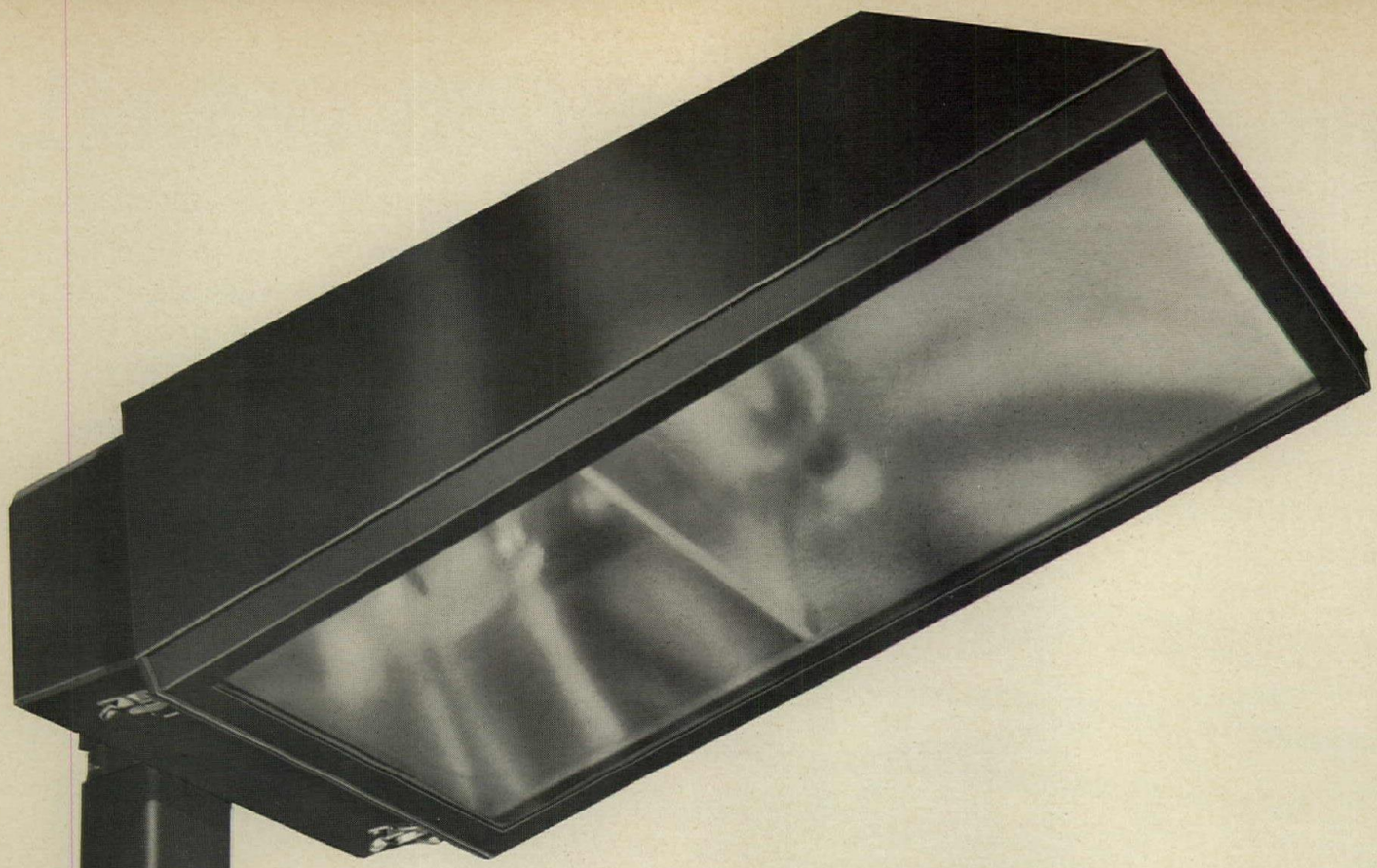
THINK OF IT AS "SANDWICHES" OF STEEL.

The Interstitial "sandwich" levels can, of course, vary in height—depending on the specific functional needs of the floors they service. They can be constructed to a height in which men can work efficiently. Catwalks can provide access to equipment rooms and platforms located within the Interstitial service spaces.

Find out more about this developing concept. Contact a USS Construction Marketing Representative through your nearest USS sales office or write: United States Steel, 600 Grant Street, Pittsburgh, Pa. 15230.

United States Steel USS TRADEMARK





GUTH HAS JUST RE-INVENTED OUTDOOR AREA LIGHTING

. . . to more uniformly illuminate a *larger* area per fixture than conventional systems, *and do it with up to 18% less input wattage!*

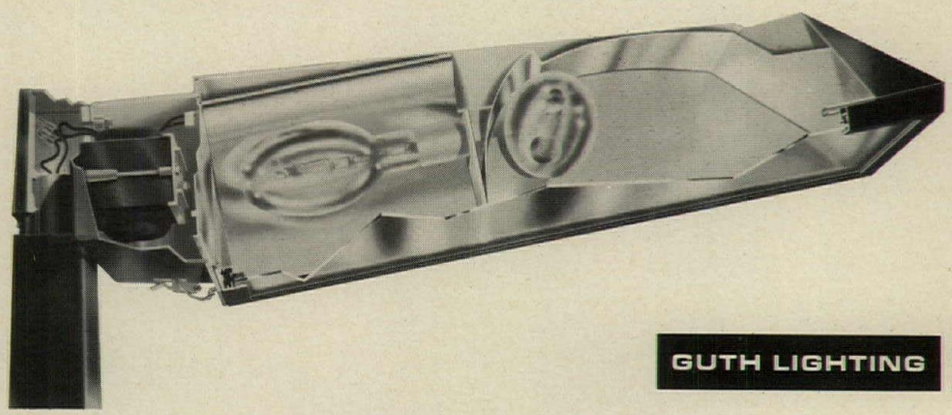
Guth's new "Dual" Area Light is a breakthrough in lighting efficiency.

It is a totally new concept that combines two separate optical systems and two H.I.D. lamps in a single housing. One is designed specifically to "throw" light, the other to "spread" light.

The "Dual" offers double savings. Less power per fixture, and fewer fixtures. Plus better lighting, with less clutter.

The two optical systems are also available separately in single-task luminaires with identical styling for specialized lighting requirements.

For complete information, write Guth Lighting, P.O. Box 7079, St. Louis, Missouri 63177, or call (314) 533-3200.



GUTH LIGHTING SLB SOLA BASIC

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Massey | backs you up.

All the way. Take the Polaris chair. For auditorium or theatre seating. It backs you up with a one-piece, moulded plastic back. Strong. Safe. And good looking. And it stays that way. For a long time. Massey backs you up with comfort. Two inches of foam with every back. And a thick foam cushion over the springs of the seat. Then they back you up with a nice little extra. Complete architectural, engineering and design assistance.

(S) FOR REFERENCE SEE SWEET'S ARCHITECTURAL CATALOG FILE 12.5 MA.

You're always Sitting Pretty with . . .

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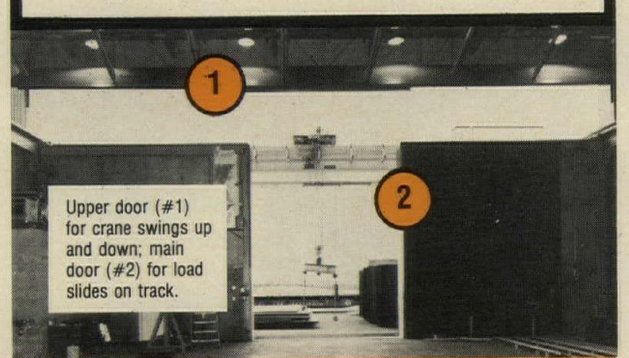

■ Richards-Wilcox craneway doors improve your handling of large or bulky materials and save money by conserving heating and cooling energy ■ Experienced R-W engineers custom-design a door system to best serve your application ■ Available for electric operation with a wide variety of control types ■ High quality, heavy duty hangers, track and hardware for smooth operation and long life in ruggedest industrial use ■ *Let us survey your needs and make a craneway door recommendation*

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For nearly two decades we at Paragon have been designing, engineering and perfecting our Para-flye deck equipment which today is universally recognized as the industry standard, widely acclaimed by leading coaches, swimmers and divers everywhere.

With our exclusive ability to interchange materials, lengths, superstructure and accessories, specifications can be made to meet any and all individual requirements.

To you, the creative Architect or Engineer, this means custom fabrication and total design flexibility without compromise.

