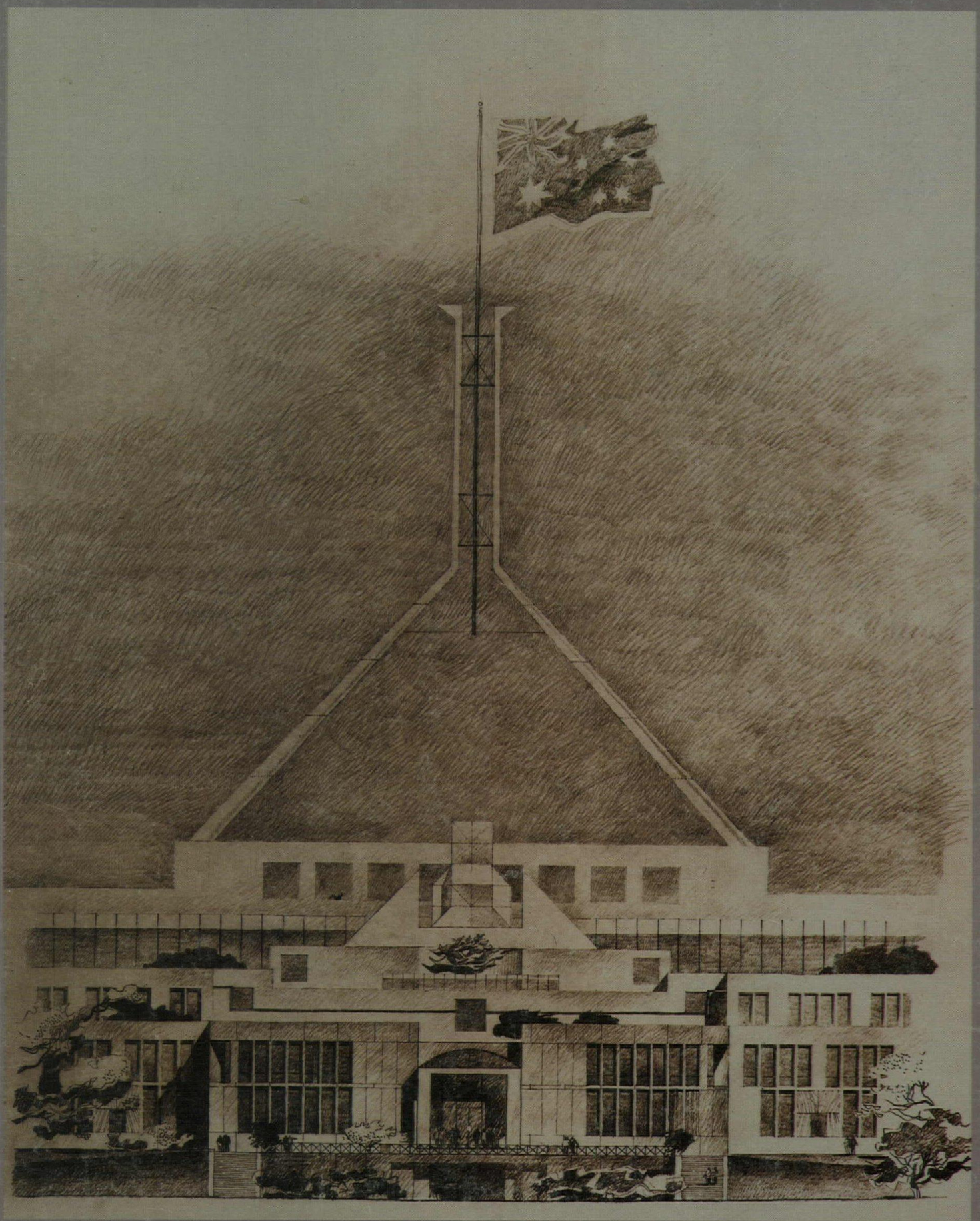
Progressive Architecture

March 1981



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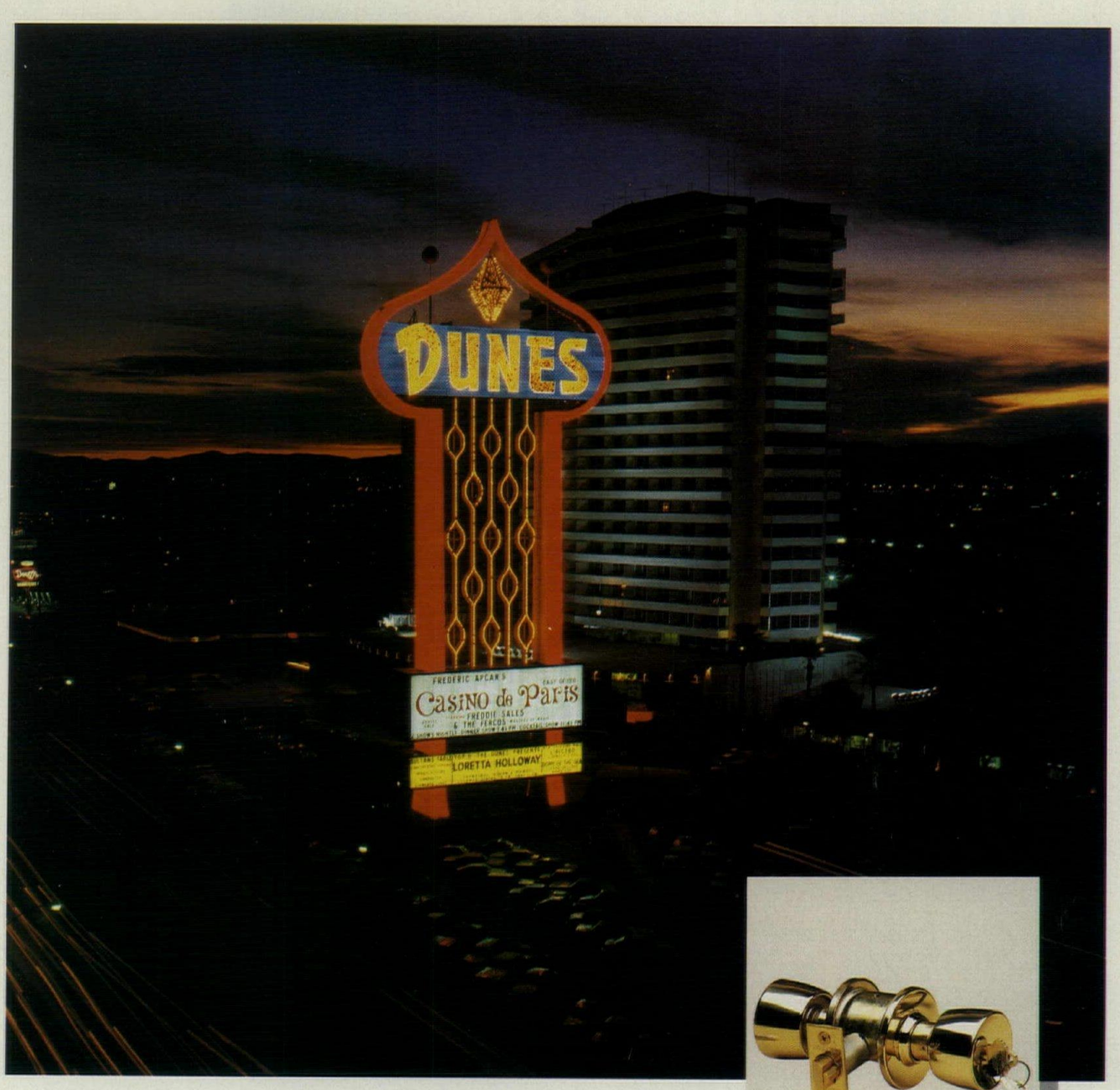

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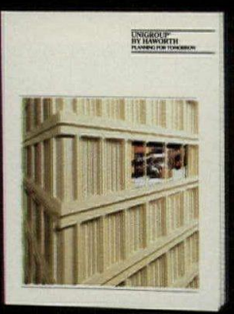

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Circle No. 331

March 1981

Progressive Architecture

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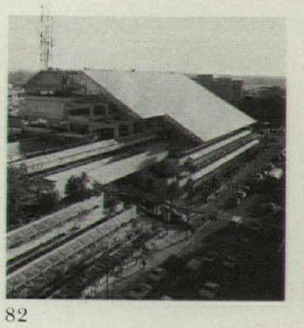
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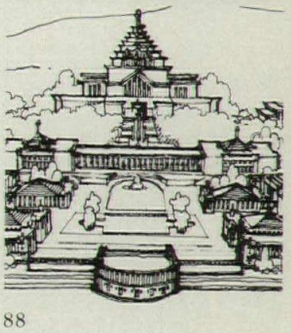
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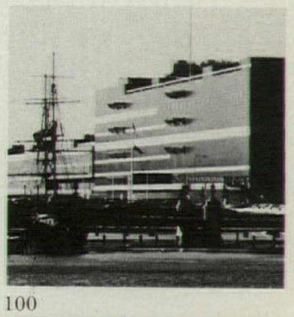
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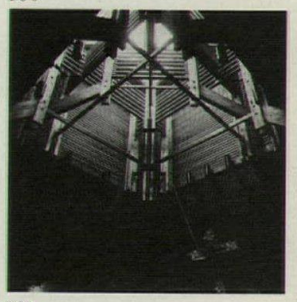
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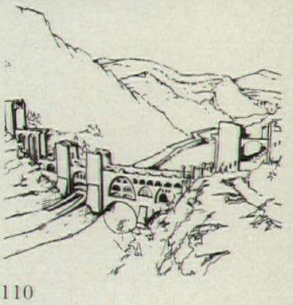
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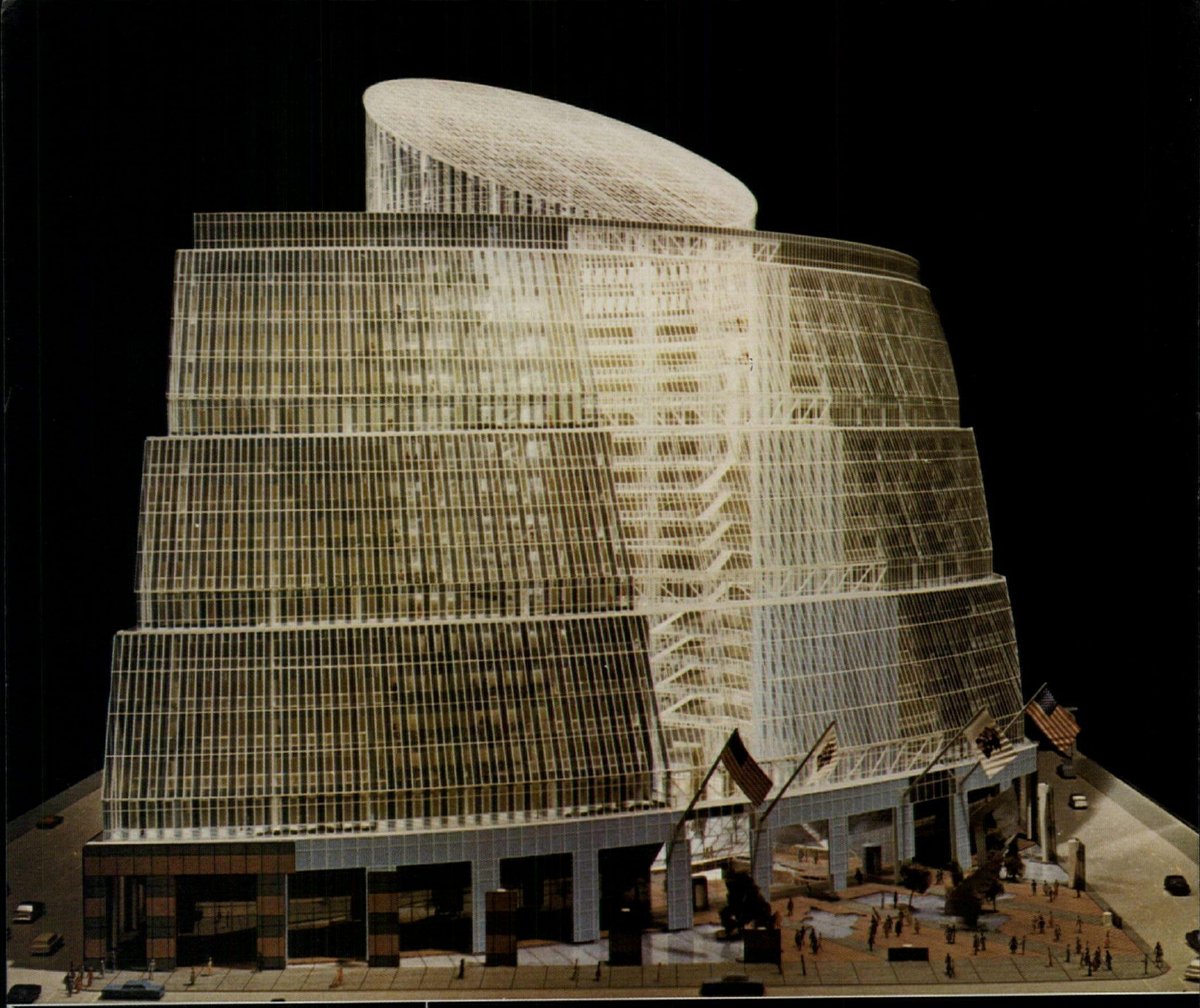
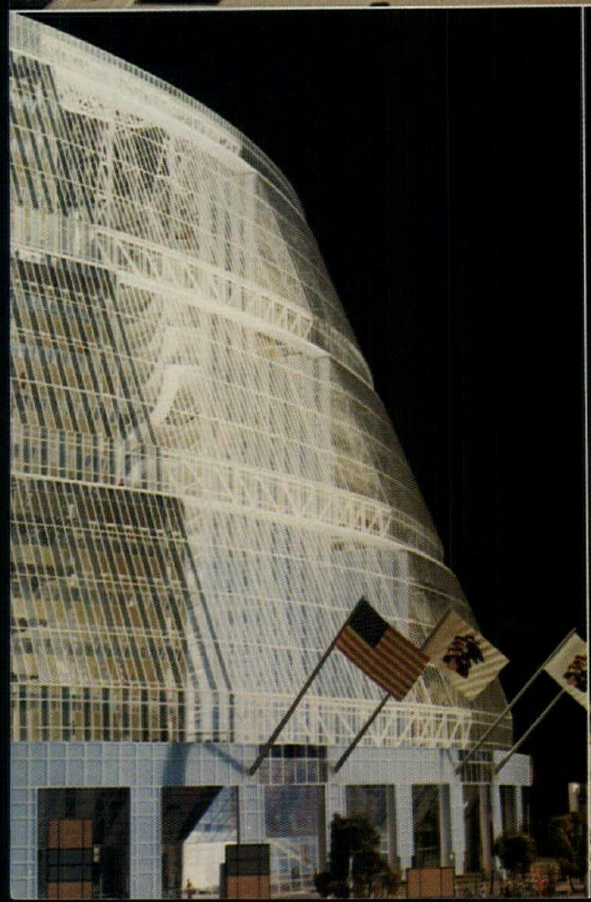
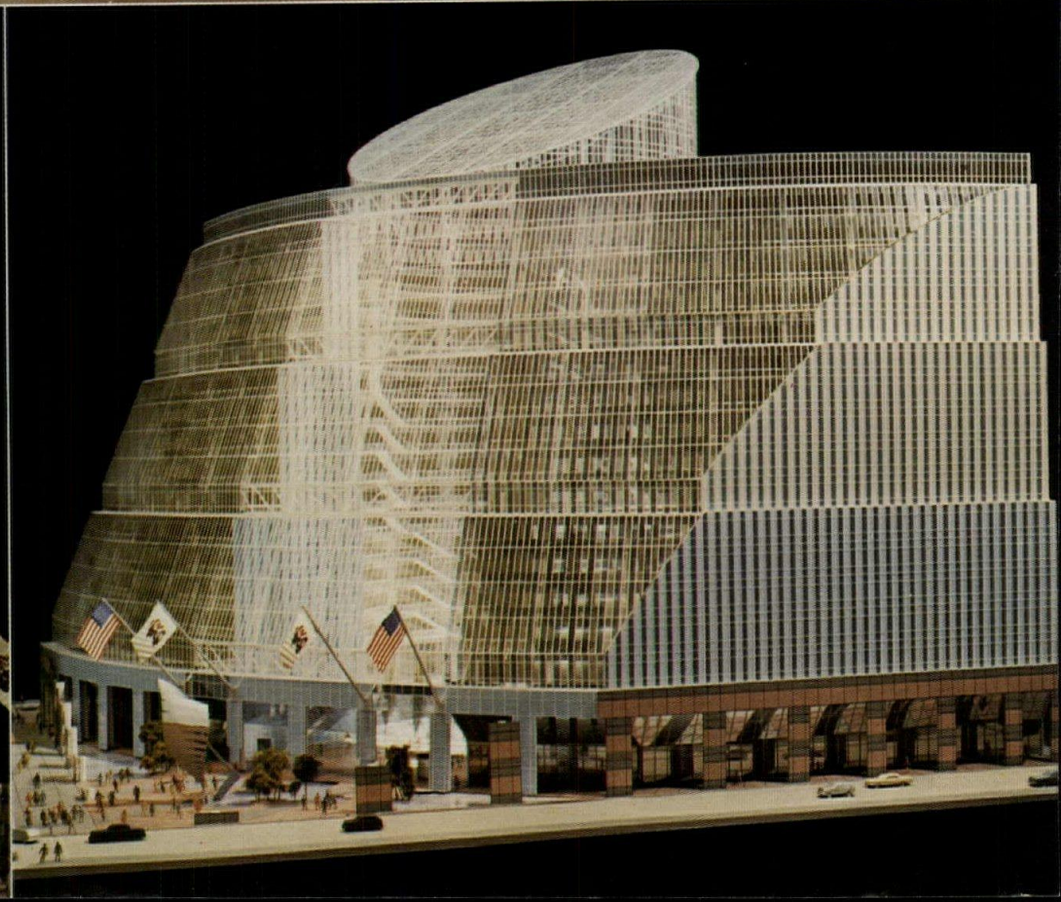
Cover: *Elevation detail of House of Representatives of the Parliament House in Canberra, Australia (p. 88) by Mitchell Giurgola Thorp.*







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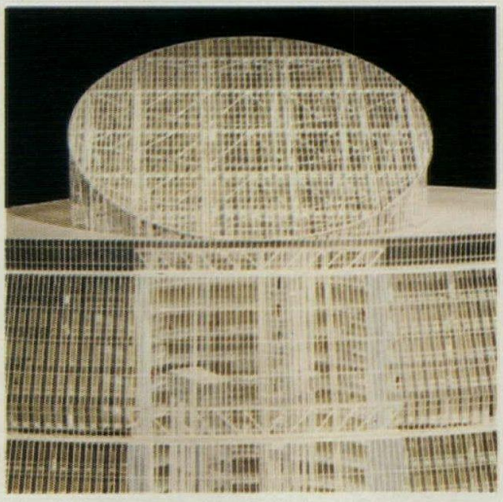
Laminated Architectural Glass will make it practical to build.

The State of Illinois Center is a building which will illustrate how compatible glass can be with today's concern for energy efficiency. This structure—shown here in an architect's model—will occupy a full city block, and will be clad entirely in laminated glass.

Fundamental to the success of this design are the building's sloped exterior walls, the arrangement of interior space around a central atrium, and a



massive skylight. These features will take advantage of enough passive solar heating and natural light to reduce energy usage to nearly one-half the level consumed by most conventional office buildings. Since artificial lighting generally consumes 40% of a building's energy load, any heat lost through the glass walls will be more than offset by the cost reduction achieved through natural lighting. These factors, the architects and owners say, are the keys to the building's energy efficiency.

A daring concept, to be sure, and one whose glazing performance demands made laminated architectural glass the logical solution for many reasons.

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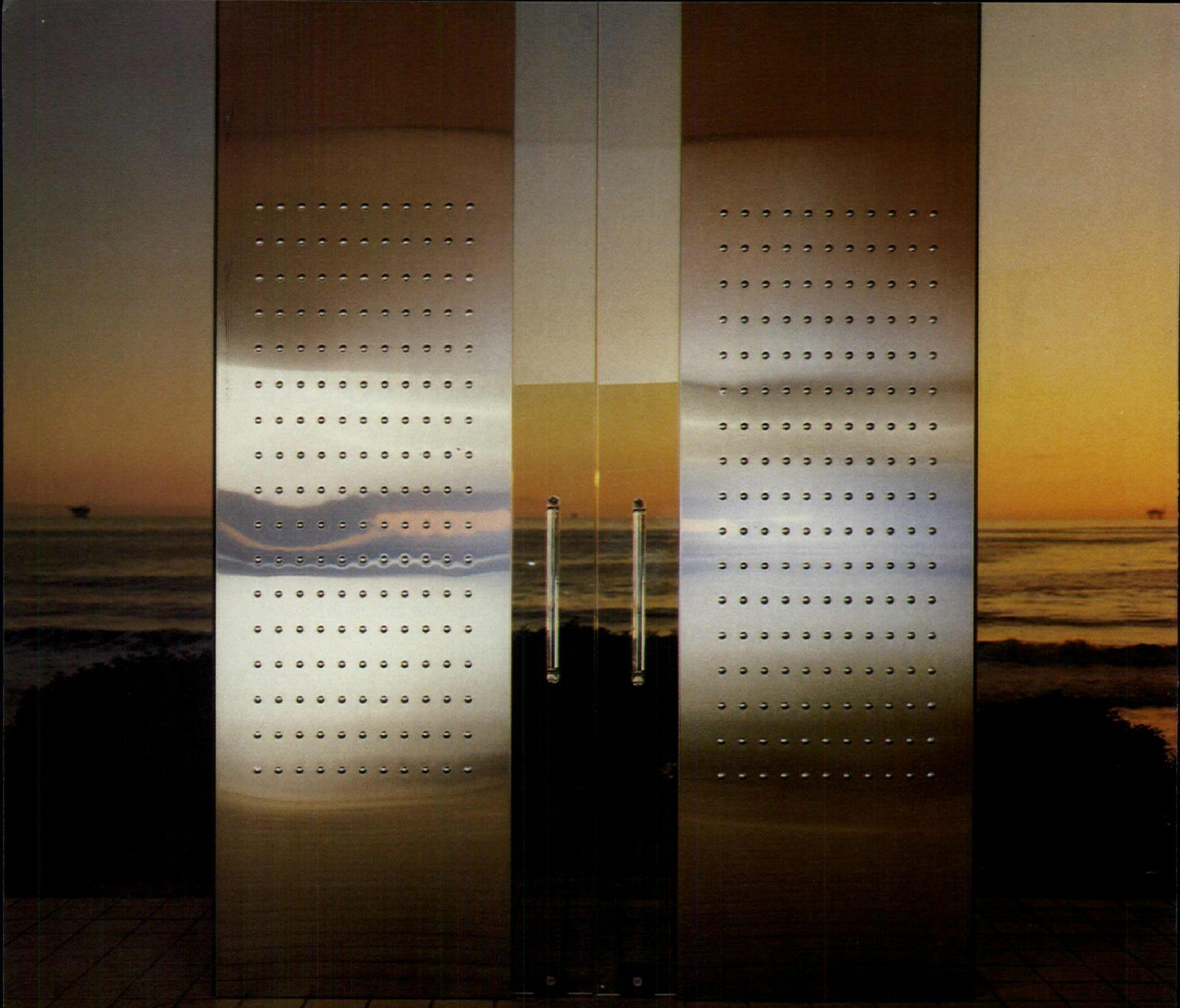

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Quality vs. ideology

One activity crucial to every role in the field of architecture—student, teacher, designer, spec writer, principal, critic, editor—is the evaluation of architectural quality. How do today's pronounced design ideologies affect our quality judgments?

When I was in architectural school in the early 1950s, we had an ideology, but we didn't know it; most of us thought the reigning system of beliefs was simply the truth. What we produced and what we observed were judged for their "honesty"—that is, their functional and technical determinism.

A lot has happened since: we have been exposed to existence will, complexity, ambiguity, irony, metaphor, allusion, contextualism, and typology. Most of us are wiser, but far from secure in our design beliefs. Some are secure in their ideologies—as some almost inevitably are—but I have to wonder if they grasp the complexity of the situation.

The deepest ideological division within architecture today is between a view of architecture as a *service to* society and architecture as a *comment on* society. The functional qualities through which architecture can serve society are pretty obvious: appropriate spaces, convenience, physical comfort, resource conservation, support of social goals, and so on. There are also ways of serving society, by reinforcing certain values symbolically: sense of community, for instance, roles of various institutions, or environmental awareness. To enhance society, such symbolic characteristics must be readily comprehended by the public. In the Modern ideology, there has been an overriding symbolic goal of expressing a Utopian vision of a better environment to come, even if some of the other objectives listed above have to be sacrificed.

Today, architects—particularly those of the design avant-garde—are widely accused of abandoning their will to serve society. An underlying problem here, however, is the lack of any very strong loyalty—to society as it now exists or to any view of a better future society. Architecture can help to right some social and economic problems, but only if the rest of society is willing to expend the resources. Meanwhile, many of the more productive minds in architecture turn instead to architecture as social-cultural comment.

Architecture may comment caustically on our commercial images, nostalgically on bygone domesticity, or ironically on our pretentions; it can adopt formal strategies from art movements such as Minimalism or Superrealism or organizational strategies from sciences such as linguistics or advanced geometry. Of course, many kinds of comments can be juxtaposed and layered in a single work—thus providing a rich appreciation game, at least for those who understand the references.

Those who deal in irony, metaphor, allusion, typology, and other devices of communication are widely accused of communicating only with each other, but their work points up a second ideological distinction of the utmost importance: between those who believe architecture is an *abstract* art form and those who insist it has *symbolic content*. It may seem foolish to speak—as some ideologues do—of architecture as strictly a communications medium; but it is equally mistaken to deny, as the Modernists did, that buildings have symbolic content.

There are other important ideological rifts today. One is between a view of architecture that is basically *conceptual*, as it is with most of the stringent ideologies, and a perception that is principally experiential—a position that grows out of the picturesque tradition, under the influence of psychology—updated through the works of Luis Barragán, Charles Moore, and the Townscape movement. There are other divisions over specifics: ornament, color, expression of technical means (see last month's Editorial), historical and vernacular allusion, response to context.

A fixed ideology obviously makes judgment of quality a lot easier: certain criteria are set. One risk, of course, is that adherence to ideology becomes the standard of judgment: believers of one ism applaud indiscriminately all doctrinaire examples of it, but disparage lapses or compromises (as the Art Deco of the 1930s was scorned by hard-line Modernists).

Today there seem to be contradictions—for all but a fire-eyed few—between what one *advocates* and a far wider spectrum of work that one *appreciates*. This may be the essence of pluralism, but it is also a source of tension and doubt.

Many of us find it possible to resolve this contradiction to some extent by making the qualified value judgment *good, of its kind*. For journalists this is almost a necessary device for survival. There is no way to apply the same criteria to work done for different purposes under different belief systems, just as identical standards cannot be applied to, say, Classical sonatas, Romantic arias, and rock singles. As the musical parallel makes clear, we cannot judge works of diverse inspiration unless we have some understanding of each.

The practitioner, like the musician, can ignore approaches other than his own, but the critic has an obligation—more apparent now than ever before—to appreciate excellence of many kinds, founded on a wide range of ideological premises. A fine work might succeed in many ways: as service to society and as comment on it, as abstract form, as technical solution, and so on.

Satisfying the client is a basic goal for professional survival, but good architecture must do much more than that.

John Morris Dixon

Views

Energy demonstration house
I was interested in your December editorial for its glimpse of the workings of the editorial mind. The handsome contents of the issue fairly glows with evidence of the editorial care taken. That is, with the exception of the house which appears under the title "Shining brow."

I don't know from "tronic," but it seems ironic, and I hope not chronic. If this house is effective in its use of energy, I would expect to see cost figures and performance data to make the case. In my opinion, the design of the house alone does not warrant the decision to publish it.

Can you reassure this normally docile and appreciative reader that independent editorial judgment has not been compromised by what appears to be a "shining example" of commercialism?
T.M. Prentice
New York, NY

I have often thought about the connection between the kinds of buildings that tend to dominate your editorial pages and the expensive building products that fill the advertizing space on either side of the editorial. It is unfortunate for the credibility of the magazine that a house as architecturally undeserving as the Suntronic House would receive a totally uncritical response in your editorial and then be followed by thirteen pages of advertizing by the Copper Institute [actually, Copper Development Association] which was hard to distinguish from the editorial. I think it is an issue more important than just this house and should be dealt with.
Jeffrey Milstein
Architect
Woodstock, NY

[Our editorial judgment is always open to question, and such questions demand to be aired. In this case, we considered the sponsors' assembling of several energy-conserving devices and strategies in one demonstration house worthy of feature publication. Our intention to include an Energy Analysis of the house ran into scheduling obstacles when construction delays caused us to postpone publication. Building costs were virtually invalidated by factors such as contributed components, elaborate monitoring equipment, and overtime to meet opening date; operating costs are now being monitored and may be reported in a later issue.

Editorial integrity is, indeed, an overriding issue. This article and the sponsors' advertisement were not mutually contingent, and the interests of P/A's advertisers never dictate editorial content.—Editors]

Tall buildings: another perspective
Your in-depth analysis of tendencies in current high-rise design (P/A, Dec. 1980, pp. 25–67) has been most informative and illuminating. Whereas it remains to me highly questionable if arbitrary "cuts and parries at every level" will lead anywhere near the logical excellence we have witnessed in the structurally oriented high-rise design of the Chicago Schools, the overall picture of tall building design is not complete without drawing attention to an even more alarming phenomenon.

Internationally there is obviously an essential discrepancy between North American architecture and the rest of the world which is not caused by a gap in technological knowhow. Putting it briefly, almost all the major American solutions in their various ways definitely share a common concern for excellence in design, an ambition to achieve the more-than-average building. This attitude may have become an axiom to your American readers especially as it is shared by the general public and—most importantly—by so many potent clients. The contrast with the rest of the world becomes obvious when looking at the recent developments (not the charming heritage!) in Paris, London, Frankfurt or any number of smaller European cities. Most spectacular in size as well as in failure is the La Défense project in Paris where in a crude and undistinguished agglomeration of highrises lacking any urban context, the only two well-designed and professionally detailed buildings are the work of American offices (Tour Gan and Tour Fiat). The ugly and disproportioned Tour Parnasse in an old part of Paris stands as a reminder of how much the Boston John Hancock Building could have failed had it not been designed by as competent an office as Pei's (in spite of glass damage!) which made the best of a much-too-large program for a similarly unsuitable site. The infinite dullness of all the new towers in Frankfurt—where whatever design idea may have been on the boards at some stage has been entirely compromised and architectural imagination of whatever "direction" is absent—greets the visitor as probably the most depressing example in the center of a European city.

Considering the diversity of your survey from this point of view, the formalism and "increasing experimentation" of most of the projects depicted seems quite tolerable—if not positive—even to someone sceptical of postmodern architecture. The most refreshing and genuinely inventive building in the issue is, by the way, the Xerox Building in Chicago, which demonstrates how problems can be solved with excellence and regard for the urban context—as well as for the user of the city and the building—when architectural imagination is allowed to take its way.
Oswald W. Grube
Architect
Herrsching, Germany

Glendale's graces
In the overall view of things it is minor, but I do take exception to a statement made by Esther McCoy on p. 26, News report of your Nov., 1980, issue. In "Glendale mines its glory" there are some errors which can go by the board. However, too sweeping is her statement: ". . . and Glendale is low on drama: architecturally only Forest Lawn Memorial Park and two fine Lloyd Wright houses have provided excitement."

Not true. Not converted yet into modern concrete and glass are many houses such as those built 1890 to 1929, some completely solar at the time, and Brand Library and Art Center. It was built in 1904 for L.C. Brand's winter home and is an adaption of the building of India he saw at the 1893 Columbian Exposition in Chicago.
Barbara R. Boyd
Special Collections Librarian
City of Glendale, Library Div.
Glendale, Ca

Clarification
The design identified as Pittsburgh Convention Center Hotel (P/A, Dec. 1980, p. 47) was not winner of the developer competition for its site. The project was awarded to the Grant Liberty Development Group, whose scheme was designed by The Architects Collaborative of Cambridge, Ma, with Burt Hill Kosar Rittelman Associates and Urban Design Associates of Pittsburgh.

Correction
The condominiums by architects Flood, Meyer, Sutton & Associates, Santa Monica, Ca (In progress, P/A, Jan. 1981, p. 66) were incorrectly identified. They are the Third Street Condominiums in Santa Monica.

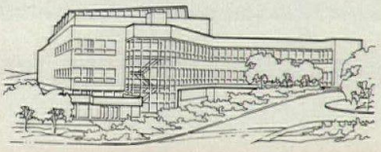
Credit extended
Le Roy Callender Engineers was part of the architectural/engineering team for the AT&T building (P/A, Dec. 1980, pp. 52–53).

1980

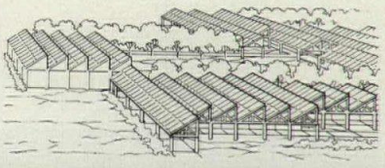
OWENS-CORNING ENERGY CONSERVATION AWARD WINNERS.

OFFICE

WAREHOUSE



LABORATORY



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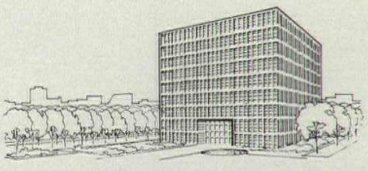

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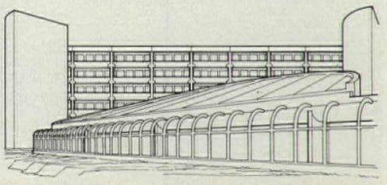

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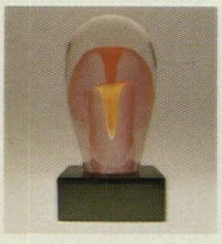

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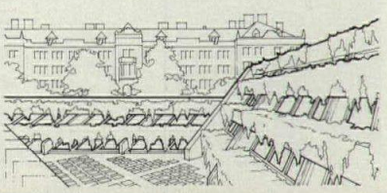
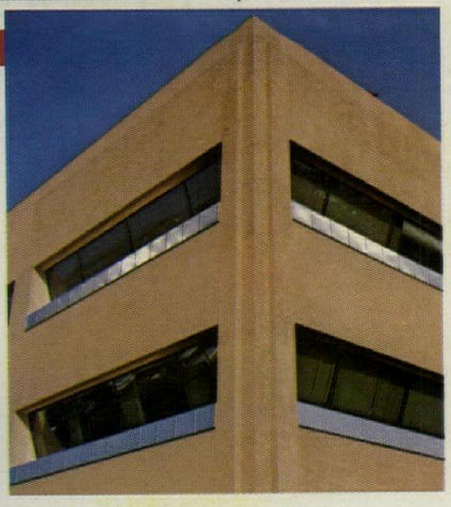


COLLEGE

percent. And these are real numbers—not guesses. They used a very efficient light source: high pressure sodium lighting./ A 200,000 gallon storage tank saves the excess heat generated during the day to warm the building at night."

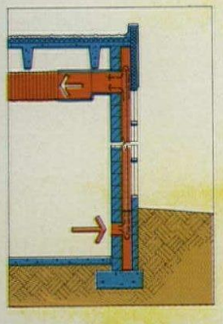
• *Exterior: Note the angled windows with stainless-steel window sills that reflect diffused light into the building and eliminate the need for artificial lighting within 20 ft. of the perimeter.*

WILLOW CREEK OFFICE BLDG./IDAHO FALLS, IDAHO



• *Architect, Engineers and Owner:*
Max Flatow, FAIA, Pres., Flatow Moore Bryan and Assoc., Frank Bridgers, PE, Prin., Bridgers & Paxton, Consulting Engineers, Albuquerque, N.M. Ronald W. Kiehn, Gen. Mgr., EG&G, Idaho, Inc., Idaho Falls, Id., Joseph Lopez, PE, Prin., Uhl & Lopez Engineers, Inc., Albuquerque, N.M.

• *Judges' comments:*
"In moving to a new building twice the size of their old one, they reduced their actual out-of-pocket energy costs by 21.4



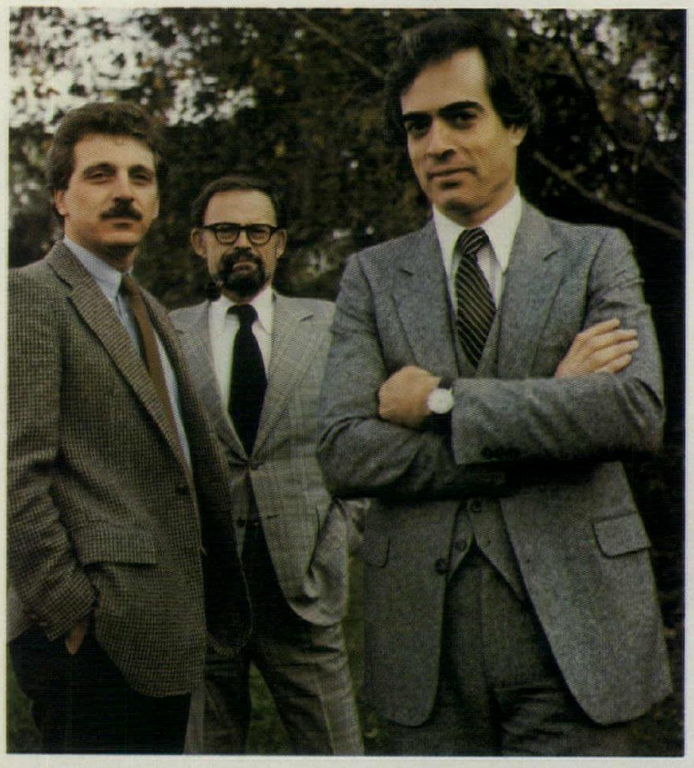
• *Cross section of the modified Trombe wall: Sunlight passing through windowed wall heats stainless-steel collector plate. Ductwork above brings heated air back into building.*

SPORT OBERMEYER/ASPEN, COLORADO

• *Architects and Engineer:*
Tim Hagman, Prin., Copland Hagman Yaw Ltd, Aspen, Col., Bob Clarke, Prin., Solar Pathways Assoc., Glenwood Springs, Col., Larry Yaw, Prin., Copland Hagman Yaw Ltd, Aspen, Col.

• *Judges' comments:*
"What is attractive here is that they took a simple building—the walls are concrete blocks—and integrated a solar air-heating system: a Trombe wall./ It is worked in very well with the overall appearance of the building./ It's basically an inexpensive solution. A working, economical use of solar energy for warehouse heating."

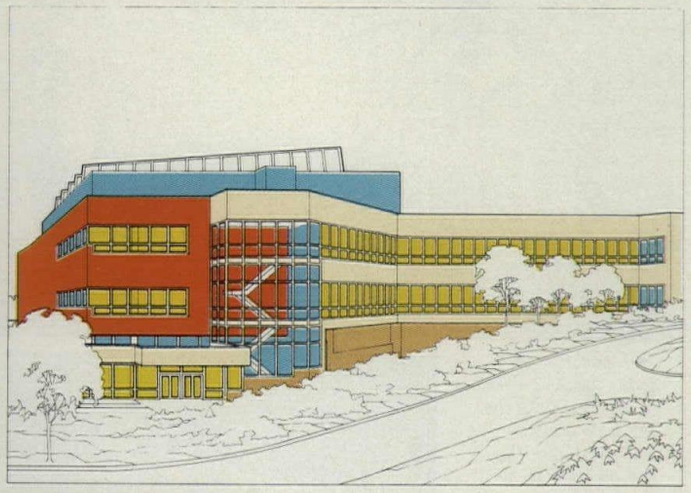
SMITHKLINE PHARMACEUTICAL RESEARCH LAB/UPPER MERION, PENNSYLVANIA



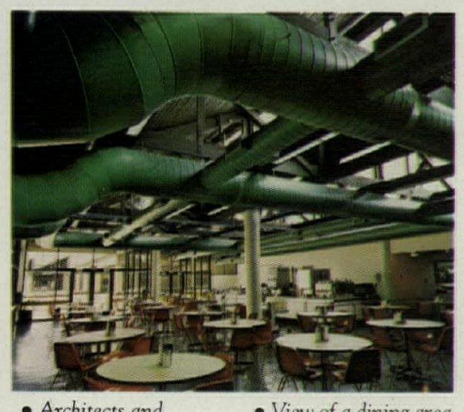
• *Engineer and Architects:* Russell M. Keeler, PE, Dir. Mech. Engineering, Louis deMoll, FAIA, Prin. and John B. DiIlio, RA, Proj. Designer, Ballinger, Philadelphia, Penna.

• *Judges' comments:* "This is a laboratory with very demanding environmental criteria and intensive energy use. The designers have tried very hard—and succeeded—in recovering much of this energy./ They've used special air-conditioning concepts, a high temperature heat pump and active solar systems. They even have a system for reclaiming the heat from the water they use to wash down the cages. Many designers would have avoided this issue and wasted the heat. But they didn't here."

• *Architect's model: Note how the glazed corridors light both the hallways and the interior offices. This saves energy by reducing the outside fenestration.*



FEDERAL CORRECTIONAL INST./BASTROP, TEXAS

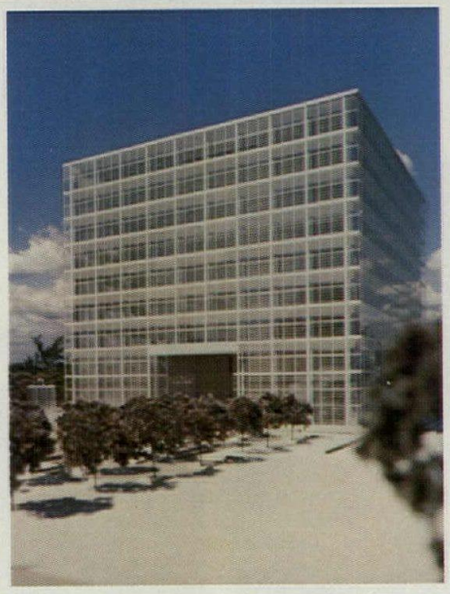


• *Architects and Engineer:* Franklin D. Lawyer, FAIA, Sr. VP, Paul Kennon, FAIA, Pres., E. Bruce Appling, PE, Sr. VP, Caudill Rowlett Scott, Houston, Tex.

• *Judges' comments:* "This building was designed with a full sense that an active solar system was going to be a major part of the design—integrated into the project rather than being added on./ The solar collectors come out higher than the building next to them. They are used for shading both walkways and buildings./ Even the pipes and ducts are handled in a straightforward way that enhances the design of the building and the atmosphere within it."

• *View of a dining area.*

• *Model (at right) shows the double wall of windows. The site (above) overlooks Niagara Falls. The building (still under construction) can be seen above the Falls.*

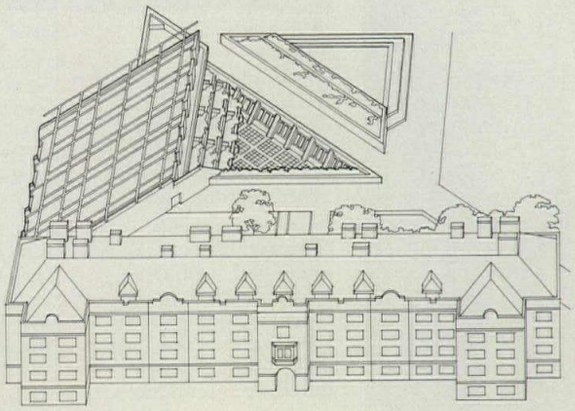


• *Owner, Engineer and Architect:* Marvin W. Voelker, VP, Hooker Niagara Office Corp., Niagara Falls, N.Y., Alan M. H. Sloan, VP, Engineering and Mark R. Mendell, AIA, Sr. VP, Cannon Design Inc., Grand Island, N.Y.

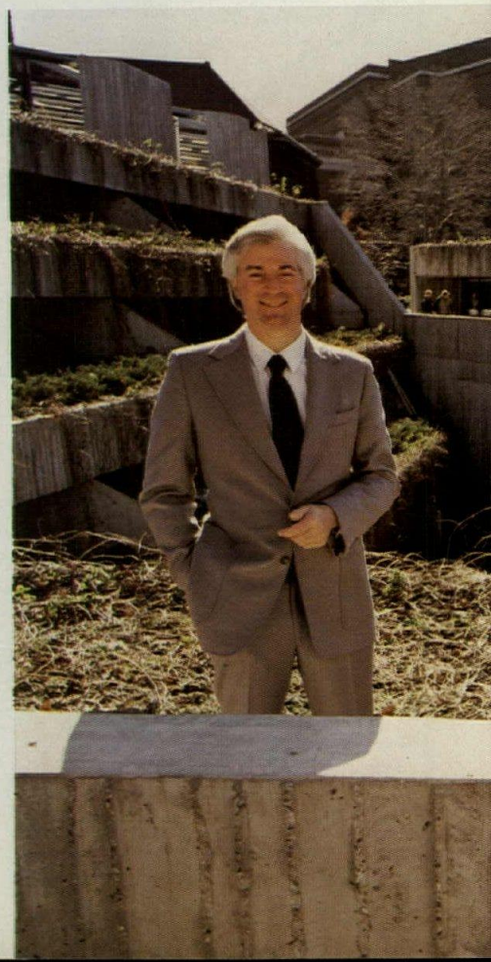
• *Judges' comments:* "We have here a highly innovative, highly technological solution./ Essentially, it's two walls of glass four feet apart. In between there are adjustable louvers and moving air, so when the sun moves around the building, goes up and down, or goes behind the clouds, the building adjusts to the changing climate./ The double wall is key to keeping unwanted heat out and letting wanted heat and light in.

"One of the things that's very attractive about this building is that in a time when we often find ourselves going to smaller window areas and less glass to save energy, this building has a total glass envelope and is still energy-efficient./It means one does not have to sacrifice a view, daylight, the interaction between inside and outside space for energy efficiency.

"One good idea, from an engineering standpoint, is that they've decentralized their domestic hot-water heating system. We've found that if you have a central hot-water heating system in an office building, your efficiency is about five percent. You keep the whole system hot 8,760 hours a year and all you do is occasionally use a little hot water in a washroom. Instead of putting in a central system, they use small hot-water heaters all around the building."



• *An energy-efficient building in a crowded area: The right side of Williamson Hall is set into an earth berm. The active solar collector system is at left. A cross-campus walkway forms part of the roof.*



SHELL OIL CO. OFFICES/HOUSTON, TEXAS

• *Owner, Architect and Engineer:* Edmund V. Pearson, General Mgr., Shell Oil Co., James B. Gatton, AIA, Sr. VP and John Kettleman, PE, VP, Caudill Rowlett Scott, Houston, Tex.

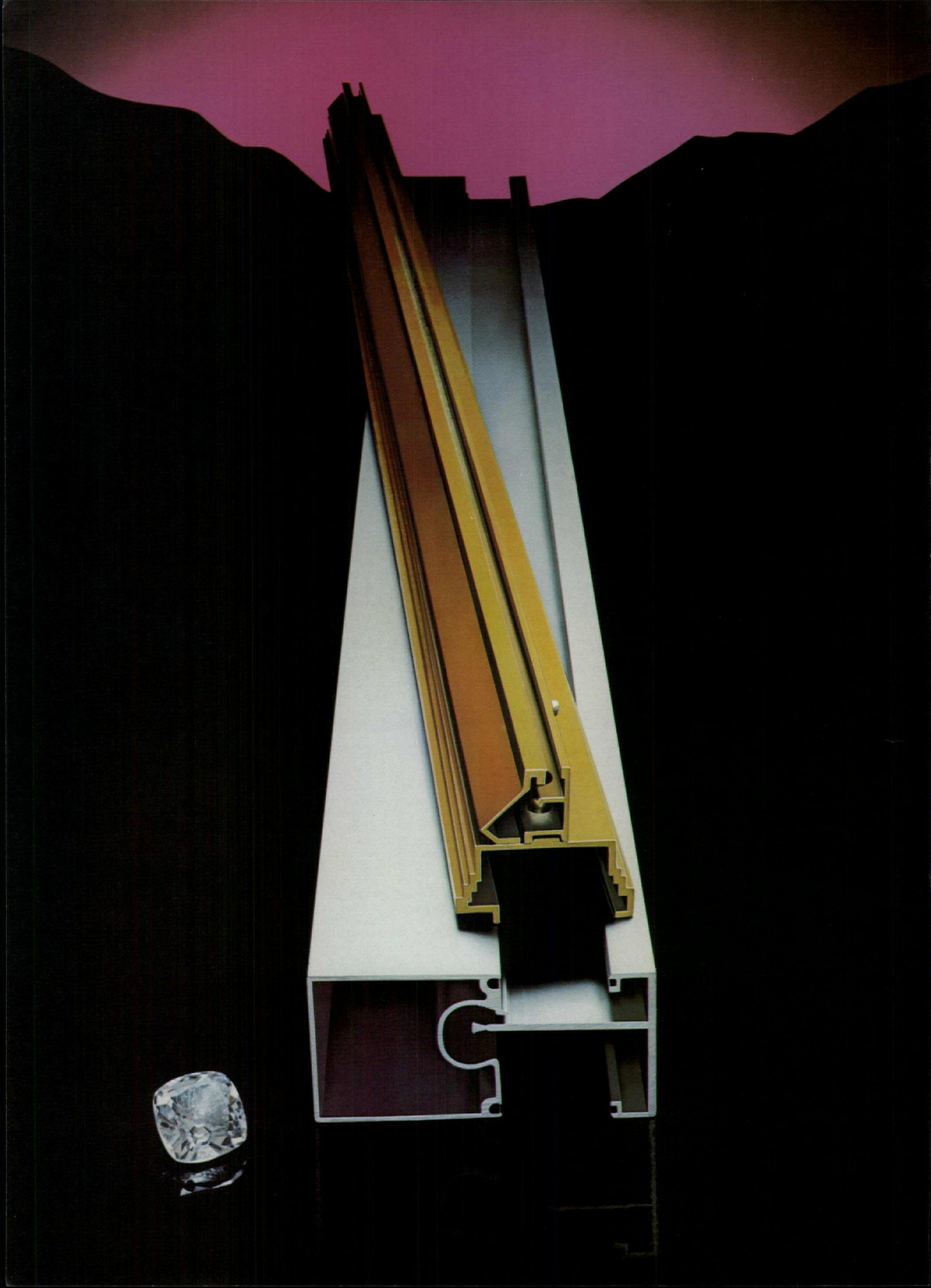
• *Judges' comments:* "The Shell project is extremely interesting in that it was designed with the basic building structure itself acting as a major element in the day lighting system./The mechanical ductwork enclosures were located on the perimeter wall so they would act as a reflecting element to bounce light back into the rooms./The inside corridors are lit by the office lighting and by daylight bounced off the mechanical enclosure ducts. The result is very efficient lighting —only 1.3 watts per sq. ft. installed, with annual operations projected at less than 1 watt per sq. ft."

• *Triangles and atriums. The company needed a large number of small offices. The solution: Closely grouped triangular buildings with central atriums for an efficient combination of light and shade.*

WILLIAMSON HALL/UNIVERSITY OF MINNESOTA

• *Architect, Owner and Engineer:* David J. Bennett, AIA, Prin., Myers and Bennett Architects/BRW, Clinton N. Hewitt, Asst. VP Physical Planning, Univ. of Minnesota, Max Oftedal, PE, Prin., Oftedal, Locke, Broadston & Assoc., Inc., Minneapolis, Minn.

• *Judges' comments:* "This is a building that is largely underground. It is worked very nicely into an old part of the campus, a crowded area./ The architects recognized what we call the soil temperature. If you go down so far, the earth has a constant temperature. Utilizing that as a base, they organized the design concept to use that temperature for more efficient heating./ This is really tied into the urban environment—into the many different walkways that cut across the campus./ If you look at it from the side, it's something like a terrace walking into the ground./ They used natural plants in a very imaginative way for external shading—the leaves providing added shade in summer, the bare branches letting in more light in winter."



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P/A News report

Graves wins library competition

San Juan Capistrano is a city with a mission—to grow in a manner which respects its history and enhances its architectural heritage. In fact, San Juan is the home of one of the original California missions; and although no other buildings in town are as old, many are "Mission style," embellished with arcades or pergolas.

As the city's growth accelerated during the 1970s, its planners considered critical the need to ensure San Juan's continuing architectural quality within the framework of its heritage. They commissioned Moore Ruble Yudell to draw up a design guide prescribing formal suggestions for new buildings. Like Santa Barbara's planning rules, which require certain forms and materials, this guide outlines suggestions for building in the tradition of the area but does not demand specific details or motifs.

Recently the city chose further to enhance its heritage by sponsoring an architectural competition for the design of its new public library near the old mission grounds. With the selection of a design by Michael Graves, the city can be assured of a piece of civic architecture worthy of its tradition.

The competition

The competition was well conceived. First, the county agreed to contribute $800,000 toward the project, with the city paying architectural fees and raising any necessary additional funds. The city began by advertising nationally and inviting specific firms to submit credentials. From 47 submissions, the planners narrowed the field to 15 likely candidates, who were in turn reviewed by the planning committee and reduced to a short list of five firms. These architects were asked to present their work and appear for an interview. Finally, three firms, Michael Graves, Moore Ruble Yudell, and Robert A.M. Stern, were selected to submit detailed design proposals in exchange for a small fee.

While all the designs responded very specifically to the context, they were fascinating in their diversity. Any of them would have made an acceptable library, but Michael Graves's submission was, without a doubt, inspired.

The site is an interesting one. Located a few hundred yards from the old mission grounds, the library will sit at the back of a public recreation space on El Camino Real. The site commands a pleasant view to distant mountains, and the library will be visible from the freeway. Adjacent to the library, the local Catholic parish is constructing an "accurate" reproduction of the original stone mission church, built in 1806 and destroyed by earthquake in 1812.

MRY's design

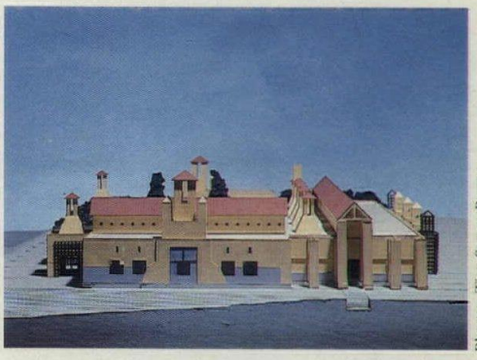
The Moore Ruble Yudell scheme is poetic, rambling, and domestic in scale. A Mission-style, red-tile-roofed stucco building, it is unusually organized. Its serrated, fan-shaped, radial plan embraces patio courts within its bulk. A great deal of attention is given to bringing light into the building from above; and shading, in the form of arcades and pergolas, prevents direct sunlight from penetrating the reading areas. It is a modest building with an expansive central hall, embellished with stenciled wooden beams. The landscaping is designed to complement the architecture: connected spiritually with the mission garden, it provides a library of specimen plants. The building itself is fairly self-contained, and its principal concession to context is the location of the "formal" side on El Camino Real and the more domestic side on the residential street.

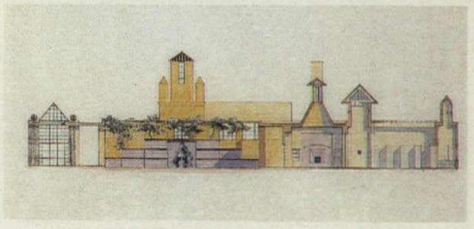
Stern's scheme

Robert Stern's submission is less interesting. His library, extremely clear and simple in plan, features large, blank end walls capped by "Mission-style" gables and punctuated by a Disney-like bell tower at the entrance court. It very literally interprets the Mission style. Solid but uninspired, it sits squarely in the middle of the site, orienting itself to El Camino Real. The design proposes replacing the recreation ground with a parking lot; little consideration is given to landscape.

The winning design

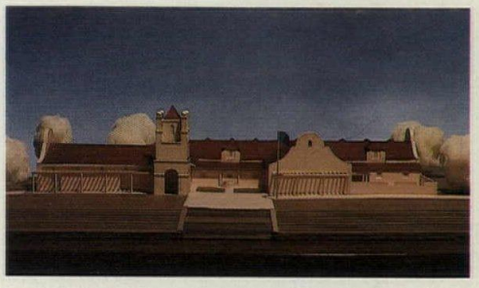
Michael Graves's scheme is the most sophisticated from a number of standpoints. He obviously views the library as a major civic building. First, he treats its siting as one fragment of an overall compound, reminiscent of the



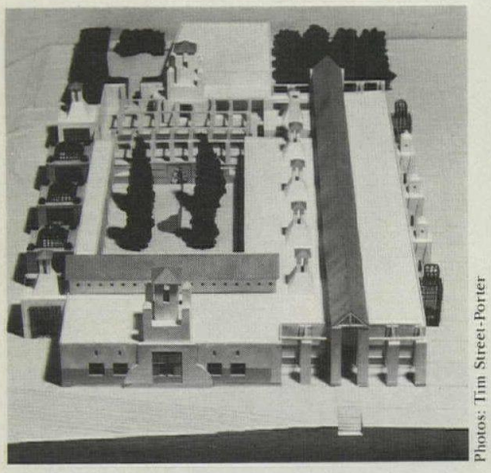


Photos: Tim Street-Porter

Graves's design, model and section (above). Moore Ruble Yudell's submission (below). Robert Stern's submission (bottom).



News report continued from page 25



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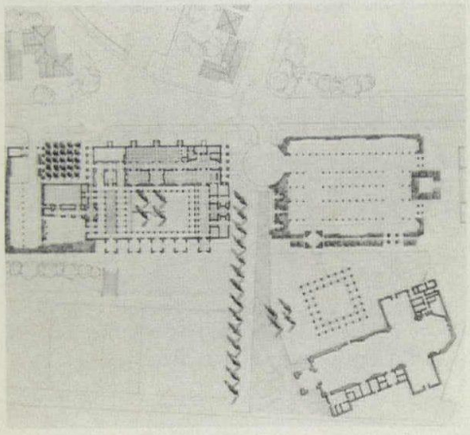


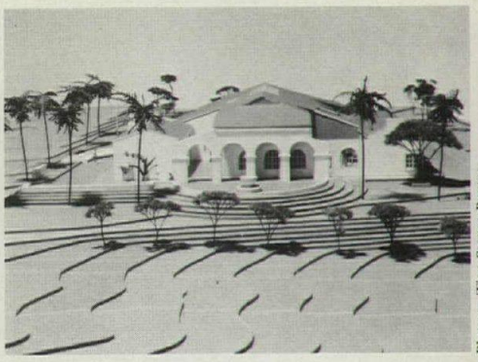
Graves's submission (above).

nearby mission. Graves conceives of the site as including the area occupied by the reconstructed stone church and therefore orients the building in that direction. The library shares a common entry court with the church, and there is an outdoor "room" walled by rows of cypress trees, for parking cars between the two buildings. Both the landscaping and the apparent weight of the building give it the substance and importance of a real civic building, a substance which is lacking in the other two schemes.

Graves's scheme manages to capture the spirit and quality of the mission subtly, without employing literal quotes such as curved gables or arches. The asymmetrical plan locates the building on a large arcaded courtyard with a stream running through it, and all the building's functions are oriented towards this space.

Graves evokes the spirit of the mission in his use of color and surface ornament. He proposes painting the wainscoted walls in colors reminiscent of Father Serra's church and stenciling them in a traditional manner. The building also uses wall thickness in an evocative way. The masonry walls are carved out, creating niches for water fountains, display materials, and reference tables. Little reading gazebos sit along one edge of the library like so many tiny chapels.

