ARCHITECTURE

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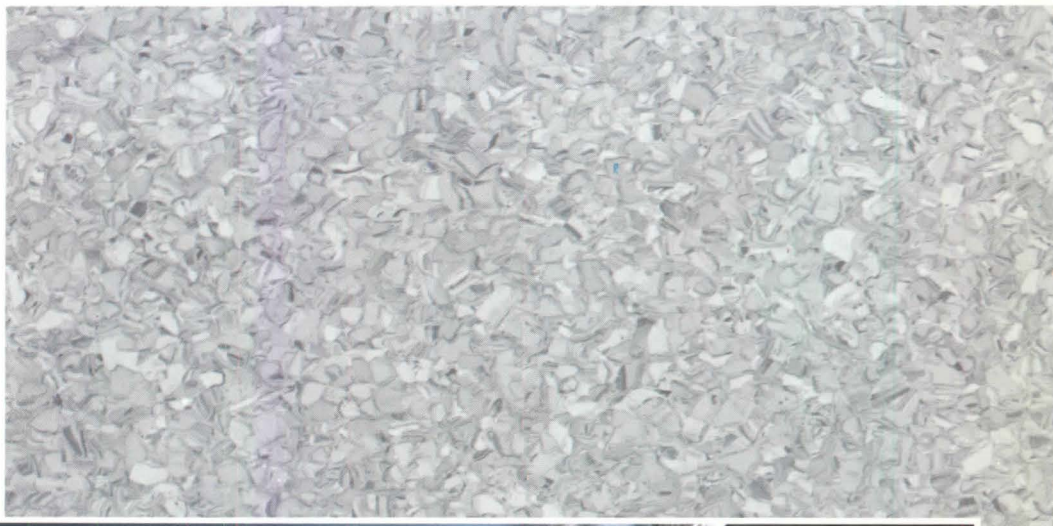

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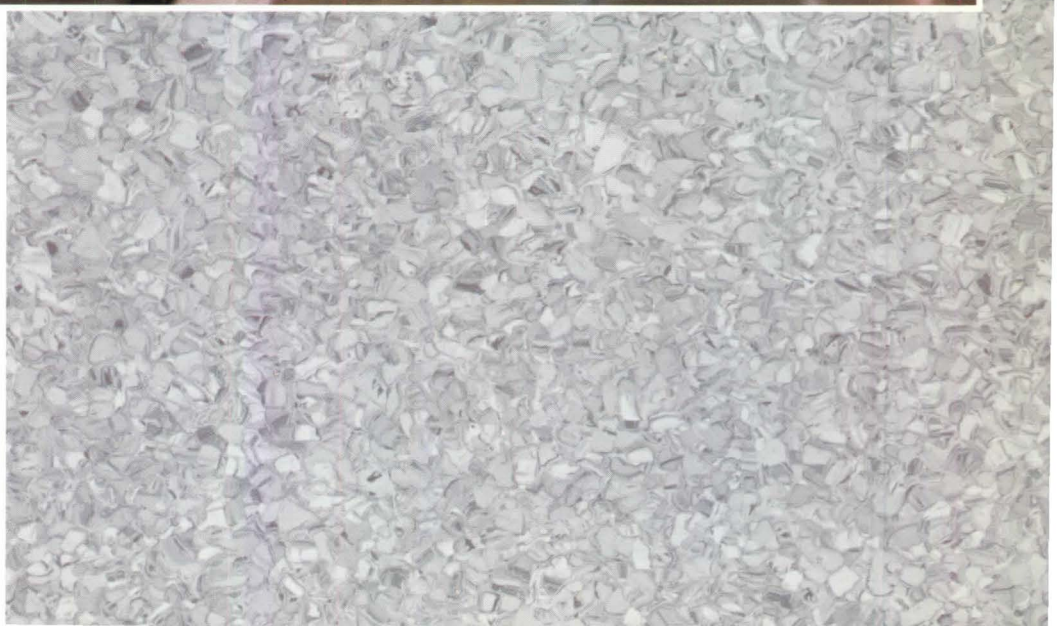