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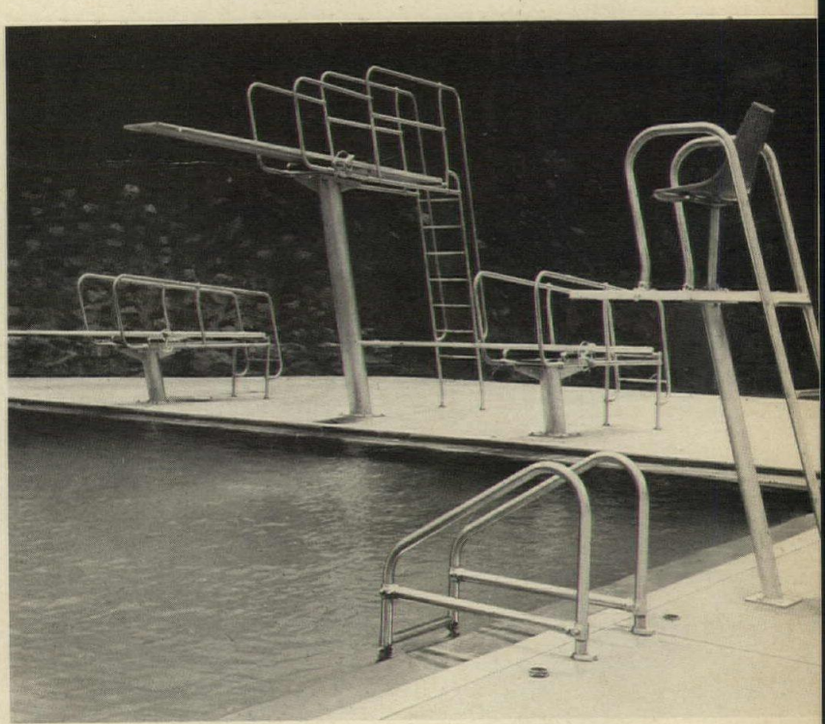
Precision engineering; variable design capability; and proven service to your needs. Thats why Paragon is consistently specified when building or re-equipping a school, club, municipal or residential pool.

See our catalog in Sweets File or write Paragon.

We build the best deck equipment so you can design a better pool.



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A change in course
And a final plea–to you–for help

A message from The International Architectural Foundation, Inc.:

The change in course: In lieu of an international design competition conducted simultaneously for three cities in the developing world, all efforts will be concentrated at this time on generating creative plans for a 3,500-person neighborhood in the heart of Manila.

The reason: This change results from the recent visit of our professional advisor to the Philippines, where an intensive effort is underway to ameliorate the sordid living conditions of over 200,000 squatters in the Tondo Foreshore area. Philippines authorities have expressed hope that The IAF Competition for the design of a neighborhood in Dagat-dagatan, a relocation area near the Tondo, will generate ideas that ultimately will benefit *all* inhabitants in the area—as well as contributing to solutions in other developing countries.

A tremendous challenge and opportunity!

We need your help now. To open the Competition by year's end, we need approximately $100,000 more than has been pledged to date. To achieve this goal, we are inviting contributions from individuals as well as institutions and establishing four categories for donors:

Sponsors ($20,000 and over)
Contributors ($5,000 to $20,000)
Contributors ($1,000 to $5,000)
Contributors ($100 to $1,000)

This is your opportunity to be associated publicly with this unique effort to bring the skills of architects the world over to bear on the problems of the urban poor.

Please send us your check today, payable to The International Architectural Foundation, Inc. Your gift will be used exclusively for purposes of the Competition. For additional information, see Editorial, October pages 13 and 14; or telephone Blake Hughes, 212/997-4685.

Our sincere thanks to the following organizations which have pledged their generous support: The Graham Foundation; The International Development Research Centre (Canada); The Johns-Manville Fund; The Asia Foundation; The Austin Company; Hellmuth, Obata & Kassabaum, Inc.; C.P. Air; E. H. Grolle, RAIC and the G. P. McNear Foundation.

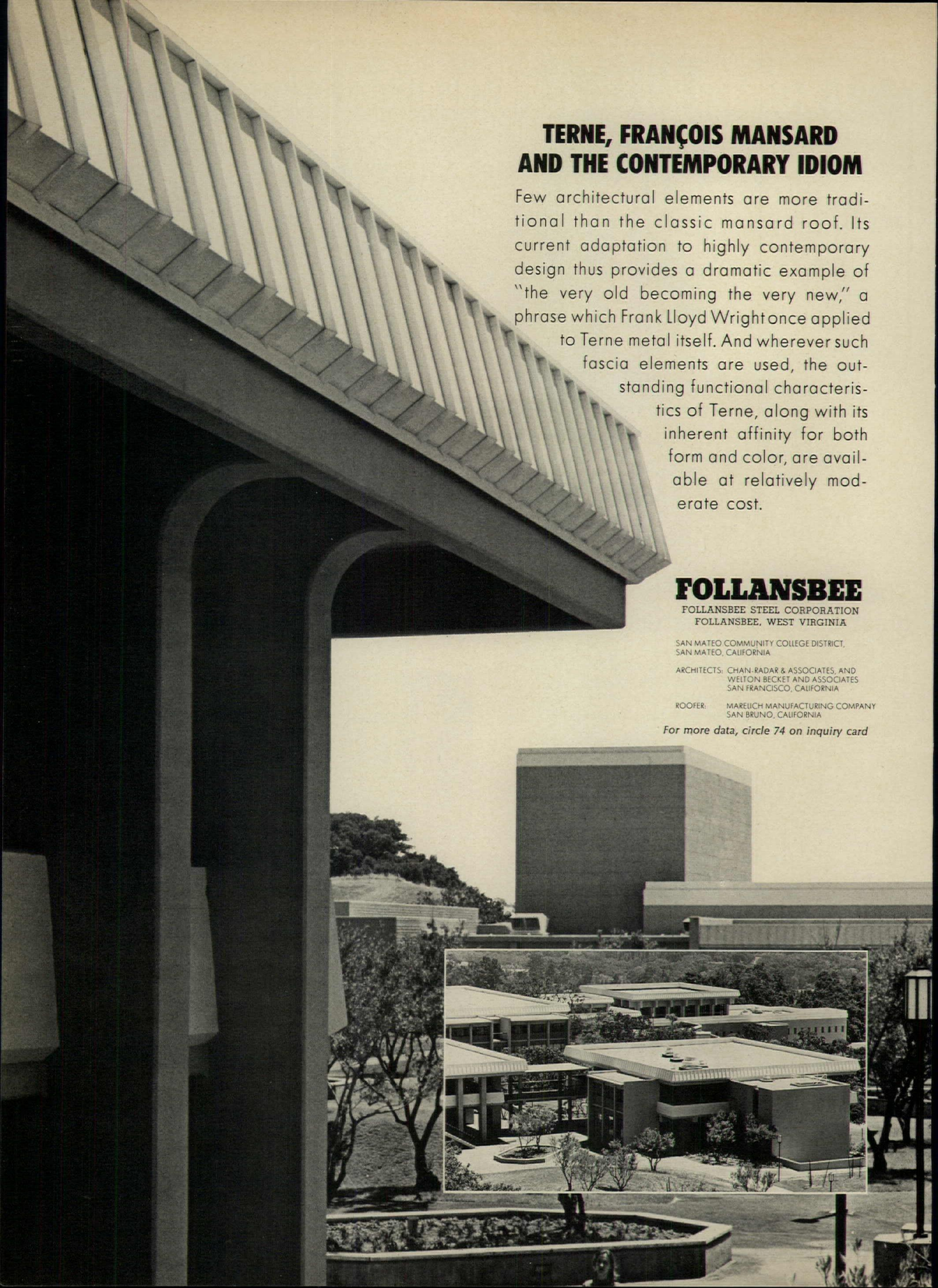
Problems of excessive population growth, unemployment, environmental decay, disease, alienation and urban squalor are all interrelated—rooted in ignorance and disability, breeding despair and desperation. Nowhere are these ugly problems more clearly focused than in the urban slums of the developing world. 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 a demonstration project in a major city 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.

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

"Help Make a World Where Hope Makes Sense"



TERNE, FRANÇOIS MANSARD AND THE CONTEMPORARY IDIOM

Few architectural elements are more traditional than the classic mansard roof. Its current adaptation to highly contemporary design thus provides a dramatic example of "the very old becoming the very new," a phrase which Frank Lloyd Wright once applied to Terne metal itself. And wherever such fascia elements are used, the outstanding functional characteristics of Terne, along with its inherent affinity for both form and color, are available at relatively moderate cost.

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That's why we build the "No Shortcuts" dockboard.

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In this below dock level situation alone five exclusive features anticipated and solved the problem . . . before it became one.

1. Our exclusive recessed frame prevented the truck from hitting the dockboard lip as it backed in.

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Safelite bullet-resistant glass now gives you protection and beauty, too.

Now you can provide the security they need and the beauty you want. It's bullet resistant, UL-approved. And it comes with mitered edges for clean, clear vision. Or, sawed edges for butt glazing and a new, fresh outlook.

Safelite's riot and sound control glass utilizes a wide range of acceptable architectural colors, each at a specific light transmission, a constant U value and shading co-efficient.

Solve your security and comfort problems now. Specify Safelite for on-time deliveries, as promised, for your next project.

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PARTITIONS PRICED COMPARABLE TO VINYL PANELS

Exclusively yours with Air-Wall partitions: the luxurious decor, outstanding sound retardation and long-life of carpeted panels, all at an attractive price comparable to vinyl surfaces ■ New "First Dimension" Series won't scratch, become marred or unravel even when bumped by chairs, carts or tables ■ Carpeting on both surfaces provides a full height tack board surface; nail or tack marks will not show ■ Colorfast and easy to keep clean with all conventional methods.