The building shows the inspiration of exotic vernacular images as well. Vertical forms rising above the building's tall spine admit sunshine and draw hot air up and out of the building like Persian wind towers. Pyramids, rather than arches, are clearly the dominant graphic motif. And yet the building seems to belong to the history of the place.



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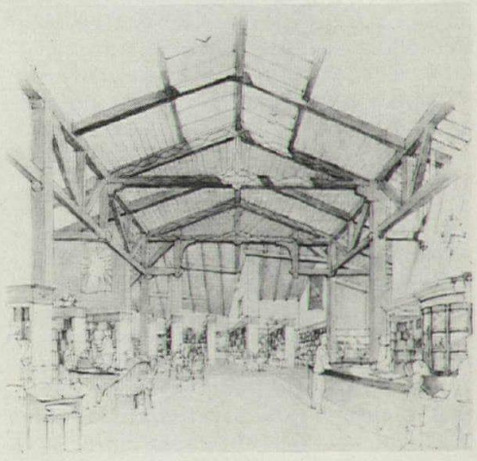
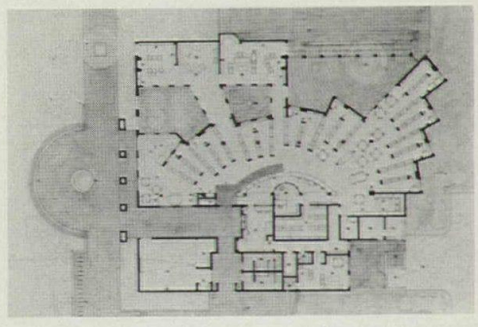
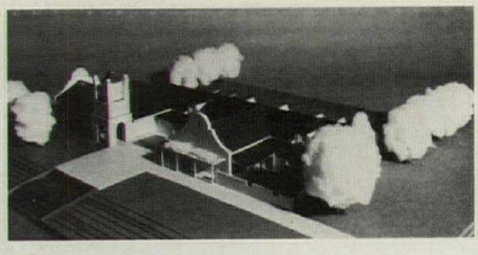
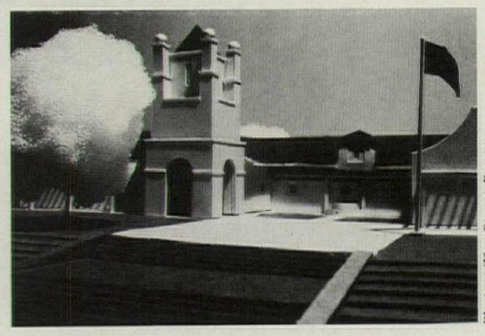




MRY's submission (above).



E. Stoeckheim



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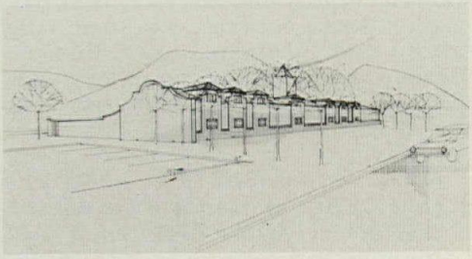

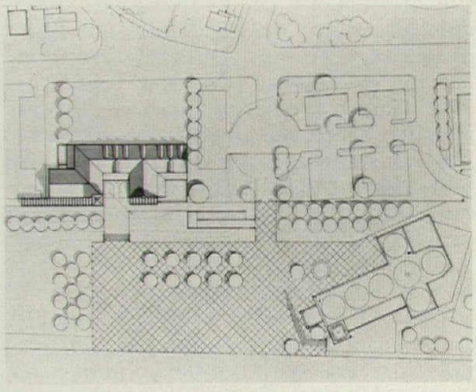

Stern's submission (above).

The jury, consisting of lay people from the community and design professionals, found certain aspects of the scheme to be "difficult": details like the trellised gazebos are outside the common architectural vocabulary of the area. Nevertheless, the jury recognized the scheme's outstanding quality and selected it for its many obvious merits. San Juan Capistrano will have a civic building worthy of its heritage: Architecture with a capital "A."

[Barbara Goldstein]

[*News report continued on page 30*]

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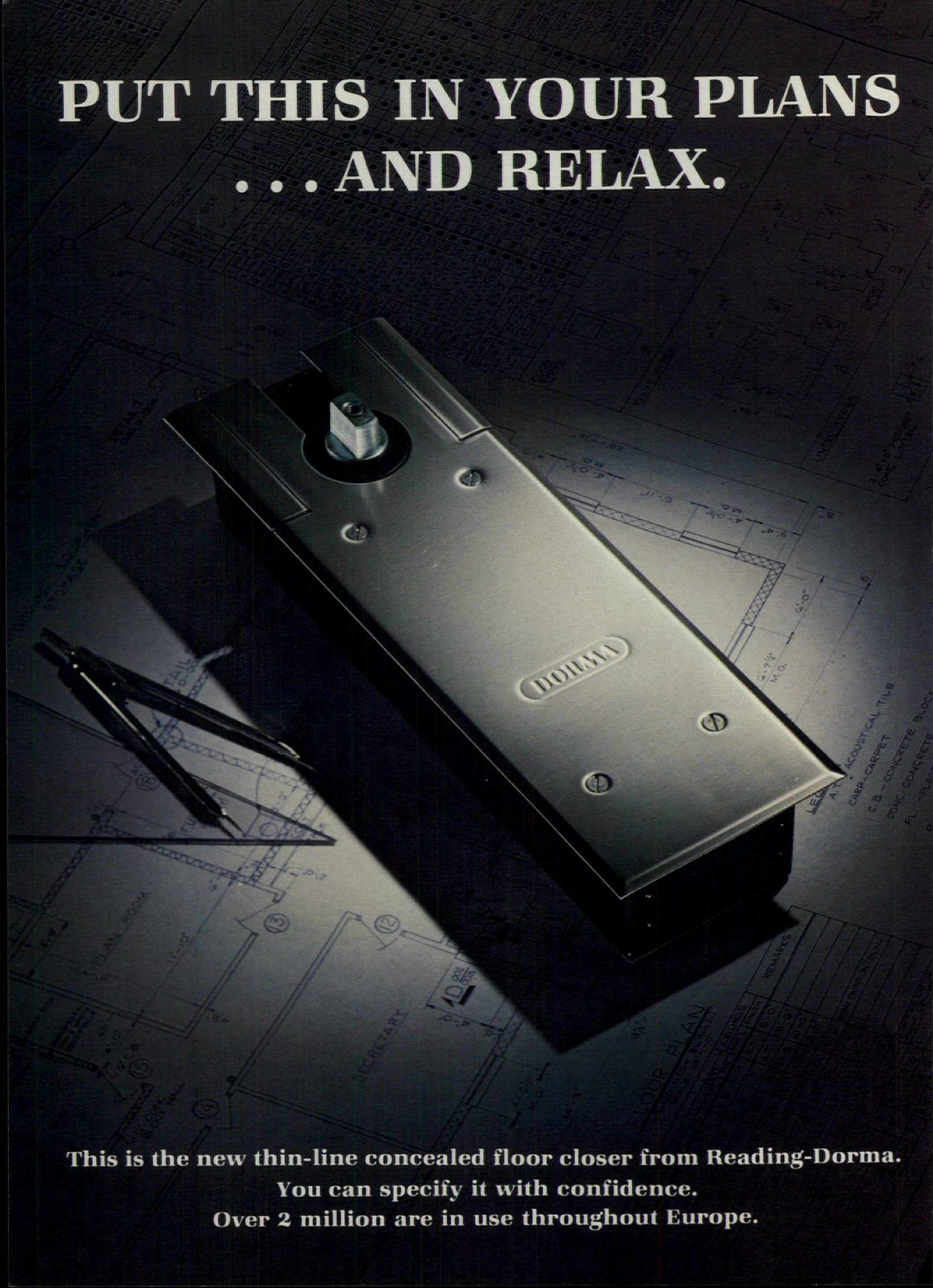

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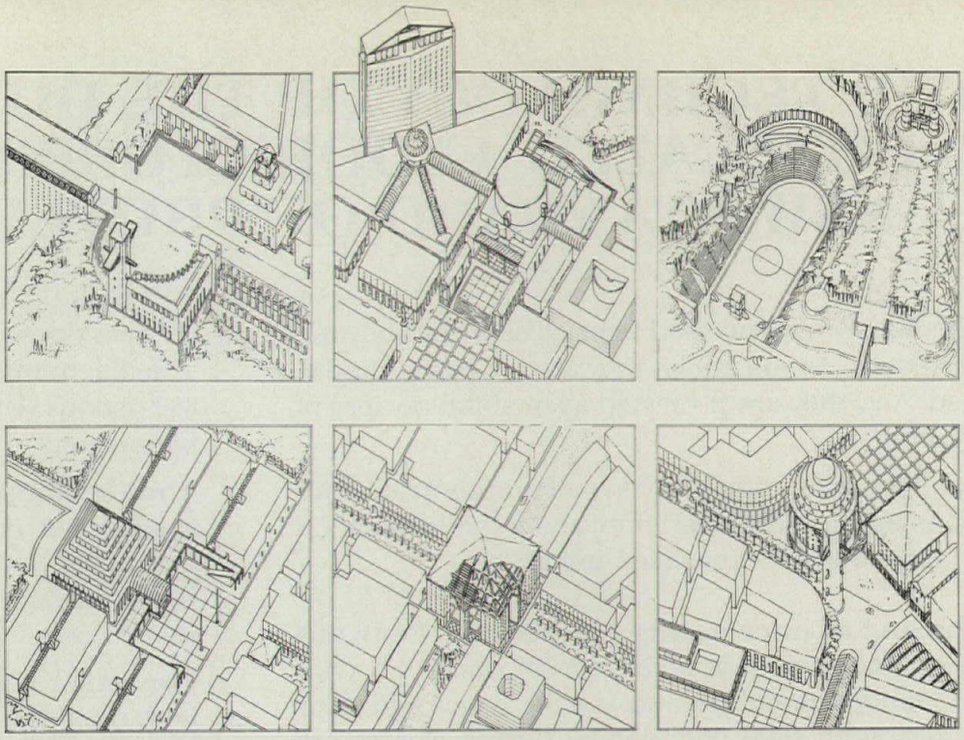
News report continued from page 26

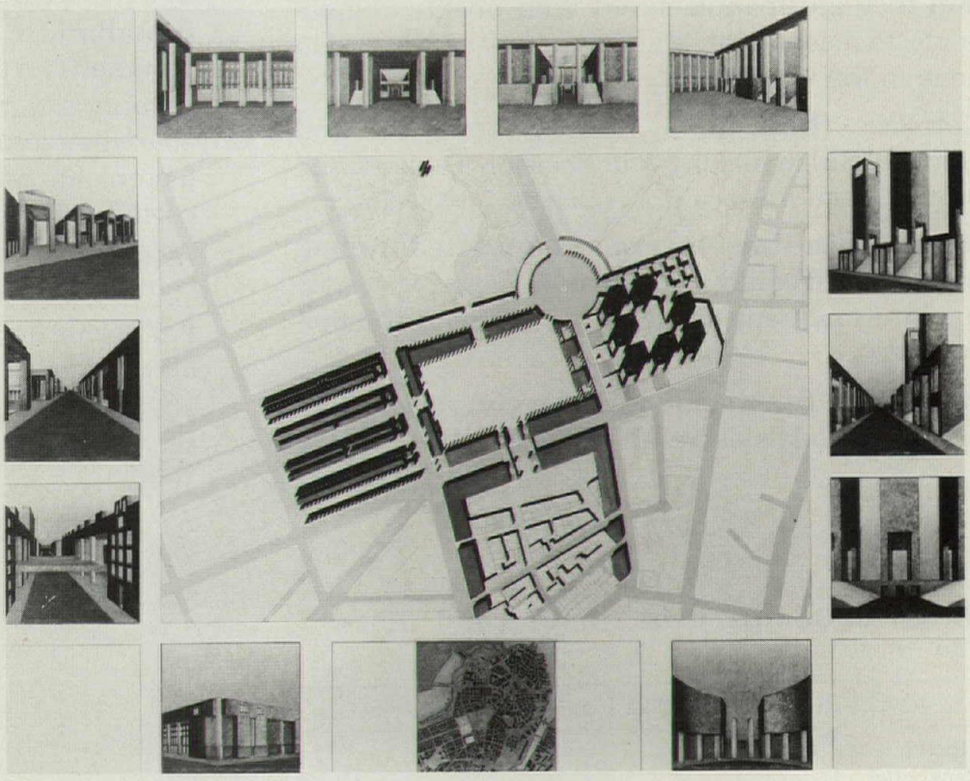
Architectural ideas on paper

Writing, drawing, building. Each act can be artistic; each can be pragmatic; and all can relate to architectural design. Two recent architectural shows presented drawings which are fascinating in themselves; but the words and the building (or non-building) they imply are especially provocative. *Retrospective: Diana Agrest/Mario Gandelsonas* was exhibited in January at the Yale School of Architecture. And *Leon Krier: Architectural drawings for the reconstruction of the European City* was seen until mid-February at Max Protetch Gallery, New York.

Krier will not build until there is a new order in the world; meanwhile, he will write and draw to develop a clear vision of this order. Agrest and Gandelsonas are only now building: they have developed their formal ideas through writing and drawing, and each stage has contributed to the next.



Krier's Reconstruction of Luxembourg, 1978 (above). Agrest's Typewars: a fiction proposal for redeveloping Boston's Park Square, 1978 (below).



Leon Krier

Leon Krier draws beautifully. With his fine pen stroke and subtle colors he invokes visions of idyllic Classical towns, peacefully complex, deriving from "millenary evolution." His recent *St. Quentin in Yveline* is a fine example.

His words are not so peaceful, though peace is his aim: peace via quiet revolution—the halt of our industrialized, capitalistic, consumer-oriented over-zoned society. His words, in the *Reconstruction of the European City,* are sometimes thrillingly visionary, sometimes obvious, and sometimes naïve.

His call for a halt to kitsch, to the restless, often frantic search for novelty in architecture, sits well.

That functional zoning has been the "most effective means in destroying the infinitely complex social and physical fabric . . . of urban democracy and culture" is chillingly accurate, though he is not the first to recognize it. Its original aims were not to furnish a tool for capitalism, but to solve the ills of the newly industrialized society. That capitalism has used it to its advantage is sadly true, but solutions (variously ineffective as yet) have been proposed before his. "Each quarter must be a city within a city" sounds somewhat familiar.

That industrialization has brought as many problems as it has solved is, again, sadly true. The view that it must be considered a total failure is inaccurate and, in any case, futile. Adam and Eve, having tasted of the apple, could not turn back.

"Architecture is not political, it can only be used politically." Very true. At a talk at New York's Institute for Architecture and Urban Studies, Krier went to lengths to prove that Nazi architecture need not be rejected simply because of Nazism's evils. Many of Hitler's social reforms, he explained, are the bases for today's best welfare legislation; similarly, many Nazi architectural forms are "mothering." One may accept the diminishing effect of associations over time, but in one's enthusiasm one should not forget the effect of scale. Mothers may nurture, but they also may smother and dominate; so did many of the examples that Krier showed. A dome's roundness may be soothing; a huge domed building may be overbearing. Krier's 1978 design for the reconstruction of Luxembourg seems, overall, overbearing.

Krier advocates that our generation refuse to build now. "To protest against the transformation and destruction of our cities serves no purpose if we do not have a global alternative plan of reconstruction in our hands." Unfortunately, for most individuals and societies, thought without activity is unrewarding and unhealthy. Even Classical towns evolved by testing, not only by contemplation.

But we need idealists. We need the vision of solidity, harmony, peace, respect for craftsmanship and community. Luckily, we have Leon Krier, who can, without compromise, create utopias; who can, with his superb drawings, reflect and interpret and clarify our dreams; who can, with his words, put his finger on our wounds. His vision will affect our world, if not in the way he pre-

[*News report continued on page 33*]

Fourteen office buildings by one builder.

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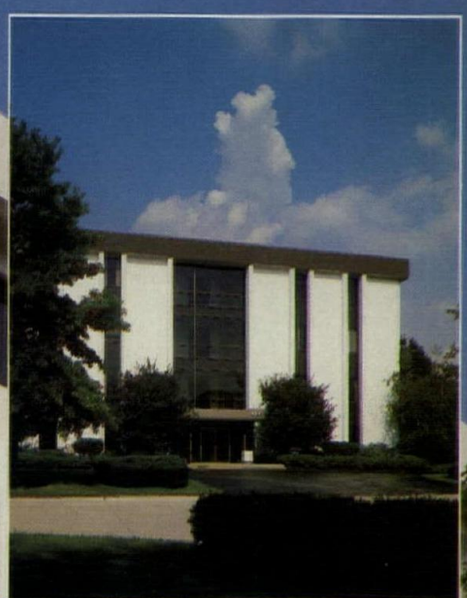

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News report continued from page 30

fers: we who must act, will adapt (compromise) his inspirational ideas to our imperfect world.

Agrest/Gandelsonas

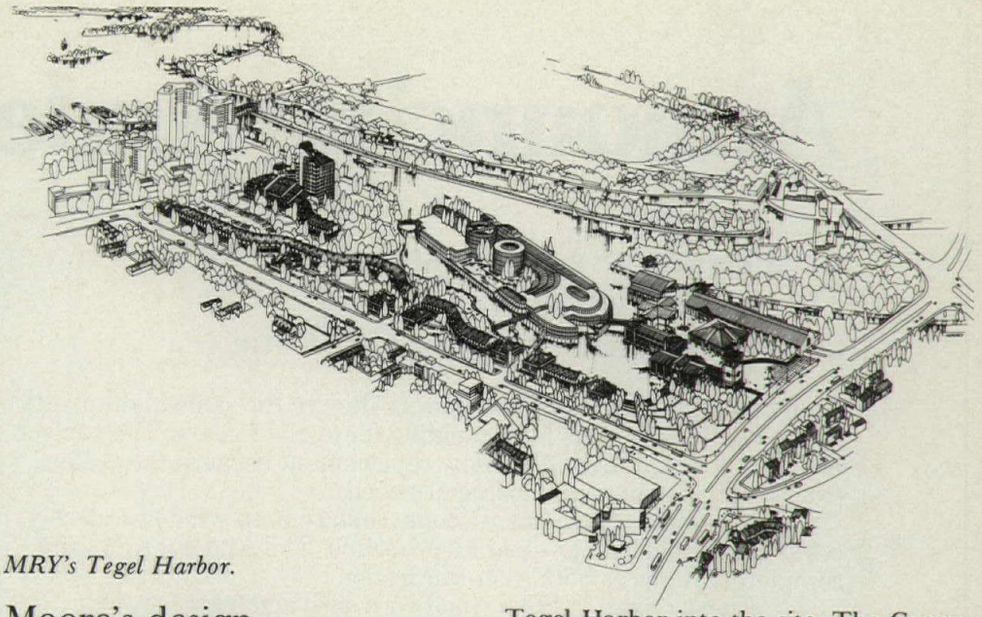
For Agrest and Gandelsonas, the ideas elucidated through writing and drawing help produce buildable architecture. At the same time, the architecture itself becomes a text.

Agrest and Gandelsonas possess artistic sensibility in all three areas of writing, drawing, and design. Their drawings in the Yale show indicate highly sophisticated thoughts, verbal and visual, about cities and buildings. Their 1976 drawings for the renewal of La Villette in Paris, for example, show complex yet clear and compelling thought constructions about spaces and forms: oppositions of landscape and building, of water and solid, of solid and void, of large and small.

Moreover, their ideas are expressed in drawings which are beautifully composed and quite well executed. Their expressionistic mood sketches (for areas in Boston and Minneapolis), done with soft-colored pencils, effectively show a kaleidoscope of views reflecting the passage through a district. These are reminiscent of architecture, but not strictly representative (as the architects are quick to point out), and luckily so, as they often show naïve, awkwardly proportioned buildings and colonnades. Their hard-edged but beautifully toned large drawings, often axonometric, are exceptionally fine; only when certain areas within the drawings are rendered expressionistically is the juxtaposition unsatisfactory, visually and intellectually.

Furthermore, the drawings indicate formal architectural ideas that relate to primal feelings and associations about cities—not very different, after all, from Krier's designs in their respect for proud and clearly expressed public spaces, but very different in scale and process, as Agrest and Gandelsonas *do* seem to be building for a society that has tasted technology and bigness, and wants more.

Agrest and Gandelsonas have no compunctions now about building and are in the process of doing so. Will the words and drawings lead to excellent buildings? From the drawings for a summer house called "On the Notion of Door," I predict yes, with reservations. The façades are marvelous. The wealth of ideas about entry is intriguing. But the metaphors are too abundant: they are visually and perhaps experientially unresolved. In the case of three apartment towers, however, now under construction in Buenos Aires (not shown in the exhibit), the answer is a resounding yes: rich in ideas, beautifully composed, with an apparent understanding of materials; elegant, sophisticated, urbane.
[Susan Doubilet]



MRY's Tegel Harbor.

Moore's design will float in Berlin

In 1984, an exhibition with the theme "living in the city" will take place in Berlin. The IBA, or Internationale Bauausstellung, will not be shown in a museum, however, but in the streets of the city itself: for actual architecture and urban spaces, restored and new, will make up the display material of this exhibit.

During 1980, competition juries selected James Stirling's Science Center and Gustav Peichl's Purification Plant to be built for the IBA, and towards the end of the year, Moore Ruble Yudell's design for a residential, cultural, and recreation facility was chosen to be constructed in the lakeside Berlin suburb of Tegel.

Moore's submission was selected from among schemes by eight invited firms: Ralph Erskine (Sweden), Arata Isozaki (Japan), Leon Krier (England), Fehling & Gogel (West Germany), Hilmer & Sattler (West Germany), Stavoprojekt (Czechoslovakia), and Steinebach, Behnisch & Partners (West Germany). Richard Rogers and Hermann Herzberger were invited, but did not participate.

The district of Tegel, with its lake and forest, is a popular resort area for Berlin; Tegel's shopping area is an important regional center for North Berlin. But these attractions draw excessive weekend traffic, which disturbs the residential quality of the area, a quality which is further aggravated by the remains of earlier industrial activities on the harbor. To preserve and improve the identity of Tegel for its residents, and at the same time to cautiously promote its attractiveness as a leisure area, the IBA organizers invited suggestions for a housing group and a culture and recreation center. Designers were asked to reflect sympathetically the nearby Humboldt Mansion, designed by Karl Friedrich Schinkel in 1822, and to treat carefully the interface between the new center and the existing town.

Moore's scheme emphasizes the waterside aspect of the site by carving the Tegel Harbor into the site. The Greenwich Promenade, extended to terminate in a landscaped plaza, links the three functions, which are deliberately distinct, geographically and stylistically.

In fact, Charles Moore seems to have learned from Bunker Hill (that is, from the design he et al. submitted for the recent Los Angeles competition) by making the total project appear to have been designed by different architects at different times.

The cultural center consists of Schinkelesque pavilions, straightforward, almost warehouse in character, symmetrically ordered to generate well-defined public spaces. The housing runs in a long, curved dormered row along the south of the site, rising at the west end to form a tower relating in scale to the adjacent Scharoun blocks. In the row houses one can find elements of the Schinkelesque masonry-structured cultural center; in the tower are found expanses of the curved, steel-framed machine aesthetic walls of the recreation center. But the recreation center is something else yet.

It surfaces like a submarine in the center of the artificially formed bay. Its curved, almost continuous exterior wall distracts and sometimes blocks the views to the more delicate cultural center; and the great round towers containing the pools confuse one's sense of scale with respect to, for example, the projected housing tower.

The concept is good: a ship for sports floating in the harbor; only its size (it crams the bay) and its scale are wrong. Fortunately, the community and the jury (which included J.P. Kleihues, director of IBA, Heinrich Klotz, Gottfried Böhm, and Hans Christian Müller) thought so too, and have asked Moore to render the design softer, less machinelike, and more playful, with more garden and less curtain wall. As the program is being reduced, these changes will easily be incorporated. "A Venetian barge" may be the new image, says Moore's partner John Ruble.
[*News report continued on page 37*]

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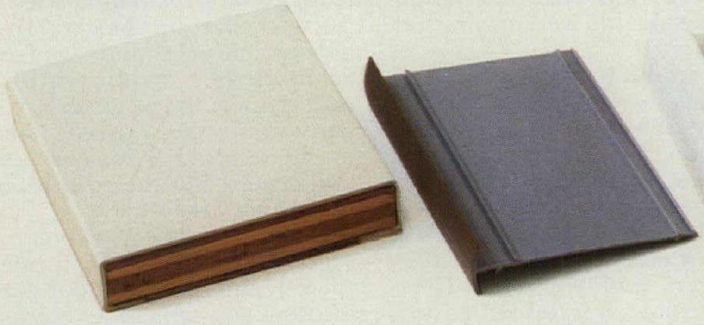
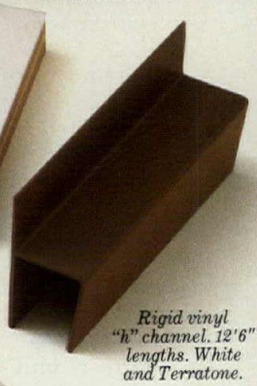


Perma-Shield™ vinyl filler. 3½" and 5½" widths in 6' and 10' lengths. Vinyl-wrapped and laminated on three sides. White and Terratone. (Available in 4' x 8' sheets for spandrel use.)

Vinyl laminated board. ½" thick in 2' x 8' sheets. White and Terratone.



Rigid vinyl "h" channel. 12'6" lengths. White and Terratone.

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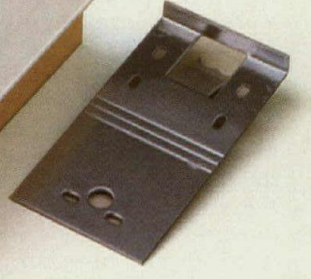

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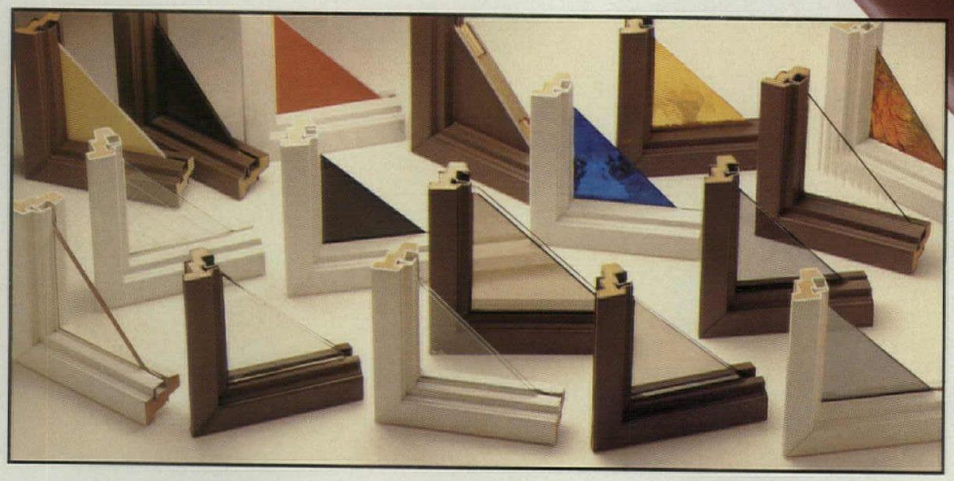

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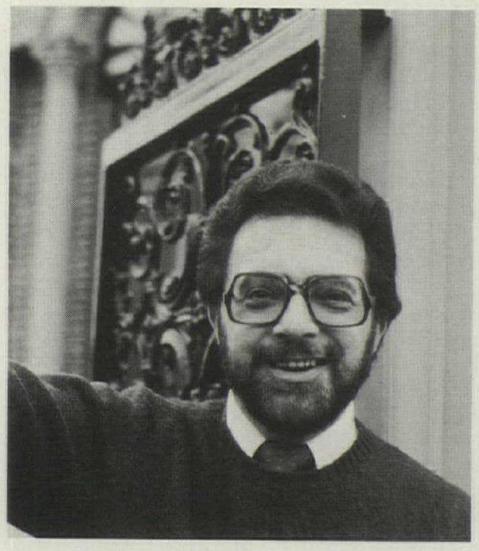
News report continued from page 33

For the housing, Moore Ruble Yudell's scheme is intended as an urban design plan. The West German Telerhafen team will design half of the residential buildings; other architects (possibly including second- and third-place winners Erskine, who tied with Stavoprojekt, and Isozaki) will do some units; and Moore's office will coordinate the whole.

Preliminary color studies indicate the use of warm pastels and ochres, from Berlin buildings of the 18th and 19th Centuries. Berlin will fund the recreation and cultural centers; private money, assisted by public subsidies, will develop the housing. [Susan Doubilet]

NEA supports TV series on architecture



Spiro Kostof, series moderator.

The National Endowment for the Arts has awarded a $700,000 grant to Washington station WETA and Charles Guggenheim Productions for the preparation of a television series on architecture and design.

Twenty-two stations vied for the grant; New York WNET's proposal, with Vincent Scully as host, was a strong contender. The matching grant, the largest endowment to date for arts programming on television, will assist in funding a five-part series of one-hour programs to be telecast by the Public Broadcasting Service. WETA must raise the remaining $1.4 million for the project, and it is hoped that the series will appear in the fall of 1982.

The winning proposal organizes each of the five parts under a heading: The House, The Car, The Workplace, The Park, and The Street. Host for the programs will be Spiro Kostof, professor of architectural history at the University of California, Berkeley, and "a master teacher, with the talent to attract an audience and the scholarly resources to impress both novice and expert," according to producer Charles Guggenheim.

The series will be solidly grounded in architectural history, says Guggenheim, but will not glorify the superstars. Dispelling the notion of the individual creative genius who single-handedly designs our built world, the programs will present a dramatic survey of "the economic, political, social, sociological, and creative forces which affect the planning of spaces and the creation of the environment." By stressing the familiar, Guggenheim hopes to make these forces comprehensible to the layman.

To develop the proposal, Guggenheim and WETA president Ward Chamberlin depended upon a board of advisors chaired by Henry Millon, dean of the Center for Advanced Study in the Visual Arts at the National Gallery of Art. Advisors who met with Millon and the film makers to draw up the proposals included Stanford Anderson, architectural historian and contributing editor to *On Streets;* Lois A. Craig, specialist on public buildings and contributing author of *The Federal Presence;* Sam Bass Warner, Jr., urban historian; and Kevin Lynch, author of *The Image of the City,* who also sat on the advisory board for other competing proposals. Jane Holtz Kay, architectural critic, wrote up the proposal. Other professionals who lent their names to the Advisory Board were architect Charles Moore, urban designer Rai Y. Okamoto, landscaping pioneer J.B. Jackson, sociological historian Dolores Hayden, community activist Frieda Garcia, landscape architect and black settlement expert Everett Fly, and engineering historian David P. Billington.

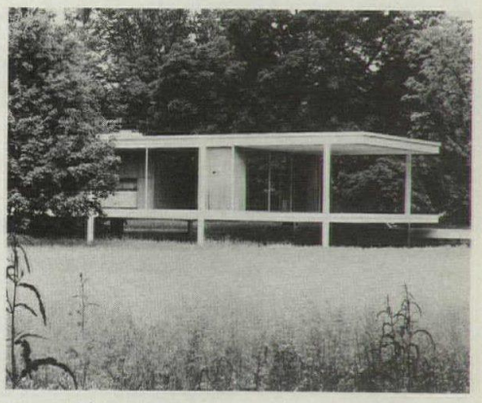
The Washington-based Guggenheim Productions has made a few feature films, but it is best known for its documentaries. Its films about architecture have included *A Place to Be: The construction of the East Building of the National Gallery of Art—1968–1978; Monument to the Dream,* about the Saarinen-designed arch in St. Louis (this film won a documentary award in Venice); and *The Eye of Jefferson.* Guggenheim also produced the film *J.F.K. 1917–63,* which is shown at the Kennedy Library in Boston, as well as two Academy Award-winning documentaries, *Nine from Little Rock* on the Arkansas racial crisis, and *Robert Kennedy Remembered.* Says writer Jane Holtz Kay: "Guggenheim's films are slick—crowd-pleasers in the best sense of the word."

Brian O'Doherty, director of the NEA Media Arts Program, Catherine Wyler, assistant director, and Michael Pittas, director of the NEA Design Arts Program met with 30 people in the fields of design and television to develop the concept and the funding plan, and later presented the proposals to panels for peer review and selection. Panels included architects, film makers, and television producers.

The selection panelists found all the proposals extremely good, and stressed that the choice was difficult. One of the panel members, Raquel Ramati, director of Urban Design at the Manhattan City Planning Office, said that the submission by New York's WNET was "very professional, excellent, in fact fantastic," but that Guggenheim's was also excellent, and the panel was especially reassured by the commitment in time and interest of Charles Guggenheim.

Other members of the selection panel were Sol Bass, Los Angeles film maker; Virginia Duncan, Sausalito public television executive; Joan Goody, Boston architect; Mako Iwamatsu, organizer of East/West Players theater group; Panos Koulermos of the University of Southern California's School of Architecture; M. David Lee, of Stahl Associates, architects, Boston; Richard Meyer of KCTS television, Seattle; Richard Moore, an independent producer in Mill Valley, Ca; and Robert Northshield, producer of CBS's Sunday Morning.

Farnsworth House receives AIA's 25 Year Award



An AIA jury has chosen Mies van der Rohe's last residential design, the Farnsworth House in Plano, Il, as recipient of its Twenty Five Year Award. The award recognizes architecture of enduring significance, and the house was selected because it remains "a masterpiece of architecture, as elegant in 1980 as in 1950," when it was built. (The jury, chaired by Arthur Cotton Moore, FAIA, of Washington, DC, included Stuart Cohen, AIA, Chicago; Mildred Schmertz, FAIA, New York; Piero Patri, AIA, San Francisco; Peter Chermayeff, AIA, Cambridge, Ma; Nicholas H. Holmes III, FAIA, Mobile; and Kimberly N. Stanley, Pendleton, SC.) The house has recently undergone extensive restoration and is now in excellent condition.

Mies van der Rohe, who remained active in his profession until his death in

[*News report continued on page 38*]

News report continued from page 37

1969, won the AIA Gold Medal in 1960. His apartment towers at 860–880 North Lake Shore Drive, Chicago, received AIA's Twenty Five Year Award in 1976.

AIA chooses fellows, award winners, medalists

The AIA has chosen the recipients of its 1981 awards, fellowships, and medals, which will be bestowed during the National Convention in Minneapolis, to be held May 17–21. In addition to the Gold Medal and the Architectural Firm Award (P/A, Feb., p. 21) and the Twenty Five Year Award (above), the following honors will be presented:

Seattle architect Robert L. Durham, FAIA, a former president of the AIA, has been selected to receive the highest service honor, the Edward C. Kemper Award. Mr. Durham has crusaded for excellence in federal architecture and for improved procedures for the federal procurement of architects and engineers.

Buffalo architect Robert Traynham Coles, AIA, an advocate for minorities throughout his career, will receive the Whitney M. Young, Jr., Citation for his "contributions . . . towards meeting the architectural profession's responsibility to the social issues of today."

Honorary Fellows

Eight distinguished foreign architects have been named honorary fellows of the AIA. The recipients are Elissa Makiniemi Aalto, Finland; Jerzy Buszkiewicz, Poland; Hans Heyerdahl Hallen, South Africa; David H. Hambleton, Canada; Hans Hollein, Austria; Kisho Kurokawa, Japan; Serapio Pérez Loza, Mexico; and Eberhard Zeidler, Canada.

Honorary Members

For their distinguished contribution to the architectural profession or to allied arts and sciences, nine people have been selected as honorary members:

David Brinkley, NBC television commentator and analyst; Gordon A. Fleury, California attorney representing the California Council/AIA; Doris Chanin Freedman, president of the New York City Municipal Arts Society and former director of the New York City Department of Cultural Affairs; Arthur A. Hart, architectural historian and preservationist, and director of the Idaho Historical Society; Mabel Krank, executive secretary of the AIA's Oklahoma chapter; Albert Rhoades Marschall, commissioner of the General Services Administration's Public Buildings Service and former commander of the U.S. Naval Facilities Engineering Command (NAVFAC); Terry B. Morton, vice-president of the National Trust for Historic Preservation and editor/publisher of its Preservation Press; Mary E. Osman, recently retired senior editor of the *AIA Journal;* and Martin Schaum, who served for ten years on the legislative council to the New York State Association of Architects.

Medal winners

Sir Nikolaus Pevsner, world-renowned British writer on architecture, has been selected to receive an AIA medal recognizing "recorders of architectural accomplishments." Pevsner's writings include the 46-volume work, *The Buildings of England,* and the *Outline of European Architecture.*

The furniture manufacturing firm Herman Miller, Inc., known for its technical developments, its fine products by such innovative designers as Charles and Ray Eames, and its leadership in the area of office "landscapes" (P/A, Nov. 1980, pp. 127–130) is receiving an AIA medal for "inspiring and influencing the architectural profession."

Other medal winners are the Reynolds Metals Co., for their establishment of two major awards programs honoring distinguished architecture using aluminum; *New York Times* architecture critic Paul Goldberger; Smithsonian Associates, for their lecture series and the *Smithsonian Magazine*'s role in recording the architecture of America; Cornell University professor Colin Rowe, whose "teaching, criticism, and literature have affected architecture . . . for three decades"; New York City artist Kenneth Snelson, whose sculptures "have expanded the horizons of physical forces in space"; and the New York lighting fixture designer and manufacturer Edison Price, who "civilized" track lighting and developed reflective control methods for recessed fixtures.

[*News report continued on page 42*]

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In warmer Charlotte, North Carolina, "solar belts" using alternating panels of aluminum and PPG clear glass gird Equitable Life's clean-cut regional headquarters. "A slick, brilliant use of glass in a simple but innovatively planned building," said the AIA jury.

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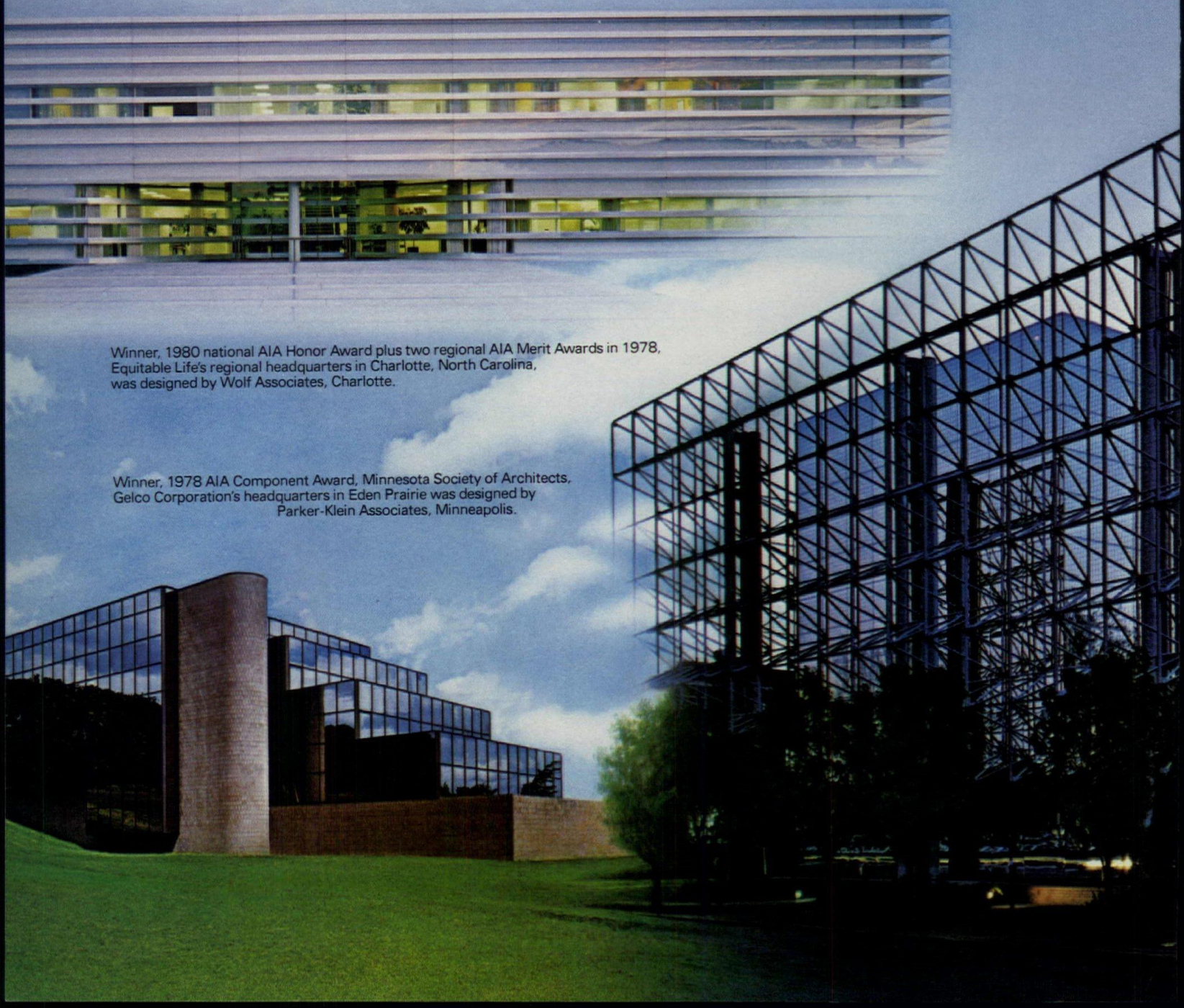

Winner, 1980 national AIA Honor Award plus two regional AIA Merit Awards in 1978, Equitable Life's regional headquarters in Charlotte, North Carolina, was designed by Wolf Associates, Charlotte.

Winner, 1978 AIA Component Award, Minnesota Society of Architects, Gelco Corporation's headquarters in Eden Prairie was designed by Parker-Klein Associates, Minneapolis.


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Winner, AIA Honor Award in 1980, Bell of Indiana's Columbus Switching Station was designed by Caudill, Rowlett, Scott of Houston, Texas.

News report continued from page 38

"Solar Rising" sessions to address various audiences

"We're reaching out to those who have never attended a solar convention and those who only have a little exposure: builders, developers, a large part of the architectural and engineering professions, building owners and managers, and homeowners." Fred S. Dubin, architect, engineer, and chairman of the forthcoming "Solar Rising" conference stresses that this year's meeting is not just for afficionados, but to "convince more non-specialists" that solar techniques are ready now for large-scale application.

Sponsored by the American Section of the International Solar Energy Society (AS/ISES), the conference is scheduled for May 26–30 in Philadelphia. The anticipated 4000 participants will have a broad choice of exhibits and sessions to attend. Plenary sessions will focus on the roles various professions and institutions can play in realizing the potential of solar energy. Other events of particular interest to architects will be: a two-day workshop especially for design professionals on solar applications for large buildings; a "conference within a conference" on energy conservation and solar strategies for large cities; tours to solar houses and buildings in and near Philadelphia. A concurrent design charrette by architecture students, under the guidance of well-known architects and engineers, will develop energy proposals for the city's Broad Street corridor.

New York's seaport plan is approved

Another bead in the string of the Rouse Company's waterfront developments is likely to be realized, as the Board of Estimate recently approved a $203-million plan for redevelopment of New York's South Street Seaport. (P/A, Dec. 1979, pp. 26 and 30). HUD is expected to approve a $20-million grant to replace two existing piers with a new one, and construction should then begin this spring. Like Boston's Faneuil Hall and Baltimore's Harborplace, the Seaport will call upon the charms of the sea and the nostalgia of old buildings to lend spice to commercial developments.

Architect Benjamin Thompson's plans for the Seaport will replace two delapidated piers with a new pier and a pavilion with 111,000 sq ft of market space; will modernize the existing fish market; will build a new structure three stories over and behind the existing fish stalls to provide 60,000 sq ft for shops and restaurants; and will expand the Seaport Museum, restore historic houses along Schermerhorn Row, and convert parts of the adjacent streets into pedestrian malls. Architect Jan Pokorny is also involved in the preservation work, as is Beyer Binder Bell. A 30-story or higher office/hotel complex is also planned, but this may not be developed by the Rouse Company.

The project has been modified over the past year to satisfy citizens' requests for more open pier space for strollers and fishmongers, but this has not allayed local fears of possible congestion and overcommercialization.

Conference discusses toxic materials

"Building Healthy Environments: strategies toward sustainable architecture," was the title of a weekend conference, Jan. 16–18, held at the Westerbeke Ranch near Sonoma, Calif. The conference, partially funded by Herman Miller, Inc., was sponsored by the Institute for the Human Environment through its Center for Responsive Design.

Panel discussions focused on pollutants of interiors. The cast of villains included familiar building components: fluorescent lighting, particle and gypsum board, "care-free" fabrics, plastics, and housekeeping aids—the very props of modern life. It seems that even energy-conserving products such as double-paned glass and ureaformaldehyde foam insulation promote indoor toxicity. (See P/A, April 1981.)

Since relatively few designers know the toxic properties of standard materials used in buildings and furnishings, the conference aimed to convene designers and key researchers in the field to exchange information, hear case

[*News report continued on page 46*]

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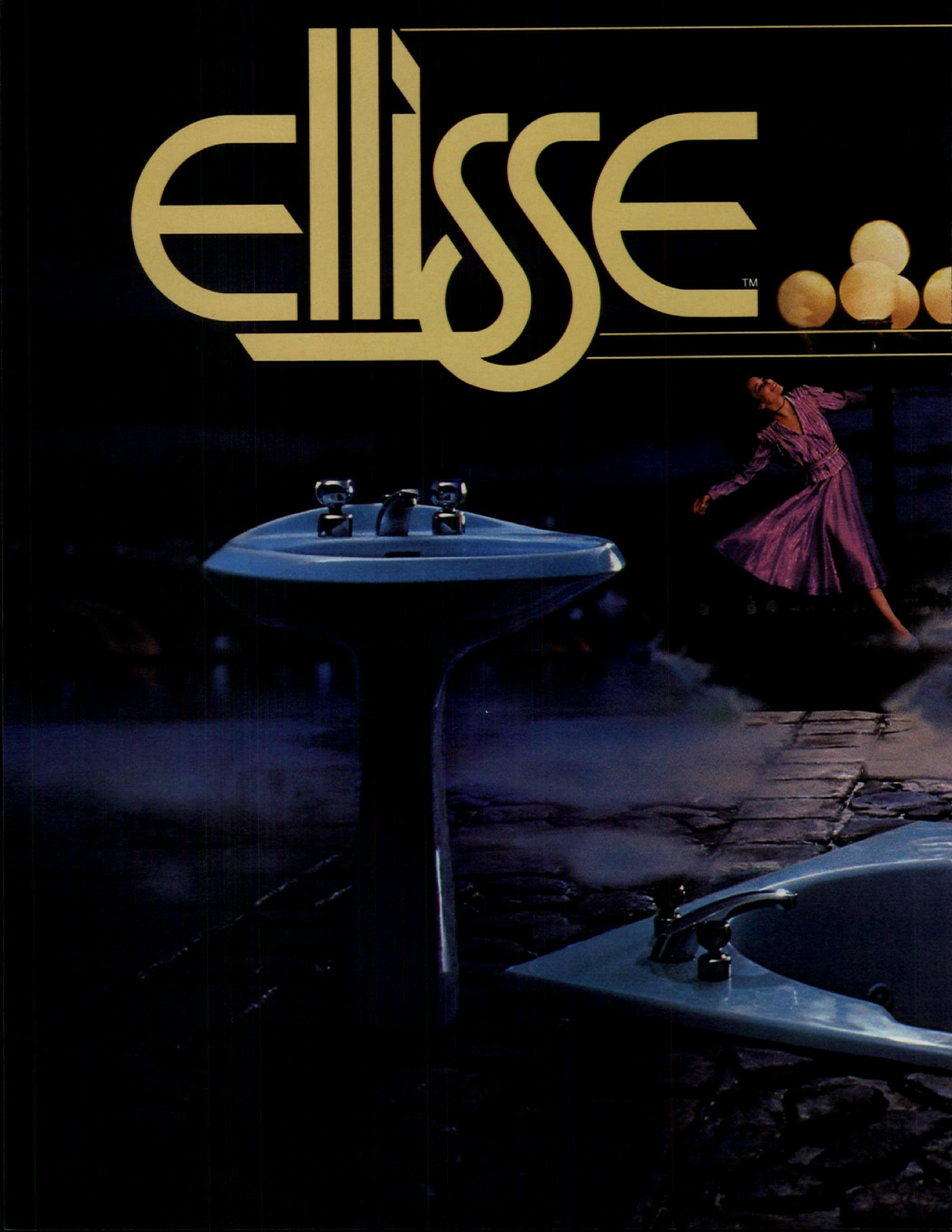
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News report continued from page 42

studies, and discuss strategies for changing design practices.

Saturday's program began with a panel discussion on the sources of toxicity and stress in indoor environments. Panelists included Frank Silver, an environmental engineer specializing in air pollution, and two medical doctors, Don Jewett, M.D. and Ph.D., a University of California clinical and research professor, and William Rea, a cardiovascular surgeon who directs a clinic for the practice of clinical ecology at Brookhaven Hospital near Dallas.

Afternoon panelists Sanford Hirshen and Roslyn Lindheim, architects, and Neil Kellman, M.D., from U.C. Berkeley's Department of Architecture, addressed design issues and emerging methodology in the environmental field. Hal Levin moderated this discussion.

Sunday was devoted to summarizing and formulating strategies for creating a network of multidisciplinary professionals. This network will help implement the Center's programs, which will advocate the social responsibility of designers in creating habitable and practical living and working places. The Center aims to convert clinical research results into practical design guidelines, and to provide problem-solving services for designers, as well as general educational services for the public.

The conference was organized by Norman Gilroy, president of the Institute for the Human Environment, Hal Levin, University of California lecturer and researcher in Environmental Studies, and Donald Michael, Professor of Planning and Public Policy at the University of Michigan. Those who wish to plug into the network may write to the Center for Responsive Design at the Institute, 312 Sutter St., Suite 608, San Francisco, Ca 94108.
[Sally B. Woodbridge]

P/A Awards winners gather at Plaza luncheon

On Friday, January 16, *Progressive Architecture* honored the winners in its 28th annual P/A Awards program at a luncheon held at the Plaza Hotel, New York. Editor John Dixon and Publisher James Hoverman welcomed the guests and, with the assistance of Executive Editor James Murphy, presented certificates to winners and their clients. Of the 31 winners in the categories of architectural design, urban design and planning, and research, 30 were able to attend. Galen Cranz, Romaldo Giurgola, and Richard Stein, three of the eight jurors who judged the more than 1000

[*News report continued on page 50*]

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Photos: D'Arlene Studio

1 Raquel Ramati speaks with John Dixon; Bob Geddes behind. 2 l-r: Sam Davis, Sabrina De Sansa, Vladimir Bazjanac, Gunilla Lerup, Kyu Sung Woo. 3 Jim Murphy congratulates citation winner Val Glitsch. 4 Murphy with James Stewart Polshek and Paul Byard, citation winners.

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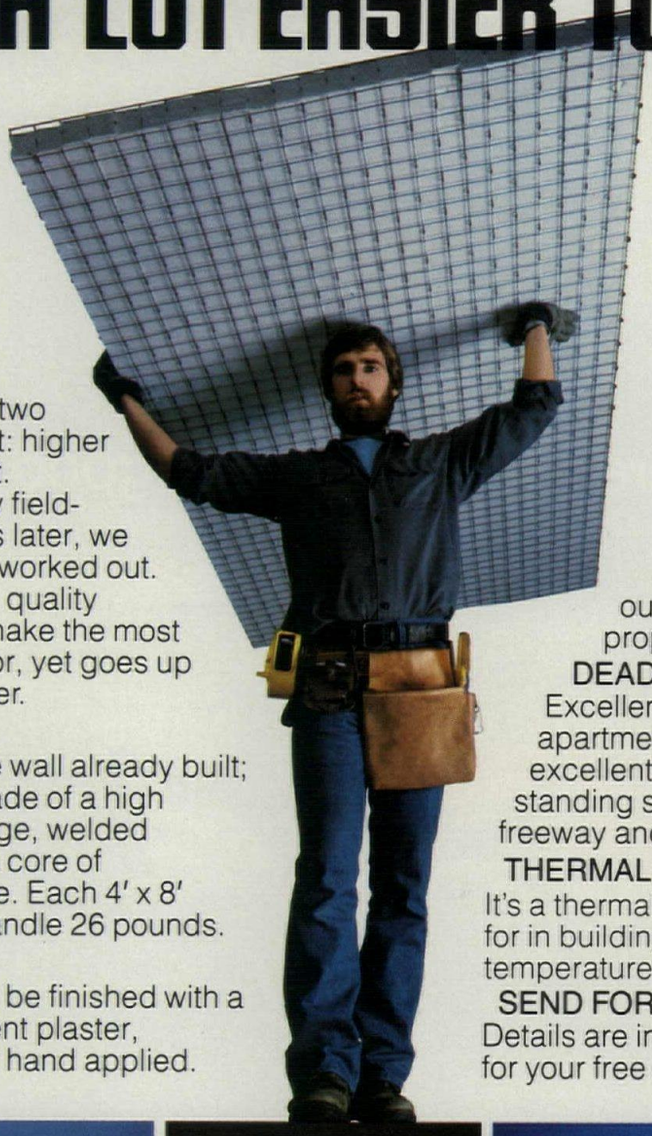

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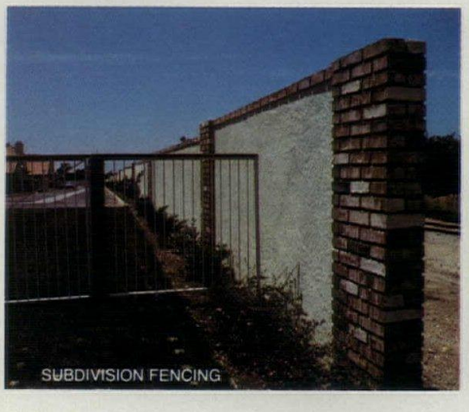

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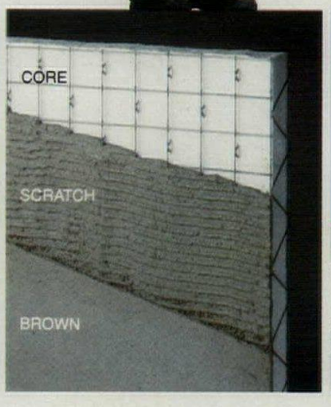

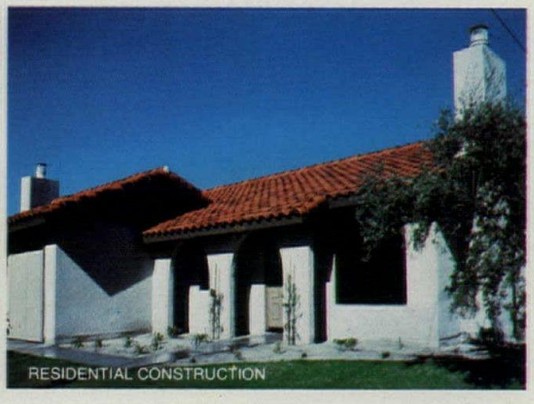

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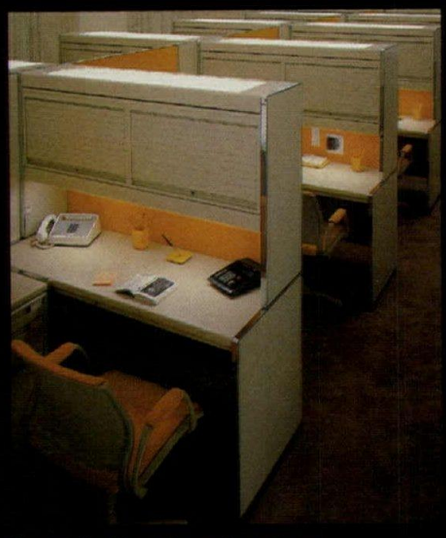

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News report continued from page 46

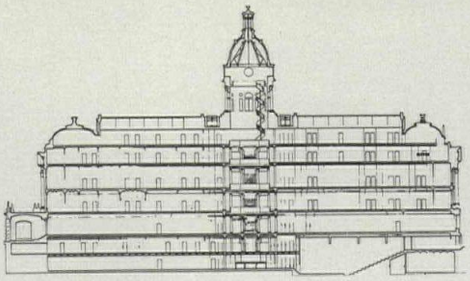
entries to the competition, also were present. The 300 guests at the Awards presentation included past jurors, recent contributors to P/A, heads of local schools of architecture and architectural organizations, museum curators, and press.

The evening before, *Progressive Architecture* held its sixth annual AdAwards presentation at the Tavern on the Green, New York. Awards for outstanding advertisements were given to 34 companies and their advertising agencies. Many of these recipients also attended the P/A Awards luncheon the following day. [BMcC]

Hotel or housing in former police building

The former Police Headquarters building is the most prominent structure in the Little Italy section of lower Manhattan, and the city's recent "request for proposals" for its redevelopment has yielded three possible uses: as a luxury hotel, as tenant-owned apartments, and as a cultural center.

The city created a special zoning district several years ago to protect Little Italy's low-rise character and lively café-lined streets, and recently several development schemes have been proposed for the area, including the renovation of existing housing, the construction of



Trans-Nation proposal, section.

151 new subsidized rental units (using the Federal Section 8 program) on a vacant lot, and now, the redevelopment of the Police Headquarters building.

The 1909 police building, designed by architects Hoppin & Koen and modeled after London's Old Bailey, was given by the city to the Little Italy Restoration Association three years ago to be converted into a cultural center, in a much-heralded neighborhood conservation plan supported by Jacqueline Onassis, Louise Nevelson, and others. The community group failed to raise the necessary funds; the city repossessed the property and went to the private sector for proposals.