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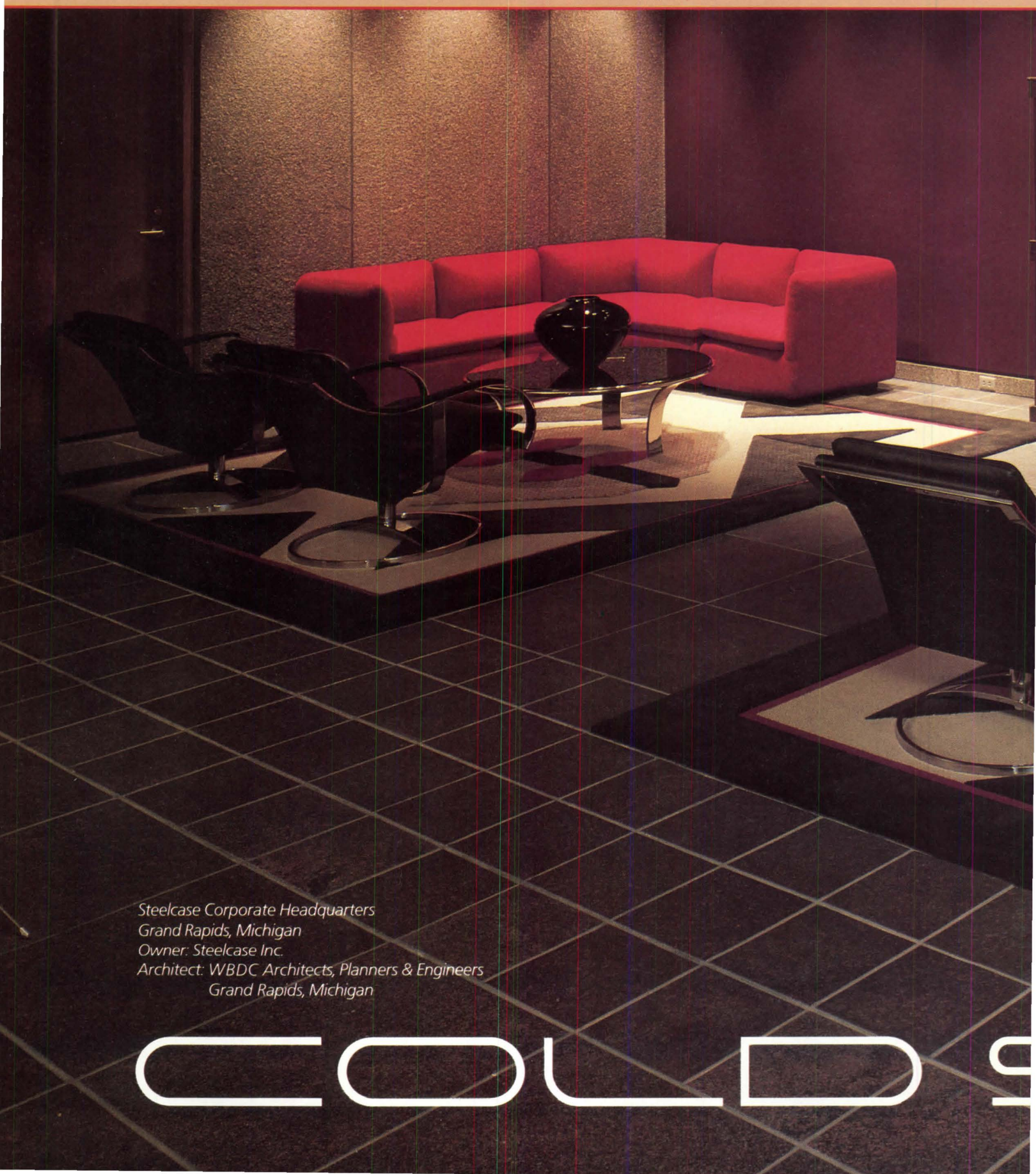

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CONTENTS

The Third Annual Review of Recent World Architecture

Cover: Gabled-shaped entrance of Hisao Koyama's Tokyo University Museum addition (see page 128). Photograph by Taisuke Ogawa © Shinkenchiku.

ARCHITECTURE: The AIA Journal, publication number: ISSN0746-0554, official magazine of The American Institute of Architects, is published 12 times yearly by the AIA Service Corporation at 1735 New York Ave. N.W., Washington, D.C. 20006. **Individual Subscriptions:** U.S. and its possessions: $26 for one year, $42 for two years, $58 for three years. Canada: $32 for one year, $50 for two years, $68 for three years. Foreign: $50 for one year, $90 for two years. For special library and institutional rates, please contact circulation department. Single copies, $5 each (except for May and September issues, which are $10). Publisher reserves the right to refuse unqualified subscriptions. For subscriptions: write circulation department; for change of address: send circulation department both old and new addresses; allow eight weeks. Quotations on reprints of articles available. Microfilm copies available from University Microfilm, 300 N. Zeeb Road, Ann Arbor, Mich. 48106. Referenced in *The Architectural Index, Architectural Periodicals Index, Art Index, Avery Index to Architectural Periodicals.* Second class postage paid at Washington, D.C., and additional mailing offices. VOL. 73, NO. 9.