Ask your R-W Salesman to show you color swatches and tell you about the economical pricing

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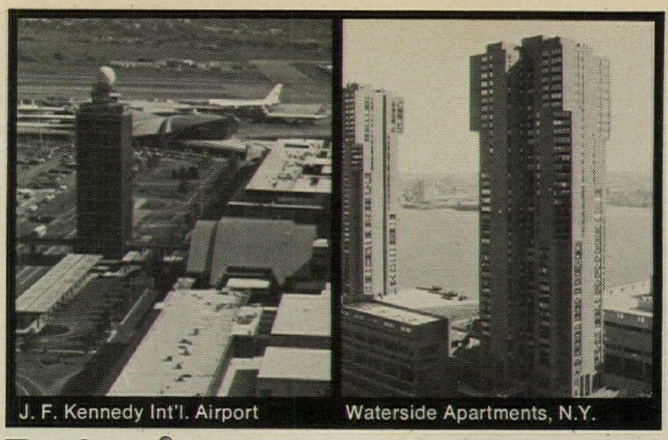

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Environ®—a new modular system for custom light control.

Environ—standard modular systems that can be put together into custom configurations for most extensive lighting variety available. Economical, easily installed, all solid state, smart design. Environ creates light environments with fingertip control in board rooms, conference centers, restaurants, including:

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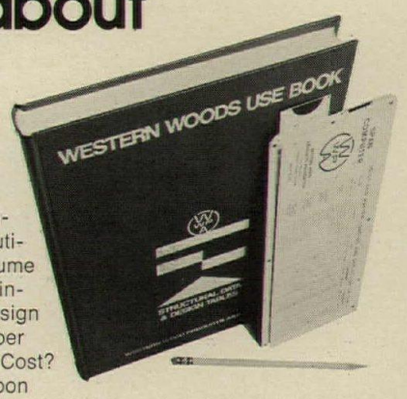
All you need to know about wood.



The WESTERN WOODS USE BOOK is the ultimate reference book for designing wood structures. Beautifully-bound 8½" x 11" volume has over 300 pages containing structural data and design tables for softwood lumber species graded by WWPA. Cost? Only $10.00. Send the coupon for your copy of this indispensable book. (Span Computer Included)

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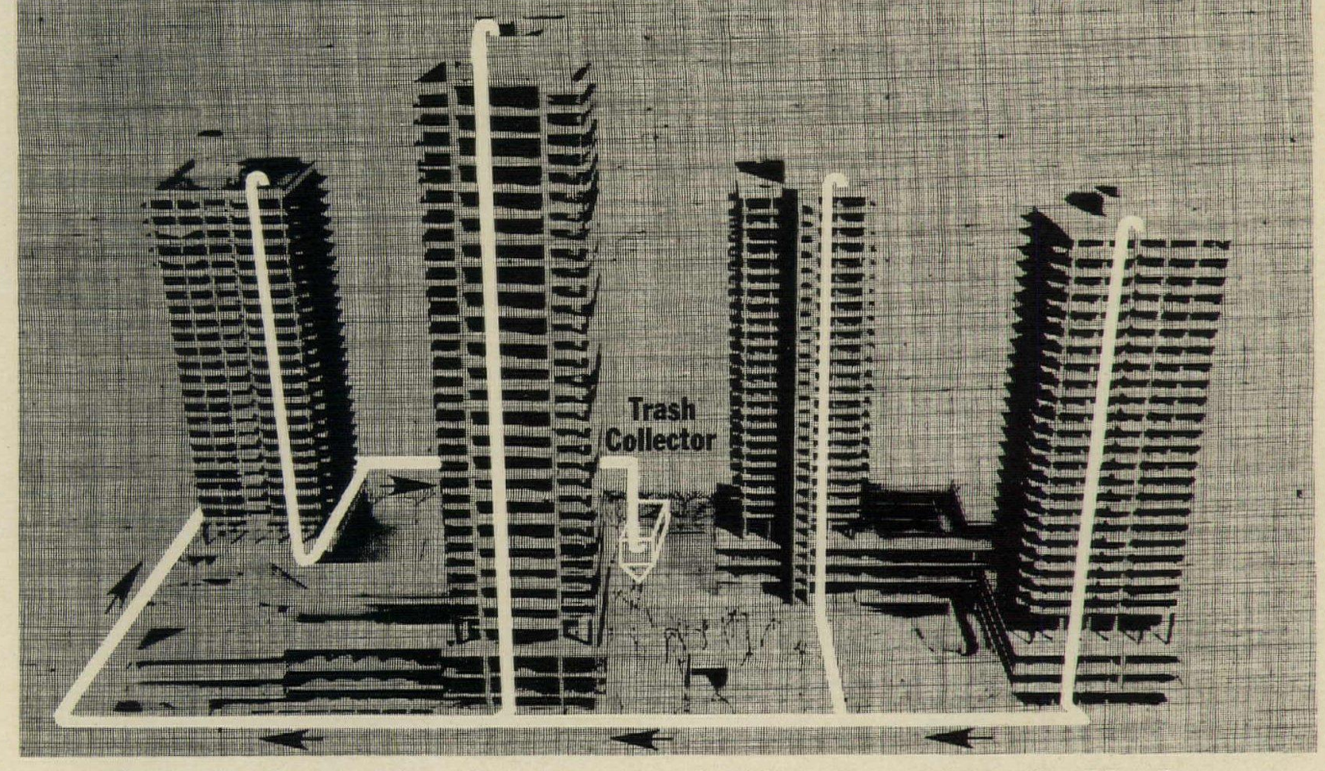
This ECI Air-Flyte trash disposal system moves tons of garbage every day down, across, through, around and out of all four buildings...at 60 MPH



The people in this four tower highrise project in Harlem may never again see a garbage can,...hear a garbage truck,...smell the odors of refuse or see another rat.

The 656 families (plus a day care center, playhouse, amphitheater and stores) that are housed in the East Harlem highrise project have a built-in waste conveying system developed by ECI Air-Flyte Corp. The ECI Air-Flyte Pneumatic Conveying System uses negative pressure to remove all trash, cleanly, quickly and effectively.

The East Harlem Tenant Council and their architects, Silverman & Cika wanted to make sure that the garbage cans, the odors and most importantly the vermin and the rodents that can ruin a project of this size, were completely eliminated.

A housing project as large as this can develop a lot of trash. The initial estimate was 7,500 pounds a day. The system consists of conventional gravity trash chutes, specially designed sizing and receiving hoppers, an ECI Air-Flyte pneumatic conveying system and a waste-holding area, containing two large compactors with 35 yard roll-off containers.

Waste is placed in the gravity trash chutes, or directly into receiving hoppers in the commercial and service areas. The system automatically sizes and transports the waste to the central collection system via the Air-Flyte conveying system. The Air-Flyte system uses a high velocity negative pressure principle to carry the waste at a mile-a-minute, in any direction, up, down, diagonally, around corners – over any required distance. Once the waste is placed in a trash chute or hopper it's never touched again. Because the system is completely enclosed, odors, vermin and rodents are eliminated.

The Air-Flyte system works efficiently to keep the environment clean, in Harlem or anywhere else. Ask your ECI representative for the whole story on Air-Flyte trash collection systems.

ECI Air-Flyte Corp.

Subsidiary of Eastern Cyclone Industries, Inc.
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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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Title