The proposals

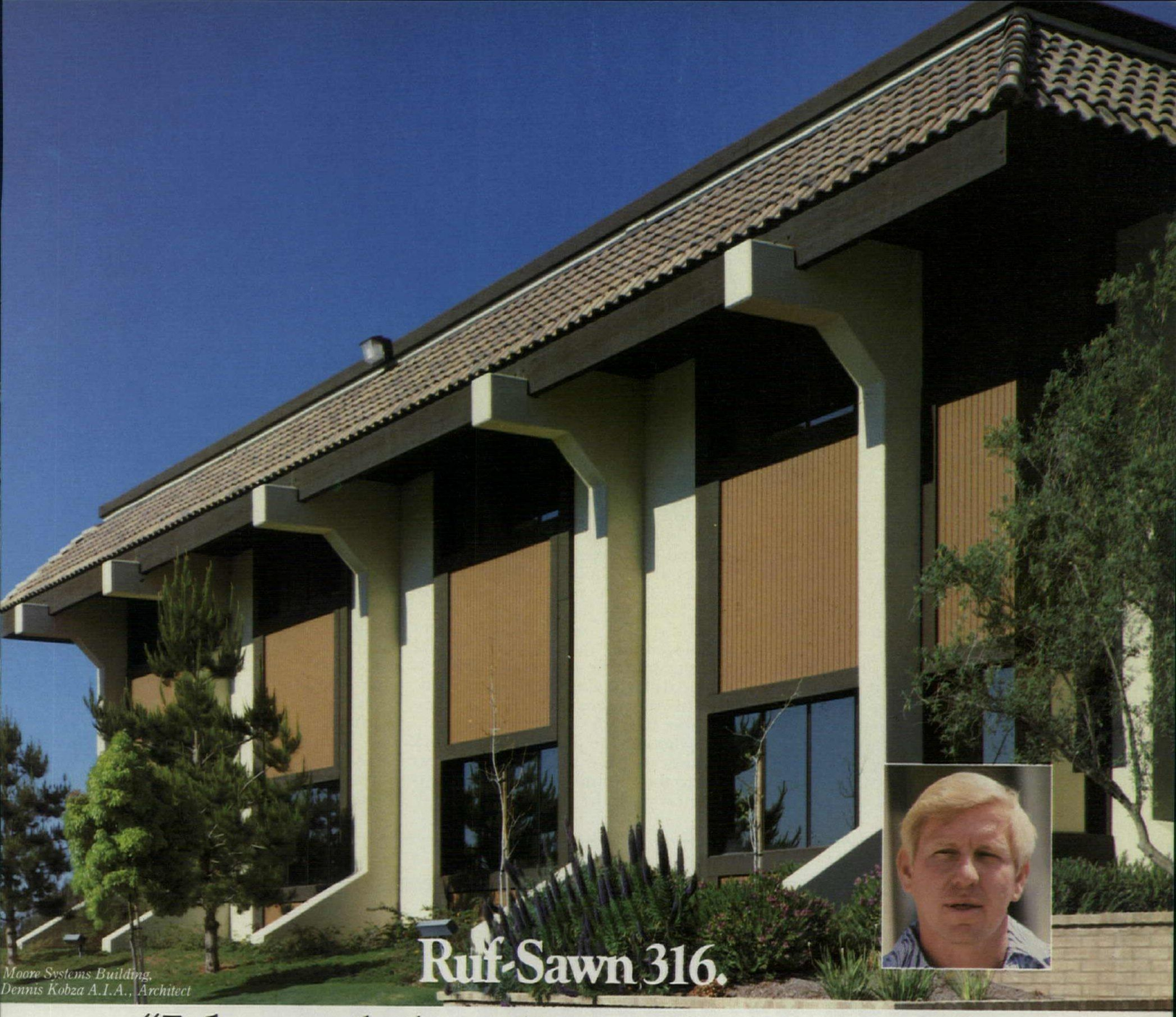
Trans-Nation Inc., a Toronto-based development company, proposed the conversion of the headquarters into a 125-room Grand Hotel de Ville, and this won the approval of the community board's zoning committee. The architects for this proposal are Cavaglieri/Edelbaum and SITE Projects, Inc., and hotel consultants are Frank Orenstein & Associates. Weidlinger Associates are structural engineers. The lower floors will be occupied by theaters and community facilities, and a five-story atrium will take advantage of the building's fine central dome. The arguments in favor of this proposal include that it would create jobs in the area, that it provides public accessibility to the building's architectural features, and that it furnishes arts and community facilities. The architects prepared a study to prove the feasibility of a hotel in this location.

The Recycling for Housing Partnership, a New York developer, and the architectural firm of Rothzeid, Kaiserman & Thomson put forward a proposal that would locate four condominium apartments under the building's major domes and build 47 cooperative apartments in the remaining space, but community members feared that the neighborhood would be overwhelmed with luxury housing conversions, if this proposal set the pace.

The third suggestion was submitted by a citizens' group called the New York Center for International Culture, but this group did not meet the deadline for making the necessary deposit, and their plans were incomplete. There was a certain sympathy among the community board members, however, to retain the building as a cultural center, rather than to convert it to luxury facilities.

The General Service Department's

[*News report continued on page 52*]



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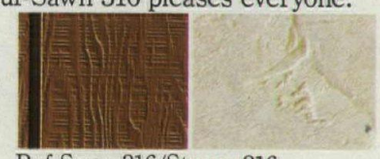

Ruf-Sawn 316/Stucco 316

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News report continued from page 50

division of real property has designated the Trans-Nation proposal as winner, and will now submit its recommendation to the city's Board of Estimate for approval. But the process has underlined another problem: developers argue that the r.f.p. (request for proposal) system is unfair, as the rules seem to change in mid-stream; furthermore, community boards are shown only sketchy synopses of the developers' elaborate and expensive plans, so that they cannot judge them fairly.

Christo strikes again

For two weeks in October 1983, artist Christo intends to stake his claim upon 27 miles of walkway in New York's Central Park. His most recently planned tour-de-force will hang 11,000 orange nylon panels from 15-ft-high steel gates located at nine-ft intervals along the walkways. The panels will hang to 5½ ft above the ground and will be free to waft in the wind.

Christo's projects have always been artistically dramatic. In 1972, his "Valley Curtain" in Colorado rose to 365 ft above the valley floor. They have also been politically and socially provocative: in 1976, his 24-mile-long "Running Fence" across Sonoma and Marin Counties in California employed 400 people, mostly students, for its erection, which presumably raised the public's consciousness to the beauties of nature, but defied Coastal Commission regulations: what's a poor judge to do?

eeva-inkeri

The Gates, project for Central Park.

By now, Christo has won the approval, in principle, of the Establishment and of bureaucrats, who realize that they are dealing with "serious art." As always, Christo plans to finance the project himself by selling drawings of it. He will hire 1200 people, most of them unemployed, for the construction and intends to enlist the protection of potential vandals by buying them off, according to his statement quoted in the *New York Times* (Oct. 6).

But whether the people of New York are ready to have their consciousness raised to the beauties of Central Park is a question yet to be answered.

Calendar

Exhibitions

Through Mar. 15. City Segments—an exhibition of contemporary architectural drawings by 30 international architects. Neuberger Museum, State University of New York, College at Purchase, NY.

Through Mar. 16. The Architecture of the State University of New York at Purchase. Neuberger Museum, SUNY at Purchase, NY.

Through Mar. 21. Bridges by Louis Lozowick. Zabriskie Gallery, 521 W. 57 St., New York.

Through Mar. 31. Holabird & Roche and Holabird & Root: The First Two Generations. Chicago Historical Society.

Through April 2. Photographic Survey: UCLA and Westwood in the 20's. UCLA School of Architecture.

Through Apr. 22. Exhibition of 52 watercolors by members of the AIA. The Octagon, Washington, DC.

Through Apr. 26. Expressionism: A German Intuition, 1905–1920. San Francisco Museum of Modern Art.

Through May 31. Architecture in Context—360 North Michigan Avenue. Corridor Gallery, The Art Institute of Chicago.

Through July 31. P.B. Wight: Architect, Contractor, and Critic, 1838–1925. Burnham Gallery of Architecture, The Art Institute of Chicago.

Mar. 10–May 10. Innovative Furniture including pieces by Thonet, Belter, [*News report continued on page 54*]

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News report continued from page 52

Eames, Josef Hoffman, and Frank Lloyd Wright. Cooper-Hewitt Museum, New York.

Mar. 10–May 24. John Henry Belter and the Rococo Revival, an exhibition of ornately laminated Victorian pieces. Cooper-Hewitt Museum, New York.

Mar. 11–June 7. Collaboration: Artists & Architects. New York Historical Society, New York.

Mar. 12–Apr. 4. Siah Armajani, "Doors, Windows, Models & Projects." Max Protetch Gallery, New York.

Mar. 20. L.A. by L.A. Municipal Art Gallery, Barnsdall Park, Los Angeles.

Mar. 24–Apr. 23. Architectural Drawings from the Cincinnati Historical Society. Gallery at the Old Post Office, Dayton, Oh.

Apr. 5–26. Function: Contemporary Viewpoints. The Fawick Gallery, Baldwin Wallace College, Berea, Oh.

Apr. 9–May 2. Romaldo Giurgola projects. Scott Burton Furniture. Max Protetch Gallery, New York.

Apr. 12–May 31. Late Entries to the Chicago Tribune Tower Competition. Walker Art Center, Minneapolis, Mn.

Apr. 28–May 21. Alvar Aalto—photographs of major designs. Gallery at the Old Post Office, Dayton, Oh.

May 15–June 28. Architect's Furniture. Hayden Gallery and Hayden Corridor Gallery, MIT, Cambridge, Ma.

May 17–21. Interior Design International '81. Olympia, London.

Conferences, Seminars

Mar. 31. Conference on Productivity of Retail Space: New Design Solutions. New York University. Contact: Linda Nagel, NYU Institute of Retail Management, 202 Tisch Hall, Washington Square, New York 10003. (212) 598-2285.

Apr. 1–6. The Society of Architectural Historians annual meeting, Empress Hotel, Victoria, B.C. Contact the SAH, 1700 Walnut St., Philadelphia, Pa 19103.

May 14–15. Design for Moving People conference. Biltmore Hotel, New York. Contact: Helene Overly, Conference Coordinator, Public Technology, Inc., 1301 Pennsylvania Avenue, NW, Washington, DC 20004.

May 17–22. AIA Annual Convention, Minneapolis.

May 26–30. Solar Rising, American Section of the International Solar Energy Society conference, Philadelphia Civic Center. Contact Richard Ross, Bennett Hall, University of Pennsylvania, 3440 Walnut St., Philadelphia, Pa 19104. (215) 243-3211.

May 28–June 12. First Architectural World Biennial at Sofia, Bulgaria. Contact Union of Bulgarian Architects, 11 Dimitar Polianov St., 1504 Sofia (Bulgarie).

June 14–19. 31st International Design Conference in Aspen, Co. Contact Pam Arnold, IDCA office, Box 664, Aspen, Co 81612.

June 16–19. NEOCON 13. The Merchandise Mart, Chicago.

Competitions

Apr. 1. Submission deadline for Arnold W. Brunner architectural investigative study grant. NYC/AIA, 457 Madison Ave., New York 10022.

Apr. 1. Submission deadline, ASID Edward Fields Wool Rug Design competition. ASID, 730 5th Ave., New York 10019.

Apr. 28. Registration deadline for Eagleridge resort community national design competition. Sponsored by Caltennco Colorado, Inc. Contact the AIA Research Corp., 1735 New York Ave., NW, Washington, DC 20006 (202) 626-7500.

Apr. 30. Submission deadline, Women in Design International Competition. WID International, 530 Howard St., San Francisco, Ca 94105.

May 19. Submission deadline for DESIGN+ENERGY student competition. The Association of Collegiate Schools of Architecture, 1735 New York Ave. NW, Washington, DC 20006.

May 22. Application deadline. Building Value into Housing Grant Program. HUD, 451 Seventh St., SW, Washington, DC 20410.

May 29. Entry deadline, Arizona Passive Solar Design Competition. Arizona AIA, 1121 N. 2nd St., Phoenix, Az 85004.

June 12. Application deadline for Red Cedar Shingle & Handsplit Shake Bureau/AIA Awards Program. Contact the Bureau at 515 116th Ave., NE, Bellevue, Wa 98004. (206) 453-1323.

[*News report continued on page 58*]

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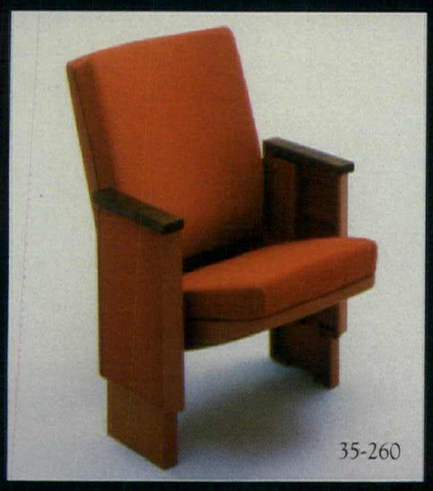
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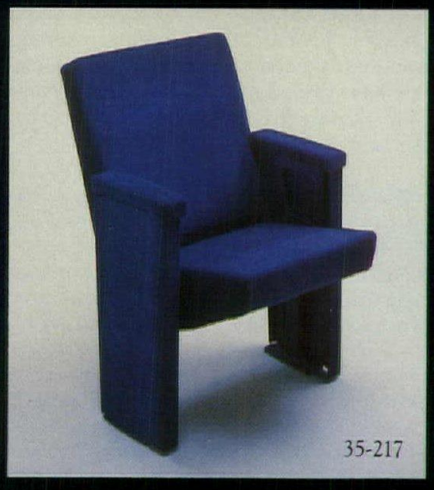
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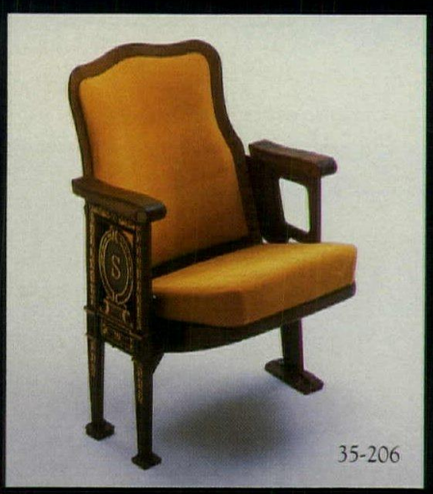
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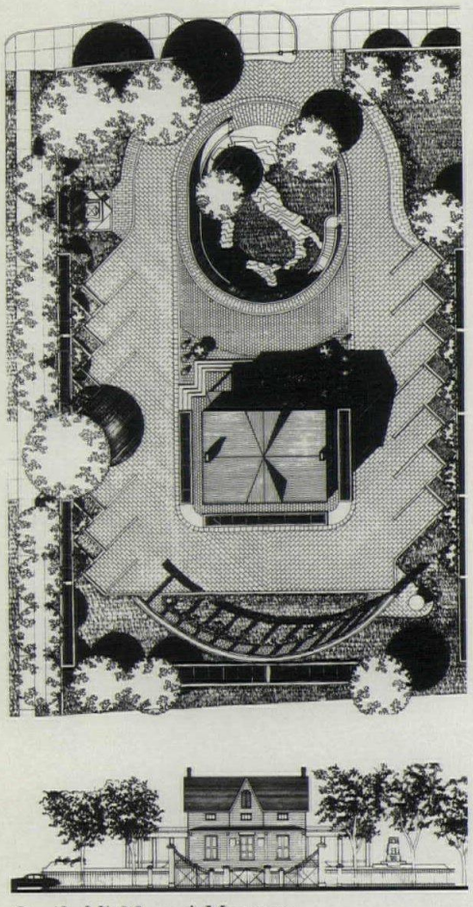
News report continued from page 54

In progress

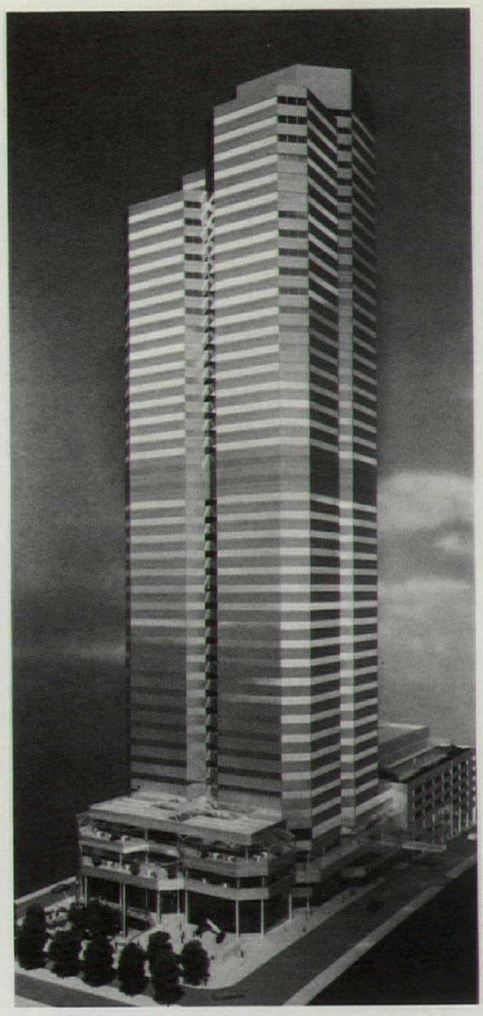


Garibaldi-Meucci Museum.

Garibaldi-Meucci Museum, Staten Island, NY. *Architect: Secundino Fernandez, New York, NY.* A competition was held to expand the existing museum to create an Italian American Cultural Center, and this project was selected. It uses the slope of the site to accommodate most of the new spaces beneath the existing simple Gothic Revival house (a designated Landmark), while still providing natural lighting to the new facility. A stepped garden representing the map of Italy provides double-level access with circumference parking and a ceremonial drop-off. The lower-entry loggia provides lobby and exhibit space leading to the central atrium. The upper-level promenade contains existing monuments and relics, as well as a memorial garden surrounded by a colonnaded *signoria* built by donors to honor notable Italian-Americans.

One Oxford Centre, Pittsburgh, Pa. *Architects: Hellmuth, Obata & Kassabaum, New York, NY.* This project is the first phase of an office and commercial complex that ultimately will occupy six city blocks in Downtown Pittsburgh. It is designed as a cluster of office towers of varying heights, up to 46 stories tall. Leasable commercial space is located on the lower five floors, articulated on the exterior by broad colonnades and floor-to-ceiling glass walls. The tower and garages are connected by bridges and corridors at the second level. A landscaped entry plaza on the east has an outdoor café shaded by trees. The steel-framed structure will be faced by aluminum and reflective glass curtain walls, with windows occupying 40 percent of the surface area.

[*News report continued on page 62*]



Nathaniel Lieberman

One Oxford Center.

From the first architectural principle comes the first truly modular desk. The Hannah Desk.

Gravity, and Bruce Hannah, have combined to produce a significant breakthrough in office planning: the creation of a totally flexible desk and cabinet system.

Until now, the desk has always been a fixed structure, the storage space inflexibly attached to and hanging from the top. Bruce Hannah's desk is just the opposite. The storage space, or pedestals, support the top – the posts supporting the lintel, architecturally speaking. Consequently, the pedestals are not permanently attached.

The result? For the first time, the furniture within an open plan office is as flexible as the walls of the office system. And equally important, for the first time, you can have total flexibility within conventionally planned offices.

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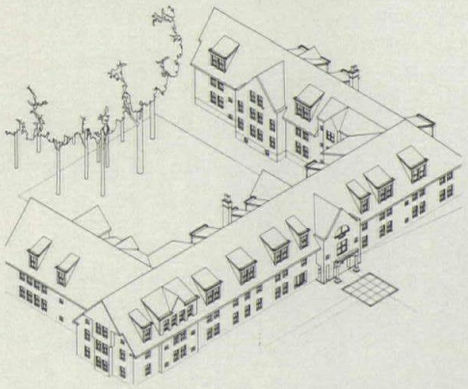
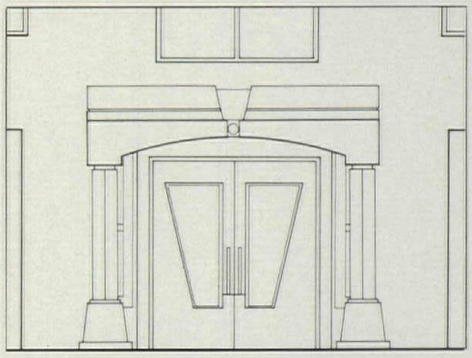
News report continued from page 58

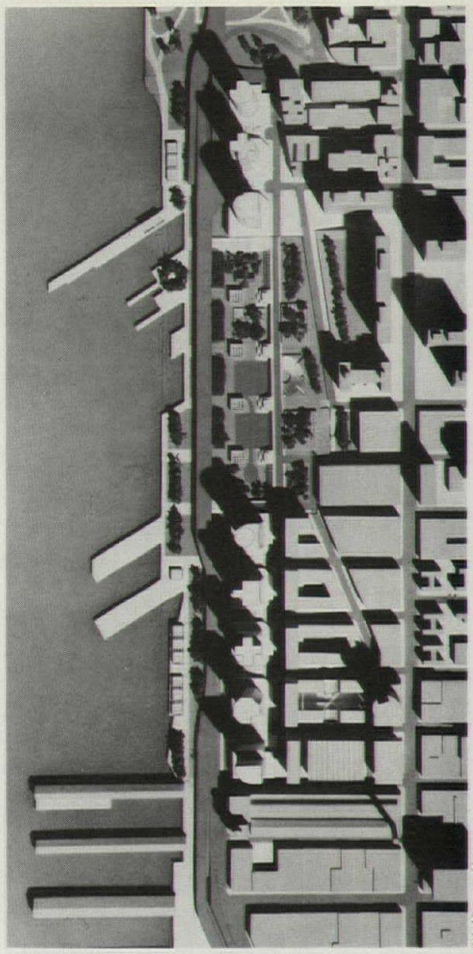


Swarthmore dormitory axonometric (above), entrance detail (below).



Swarthmore College Dormitory, Swarthmore, Pa. *Architects: H2L2 Architects/Planners, Philadelphia, Pa.* This project seeks to provide a comfortable home for 140 students, and to relate sympathetically to the campus and the small adjacent town center of Swarthmore. On the campus side, it presents a formal countenance to the major campus green space; on the other side, it presents "idiosyncratic" façades to the courtyard it encloses, in a method reminiscent of other campus buildings. The exterior walls are faced with the local stone employed in the construction of the neighboring structures. The interior organization reflects that of a manor house with a formal entry hall, main staircase, and adjacent living room.

Lincoln West Development, New York, NY. *Architects: Gruzen & Partners/Rafael Vinoly, New York.* This project consists of two clusters of low-, medium-, and high-rise buildings (none higher than 40 stories) that will contain about 4850 apartment units on a 76.4-acre site. The northern cluster of three buildings will contain about a fifth of the units and some retail space. The southern group will accommodate the remaining apartments, with more intense retail and commercial development, including an office tower and a 500-room hotel. The two clusters will be privately developed and maintained, connected by a park and waterfront promenade which will extend Riverside Park southward 13 blocks; three existing piers and the old Ferry slip will be rehabilitated. A new connection will be built to the subway. Community members worry that the development will restrict access to the waterfront, and that the influx of new residents will increase the burden on streets and subway lines.



Wolfgang Hoyt

Lincoln West Development.

Project: Cafeteria, Educational Testing Service, Princeton, New Jersey
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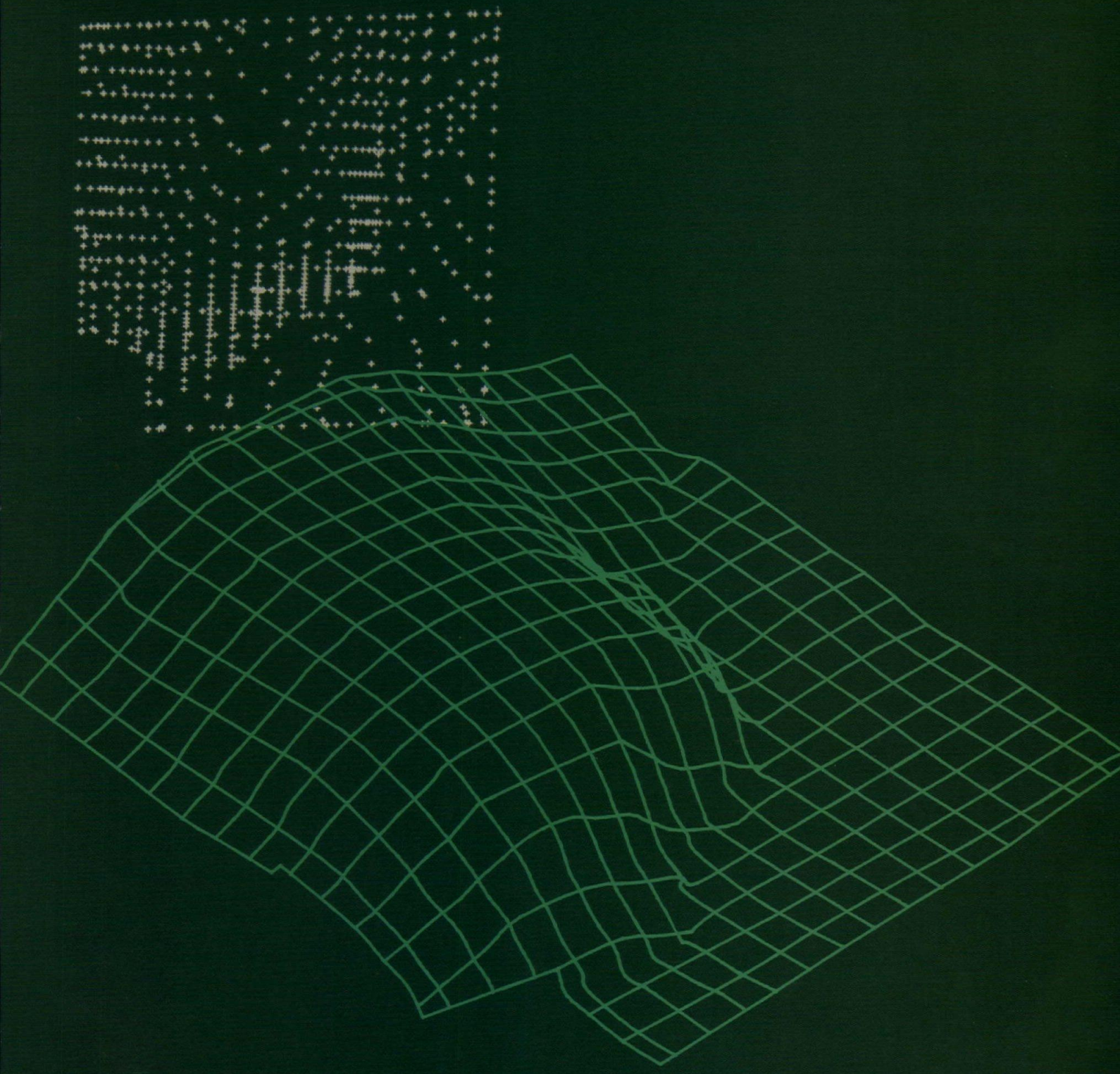

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SCHEDULE: Deadline for registrations, April 28, 1981. Programs mailed, May 1. Deadline for First Stage Entries, July 15. Begin Second Stage, August 7. Deadline for Final Stage entries October 15, 1981.

PROFESSIONAL ADVISER:
- Bill N. Lacy, FAIA.

JURY MEMBERS:
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ADDITIONAL INFORMATION:
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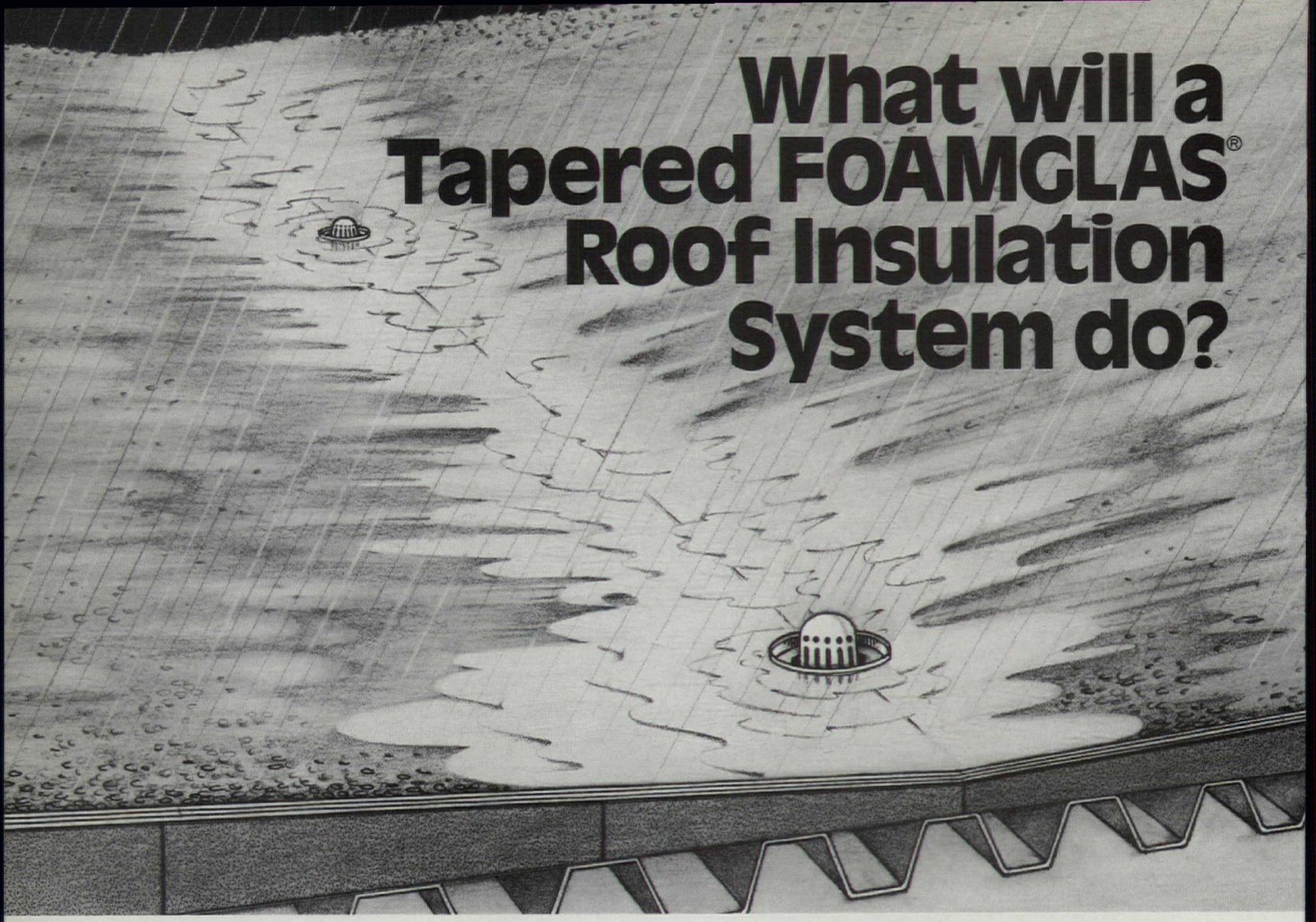
3603 Lemmon Avenue
Dallas, Texas 75219
Phone (214) 528-0070
- See related news item this issue.



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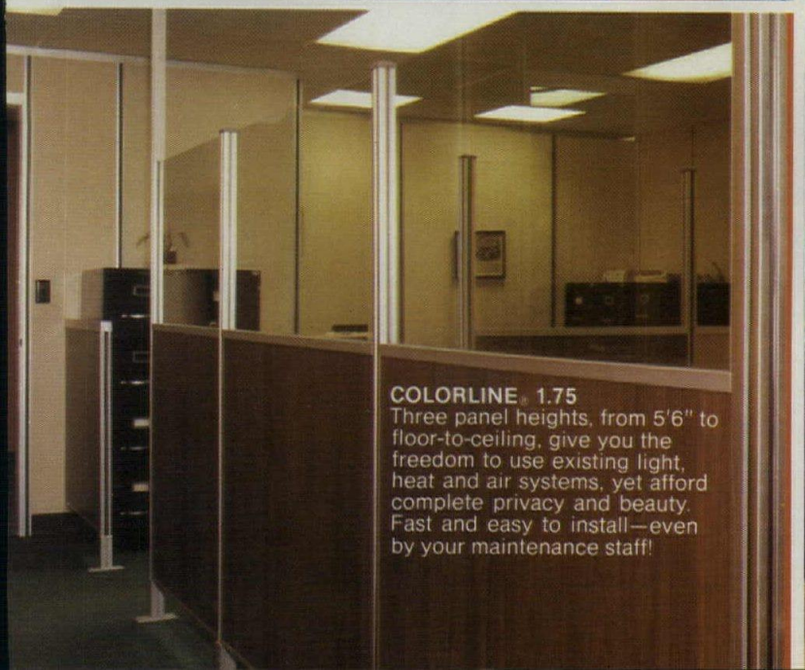

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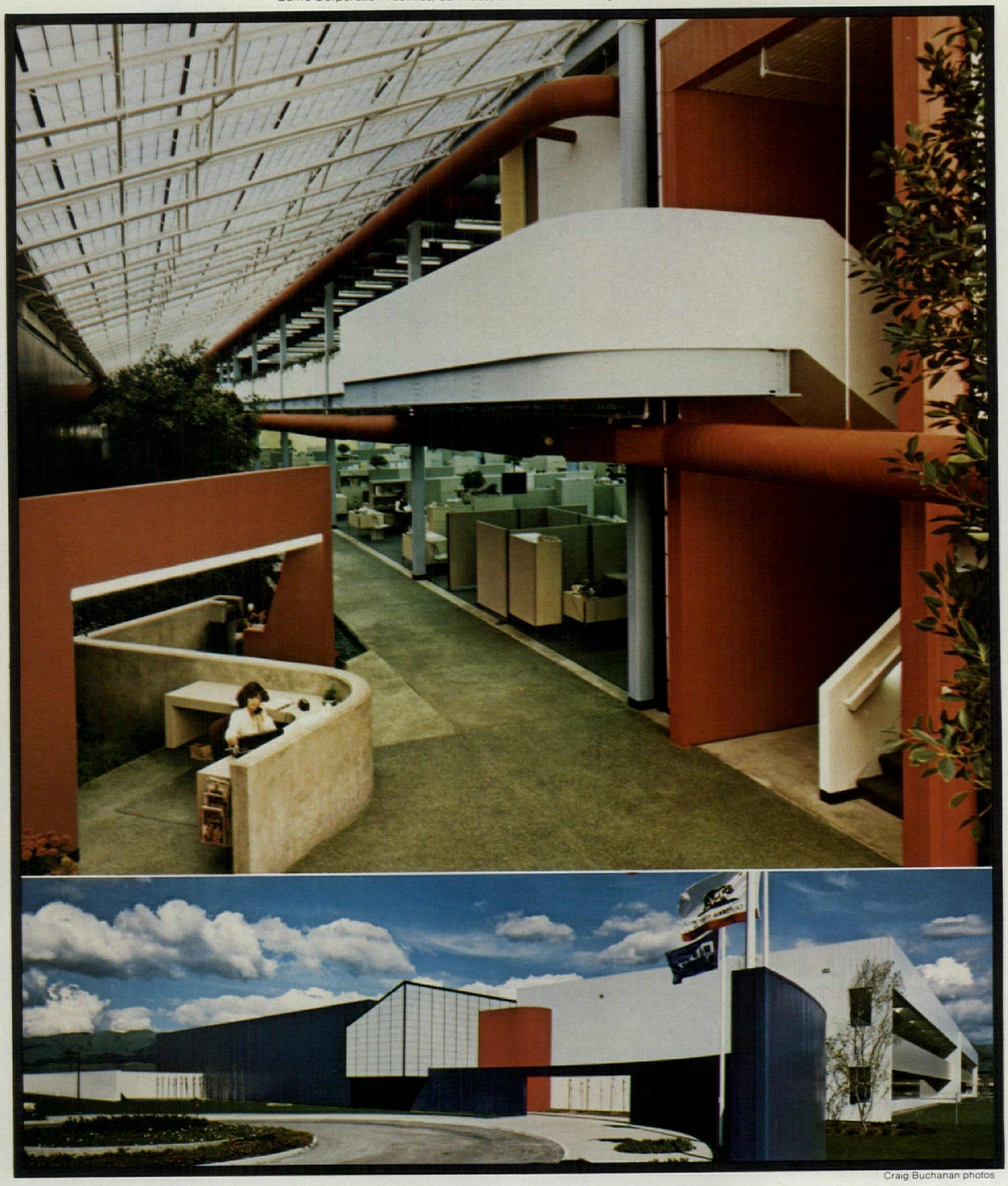

Craig Buchanan photos

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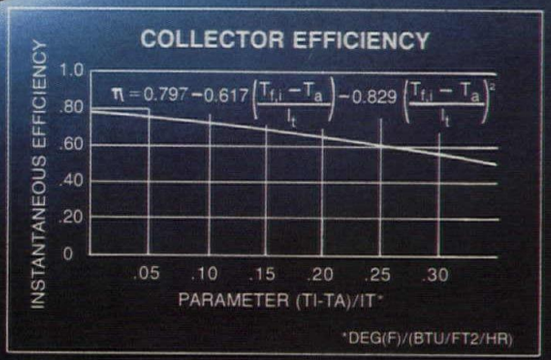

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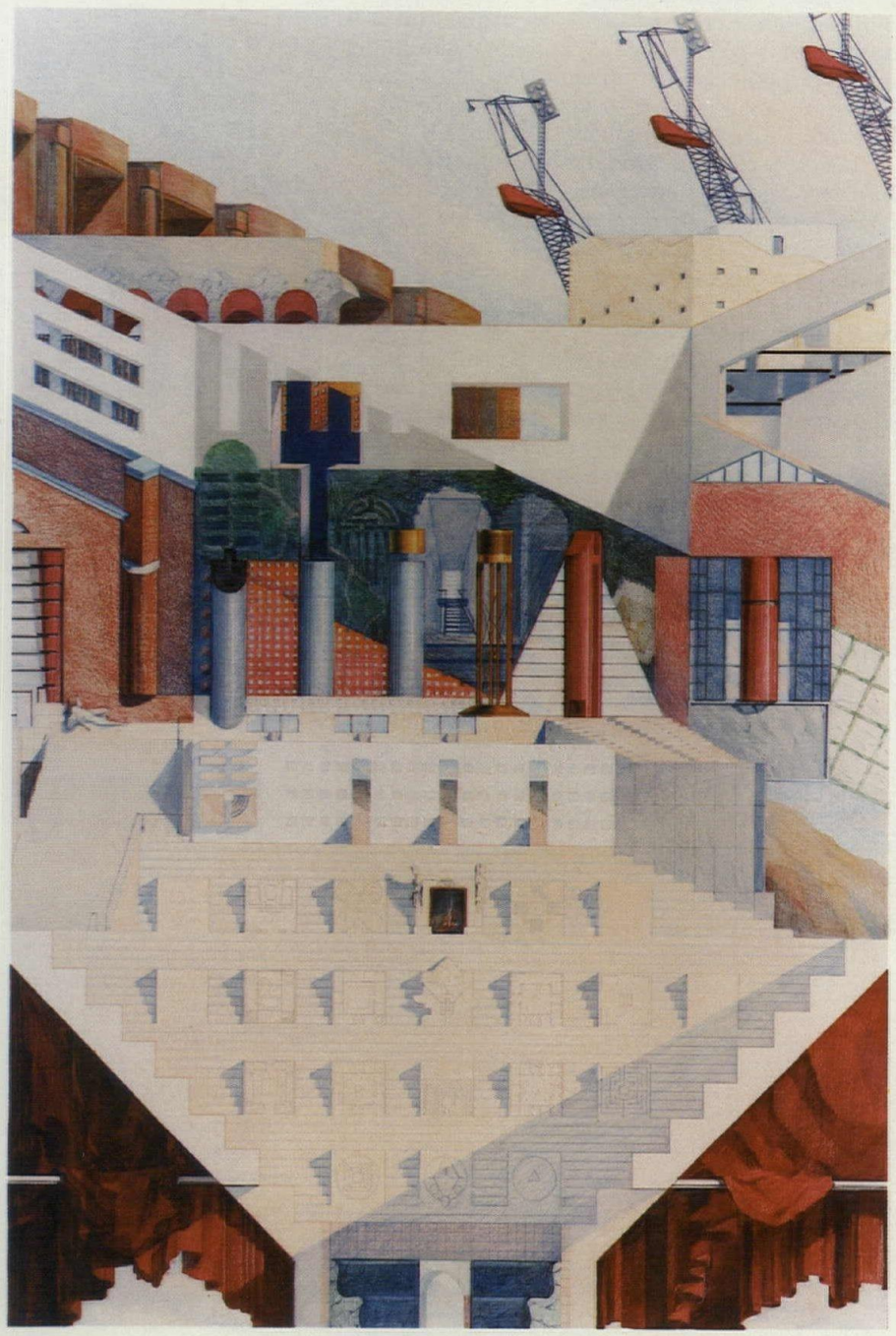
Symbolic statements

Issues of type, space, and urbanism need to be dealt with in the evolving expression of symbolic form.

"A theory of production of Architecture" collage of projects by Rodolfo Machado and Jorge Silvetti from 1972 to 1979.



By the end of the 18th Century, the ability and power of architecture to convey ideas—to *speak* about a culture's aspirations and ideals—was recognized. French theorists and architects adroitly encapsulated architecture's communicative role with the phrase *"architecture parlante."* But the primacy of its linguistic potency was doomed: Victor Hugo warned in *Notre Dame de Paris,* "The book will kill the building. That is to say, printing will kill architecture."

As prophetic as Hugo may have been (Have the electronic media now killed the book as well as the building?) the building was given a symbolic role in subsequent periods of history. Germany and Italy in the 1930s provided eerily appropriate settings for its display. Modern architecture's limitations in conveying the awesome sense of presence and grandeur desired by these nations encouraged them, as Kenneth Frampton observes in *Modern Architecture, A Critical History* (Oxford University Press, 1980), to adopt a "historicist-modernist" form of design. Their architects consciously employed Classical principles of composition and plan to dramatically communicate the state's civic aspirations to a broad public.

When the Modern Movement gained ascendance in the U.S. and Europe in the post-World War II period, it became inextricably identified with the burgeoning of a corporate form of capitalism. But when buildings required specific symbolic treatment—as with civic and cultural centers—Modernist architecture was still too two-dimensional, abstract, and small-scaled to bear symbolic loading. (For further discussion see "What Becomes a Monument Most," P/A, May 1979, p. 87.) Architecture in the late 1950s and 1960s began to flirt again with Classical motifs, as seen in New York's Lincoln Center. But the more prevalent response was ultimately to beef up the Modern Movement's lightweight forms by amplifying the size of architectural elements through the density of the structure—aided by the plasticity of cast-in-place concrete—and through a formal imagery borrowed from minimal sculpture. Such forms continue to proliferate, but they too often "speak" of little but size.

By amplifying the size of simple parts the architects have misapplied notions of scale—both large and small—with the resulting loss of human measure. By blowing up geometric forms or structural members to overwhelming dimensions, they ignore the importance of the elevations, or as Christian Norberg-Schulze would say, any "articulate surface."

Introduction

And by their attention to simplified abstracted sculptured forms, they disavow the connection to cultural and physical contexts.

The projects featured on the following pages in such far-flung spots as Bombay (The theater for the National Center for Performing Arts, p. 76), Vancouver (Law Courts and Robson Square Complex, p. 82), and Canberra (the winning scheme for the Parliament House competition, p. 88) share certain features, besides the fact that they spring up in areas with a strong residue of symbolic architecture developed under the auspices of the British Empire. These specific projects all attempt to come to terms with Modernism's continuing shortcomings in creating symbolic statements. At the same time, the architecture adheres for the most part to a Modernist vocabulary. The efforts vary in the tenacity with which that vocabulary is retained.

In the case of Vancouver, for instance, design features that are now being classified as "Late Modern"—abstracted vast planes of glass, structures that are sculpturally molded, and elements repeated serially for dramatic effect—are harnessed to make the buildings yield their symbolic potential. In Bombay, geometrically sculptural shapes—legibly expressing different functions with clean lines—do the same thing on a more modest level. The dematerialized and linear forms of Canberra indicate yet a third approach that still operates according to the basic Modernist mode. All three projects, interestingly enough, attempt to correct a specific criticism of some recent Modernist blockbusters: their visibility—Vancouver by its submergence under its own artifically made natural landscape; Bombay by its low-slung lines, echoing the horizon of the bay behind it; and Canberra by its bermed ancillary spaces.

While still a project and therefore not subject to scrutiny at the same intensity as Vancouver and Bombay, Canberra is clearly involved in more adventurous explorations about symbolic statements. Its axial, Beaux-Arts-related plan takes into account the particulars of its cultural as well as physical context and addresses more directly the need for an association with traditionally known forms. Its non-traditional features—dependence on the linear silhouette of the flagpole for its "symbolic" reading and the diffusion of office masses away from a void at the center—could prove too insubstantially scenographic. As a "type" it will offer interesting material for analysis of such question upon its realization.

From building type to typology

The concept of *types* discussed with increasing frequency these days (see P/A, Oct. 1980, p. 49, and Feb. 1981, p. 65) relates closely to issues of symbolic performance. As a particular design solution is repeated, even when the program changes, the solution evolves certain features like a biological phenomenon, features peculiar to its genre. This formal structure, as architect Raphael Moneo puts it, derives from a "logic of form connected through reason and use." "Type" characterizes a group of objects regardless of their "style." Furthermore, type is not static; it can allow transformation and change. However, it does operate within a framework. And within this framework the architect can act as the agent of the transformation, for example by overlapping different types to create new ones as the need arises.

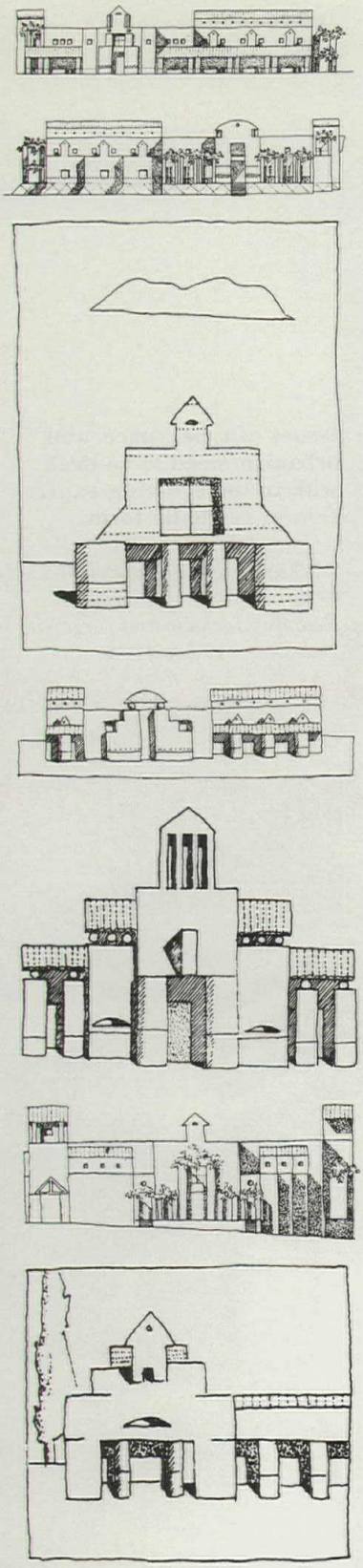
Because "type" naturally employs features laden with traditionally accrued meanings that connect it with its past, it is innately linked to the process of communication. Through this ability to communicate, the concept of type should interest those creating an architecture with symbolic content. This approach doesn't preclude Modernist design principles, but does imply continuing and building upon formal structures that have developed over the years. When a new building type emerges—a downtown shopping center, for example—it would retain traces of its evolutionary inheritance.

It is clear that the Modern Movement's debunking of history and its dispensing with accrued layers of meaning for "a new, technically derived language" ignored issues of "type" in its forms.

Spatial interaction

The Modernist adherence to universal or fluid space had a strong appeal. However the ebbing of space past the grid of columns and beams, past asymmetrically placed partitions, and out the glass walls robbed it of a certain energy and power found in traditional architecture. From the 1950s through the 1970s, Modern architects dealt with the problem of symbolic space very simply: they just amplified it. Because the large "space-frame museums have lost their walls," Michael Graves argues, "the reciprocity between the spatial enclosure and the space itself is lost, along with any relationship to the occupant."

The current attention to space and to type relates to another issue many architects have been concerned with—designing for the existing context at the urban scale. As shown by their La Villette entry (opposite, bottom), Agrest, Gandelsonas, Silvetti, and Latour emphasize a "structural reading" of sur-



Studies for museum at Moorhead, Fargo-Moorhead cultural center, 1976–1980, Michael Graves (above); project for the renewal of La Villette area in Paris, 1976, by Diana Agrest, Mario Gandelsonas, Jorge Silvetti, and Alessandra Latour (opposite, bottom); Roma Interrotta exhibit, 1976, Leon Krier (middle); model, Civic Center project of Tsukuba Academic New Town, 1980, Arata Isozaki (top).

rounding forms and spaces—an analysis of urban pattern—before inserting a new project on a site.

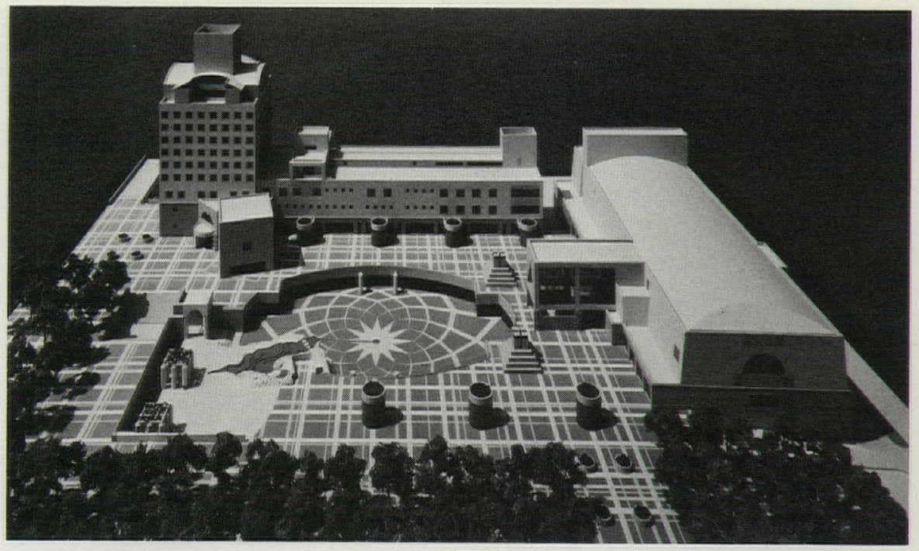
This confronting of issues of type, space, and urbanism shows up, as well, in the other projects illustrated here. In the museum Michael Graves is designing for the Fargo-Moorhead cultural center (P/A, Jan. 1979, p. 76) he investigates formal structures of museums and proposes that his design can interact with local circumstance, in this case a rather pastoral context.

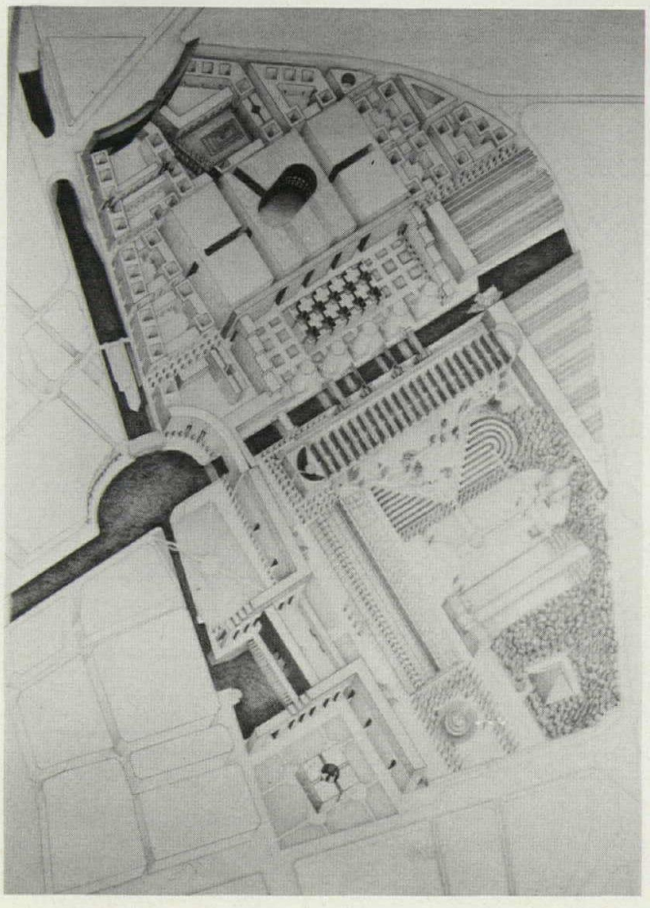
Leon Krier's submission for the Roma Interrotta Exhibit in 1978 (right) illustrates in a more direct and ironic way the transformation of type in an urban context. In this allusion to a Michelangelo drawing, the Neo-Rational architecture of Krier, stripped to its essentials, has replaced the urban ensemble of Michelangelo at the Campidoglio.

A new project (right, top), planned by Arata Isozaki for the civic center of the Tsukuba Academic New Town, shows another exploration of type, space, and urbanism. The rusticated base, the massive walls, the particulate composition, the columns, pediments, and pergolas, however, would raise questions about the cultural context, specifically whether this kind of project is more appropriate for Japan or for Rome.

Obviously the schemes and projects illustrated here are not presented as if they are the chosen approaches for generating forthcoming symbolic responses. But they are exploring certain germane ideas. Their investigations do not necessarily call for ditching Modernist principles. Their explanations often attempt to keep the baby of Modernism while just throwing out the bath water. Their schemes, focusing as they do on the analysis of conceptual attitudes, promise to contribute to the creation of an enduring kind of architecture that their "late" Modernist contemporaries, resorting to making bigger, shinier, and/or more solid buildings, could not achieve.

By the same token, rectifying Modernist defects by gluing a pediment onto a reflective glass curtain wall won't do the trick either. As Anthony Vidler has evocatively expressed it, "Nostalgia for lost meaning, for the word in stone, for a once powerful symbol, now deracinated, shattered by history, progress, and industrialization, has marked many of the more tragic visions of the state of architecture in modern times." But without a conceptual approach, the interest or concern with history can dissolve into "historicizing"—whether that means replication or kitsch adaptation. This conceptual approach deals with type, which comprises both traditional and Modern vocabularies, with space, and with context. This unified theoretical investigation could make it possible for buildings to speak once again. [Suzanne Stephens]





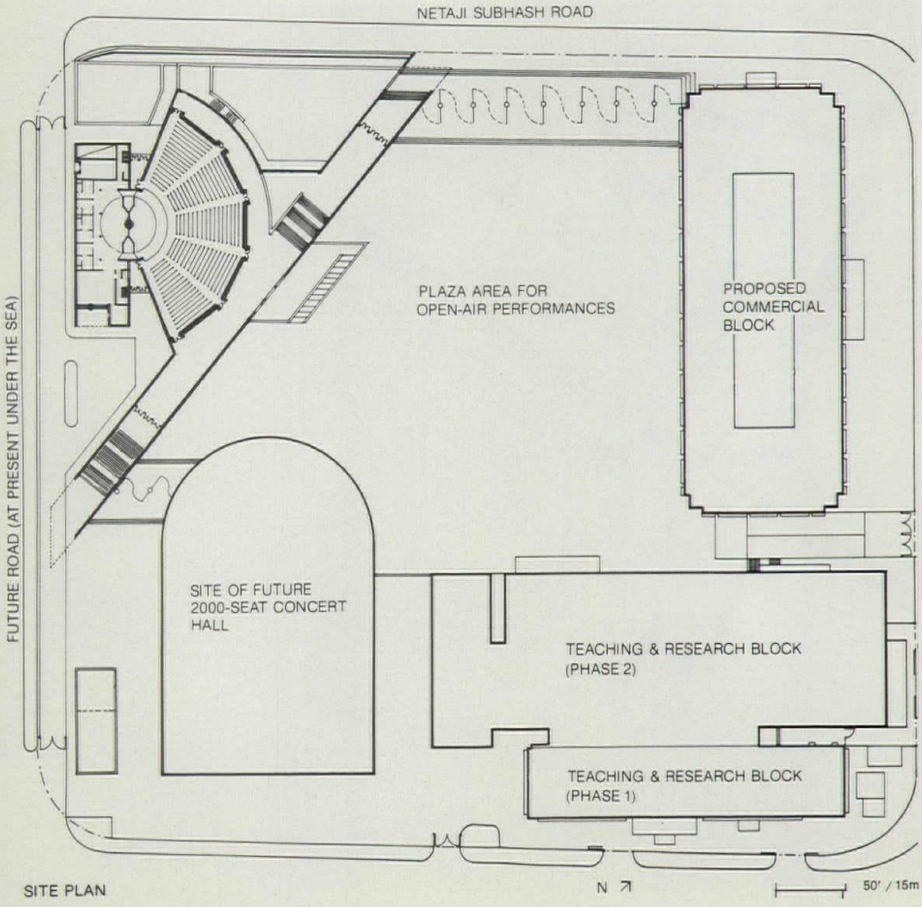
Theater, National Center for the Performing Arts, Bombay, India

Bombay

A theater for the performing arts in Bombay, India, designed by Johnson/Burgee Architects, raises interesting questions about the roles theaters play as symbolic statements.

The Theater of the National Center for Performing Arts in Bombay is clearly more successful in its acoustical achievements than its formal ones. As a technical object for hearing and viewing Indian dance, music, and drama, its successes are spectacular. As a symbolic artifact representing certain architectural attitudes, its failures are *not* as spectacular as they are conventional. Because of the unique genesis of the center, its programmatic basis, its geographical, social, and cultural context, the project embodies a diverse range of needs, expectations, and desires. An analysis of the efforts of the clients and their design team to realize these aims provides some interesting insights about the results.

Like other cultural manifestations, the Bombay theater reflects in a concrete form the conflicts arising within Indian society—conflicts that revolve around issues of "Indianness" and "Modernity." These two issues relate quite directly to broader themes of tradition and identity that pervade India's social and political spheres. India's status as a Third World nation, where poverty has become, some say, "deified," contrasts with scientific advances placing India among the nuclear powers. Wealth, accumulated privately through forms of industrial capitalism, while comprehensive efforts at a socialist planning are undertaken, indicate the complexity of the country's struggle with its identity. This identity is inextricably tied up with India's past, including its astounding artistic heritage.



SITE PLAN

Planning an Indian center

Because music and dance pass orally from master to pupil, from generation to generation, and rely much on improvisation, they have not been systematically recorded. The music, melodic in character, depends on a clarity of notes emitted from delicate instruments. Performed traditionally before small audiences in halls, courtyards, temples, and palaces, the art forms have developed a rather intimate reciprocal quality: performers interact with each other and with the audience through subtle facial and body gestures; the audience responds to the performers through head movements.

The executive director for the Center, Narayana Menon, a leading musicologist, wanted a concert hall where this kind of music and dance could be heard and recorded in its authentic state, with architecture "integral to the Indian landscape and its forms of living."

The concept of a cultural center had already attracted J.R.D. Tata, the head of Tata Sons Limited, one of the top businesses in India. The Tatas' Western ties are generally the explanation given by observers for the clients' seeking Western architects to design a building commemorating an important part of Indian culture.

There was talk initially about making the theater a Western-type multipurpose hall with 3000 seats. Jamshed Bhabha, vice-chairman and trustee in charge of the NCPA, admired the acoustics of Edward Durell Stone's Kennedy Center. It did not have electronic amplification. The acoustical consultant, Cyril Harris, was immediately approached for Bombay. He made clear that the multipurpose concept had to go; it was incompatible with decent natural sound projection. Architecturally, Bhabha was attracted to three buildings he visited—Kennedy Center, the Chandler Pavilion in Los Angeles by Welton Becket, and the New York State Theater by Philip Johnson—to the extent that

The façade of the 330-ft-long foyer faces the plaza of the cultural center site (top). The auditorium's thrust stage was designed as a three-dimensional entity where a domed ceiling, column, and flanking walls revolve (middle). The auditorium, lauded for its superb sound projection without electronic amplification, was the result of the collaboration between acoustical consultant Cyril Harris and architects Philip Johnson and John Burgee. (For more acoustical information see caption, next page.)

he wanted to replicate one of the buildings in Bombay. Eventually, however, he hired Philip Johnson and John Burgee to come up with a design specific to the program and the site. Johnson/Burgee also drew up a master plan for the center to relate the theater to a teaching and research block already on the site, plus a Western-type concert hall planned for a future time.