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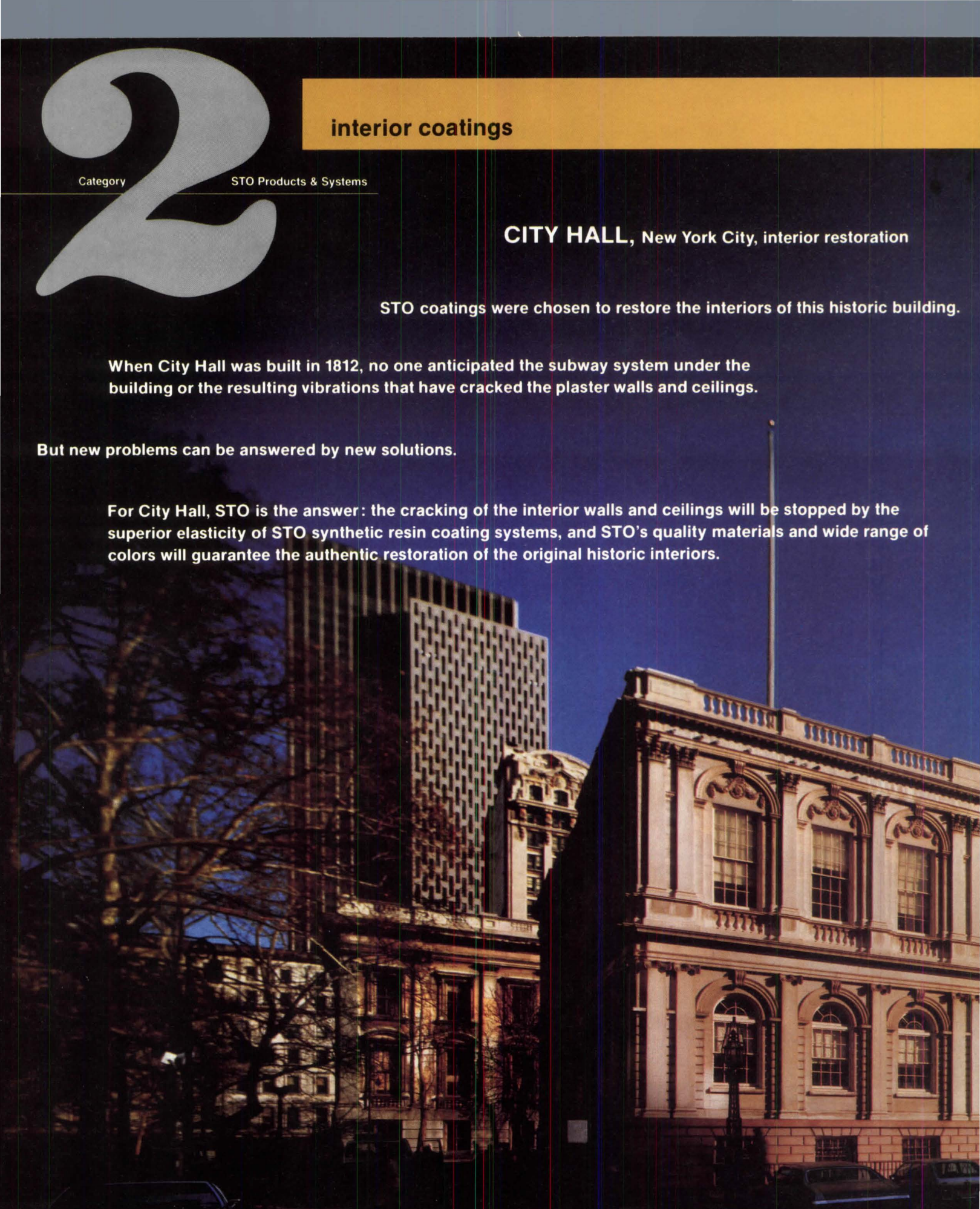