Company

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Nature of Business

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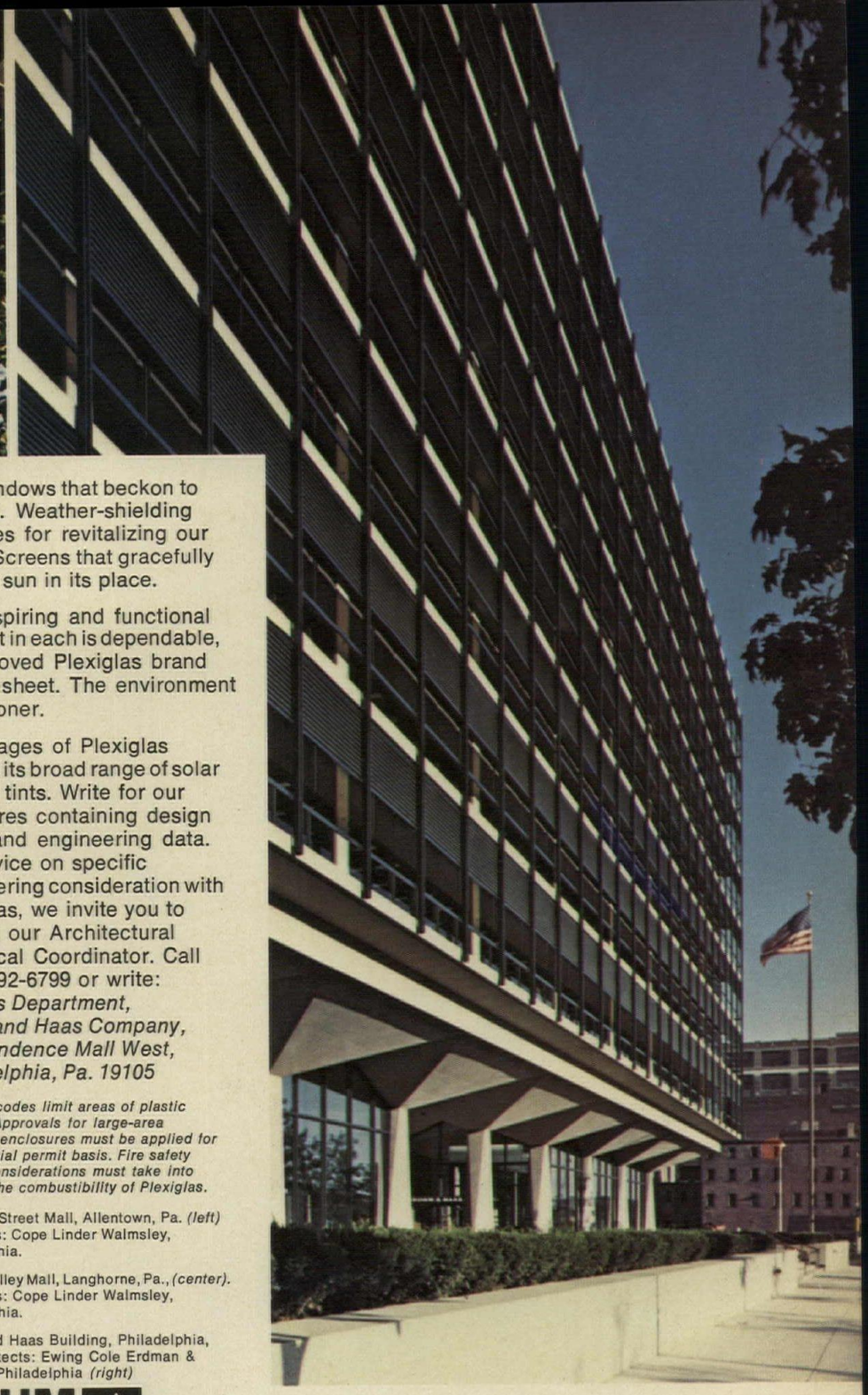

Airy windows that beckon to the sky. Weather-shielding canopies for revitalizing our cities. Screens that gracefully put the sun in its place.

The inspiring and functional element in each is dependable, time-proved Plexiglas brand acrylic sheet. The environment conditioner.

Advantages of Plexiglas include its broad range of solar control tints. Write for our brochures containing design ideas and engineering data. For advice on specific engineering consideration with Plexiglas, we invite you to consult our Architectural Technical Coordinator. Call (215) 592-6799 or write: *Plastics Department, Rohm and Haas Company, Independence Mall West, Philadelphia, Pa. 19105*

Building codes limit areas of plastic glazing. Approvals for large-area Plexiglas enclosures must be applied for on a special permit basis. Fire safety design considerations must take into account the combustibility of Plexiglas.

Hamilton Street Mall, Allentown, Pa. *(left)* Architects: Cope Linder Walmsley, Philadelphia.

Oxford Valley Mall, Langhorne, Pa., *(center).* Architects: Cope Linder Walmsley, Philadelphia.

Rohm and Haas Building, Philadelphia, Pa. Architects: Ewing Cole Erdman & Eubank, Philadelphia *(right)*

Plexiglas acrylic plastic is a combustible thermoplastic. Observe fire precautions appropriate for comparable forms of wood. For building uses, check code approvals. Impact resistance a factor of thickness. Avoid exposure to heat or aromatic solvents. Clean with soap and water. Avoid abrasives.

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the non-glass glazing that does more for you!

WITH PLEXIGLAS®

Think what it takes to put up stucco. Now think about Stuccato®.

Now it's easy to give any home exterior the clean look of skip-troweled stucco.

Our popular Stuccato panel hardboard siding installs quickly and requires no special skills. Just position the panels, nail them in place, and the job's done.

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In every way, Stuccato gives the look and feel of stucco, but without the cost and inconvenience of installation. Another extraordinary difference from Masonite.

And it's available locally. Right now. Either primed or prefinished in warm, flat, Classic White.

For more information on Stuccato or the many other Masonite brand hardboard sidings, contact your Masonite representative.

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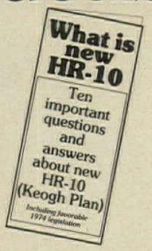
Think of what it could mean to you.

MASONITE CORPORATION

The extraordinary difference.

If you're self-employed, this brochure could be worth 7,500 tax-deductible dollars a year.



It covers a wealth of information about new HR-10 benefits. Among other things, it explains how you can set aside up to $7,500 on a tax-deductible basis each year.

In ten questions and answers it explains the tax retirement benefits involved and how to use them to your best advantage.

You can order your free copy today by contacting your local New England Life Agent or by sending us the coupon.

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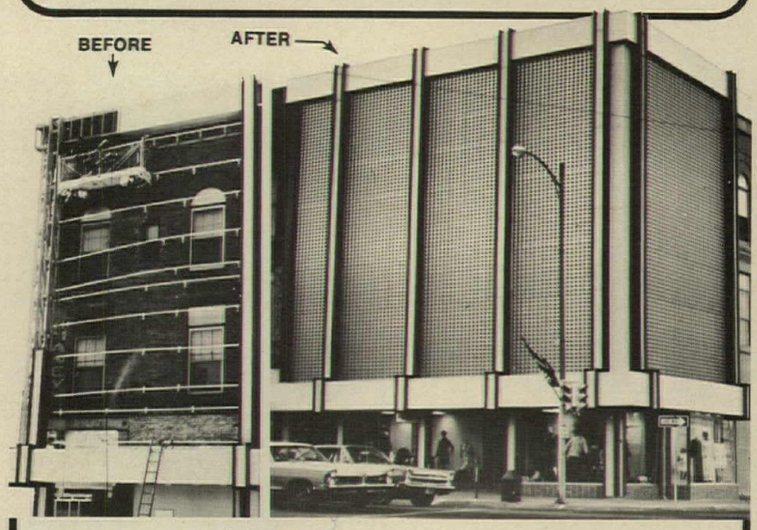

Top quality porcelain-on-aluminum finish in many different patterns, 20 standard in-stock colors. Simple aluminum framing system reduces labor costs. Priced to compete with many painted materials. Shadopanel is also available in 10 baked enamel colors for those ultra-competitive jobs.

Also: • LUMISHADE MARQUEES • PORCELAIN PANELS • AGGREGATE PANELS

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is a child's toy a proper subject for an architect?

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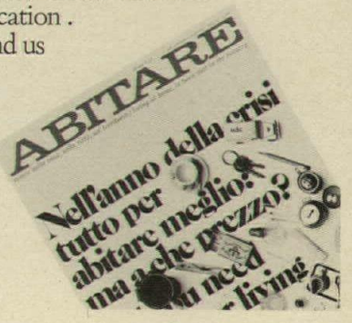

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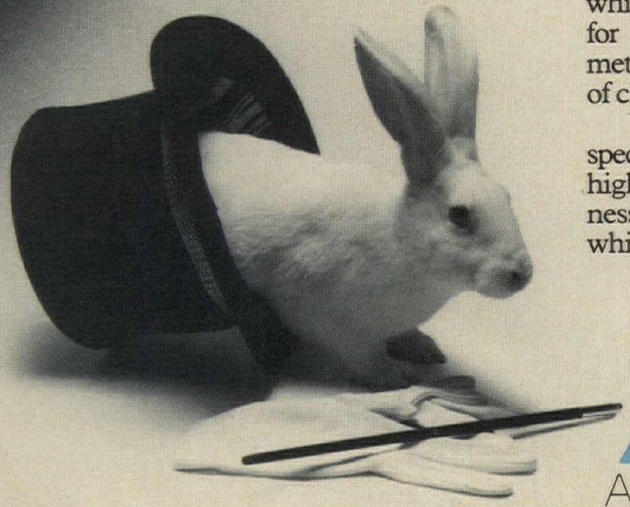
There's Really No Magic To Our New Trick

It's Paracube II, our new specular parabolic louver. It's made to the same rigid standards as our original Paracube, but has a larger cell size (1½" x 1½") for greater efficiency and a fresh, pleasing new look.

Magic? No! We do it with mirrors. Each wall of each Paracube II cell is a highly polished curved mirror, reflecting light downward, while abruptly cutting off brightness. Exclusive cell wall design compensates for relative intensities of parallel-to or cross-lamp viewing to provide uniform appearance from any viewing angle. Patent pending.

Paracube II comes in 1′ x 4′, 2′ x 2′, 2′ x 4′, and 30″ x 30″ panels which are injection molded in one piece for positive dimensional integrity. The metallized finish is protected with a coating of clear lacquer.

You can become the magician simply by specifying Paracube II when you want to achieve high lighting levels with the ultimate in low brightness and visual comfort. Write for Bulletin #99 which tells all its secrets.



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fifteen issues a year for architects & engineers

one each month... and three spotlight issues

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.

In addition, responding to the need of architects and engineers for in-depth presentations of significant trends and developments in major areas of interest, the editors of Architectural Record each year publish three Spotlight issues. Each is an expansion of a continuing feature in the regular issues of the Record.