The context

"What is true of Indian painting is also true of Indian architecture. There again a tradition has been broken; too much has intervened; and modernity, or what is considered to be modernity has now to be swallowed whole. . . . The past is the past; architecture in India is a modern course of study, and as such, another imported skill, part of someone else's tradition. In architecture as in art, without the security of a living tradition, India is disadvantaged. Modernity—or Indianness—is so often only a matter of a façade; within, and increasingly, even in remote places now, it is a nightmare of misapplied technology or misunderstood modern design."

V.S. Naipaul, *India: A Wounded Civilization,* Alfred A. Knopf, 1977.

Bombay has many different features, but three types of architectural landscape remain fixed in memory. The most unexpected is the wealth of Victorian Gothic architecture built by the English in the last part of the 19th Century, a reminder of former British hegemony.

The second kind of landscape is that composed of the modern air-conditioned high-rise hotels, apartments, and office towers. Clustered at the southern tip of the Bombay peninsula, close to the land reclamation site on which the Center sits, the grouping makes a striking testimony to the prevalence of the Western-type "multinational" corporate style.

The tropical-vernacular buildings of Bombay of stucco and stone, louvered and latticed, recede behind Bombay's third most striking architectural form—the shanty dwellings along the streets. Approximately 1500 people arrive in Bombay each day, looking for work. They set up house where they can, often along the roads connecting the 19th-Century Victorian Gothic enclave with the 20th-Century skyscrapers.

Given this physical and cultural context, the architect who wants to make a symbolically appropriate response to time and place has a problem with the "context." Johnson/Burgee opted for a Western nonmonumental building.

Architectural limitations

Using simplified geometric forms, Johnson and Burgee came up with an essentially diagrammatic solution. The discrete shapes express circulation—in the 330-ft-long entrance foyer with cantilevered roofs for canopies; and in the seating—in the auditorium. Because of the acoustical and visual demands for the center, Johnson/Burgee, with Cyril Harris, worked out a configuration in the auditorium where the 1040 steeply raked seats are arranged in a semicircle. No seat is more than 58 ft from the circular stage.

The site, 2.5 acres of land that has been reclaimed for the 8-acre cultural complex, is edged by water. Johnson and Burgee placed the auditorium on the water side, with the long linear spine oriented inward to a large open plaza (currently used for parking). Because of this parti, the theater does not acknowledge its water views, except for a framed vista through a courtyard on one end of the building. The Malad stone masses with concrete fascia have not been designed to respond to the geographical place, as do the screen walls of Louis Kahn in Ahmedabad, or the *brises-soleil* and open terraces of Corbusier at Ahmedabad and Chandigarh. In fact the concrete fascia has not weathered well on the water side.

Most noticeable is that, like many Modern buildings, the form proceeds too directly from the plan. The elevations are ignored. These exterior walls, particularly the ones at the rear, only fill in the space between floor and roof. The architectural experience has been restricted to entering and exiting from the foyer and sitting in the auditorium. But even theaters should be treated as buildings seen in the day from all sides.

Johnson and Burgee's Modernist orientation reveals the influence of minimal sculpture found in many of their buildings in the early and mid-1970s. Other small-scale buildings designed in the mid-1970s, such as the Century Center in South Bend, In, the Fine Arts Center at Muhlenberg College, or the General American Life Insurance building in St. Louis, show the same pulling apart of pieces, separating function from an emphasized "street" circulation and then a collaging of the pieces back in place. Yet in spite of the play of forms and the balance of tensions, another problem of Modern architecture asserts itself: at a certain size, the abstract shapes become overblown. With architectural materials and functioning spaces, the power of minimal sculpture is depleted and we are left with only the schematic quality of angular lines and blank planes.

From inside, the block of back-stage services, dressing rooms, and rehearsal rooms added at the rear of the building does not muddy up the clarity of the architectural concept, the way it does when you walk around the exterior of the building to the water's edge. The expansive elevator foyer inserted after the fact by resident architects Patell and Batliwala (at the client's request) does, of course, impinge on one's consciousness. In neither case do these extras become integrated into the formal scheme. A minimal sculpture doesn't accept well all specific uses.

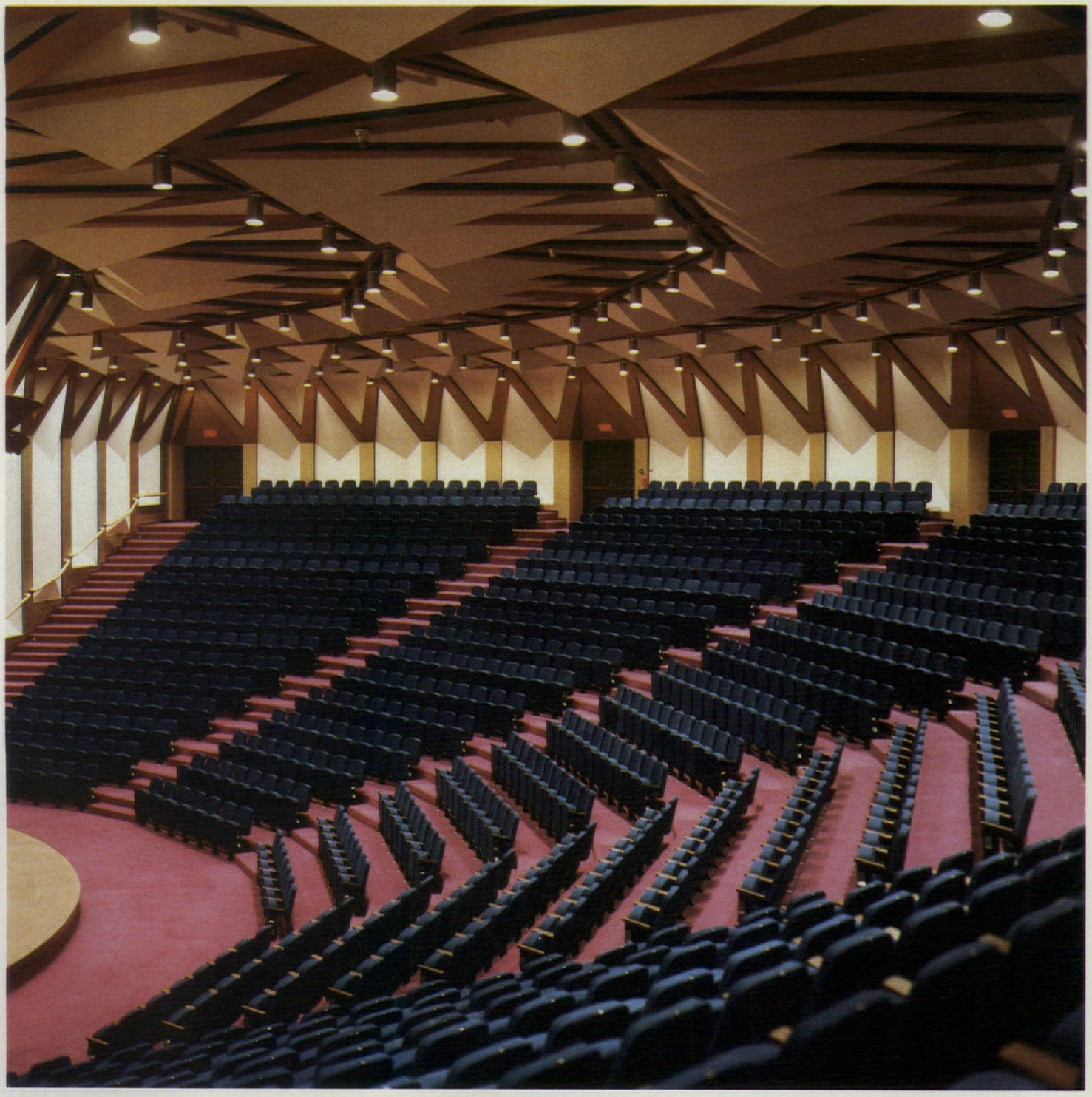
Inside treatment

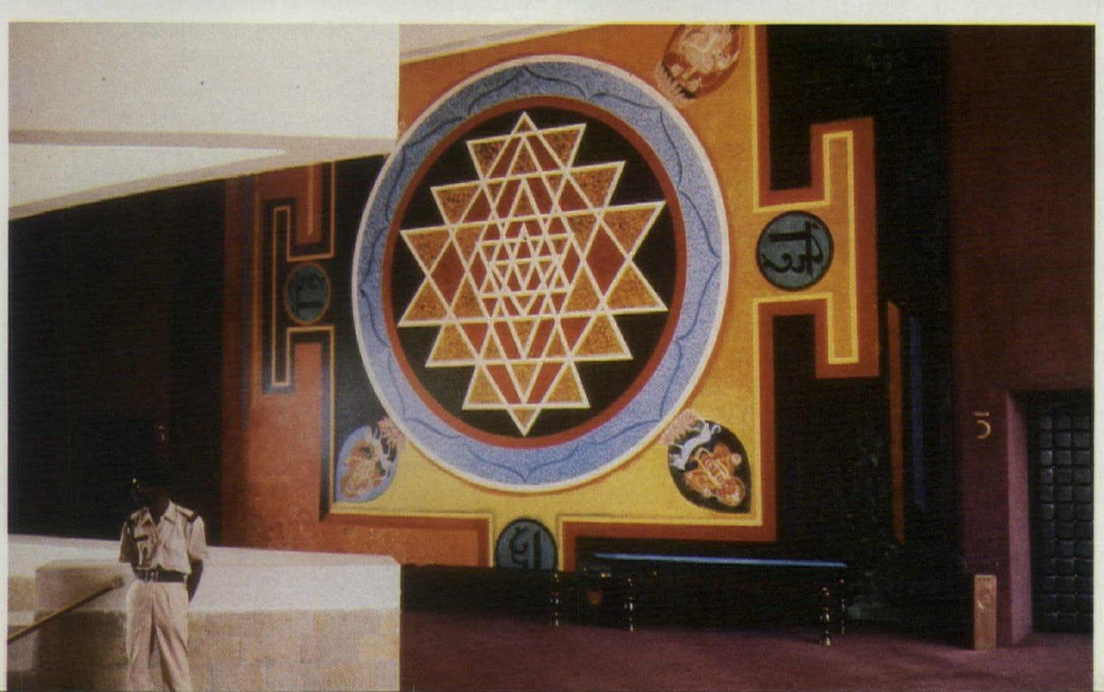
It must be said that the foyer, with its 330-ft length, its large stair at one end, and its 31-ft 9 in.-high ceiling, is dramatic in contrast to the unassuming exterior. But it remains strangely dead—essentially a long, high

In designing a hall where the traditional music, dance, and performing arts would be housed with no electronic amplification needed, certain considerations about the nature of the Indian music and dance had to guide the design. Indian music depends on clarity of notes and phrases. Therefore, a shorter reverberation time is needed than with Western classical music. To effect this aim, acoustical consultant Cyril Harris recommended an almost semicircular auditorium plan for the 1040 people. Since each person represents about 4½ sq ft of absorptive surfaces, seats were raked on a steep incline to help sound diffusion. Harris also required the surrounding walls and ceiling to be hard and reflective, but varied in shape to bounce and scatter the sound spectrum evenly throughout the hall. The auditorium walls and ceiling comprise tetrahedral forms of high-density plaster. The triangular ceiling strappings and the faceted infill forms were cast in place, and made rigid with fabric because of the scarcity of metal lath.

A thrust stage instead of a proscenium arch was a logical choice for Harris, for acoustical reasons as well as the better sightlines afforded the seating. The clients, however, were quite convinced that the stage should revolve. Because of the need to keep background sound out, Harris insisted that there be as little air space as possible between the moving and stationary parts. Thus a three-dimensional thrust stage was designed. The two side walls that angle away from the column like plates of a hinge are backed up with acoustical "closets," which come into view as the stage turns. The construction, however, has no gasketing, for the slip-fit type Harris desired was too expensive to obtain. The stage itself is wood with an air space separating it from a 6-in. concrete slab.

Since air conditioning was desirable in the hot, muggy climate, air-conditioning ducts had to be made much larger than normal. The hall was acoustically isolated by giving pipes and conduits specially detached connections and making the mechanical room structurally separate from the hall. Ancillary spaces were also structurally isolated from the auditorium, as the expansion joints in the foyer indicate.





Tetrahedral relief of auditorium ceiling (above) looks less prominent viewed from seating tiers. Lobby paintings (below) were originally to be tapestries.

corridor—partly because the hall grazes the auditorium, but has no architectonic relation to it.

Decorative elements in the foyer were intended to enliven and activate the space, but they miss—the Tantric murals being an obvious case in point. The Hong Kong- and London-based designers Dale and Pat Keller had been enlisted by Johnson/Burgee to do the interior because of their work on the renovated Taj Hotel in Bombay. The Kellers intended that the murals would be handwoven. Because of the expense, they are painted plaster. Now the colors and patterns are too bold and harsh for the foyer, except when the central mural is viewed through the large glass window wall from afar. In the case of the Tantric murals, Naipaul's observation about India swallowing the West whole operates in reverse.

The brass lamps the Kellers selected are too small and delicate to animate the linear stretch of hall space. They had designed chandeliers for the foyer, which were intended to bring the whole thing together. The present chandeliers, formerly in an old mansion and probably stunning there, were then given to the center, where they hang oddly from the smooth plastered ceiling alongside the cylindrical downlights. The juxtaposition between Modernity and Indianness doesn't come off.

The design of the auditorium is more straightforward than it appears in photographs. Here, acoustically determined tetrahedral forms of gradually expanding concentric rings of the ceiling emanate from the stage.

Although the floor, ceiling, and walls of the thrust stage were designed as a three-dimensional entity for acoustical reasons, it must be said that the design of the stage gives the room a strong focus. The column and its hemispherical convex dome, painted gold against the teak walls and stage, resemble a tree from which the gold-painted ceiling strapping grows, like branches. The angular strapping does become too assertive, however, with the overall repeated pattern on a white background—in spite of the edges painted red, purple, green, and blue.

Bombay was the first theater Johnson and Burgee executed with Harris, and the Philharmonic Hall renovation at Lincoln Center in 1976 resulted from their smooth collaboration here. The Terrace Theater at Kennedy Center came next in 1978, and now the trio is working on the renovation of the New York State Theater at Lincoln Center, which Johnson had originally designed in 1963 with another acoustical consultant. With each successive project acoustical and formal considerations are balancing each other more and more successfully.

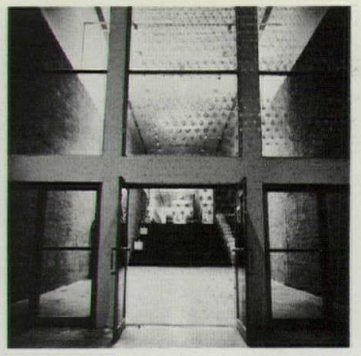
Is that all there is?

But this integration between acoustical requirements and formal response is still only one part of the larger question concerning the theater or any such building intended to play an important role. The National Center for Performing Arts, after all, is the first of its kind in India. The theater was important enough for Indira Gandhi to inaugurate and for Prince Charles to attend on a recent visit. So we come back to the question of the architectural form that would be most significant and appropriate.

The theater as a building type historically has shared certain evolved features regarding plan, configuration, and choice of stylistic elements that make it identifiable as a theater—some elements more so than others. The theater in Bombay obviously looks toward one of the earliest forms—the open-air theater at Epidaurus, for example—to solve its acoustic needs. When theaters began to emerge as separate enclosed buildings in the 18th Century, a number of architects explored ways of expressing the semicircular auditorium on the exterior by bowed façades, sometimes wrapped with curved porticos. Boullée, Durand, Gilly, and Milizia all projected designs developing this "type," as Pevsner has shown. Schinkel said at the time, "the character of a building should perfectly express itself in its exterior and the theater could only be regarded as a theater." Gottfried Semper, with his first and second opera houses at Dresden (1838 and 1869) followed this directive and brought earlier visions into full realization.

Johnson and Burgee had the basic right instincts for making the theater at Bombay read as a *type*—by making the hall legibly separate from circulation and services. But it wasn't developed. A strong vision helps: because of the technical requirements, Cyril Harris had a clear idea about what was needed acoustically; Menon knew what was needed programmatically; Tata and Bhabha knew what they wanted in terms of construction and budget. (The building is well built with good solid materials and the architects were paid through a Ford grant.) The architecture vision or image, the most evanescent and intangible of all considerations, appears less formed.

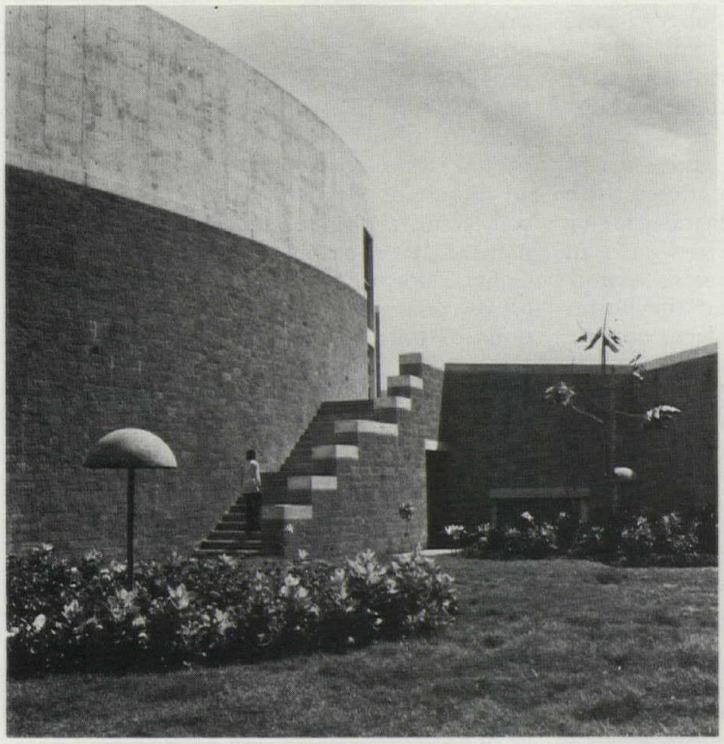
The solution was not easy to envision: the strict adherence to Indian vernacular architecture would run the risk of appearing too low-key or provincial for the international stature to which the center aspires. (Its board of advisors includes Yehudi Menuhin, Jean-Louis Barrault, Karl Bohm, Igor Moisseyev, and Zubin Mehta among others.) The Indian monumental style of, say, the Moghul period, which provided Edwin Lutyens inspiration in New Delhi, might appear too nostalgic for some or too blatantly associated with a certain part of India's history for others. Western-style monuments of the past run similar risks without even pertaining to the right country. Western Modern monuments would appear just ostentatious. So a Western Modern non-monumental building was what they got. As architecture, it is an amalgam of Indianness and Modernity, but as symbol it is an anomaly. [Suzanne Stephens]



Entrance under concrete canopy to foyer (top), on north side of building leads to main stair (opposite, left top), where courtyard and bay are seen (opposite, middle).

Data

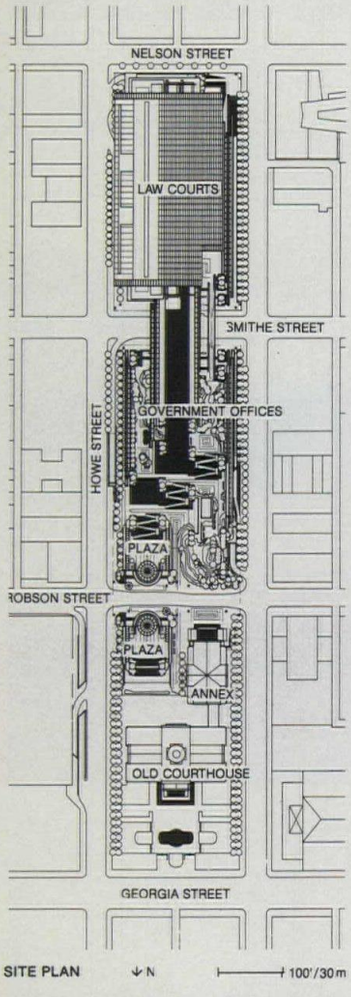
Project: *Tata Theater (Phase I) of National Center for Performing Arts, Nariman Point, Bombay, India.*
Architects: *Johnson/Burgee Architects, New York; Patell & Batliwala Associate Architects, Bombay; Rustom Patell, partner in charge; Raj Ahuja, associate in charge; Sandy Gavandalkar, job captain.*
Client: *Jamshed Bhabha, vice-chairman and trustee in charge, NCPA.*
Site: *approximately 2.5 acres of 8-acre site, much of which is reclaimed land along bay.*
Program: *1040 seats in theater where Indian dance music and plays could be performed without electronic amplification and with good sightlines. Theater is Stage I of master plan, which calls for 2000-seat concert hall, 200-seat experimental theater, school/library/museum and student residence, and a 500,000-sq-ft office tower. Already on site was teaching and research block.*
Structural system: *concrete frame, masonry walls, stone face.*
Major materials: *concrete, "Malad" stone (local) facing on brick masonry walls, exposed board finished concrete, "Kota" stone floors, carpeting, aluminum frames, plaster.*
Mechanical system: *electrical.*
Consultants: *Dale Keller & Associates, Hong Kong, interiors; Tata Consulting Engineers, Bombay, structural; Tata Consulting Engineers and Syska & Hennessey, N.Y., mechanical.*
Acoustical consultant: *Cyril Harris, New York.*
General contractor: *E.C.C. Corporation, Bombay.*
Costs: *approx. $2.5 million.*
Photographs: *H.L. Desai, except as noted.*



Law Courts/Robson Square, Vancouver

Vancouver

With the Government Center in Vancouver, Arthur Erickson Architects has created a much acclaimed civic center which nevertheless raises questions about its meaning as a symbolic prototype.



View along west side of complex shows building bridging over Smithe Street (opposite, top); view of elevations from Nelson and Howe Streets (opposite, bottom).

For all the public acclaim and the photogenic seductiveness of its parts and pieces, the Government Center in Vancouver serves up a strangely unsettling array of architectural effects. Praised in *Time, New York Times* and *The New Yorker,* the complex is soft-porn architecture: so many elements are teasers, exciting the senses, without really delivering.

The question now is what *should* architecture deliver? There are several different levels on which an architectural work such as this one can be judged: in terms of its formal language, and how that language is organized; the way the formal structure responds to the program, symbolically as well as functionally; and finally, the building's relationship to a specific context and its urban design implications for the city.

Considering the kind of civic architecture that has been completed in the last decade or so, the architects have bent over backwards in this work to deviate from a norm. Arthur Erickson and his team eschewed the heroically large-scale sculpture-in-place on the order of Dallas City Hall (P/A, May 1979, pp. 102–105). And they avoided the moribund classicizing of Albany Mall (P/A, May 1979, pp. 106–109). They chose not to follow an earlier proposal, for example, that called for a 55-story tower to occupy the site, thereby crowding the downtown core. Instead they created a highly visible "low-profile" building.

Megastructure in search of a hill

On the three-block 475′ x 260′ site owned by the province of British Columbia, Erickson designed a complex with three distinct sections: the 350,000-sq-ft seven-story Law Courts Building, the 350,000-sq-ft Robson Square government office building with outdoor plazas, and the turn-of-the-century Neo-Classical courthouse and annex now being renovated for the 45,000-sq-ft Vancouver Art Gallery. This mixture of uses, including a "media" center, winter ice-skating rink, and café operations, has been agglomerated in what amounts to a "megastructure." As a trade-off for the low profile, considerable space is tucked away in underground levels with only token lightwells compensating for lack of windows.

Although much of the space is hidden under pools, plants (over 50,000 of them), and waterfalls, the elements connect to each other as if they had been formed from one concrete pour. The chiseled and draped monolith is designed to project a formidable image. The formal language Erickson has embraced for the complex borrows from the terrace-housing section of the grand megastructures so often envisioned in the 1960s—Paul Rudolph's study for the Lower Manhattan Expressway of 1970 and John Andrew's Scarborough College in Ontario being two memorable examples.

Looking as if it is sliced from a larger and longer linear model, this particular adaptation of the stepped terrace scheme has the problem of needing a hill to lean against. In other buildings where Erickson makes use of repetitive units or stepped sections, such as the Museum of Anthropology in Vancouver or the core of Simon Fraser University (designed with Geoffrey Massey), he could take advantage of the sloping terrain to integrate somewhat the manmade artifact with the natural. With the downtown site for the Law Courts, however, Erickson had to fabricate his own natural setting. The two back elevations of the Law Courts along Nelson and Howe Streets demonstrate the problems of creating your own hill. Here the slabs of concrete are stacked and notched perfunctorily and more often aggressively to reach a top-heavy seven stories at the back side of the glazed roof. As defiantly monumental as any other hulking large-scale concrete building, it gives little indication to the passersby on these streets that verdure can be found above. Even though the complex opens to the sidewalk toward the center of the site, from these very visible access points, near the entrance, in fact, the courthouse adamantly turns its back to the city.

For all the planting creeping over low garden walls on the other side, and for all the picturesque paths winding through upper terraces, the amount of concrete employed and still seen in the complex asserts the dominance of the manmade world.

Cabin in the sky

The Law Courts interior does strike awe with its sheer size; the 315-ft-long concourse soars to an 86-ft height. Here vistas of the old courthouse may be glimpsed, framed by the receding series of concrete angles. In this muscular homage to structural expressionism, the 35-ft-high columns and 30-ft-

Photos: Wayne Thom

long beams form "knees" to support the space frame, which carries 53,000 sq ft of the roof's reflective glass skin.

The concourse space is playing for big effects. The stairs on the east side of the lobby grandly transport the visitor up to smaller tiers of semipublic galleries leading to the courtrooms. But because of the directionality of the inclined roof and the gradually ascending stairs, this kind of space creates expectations about the arrival at the top: there one will gaze at the view all around, or at least see the other side of this artificial hill. But here the space dribbles away; the view to the other side is blocked by the mechanical room. The exhilarating visceral appeal of the space felt below has been lost.

The common gathering area in the atrium-like concourse, seen as a dramatic way of familiarizing the public with the workings of justice, does indeed offer a striking improvement over the Modernist architecture of courthouses that has appeared over the last 30 years. The parti of the Law Courts clearly responds to logical programmatic concerns: it apportions the public spaces to the glass-enclosed western half, the private areas for judges' chambers and jury rooms to the more closed eastern part, with courtrooms arranged in the center of each level.

Thus the Erickson scheme does retain the spatial organization and hierarchy peculiar to the courthouse, while transforming the stylistic elements associated with it. The architects have done away with the traditional symbolic appurtenances, such as capitals and columns, porticos and rotundas, replacing them with abstracted reflective glass surfaces, airplane hangar spaces, and rows of concrete structural bents. Even the entrance is shoved off into one end of the linear spine rather than placed in more direct alignment with the axial parti, or given the expected prominence. For their part, the courtrooms and judges' chambers seem to be paragons of hushed, well-appointed spaces—rather like corporate offices.

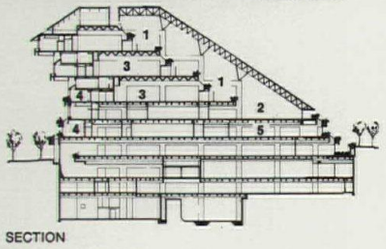
While the organization of spaces contributes to the refinement of this *type,* the "packaging" does not. Erickson explains that the concourse is "more amiable" than the older central halls or rotundas. But a lobby that looks like a hotel, or courtrooms that look like corporate offices do not necessarily tell that much about judicial values. As an architectural correction to a building type that lost its identity to the Modern architectural approach, the building relies on other associations to console the public or give it faith in the complex workings of the legal system. And while the building *appears* open and transparent, the actual system continues to operate behind closed doors and beyond securely controlled corridors.

By a waterfall

Erickson and his team handled the massing of the adjoining 127,000-sq-ft government office space in the middle block with more elegance. The simplicity inherent in the strong, low horizontal lines of the small-scale block nicely recalls Frank Lloyd Wright's prairie houses and Erickson's own work at his best. But to diminish the presence of the block, Erickson covered the central portion with a 280-ft-long pond that eventually steps down via three waterfalls to the center of the site. The government office employees look out or look up to the outdoors (from the lunchroom, for instance) through a curtain of water—a setting only Busby Berkeley can respond to.

Looking up through the rivulets of water brings nagging thoughts to mind about the atriums and waterfalls: enclosed atriums are truly marvelous places in cold sunny climates, for they provide a wintergarden atmosphere, but they are not as comforting in rainy or cloudy climates. If there is a lot of concrete around, the combination of gray daylight and gray concrete could become quite gloomy. On the other hand, waterfalls appear most appropriate in hot dry climates. In rainy climates they seem gratuitous. Vancouver has fairly mild winters with temperatures averaging about 41 F or 5.4 C. The city also has decent summers where temperatures rise to an average of 58 F or 14 C. But 161 days it either rains or snows in Vancouver.

Dick Busher



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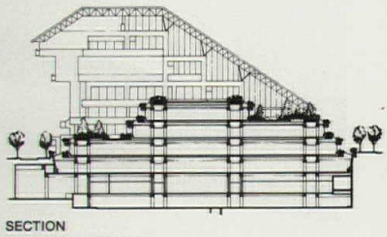

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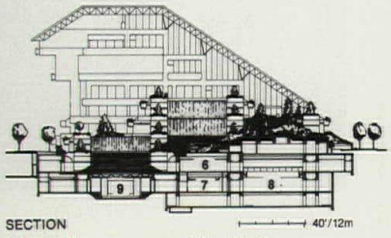


SECTION

40'/12m

Legend

1 Public gallery
2 Concourse
3 Criminal courtrooms
4 Judge's chamber
5 Law library
6 Food Fair
7 Meeting room
8 Exhibition
9 Theater

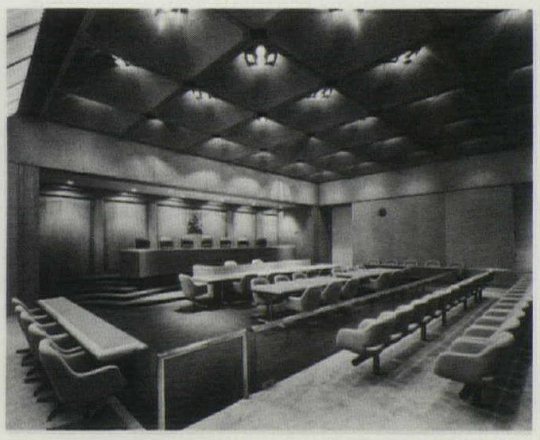
I'll take a Strampway to paradise

One observer wrote that the Law Courts complex is without "gimmicks." In architectural parlance, "gimmick" would refer to features plucked from one context and applied in another without a strong reason for their existence. A terraced section without a hill could be called a gimmick. An atrium with stairs and terraces ascending to a peak that isn't there could be considered a gimmick. Similarly, an atrium in a cloudy climate or a series of waterfalls in a rainy one could be called a gimmick. And "stramps" could be classified as a gimmick. "Stramps" is the name given steps and ramps that take pedestrians from the cascading levels of government offices by the waterfalls down to the open plazas.

These ramps for handicapped access, along with the stairs for general public use, exude good intentions. To come up with a solution that accommodates both types of users on a major diagonal movement pattern obviously took some ingenuity. The German Expressionist madness of the solution can only be experienced going down the "stramps": The stairs and ramps often work against each other's directions at different angles of incline, with the stairs spilling down from north to south and the ramps zigging east, zagging west, and so on. The stairs edging the ramps are designed to form a small breakfront to keep wheelchairs from careening over the edge. Thus it becomes entirely possible while descending the stairs to actually *trip* on steps that are *higher* than your last step, especially when you cross the ramps, which pass in front of you at a different incline.

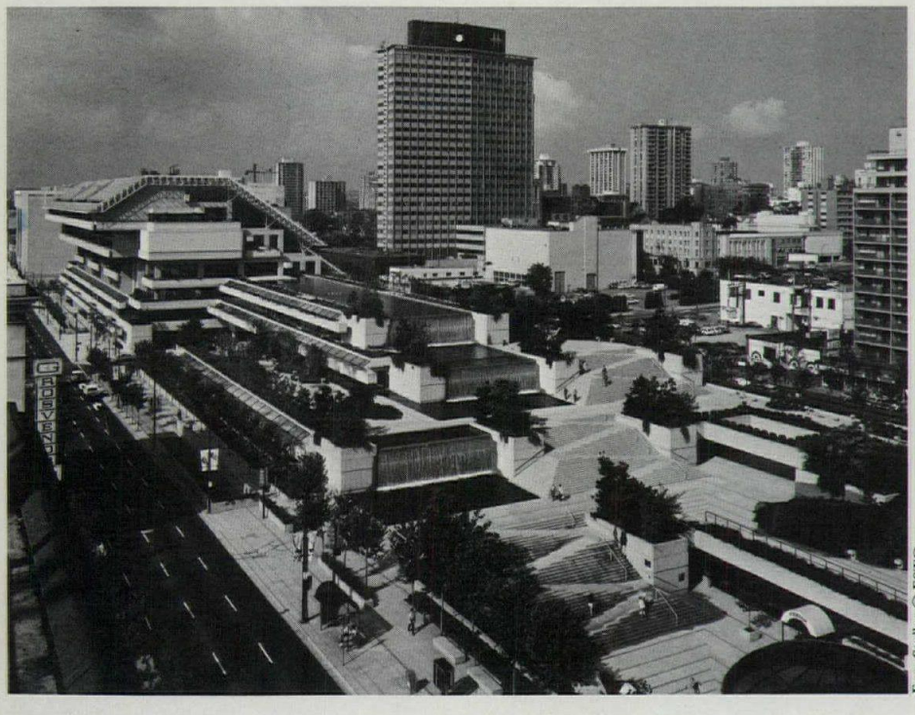
Eventually the "stramps" debouch into the large plaza leading to underground levels and bounded by an indoor *munching mall.* This area, filled with franchise food outlets, has been decried by Erickson and others for not fulfilling their original vision of an exotic assortment of restaurants typical of the city's culinary fare. Evidently the government leased the space to sure-fire prospective tenants. Seeing the low dark spaces, one sympathizes with this policy.

The plazas—one an "activity-oriented" space that turns into a skating rink in the winter and a community events plaza in the summer, the other a sculpture garden—both provide popular open spaces in the heart of the city—far from other outdoor amenities. Demarcated by Victorian-kitsch acrylic glass

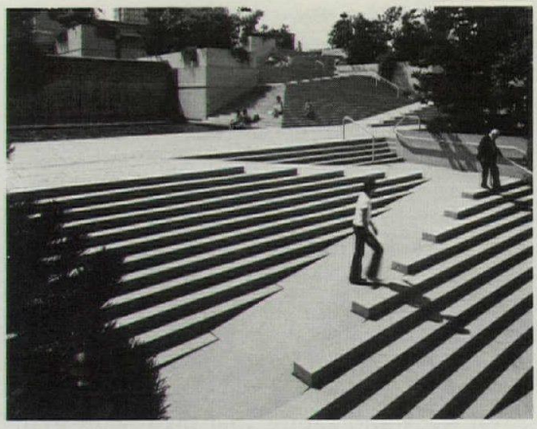


Photos: Dick Busher

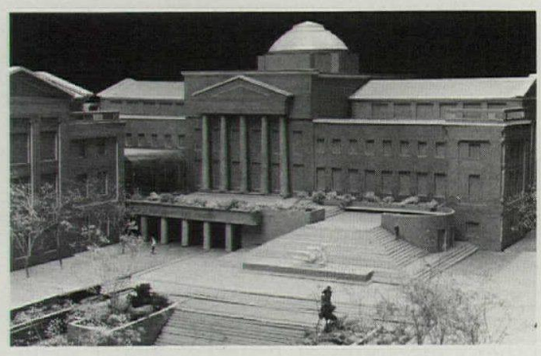
Law Courts, Robson Square, Vancouver



Ezra Stoller © ESTO



Ezra Stoller © ESTO



Ted Scott

"Stramps" in Robson Square (top); model of proposed courthouse renovation (bottom).

domes, however, these below-grade courts can leave one longing for quiet, grassy parks.

The last parcel, on which sit the old courthouse and the annex, will offer a different kind of environment when Arthur Erickson has finished renovating the two buildings for the Vancouver Art Gallery. The courthouse, designed in 1907 by Frances Rattenbury, will open in 1982, with four floors, except for the rotunda, gutted and transformed into 45,000 sq ft of gallery space. The annex, designed by Thomas Hooper and added in 1910, will house the administration of the museum. The reorientation of the main entrance from the north side of the building to the south, facing Robson Square, is being planned to relate these older buildings to the Law Courts complex; a small new block is being added to this side for the lobby of the museum and a glass-enclosed restaurant.

While it is still too early to evaluate the renovation, locating the museum's entrance below grade could severely diminish the importance of the old portico.

Overview

The appearance of the Law Courts in this form attests to the vicissitudes of politics as it does to the convictions of the architect. It is amazing when a government complex with this many "extras"—like the awe-inspiring concourse, the verdure, the open spaces—gets built at all. To dramatize the achievement, papers have reported that the preceding scheme was a 55-story high-rise tower. This statement needs a little clarification: Six schemes preceded the Erickson one, the fifth of which was the tower. The sixth scheme, however, was simply a new wing added to the old courthouse. In 1972, the Social Credit Party, which had shepherded the six proposals through, went out of power and the New Democratic Party came in. As their architect, they selected Erickson, who in turn came up with this three-part proposal. Erickson's scheme had to be modified during those years. Inflation and rising costs caused the top (eighth floor) to be lopped off the $86 million Law Courts building.

Now the Social Credit Party is back in power, and now it seems the courthouse will need more space in the next five years. Said one judge, "But you cannot expand an Erickson building, you know."

Any acclaimed and publicized structure such as this one will serve as a model on which other downtown civic centers will be drawn. There are reasons why this kind of solution should not be blindly adopted, aside from those specific to the form. As one continuous entity, the complex lacks a woven connection to the normal pattern of streets. While it invites the passersby within—at its center—the monolithic Law Courts complex does not engage in the same relationship with the city grid and building pattern that Rockefeller Center did, for example, with its three-block area.

Similarly, the Law Courts complex does not interact to the fullest degree with the existing Neo-Classical courthouse buildings. Erickson and his team were very careful to align the middle of the Law Court roof with the center of the old courthouse dome. But the flat glass roof and the westward pitch of the glass shed shift the center of the new building optically to the angle where the glass slope turns, flattens, and becomes solid. In addition, the Law Court has no "front" elevation facing the old courthouse. The north elevation of the Law Courts is simply sliced off to reveal the stepped section. Without more reciprocity be-

Data

Project: *Law Courts and Robson Square Complex, Vancouver.*
Architects: *Arthur Erickson, Architects Vancouver; Arthur Erickson, principal; Bing Thom (1973–76), James K. Wright (1976–77), and Rainer J. Fassler (1977–80), planning coordinators. Law Courts design team: Rainer J. Fassler, project architect; Ron Beaton, Nick Milkovich, Rodger Morris. Robson Square team: Junichi Hashimoto, James K. Wright, project architects; Randy Jefferson, Barry Johns, Eva Matsuzaki, Shanti Ghose.*
Site: *475' x 260', downtown.*
Program: *350,000-sq-ft Law Courts building; 35 judges' chambers; 127,000-sq-ft office space for provincial government; and outdoor plazas, plus 45,000-sq-ft museum space for Vancouver Art Gallery in renovated old courthouse.*
Structural system: *cast-in-place concrete frame with exposed sandblasted concrete walls and infill metals. Concrete bearing walls are used for substructure, double precast T's for lower floors, double T's with shear walls for back of Law Courts. Cantilevered floors act as beams to tie the frame; the 25-ft-wide elevator core, every 70 ft, anchors structure.*
Consultants: *Bogue, Babicki &*

Wayne Thom

tween old and new façades, the older building becomes an "object," overpowered by the "non-building," by the waterfalls and "stramps," and the plazas spilling down the manmade slope to the bubble-domes at its base.

Finally it seems that what the Law Courts and Robson Square do best is *hype* the idea of "center," "community," and "gathering place," of sexy architecture. It probably doesn't communicate that much *more* about the matters of law and justice than a Hyatt Hotel. But it is a symbolic event. It becomes an advertisement for the city, for the government, and for the architect. If it shares with advertising the same punchy image but thin substance, at least it attracts a lot of attention. Yet as an architectural type—a civic center—it risks being replicated for its razzle dazzle, and not for the few issues it does resolve. [Suzanne Stephens]

Associates (structural); Reid Crowther & Partners (mechanical); W.T. Haggert & Company Ltd. (electrical); Cornelia Hahn Oberlander, Raoul Robillard (landscape); William Lam Associates (lighting); Bolt, Baranek & Newman, Inc. (acoustical, audiovisual); Rolf Jensen & Associates, Inc. (life support systems); Eugene O. Tofflemire Associates (glazing).
Client: *British Columbia Buildings Corp., Gordon Shrum, project chairman.*
Cost: *$97 million not including furnishings in office block.*

Employee lunchroom under glass (left); community plaza (below).

Dick Busher

Parliament House, Canberra, Australia

Canberra

In Canberra, Australia, the competition-winning design for the new Parliament House by Mitchell Giurgola Thorp closely adheres to and enhances Walter Burley Griffin's master plan of 1911 for the capital city. In the five-part article that follows, a general background is first provided by Jennifer Taylor, followed by excerpts from the architects' Design Report, and then by excerpts from the assessors' Final Report. Concluding commentaries are by Edmund Bacon and by Jaquelin Robertson.

The assessors

Sir John Overall, architect and planner; Foundation Commissioner, National Capital Development Commission; member, Parliament House Construction Authority.

John Andrews, architect; Chairman of the Architecture and Design Panel, Visual Arts Board, Australia Council.

Senator Gareth Evans, barrister; Labor Senator for Victoria.

I.M. Pei, architect, New York.

Barry Simon, Liberal Member of the House of Representatives.

Prof. Leonard Stevens, Dean of the Faculty of Engineering, University of Melbourne.

The new Parliament House (opposite, top right) bestrides the land axis of Walter Burley Griffin's master plan of 1911 for Canberra (opposite, bottom right), and caps the hill, terminating the axis in a way similar to the earlier plan. The new building is planned to complement and not conflict with the existing provisional Parliament House (opposite, foreground, top right).

The background

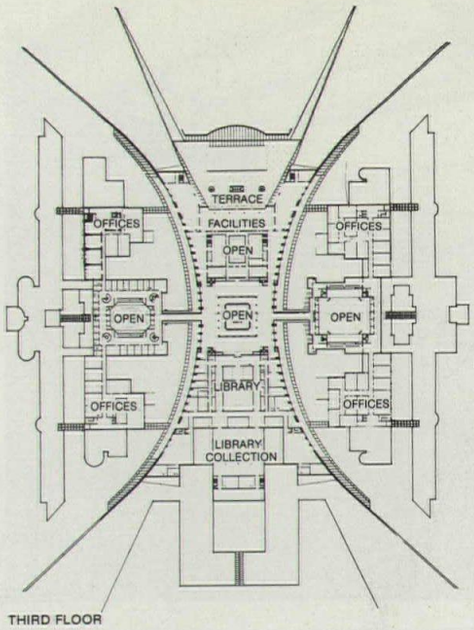
by Jennifer Taylor, senior lecturer in the department of Architecture at University of Sydney.

The competition for the Parliament House of Australia is one of the most significant to have been held anywhere in the world in recent times. The name Parliament House is in some ways misleading as this is not a single-purpose building, but rather a conglomerate of legislative and executive houses, together with full office accommodation and support services. It is a complex of over 60,000 sq meters, with its requirements demanding something more in the nature of a small town.

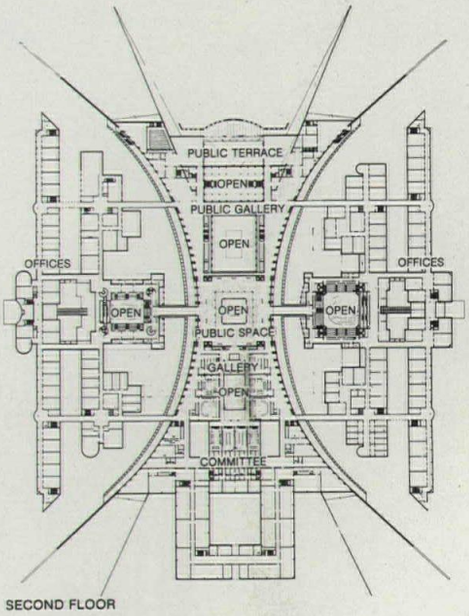
The chosen site is the crest of Capital Hill, the central pivotal point of Walter Burley Griffin's radial 1911 plan for Canberra—a plan that demonstrates an imaginative interpretation of the Beaux Arts classicism of the time. Design for this site demands a thorough understanding of the architectural themes inherent in the plan and provides an interesting measure of our present position in the historical evolution towards an architecture for tomorrow.

Australia attained nationhood in 1901, and in 1908 the decision was made to found a new capital in the hilly pastureland of the Yass/Canberra district, a site readily accessible from the major cities of Sydney and Melbourne. The 1911 competition for the design of the new city was won by the Chicago architect and landscape architect Walter Burley Griffin. Griffin's plan was an outcome of the American City Beautiful movement that followed the Chicago Columbian Exposition in 1893, yet was tempered by the mixed influences of the principles of Olmsted and Howard and the organic theories of Sullivan and Wright.

Canberra is set in a hill-ringed basin, and the natural landforms determined much of the planning, including the position of the major north-south land axis. This is projected from Mt. Ainslie to the north across the only hill of any size in the central basin, Capital Hill, on to Red Hill and the distant Bimeri peak. The scale of Canberra is vast, with the land axis from Mt. Ainslie to Capital Hill measuring 3¼ miles. Capital Hill became the focus of the design and the apex of the Parliamentary Triangle—the central area reserved for buildings of national importance. The plan is symbolic, with radial boulevards from Capital Hill named after the state capi-



THIRD FLOOR



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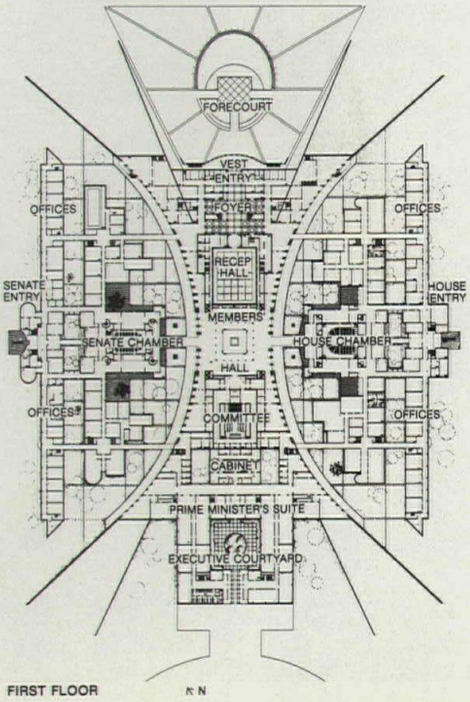
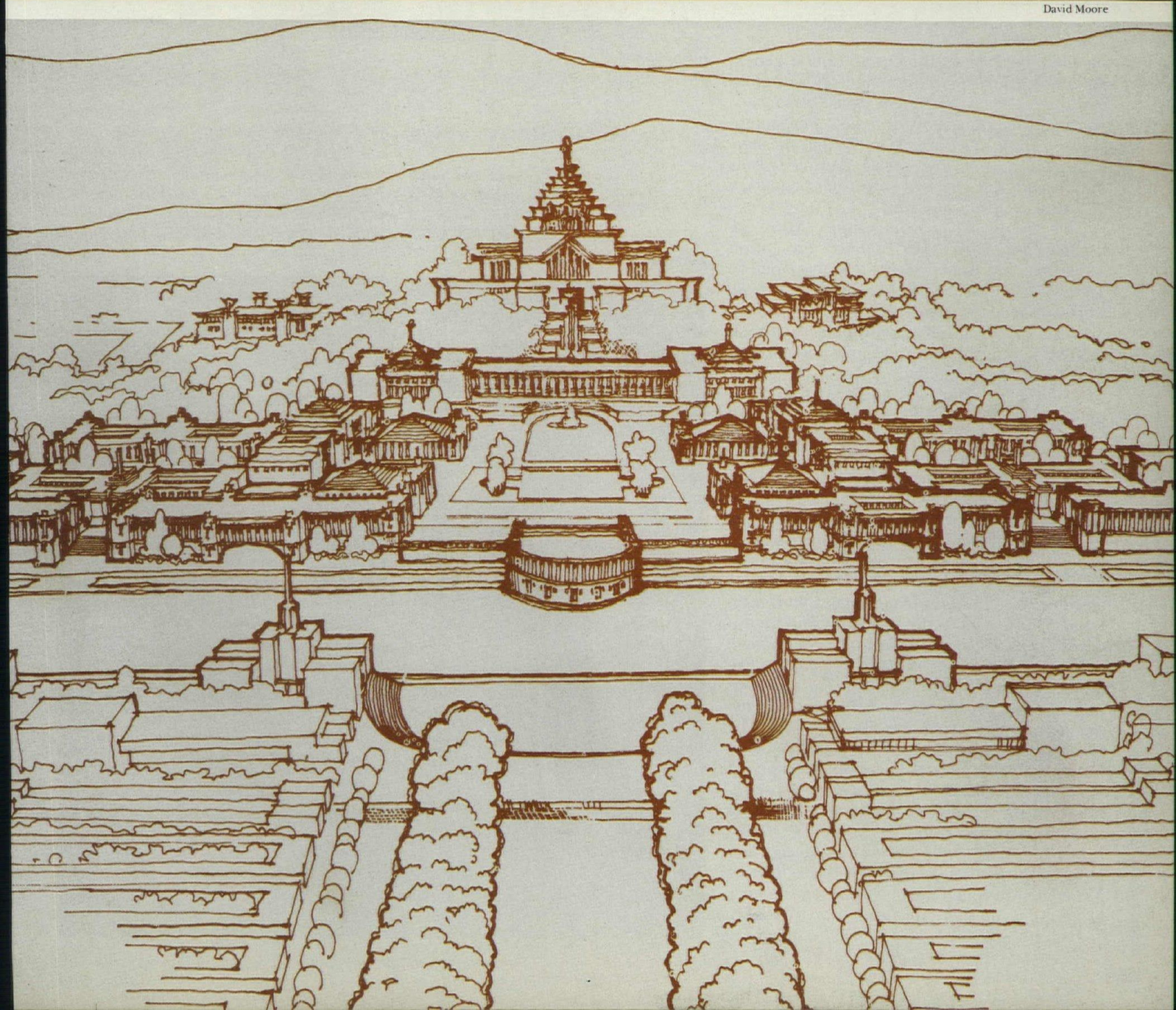


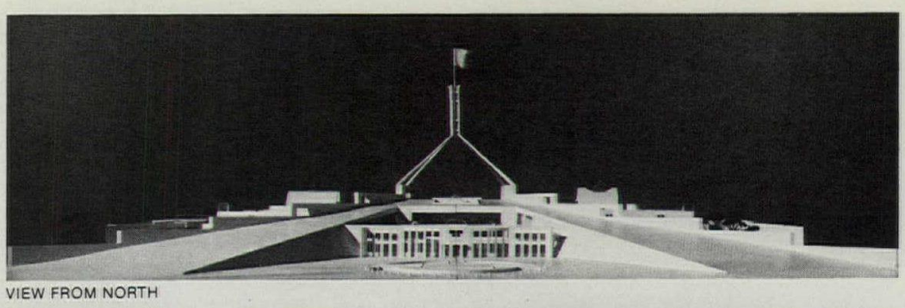
FIRST FLOOR

David Moore

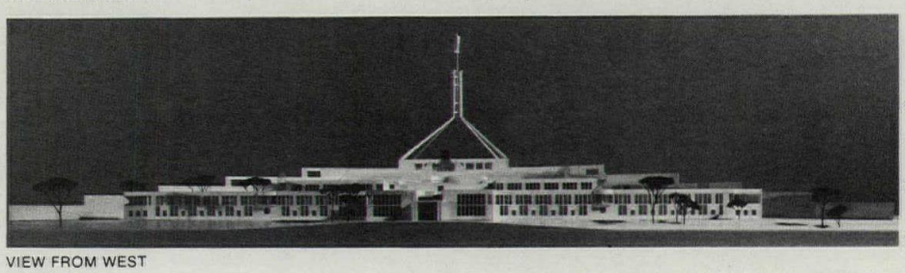


tals. Griffin saw these avenues as representing the links between the States and the Commonwealth.

Australia's Parliament consists of the House of Representatives and the Senate. In the Griffin plan, the Parliament House was set forward on the slope of Capital Hill, reserving the peak for an imaginary building Griffin called The Capitol, the symbol of federation. A recent decision, however, places Parliament House on the vertex of the hill. The provisional Parliament House, planned to serve for 50 years, was completed in 1927. It bestrides the land axis slightly to the north of the base of Capital Hill towards the east-west water axis of Lake Burley Griffin. Though the building is not large, its white symmetrical form remains the most highly readable element in the central Canberra landscape. The Government's decision to retain this building after it ceases to be used for its present function has strong implications for the new Parliament building to be placed directly above it.

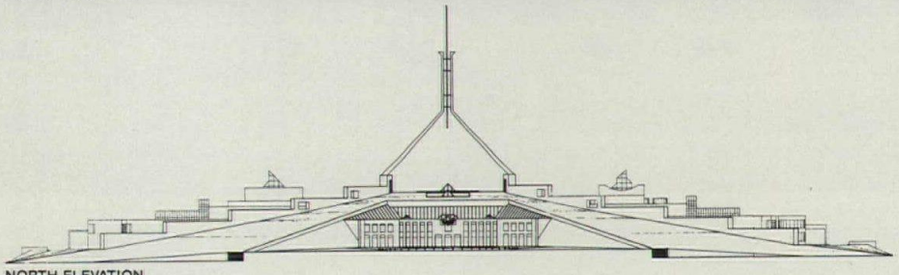


VIEW FROM NORTH

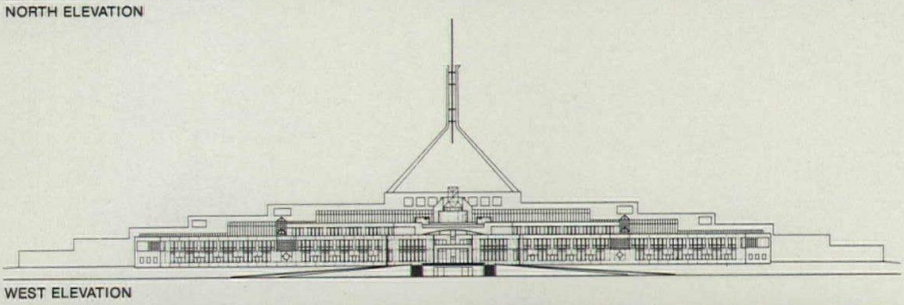


VIEW FROM WEST

Photos: Humphrey Sutton



NORTH ELEVATION



WEST ELEVATION

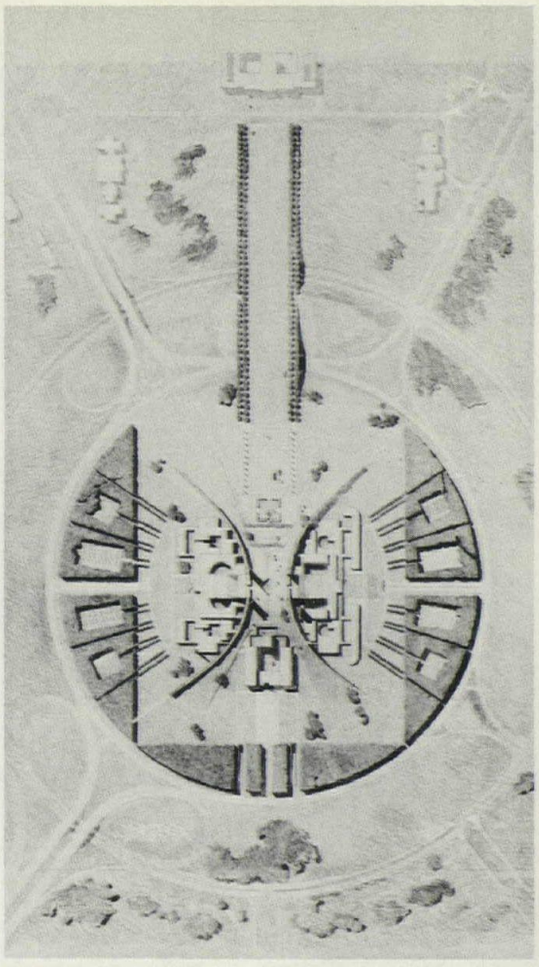
The competition

In 1965, because of the cramped and generally unsatisfactory accommodation in the old building, the Government took action towards the construction of a new Parliament House. But it was not until 1978 that the Parliament House Construction Authority was established and charged with the production of a design and a building.

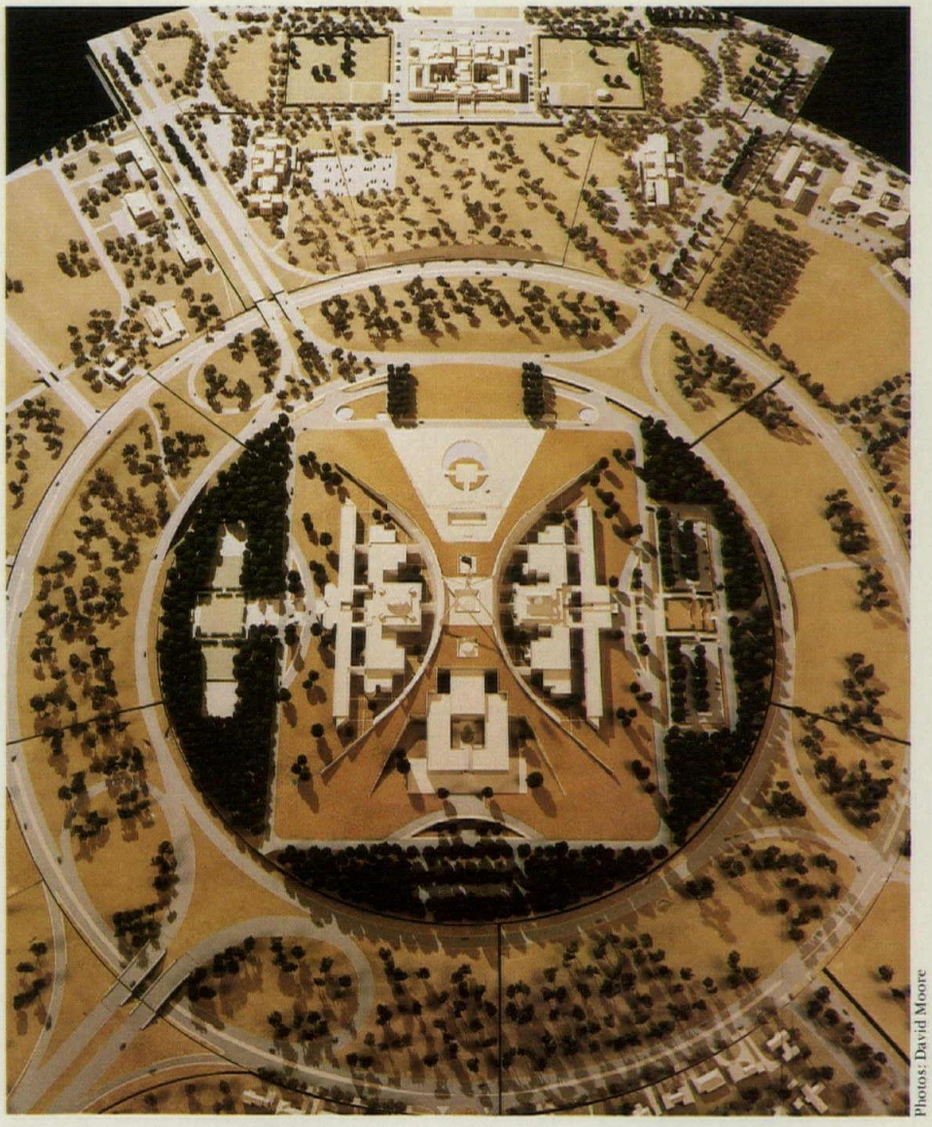
The terms for a competition were announced on April 7, 1979. The competition was to be held in two stages and was open to architects registered in Australia and those who applied for registration on or before May 31, 1979. In this way it became neither a national nor a fully international competition. The brief was available in English only. The cost of the building was established at $151 million (Aus.) at May 1978 prices.