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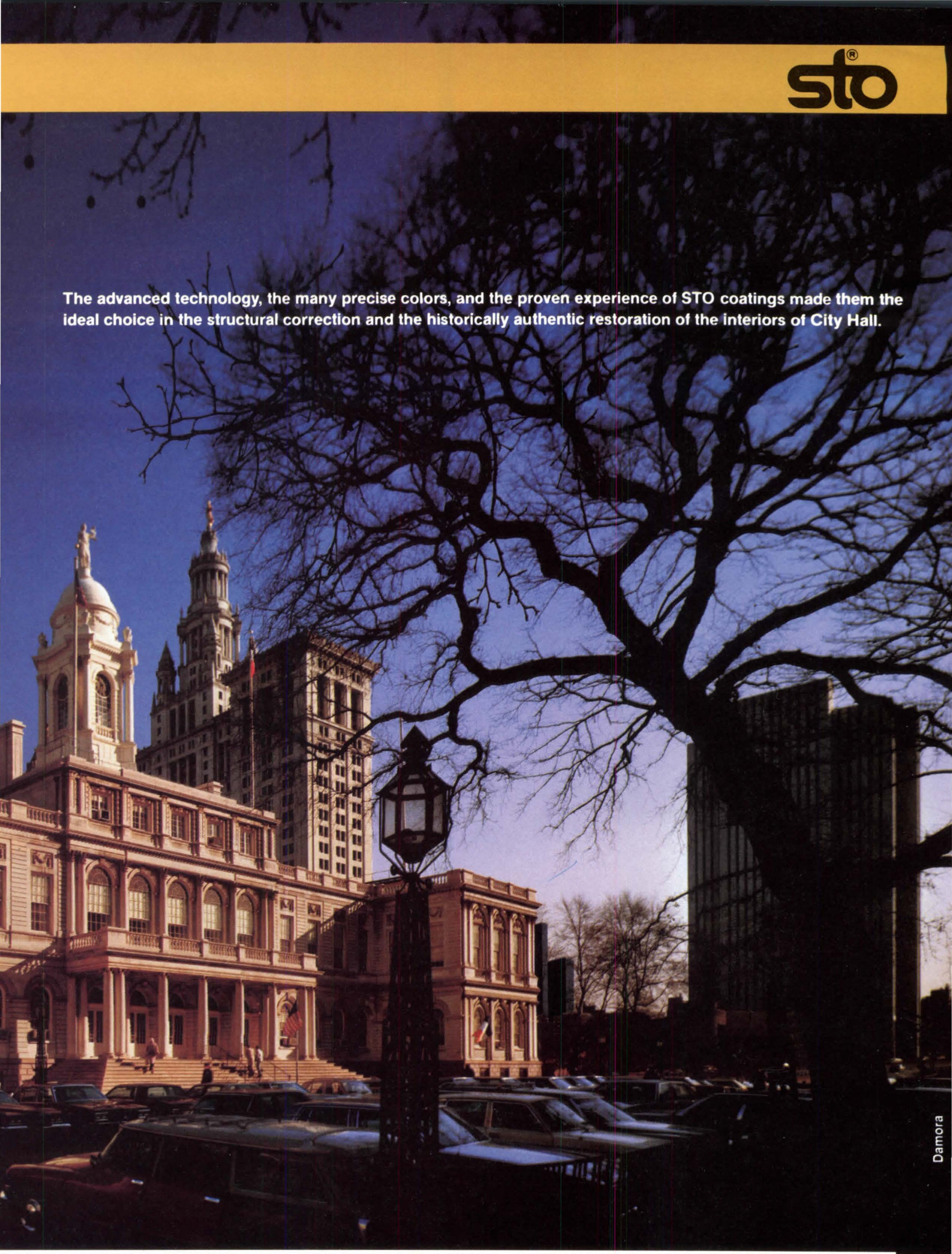

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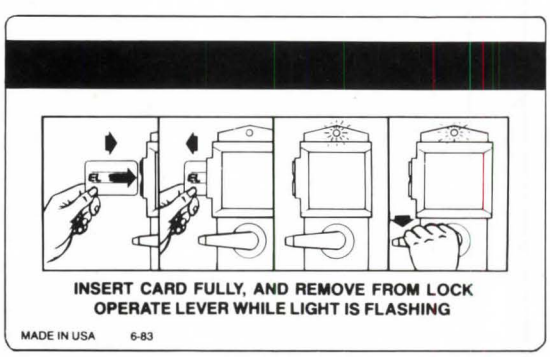