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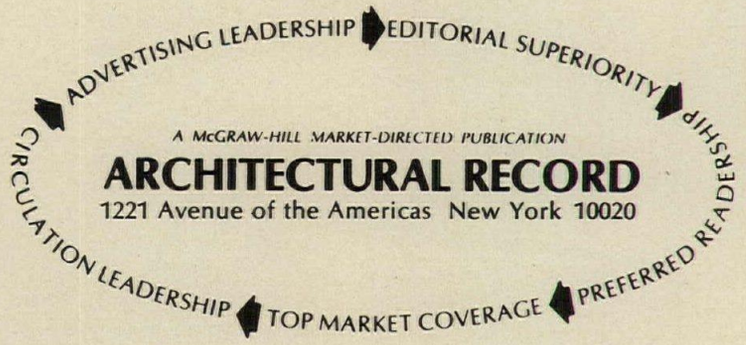
The annual mid-May issue devoted to the year's best architect-designed houses and apartments. More than 44,000 architect and engineer subscribers . . . plus distribution to 20,000 Sweet's-qualified builders and 4,000 Sweet's-qualified interior design offices.

ENGINEERING FOR ARCHITECTURE

The annual mid-August issue, devoted to a comprehensive survey and analysis for architects and engineers of the most significant current developments in engineering for buildings. Bonus coverage of newly active building engineers.

PRODUCT REPORTS

The annual mid-October round-up of the most interesting new and improved building products. Organized by the Uniform Construction Index, this "product file on the drawing board" provides a quick up date of out-of-date catalogs and literature.



Bally Walk-Ins belong where the first toast is to fine food and fashionable dining

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

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The tallest buildings in the world...gleaming achievements in stainless steel.

The mammoth Sears Tower in Chicago and the twin towers of the Port of New York-New Jersey World Trade Center. Unmatched architectural triumphs. Each 110 stories high. Each rendered durable and beautiful with Republic stainless steel.

An Achievement in Stainless Elegance . . .

Breathtaking beauty . . . bright #8 mirror finish walls of stainless steel, without a ripple or fastener show-through. Designed by architect Minoru Yamasaki for the lobbies of the World Trade Center, 35,000 square feet of matched panels of ENDURO® Type 304 stainless rise a spectacular 70 feet straight up.

Other elements of the building interior using stainless steel include curved floor gratings, flashing, curved railings, revolving doors, escalators, and elevators.

An Achievement in Stainless Design . . .

Sears Tower, Chicago. The world's tallest building at 1,454 feet. Republic stainless architectural metal products were used throughout the building.

Glass framing has a mill prebuffed finish. Wall and door panels, embossed in subtle texture design, are supplied in 2B-N finish, polished to highlight the texture. Even outside railings and flagpoles are shining stainless. Truly an accomplishment in stainless design; for beauty, durability, and cleanability.

Republic stainless steel can be equally superlative in your architecture. Learn how you can become a member of our exclusive "TKO" club and receive the information you need today to benefit from tomorrow's uses for stainless steel.

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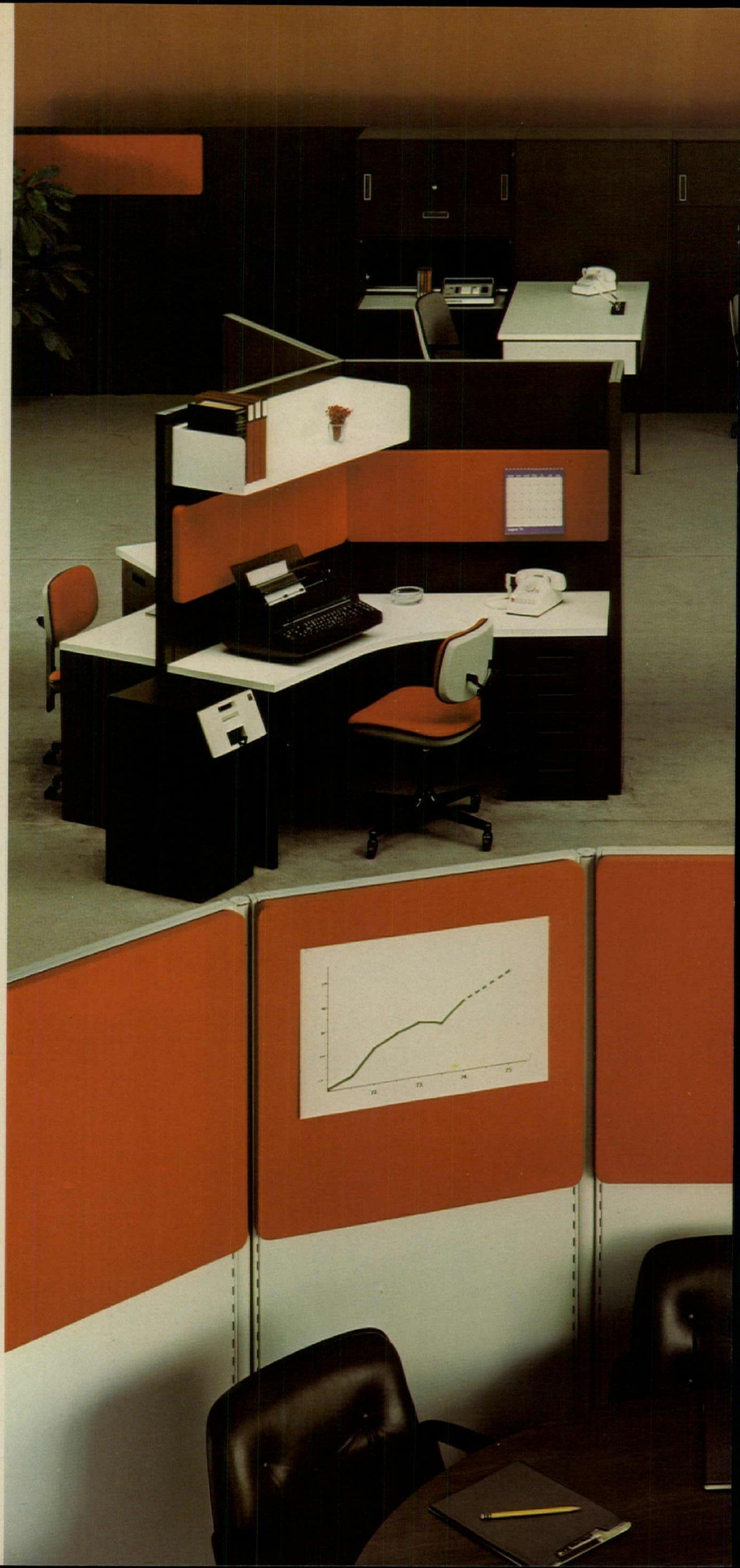
The GF Environmental Systems Program turns plans into reality.



Your most ingenuous plans become realities because the GF Environmental Systems Program gives you so much with which to work.

Color, for instance. There are sixty-four more colors available than those you see here.

And panels. Panels that can be placed together at any angle from 90° through 270°.

The Action Arc

There are Action Arc (120°) worksurfaces, developed for word processing stations and panel-hung tops that can be set at any height.

No matter what your client's business, the GF Environmental Systems Program will meet the needs of that business. (Even when he is working with the tightest of budgets, you can employ ESP with some of the furniture he already has.)

Expansion Plans

You can plan for expansion, because ESP panels can be moved overnight. And moved without damage because they are steel. Another benefit of steel is its fire resistance. (Even fabric-covered ESP panels can be treated to resist fire.)

When your plans call for the open office concept, contact your GF representative. GF Business Equipment, Inc., Youngstown, Ohio 44501. In Canada, Toronto, Ontario.

GF Office Furniture Systems

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Fortrel PCP is a trademark of Fiber Industries, Inc., a subsidiary of Celanese Corporation

The next best thing to a woolacrylicpolyesternylonpolypropylene carpet is guaranteed to work long hours. 5 years of them.

It's Fortrel PCP, the one and only producer-colored polyester. We developed it in early 1974, and when we realized what we had, we decided to wear guarantee it for five full years.

You can't get more secure color. Because in Fortrel PCP polyester, the color is sealed right into the fiber.

From color, go on to the hand of wool. The resiliency of acrylic. The luster of polyester. The durability of nylon. The mildew and fade resistance of polypropylene.

Fortrel PCP polyester comes in a range of rich, clear colors. Combine them, and you get virtually unlimited heathers.

And all the colors can take light. Over 1500 LIGHTFAST hours of it.

Wear guaranteeing? It was the easiest decision we ever made.

For complete information on how our guarantee works and Fortrel Floor Covering products, call or write Floor Coverings Department, Celanese Fibers Marketing Co., 1211 Avenue of the Americas, New York, N.Y. 10036, (212) 764-7640.