Registrations received for the competition totaled 961 from 28 countries, and 329 designs were actually submitted. On the First Stage assessment, ten leading designs were selected and five of those admitted to the Second Stage. In their final report the assessors stated: "In our view our responsibility in the First Stage was to select not so much designs as *architects* who in their submission had indicated a sensitivity to the problems and an apparent capacity to solve them. . . . We made a deliberate decision to choose, as finalists, five quite different kinds of design solutions rather than two or more variations on any one solution in the hope that we would be presented, when the time for final decision came, with the greatest possible diversity of developed solutions from which to choose . . . our task in the Second Stage was rather to select a particular *design*."

On June 26, 1980, the winning design was announced as that of the New York firm of Mitchell Giurgola Thorp. The assessors were unanimous in their decision that this is an "outstandingly successful design in every re-

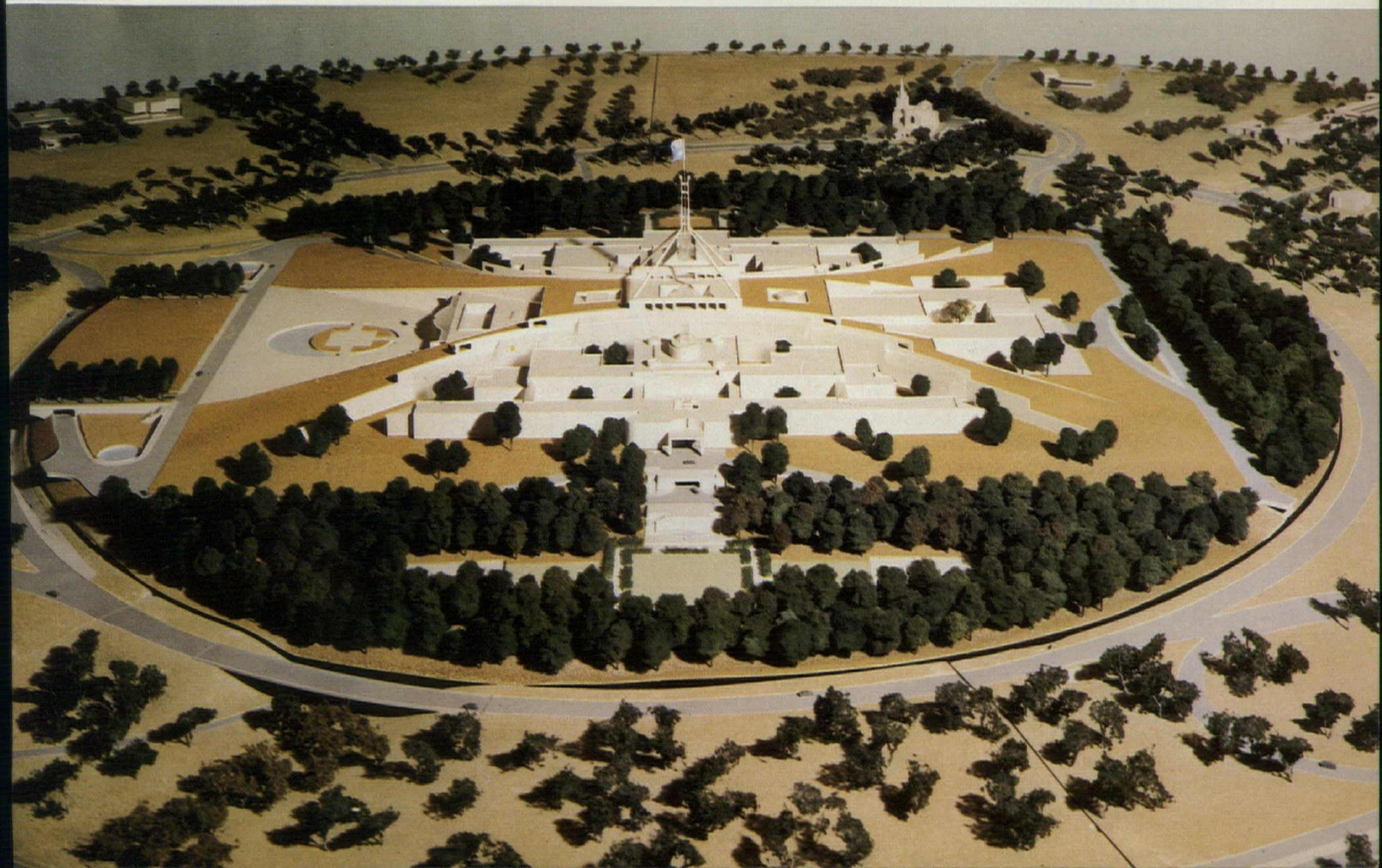


GRAPHIC SITE PLAN STAGE 1 N 300'/90m
(SCHEME ARCHITECTS PREFER TO RETURN TO)



Photos: David Moore

AERIAL VIEWS OF MODEL (RIGHT, BELOW)
AERIAL VIEW OF SITE (LEFT)



spect, brilliantly blending together the requirements of architectural quality, sensitivity to location, symbolic entity, functional efficiency, building feasibility, and relative economy, which the new Parliament House must satisfy." The cost for this scheme was $156,417,000.

The Mitchell Giurgola Thorp solution presents a building that is unassertive, yet with reserved dignity. Its image emerges from consideration of the major elements of the Griffin plan.

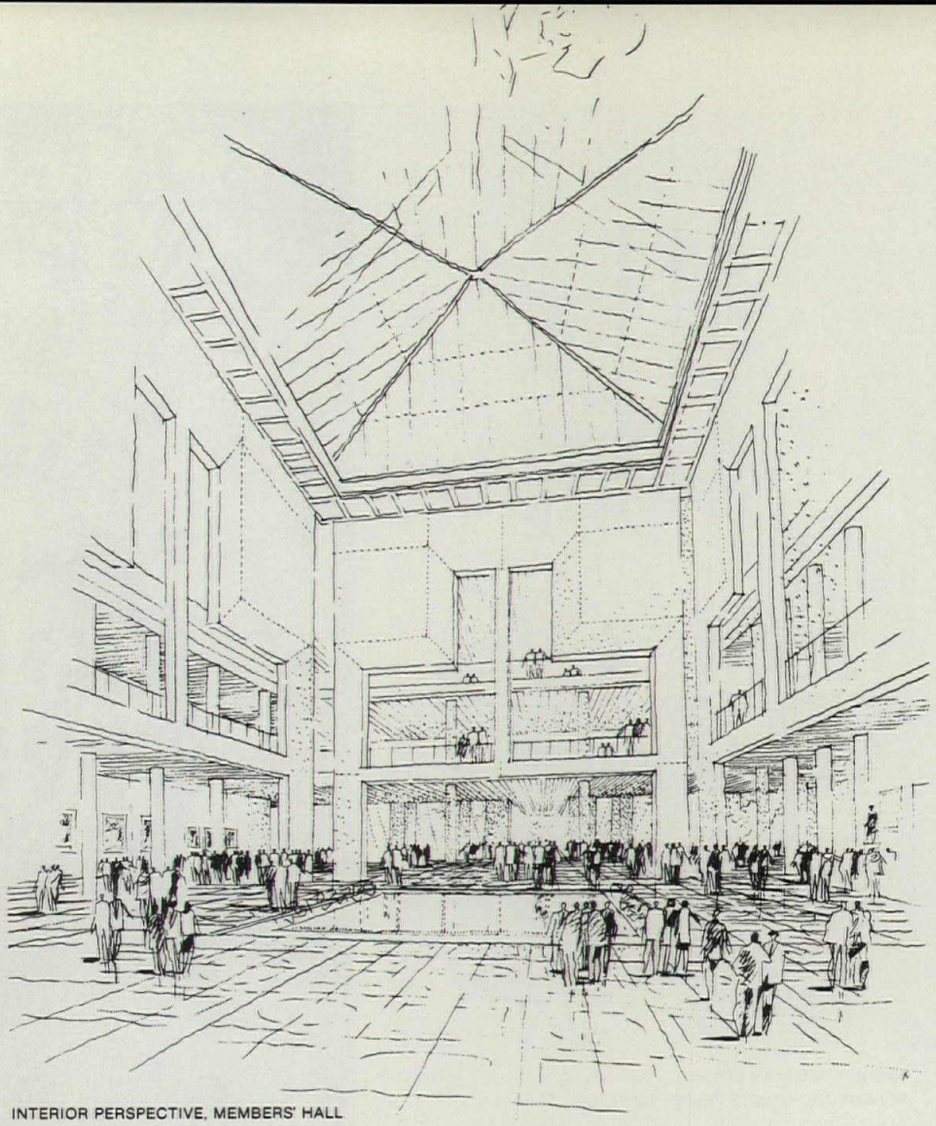
Architects' design report

Our intention in the Canberra design is to arrive at an architectural imprint that derives its value through a balanced and unforgettable geometry. The character of our search for that geometry is in many ways an extension of the spirit enfusing the Griffin plan: one of intense order and geometric form, but which results in a pliable and enfolding landscape.

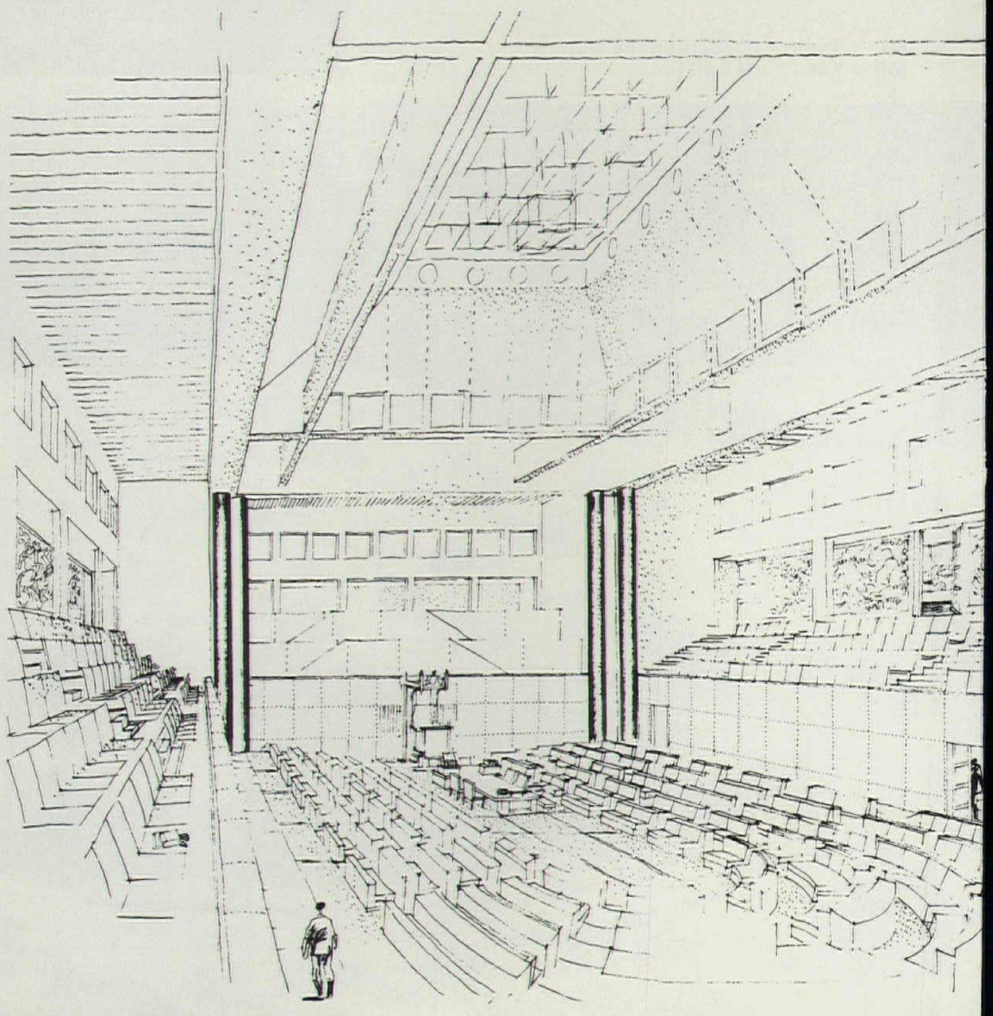
The *hill* is of utmost importance. For centuries, man occupied its crest with structures as signs of possession and power. We feel that the hilltop should be left clear of visible constructions. Only the flag, which has been there since the city's foundation, should be present as a permanent rallying point or symbol for the citizens. We intend for the hill of the Capital to emphasize these connotations of the natural landscape as much as possible, so that the built structures nestled within it, made of complementary materials, restate the gradual slope of the hill.

The *profile* of the complex has been purposefully arranged to complete the geometry of the Triangle, thus accomplishing Griffin's intentions for the massing of buildings. However, rather than imposing a building on the hill which terminates the land axis, our solution allows the mall to extend to the areas beyond. While the transparent mast structure supporting the flag provides visual engagement and unity, the roof monitors over the two Chambers are clearly expressive of the bicameral system of government.

The *land axis* remains a key element of the composition and continues to extend without interruption across the hill, developing a spatial continuity with the perspectives of avenues leading into the residential sectors of the city. The ever-present gesture of the land axis is framed and reinforced by two *curvilinear walls* separated by a mall. Between these walls, the formal functions of the complex are housed, including the government quarters. The Senate and the House of Representatives Chambers and their offices extend west and east from the walls, but are not separated by them from the center. In fact, the entire complex is stated architecturally in three major elements: the two legislative areas and a "forum" between them. The curved walls have large openings allowing natural light to penetrate the public and private spaces. Glazed galleries make possible



INTERIOR PERSPECTIVE, MEMBERS' HALL



INTERIOR PERSPECTIVE, HOUSE CHAMBER

views into the courts and gardens of the Chambers' offices, thus maintaining a visual relationship between any central point and the other parts of the complex. These same curvilinear walls also unify the overall design. Within their arc, they comprehend the low-rise structure of the two Chambers; outside the arc, their configuration signals an open, receptive gesture toward the city and the nation. The *flag* is the unifying symbol of the nation. It is placed at the crossing of the land axis with the east-west axis of the two Chambers, thus providing a single visual synthesis for the parliamentary system and the government.

Assessors' final report

We are unanimous in choosing (the Mitchell Giurgola Thorp) design as the winning entry. The design represents a total design accomplishment quite beyond that achieved by any other entry in the competition. The designs of the other first-stage winners and the second-stage finalists all had particular strengths, but in our unanimous opinion, this design was ultimately the only one to produce a fully integrated and thoroughly satisfying solution to what was an extraordinarily complex design problem.

Environment and siting

Like Griffin's plan, the winning design is a building of firm, clear geometry, not rigidly imposed on the terrain, but sensitively adjusted to it. This design is not a monumental structure superimposed on the hill. It derives its strong presence by merging built form with landform. The successful synthesis of these two essential elements has resulted in a design that is at once natural and monumental.

The land axis has been the generic ordering theme of developing Canberra, a line around which all subsequent design has evolved in circular and radial directions. This scheme not only recognizes and completes the land axis, but also allows it to extend visually beyond Parliament to the surrounding hills. The geometry of the plan accepts, moreover, the radiating road system, and in doing so allows the Parliament to register visually from a distance as a simple element gradually revealing its complexities as one approaches. The building form visually extends these views beyond to the distant landscape, perpetuating the Griffin ideal of the domination of landform.

The winning design does nonetheless recognize the fact that the Capital Hill site has an apex, and one that demands *some* reinforcement if the design scheme is ultimately to succeed. The more or less transparent mast structure supporting the national flag is a simple and imaginative solution to achieve the visual climax required. This marking of the apex successfully fulfills the intent and purpose of the original Canberra plan.

The merging of built form with landform, together with understated monumentality that the winning design achieves, will not only allow the provisional Parliament House to continue to exist without conflict, but will also clearly accept the Griffin notion of a more intense occupancy of the triangle—that is to say, the establishment within it of a visually integrated series of buildings architecturally reinforcing the land axis.

Symbolic and architectural identity

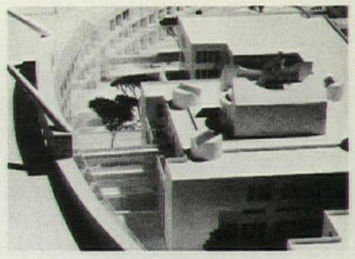
The building must express in a symbolic way the unique national qualities, attributes, attitudes, aspirations, and achievements of Australia. It must at the same time express an architectural identity, integrity, and prominence consistent with its surroundings and the significance of the Parliament House.

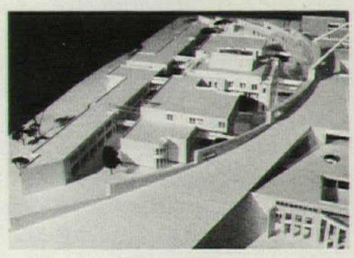
The initial key to the building's success is again its sensitive interaction with the geometry of Walter Burley Griffin's plan. Symbolically, Parliament is inevitably positioned, but does not become undemocratic with an overpowering building presence. Having expressed the bicameral system of Australian government in form and plan, it properly reserved the top of the hill for the use and enjoyment of the people of Australia. So, far from the new Parliament House glowering down, forbidding and inaccessible, people will walk and children will clamber and play all over its roof!

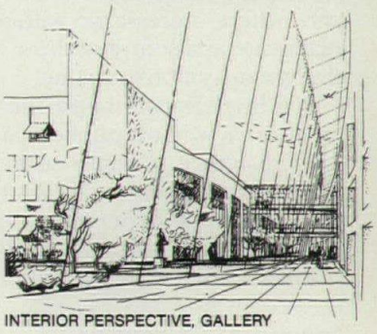
A further attractive feature of the winning scheme is its simple imagery, viewed both from ground level and from the air. It is capable of naïve graphic representation: children will be able not only to climb on the building but to draw it easily too. Accentuated (but by no means caricatured) by the obvious "boomerang" analogy of the curvilinear walls, the general imagery of this scheme may in time become as internationally representative of Australia as the kangaroo.

A very important design constraint imposed by the Capital Hill site is the likely permanent retention of the existing provisional Parliament building. The view along the land axis looking south positions the new Parliament House directly above the existing building. It is imperative, therefore, to unify the two buildings architecturally in order to avoid the impression of one building resting on top of the other. In the opinion of the Assessors, the winning design has resolved this immensely difficult contextual problem in a brilliant way.

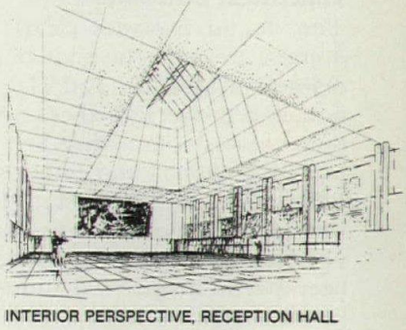
The most important visual characteristics of the existing building are its fenestration and its whiteness. The winning design achieves the essential unity by creating a screen wall in front of the entry which is perforated so as to relate to the rhythm of the fenestration of the provisional Parliament House. No other fenestration is visible from this important vantage point as the new Parliament House merges itself with the natural landscape, thus avoiding the appearance of two distinctly different buildings in a simple way. The transparent mast structure resting on top of the entire complex completes the visual and symbolic linking of old and new.





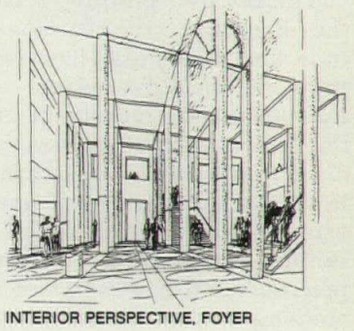


INTERIOR PERSPECTIVE, GALLERY



INTERIOR PERSPECTIVE, RECEPTION HALL

INTERIOR PERSPECTIVE, VESTIBULE



INTERIOR PERSPECTIVE, FOYER

Detail views of model (top) show House of Representatives at east side of Parliament House, and below it, the Senate at the west side.

Parliament House, Canberra, Australia

The simplicity and elegance of the basic lines of the winning scheme conceal at first glance what is revealed on closer examination to be a complex collection of separate building pieces. This "explosion of parts" is equally crucial to the architectural success of the total scheme. It provides for easy identification and understanding of the pieces and produces an understated architecture in which all users can avail themselves of views and outdoor space, at the same time admitting light to occupied spaces. On the one hand, working conditions are enhanced, and on the other, casual visitors can be sure of knowing where they are at all times. An explosion of parts can, morever, accept expansion when and where necessary, without the need to reallocate space and without the danger of a change in symbolic form.

We further commend the winning design on the variety of public spaces it provides, each of which is subtly animated and modulated by external light. As these spaces are designed to be experienced in a symbolic sequence, this intended variety heightens the visitor's sense of spatial experience.

Functional efficiency

The design provides clearly and rationally defined areas for the main building elements, delineates efficient and economical circulation systems to link them, and at the same time creates stimulating and relaxing working, recreational, and public spaces for all of Parliament's multiple users. The winning design takes note of the functional layout of the provisional Parliament House, which has been strenuously tested and much developed in its evolution since 1927, and improves upon it. It features, as does the existing Parliament House, a basically horizontal three-level working layout, but one in which the key elements of the building are so well located and coordinated in relation to each other that the massive increase in usable space which the design embodies is not accompanied by any significant new physical burdens on the building's residents and visitors.

Among the most significant functional features of the design are that:

The key user groups—Senators, Members, the Executive, the Parliamentary support staff, and the media—have clearly and effectively designated working environments of their own. The movement of people within the building is generally very skillfully handled, with such movement made interesting by the design of the common areas and the external views, which the architect has ensured. Visitors to the Parliament are able to penetrate into the heart of this very large building without entering restricted areas or intruding upon the private circulation areas.

Commentary

by Edmund Bacon, who visited Canberra in 1964 and drew attention to the danger of compromising Griffin's original vision.

When Walter Burley Griffin conceived and Marion Mahony drew the incredible structure that crowned Capital Hill as the climax of their great conception for the Capital, it would have been hard for them, or anyone else, to have perceived what Romaldo Giurgola has now designed to occur there.

During the 70 intervening years, the great Griffin vision has flickered and has seemed almost to die out. The plan was attacked by professionals, battered by politics, mutilated by consultants (William Holford advocated moving the Parliament Building to the Basin), and sometimes seemed not to be understood by the Australians themselves.

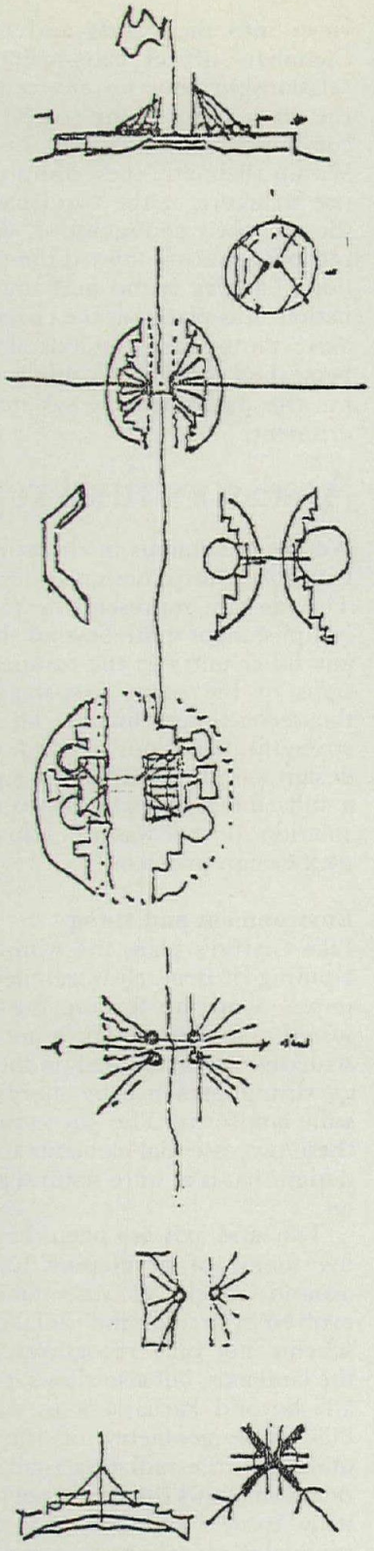
After the earliest blush of building, which did reinforce and enhance the total plan, there was a long period in which the relationship between the individual building and the overall plan seemed to be forgotten. This was particularly true in the case of the recent High Court Building, which was conceived and judged with concern only for its own inward-looking, narcissistic characteristics, without reference to the role it could and should have played in the overall scheme.

Romaldo Giurgola, in his plan, was thinking in terms of enhancing the Griffin plan, and not of the glorification of Giurgola. He simultaneously incorporated three contexts within a single design: the character of the surrounding topography; the functional requirements of a complex set of buildings; and the design intention of the creator Griffin.

Griffin's plan suggested a structure topped by an enormous glass pyramid—a plan that seemed improbable of realization within any practical building program that could be supported today. Through the design of the remarkable flagpole, Giurgola's design retains the outline of the Griffin pyramid and, curiously, provides a vantage point on the platform beneath it from which the visitors may experience the rhythms and harmony of Canberra in a far more intensive way than would have been possible from within the glass pyramid.

Because the designer understood the difference between the essential and nonessential, enormous monumentality and discipline has been achieved with great economy of means, and at the same time, enormous flexibility and freedom of design within the individual buildings. So, at one moment, the design relates powerfully to the overall urban form and freely and openly to the changing requirements of the buildings that house the dynamic and volatile Australian government. The simple rhythm of the architecture of these buildings respects the rhythm of the existing provisional Parliament House and reaffirms human scale within monumentality.

The acceptance of axial symmetry and of the historical form given by the "Pre-Modern" designer would have been unthinkable within the orthodoxy of the Modern



The sketches (above), the first ones Giurgola made on the return flight after his initial visit to Canberra, show the striking degree to which the original conception was carried through to the finished project.

Movement. Whether Giurgola himself would have conceived and defended such a plan 20 years ago we will never know.

These two works constitute a stupendous monument to the two ends of the Modern Movement—Griffin's before the beginning and Giurgola's after the end, with the great barren wastes between. While lesser people argue about "Post-Modernism," "Historicism," "Allegorical Architecture," and other irrelevancies, Giurgola has calmly reestablished the basic direction of architecture from times immemorial, not forgetting Alberti, to solve beautifully in a historical context the fundamental requirements of the program. He has pointed out a direction that could keep architecture busy for the next 50 years.

History may well decide that Griffin's and Giurgola's works for Canberra are the finest American designs of this century. While this would be an accolade for American design (yet not forgetting Giurgola's Italian background), the real triumph lies with the Australian people who have embraced, understood, and cherished the original plan. They have now held and judged an international competition for its crowning element, and so have demonstrated again that a great client makes great architecture.

The Australians have seen the design of their Capitol as an international issue, in which their national pride can best be served by the finest design the world can produce. That, I think, they have.

Commentary

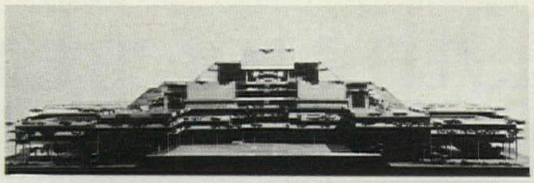
by Jaquelin Robertson, who spent a month in 1978 with the Australian National Capital Development Commission and prepared a report on the central area of Canberra.

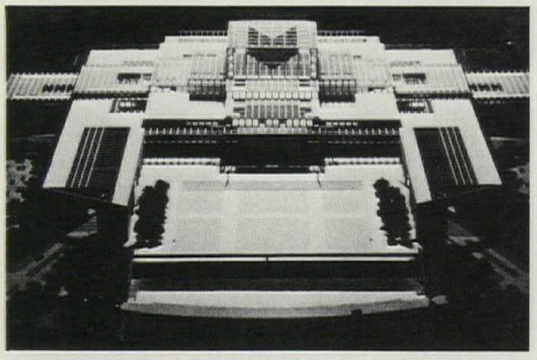
Canberra has enormous scale, much grander than anyone who has never been there would understand. Perceptually, the hills become *buildings*. The distance from the proposed Parliament House to the War Memorial is the same as the distance extending from the Capitol to Lincoln Memorial in Washington, DC. The surrounding landscape is even more vast than Washington, while the built-up city is less dense. But because the light is so clear, buildings far away appear to be closer.

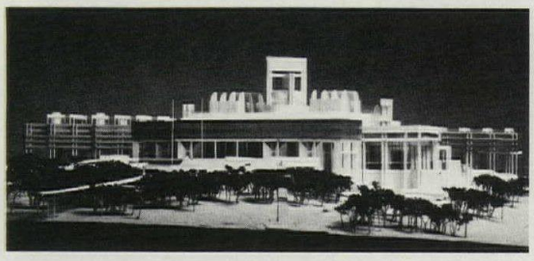
Giurgola's design takes the elevation (or the silhouette) of Griffin's old proposal for the Archives Building on that site and uses that as a departure point. The two flanking buildings are then treated as steps or "earthworks" to reinforce the natural terrain.

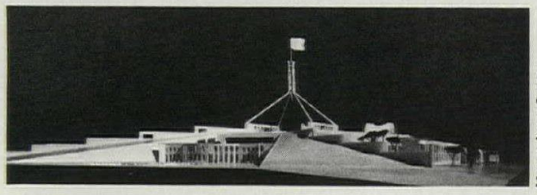
But the proposal does differ radically from Griffin's. Whereas Griffin ended the axis with a building forming a pyramid, Giurgola terminates it with a space outlined by a slender structure—the flagpole. Thus a spatial void occupies the top of the hill.

Giurgola understood well Griffin's three-dimensional design intentions. As schematically rendered, his response seems strong and correct. In the final analysis, however, the placement of a void where Griffin called for a solid structure could cause a problem in terms of scale and perception.

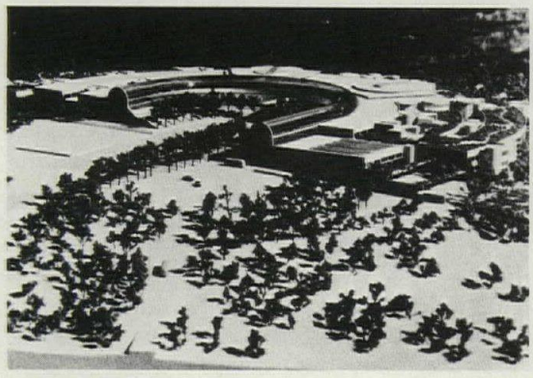








Humphrey Sutton



The competition finalists

John Bickerdike, Bickerdike Allen Simovic.
John Denton, Denton Corker Marshall, Pty., Ltd.
Colin Frederick Madigan, Edwards Madigan Torzillo Briggs International, Pty., Ltd.
Richard G. Thorp, Mitchell Giurgola Thorp.
Christopher Harding Waite, Parsons & Waite.

Data

Project: *Parliament House, Canberra, Australia.*
Architects: *Mitchell Giurgola Thorp Architects; Richard G. Thorp, nominated architect; Romaldo Giurgola, partner in charge. Project team: Owen Richards, Donna Robertson, Lynne Breslin, Lanie Young, Pam Berg, Amy Anderson, Nancy Brandenberg, James Harb, Ann Olovson, Luigi Rosselli, Bill Schweber, Doug Thompson, George Yu, Kirby Merhof, Mark DeShong, Donald Campbell.*
Site: *the crest of Capital Hill, the central pivotal point of Walter Burley Griffin's radial 1911 Beaux-Arts plan for the capital city.*
Program: *a 60,000-sq-meter parliamentary complex of legislative and executive houses, together with full office accommodation and support services. The program outlined the specific criteria that the building be fully functional for its purpose, that it be capable of internal flexibility of arrangement and external expansion, that it be symbolic of nationhood and be committed to democratic processes of government, that it be resolved within the project budget, that it relate sensitively to its total environment, and that it be completed and occupied in time for the Bicentenary celebrations of 1988.*
Structural system: *reinforced concrete, cast-in-place and/or precast.*
Major materials: *external panels of precast concrete inlaid with Australian marble; base, copings, and hard surfaces of adjacent landscaping of granite. Flag-supporting framework of stainless steel tube.*
Consultants: *Skilling, Helle, Christiansen, Robertson, consulting structural and civil engineers, New York; Joseph R. Loring & Associates, Inc., consulting engineers, New York; Peter G. Rolland & Associates, landscape architects, New York; Donald J. Cant & Associates, quantity surveyors, Melbourne.*
Models: *Maloof Architectural Models, Inc.*
Client: *Parliament House Construction Authority.*
Costs: *$156,417,000 (Aus.) at May 1978 prices.*

Le Premier and La Detente, Washington, DC

19th Street Lullaby

Carleton Knight III

Stage lighting and Moderne sets suggest elegance above and festivity below in these twin restaurants by young Washington architects, Cross & Little

Facing page: One of the most sophisticated additions to the list of Washington's expensive, fashionable restaurants, Le Premier (above). Below: Its sibling just below is La Detente, a quiche-and-paté cafeteria.

Carleton Knight III is editor of The National Trust for Historic Preservation's *Preservation News* and is P/A's Washington correspondent.

Nineteenth Street, NW, just south of DuPont Circle in Washington, DC, is noted for two things—a large number of banal new office buildings and the growing number of restaurants to serve the multitudes of lawyers, lobbyists, and others who inhabit them.

Robert Dakak, a Lebanese trained in Switzerland as a restaurateur, selected this locale to open an exclusive small restaurant with a more casual space for quick lunches or carry-out downstairs, Le Premier and La Detente. The speculative office building in which the restaurants are located is a chunky midrise with bronze windows and precast stone panels. But Dakak's spaces, one a half-flight up from the street and the other a half-flight down, are among the best designed restaurants in Washington.

The lively interiors are the work of two young architects from Kensington, Md (a Washington suburb), Dennis F. Cross and Donald H. Little, who have been partners for four years. As it turned out, they and Dakak share an accountant who recommended them for the job.

There is a 1930s look to both spaces. The etched mirrors, columns of light, and whirling forms are vaguely Art Moderne. And the checkerboard floor downstairs seems right out of a Busby Berkeley film—one half expects to see a line of dancers popping out of the dining alcoves. While the architects contend that this appearance is unintentional, they do admit to an interest in the 1930s, especially its movies.

The architects envisioned Le Premier as a stage set. Dakak asked them for four qualities: elegance, light, softness, and quiet. For elegance they looked to classical European restaurants and their symmetrical dining spaces with colonnades and lofty ceilings. Here, a central axis terminates in a semicircular double staircase to a raised dining area in the front of the room and a service bar of polished copper in the rear. Colonnades flank the axis.

Above the colonnade hangs a cloud as if it grew out of the service bar. The cloud defines the spaces within as it gives the illusion that the ceiling is higher than its 11 ft. One corner is sculpted down to the front entrance to envelop and welcome patrons. There are three distinct dining areas—60 seats altogether: the front platform, under the colonnade, and on a banquette at the rear.

Lighting is a critical element of the set. The architects and owner had already determined that Le Premier would be "light" rather than the more typical "dark" atmosphere. Part of the lightness would be natural since two walls of the space were glass—one side facing the building's entrance atrium and another with a bay window facing the street. To capitalize on this and visually expand the small area (roughly 40′ x 30′), the remaining walls are mirrored. Two structural columns near the front are also mirrored.

For artificial light, the architects produced objects that are themselves light, working with lighting consultant Peter Barna. The six columns that only ostensibly support the colonnade are glowing acrylic tubes sandblasted on the inside. A can light is placed at each top and a mirror at the bottom. The columns can be turned on and off and the intensity varied. The overall effect is a shimmering kind of light that offers a slightly marbled look due to the unevenness of the sandblasting. Stainless steel caps, resembling nautical fittings, at each end extend the length of the tubes (not available over 6 ft) to fit the height. On top are circular capitals lit from behind that appear to hold up the hovering ceiling cloud, which is also lit from behind, reflecting light onto the ceiling. This contradiction, in which light supports mass, lends a quality of mystery.

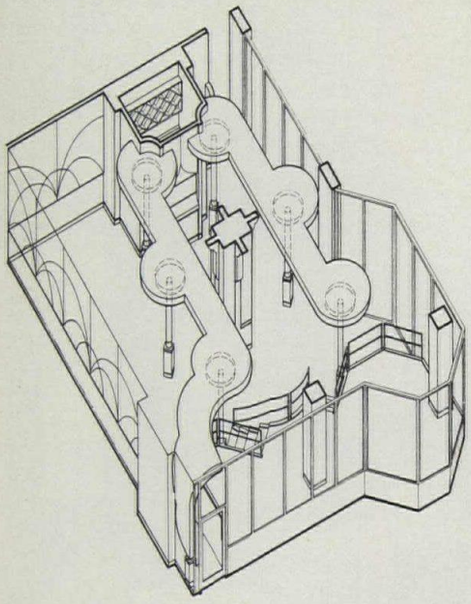
Cross & Little achieved a softness to the space by choosing a light palette. Hues range symbolically from béchamel sauce to rosé wine. The petal-like chairs are covered in an exquisite dusty rose fabric. The walls and ceiling are cream, the trim is mushroom, and the carpet is taupe. The hanging cloud is what architect Little calls "cotton candy" color and casts a warm glow over everything. The mirror is softened by etched semicircles that echo the cloud.

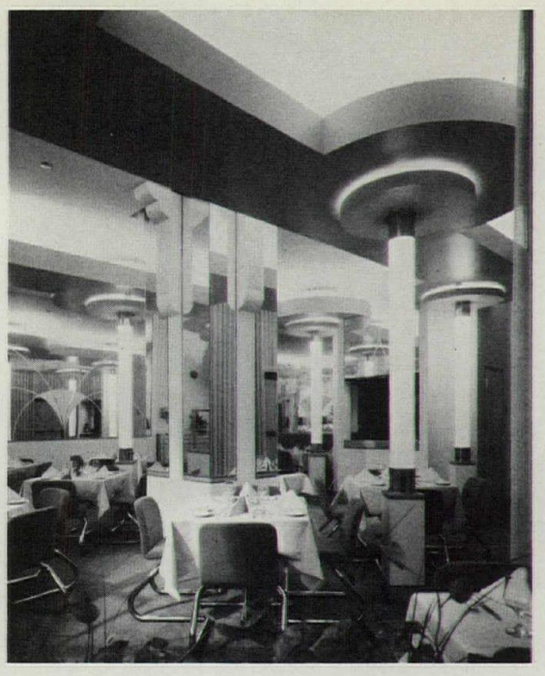
The restaurant is also unusually quiet because of chair cushions and carpet. The architects believe that the hanging cloud, as well, traps some of the noise.

Within the formal elegance, the architects also offer tongue-in-cheek comments on Classicism. An off-center structural column is enlarged to 3 ft sq to place it on axis, then reduced in bulk by mirrored corners. The


EXIT

Le Premier and La Detente, Washington, DC





This page: dining areas of Le Premier (top) and La Detente (bottom). Facing page: Le Premier, facing the entrance as the ceiling floats down to envelop entering patrons.

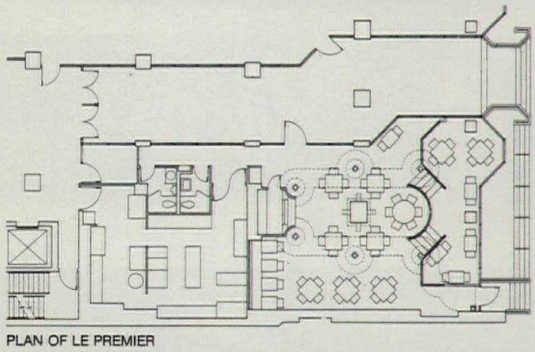
remaining center strip on each side is painted a very pale green—a baroque complement to the pink cloud overhead. While the mirrored corners disappear through a hole in the ceiling (the cold air return), the center panels terminate in elongated, sculpted brackets that appear to hold up the ceiling.

If Le Premier constitutes formal elegance, La Detente is just the opposite—informal and casual. The architects, while using many of the same materials as well as the same indirect lighting, have created an architectural fun house that is a series of contrasts.

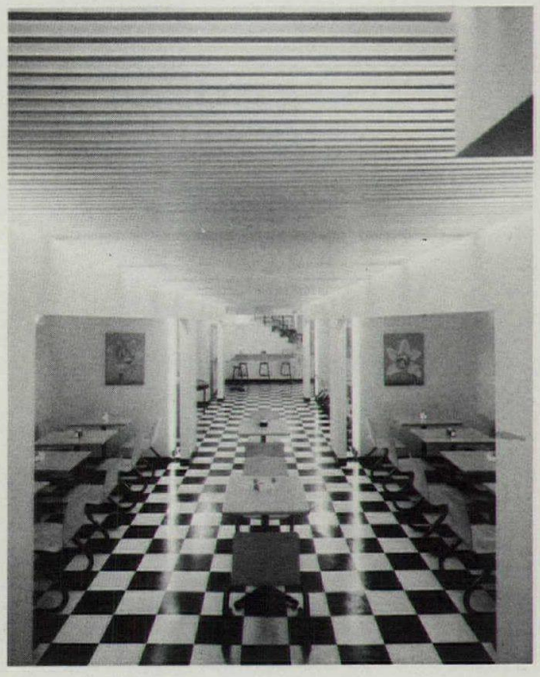
Despite its semiunderground location, the architects avoided a rathskeller look with white walls and a black and white checkerboard floor. The linear space is broken into quiet seating alcoves. These are secreted behind arcaded screens on each side of the center spine, softening the passage from one area to another.

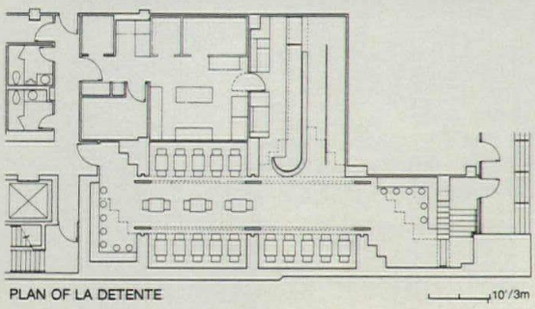
The lighting is all fluorescent, a kind normally associated with fast-food operations. Says Consultant Barna, "This shows it can be done." Fixtures are hidden behind the false walls and in the ceiling. The back side of the false wall is bright pink, and the indirect lighting causes it to cast a glow over the dining alcoves. The exposed concrete in the ceiling and the ducts, pipes, wires, and conduit are painted sky blue to give the illusion of outdoors. This mechanical equipment is masked by metal slats hung like a trellis in the center space. The only other color is maroon. The furniture rests on maroon steel tubing, and more of the tubing forms a railing that playfully follows steps at the entrance and the cafeteria line. There are six flower prints on the alcove walls and a pot of silk flowers at one end.

This is expensive space, as befits a luxury restaurant. Owner Dakak was able to save money by using only one walk-in refrigerator, but there are two full kitchens up and down. Although it cost more than he expected, Dakak is happy with what Cross and Little call "architectural entertainment." Says the restaurateur: "It came out right." □



PLAN OF LE PREMIER





PLAN OF LA DETENTE

10'/3m

Data

Project: *Le Premier Restaurant and La Detente Cafeteria, Washington, DC.*
Architect: *Cross & Little, Kensington, Md.*
Program: *Le Premier—1116 sq ft dining, 847 sq ft kitchen; La Detente—1157 sq ft dining, 1550 sq ft kitchen and storage.*
Major materials: *gypsum board, sandblasted mirror, metal slat ceiling, carpet, vinyl tile, incandescent and fluorescent lights.* *(See Building materials, p. 154.)*
Consultants: *Peter Barna, lighting design; Ethel Kessler, graphics; Shefferman & Bigelson, plumbing and electrical; Industrial Air, mechanical.*
General contractor: *C. David Hudson.*
Costs: *Le Premier—$170,000; $86.60 per sq ft. La Detente—$155,000; $57.25 per sq ft. Does not include fees, furniture or kitchen equipment.*
Photography: *Robert C. Lautman.*


EXIT

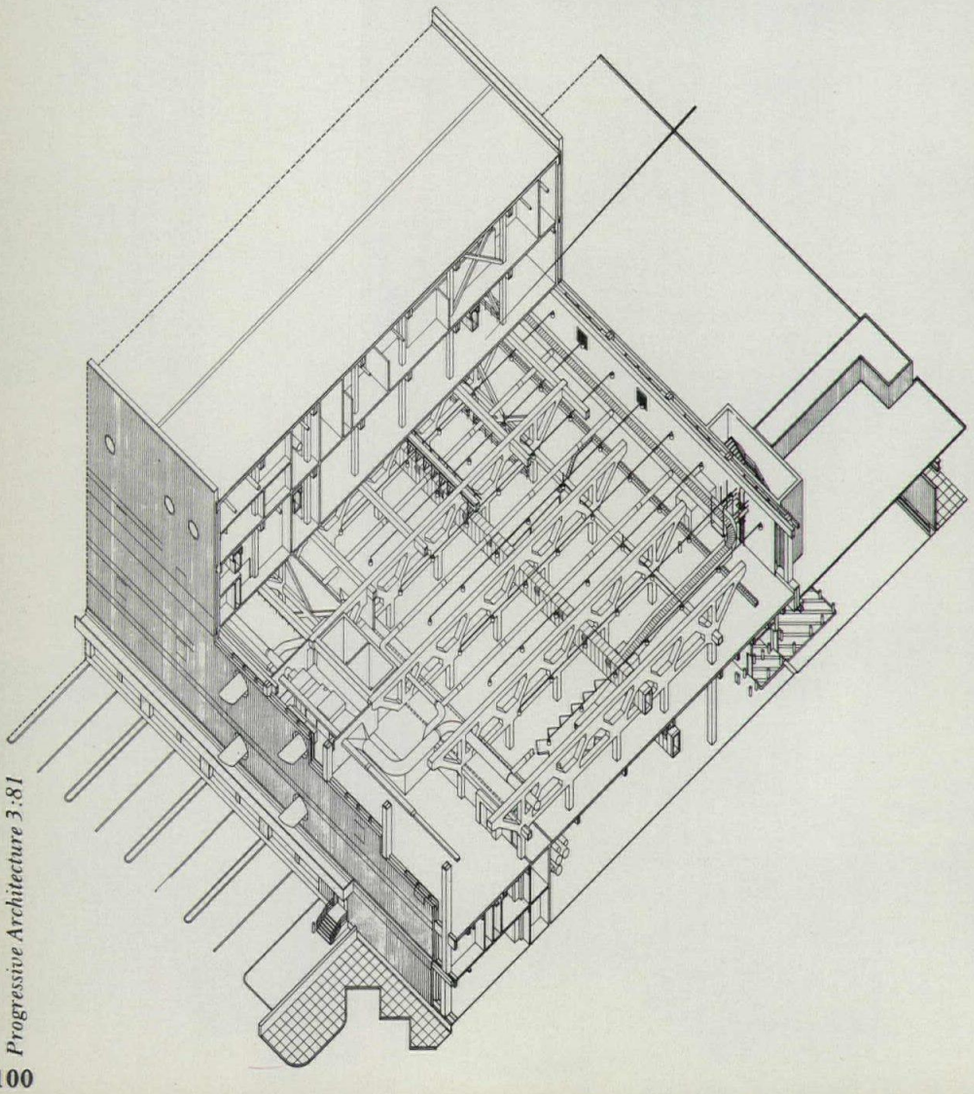
South Postal Annex, Boston, Ma

Post update

An old postal facility on Boston's harbor has been upgraded for extended use by Perry, Dean, Stahl & Rogers, with refreshing results.

The 1934 postal facility (facing page, top left) had a decaying brick façade before it was refaced with new insulating metal panels. The new design takes some inspiration from a low, related facility next door of the 1960s. A new entrance and covered pedestrian walkway to the train station have also been added.

It is well known now that the U.S. Postal Service has for the past several years been in a process of upgrading its older facilities. In the effort to make these buildings more energy-efficient, many of them have been refaced with new insulating or shading materials. It is particularly in this most visible area that the work can be seen to run the gamut from the most expedient and slipshod to that expressing the most thoughtful consideration of genuine architectural principles. In the historic South Street Seaport district in lower Manhattan, an example of the former can be seen where an older facility has been simply enveloped in a brassy metal grille, leaving a scaleless hulk behind that has become an eyesore to its neighborhood. At the opposite extreme is the newly rehabilitated South Postal Annex in Boston. There, facing the harbor, a 46-year-old structure with a decayed brick façade has been turned into a striking piece of architectural art that acknowledges high-tech imagery and seems also to look at the streamlined ocean liner symbolism of the 1920s. The primary impetus for the new design, however, comes from an adjacent 1960s postal service building to the south, to which this one is functionally related.

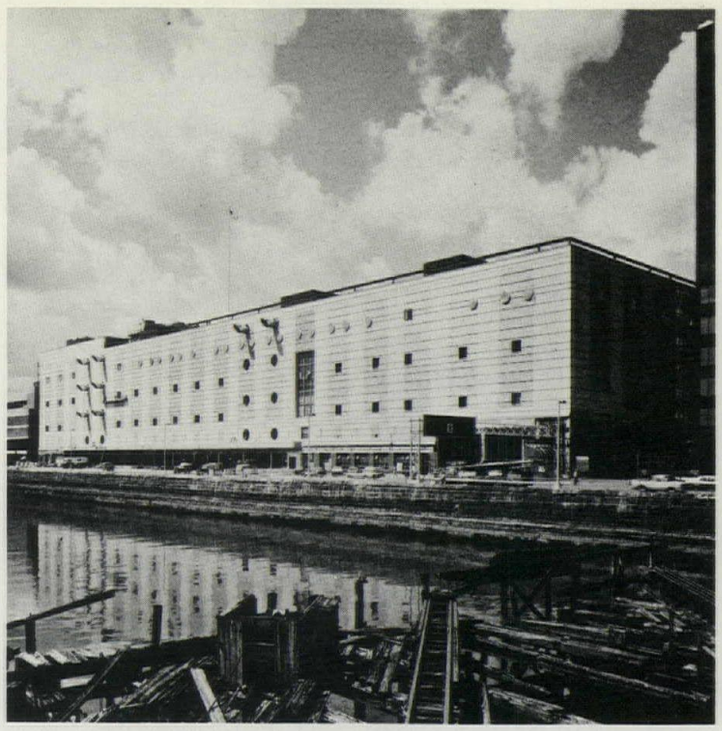


In Boston, as well as in other locations, the problem has not been simply to reface these older buildings, but in many cases to renovate them mechanically and structurally, and sometimes to reorganize them functionally to provide a more efficient work environment. One of the most noteworthy aspects about the South Postal Annex is that all of this has been done for the 565,000-sq-ft four-story building at considerably less expense than had originally been estimated.

When the architects came to the job, the original construction budget had been set at $27 million. But after their architectural and engineering analysis, it was found that the building's use could be extended the required 20-year minimum for just a little more than half of the estimated cost. The study, which resulted in an eight-volume work of over 1600 pages, showed that in many areas radical rehabilitation was really not needed. Some portions of the electrical systems, for instance, which were generally obsolete and below current code standards, were found to be reusable even though they had been in use for over 40 years. In varying degrees, the same was true of the HVAC systems and of the plumbing and sanitary systems. In addition, the architects noted that locating the low-velocity air-handling units on the existing mezzanine levels adjacent to the east façade of each floor could realize certain savings in air intake and distribution ductwork. This was due to the proximity of existing air intakes and to the possibility of utilizing the major circulation corridors for primary ductwork distribution. Although the structure of the building was basically sound, some new bracing was added.

There were only two requirements that had to be satisfied in the building that had not been met previously, and these were in the areas of adequate fire protection and accessibility for the handicapped. The only other major alteration to the building has been in the addition of the new steel pipe and plastic-covered pedestrian walkway that connects the annex to Boston's South Station Amtrak Terminal.

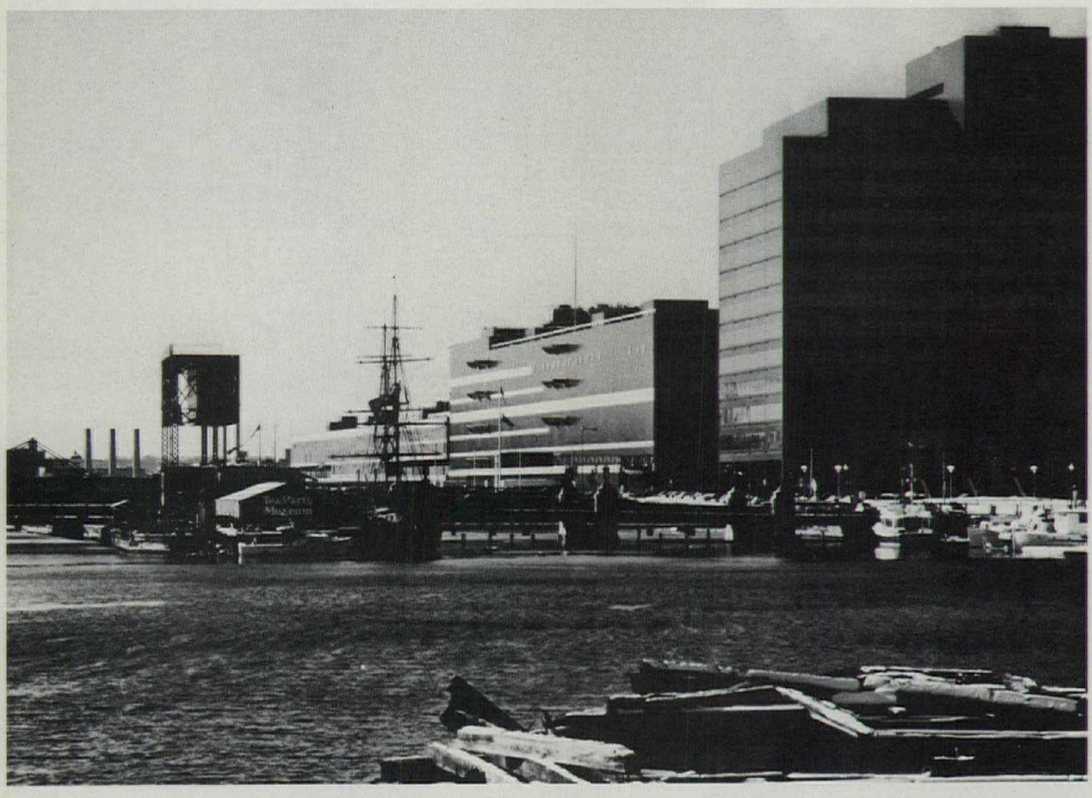
In some ways, one might question the

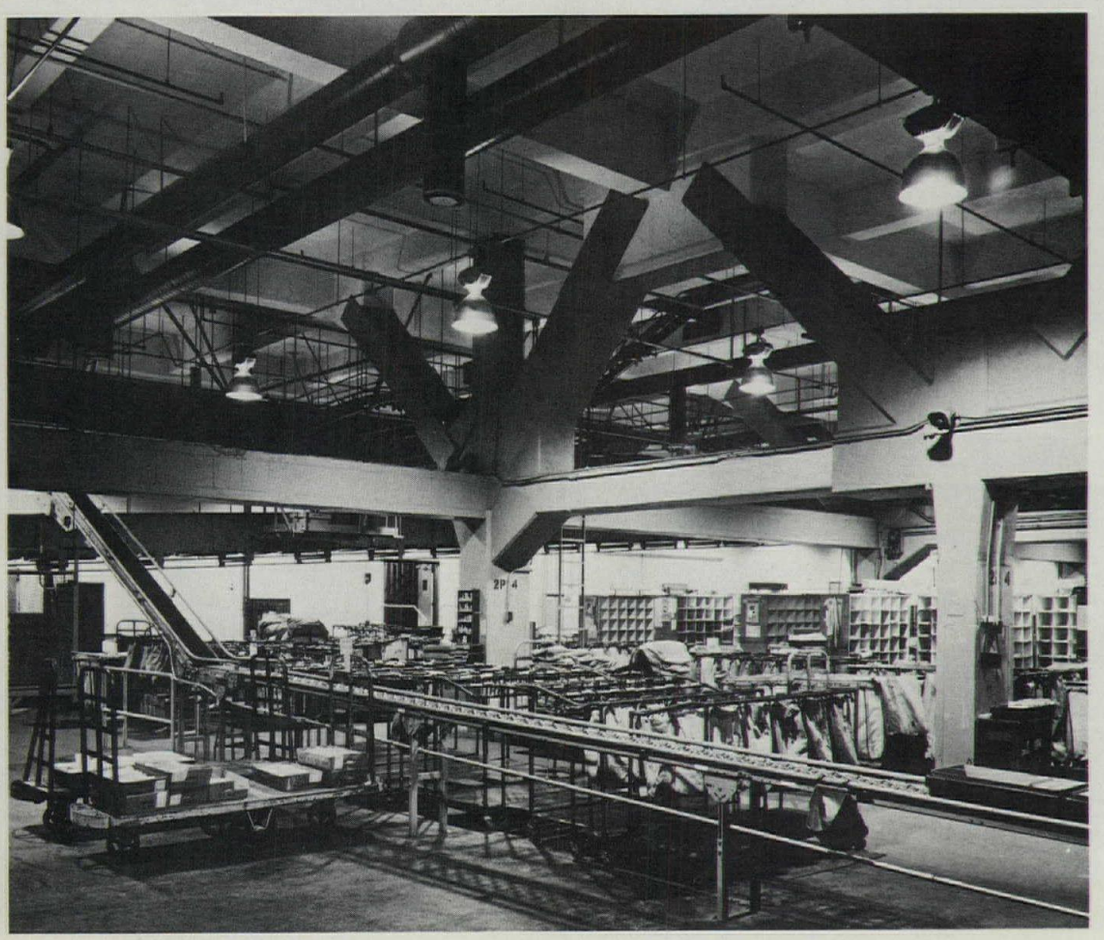



ENTRY

South Postal Annex, Boston, Ma

Postal Department's design policy of paneling over the windows in older structures, since this can deny an important scale device to a building. Also, there is something that just seems inherently unwholesome about a windowless building. But given the improved U-factor of the exterior walls, it seems that such a process can be justified. It is worth noting, too, that the Postal Department does not forget that real people inhabit its buildings, and therefore its design criterion for covering up windows is not totally rigid; at the annex, fixed reflective insulating glass in round metal frames has been used to give light and view to the offices on the top floor. When elements of scale and design have been returned to a building as artfully as they have been in Boston, then the process deserves admiration. [David Morton]





Data

Project: *U.S. Postal Service, South Postal Annex, Boston, Ma.*

Architects: *Perry, Dean, Stahl & Rogers, Inc., Boston; Charles F. Rogers II, architect; Peter A. Ringenbach, managing principal; Stan Dunbar, project architect.*

Site: *flat, urban site running parallel to a channel.*

Program: *rehabilitation of a steel frame general mail facility of 1934, including staff and administrative offices; upgraded for minimum of 20 years' extended use.*

Structural system: *structural bracing added to existing steel frame.*

Major materials: *metal panel siding over existing exterior brick, fixed reflective insulating glass, gypsum board partitions, covered walkway of steel pipe, corrugated aluminum, and polycarbonate double glazing (see Building materials, p. 154).*

Mechanical system: *15 low-velocity air-handling units; two rooftop units for pistol range and computer room, sill line radiation and unit heaters, chilled water from existing central plant.*

Consultants: *Zaldastani Associates, Inc., structural; Robert W. Sullivan, Inc., plumbing; McCarron, Hufnagle & Vegkley Associates, Inc., HVAC and electrical; Stephen S. Haynes, mechanization-production phase; I.G. Associates, Inc., mechanization-construction phase; Associated Controls & Communication, Inc., security.*

General contractor: *Vappi & Company, Inc.*

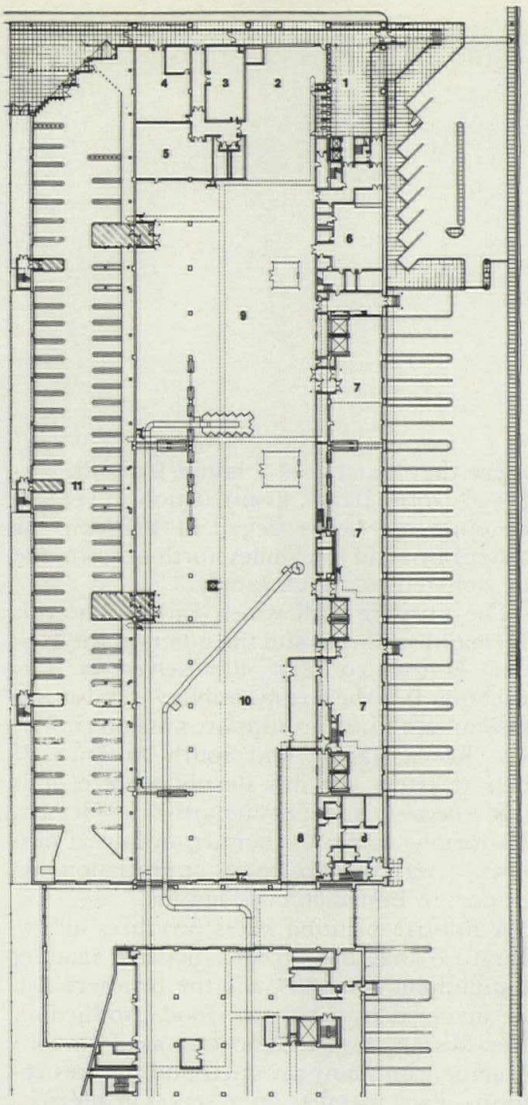
Construction management: *Sverdrup & Parcel & Associates, Inc.*

Client: *U.S. Postal Service.*

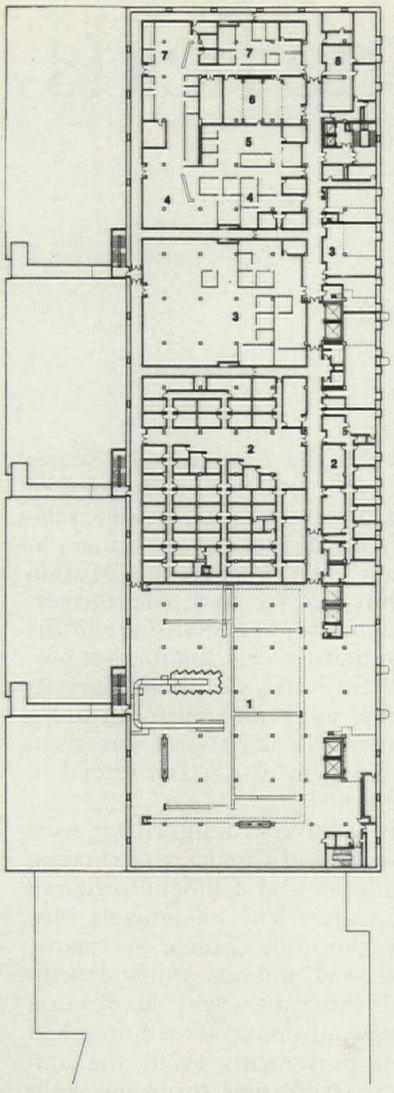
Costs: *$15,500,000 including additions during construction.*

Photography: *Ed Jacoby.*

The renovation was carried out for just over half the originally estimated cost. Savings were realized with air-intake and distribution ductwork by locating the air-handling units on an existing mezzanine near an exterior wall.