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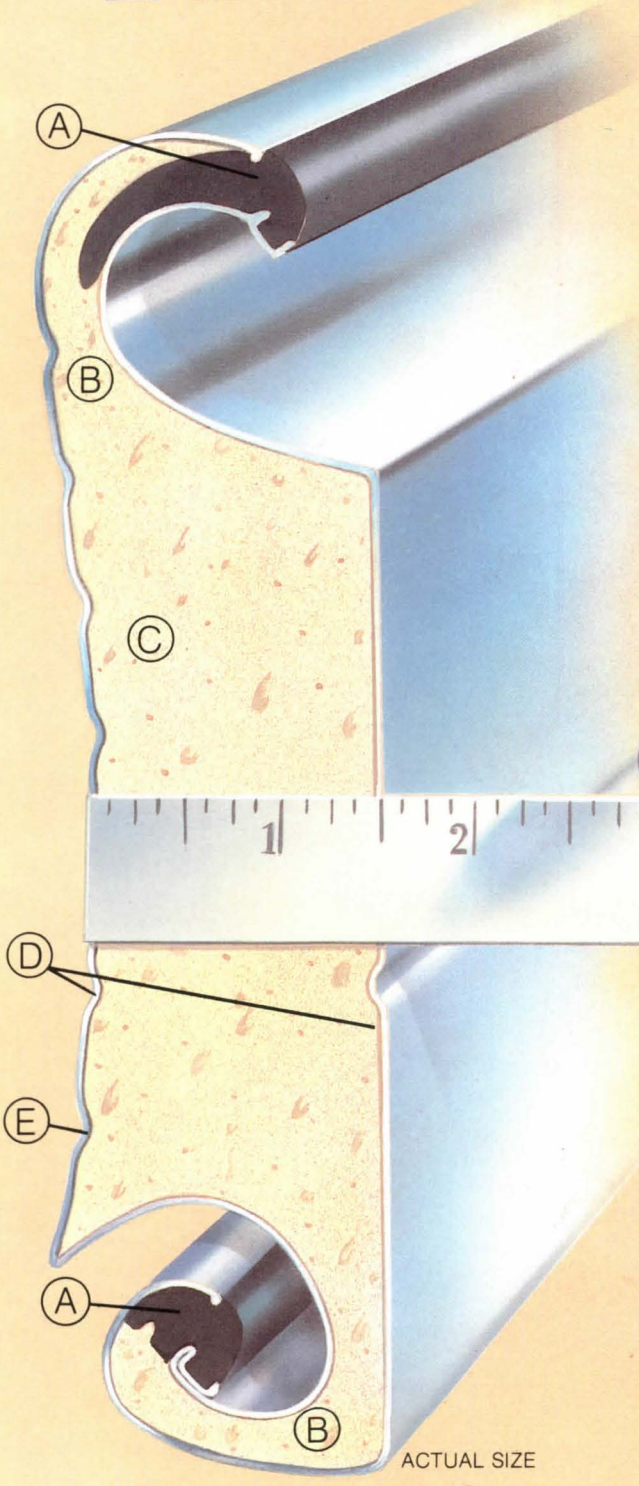

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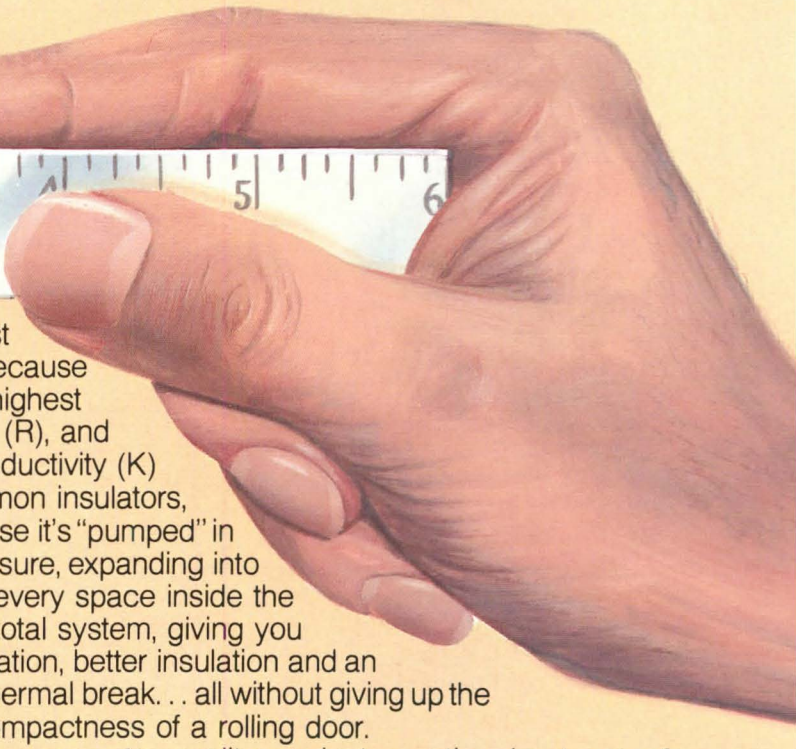

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EVENTS

Oct. 1-2: Workshop on the Fundamentals and Applications of Photovoltaics, Denver. (Repeat workshops Oct. 17-18, San Francisco; Oct. 23-24, Washington, D.C.; Nov. 1-2, Chicago; and Nov. 13-14, Boston.) Contact: Ken Sheinkopf, Florida Solar Energy Center, 300 State Road 401, Cape Canaveral, Fla. 32920.