FORTREL PCP FOR CONTRACT

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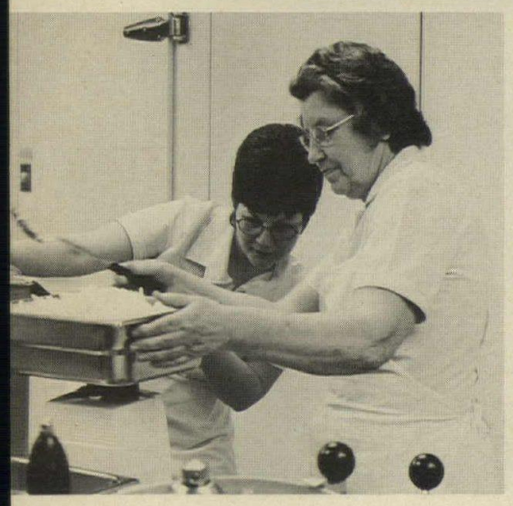
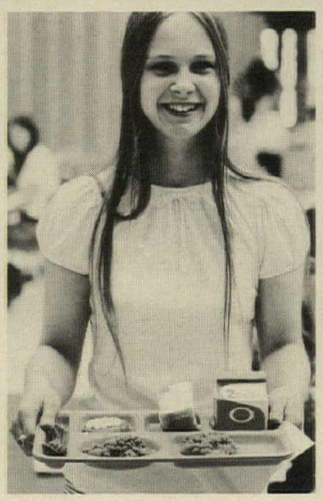
CELANESE





With 1,800 hungry children to feed, you don't want refrigeration equipment that tests your patience.

Making lunch for an energetic group of high school students is a full-time job. And a complex one. One that requires a variety of food service equipment to help you get the job done and take advantage of the efficiencies that are built into today's food service systems. Equipment selection, however, is an equally complex job. Because there is so much available. And because the equipment you select has to satisfy you, and the people who work for you, and the students that you serve.

Every piece of Nor-Lake refrigerated food service equipment is designed to do a job, consistently and conveniently, day in and day out. Week after week. Month after month. Year after year. With doors that open easily and close tightly. Insulation and compressors that control in-use temperature variation. Designs that maximize storage and minimize cleaning. We make them that way because Nor-Lake equipment is used, day in and day out, by people who can't settle for anything less.

Please send me information on your ☐ Refrigerators, ☐ Freezers, ☐ Walk-in Units, ☐ Beverage Coolers, ☐ full line.

I don't need information, I need answers. ☐ Have someone call me.

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Title _____

Firm _____

Address _____

City _____ State _____ Zip _____

NOR-LAKE INC.
Second and Elm. Dept. 3181
Hudson, Wisconsin 54016
Phone: 715-386-2323

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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.

ADVANTAGES OF KREOLITE® FLOORS:

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3. Special finishes for absolutely dust-free surfaces.
4. Versatility in providing for in-floor conveyor systems, tow-lines, etc.
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7. Traditional properties of comfort through insulation.
8. Non-sparking surface in volatile areas.
9. Reduction of damage to dropped tools and products.
10. Priced for profitable production.

JENNISON-WRIGHT J·W®

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

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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.

Timely features? You bet. And these are just for starters. You'll also discover new ideas in function, safety, and a beauty that lends a handsome, 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.

AMSCO
American Sterilizer Company
ERIE · PENNSYLVANIA

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If we tried to solve all your material-handling problems with a single system, it would be like trying to fit square pegs into round holes. So we developed a wide range of systems, to fill the needs of virtually any hospital.

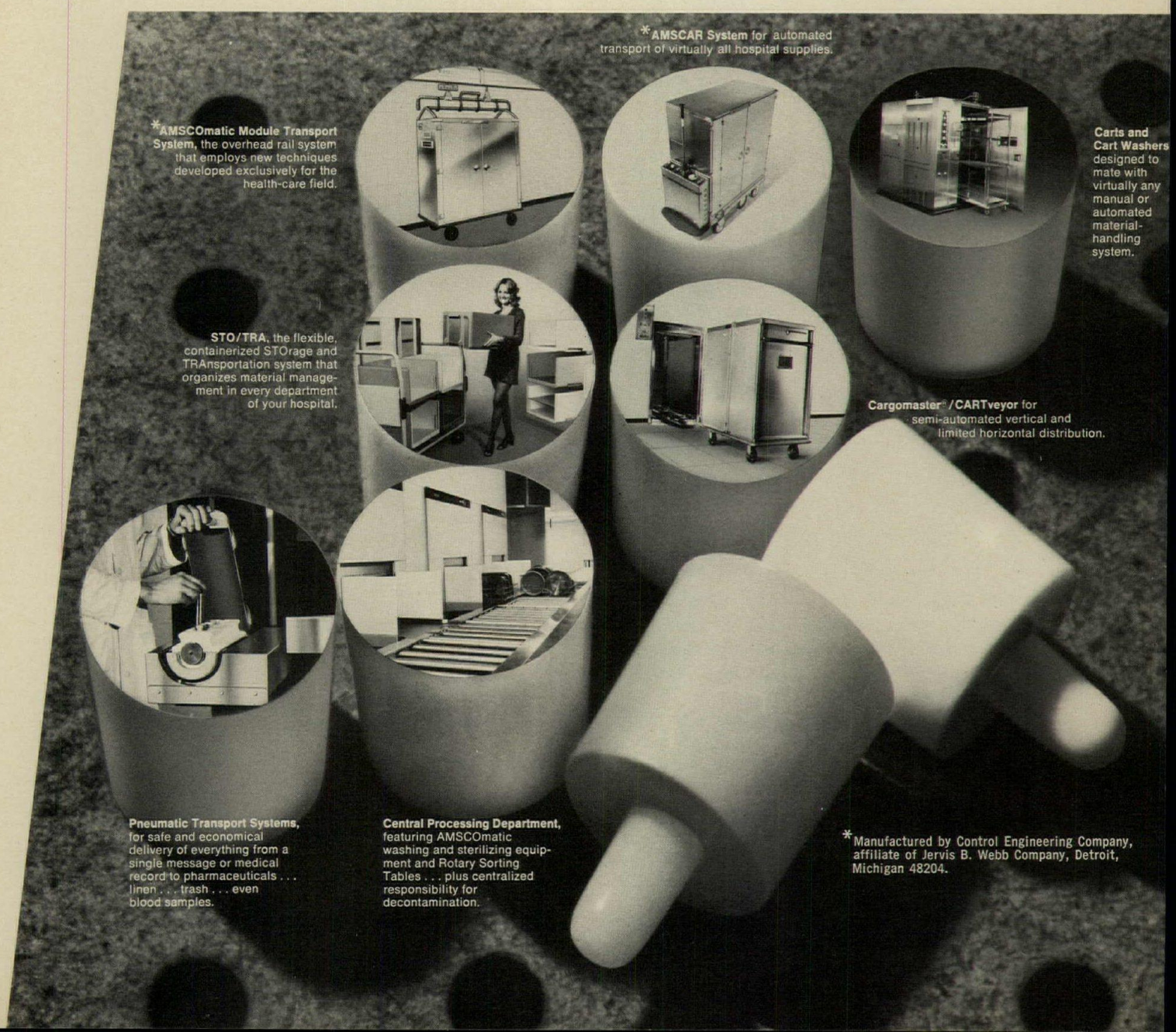
And we back our products with expertise that helps us tailor our material-handling equipment to your building instead of requiring that you plan your building to fit our systems.

We work with you to determine the best system or combination of systems for the job you want done. We gather facts and figures on costs and cost-savings. We design the system down to the last nut and bolt — and can even employ computer simulation to prove that our plans will work as well in actuality as they promised to on the drawing board.

We supervise installation . . . train hospital personnel in proper and efficient use of the system . . . and remain on hand during start-up and operation to make sure all the bugs are out. To assure that they stay out, AMSCO offers you a nationwide network of service technicians for preventive maintenance or repair.

When it comes to material handling for hospitals, we may not have all the answers. But we're working on them.

in material handling... we fit round pegs



Today's AMSCAR System is generations advanced over original models. But even then the System was generations ahead of its time, as proved in almost a score of hospitals throughout the country. Battery-powered electronically-guided AMSCARs in those hospitals deliver virtually all supplies, including patient food trays, without human assistance. Even up and down their own elevators. Besides saving time and money, AMSCAR automated distribution frees hospital personnel for their most important job: improved patient care.

talk with us. we can help.