FIRST FLOOR



FOURTH FLOOR

N ↗ 40'/12m

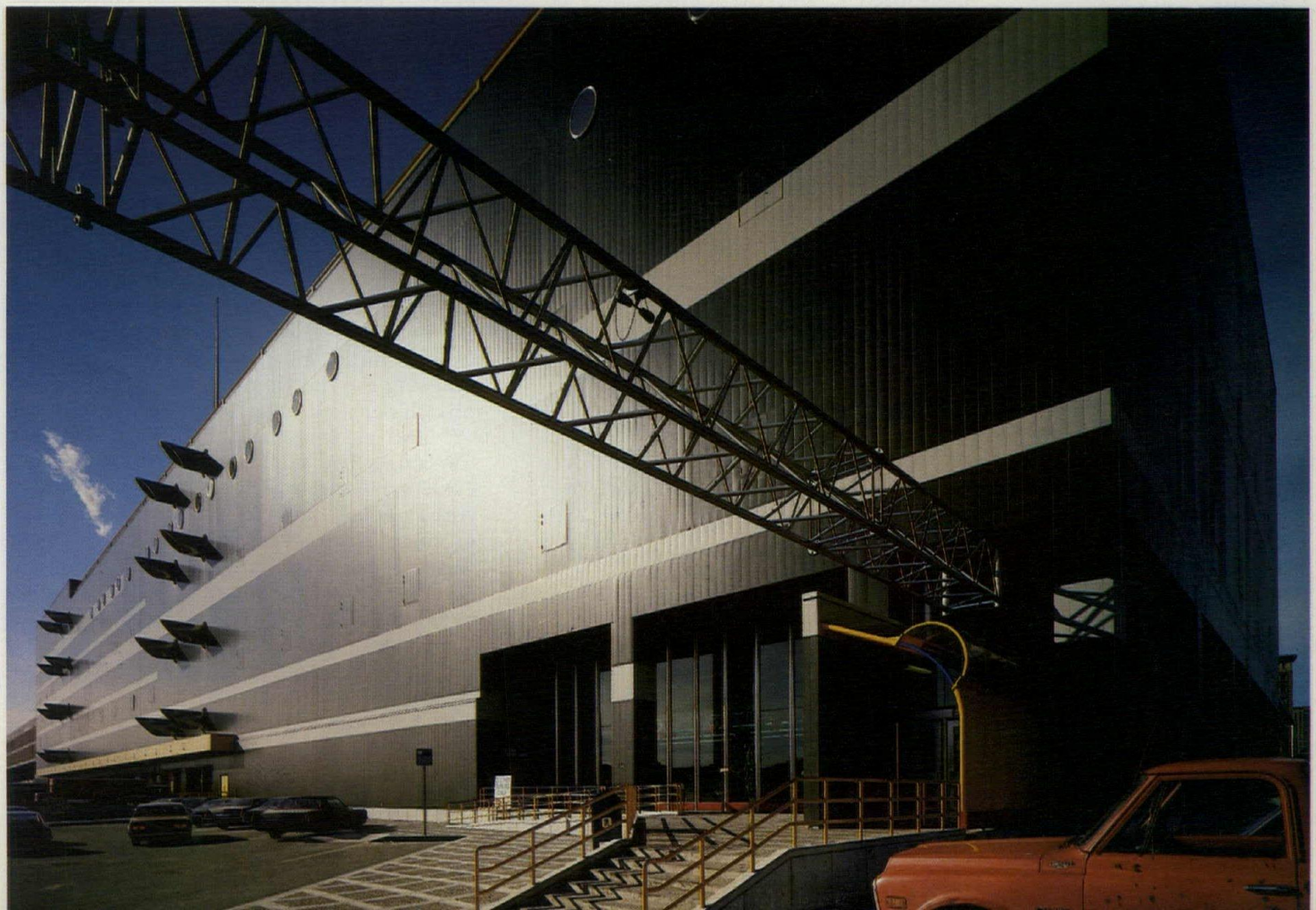
Legend

First Floor

1 US Post Office
2 Retail Unit
3 Credit Union
4 Personal Contact
5 Mailing Requirements
6 Customs
7 Mailing Platform
8 Registry
9 Mail Processing
10 Bulk Mail Center
11 Truck Parking Area

Fourth floor

1 Incoming Mail Center
2 Inspection Service
3 Finance
4 Customer Service
5 Industrial Engineering
6 Conference Room
7 Employee and Labor Relations
8 Postmaster Group



Benedictine Mission House, Schuyler, Ne

Of the fields

Nestled into a hill on the Nebraska plains, the new monastery for an old congregation begins work.

Monastery. While the term usually carries with it an implication of devotion, it also often evokes images of severe austerity and isolation. Certainly the Fathers and Brothers at this Monastery, The Benedictine Mission House in Schuyler, Ne, have the former. Without question, they live their share of the other two conditions as well. But it is not possible to visit these warm people of German origin and come away with anything but a feeling that their past hard work has given them new facilities, in which they intend to work even harder.

In their new quarters, designed by Astle Ericson & Associates of Omaha, a fascinating purpose and history and a unique program find their expression. The Benedictine Missionary Congregation of Ottilien, Germany, was founded in 1884, and sent its first expedition to Zanzibar three years later. Many years and many diverse missionary expeditions had occurred when, in the early 1930s, the congregation faced severe new problems. Religious houses in Germany were closed or heavily restricted, and the Benedictines began searching for a new location. In the mid-1930s, they ended their search in Schuyler, where they purchased a house from the Sisters of Notre Dame. Construction to replace the outgrown house began in 1978 on—or rather in—a hill four miles north of town, the site donated by a local family.

The purpose with which Father Superior Herman Kornbrust and the others at the Mission House concern themselves is far-reaching. It is their responsibility to raise and disseminate funds to support missions in Africa, Korea, Japan, and South America. If their quarters are not sternly austere, it is partly because some of the artwork—in various forms—comes to them from far off outposts, a way of expressing appreciation for support in Benedictine programs.

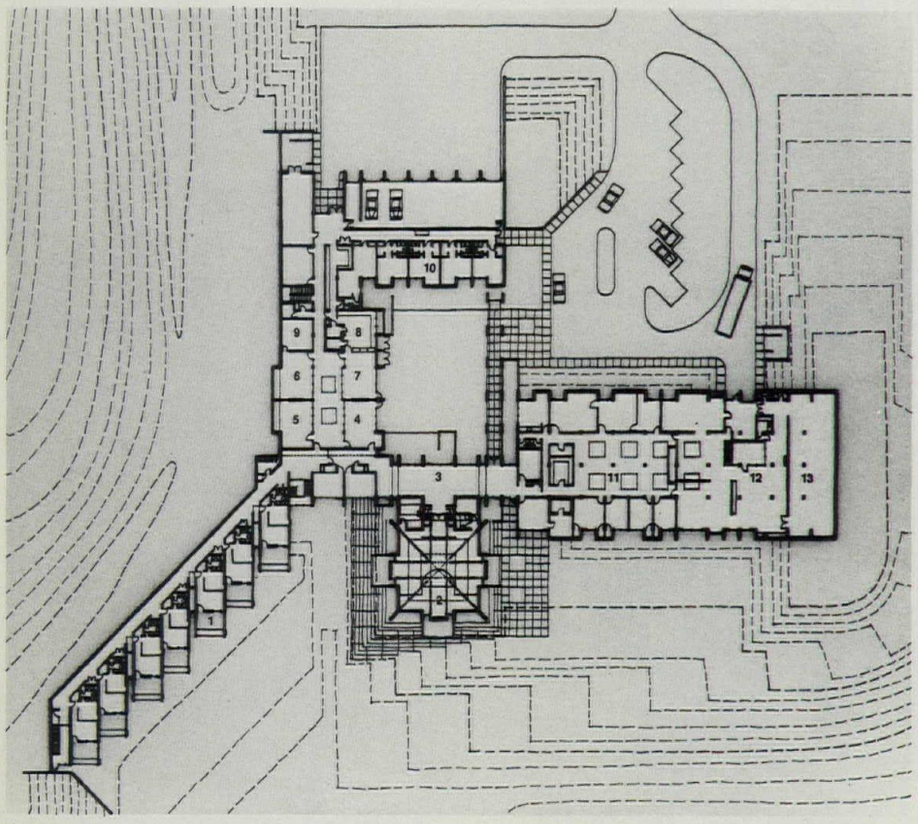
A full-size printing press produces all the literature that the Order's massive mailing commitment demands, and the Brothers also are involved in their own food production. The Mission house functions as a smooth machine with many products and services resulting. Each member often serves in alternating roles, except where specialties such as printing press operation prevail. Some of the Brothers spend much of their time out of the House, doing the actual business of raising funds, but the pattern of operations seems somehow uninterrupted, serene, and earnest.

As the facility is approached from the south on Nebraska State Highway 15, the first distant view across the farmland is striking in its simple elegance. The structure barely breaks the horizon plane, but remains visible until a point just southwest, where the viewer loses it into the hillside. A turn east off the highway fails to turn up any image but sod fields until the entrance drive appears. The buildings form a rough "Y" in plan, with appendages. Entering the site from the north, visitors approach perpendicular to the right arm of the "Y" and park in front, in a very sheltered forecourt. The extent of the complex is not evident from this viewpoint; in fact what *is* visible seems anxious to shrink into the ground, which it succeeds in doing at the viewer's extreme right and left. Entry is through a cloister along the east border of an open central court.

Enfolding the courtyard are entry and circulation/display areas outside the chapel, conference, dining, and kitchen spaces on the west, with guest quarters on the north. Back-

Legend

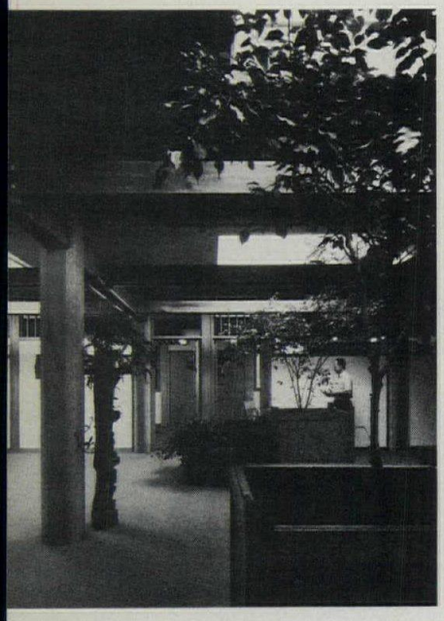
1 Resident living	**7** Dining
2 Chapel	**8** Kitchen
3 Entry hall	**9** Library
4 Conference	**10** Guests
5 Music	**11** Admin.
6 Lounge	**12** Printing
	13 Storage

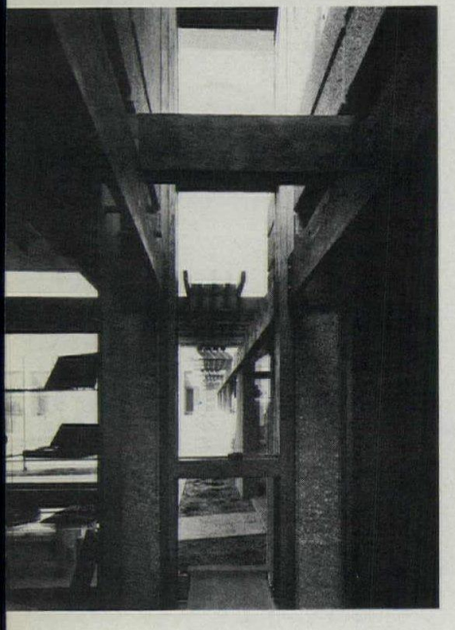


PLAN N ↑ 20'/6m

Benedictine Monastery

Almost the signature of the Astle Ericson firm, crisp wood detailing in office and entry areas (below) shows infinite care. The same attention is lavished on the chapel (section below), both in structure and finishes.





ing up the guest rooms is the main garage opening onto a service yard recessed into the hill. Music and recreation areas across from dining and conference open with large sliding glass doors to join with the separating circulation space. East of the entry, in order of appearance, are administrative, printing, and storage functions. The stem of the "Y" is the row of permanent resident quarters marching diagonally southwest. Obviously the centerpiece, the chapel is a square plan form on the south end of the long court axis.

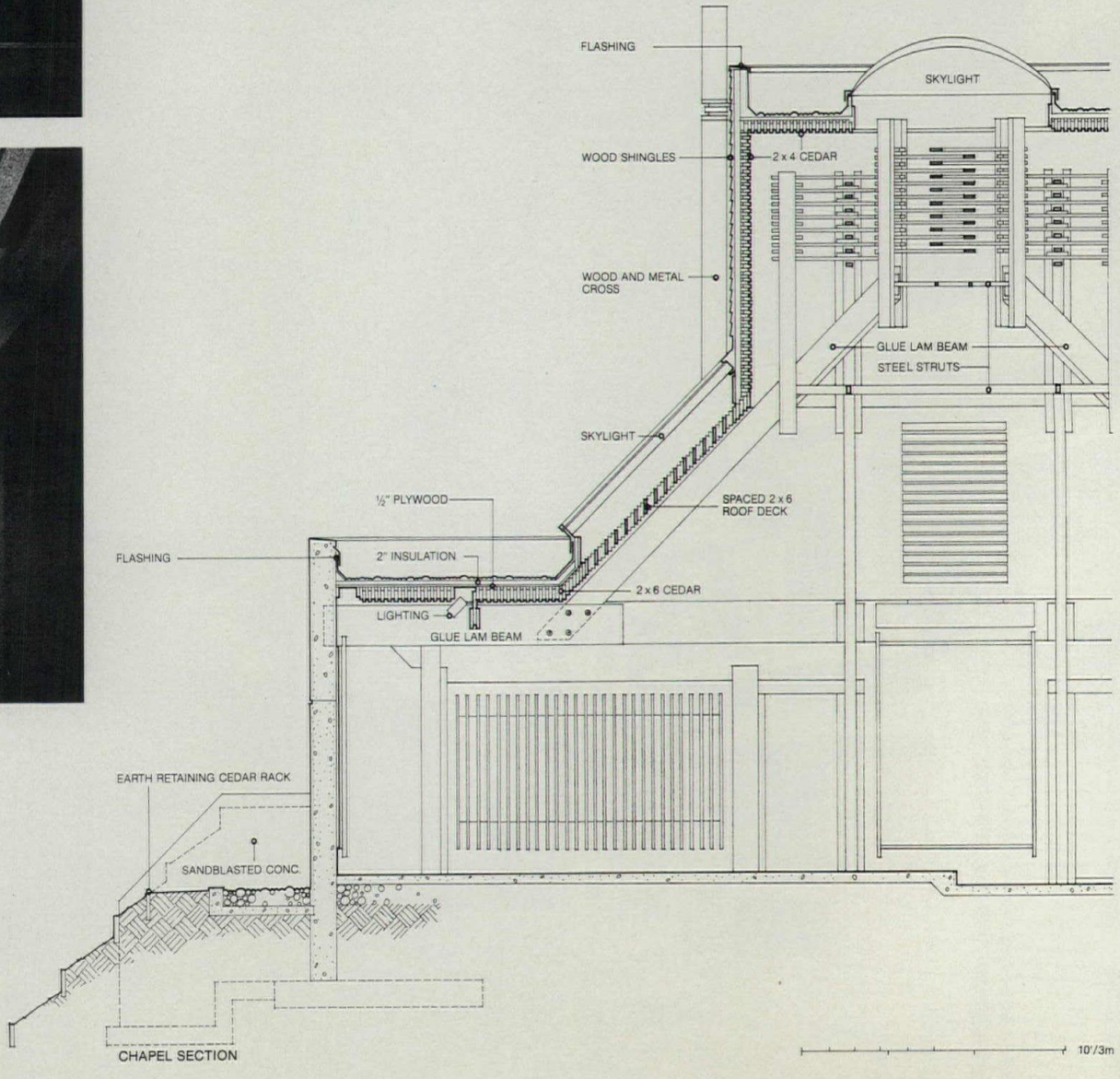
Viewed from the northwest, the two western wings are totally invisible, save the punctuation marks of skylights in the sod landscape and a minimal concrete parapet that marks the building's leeward edge. Resident units, thus backed into and along the edge of a bowl, step progressively away from the chapel in two tiers; upper-level quarters each have a terrace on the roof of lower rooms, which open onto grade. On warm evenings, the Benedictine Brothers can be seen—after changing from their robes following vespers and dinner—emerging in jeans to work on the grounds.

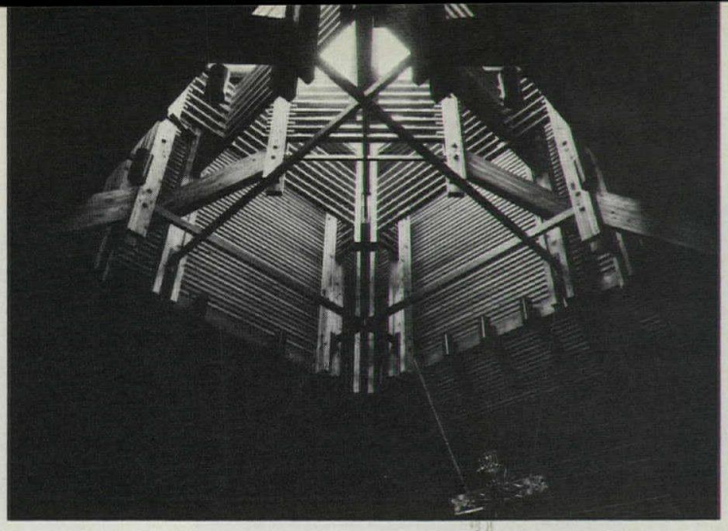
Earthwork also marches up to meet the chapel in stepped terraces with some visual recall of Aztec or Mayan forms. These are planted in low bushes which, like some of the other landscape features, are not fully established yet; the Brothers will see to them. The eastern (storage) end of the printing/administration wing is, again, buried, as is the north retaining wall of the service yard.

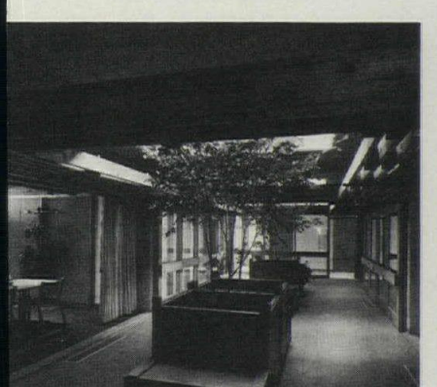
Quite aside from the visual delight of the structure growing out of the hill, the architects' intent obviously stems from climatic concerns. The prevailing, and more or less constant, winter winds find few north and west surfaces to penetrate, and the south glazing and skylights allow the sun to enter. Ventilators conduct summer breezes into the spaces and circulate air out through the top. Rows of trees to the northwest will form an additional windbreak.

Neil Astle has always had a way with wood. The integration of wood and concrete at the Mission House carries on that tradition, seen earlier in the Midlands Mall in Council Bluffs (P/A, December 1978, p. 60). Here, the infill panels in the residential wing are warm and appealing, and are vaguely reminiscent of Louis Kahn's Salk Institute. Although much reduced from what the clients originally wanted, the chapel roof remains the one slightly discordant note. It is a bit dominant still, and the cross it carries somehow lacks the finesse that characterizes the rest of the complex.

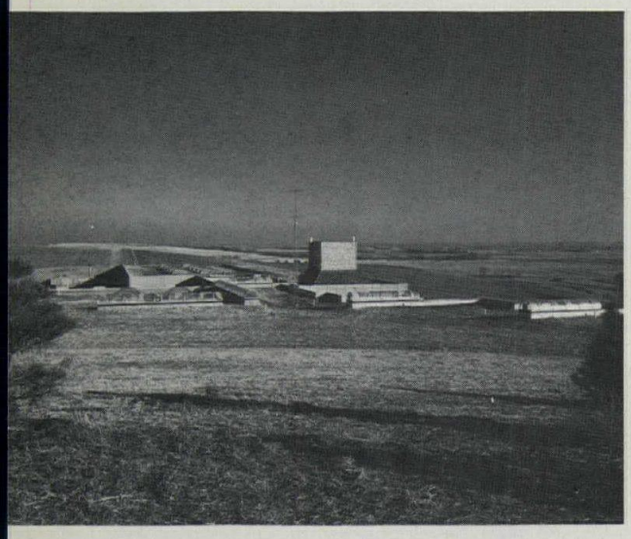
Admittedly, the interior space created by this roof is very dramatic, with intricately de-

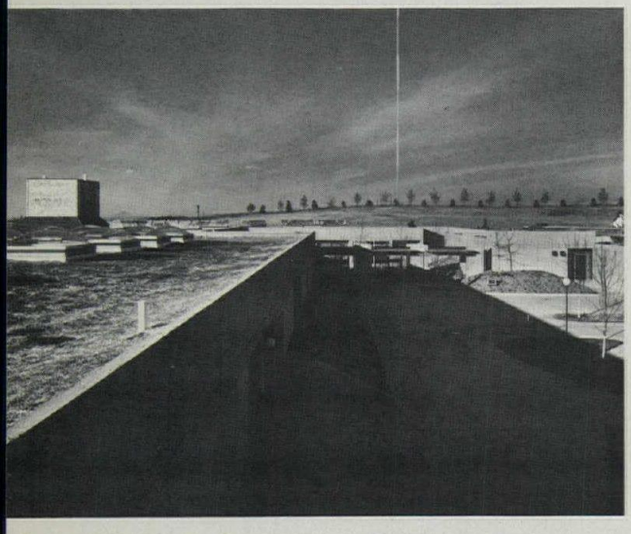






In the music area (top left), skylights bathe side walls. Sliding glass doors allow music and lounge areas to open onto a broad circulation space and to the dining and conference areas (center left photos) beyond. Two functions, the printing shop (above) and the more articulated chapel (right photos) carry out the Order's simple motto, "Work and pray."





tailed columns, beams, and lantern structure. Skylights at the top of the lantern and bounced light under the eaves supplement the rows of downlights. If the chapel suffers from anything, it might be from overbusyness. The seating and the surrounding wall planes could benefit from a few more undisturbed planes, a little less going on. Nevertheless, the kinship between this space and the rest of the complex is clear, and the wood craftsmanship is flawless throughout.

Interiors are warm and comfortable, and in some areas—notably the music and recreation spaces—quite colorful, highlighted by vaulted or domed skylights. Each of the residential units is decorated by its occupant, and they vary from minimal to quite visually active. The artwork which adorns many of the more public areas, coming as it does from all over the world, adds another layer of interest. The kitchen and guest facilities are efficient and impressive, as are the work spaces, in their own way. Overall, the complex has an extremely pleasant atmosphere, complementing its congenial occupants, that belies the considerable work done there.

Astle, Ron Ericson, and their associates have obviously made of this project a labor of love. Their care is visible from concept through detailing; as in their Midlands Mall project, some hours of their own physical work went into the finishing touches. The synthesis between program, spirit, site, and design solution seems even closer, more thoughtful than ever, and a logical extension of the firm's commitment. Viewing the Mission House across a Nebraska landscape, it would be difficult to imagine a more hauntingly right solution. It belongs, and enhances. [Jim Murphy]

Data

Project: *Benedictine Monastery (Benedictine Mission House), Schuyler, Ne.*
Architects: *Astle Ericson & Associates, Neil Astle and Ron Ericson, principals.*
Client: *Father Herman Kornbrust, O.S.B., Superior, Benedictine Mission House.*
Site: *rolling hillside, 16 acres in Colfax County, Nebraska, overlooking the Platte River Valley and the town of Schuyler.*
Program: *areas for chapel, living quarters, offices, printing and storage, gallery, kitchen, dining, music, library, guests, and garages.*
Structural system: *reinforced concrete footings, foundations, building walls, and roof slab. Roof designed for 500 lb per sq ft dead load and live load.*
Mechanical system: *oil propane-fired boiler.*
Major materials: *sandblasted reinforced concrete, western red cedar, gypsum board interior walls; carpet, sheet vinyl, and quarry tile floors (see Building materials, p. 154).*
Consultants: *Ketchum, Konkel, Barrett, Nickel & Austin, structural; Raymond G. Alvine & Associates, mechanical and electrical; Woodward/Clyde Consultants, soils.*
General contractor: *Knudson, Inc.*
Costs: *$3 million; $75 per sq ft including sitework, parking, landscaping, interiors, signage, and fees.*
Photography: *Gordon Peery.*

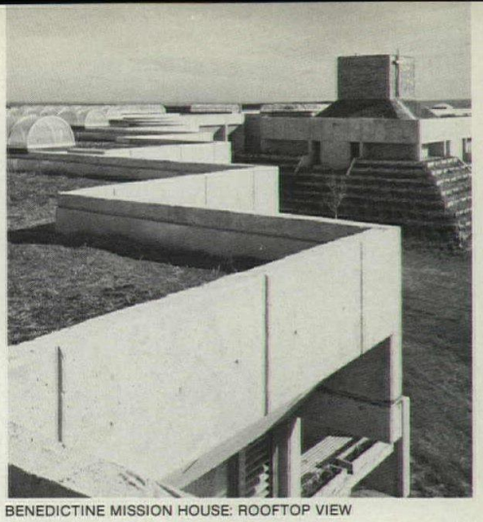
Viewed from the northwest, the complex emerges from the earth only when the viewer is virtually atop it (top left). The main entry and the wing that houses office/shop areas (center left) open to the northeast, but the ends recede into the hill when seen from the north (left).

Energy analysis

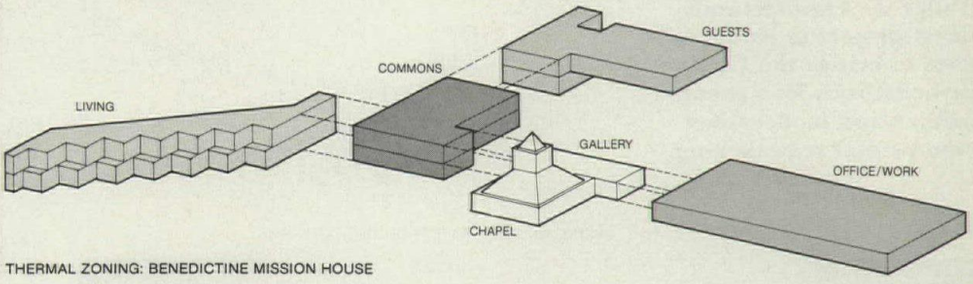
This analysis was prepared in the Center for Planning and Development Research, College of Environmental Design, University of California, Berkeley; Vladimir Bazjanac, Ph.D., Project Director. The work is funded by the U.S. Department of Energy.

GAINS		LOSSES		
HEAT	COOL	HEAT	COOL	
NONE	3%	13%	NONE	WALLS
NONE	11%	25%	NONE	ROOFS
NONE	NONE	21%	100%	UNDERGROUND SURFACES
NONE	4%	12%	NONE	GLASS—CONDUCTION
37%	20%	NONE	NONE	GLASS—DIRECT SOLAR
NONE	26%	29%	NONE	INFILTRATION
5%	3%	NONE	NONE	OCCUPANTS
35%	10%	NONE	NONE	LIGHTING FIXTURES
23%	23%	NONE	NONE	EQUIPMENT
100%	100%	100%	100%	

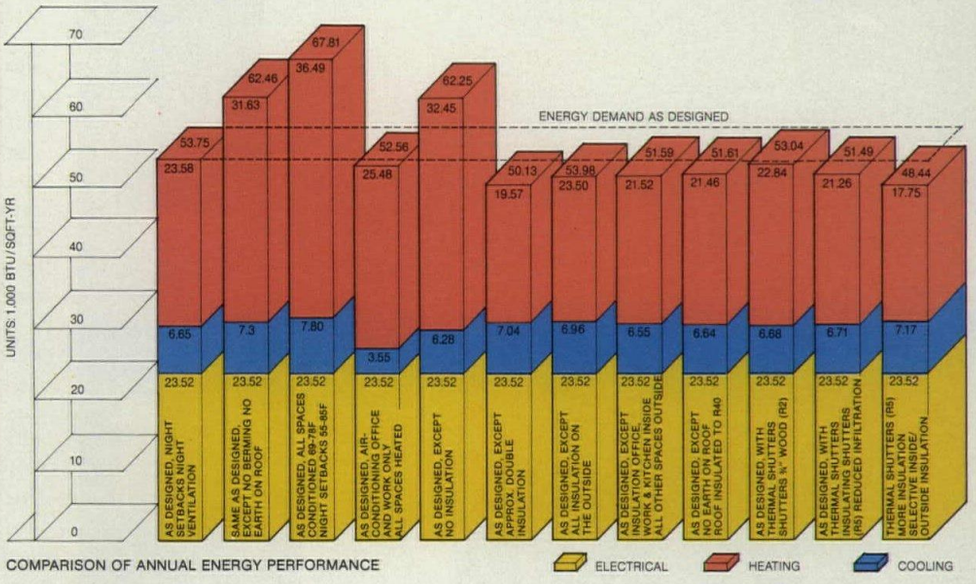
COMPONENTS OF BUILDING LOADS



BENEDICTINE MISSION HOUSE: ROOFTOP VIEW



THERMAL ZONING: BENEDICTINE MISSION HOUSE



COMPARISON OF ANNUAL ENERGY PERFORMANCE

The energy performance of the Benedictine Mission House is characterized by the berming of the building and the earth cover on the roof, a large roof-to-floor-area ratio, as well as the different types and patterns of use by the occupants. The energy analysis focuses on the performance of berming and insulation and on the strategies for use of heating and cooling.

The sprawling building design represents a sensitive response to its barren surroundings and to the severe continental climate of Nebraska. The Benedictine Fathers have developed an energy-efficient strategy for heating and cooling which is hard to improve upon without considerably reducing thermal comfort.

The building is dominated by the heating load imposed by the climate, which exceeds the demand for cooling by 3.5 times. Above-the-ground surfaces account for one-half of the heat loss during the heating season. Thus the energy performance benefits from the exposed high thermal mass and the berming. In comparison to a building with all walls exposed to the environment, berming as designed reduces the estimated loads by 14 percent. Internal gains cause more than one-third of the cooling load. Two-thirds of that is caused by equipment. Windows are well shaded, and direct solar gain accounts for only 20 percent of the cooling load.

Daylighting performance in the building is very effective. All spaces (except in the work area) have plenty of natural light. In spite of that fact, installed wattage for artificial lighting is high, and electrical consumption accounts for 44 percent of the energy demand in the building. Lighting fixtures contribute as much heat gain as direct solar does, which is an expensive way to heat the building.

Insulation as designed reduces the loads by 14 percent. Approximately doubling the insulation would reduce the loads by another 6 percent. Placing the insulation on the exterior of walls in spaces which have little internal load (e.g.. in living units) improves the performance by 4 percent.

Earth cover on roofs is not very useful in terms of energy conservation. A conventional, exposed roof with heavy insulation (R40) represents a 4 percent improvement. The provision of insulated thermal shutters, closed at night during the heating season, would reduce heat loss through the windows and reduce the infiltration, resulting in another 4 percent of saved energy.

The building's energy performance is most sensitive to thermostat settings. If the entire building were to be heated and cooled uniformly, its expected performance would worsen by 26 percent. The present occupants are very energy conscious; they respond to the ambient conditions and often turn the controls off. During the cooling season, they rely on nighttime natural ventilation. The only conceivable improvement would be to eliminate all air conditioning outside the office and work areas, which would reduce the loads by 2 percent.

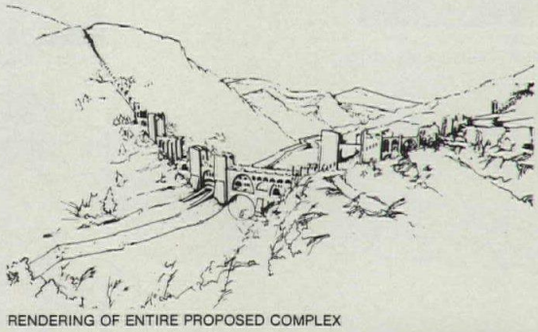
This energy analysis merits a word of caution. It is very difficult to model accurately the conductivity through underground surfaces. Conductivity changes with the moisture content in the ground, sometimes by a factor of 4–5. The understanding of this process is incomplete, and even the most sophisticated annual thermal simulation models could contain significant inaccuracies. Thus the reported results possibly include an error which cannot be estimated. The work by Professors Thomas Bligh of MIT and George Meixell of the University of Minnesota may soon alleviate this problem.

The analysis of the energy performance of this building does not include the performance of the mechanical systems in the building. It is based on annual simulations with DOE-2.1, using custom weighting factors and the TMY weather tapes for Omaha, Ne. Its accuracy is limited to the accuracy of DOE-2.1 in representing the building's thermal behavior and does not necessarily conform to all of the details of the actual performance of the existing building (P/A, April 1980, p. 100). A detailed report is available upon request.

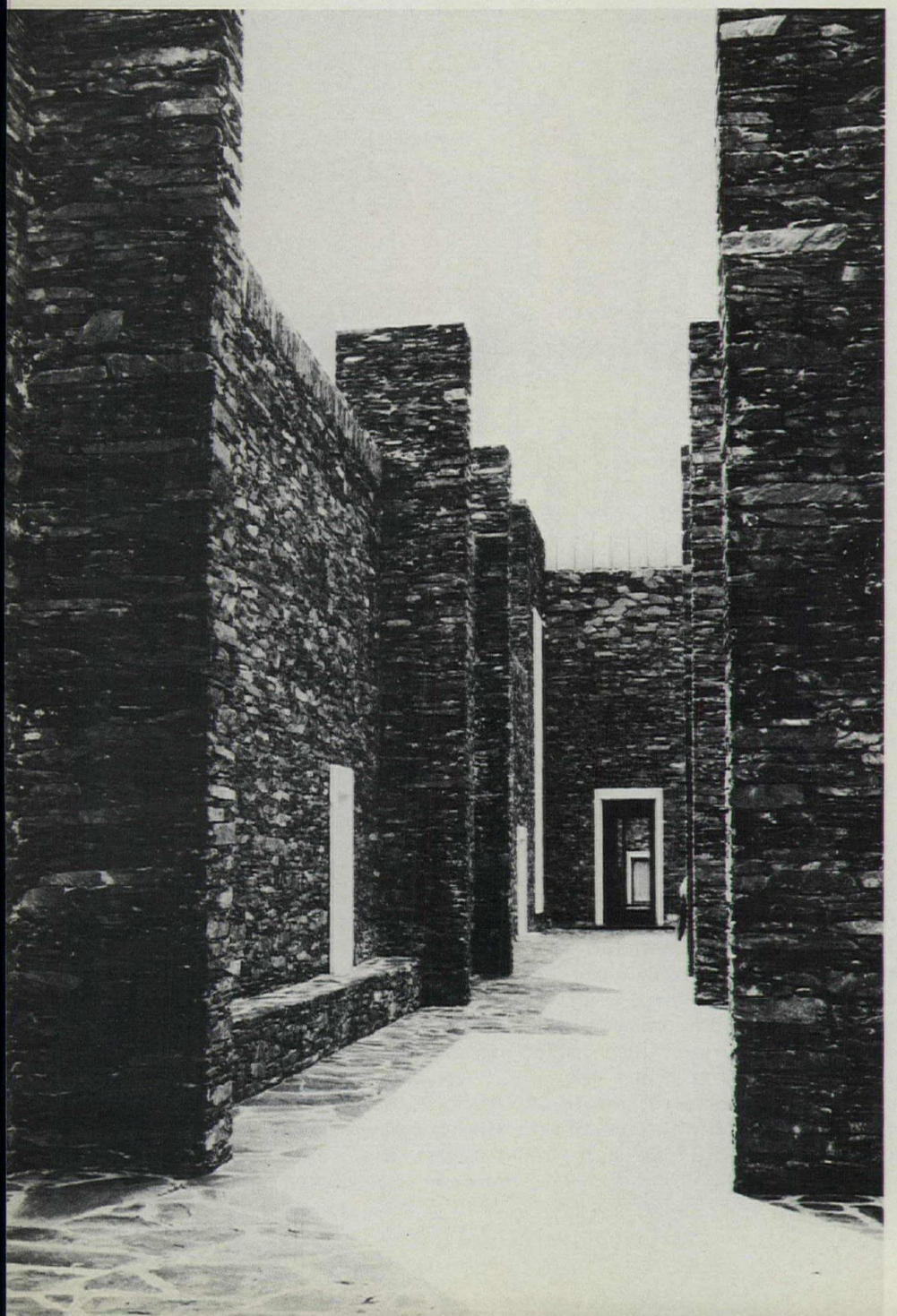
Sanctuary of Meritxell, Andorra

Out of the ashes

Taller de Arquitectura's latest project in Andorra tries to bridge the Catalan principality's Romanesque origins and modern-day commercial reawakening.



RENDERING OF ENTIRE PROPOSED COMPLEX



Text is excerpted from a longer description by project director Peter Hodgkinson.

Andorra, a tiny principality in the Pyrenees, has recently begun a population explosion and economic boom reflected in the queues of visitors crawling in from its two frontiers, Spain and France, to look for tax-free bargains, cheap food and drink, skiing, camping, and clear mountain air, before braving the customs officer on the journey home.

The rocky valleys that form the princedom were among the last bulwarks against Islamic invaders more than a thousand years ago. Andorra was connected to Spain only by a perilous track with halfpoint drystone arches spanning vertiginous gullies no wider than a mule pass. Here the hardy Catalan Christians constructed archaically beautiful Romanesque churches of black slate, and for each one carved a goddess.

The head goddess was the Virgin of Meritxell (pronounced "Merryshell"), and the eighth of September was her holiday. On that day in 1972, her sanctuary and the Lady herself caught fire and were destroyed, survived only by the original apse and vaulting over the altar and a latterday belltower. This tragic conflagration provoked an immediate reaction in the political, cultural, and religious realms of the principality whose leaders decided to build a new Meritxell as a monument to the country's progress, symbolizing its autonomy, its ties with the Bishopric of Seo d'Urgel, and its cultural importance for Cataluña. The Bishopric insisted on a real church, traditional and big, with space for such activities as museums, archives, concerts, and other manifestations of Catalan culture.

Above all, there existed a sense of shame over the excessive money chase in which the country was involved. This was to be a building integrated into a protected natural park, a prototype of conservation planning, a reaction to the massive building speculation and deterioration of Andorra's patrimony, her landscape. The chief of state invited the collaboration of three architectural firms in Barcelona, of which Taller de Arquitectura finally took on the job alone.

The architectural vision was to build a structure that was the opposite of the environmental degradation inherent in unplanned territories. This counterstructure became a symbolic line across the valleys and mountains of Andorra, passing through the center of the new Sanctuary, forming a cross

with the old, along which every type of known Romanesque symbolism could be constructed, from the most abstract and organic to strong stone vaults and high bell towers. This line, born on the highest snow-covered peaks of the mountain, plunges down the slopes. It takes force and shape as it goes, until at its lowest point it forms a giant viaduct bridge of three floors, spanning an artificial lake of black water, that houses the major part of the program. Then, continuing up the other side of the mountain, releasing architecture as it climbs, it recedes along a rocky path into the pine trees.

In addition to the two major elements, the Sanctuary and the bridge, the elements of greatest symbolic importance, from east to west, are: the concave amphitheater, giant steps, bridge over the road, climbing towers, vaulting arches, esplanade, convex theater, gushing fountain, sculptured colonnade, and ride through the forest.

The Sanctuary, begun in 1974, is now built. Its unfinished arches are poised over the valley waiting to connect with the future bridge. Outside, the building is consciously Romanesque, a form that belongs to its black mountain and small hamlet, but very much aware of its different scale.

Inside is a world of Albertian dynamics, almost mannerist in the treatment of corners with mirror and the strip-lighting of cornices. Patterns of black-and-white terrazzo play a game of shadow projection and visual homage to San Miniato. This juxtaposition of austere and dignified Pyrenean Romanesque with the ebullience of the Florentine Renaissance masters is intended to stimulate the sensibility of the visitor and create an ethereal ambiance for the worshipper.

The procession from the mountain surroundings, through black rock portals, into the Op-Art world of black and white is also a poetic statement of Andorra's seasons: from summer flora to the months of snow. Copper sheathing is used on roofs and the vertical surfaces which are not black and white. This introduces the third color of the mountain, a green, lichenous grassy tone, obtainable only through the long-term oxidation of copper.

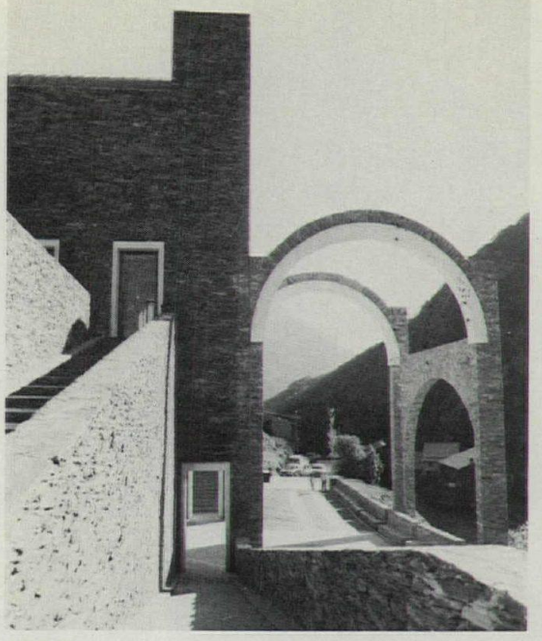
A bell tower of the correct proportion would have been too heavy and costly in

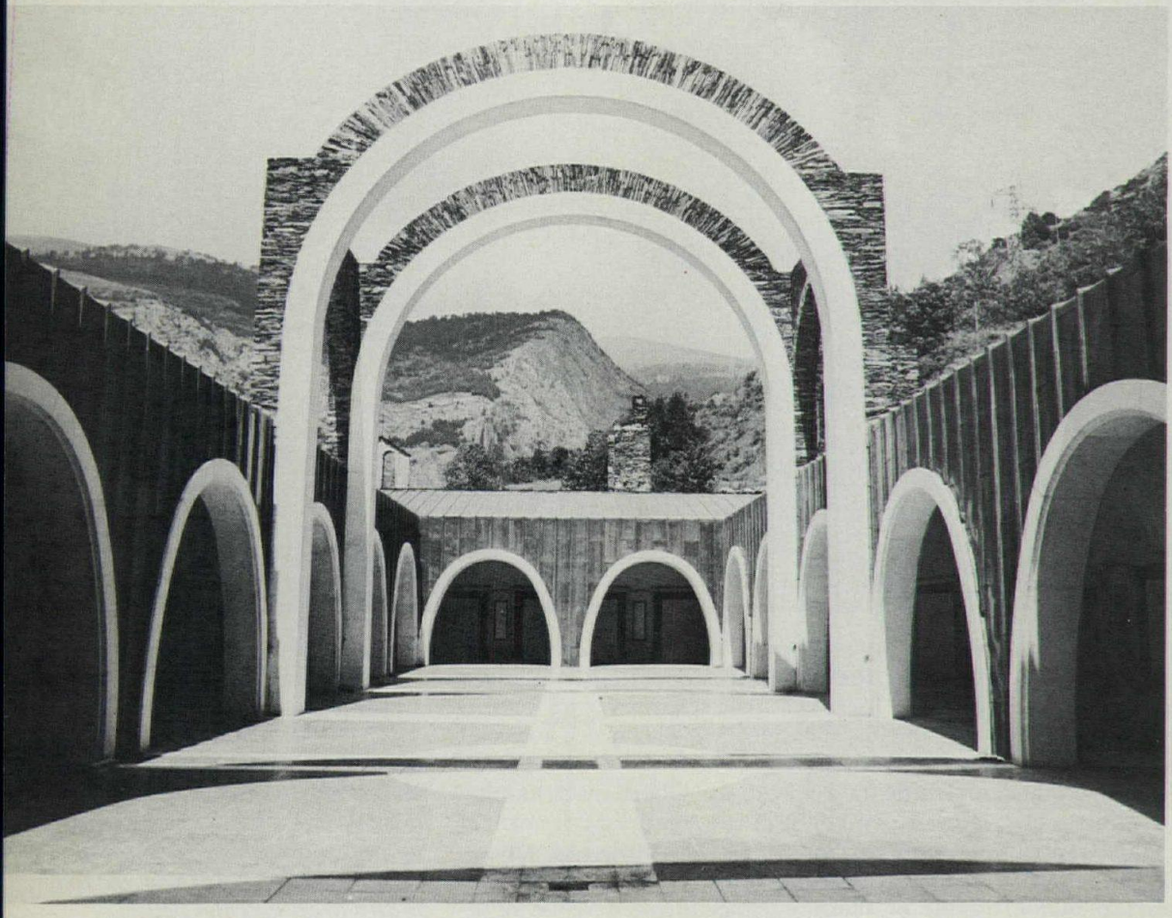
After a fire destroyed the Meritxell church, plans were made for a much larger complex in its stead. As yet only the Sanctuary and its dependencies (above) have been completed, using traditional black stone and recalling the original Romanesque character (facing page), albeit with modern technology and contemporary eclectic impulses.

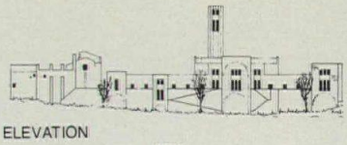
stone, so instead it is a light brick block structure with concrete binders and interior bracing covered in copper. The deep rock bed suggested a vaulted crypt with concrete arches embedded in the mountain to support the weight of the large cloister and church. This crypt is used as a public hall for gatherings and has one interior face of mountain which releases water into a long canal that runs the length of the hall.

The vaults of the cloisters and the crossed barrel vault of the church, originally conceived in board-formed concrete, changed to lightweight, curved metal trusses covered with plywood on both surfaces. Nearer aircraft construction than Pyrenean craftsmanship, it is visually indistinguishable and quick and cheap to erect. The stone walls are approximately a yard thick. The stones were hacked from excavated rock on site and placed against an interior support wall of brick block, which was plastered on the inside and covered with terrazzo tiles. All door, window, and arch facing is artificial white stone, prefabricated along the same principle as a dressed stone window in a rubble wall. The great arches of the church are filled in with frameless glazing braced by glass fins suspended from the top. The others are fitted with simple, dark-stained wood and smoked glass.

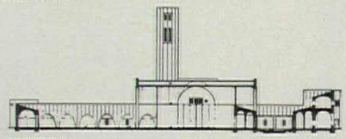
The free-floating sculptural arches around the building express the Sanctuary's link to the larger vision yet to be realized. But in its niche stands a brand new, gaily painted Virgin of Meritxell. □







ELEVATION



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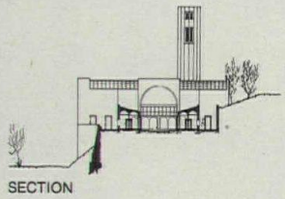

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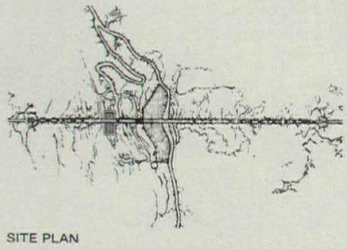
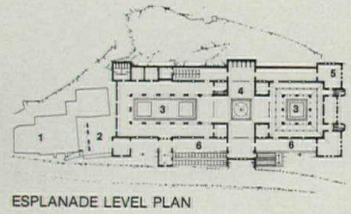
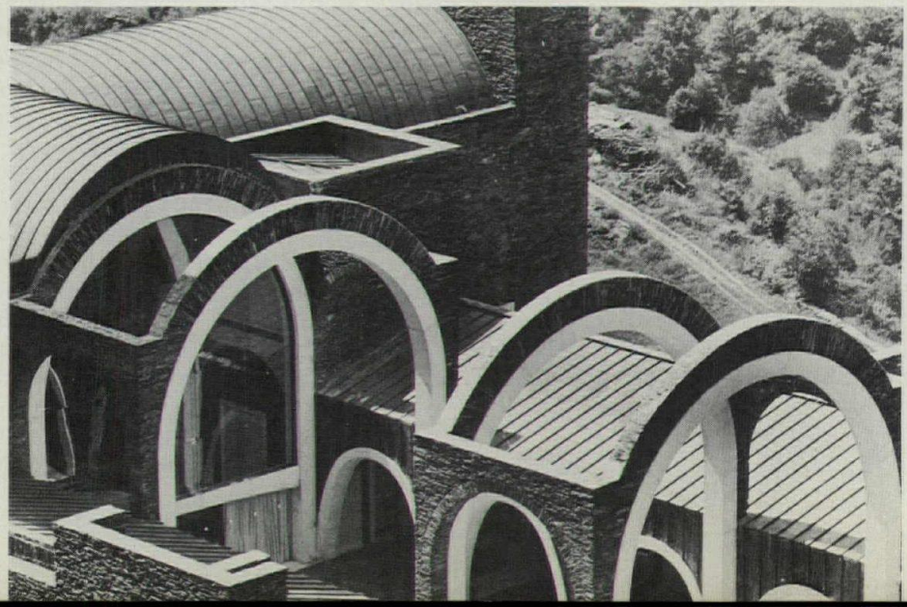


SITE PLAN



ESPLANADE LEVEL PLAN

Legend
1 Sanctuary
2 Plaza
3 Cloister
4 Church
5 Museum
6 Passage



A view from the church toward the large cloister (top) and inside the small cloister (bottom).
Facing page: flying Romanesque arches mark the exterior of the sanctuary and cloisters.

Data
Project: *Sanctuary of Meritxell, Andorra.*
Architect: *Taller de Arquitectura, Barcelona. Ricardo Bofill, director. Peter Hodgkinson, job architect. Ignacio Veciana, Francesco Guardia, Juan Malagarriga, Joaquim Jansana, Dolores Rocamora, assistant architects. Emilio Bofill, Ramon Collado, site supervision.*
Program: *to rebuild a sanctuary destroyed by fire.*
Structure: *brick block, concrete arches, curved metal trusses covered with plywood.*
Major materials: *black slate, copper sheathing, terrazzo, mirror, brick block, concrete.*
Engineer: *Yves Serra.*
General contractor: *Mariné S.L.*
Cost: *$1.4 million (1979).*
Photography: *Serena Vergano.*

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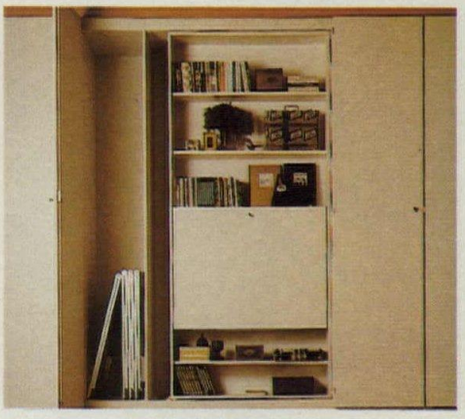

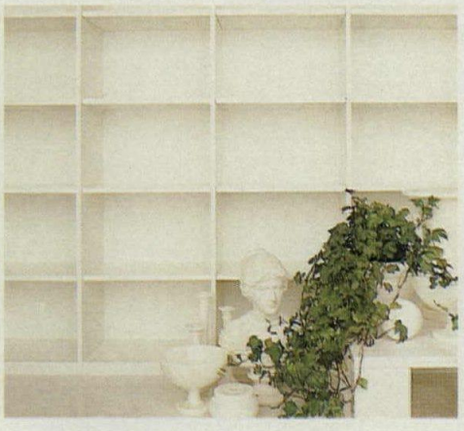

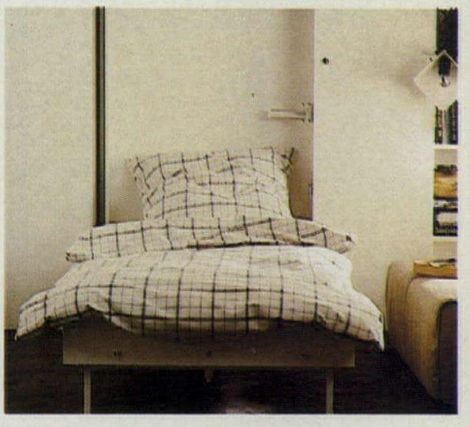

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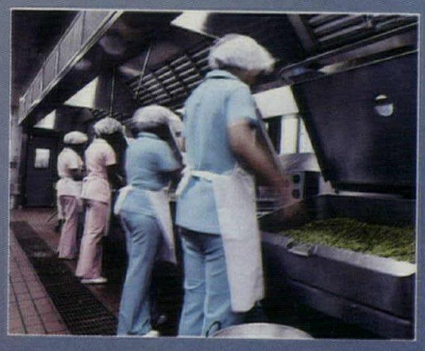

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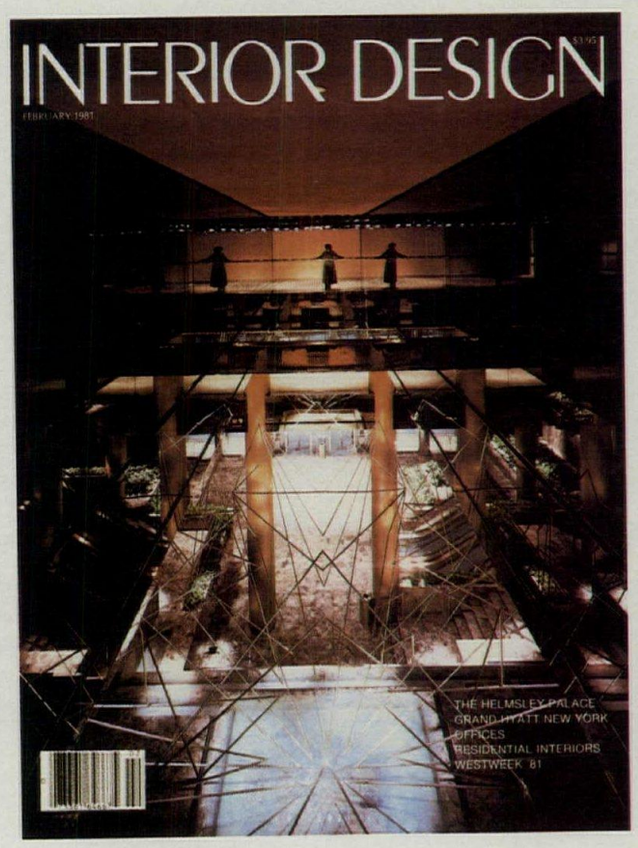

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American specifications for overseas work

Walter Rosenfeld

American architects who design for construction abroad risk a quagmire of conventional practice, standards, and mixed product nationalities. One solution is to specify using American standards and products.

Despite tax-related disincentives and lack of specific government support, American architects continue to design a great deal of work overseas, particularly in developing countries whose own architects are few or are just beginning to get established in practice.

Aside from learning different systems of documentation and coping with import restrictions and currency fluctuations, a significant amount of the architect's time is devoted to obtaining information about local materials and methods of construction, and to deciding what materials to specify under a variety of building conditions.

Matters are often complicated by requirements to specify (or not to specify) materials from certain other nations for traditional or political reasons, but it is clearly true that an immense variety of products from all over the world can be made available today for a construction project wherever it may be. What then is a reasonable policy for American architects to adopt when specifying materials for overseas work?