Oct. 1-3: Conference on Architects Living With Three Codes—An Issue of Public Safety. Contact: Joel Vicars at Institute headquarters, (202) 626-7456.

Oct. 1-4: INFO 84—The Information Management Exposition and Conference, New York City. Contact: Show Manager, INFO 84, 999 Summer St., Stamford Conn. 06905.

Oct. 3-6: Conference on Urban Development and the Corporation, Pittsburgh. Contact: Beverly Sanchez, AIA, at Institute headquarters, (202) 626-7434.

Oct. 3-7: Western Mountain Regional Conference/AIA, Albuquerque, N.M. Contact: Donald P. Schlegel, FAIA, 1620 Central S.E., Albuquerque, N.M. 87106.

Oct. 4: Public Symposium on Information Technologies and Social Transformation, Washington, D.C. Contact: Bruce Guile, National Academy of Engineering, 2101 Constitution Ave. N.W., Washington, D.C. 20418.

Oct. 4-5: Seminar on Energy Management Systems, San Francisco. Contact: Registrar, Association of Energy Engineers, 4025 Pleasantdale Road, Atlanta, Ga. 30340.

Oct. 7-10: International Conference of the Interfaith Forum on Religion, Art, and Architecture, New York City. Contact: Tish Kendig, IFRAA, 1777 Church St. N.W., Washington, D.C. 20036.

Oct. 7-12: International Conference on Health and Migrating Peoples in Arid and Semi-Arid Lands, Lubbock, Tex. Contact: Berry N. Squyres, ICASALS, P.O. Box 4620, Texas Tech University, Lubbock, Tex. 79409.

Oct. 9-10: Course on Cogeneration—Assessment, Application, and Economics, Philadelphia. (Repeat course Dec. 11-12, Nashville, Tenn.) Contact: Registrar, Association of Energy Engineers, 4025 Pleasantdale Road, Atlanta, Ga. 30340.

Oct. 10-12: Fifth Annual Chautauqua in Mississippi—Merging Methods of Small Town Design, Mississippi State University.

Oct. 11: Workshop on Solar Hot Water Installation, East Hartford, Conn. Contact: Larry Sherwood, New England Solar Energy Association, P.O. Box 541, Brattleboro, Vt. 05301.

Oct. 11-12: AIA Energy in Architecture: Redesign Workshop, San Antonio, Tex. (Repeat workshop Oct. 25-26, Chicago.) Contact: Brenda Henderson at Institute headquarters, (202) 626-7353.

Oct. 11-12: Council on Tall Buildings and Urban Habitat, New Orleans. Contact: Barney M. Dornblatt, P.O. Box 50254, New Orleans, La. 70150.

Oct. 11-14: Miami Design Preservation League Eleanor Roosevelt Centennial Weekend, Miami. Contact: Barbara Baer Captiman, Miami Design Preservation League, 1300 Ocean Drive, Miami Beach, Fla. 33139.

Oct. 14-18: Conference on Quality Assurance in Air Pollution Measurements, Boulder, Colo. Contact: Air Pollution Control Association, P.O. Box 2861, Pittsburgh, Pa. 15230.

Oct. 15: Architecture for Health Symposium on Selection of Architects and Construction Methods, Boston. Contact: Mike Cohn at Institute headquarters, (202) 626-7366.

Oct. 15-16: Course on Wind Loads on Buildings and Structures, Dallas. (Repeat course Oct. 25-26, Houston.) Contact: Martha Hise, Institute for Disaster Research, Texas Tech University, Lubbock, Tex. 79509.

Oct. 15-16: Professional Development Seminar on Simplified Energy Calculations, Atlanta. (Repeat seminar Oct. 29-30, Los Angeles.) Contact: Steve Comstock, ASHRAE, 1791 Tullie Circle N.E., Atlanta, Ga. 30329.

Oct. 15-18: National Safety Congress and Exposition, Chicago. Contact: National Safety Council, 444 N. Michigan Ave., Chicago, Ill. 60611.

Oct. 17: Lecture Series on The Shape of the Future—Current Issues in Architecture, Washington, D.C. (Series continues Oct. 24, Nov. 7, Nov. 14.) Contact: The Octagon, 1799 New York Ave. N.W., Washington, D.C.

Oct. 17-20: Conference on the Site Selection and Programming and Planning of a Correctional Facility, Savannah, Ga. Contact: Mike Cohn at Institute headquarters, (202) 626-7366.