AMSCO SYSTEMS

Division of American Sterilizer Company

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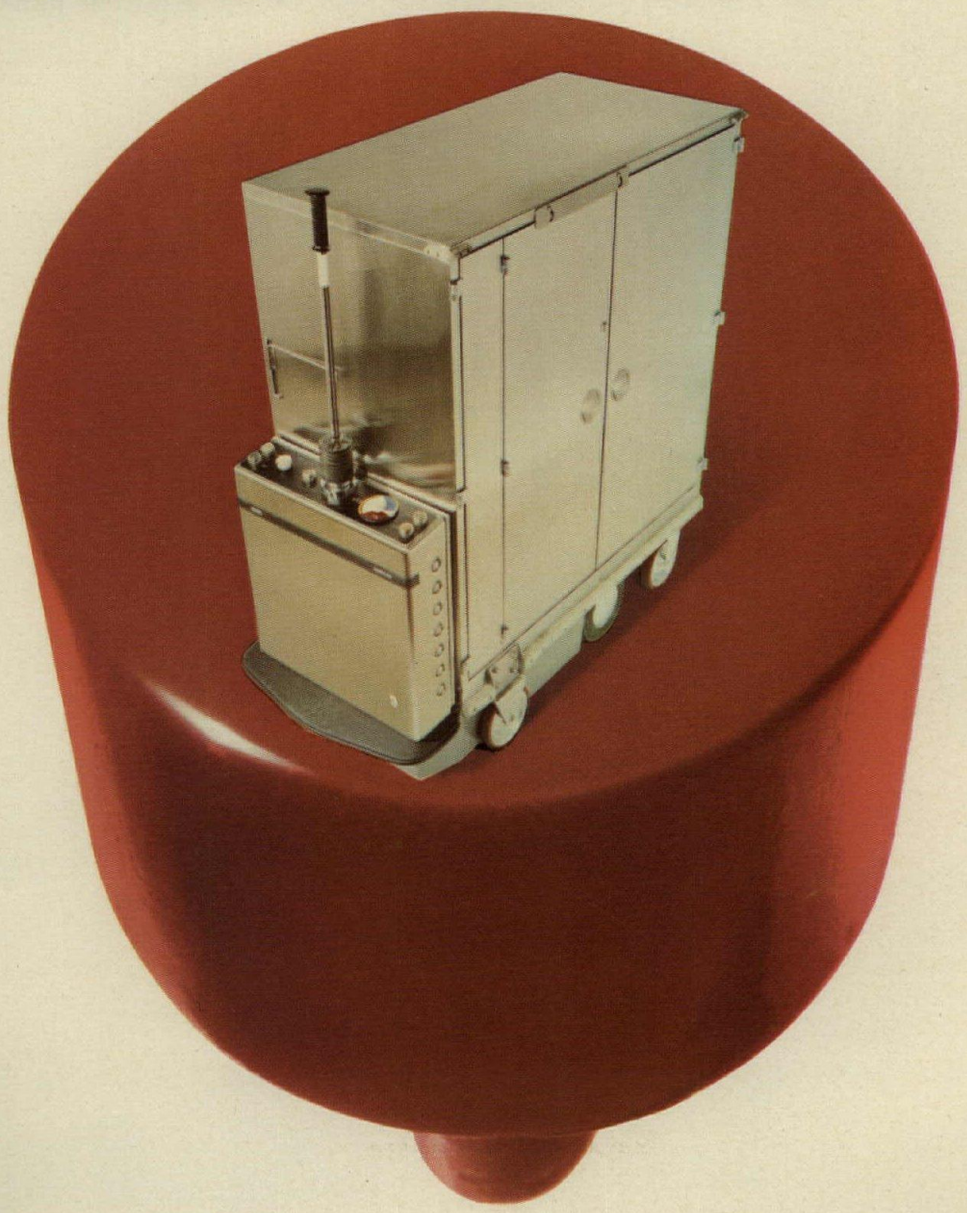
to round holes




NOW LEASING

No-Passing Zone

It's pretty tough for temperatures on either side of these windows to pass through. They're C-E Polarpane "20" Gold Reflective Insulating Units. Installed in Denver's new Sherman Building.

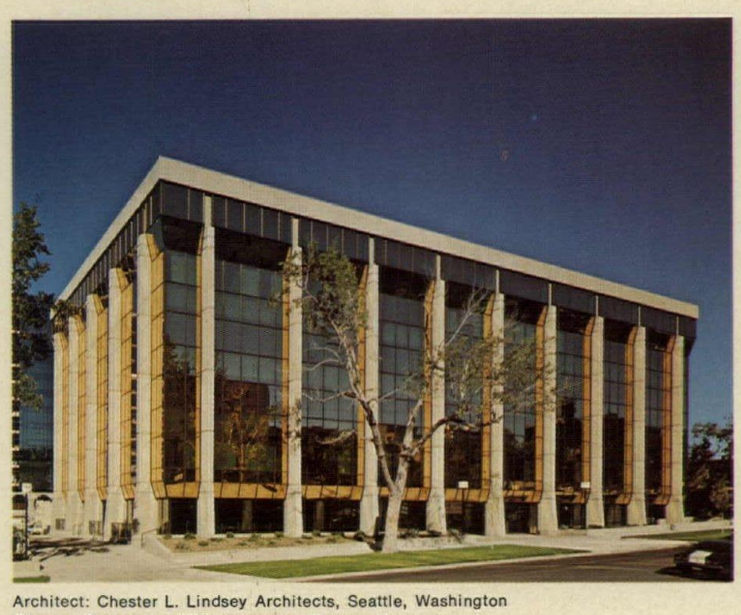
Very little outside summer heat will pass in. Because these Polarpane units reject over 90% of infra-red solar energy. Shading coefficient is a low .16. This adds up to a total indoor heat gain of only 37 BTU/hr per square foot. Which helps to cut the initial HVAC investment and operating costs thereafter.

In winter, this no-passing zone helps keep most heat in . . . more than ⅔ of it, as a matter of fact. Thanks to the .31 "U" value offered by Polarpane Gold Reflective Insulating Units. Result is substantial savings on fuels and fuel costs, at a time when they're needed more than ever. Especially in this electrically heated building.

Can't really blame a BTU for not getting through. Polarpane's no-passing zone hangs tough: A double-glazed insulating unit of plate or float . . . clear, bronze or gray. The inner or sealed surface of the exterior lite is permanently coated with thin, reflective metallic gold or silver. This lite is separated from a companion clear plate by a cushion of filtered and dehydrated air. A treated steel air space separator, double butyl seal and stainless steel edge channels hermetically seal the unit, assuring complete protection against condensation.

A strong 20 year performance warranty is also built in . . . a warranty backed by a company that will be here 20 years from now: Combustion Engineering, Inc., one of America's largest industrial firms.

Ask us for your free copy of the Polarpane "20" catalog. Or, consult a C-E Glass specialist. C-E Glass, 825 Hylton Road, Pennsauken, N.J. 08110, (609) 662-0400.



Architect: Chester L. Lindsey Architects, Seattle, Washington
Glazing Contractor: PPG Industries, Denver, Colorado

C-E GLASS
COMBUSTION ENGINEERING, INC.

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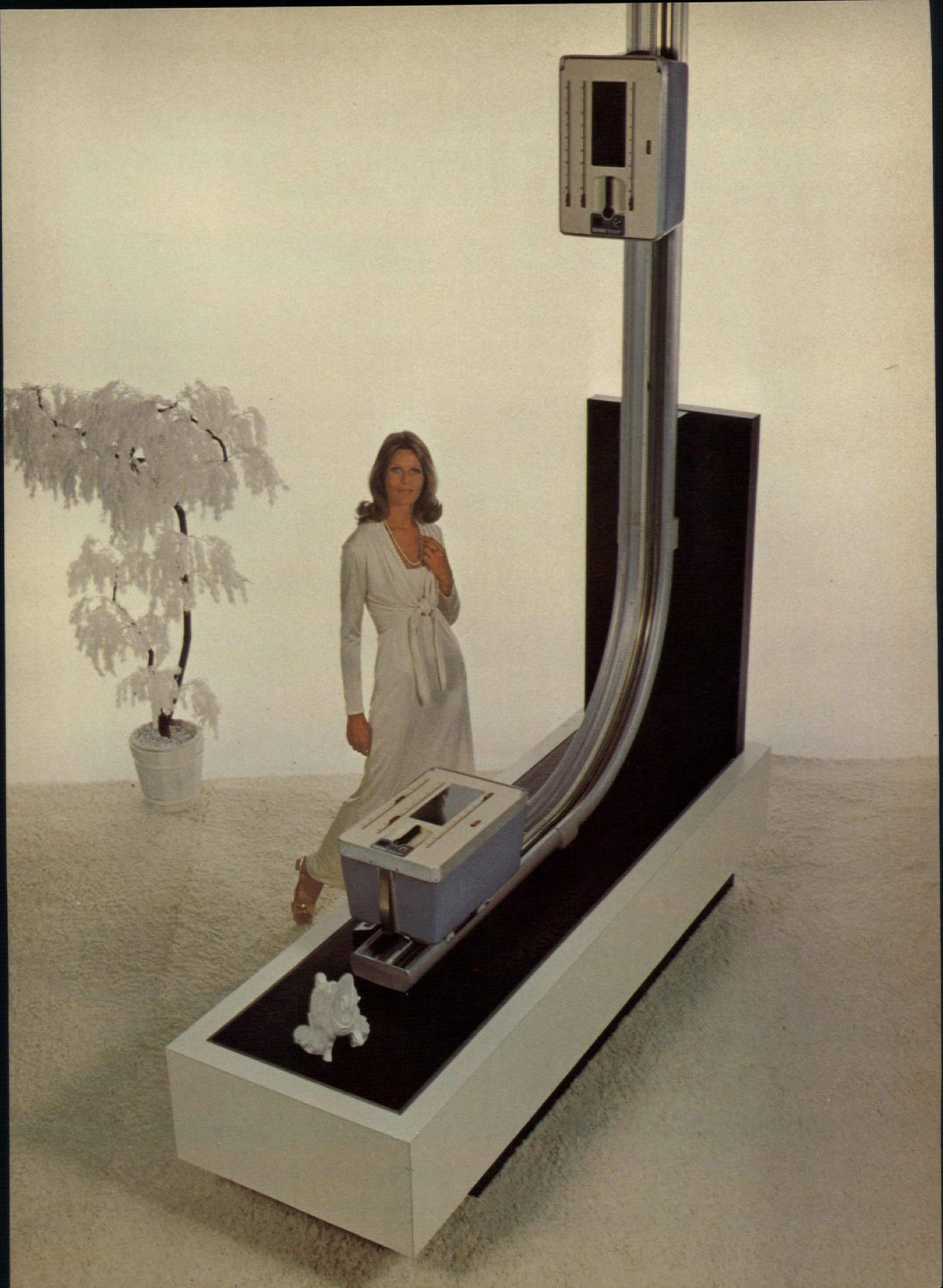

Many new roofs waste a lot of energy. Here's how to cut that loss by 50 percent-without spending an extra dime.