If the country where the building is to be constructed has a well-developed set of national standards, whether indigenous or borrowed, the task is simplified; but the specifier must first become familiar with a whole range of documents—usually complex, sometimes expensive, and often difficult to obtain.

Where such systems exist, specifications can be very brief and of the performance type, with reference to the established standard for the material or method of installation. And where locally produced materials are suitable, they are, of course, the logical first choice. In other cases, however, proprietary foreign products need to be specified, and this presents two problems.

First, a country's products are usually produced to that country's own standards: in the U.S., structural steel conforms to ASTM A-36; in Britain to BS 4360; in France to NF A35-501, and these standards are by no means identical. While some industrial countries produce materials to foreign standards in order to widen their markets, if materials are specified to British Standards, the specifier is encouraging (at least) or demanding (at most) that British-made products be used.

Second, in international bidding, it is often impossible to know in advance the nationality of the contractor who will build the building. Experience indicates that the contractor will tend to buy products from familiar sources with whom he has established lines of credit, most likely in his own country or trading area.

It makes little sense, therefore, on any one project, to specify some products from Japan, some from Germany, some from Britain (even though the architect may become familiar with such products), because what the specifier picks from France, the contractor may intend to buy in Sweden or Italy. Since the as-yet-unidentified contractor can't be outguessed, the best course is to provide a consistent range of products against which his choices may be measured. A program for evaluating and dealing with substitutions is therefore necessary, and the contract documents should indicate that the architect is prepared to do this. In any case, it is advisable to list several manufacturers for each product, together with their addresses and Telex numbers.

It does make sense, however, for American architects to specify American products and American standards for overseas work in any case where an alternative approach is not mandatory. This is a practical (rather than patriotic) policy for many reasons: a substantially complete selection of American-made products is available from diverse sources in the U.S.; a competitive pricing situation exists for most materials; active export effort and capacity are evident; and abundant technical information and assistance are at hand. Unfortunately, relatively few overseas manufacturers provide as good a level of product information as can be found in Spec Data sheets and similar U.S. literature. Too, the architect in U.S. practice over a number of years knows which American products and manufacturers are reliable and proven in service under a variety of conditions. The manufacturer's accessibility at the architect's home location and the absence of language barriers are additional inducements.

Unless the owner insists on limiting what is specified to those items currently marketed in the country where the building is located (from whatever national origin), American standards and materials should generally be acceptable as a basis for bidding and for actual use. The architect's natural first inclination to specify American products for overseas work need not always be resisted in the name of uncertainty. In fact, careful analysis of the situation may reveal it to be a very sensible policy after all. □

Walter Rosenfeld CSI is Managing Director for Professional and Technical Services at The Architects Collaborative, Inc., in Cambridge, Ma.

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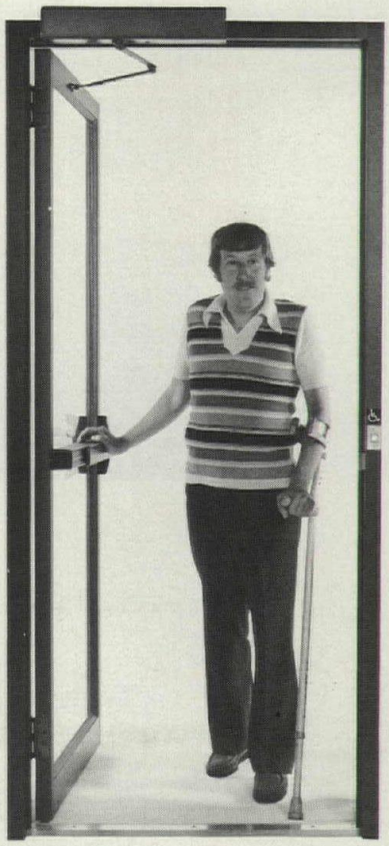

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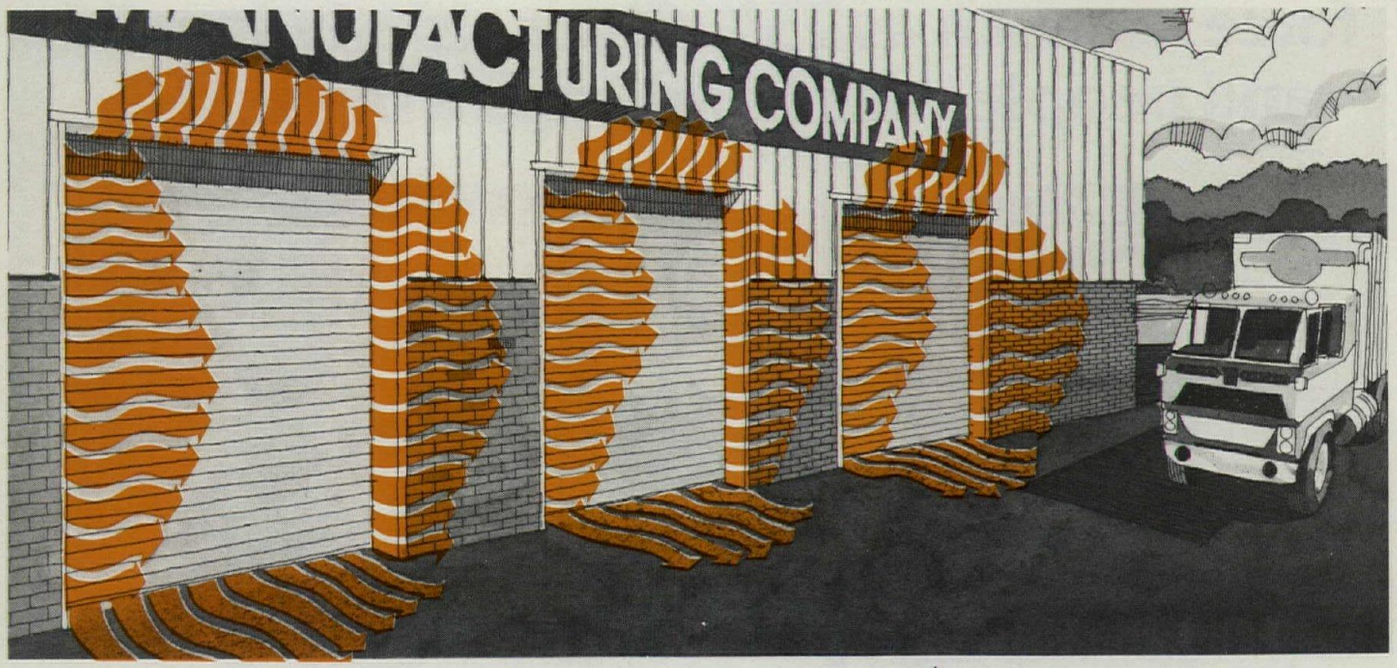

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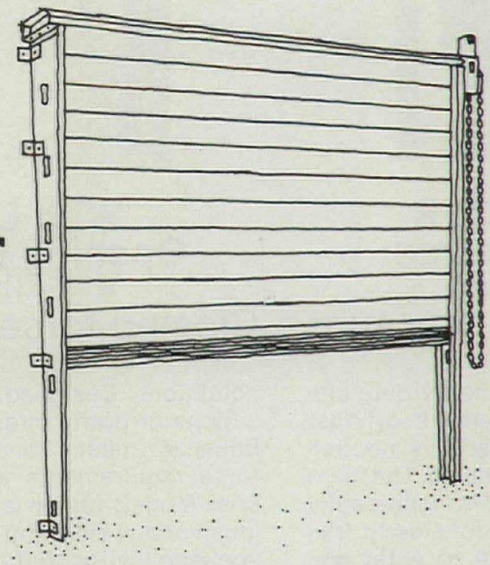

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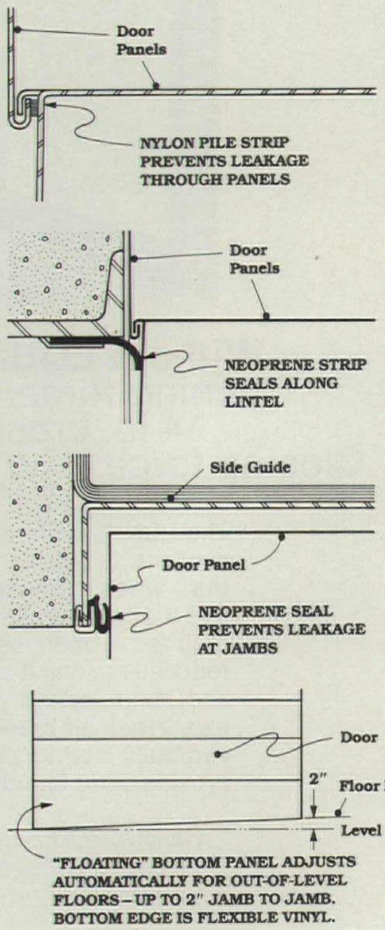

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Zoning regulations for minority housing

Norman Coplan

Constitutionality of a zoning ordinance that provides for special needs usually will be upheld in court if it is part of an overall plan.

There has been a developing trend in zoning regulation to deal with the housing needs of minorities, low-income groups and the elderly. In general, if a zoning ordinance which seeks to provide for these special needs is part of a comprehensive scheme which is intended to serve the general welfare, the constitutionality of such ordinance will be upheld. A challenge to such ordinance, however, may be engendered by provisions which impose limitations upon the application of those features of the zoning ordinance which are directed to meet those special needs. An example of such a challenge is reflected in a recent decision in New York (*Applebaum* v. *Town of Clarkstown,* 428 N.Y.S. 2d 387) in which the constitutionality of a local zoning code was questioned because such code, although containing specific provisions intended to promote housing for the elderly, limited the number and location of dwelling units which could be constructed for their exclusive use.

The zoning code of the Town of Clarkstown was involved in the *Applebaum* case. This code prohibited the construction of more than 106 dwelling units at any one senior citizen housing site and further prohibited construction of senior citizen housing sites within 1500 ft of each other. The zoning code defined a senior citizen as a person having attained the age of 60. The plaintiff, property owner, challenged the ordinance contending that the limitations imposed by the zoning law violated the equal protection clause of both the United States and New York State Constitutions and that such limitations lacked a rational relationship to the Town's legitimate objective of seeking to provide for the housing needs of its elderly.

As a threshold question, the Court first considered the validity of zoning which included special provisions for housing for the elderly. The Court pointed out that it was "within the zoning power of the Town to provide for the special housing needs of the elderly by accommodations specifically designed to satisfy their economic, physical, psychological, and social needs and that the restriction of residence of such a complex to senior citizens does not violate the equal protection clause because the age classification rationally furthered the legitimate state objective of providing for housing for senior citizens." The Court pointed out that the Constitution does not require that all persons be treated identically, but rather that differences in treatment be justified by an appropriate state interest.

The property owner in this case had contended, however, that if zoning requirements which were intended to provide housing for the elderly were valid, limitations on the utilization of such provisions were not valid. He argued that no other multiple residence zone in the Town was limited by units or distance between sites, and that consequently, limitations applicable only to senior citizen housing, which prohibited more than 106 dwelling units at any one site and required such sites to be at least 1500 ft apart, were violations of the requirements of equal protection of the law under the Constitution. On the other hand, the Town argued that such restrictions were part of a comprehensive scheme which sought to provide for the special needs of senior citizens and their integration into the community as a whole. The Town contended that the purpose of the restrictions was to provide for small-scale projects throughout the Town which would harmonize with the surrounding residential area, and that these restrictions had a rational basis as measured by the indicia for good planning.

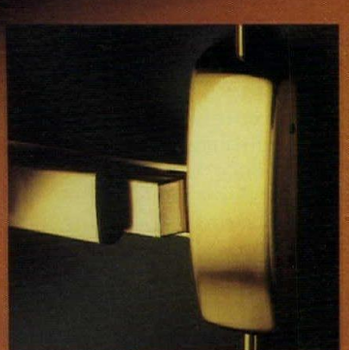
The Court, in upholding the zoning law, stated:

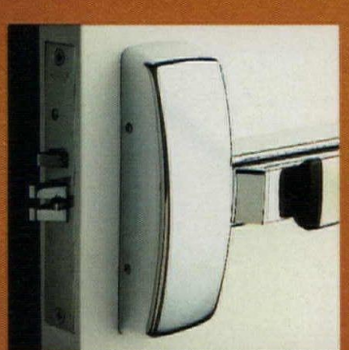
"The issue is not whether the 1500-foot/106-unit limitations are rationally related to defendant's legitimate objective of providing for the special needs of the elderly. Rather, the Court's inquiry into the plaintiff's burden of proof should be to determine whether (such limitations) considered in the context of the town's comprehensive zoning plan, are rationally related to the defendant's legitimate objective of zoning for the public health and welfare and for the special housing needs of the elderly. . . . A senior citizen zoning ordinance which seeks to provide for the special needs of the elderly is 'inclusionary' in nature because it seeks to meet the special needs of its elderly who otherwise would be likely to be excluded from enjoyment of adequate dwellings within the community. . . . However, from the point of view of the remainder of the Town's populace, and from the point of view of the Town Planners, a senior citizens' zoning ordinance is restrictive in that the residents of senior citizen dwellings are limited to persons over the age of 60. . . . In this context a limitation imposed within the senior citizen zoning ordinance . . . which seeks to provide for dispersion of such complexes throughout the community, thereby controlling the population density of senior citizens housing, would appear to be a rational basis in the Town's overall plan for zoning."

The Court rejected the argument that there was an unequal application of the law because there were no restrictions on any types of housing other than housing for the elderly. The Court said:

"It does not appear as irrational or discriminatory that no such restrictions are imposed upon other dwellings erected in multiple residence zones in the town because the remainder of these buildings are erected without regard to considerations of the age of the occupants and will, therefore, be available for the utilization of the entire populace, including senior citizens."

In conclusion, the Court ruled that the plaintiff had failed to overcome a presumption of constitutionality applicable to municipal ordinances. □





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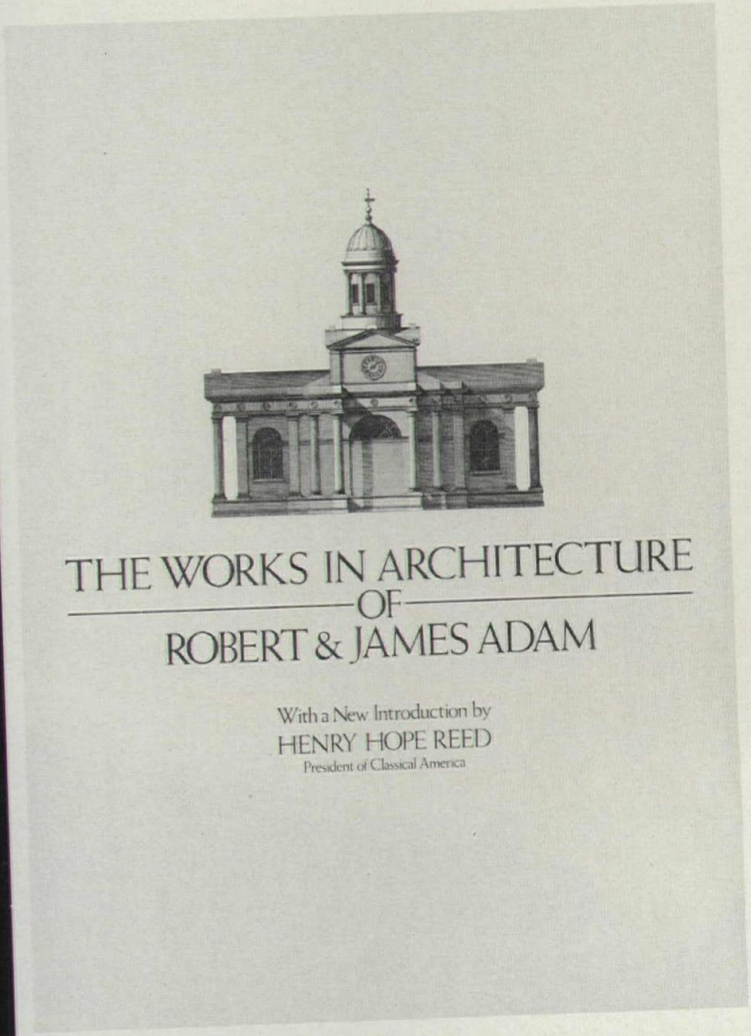

The Works in Architecture of Robert & James Adam, *with a new introduction by Henry Hope Reed. Dover, New York, 1980. 144 pp., Hardbound, $50.*

This work—one of the most celebrated books in architectural history, is what the Adam brothers themselves chose to illustrate from their commissions. Dating from the 1770s, though not completely published until 1882, the plates became a very important influence on British and American architectural and furniture stylebooks for generations. Including the "finest room in England"—the anteroom of Syon House—the huge (14⅜" x 18¼") plates here display the entire range of the Adam style. The 106 plates, which have been reproduced from the originals and retain their detail and clarity, include four engraved by Piranesi. The original text imparts the Adams's own aesthetic and practical aims, and a new introduction by Henry Hope Reed places their work in historic perspective. This unabridged re-publication of the work, originally published in three volumes, includes a new Partial List of Surviving Buildings and Monuments by the Adam Brothers, and a new list of plates and engravers. French translations and various title pages have been omitted.

[*Books continued on page 130*]

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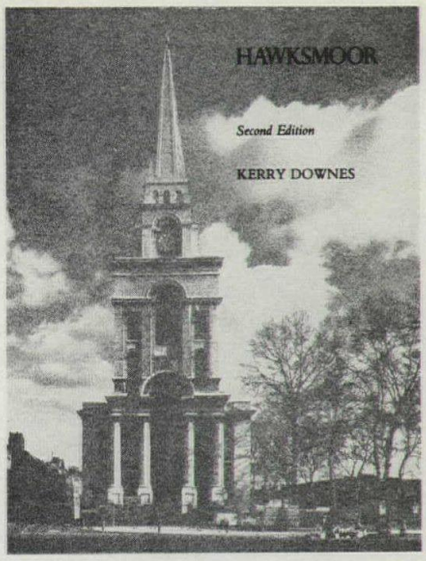
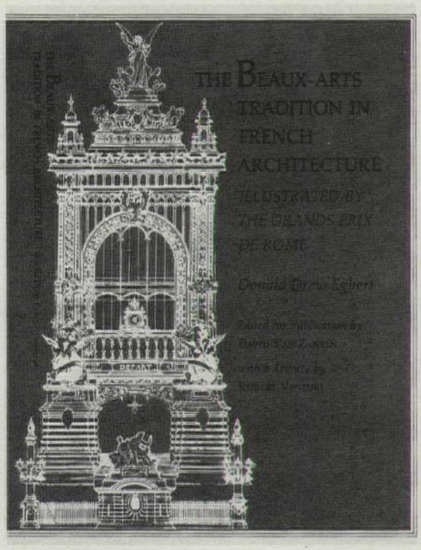


Hawksmoor, 2nd edition, *by Kerry Downes. Cambridge, The MIT Press, 1980. 298 pp., illus., Hardbound, $55.*

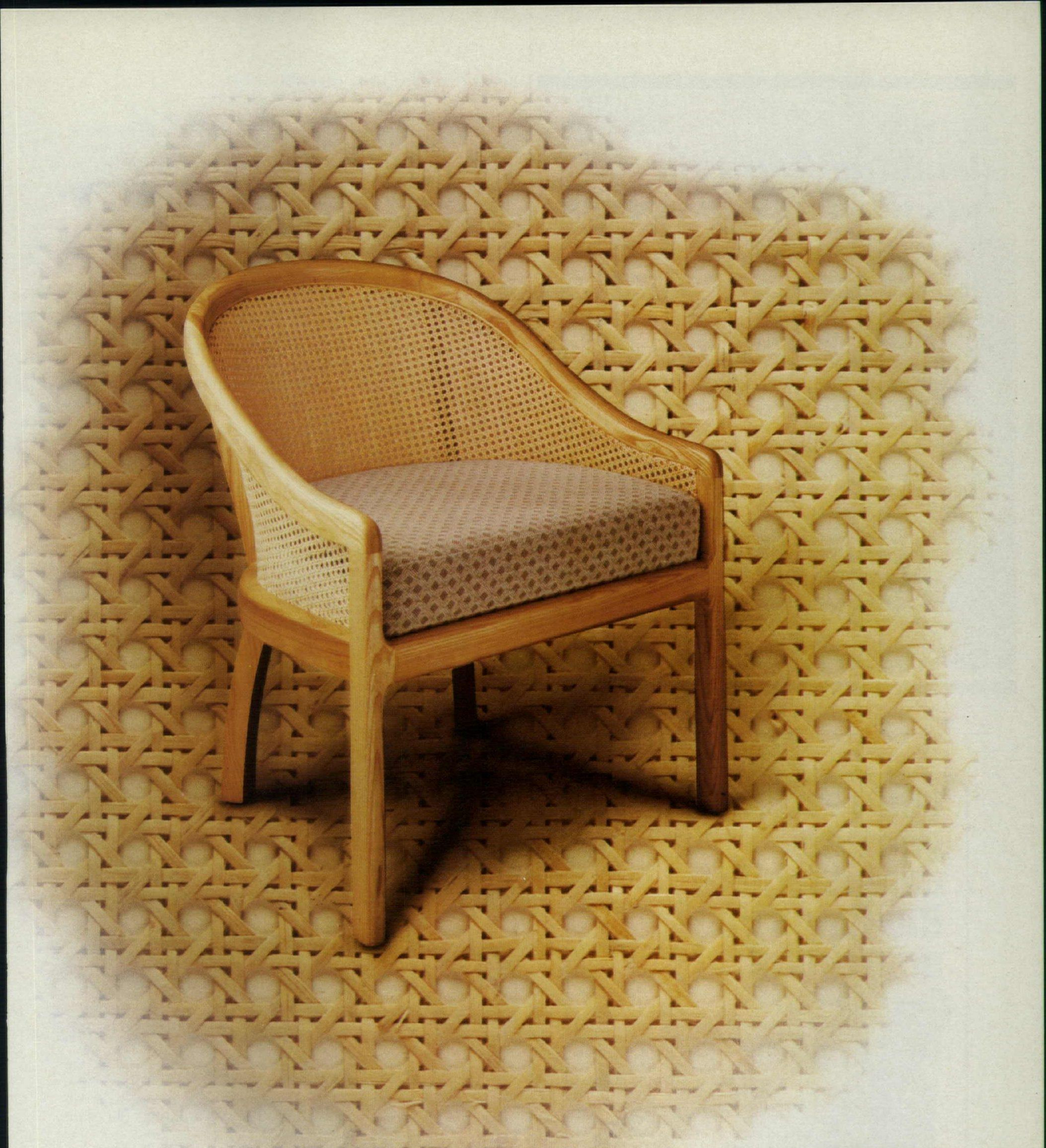
First published in the late 1950s, this was the first major study of Hawksmoor, untangling his work from that of his masters and rescuing him from the shadows of the 18th-Century Classicists and the Victorians who despised his work and considered his Baroque style immoral. Now, after two decades, the book remains the standard work on Hawksmoor. It covers all of the surviving buildings: the six London churches, All Souls and the Clarendon Building in Oxford, the towers of Westminster Abbey, parts of Castle Howard and Blenheim, Greenwich Hospital, and Easton Neston house. The large number of extant drawings and documents illuminate not only the evolution of many of these works, but also Hawksmoor's artistic aims and personality, as well as his relation to Wren, Vanbrugh, and his rivals the Palladians. In this new edition, many details have been revised in the light of recent research, and the list of buildings and drawings has been brought up to date. There are eight appendixes containing Hawksmoor's letters, discussions and explanations of plans and buildings, a bibliographic note, and an index.



The Beaux-Arts Tradition in French Architecture *by Donald Drew Egbert. Edited for publication by David Van Zanten, with a Tribute by Robert Venturi. Princeton, Princeton University Press, 1980. 253 pp., illus., Hardbound $22.50; Paperback $12.50.*

In this book, the author examines the French academic tradition in architecture, its historic and artistic development, as it

[*Books continued on page 132*]



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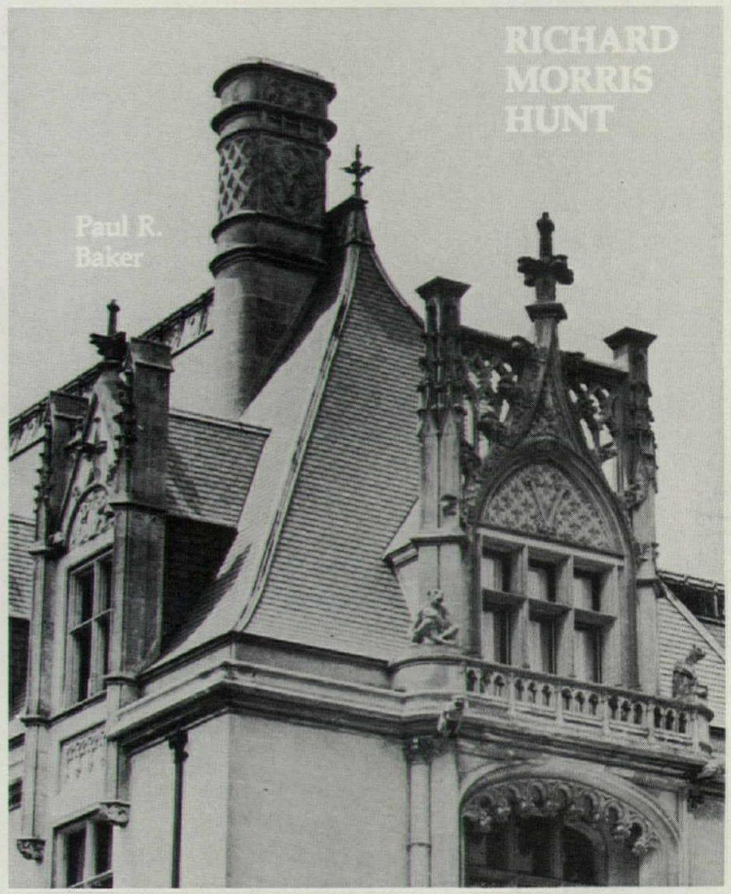
Books continued from page 130

is reflected in the competition for the Grand Prix de Rome, held since the 17th Century under the aegis of the Académie des Beaux-Arts and the École des Beaux-Arts in Paris. Tracing the history of the competition as well as that of the Academy and the School, the author defines the principles and methods of design as they apply to architecture and explores the reflection of this philosophy in the subjects chosen for the competition as well as in the rules of composition and graphic techniques. He then relates these academic developments to social developments in France, and finally to their culmination in the student revolt of 1968 that brought the competition to an end. As the last product of Professor Egbert's life work in defining the contrasting philosophies of Modern art and architecture, this study shows how, since the 18th Century, the academic tradition as reflected in the Grand Prix designs was increasingly forced to compromise with the impact of Modernism.



Richard Morris Hunt *by Paul R. Baker. Cambridge, The MIT Press, 1980. 588 pp., illus., Hardbound, $37.50.*

This work undertakes a major restoration of a reputation that has fallen into undeserved neglect and disrepair. It is the first full-length study of Hunt to appear in this century; its treatment is definitive, covering Hunt's life, his buildings (all of his major commissions and many of the minor ones are pictured), and his time, the Gilded Age, a landmark period in American social and cultural history that is now receiving new attention.

Hunt was a founder and president of the AIA, and America's first student at the École des Beaux-Arts. This book makes clear that the great mansions in New York (*all* of which are gone today) and Newport formed only a small part of his total body of work. He also designed houses on a more intimate scale, public buildings and monuments, and early cast-iron commercial buildings. Throughout the volume, the author also fully covers Hunt's family life and education, and details the public activities of this seminal figure, who was widely regarded by his contemporaries as the dean of American architects, in the establishment of architecture as a profession in the U.S.

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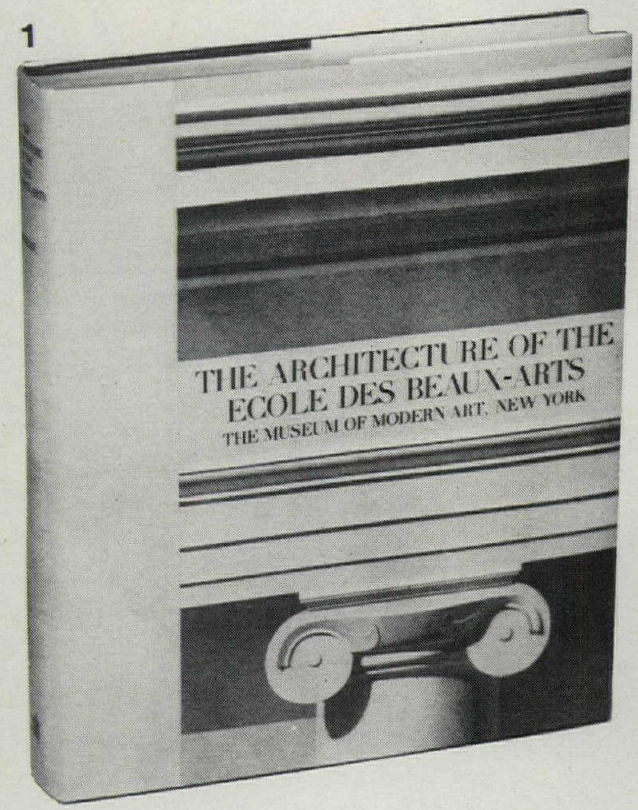

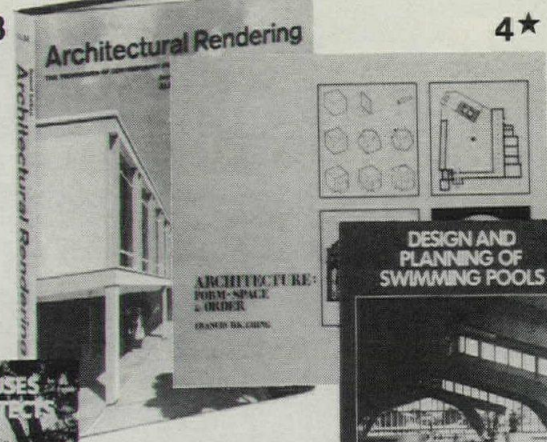

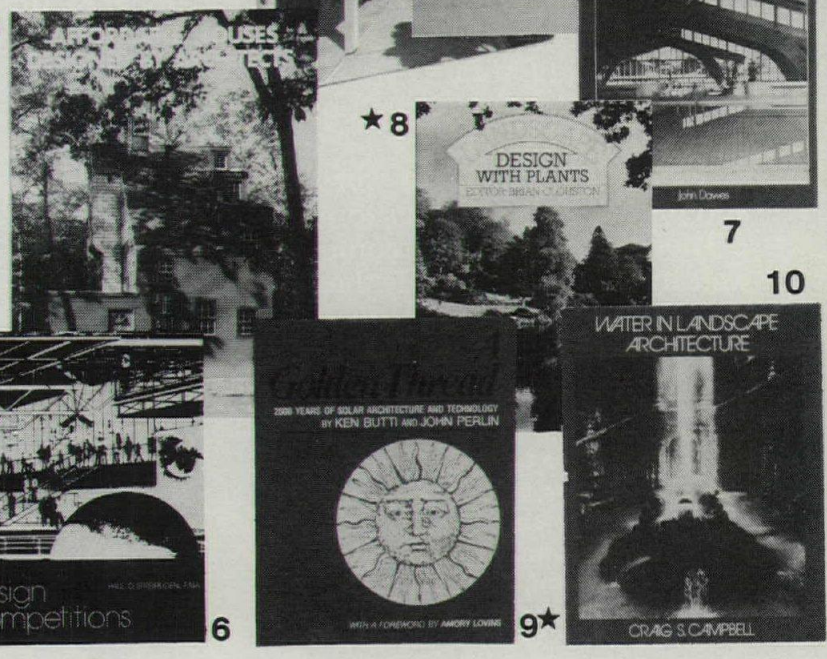

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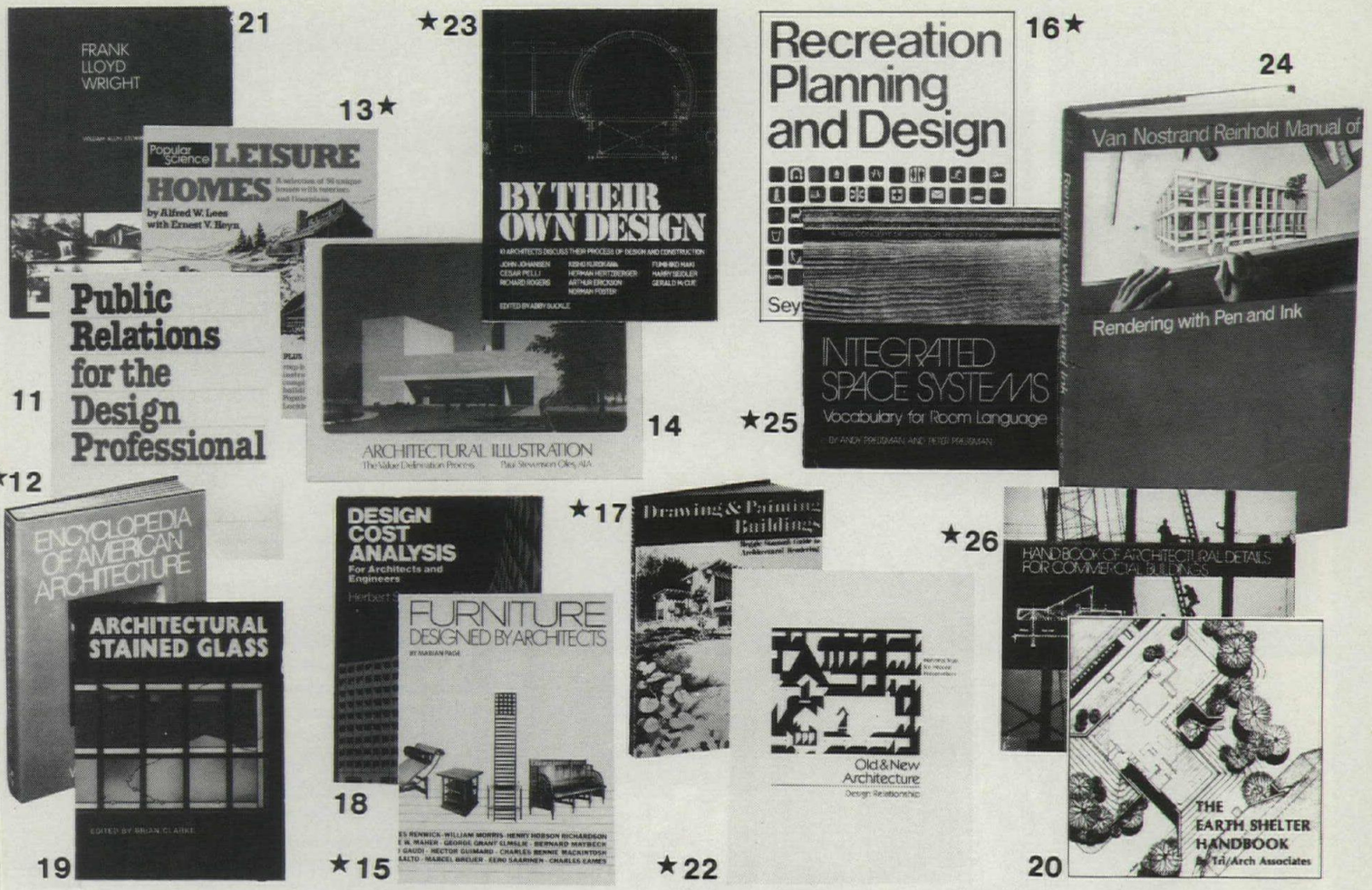
304 pp., illus. . . . $15.95

This carefully researched narrative not only presents a history of solar energy use, but also demonstrates that successful solar energy applications of the past pave the way toward a society that depends on the sun for a large part of its heat, light and motive power.
Circle B609 under Books.

10 Water in Landscape Architecture

By Craig S. Campbell
128 pp., illus. . . . $15.95

This profusely illustrated book is the first published work that deals in substantial detail with the technical as well as the aesthetic principles of fountain design. Covers basic hydraulic principles, practical limitations, environment and available equipment.
Circle B610 under Books.



11 Public Relations for the Design Professional

By Gerre Jones,
278 pp., illus. . . . $21.50

An authoritative book on public relations written in easily understood language for architects, engineers and other design professionals. Explains how to plan, set up and carry out a PR program that meets special requirements, as well as how to take advantage of some often overlooked opportunities for free publicity from the media.
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NEW★

12 Encyclopedia of American Architecture

By William Dudley Hunt, Jr.
612 pp., illus. . . . $39.95

Presents in words and illustrations the full, rich fabric of American architecture. The volume narrates the full, fascinating scope and splendor of American architectural tradition. It contains biographical profiles of 50 American innovators.
Circle B12 under Books.

NEW★

13 Leisure Homes

By A. W. Lees with E. V. Hyen,
320 pp., illus. . . . $18.95

The homes collected in this informative guide represent a broad spectrum of imaginative architectural design. Floor plans and interior views of 56 stunning leisure homes are shown in striking color, plus step-by-step instructions and complete plans for building the *Popular Science* Lockbox House.
Circle B613 under Books.

14 Architectural Illustration The Value Delineation Process

by Paul Stevenson Oles,
288 pp., illus. . . . $34.50

In this copiously illustrated, clearly organized explanation of his value delineation system, the author presents a detailed description of the process which has resulted in these award-winning delineations that show realistically how a designed structure will appear when built.
Circle B614 under Books.

NEW★

15 Furniture Designed by Architects

By Marian Page,
224 pp., illus. . . . $25.00

This well-illustrated volume features 26 prominent architects whose work, spanning two centuries, encompasses a broad spectrum of styles. The author explores the architects' reasons for their designs, as well as how they related to their time, place and contemporaries.
Circle B615 under Books

NEW★

16 Recreation Planning and Design

By Seymour M. Gold
322 pp., illus. . . . $27.50

This book integrates systems and site planning with state-of-the-art examples highlighting recreational potentials of cities in the 1980's. Successful plans and projects are described showing innovative approaches to recreation planning.
Circle B616 under Books

NEW★

17 Drawing & Painting Buildings

By Reggie Stanton,
144 pp., illus. . . . $17.95

A one-volume library on architectural rendering shows how to render the many components, props and elements in terms of setting, mood and composition for both residential and commercial projects.
Circle B617 under Books

18 Design Cost Analysis for Architects & Engineers

By Herbert Swinburne,
317 pp., illus. . . . $21.50

This first-of-its-kind book shows architects and engineers how to analyze and estimate the costs of building construction during the design stage when the potential for controlling costs is greatest.
Circle B618 under Books.

19 Architectural Stained Glass

Edited by Brian Clarke
234 pp., illus. . . . $32.95.

The contributors to this book (through their stunning designs) emphasize stained glass as a constructivist art form, taking it out of its medieval ecclesiastical context and putting it into a contemporary framework, both secular and architectonic.
Circle B619 under Books.

20 The Earth Shelter Handbook

By Tri-Arch Associates,
244 pp., illus. . . . $12.95

This paper-back handbook presents to architects, builders, private homeowners and commercial clients an easy-to-follow, step-by-step evaluation plan for site selection, soil evaluation and criteria for placement in relation to wind and sun.
Circle B620 under Books.

21 The Architecture of Frank Lloyd Wright A Complete Catalog Second Edition

By William Allin Storrer,
456 pp., illus. . . . $15.00

This second edition, which documents all of the buildings designed by Wright, replaced a number of photographs with new ones that show the buildings to better effect, changed some copy in the text, and incorporated factual information that has come to light since the original publication in 1974.
Circle B621 under Books.

NEW★

22 Old and New Architecture: Design Relationship

280 pp., illus. . . . $25.00

How to make new architecture compatible with its current setting, whether in the midst of a large historic urban area or as an addition to an old building, is analyzed in this first comprehensive book on the subject by 18 design experts.
Circle B622 under Books

NEW★

23 By Their Own Design

Edited by Abby Suckle,
160 pp., illus $19.95

Ten internationally known architects describe their concerns, both artistic and pragmatic, as they related to the process of designing and constructing one or more of their major buildings.
Circle B623 under Books

24 Rendering With Pen and Ink

By Robert W. Gill,
368 pp., illus. . . . $12.95

This paper-back edition is a copiously illustrated guide to the techniques and methods of rendering, including sections on perspective, projection, shadow, reflections, and how to draw cars, ships, aircraft, trees, and human figures. The author also describes the very wide range of instruments and equipment currently in use.
Circle B624 under Books.

NEW★

25 Integrated Space Systems Vocabulary for Room Language

By A. Pressman & P. Pressman,
116 pp., illus. . . . $16.95

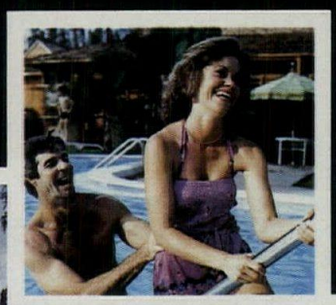
This unique volume describes the theory and practices of integrated space systems, a novel approach to home renovation that promotes the economical and humanistic use of space, without damage to the existing structure.
Circle B625 under Books.

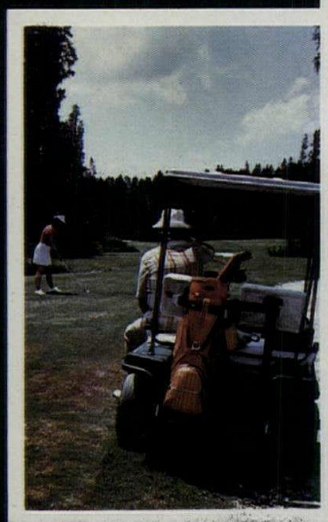
NEW★

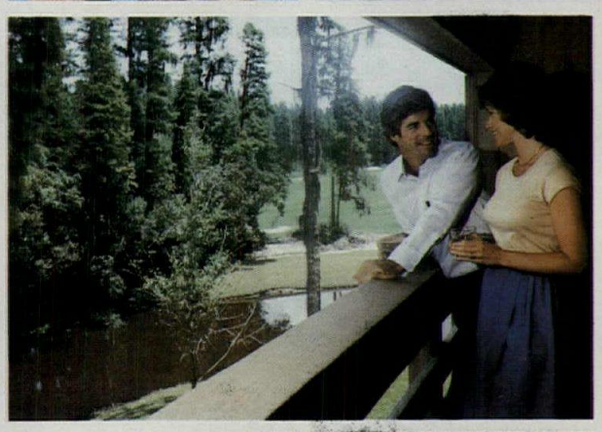
26 Handbook of Architectural Details for Commercial Buildings

By Joseph DeChiara
506 pp., illus. . . . $32.50

This Handbook illustrates and examines the full range of architectural details currently used for commercial buildings. Part I features plans, elevations, and sections for office buildings, banks, retail stores, theaters, and more. Part II concentrates on architectural details. Practicality and realism are stressed.
Circle B626 under Books







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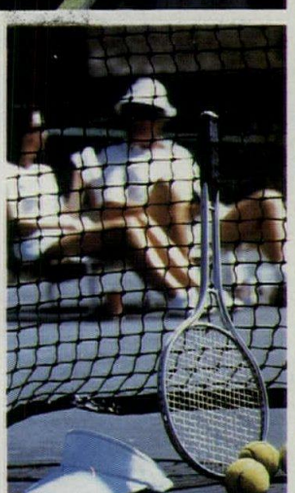
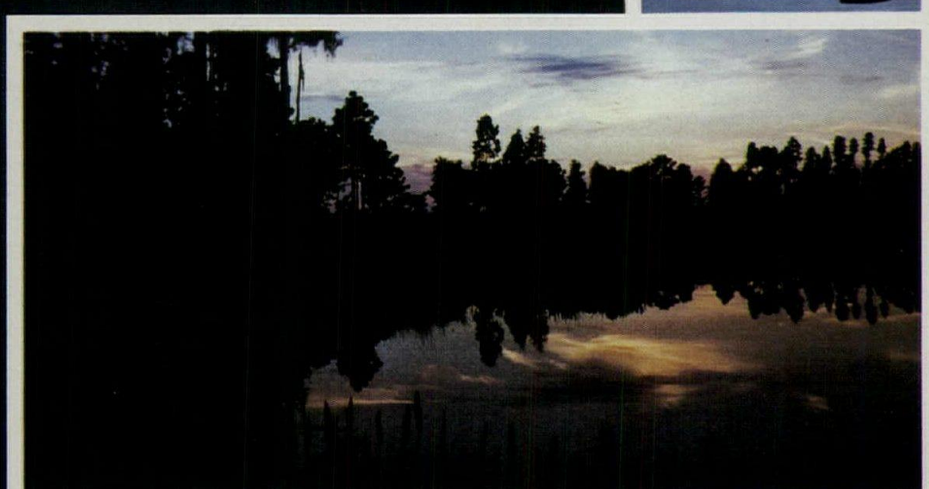
Just 25 minutes from Tampa's International Airport . . . on Route I-75 . . . there's not a single traffic light between you and our front gate. Drive yourself, or use our limo service.





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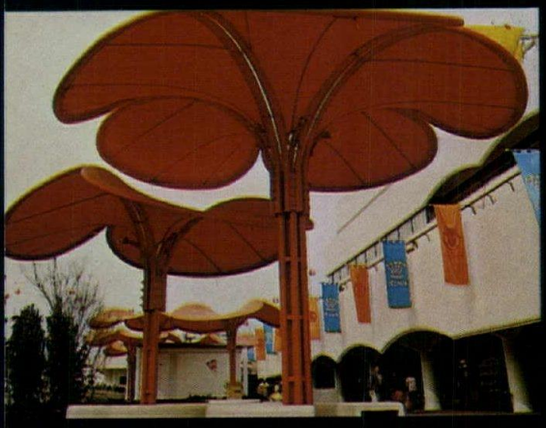
'CLOSE HARMONY'

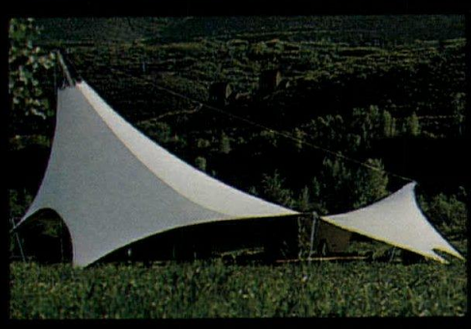
In Graceful Tension Structures By Helios.

The delicacy and beauty of these tensioned membrane structures is thoroughly practical. In this economical shelter for an outdoor music amphitheater, the natural beauty of the site is preserved, with only minimal disturbance for footings for structural elements. The smaller white tensioned structure at the Aspen Design Conference in Colorado is even simpler, facilitating its erection and demounting each year.



All these structures, including the festive rest area sunshades, are fabricated of vinyl-coated polyester material held in tension on a steel framework. The result is a lightweight, rigid structure engineered to withstand heavy wind. Though a tensioned membrane structure is in a higher price class than a tent, it offers far greater strength and durability. Compared to alternative structures of wood, steel or masonry, it typically results in important cost savings.

When your imagination calls up sweeping curvilinear shapes or great enclosed space, Helios Tension Products are the people to try your ideas on. We specialize in helping architects



translate their innovative designs into practical reality. Our expertise includes design, engineering, fabrication and erection—a total, comprehensive service unmatched in the U.S.

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HELIOS TENSION PRODUCTS, INC.
Soft Shell Structures Division

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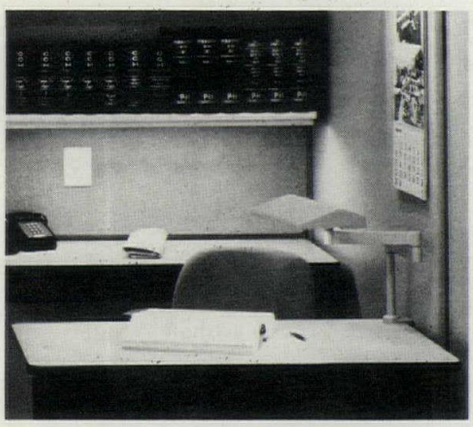
Products and literature

Products

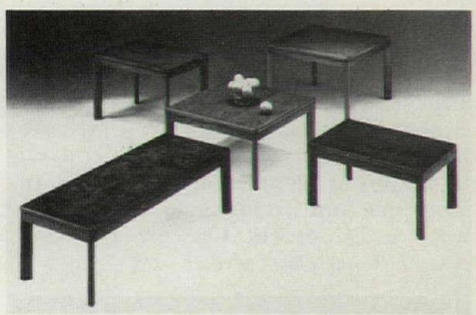


The Critical Task Light was designed for workers who require a high level of light free of glare and veiling reflections. The arms are capable of being extended 54 in. and of rotating 355 degrees. The light uses a 14-watt fluorescent lamp, and the head directs light in front of the source instead of directly under it. Herman Miller, Inc.
Circle 100 on reader service card

Sentry 200 fire-rated safes have a UL two-hour Class B fire rating and also meet stringent impact and explosion standards. Model 216 has a capacity of 6336 cu in.; Model 220 has a capacity of 7920 cu in. Both have tamper-resistant bolts, concealed hinge leaves, and recessed handle and combination lock. John D. Brush & Co.
Circle 101 on reader service card

A new venetian blind headrail has a smooth surface that eliminates unsightly holes. The mechanism is concealed in a 1″ x 1″ headrail, and the streamlined surface permits the blind to be installed in tighter spaces. It also has an improved cordlock system and a stronger tilter mechanism. Closer fit between the headrail and the slats allows better control of light infiltration. Hunter Douglas, Inc., Window Products Div.
Circle 102 on reader service card

A fire-retardant panel of galvanized steel sections protects against cable damage or the need to replace entire electrical systems because of a fire. A continuous ventilated panel structure containing intumescent insulation is installed between the potential fire source and overhead cables. The protective material is activated at 450 F and retards the flame and heat for up to 30 minutes at 1800 F, says the manufacturer, by closing off ventilating openings. Husky Products Inc., Div. of Burndy Corp.
Circle 103 on reader service card



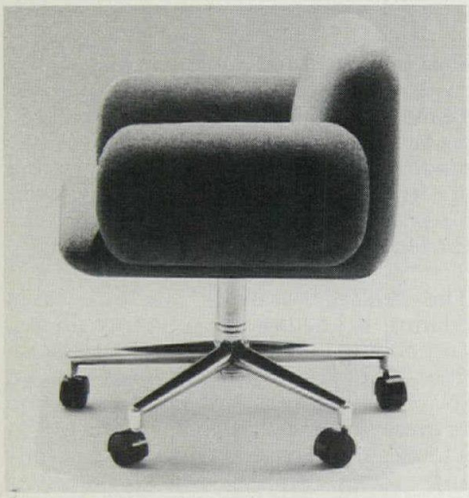
Designs in Wood tables match desks, credenzas, and lateral files in the 400/420 series. They feature radiused edges, a black reveal strip accent, and a low-maintenance synthetic oil finish. There are two heights and three top sizes. Steelcase.
Circle 104 on reader service card

The ProTrac drafting machine has a floating head, double reference index, and micro-adjuster for ease of operation. The floating head travels ½ in. above the drawing during repositioning to prevent smears and tears in drawings. The Scalock device anchors scales firmly and quickly. ProTrac is available in six sizes ranging from 32″ x 42″ to 43½″ to 84″. AM Bruning.
Circle 105 on reader service card

MRV, a direct-drive geared elevator system, is designed especially for [*Products continued on page 142*]

Products continued from page 141

apartment, hotel, and mid-rise office buildings. Simplified equipment reduces initial purchase and installation costs, according to the manufacturer, and reduces maintenance costs. Motion control is by means of a solid-state, direct-drive unit, replacing the conventional motor generator set, which reduces machine room space needs by as much as 23 percent. Otis Elevator Co.
Circle 106 on reader service card

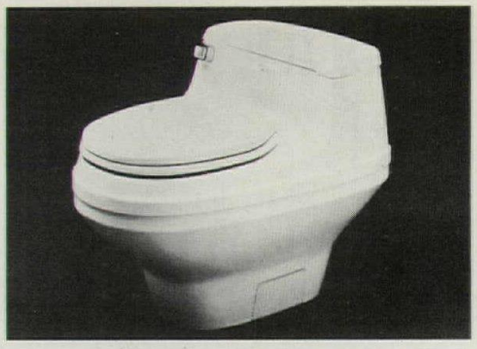


The Auburn swivel armchair, designed by Brian Kane, has upholstered arms, seat, and back. The five-prong base is available on casters or glides and in polished aluminum, oil-rubbed bronze, or with a paint finish in a choice of 18 colors. The chair is suitable for conference and executive areas. Metropolitan Furniture Corp.
Circle 107 on reader service card

Construction coating 3-5000 is a controlled-flow liquid used as protection against weathering for sprayed-in-place polyurethane foam roofing and insulation on tanks and ducts. The coating retains its flexibility at subzero temperatures and is said to be unaffected by heat up to 350 F. It permits passage of water vapor but will not allow liquid water to pass through. Dow Corning Corp.
Circle 108 on reader service card

Waterplug is a quick-setting hydraulic cement that stops leaks of water that is under pressure or seeping. It seals masonry cracks, holes, and spalled concrete; plugs and seals construction holes; and provides a nonshrinking seal to prevent seepage around pipes. Standard Dry Wall Products.
Circle 109 on reader service card

Flexcrete protective coating of nonshrinking polyol cures to form a durable, weatherproof surface. It is suitable for metals, plastics, acrylics, wood, glass, and most building materials. It can be used as treatment for roofing or flooring and as a filling or caulking. Application is by means of trowel, brush, spray, or pouring. Pentagon Plastics Ltd.
Circle 110 on reader service card



The Series 4000 water closet, a one-piece, low-silhouette, water-saving fixture, is made from a strong, durable honeycomb material blended of polyvinyl chloride, polypropylene, and urethane foam. The unit weighs only 29 lb, yet it can withstand a static load of 3000 lb. Cost is approximately half that of most one-piece china units. Colors are white, bone, and parchment. Delta Faucet Co.
Circle 111 on reader service card

Paintron-Flex II waterproofs roofs, walls, gutters, and other surfaces exposed to weather. Its elastic quality allows for expansion or contraction flexibility. It adheres to asphalt shingles, tar, tarpaper, wood, cement, paint, and metal. Stoney Corporation of America.
Circle 112 on reader service card

Wheel-O-Vator vertical wheelchair lift has a lifting height of 3½, 5, and 6 ft. It
[*Products continued on page 144*]

Distinctively different... Pella wood folding doors.

Forget other folding doors you've seen. Pella wood folding doors are in a class apart.

Thanks to durable wood construction combined with genuine wood veneers or high-quality, low-maintenance vinyls, these folding doors offer long-lasting service and beauty.

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Thanks to attention to detail that's the hallmark of excellence in design, Pella wood folding doors, available in three different styles, will lend a touch of distinctive beauty to many different interior designs.

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Only Pella offers it all.