Oct. 18-19: AIA Energy in Architecture: Techniques Workshop, Uniondale, N.Y. Contact: Brenda Henderson at Institute headquarters, (202) 626-7353.

Oct. 19: AIA Energy in Architecture: Microcomputer Energy Analysis Workshop, Sacramento, Calif. Contact: Brenda Henderson at Institute headquarters, (202) 626-7353.

Oct. 19-20: Central States/AIA Regional Conference, Kansas City, Mo. Contact: Kirk A. Gastinger, AIA, 810 Baltimore, Kansas City, Mo. 64105.

Oct. 20: Southwest Solarfest, Las Cruces, N.M. Contact: New Mexico Solar Energy Institute, Box 3SOL, Las Cruces, N.M 88003.

Oct. 23-24: Conference and Exhibition for Furnishing, Environment, and Design, Washington, D.C. Contact: Tony Lee, George Little Management, 2 Park Ave., New York, N.Y. 10016.

June 9-12: AIA Annual Convention, San Francisco.

LETTERS

Kevin Lynch: Thanks for the piece on Kevin Lynch (see June, page 16). For those of us who knew him only through his writing, it added a valuable dimension to our image of him.

As one who went through school in the late-'60s/early-'70s, I will remember Kevin Lynch for the many gifts he gave young architects and planners of our era. He gave us a sound technical basis for site design. (My dogeared copy of his *Site Planning* text, strewn with notes from my registration exam studies, is a testament to that fact.) He gave us powerful new design tools for understanding, reshaping, and revitalizing cities. He led the crusade for incorporating humanistic values in a rational and democratic design process and gave us examples of how it could be done. Your article [by Jane Holtz Kay] makes me think that his final gift to us, and maybe the most valuable, is a role model for our own professional and personal lives. *John Owen*
Seattle

New Orleans Fair: I read with enthusiasm Robert Ivy's nice article on the World's Fair (July, page 10), which I thought was forthright and clear. The article gives a good overall description of the fair, but I would be less than honest if I did not express my disappointment that our firm was not mentioned in the article. On page 16 there is a handsome photograph by Allen Freeman of the Fulton Mall bridge that we worked quite hard on. In addition, we were responsible for the design and rehabilitation of both rows of buildings that run the entire length of the mall. These buildings will be one of the principal residual benefits of the fair.

The bridge is a lighthearted jesture for foot traffic connecting [fair president] Petr Spurney's office with the VIP Lounge. It was originally designed as an open steel bridge, and through our efforts the concept of this bridge was changed from an engineering solution to an architectural one. The bridge serves as a viewing platform and archway for Fulton Mall and as a commentary on the warehouses by looking like a miniaturized warehouse itself. The actual warehouses along the mall were restored as accurately as possible to their original state. *Errol Barron, AIA*
Errol Barron/Michael Toups Architects
New Orleans

Columbus, Ind.: I would like to take this opportunity to thank you and your staff for the beautiful presentation of Columbus in the June issue of ARCHITECTURE. Your presentation of the community beautifully humanized our tremendously unique assets. *Charles J. Budd, AIA*
Columbus

U.S. Patent Nos. 4,112,640; 4,029,834; 3,783,4[illegible] Canadian Patent No. 967,313
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Formal edge treatment adds to appeal of guest bath in Amway Grand Plaza Hotel, Grand Rapids. DeWinter Associates, Inc., architects.

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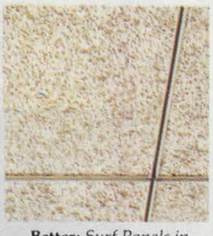

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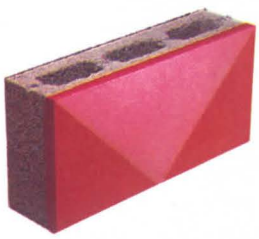

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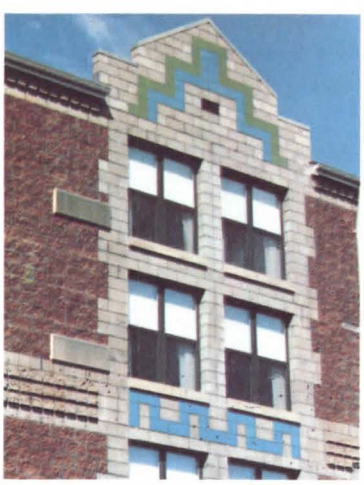