It may sound amazing, but you can do it.

The only thing you have to do is specify thicker 2¼-inch Fiberglas* roof insulation instead of the thinner 15/16th-inch size.

This dramatically reduces heat loss through your roof. And it actually brings the total cost of your building *down!*

The reason: the improved thermal performance of your roof enables you to get along with less elaborate, *less expensive* heating and cooling equipment.

In general, every dollar you spend on thicker 2¼-inch roof insulation vs. 15/16th-inch size cuts up to *two* dollars off original equipment costs. So you come out considerably *ahead.*

On a suburban office building in northern climates, for example, thicker roof insulation could save as much as $27,000 in equipment costs for every 60,000 square feet of roof.

And, of course, the thicker Fiberglas roof insulation goes on slashing the loss of fuel energy through the roof of your building by 50 percent—and the fuel *bills* by roughly 10 percent—year after year.

The exact savings vary according to climate zone, the size and type of roof deck, "U" improvement, and the added cost of the thicker insulation.

We've worked up all the figures and charts in a handy booklet called "Roof Raiser's Guide to Cost Reduction." For a free copy, write: I. X. Meeks, Architectural Products Division, Owens-Corning Fiberglas Corp., Fiberglas Tower, Toledo, Ohio 43659.

More details: See our section in Sweets Catalog, Roof Insulation Systems 7.15/Ow, or contact your Owens-Corning representative.

*Reg. T.M. O.-C. F.

Owens-Corning is Fiberglas

OWENS/CORNING FIBERGLAS TRADEMARK®

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SEMI-ANNUAL INDEX

VOLUME 156
JULY-DEC. 1974

Readers using the index will find buildings entered in three ways: by architect's name, by building or owner's name, and by building type (apartments, hospitals, schools, etc.). Other categories cover subjects in the engineering section (concrete, lighting, prefabrication, etc.).
ABBREVIATIONS: AB—Architectural Business; AE—Architectural Engineering; BA—Building Activity; BTS—Building Types Study; CM—Construction Management.

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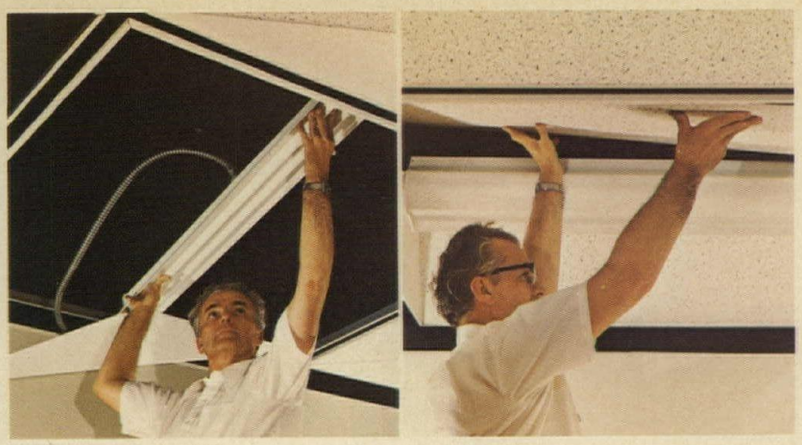

Less energy to install. Less energy to operate.

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, Dept. AR–12, Greenwood Plaza, Denver, Colorado 80217.

Holophane®
Division, Johns-Manville Sales Corporation

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ADVERTISING INDEX

Prefiled catalogs of the manufacturers listed below are available in the 1974 Sweet's Catalog File as follows.

A Architectural File (green)
I Industrial Construction File (blue)
L Light Construction File (yellow)
D Interior Design File (black)

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CLASSIFIED SECTION

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Architects—We have many career openings for architects to serve as project architects for large designer-builder of medical and institutional facilities. Excellent companies. Good salary, bonus and car compensation packages. Send resumes with salary history. Management Recruiters of Green Bay, 115 S. Jefferson St., Green Bay, Wis., 54301. Or direct dial 414/437-4353.

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VOLUNTEER PEACE CORPS/VISTA
Architects/planners needed for Peace Corps projects in Latin America, Africa, Asia; VISTA projects in 25 U.S. cities. Housing projects, design of schools, hospitals, community centers, rehab, university teaching, regional planning, etc. Expenses paid, travel, medical, vacation and living. Information: Lynn Rotenberg,
ACTION,
ORC Box A-1, Washington, D.C. 20525.

Midwestern based Engineering, Planning and Architectural Firm has challenging position available for a creative architect. The applicant should be design-oriented, have promotional experience and capability and have experience in producing a set of plans from beginning to end. Excellent opportunity for advancement to top level in rapidly expanding firm. NCARB Certification and minimum eight year's experience with some at supervisor level required. Salary commensurate with background and experience. An equal opportunity employer. Send resume to P-6515, Architectural Record.

Architect: Well established, design oriented midwest A-E firm with diverse, nationwide practice, serving major governmental, educational, and corporate clients, seeks imaginative, top flight design architect of proven capability. Will work closely with senior management. Returns commensurate with performance. Send resume and other details in confidence to Box 6544, Architectural Record.

TEACHING POSITION AVAILABLE. Required: Thorough understanding of analog and digital computer systems for information storage, retrieval, and analysis. Experience in computer information systems management. Working knowledge of state and local governmental systems. Experience in research and development projects evidenced by grant awards highly desirable. Teaching experience required and academic administrative experience desirable. Teaching duties to include two courses in research methods for graduate students in architectural technology-structural design, and/or environmental technology. Area of research in architectural and/or planning to be determined. Send letter of interest with resume to Arnold Butt, Chairman, Department of Architecture, University of Florida, Gainesville, FL 32611. University of Florida is an equal opportunity employer.

POSITIONS WANTED

Financial Executive-Heavyweight-listed co. V.P., Controller—CPA (Big 8 exp.)—Attorney —Acquisitions, financial controls, taxes. Exp'd. real estate, construction industries. Combines technical skills with imagination. $28-32,000 required. For resume: PW-6356, Architectural Record.

Architect: 34, B.S. Arch., Ohio registration. Seeking project responsibilities with firm doing quality work and a varied practice. Present responsibilities include project management from program to dedication on projects to $6 million. 10 years experience with strong background in educational facilities. Location open. Tom McMullen, R.R. 5, Box 292, Celina, Ohio 45822.

Architectural Designer: Draftsman, 34, married, 8 years experience with large architectural and interior firms. Specializing in commercial interiors, hotels and restaurants. Experience in client contacts, job supervision, interior layouts, detailed working drawings, graphics. Seeking responsible position abroad, east coast, or west coast. Fluent in 2 foreign languages. Reply to our box PW-6427, Architectural Record.

ARCHITECT/PLANNER: 35, family, multiple degrees, NCARB, principal of firm. Comprehensive experience in top-level management, marketing, conceptual design, client relations for large-scale hospital/commercial projects and arranging project financing. Seek partnership/equity position with architectural, consulting or real estate firm. Consider part-time consulting arrangement. Reply PW-6539, Architectural Record.

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Artistic renderings, architectural and engineering models, commercial and public interiors, meaningful exterior and interior lighting, all subordinated to your design concept, can be ordered from "VITRUVIUS DESIGNS CORP.", Box 1316 Radio City Sta., New York, N. Y. 10019, (212) 586-7382.

Consultant in selection painting, sculpture, graphics. Former Associate Curator, Museum of Modern Art, N.Y. Inquire: Elaine L. Johnson, 251 E. 51 St., N.Y. 10022. 212-935-0459.

Consulting group specializing in fountains and custom water displays, offers comprehensive design and engineering services. Architectural and traditional ornamental fountains, unique water shows, rain and special effects, programmed lighting and water displays. Excellent facilities. Contact: Ptolemy Associates, 3944 East Oakdale Ave., Pasadena, Calif. 91107 (213) 684-0957.

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25th Architecture and Gardens Tour of Japan, Taipei, Hong Kong. Depart Apr. 11, 1975. 26 days, deluxe. Non-architects welcome. Brochure from K. M. Nishimoto, 147 So. Los Robles Ave., Pasadena, Ca. 91101.

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MATERIALS WANTED

Save the Barns—A photographic book in progress. Wanted, any material pertaining to existing barn structures and/or renovations. Please contact Ernest Burden, Architect, 20 Waterside Plaza, New York 10010. Telephone 212/889-4672.

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ARCHITECTURAL RECORD/
P.O. BOX 900
NEW YORK, N.Y./10020

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