Circle **No. 369** on Reader Service Card

Products continued from page 142

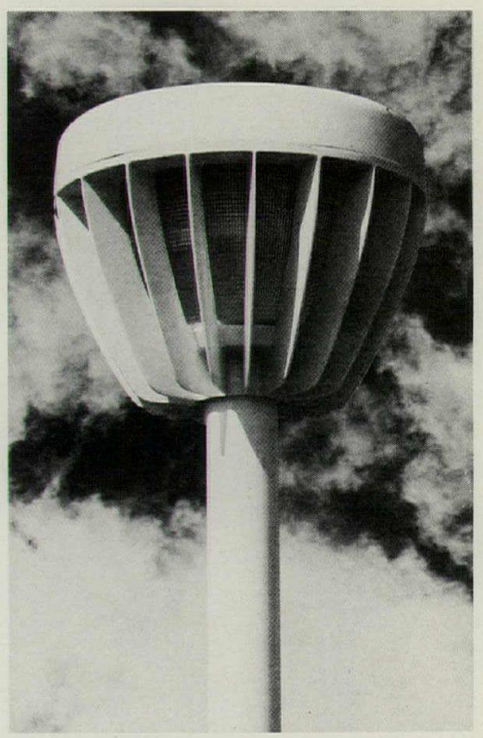
can be used inside or outside in any type of weather with no special provisions, according to the manufacturer. The floor is 36" x 48½" and there is an 18-in. ramp. The lift operates by means of an up/down switch, permitting the user to operate it without assistance. Emergency manual operation is also possible. Toce Manufacturing, Ltd.
Circle 113 on reader service card

The PDL-24 Programmable Data Logger is a compact, totally integrated, low cost data acquisition system designed to enable solar researchers to do sophisticated research. It can monitor 24 channels of data from temperature sensors, solar radiometers, current transducers, switches, and other sources. A user guide details the operation of the system and provides clear examples. Aeolian Kinetics.
Circle 114 on reader service card

Energy monitors EM-KWD and AC-CUpulse have been improved with added features. They include identification of day and time of day of peak energy demand; capability of recalling total consumption and peak demand in the past month; and a pulse output that can be interfaced with a peripheral recording device or control computer. Standard features are digital readout of power consumed to date, display of highest peak demand and the time of that demand within a billing period, and capability of projecting usage for the remainder of the billing period. The units, designed for plant engineers and commercial building owners, can be installed in new or existing facilities. Dupont Energy Management Co.
Circle 115 on reader service card

Sonocoat is a two-component coating for concrete flooring. It is water reducible, high gloss, and is said to have the weathering properties of acrylics and the chemical resistance of epoxies. It is easily applied by brush, roller, or spray. It comes in a selection of colors and has excellent color retention, according to the manufacturer. Sonneborn Building Products.
Circle 116 on reader service card

PD Panels are insulated, panelized, prefabricated building components primarily for roof construction. Insulation is semirigid mineral fiber in panels that are 8 in., 10 in., or 12 in. thick. The panels, predrilled for attachment to supporting members, reduce construction time. They can be supplied with prefinished interior decking for added time and cost savings. Unadilla Laminated Products, Div. of Unadilla Silo Co., Inc.
Circle 117 on reader service card



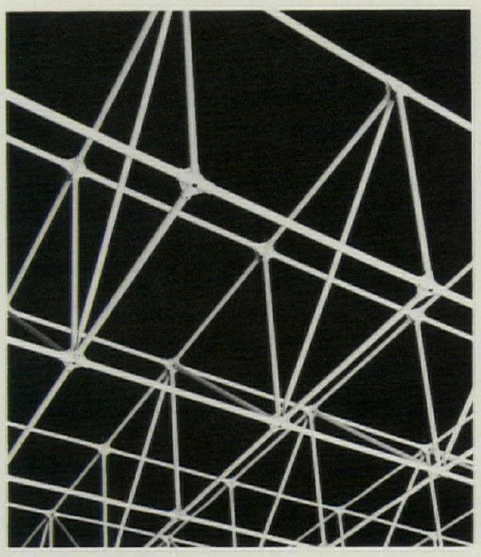
Vandal-Lite has a rugged cast aluminum finned housing and polycarbonate prismatic lens. It can be attached to an aluminum pole or it can be used with a wall bracket in single or multiple-head assemblies. Its resistance to impact

makes it suitable for parks, schools, and playgrounds. Architectural Area Lighting Co., Subs. of Walter Kidde & Co.
Circle 118 on reader service card

FastFit™ replacement windows, with a trim extender matched to the company's windows, fit into the original opening without major alterations. FastFit units are available for double-hung, casement, awning, and bay windows and patio doors. Single-pane windows can be replaced with those having insulating glass for energy savings. Caradco Corp.
Circle 119 on reader service card

Central vacuuming systems for residential or commercial installations operate quietly because the motor is in a remote location. There is no heavy lifting since only the hose and wand need to be carried from room to room. Dust collects in a central canister for easy disposal, and with an exhaust to the outside, the system does not recirculate dust particles. Attachments are available for some models to enable them to clean up water. Vacu-Maid, Inc.
Circle 120 on reader service card

The Sanilogical package sewage treatment system comprises one or more tanks, each divided into four sections called reactors, and a final water clarifier, in a below-ground installation. According to the company, it achieves high water quality by natural processes without the use of chemicals or filters and with virtually no sludge build-up. System sizes range from small units for use in single-family residences to those large enough for a city. Santec Corp.
Circle 121 on reader service card



Pipe & Junction™ suspended SpaceFrame™, which comes in standard modules of 2-ft, 2½-ft, and 3-ft cubes, is available in custom modules up to 4-ft cubes. The two-piece die-cast zinc junction is designed to accept pipes from up to six directions. Since the frame does not support external loads, it is light and simple to assemble. It can support lighting fixtures, signs, or banners. The SpaceFrame can be disassembled without damage and relocated or stored for future use. Integrated Ceilings, Inc.
Circle 122 on reader service card

Mono-Lite column lights for site lighting are 12¼ in. square, 8 ft and 10 ft high. The weatherproof lights are made of cast and extruded aluminum having a permanent finish in black or bronze. They can be used with a wide choice of HID lighting. mcPhilben Lighting.
Circle 123 on reader service card

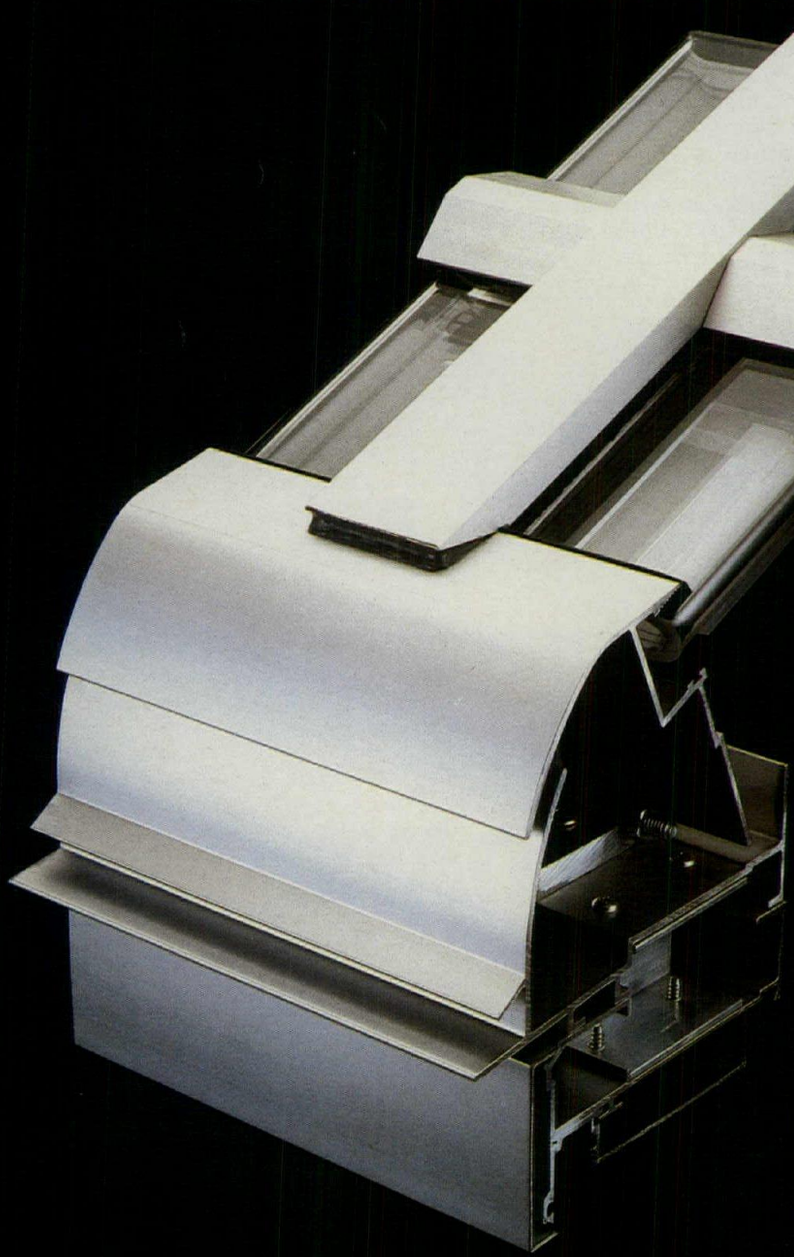
Construction caulking sealant Series 2000 is a one-part modified ethylene copolymer joint and seam sealant that seals out water. It is primerless and paintable and can be applied to brick, glass, concrete panels, steel, aluminum, and most plastics. Age and weathering improve its adhesion, and it remains flexible for years. Geocel Corp.
Circle 124 on reader service card

Alucobond™ composite building panels are composed of a core of extruded thermoplastic sandwiched between aluminum sheets. They are available in four anodized finishes (clear and light, medium, or dark bronze), or coil-coated with silicon-modified polyester resin in six colors (statuary bronze, russett, buff, birch, pewter, or gold). Consolidated Aluminum.
Circle 125 on reader service card

Literature

Rapid Set Conservation Wall brochure provides traceable, full-size details of an aluminum store front framing system. Also included are assembly drawings,
[*Literature continued on page 147*]

WHEN IT RAINS IT POURS. RIGHT OFF.



Amarlite smugly introduces an all new slope glazing wall that quite simply works. In the worst kind of weather. With condensation gutters on both single and double glazed systems. With a neoprene sponge gasket inside and pre-shim tape outside with a cap head of wet sealant. With a complete system of internal drainage for exterior weepage should water somehow penetrate the exterior sealant. With interior and exterior members thermally isolated by neoprene to prevent heat transfer.

Specially equipped with a rotating anchor clip that provides for easy installation and compensates for minor changes in the angle of slope so that the framework can actually flex with the structure. Designed for all Amarlite curtain walls but best suited to the PBS-380, 383 and 386 models.

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ANACONDA Aluminum
Division of Anaconda Industries

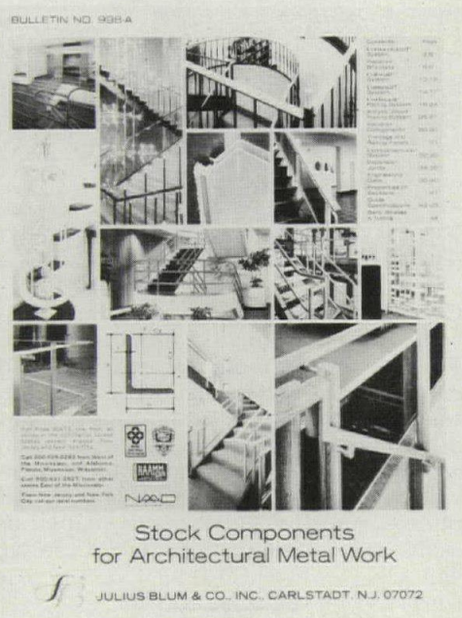
Circle No. 312 on Reader Service Card

Literature continued from page 145

windload charts, detail drawings, and architectural specifications. Hy Tee Products, Div. of DG Shelter Products.
Circle 200 on reader service card

Ironrock® Tile Selector Kit consists of tile samples; eight printed pages showing the range of tones in each color blend; product reports with color photos of installations, including that at Atlanta's Hartsfield International Airport; a ten-page brochure of imported French tile; and a product guide that supplies technical information and specifications. The kit is free to architects and interior designers. Write on professional letterhead to Metropolitan Ceramics, Inc., Ironrock Tile Selector Kit, P.O. Box 9240, Canton, Oh 44711.

Kitchen Sinks, a 12-page brochure, shows single-, double-, and triple-compartment sinks of enameled cast iron in a choice of 13 colors. Bar sinks of acrylic in 5 colors and enameled cast iron in 10 colors are also described and illustrated. Faucets come in polished chromium or brass with single-lever or two-handle controls. Kohler Co.
Circle 201 on reader service card



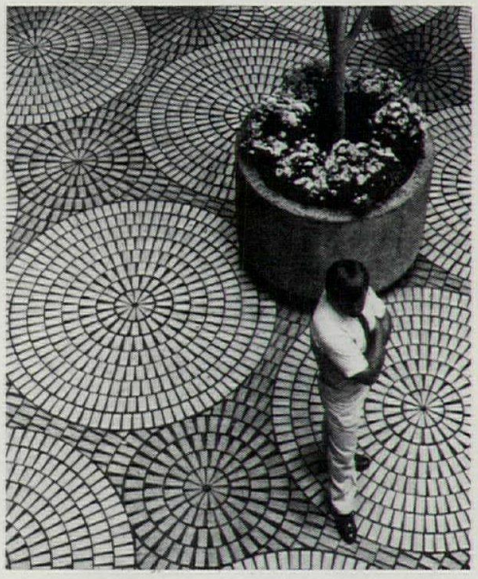
Architectural Metal Work catalog provides diagrams, dimensions, and color coding for metal identification of metal systems and stock components. Railing systems are made of aluminum; plastic and aluminum; aluminum, bronze, and stainless steel; acrylic and wood; and aluminum and stainless steel. Included are stock components for traditional ornamental and pipe railings, decorative latticework, screens, and panels. Technical data and guide specifications are also provided. Julius Blum & Co., Inc.
Circle 202 on reader service card

'Color and Texture in Architectural Concrete' is a 36-page, full-color brochure that shows examples of precast
[*Literature continued on page 148*]

Literature continued from page 147

and cast-in-place concrete buildings. Information is provided about white architectural concrete, exposed aggregate, textures, and patterns. Copies are available at $4 each from Portland Cement Association, 5420 Old Orchard Rd., Skokie, Il 60077.

Exterior siding literature covers hardboard, MDO plywood, and textured plywood siding. The full-color, 28-page brochure describes the different types available and illustrates colors, textures, and typical installations. Instructions for installing and finishing are provided, along with drawings of installation details. Champion International, Building Products Division.
Circle 203 on reader service card

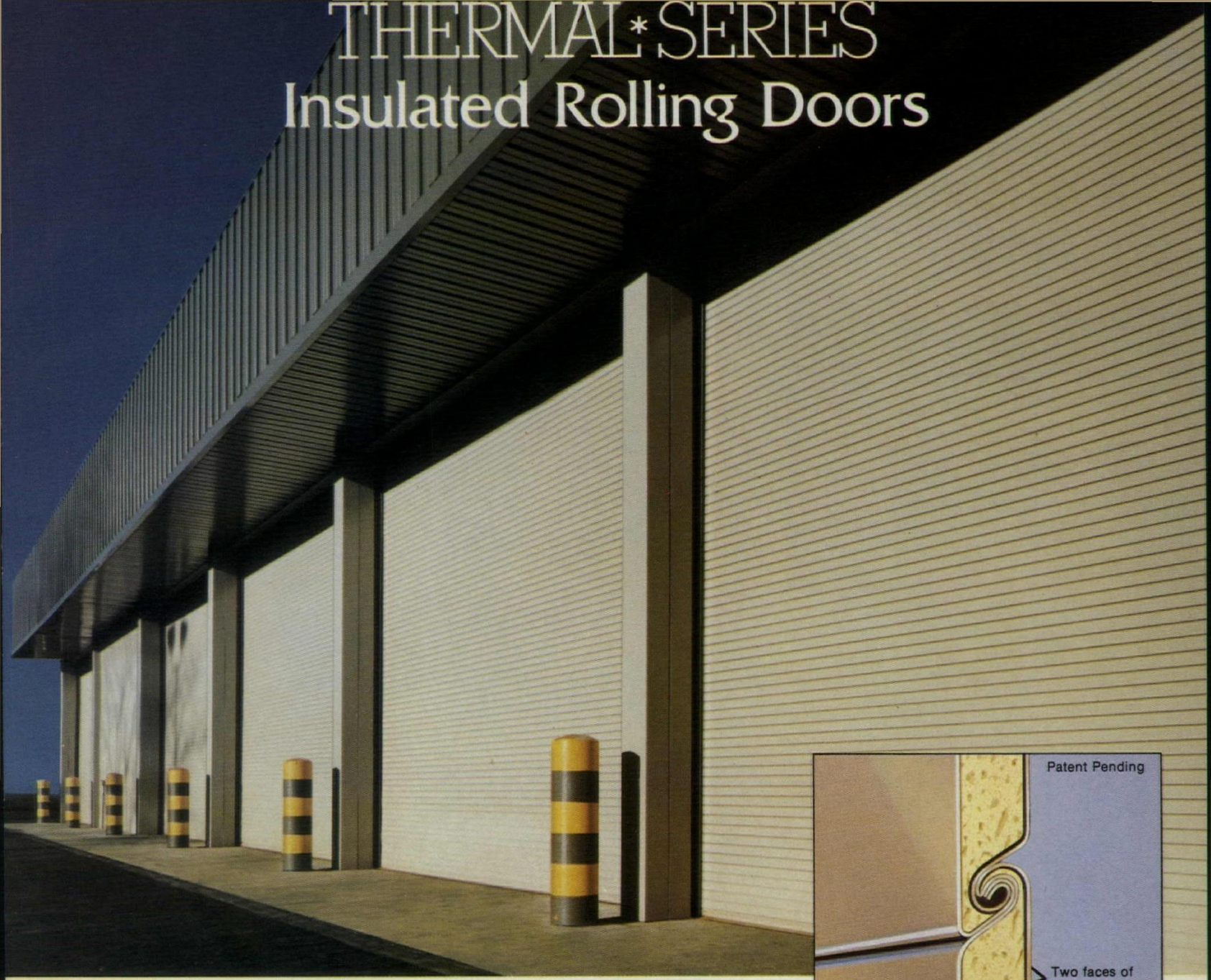


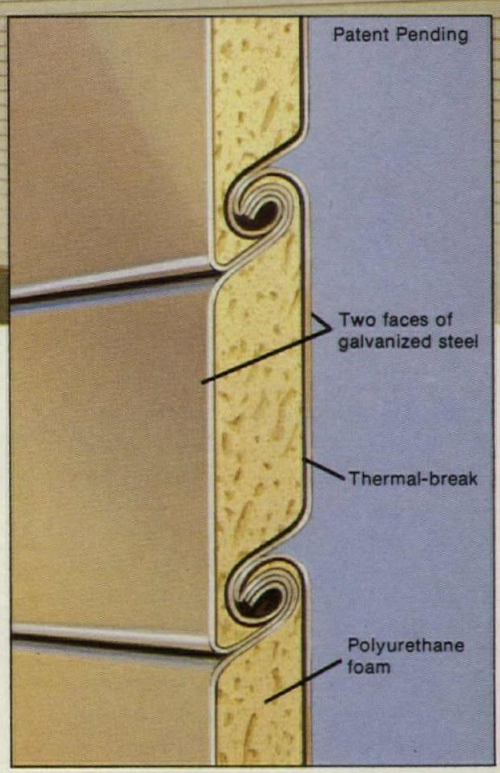
Ceramic tile catalog describes and illustrates the company's complete line of Romany-Spartan tile for interior and exterior use. Types included are glazed wall tile, unglazed pavers, mosaic, and others, along with trim and bathroom accessories. The 24-page catalog provides information about sizes and has photos showing colors and shapes as well as typical installations. U.S. Ceramic Tile Co.
Circle 204 on reader service card

The Magistrate Collection of executive office furniture, in a traditional Chippendale design, is illustrated in a new catalog. Included in the group are desks, modular credenzas, bookcases, seating, and tables. They are shown in photographs and drawings along with complete specifications. R-Way Furniture Co.
Circle 205 on reader service card

Model building and miniatures catalog offers materials and tools for building scale models. Miniature furniture, metal accessories, electrical components and wiring, and landscaping items are included. The 48-page catalog is $3. Order from Small Sales Co., P.O. Box 7803, Boise, Id 83707.
[*Literature continued on page 150*]

THERMAL*SERIES
Insulated Rolling Doors





The Creative Challenge of Today

To design a building that's energy efficient you've got to use every means to conserve energy. That's why Atlas has developed a series of insulated rolling doors that cuts wasted energy due to heat flow through and around the door curtain.

The door slat is uniquely constructed so that polyurethane foam is sandwiched between two faces of 22-gauge galvanized steel. The door frames are weather-stripped on all sides, to make them the logical solution for the temperature-weather control problems that occur at large door locations. Whether used at exterior or interior openings, whether motor or chain operation, our Thermal-Series is the best bet - when you have to meet the challenge of today.

If you'd like more information on our Thermal-Series call or write Atlas Door Corporation (201) 572-5700. Because we're committed.

atlas

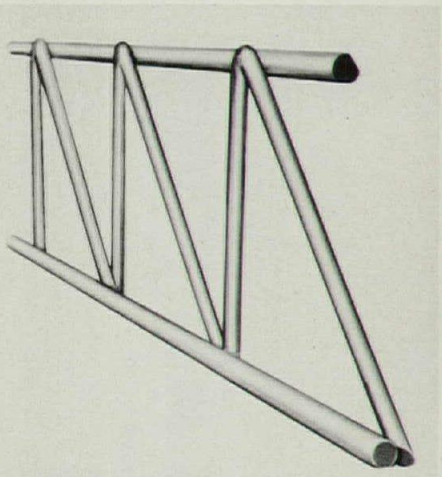
Atlas Door Corp.
110 Truman Drive
Edison, N. J. 08817
201-572-5700

Meeting the challenge of today...

Circle **No. 313** on Reader Service Card

Weavepoint Series contract carpet, made of Du Pont Antron III nylon for durability, is woven using a new technology that makes patterns previously possible only using slower, more costly means. Patterns in the series, available in cut or all-loop construction, are Windowpane, Pindot, and Glen Check. Bigelow-Sanford, Inc.
Circle 206 on reader service card

A fabric care soil-release protective finish, applied to carpets and fabric furnishings after installation, is part of a year-round soil-release management program. The service, described in a company brochure, is available through an international network of service centers. The method provides a non-toxic, non-aqueous treatment that does not change fabric hand, color, or flame resistance and helps to release preexisting soil. Fiber Seal International.
Circle 207 on reader service card

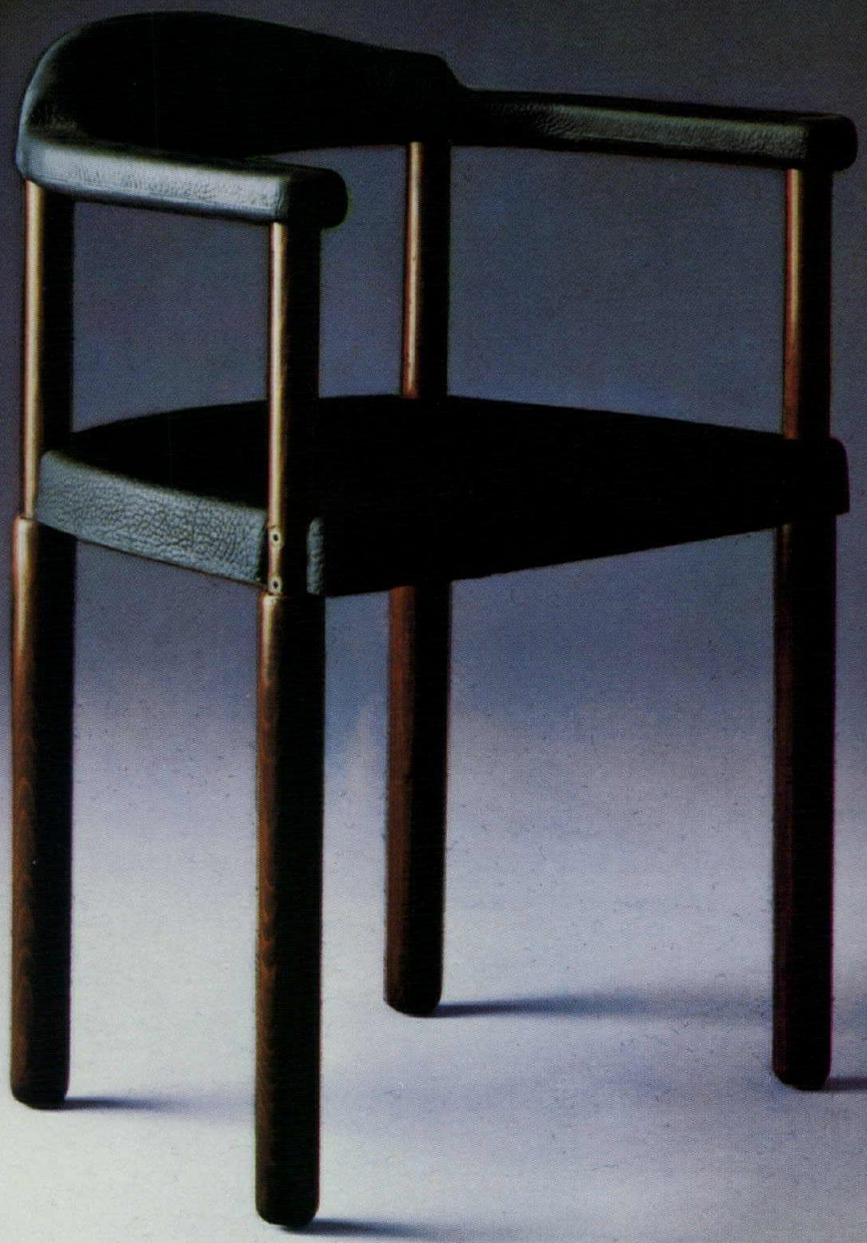


Welded wire girders, both single- and double-faced, are the subject of a 38-page brochure. Engineering data and detailed specifications are provided, along with blueprint renderings illustrating each girder type. Height specifications are given in both millimeters and inches; weight is in pounds per linear foot. Exposaic Wire Co.
Circle 208 on reader service card

Residential/commercial carpet resource list provides a complete listing of carpets manufactured of Anso®, Anso-X®, and Anso IV® nylon fibers. The eight-page listing includes mill name and address, fabric name, construction, fiber content, and type of guarantee. Allied Chemical.
Circle 209 on reader service card

Accessibility standards related to grab bars, railings, and shower seats are outlined in a 12-page booklet. Besides providing ANSI (American National Standards Institute) standards, it has illustrations and dimensions of accessories to help the handicapped. Included are railings and edge protection for ramps, stair rails, and grab bars for tubs, showers, and toilets. Also given are
[*Literature continued on page 153*]

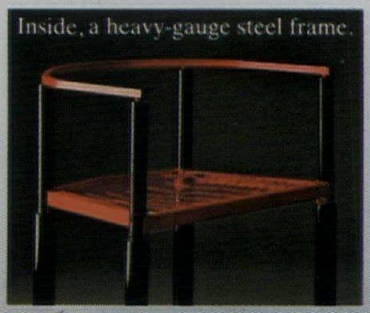
Leonardo.
A contract chair so affordable, it's extravagant not to buy it.



A number of architects and designers have asked us how we can produce an upholstered chair like Leonardo at its surprisingly low price.

And quite frankly, we were more than a little delighted when we realized that Leonardo's design concept allowed us to offer so much seating for under $260 (list).

We've used a unique manufacturing process that molds self-skin polyurethane foam on the seat and back, making the chair and matching stool more serviceable—and more affordable—than conventional upholstery.



Inside, a heavy-gauge steel frame.

Designed by Paul Tuttle, Leonardo is easily assembled with an allenhead wrench and consists of only three different parts (the stool, four). And all parts screw into a heavy-gauge steel frame inside the self-skin polyurethane foam. So that while the chair is extraordinarily sturdy, parts can still be replaced on-site. And since Leonardo is manufactured here, replacement parts are readily available.

In fact, you can even save money on delivery by having it shipped knocked down.

Finally, because the chair and stool are virtually identical, you can carry the same design, for example, from a restaurant bar through to the dining room.

Leonardo. You'll be amazed at what it will do for your bottom line.

For more information about our complete collection of contract and residential furniture write or visit us, Atelier International, Ltd., 595 Madison Avenue, New York 10022 or phone (212) 644-0400.

For your convenience, we have additional showrooms in Chicago, Dallas, Denver, Los Angeles, Houston, San Francisco and Seattle; sales offices in Atlanta, Boston, Miami, Philadelphia, Salt Lake City, Washington, D.C. and selected furniture dealers nationally. Member ASID IBD, BIFMA.

ai

Circle **No. 309** on Reader Service Card

Krueger plus Wilkhahn Program 400 equals new harmony in wood

Krueger has launched a new venture in conjunction with Wilkhahn of West Germany. You can now purchase Wilkhahn's classic Program 400 furniture in the United States or Canada and have it shipped from Krueger's Green Bay manufacturing facilities.

Program 400 is a landmark design. Honored with awards here and abroad, Program 400 was first introduced over a decade ago by Wilkhahn and has since been widely imitated. Its technical achievement of laminating plies of hardwood into multi-directional frame configurations provides a distinctive delicate linear appearance. Though lightly scaled, Program 400 frames are stronger than solid wood.

Program 400 is available in side and arm chairs as well as tables. Contact Krueger or showrooms for more information.

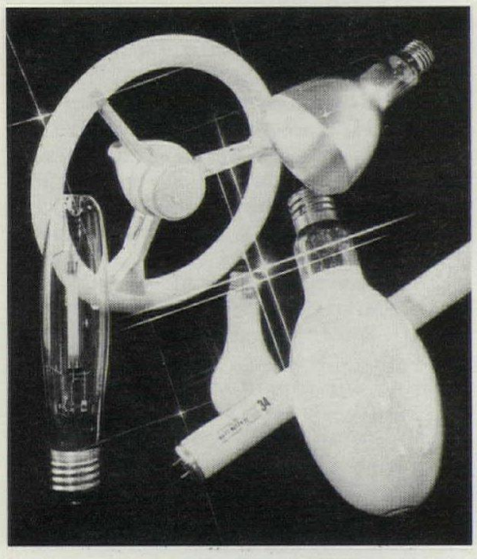
krueger

P.O. Box 8100; Green Bay, WI 54308; 414/468-8100
Boston 617/893-2752 • New York 212/371-9595 • Philadelphia 215/666-9696 • Atlanta 404/231-0913
Jackson, MS 601/362-8062 • Indianapolis 317/788-4737 • Chicago 312/467-6850 • St. Louis 314/241-8431
Dallas 214/823-4183 • Houston 713/222-1408 • Denver 303/534-6060 • Los Angeles 213/659-2133

Circle **No. 346** on Reader Service Card

Literature continued from page 150

dimensions for toilet compartments to provide for wheelchair access. Tubular Specialties Mfg., Inc.
Circle 210 on reader service card



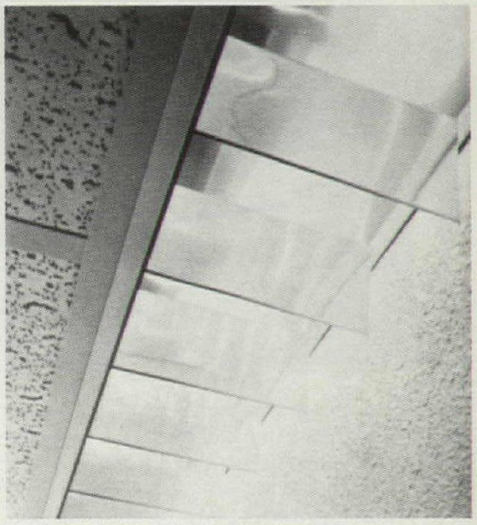
Lamp catalog provides performance data and descriptions of company's complete line of incandescent, fluorescent, and high intensity discharge lamps for homes, commerce, and industry. Energy cost saving retrofit tables are provided for several types of lamps. Also included are technical notes on bases and filaments. For a copy of this 100-page catalog, write on firm letterhead to request Form 9200 from General Electric Company, Lighting Business Group, Inquiry Bureau, Nela Park #1180, Cleveland, Oh 44112.

'Polyurethane Foam Insulation: Fire Risks and Safety,' is a 24-page safety manual excerpted from the company's revised Technical Bulletin 107. It stresses the importance of safety precautions in the use of polyurethane foam as insulation to minimize risks of fire. For a free copy of the manual, write on firm letterhead to CPR Div., The Upjohn Co., Inquiry Handling Department, P.O. Box 430, Battle Creek, Mi 49016.

Big-H™ acoustic plenums, constructed of all-steel panels enclosing 4-in.-thick, sound absorbing insulation, are described and illustrated in a six-page brochure. They form airtight enclosures for HVAC equipment and thermal barriers that minimize heat transfer. Industrial Acoustics Co.
Circle 211 on reader service card

The National Source Directory lists major sources of interiors products. The 340-page directory includes descriptions of products and services, a regional directory, a category index, and a list of major market areas. Copies of the directory are available at $5 each from Resources Council, Inc., D & D Bldg., 973 Third Ave., New York, NY 10022.

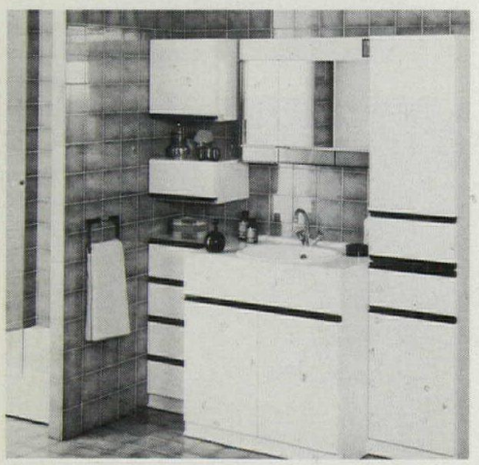
Entrance systems and curtain walls brochure describes thermally improved flush-glazed storefront systems and wall systems; thermally broken slope wall systems; unit wall systems; sliding mall fronts; stainless steel entrances, doors, hardware, wall facing systems, and louvers. Finishes and colors are also described in the 16-page brochure. The Alumiline Corp.
Circle 212 on reader service card



Accent Lighting provides fluorescent wallwash illumination with a variety of diffusers to fit most suspended ceilings. A 12-page brochure has detail drawings
[*Literature continued on page 154*]

Literature continued from page 153

that illustrate the design features and photometry. Footcandle plots are also included. Columbia Operation, GTE Products Corp.
Circle 213 on reader service card



'Transforming the bath' is a 30-page, full-color brochure of bath accessories and bathroom furniture. There are five coordinated styles of accessories in coordinating colors. Mirrors are available lighted or unlighted. Furniture and cabinets have uncluttered lines and come in white or beige with contrasting trim. Allibert.
Circle 214 on reader service card

Building materials

Major materials suppliers for buildings that are featured this month, as they were furnished by the architects.

Law Courts and Robson Square Complex, Vancouver, B.C. (p. 82). *Architects: Arthur Erickson Architects, Vancouver.* Concrete structure: La Farge Concrete. Space frame: Caron Industries. Reflective glass for roof: Central Glass Products. Glazing for windows: Zimmcor Co. and Canadian Pittsburgh Industries. Concrete pavers for floors: Borgorin. Carpet: Woodward, Ltd. Gypsum board: Gallagher Brothers. Millwork: BC Millwork Prod. Ltd.

Le Premier Restaurant and La Detente Cafeteria, Washington, DC (p. 96). *Architects: Cross & Little, Kensington, Md.* Paint: Pratt & Lambert. Gypsum board: U.S. Gypsum. Metal slat ceiling: Alcan Plenum Mask Ceiling. Carpet: Stratton Industries. Tile: Kentile. Lighting: Lightolier, Keramos. Chairs and table bases: Kinetics. Casements: Skyline Mills. Chair and banquette upholstery: Knoll Textiles.

U.S. Postal Service's South Postal Annex, Boston Ma (p. 100). *Architects: Perry, Dean, Stahl & Rogers, Inc., Boston, Ma.* Metal panels: Inryco. Gypsum board: U.S. Gypsum. Round windows: Hopes Windows. Aluminum stile: PPG Industries. Wood doors: Weyerhaeuser Co. Rolling doors: Kinnear Div. of Harsco Co. Floor covering: GAF, The Flintkote Co. Office ceilings: Armstrong Ceiling Tile. Insulation: Owens-Corning Fiberglas Corp. Demountable office partitions: E.F. Hauserman Co. Paint: Cadillac Paint. Elevators: Beckwith Elevator Co. Handrails: American Architectural Iron. Covered public walkway: Kaiser Aluminum & Chemical Sales, Rohm and Haas.

Benedictine Mission House, Schuyler, Ne (p. 104). *Architects: Astle Ericson & Associates, Omaha, Ne.* Reinforced concrete spread footings: Missouri Portland Cement. Doors: Weyerhauser, McKee. Flooring: carpet, Armstrong; sheet vinyl, GAF; quarry tile, American Olean. Roofing: Uniroyal. Waterproofing: Uniroyal. Styrofoam insulation: Dow. Roof drains: J.R. Smith. Hardware: Stanley, Schlage, Norton. Kitchen equipment: Southern Equip. Co., South Bend Corp., Hobart. Fire alarm: Simplex. Lighting: exterior, Prescolite, Daybrite; interior, Prescolite, Lightcraft of California. Electric distribution: GE, Ovan. Plumbing/sanitary: American-Standard, Powers-Fiat, Elkay; sprinklers, Rain Bird. Heating: Kewanee. Air conditioning: York. Environmental control: Powers Regulator Co. Desks: Solve, Lehigh-Leopold. Chairs: Rudd International, David Morgan. Blinds; Levolor Lorentzen. Draperies and upholstery: Design Tex. Drapery hardware: Kirsch.

Siding: Shakertown 7" Colonial Rough Sawn Shingle Texture with Round Fancy Cut Panels.

Shakertown Siding. When it goes up, costs go down.

When you look at Shakertown Siding, look beyond its initial cost. Because it offers the lowest applied cost of any cedar siding. And the highest quality.

It's made only of #1 grade, straight-grained red cedar shingles and shakes, permanently bonded to 8-foot, plywood-backed panels.

There's no grade falldown. No random lengths or on-site sorting. No finishing or staining.

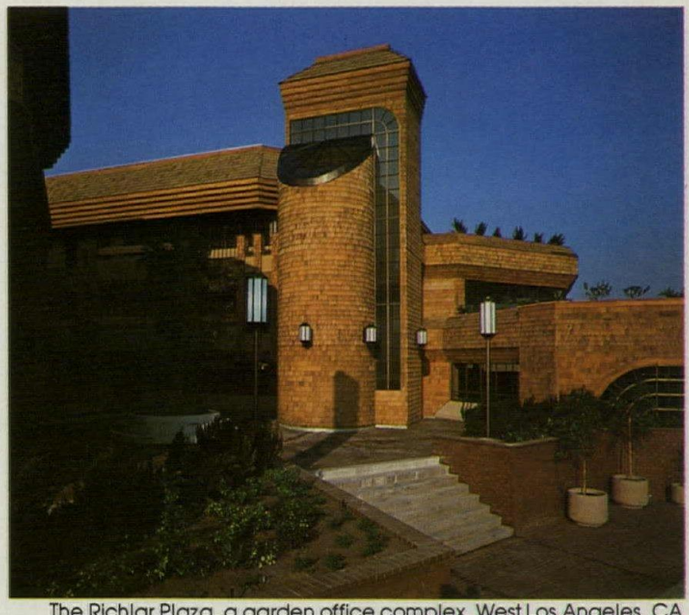
Application is always architecturally true, because Shakertown Siding is self-aligning. In fact, it goes up even faster and easier than lap siding, with no specialized labor or skills, no special tools or hardware.

And it can be applied directly to framing (subject to local codes), so no sheathing or stripping is needed.

The result is faster construction and substantial savings on labor, sheathing, waste, finishing and other building costs.

Next time, specify Shakertown Siding. It's more affordable than you may think. It's adaptable to any design. And it's available in four textures with 7" or 14" exposures and even or staggered butt lines, and in nine Victorian-style "Fancy Cut" patterns.

Write us for product information and specification details.



The Richlar Plaza, a garden office complex, West Los Angeles, CA
Developer / General Contractor: The Richlar Partnership.
Architect: Barry Berkus.

Shakertown Siding

Box 400, Winlock, Washington 98596 (206) 785-3501 In Canada: Bestwood Industries, Ltd., 6188 Kingsway, Burnaby, B.C. V5J 1H5

The Easy Way

Circle **No. 375** on Reader Service Card

P/A in April: Energy Conscious Design

P/A's third annual special issue on Energy-Conscious Design marks a new stage in the architectural profession's response to energy demands.

We have now gone beyond the stage of mere concepts and brave experiments, to the stage of real applications in real buildings of all kinds designed to meet practical day-to-day needs.

The buildings chosen for this issue vary widely in scale and function, as well as in geographic setting. Individual buildings were selected for their value as case studies in the application of energy principles to practical economic situations. They will illustrate such key points as:

- How to avoid overheating when using solar energy.
- How occupants have to adjust to energy design.
- How much architectural variation is possible within energy guidelines.
- How to allow for installation of photovoltaic systems.
- How earth berms contribute to energy savings.

A second section of the issue will be devoted to New Frontiers of energy — those technical areas still in the experimental stages, but with the promise of making an impact on future building. These include:

- Photovoltaics, making electric power directly from the sun.
- Thermal envelope, the concept of putting a building within a building.
- Health implications of energy conservation.
- Light and health, the effect of limited light spectrums.
- Ice storage, an unconventional way to store and control heat.
- "MIT Solar 5," an experimental house that advances the art of devices such as phase-change salts and heat reflective glass.

P/A in May will include an update on latest developments at SOM nationwide, some of the fascinating work by Italy's Carlo Scarpa, the results of P/A's first International Furniture Competition, and a technical article on indoor planting.

The KAD II Koh-I-Noor Auto Draw is electronically controlled to produce rapidly a virtually limitless library of lettering styles, symbols and designs used in engineering, electronic and architectural drawings, as well as the drawings of many other disciplines. Once demonstrated, KAD II requires no special operating skills.

KAD II consists of three components. The PLOTTER, less than four pounds, adapts to almost every drafting machine. It draws with liquid ink in any one of five preprogrammed character heights on most drawing surfaces. Servo motors operate the pen holder to produce faster and better quality characters than can be provided by any hand lettering device.

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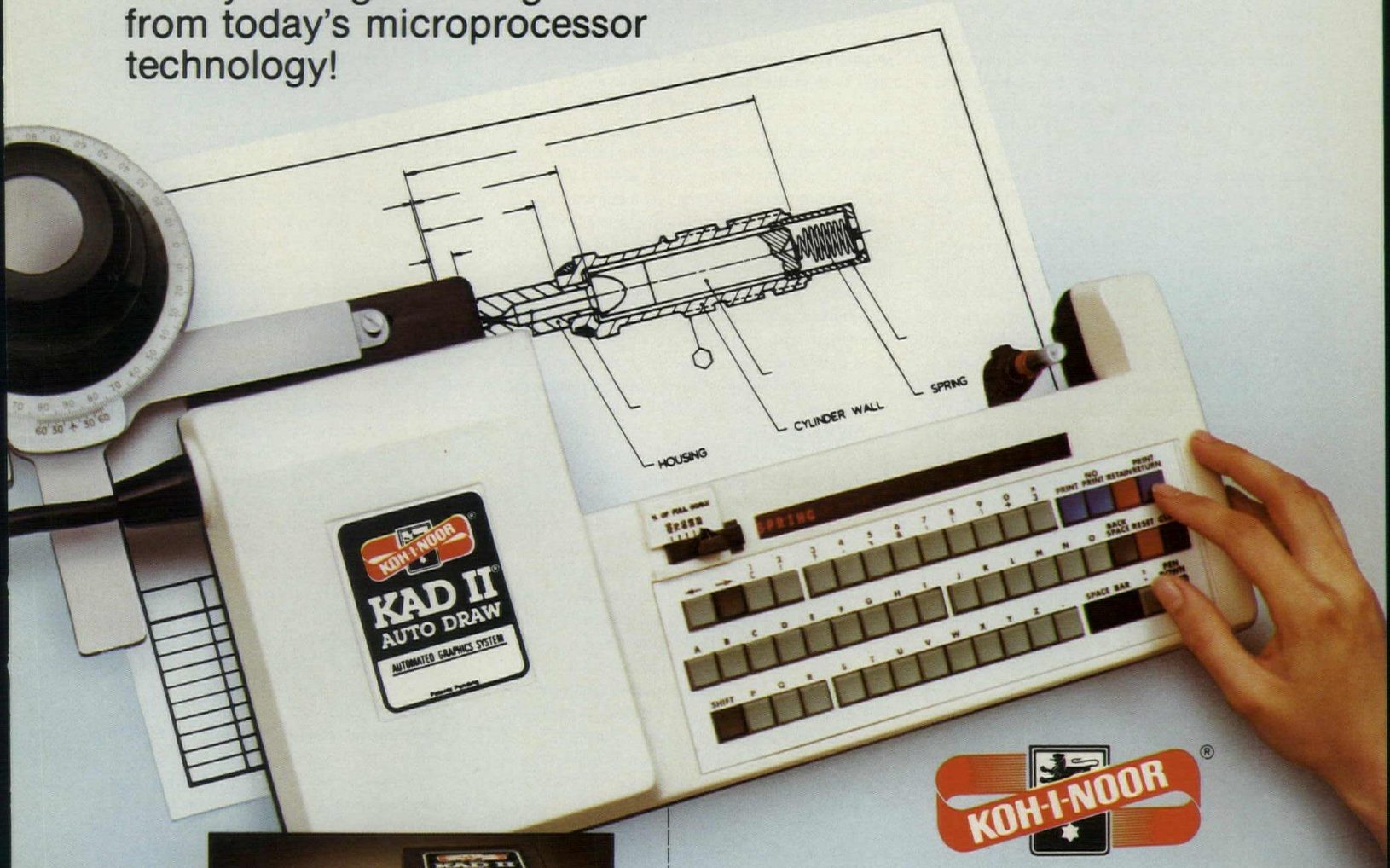
KAD II Auto Draw

The most versatile, electronically controlled lettering and symbol-generating instrument available from today's microprocessor technology!



Demonstrations at the Design Engineering and AIDD Shows, Koh-I-Noor booth.

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PA-3-81

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Situations Open

Architectural Marketing—Position available at Midwest headquarters office of prominent Architectural/Engineering firm, with nationwide practice, for business development specialist to serve architectural marketing and client contact requirements in corporate, institutional and governmental areas with direction and assistance from principal. Successful candidate must have architectural degree and business development experience. This is a major opportunity in an expanding organization. Qualified applicants are invited to submit resumes in full confidence to Box 1361-369, *Progressive Architecture*. An Equal Opportunity Employer.

Assistant Dean for Research: The College of Architecture and Urban Studies of the Virginia Polytechnic Institute and State University, with programs in Architecture, Landscape Architecture, Building Construction, Urban Affairs, Urban Design, Urban and Regional Planning and a Doctor of Environmental Design and Planning, seeks a qualified individual to participate in the development of its research and field service programs. Applicants and nominees should possess a sound academic and professional background, record of innovation reflected in research and publication activities, administrative experience and familiarity with both public and private sector funding requirements and operations. The 12 month position would carry the rank of either associate or full professor. Submit curriculum vitae with three to five references to Chairman, Assistant Dean Search Committee, College of Architecture and Urban Studies, Virginia Polytechnic Institute, Blacksburg, Va 24601. An Equal Opportunity/ Affirmative Action Employer.

Chief Code Enforcement Officer—Dekalb, Illinois: A department head position responsible for the enforcement of the building, housing, building and housing maintenance, plumbing, electrical and rooming house code requirements. Serve as secretary to the Board of Appeals. Selection based upon combination of education, skills, experience and training. Present salary $25,734. Send resume to City Manager, 200 South Fourth Street, DeKalb, Il 60115. Closing date March 31, 1981. An Equal Opportunity/Affirmative Action Employer.

Collaboration with U.S. Firms: A well-known Nigerian firm of architects and planners with projects in many states and Federal Capital wishes to collaborate with experienced and reputable American firm of architects and planners. Areas of collaboration and co-operation will include: (i) design and supervision of projects, (ii) exchange of staff, (iii) training of staff, (iv) exchange of visits, and (v) any other areas of mutual benefit to both firms. Interested U.S. firms should contact The Advertiser, P.O. Box 11910, Ibadan, Nigeria.

Department of Architecture—State University of New York at Buffalo: Assistant or associate professor starting September 1981 to teach required and elective courses in *structures* and develop this area of curriculum; also participate in studio program. Degree(s) in architecture, architectural engineering or structural engineering. Previous teaching experience and dual degrees preferred. Salary according to rank and qualifications. Inquiries, resumes (with samples of professional or scholarly work); or nominations of qualified persons should be sent immediately to: G. Schmitz, Chairman, Appointments Committee, Department of Architecture, School of Architecture & Environmental Design, Hayes Hall, State University of New York, Buffalo, NY 14214, SUNYAB is an EO/AA Employer.

Environmental Design: Full-time faculty position beginning September, 1981, in program integrating construction skills with traditional academic education in art, architecture, and planning. Requires professional experience, ability to work with unskilled people. College of the Atlantic, on Mount Desert Island, is fully accredited, offers four-year B.A. in Human Ecology. Emphasis is placed upon independent student work in curriculum organized around response to contemporary environmental and socio-ecological problems. An equal opportunity, affirmative action employer. Credentials to Personnel Committee, College of the Atlantic, Bar Harbor, Me 04609, by March 20, 1981.

Exhibit Designer: Designer with experience in all phases of interpretive museum exhibition design and planning. Boston-based firm seeks creative individual with abilities in conceptualization, preparation of visual materials, rendering, design team management, and production supervision. Send resume by 3/20/81 to Joseph A. Wetzel Associates, 77 North Washington Street, Boston, Ma 02114.

Faculty Positions: The College of Architecture of King Faisal University in Dammam, Saudi Arabia, has just created new faculty positions for the academic year 1981–82. Positions available at all levels in the following areas: Architecture, Urban and Regional Planning, Landscape Architecture, Engineering Sciences, Building Technology and Mathematics/Physics. Candidates should have Ph.D., M.A., or equivalent degree; practical and/or teaching experience preferred. Language of instruction is English. Positions start in September 1981. Salary is competitive and negotiable. Benefits include free furnished accommodations, air tickets to and from Saudi Arabia once a year for husband, wife and 2 children, 60-day summer holiday. Please submit complete resume (including daytime telephone numbers) and a listing of three references to Dean Ahmed Farid Moustapha, College of Architecture, King Faisal University, c/o Saudi Arabian Educational Mission, 2425 West Loop South, Houston, Tx 77027.

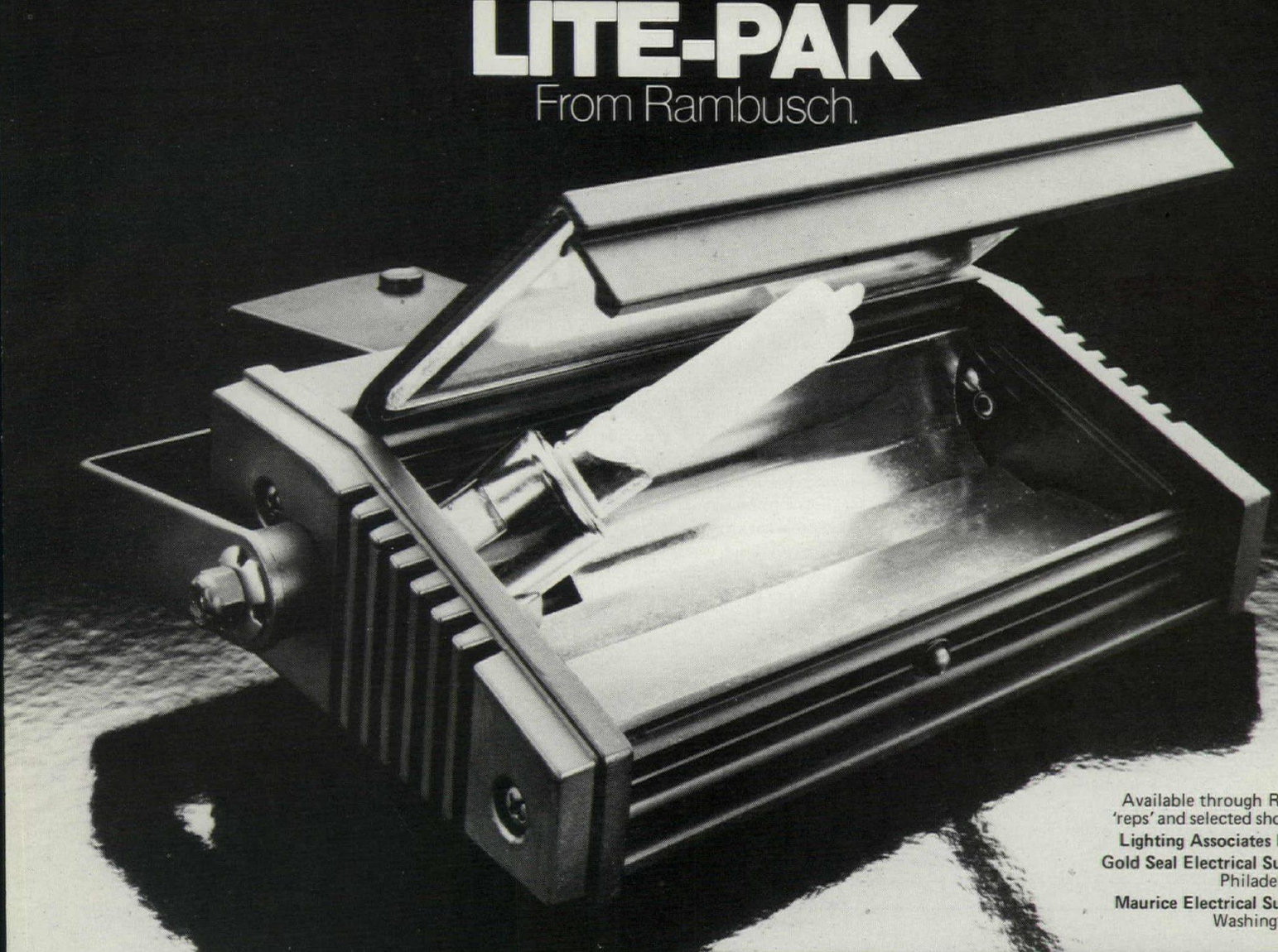
Faculty in Architecture: To teach in all ranks at university in Jeddah—Saudi Arabia. Language of instruction is English. Minimum of one year contract renewable by mutual agreement. M.Arch. required. Positions available starting September 1981. Faculty qualified in structures, architectural history, environmental control systems, project management, social and cultural factors in design, and the building industry especially needed. Interviews in early spring. Attractive salaries and other benefits, including: free furnished accommodation, education subsidy, 60 days annual leave, round trip air fare, and no Saudi Income Tax. Send curriculum vitae at earliest convenience to: Professor M. Kilbridge, Harvard Design School, Cambridge, Ma 02138.

Faculty Position: In Interior Design. Undergraduate instruction in design classes and related studios. September 1981. Rank and salary open; tenure-track. MA/MFA, professional experience and college teaching preferred. Send resume and references to: Office of Academic Affairs, Mount Vernon College, 2100 Foxhall Rd., N.W., Washington, DC 20007. AA/EOE.

Faculty Position: Assistant Professor of Industrial Design (Major of Interior Space), The Ohio State University, Columbus, Ohio 43210. Requirements: Masters Degree or its equivalent, three years minimum professional experience in Interior Space Design, some teaching experience preferred. Salary $20,040 minimum, 9-month tenure track, starts September 23, 1981. For further in-

[*continued on page 160*]

LITE-PAK
From Rambusch.



Available through Rambusch 'reps' and selected showrooms.
Lighting Associates Inc. NYC
Gold Seal Electrical Supply Co. Philadelphia, Pa.
Maurice Electrical Supply Co. Washington, D.C.

A mini quartz lighting fixture engineered for maximum performance.

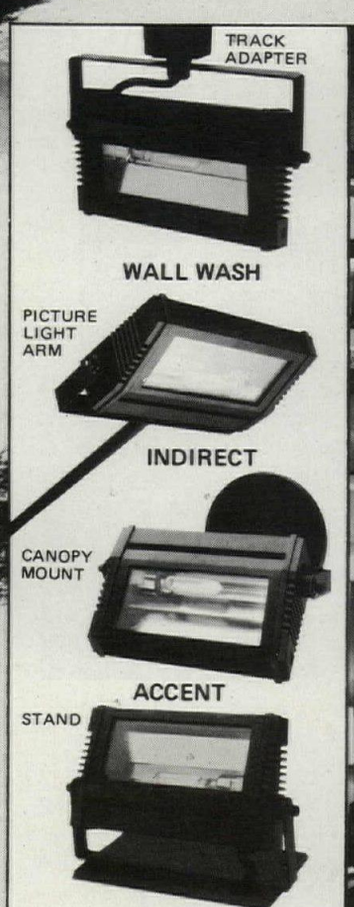
Attractive, innovative, compact. Measuring just over 4"x 6½". With a range of applications as a wall wash, as indirect and accent lighting.

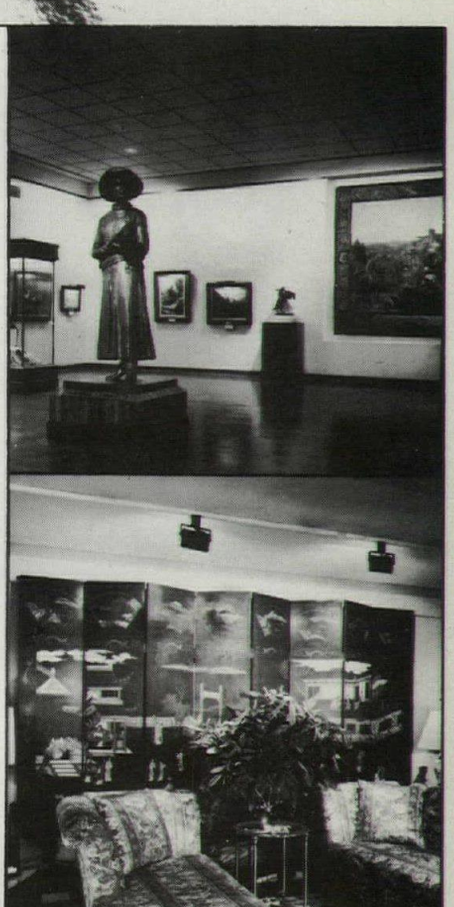
Lite-Pak projects a powerful grazing light across a surface in a uniform arc. Its 150W tungsten-halogen lamp focused on a segmented reflector, delivers twice the lumens of an equivalent incandescent reflector lamp.

Lite-Pak reveals a fuller color spectrum to accurately light works of art. Its hinged access cover has a special UV filter to block ultra-violet light.

Lite-Pak on a variable yoke, is available with 4 mounting devices. Made of die-cast and extruded aluminum, it bears the UL label. Used singly or in multiples, Lite-Pak solves a variety of lighting problems.

For information: Rambusch, 40 W. 13th St., NY 10011 or call (212) 675-0400.





RAMBUSCH

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Job mart continued from page 158

formation about position and teaching responsibilities, contact Charles Wallschlaeger, Chairman, (614) 422-2795. We are an Equal Opportunity/Affirmative Action Employer.

Faculty Positions: The University of Maryland School of Architecture has openings for full time faculty members, assistant/associate professor, beginning August, 1981. Three positions are open to fill four areas of need: 1) ARCHITECTURAL HISTORY: architectural historian with specialization in American and modern architecture; interest in historic preservation strongly desirable; 2) ARCHITECTURAL DESIGN: design faculty with responsibility for studio plus related courses in one or more of the following areas: technology, professional practice, history, historic preservation, photography and visual studies; 3) ENVIRONMENTAL CONTROL SYSTEMS: architect or engineer with architectural experience with specialization in the environmental technologies (HVAC, illumination, acoustics, etc.) to teach courses in environmental control systems (ECS), to direct the ECS component of the program and to teach or co-teach studio courses with an ECS bias, including passive/active solar design; 4) ADMINISTRATION: assistant or associate dean with administrative responsibilities in the graduate and undergraduate program and academic responsibility in one of the areas listed above; administrative, academic and professional experience strongly desirable. Candidates who qualify in one or a combination of these areas are urged to apply. Preference will be given to those with advanced degrees, research or practice in areas of teaching specialty, and teaching experience. The University of Maryland, located in the Washington, D.C. metropolitan area, offers a new graduate program leading to the M. Arch. degree. Send curriculum vitae and description of academic and/or administrative areas of interest to: Professor John Loss, Chairman, Search Committee, School of Architecture, University of Maryland, College Park, Md 20742. Applications should be received by 25 March 1981. An Affirmative Action/Equal Opportunity Employer.

Faculty Positions: UNCC's young and rapidly developing architectural program, which is dedicated to addressing our significant environmental design and planning issues, seeks faculty committed to an innovative, multi-disciplinary and rigorous architectural education. Desire persons to teach first/second, third/fourth or fifth year studios and conduct a related lecture or seminar course in an area such as: programming, environmental behavioral design, computer design graphics, preservation, design theory, building systems, or construction materials. Preference given to persons with prior teaching and practice experience. Long term, tenure track and one-two year visiting faculty positions are available. Forward letter describing teaching and design attitudes with vitae to: Dean Charles C. Hight, College of Architecture, UNC-Charlotte, UNCC Station, Charlotte, NC 28223. Affirmative Action/Equal Opportunity Employer.

Faculty Positions: It is probable that the University of Oregon Department of Architecture will be appointing for the 1981–82 academic year: 1. Two or more faculty to teach architectural design and related support courses in the Architecture program; 2. One faculty position to teach Interior Design and related support courses in Interior Architecture. Complete applications are due by March 15. For information contact: Faculty Search, Department of Architecture, University of Oregon, Eugene, Or 97403, or (503) 686-3656. The University of Oregon is an Affirmative Action Employer.

North Dakota State University: Applications are invited for full-time tenure-track position as Assistant Professor, starting September 1981. Masters degree or significant professional work required. Duties include: Architectural design instruction at beginning and/or advanced levels; lectures or seminars in areas of specialization or interest, including, but not limited to, Graphics, Environmental Control Systems, Research, Computer Applications, Behavioral Science, Analysis, Urban Design. A letter and curriculum vita should be sent to: Search Committee, Department of Architecture, North Dakota State University, Fargo,

ND 58105. Applications reviewed until March 15, or until position is filled. NDSU is An Equal Opportunity/Affirmative Action Employer.

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Technical University of Nova Scotia—Dean of Architecture: Applications are invited for the position of Dean of the Faculty of Architecture, Technical University of Nova Scotia. The Faculty of Architecture comprises approximately 150 students and 20 professors, and includes a Department of Urban and Regional Planning. Degrees offered include Bachelor of Environment Design, Bachelor of Architecture, Master of Architecture and Master of Urban and Regional Planning. The curricula of the Faculty are organized on a co-operative basis, with alternating periods being spent by students on and off campus. The duties of the Dean are to provide administrative and academic leadership to the Faculty. The Deanship is a renewable administrative appointment with an initial term ending on 30 June, 1987. The Dean may also be appointed to a professorship in Architecture with tenure. The appointment will date from 1st September, 1981, or later by mutual arrangement. Applications or nominations together with the names of three references, should be submitted by 1st May, 1981 to: Dr. Allan F. Duffus, FRAIC, Chairman Search Committee for a Dean of Architecture, c/o Office of the President, Technical University of Nova Scotia, P.O. Box 1000, Halifax, Nova Scotia, Canada, B3J 2X4, from whom further particulars of the appointment may be obtained.

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