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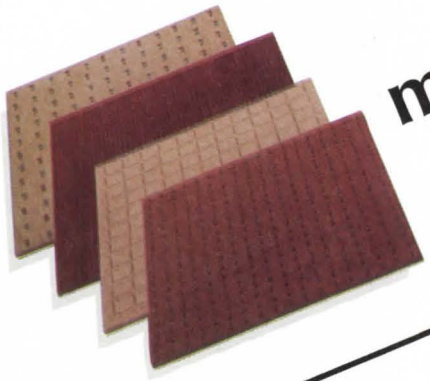
Progressions: patterns in modular carpet by Lees



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Government

How AIA Concerns Fared In the Parties' Platforms

Prior to the Democratic and Republican national conventions, representatives of AIA presented to each party's platform committee "issues important to the design profession and to the nation as a whole." Following is a summary of how AIA's concerns fared in San Francisco and Dallas.

Concerning the environment, AIA emphasized the need for the causes and control of acid rain to be addressed and called for the extension of the Environmental Protection Agency's hazardous waste clean-up program. On acid rain, the Democrats called for an effort to "reduce environmental and economic damage from acid rain while assuring such efforts do not cause regional economic dislocations." Said the GOP: "The Republican Party endorses a strong effort to control and clean up toxic wastes. . . . We will continue to offer leadership to reduce the threat to our environment and our economy from acid rain while at the same time preventing economic dislocation."

On housing, AIA expressed concern about "the degree to which the federal government has retreated from its assistance of new construction and substantial rehabilitation of housing for low- and moderate-income people." The Democrats said, "We must restore government's positive role in helping all Americans find adequate and affordable housing. . . . We must strengthen our commitment to the operation and rehabilitation of current government assisted housing." The Republicans endorsed "sweat-equity" programs, and said, "We will, over time, replace subsidies and welfare projects with a voucher system, returning public housing to the free market."

On energy, the Democrats echoed AIA's call for more research and development for solar energy and other renewable resources and the continued use of energy conservation tax credits. The Democrats also called for tax credits for new passive solar housing. The GOP platform reflects Reagan's energy policy.

AIA called for the U.S. "to take a leadership role in achieving total nuclear disarmament and to direct its strongest diplomatic efforts to achieving world peace through cooperation, brotherhood, and mutual respect. The Democratic position centers around the prompt "negotiation of a comprehensive, mutual, and verifiable freeze on the testing, production, and development of all nuclear weapons. . . . The ultimate aim must be to abolish all nuclear weapons in a world safe for peace and freedom." The Republicans, in contrast, stress a strategy of "peace through strength," and state: "The Soviet Union will return to the bargaining table only when it recognizes that the United States will not make unilateral concessions or allow the Soviet Union to achieve nuclear superiority."

New Director Sees Challenges Along Pennsylvania Avenue

The Pennsylvania Avenue Development Corporation's new executive director, M. J. Brodie, AIA, believes that now is the most exciting time for an architect and planner to assume the post. "There's some good momentum right now," he says, recounting some of PADC's recent achievements as well as a number of projects coming on line.

PADC, charged by Congress to stimulate and shape development along "the nation's main street," as well as upgrade the avenue proper, is now 12 years into its projected two-decade life span. The first decade entailed completing a total redevelopment plan for its 22-block domain between the Capitol and the White House, securing private investment (now at $881 million), and pursuing public improvements (on which $75 million has been spent so far). The past year has seen a flurry of completed projects including the Marriott Hotel, the first phase of the Rouse Co.'s shops at National Place, a renovated National Theatre, and the Sears World Trade Building (see May, page 62).

"That's behind us now," says Brodie, who explains that three-quarters of the public improvements have been completed. "So the nice thing about the timing is that some of the early questions regarding the plan are resolved, there are new office buildings, a hotel, all the stage-setting stuff; but there's still plenty to do," such as the long awaited renovation of the Willard Hotel, the completion of several office/retail buildings, Arthur Erickson's Canadian chancery, and housing.

Brodie comes to PADC as its fourth executive director, with experience as an architect and city planner. For the past 20 years he has served in a number of Baltimore posts: principal city planner, chief planner of the urban renewal and housing agency, deputy commissioner and commissioner of the department of housing and community development, and coordinator for center city development and planning.

The lure of PADC, says Brodie, is the new and unique challenges it poses. "There's only one Capitol, one White House, and one link between them—the avenue." And while Brodie describes the nature of his work in Baltimore as "marvelous," his role as PADC's executive director, especially at this time, "is more directly connected with architecture and architects."

As executive director Brodie reports to PADC's board, of whose 22 members roughly a third are presidentially appointed. He serves to implement board policy, within which he feels that "there's plenty of room for flexibility and creativity in day-to-day decisions."

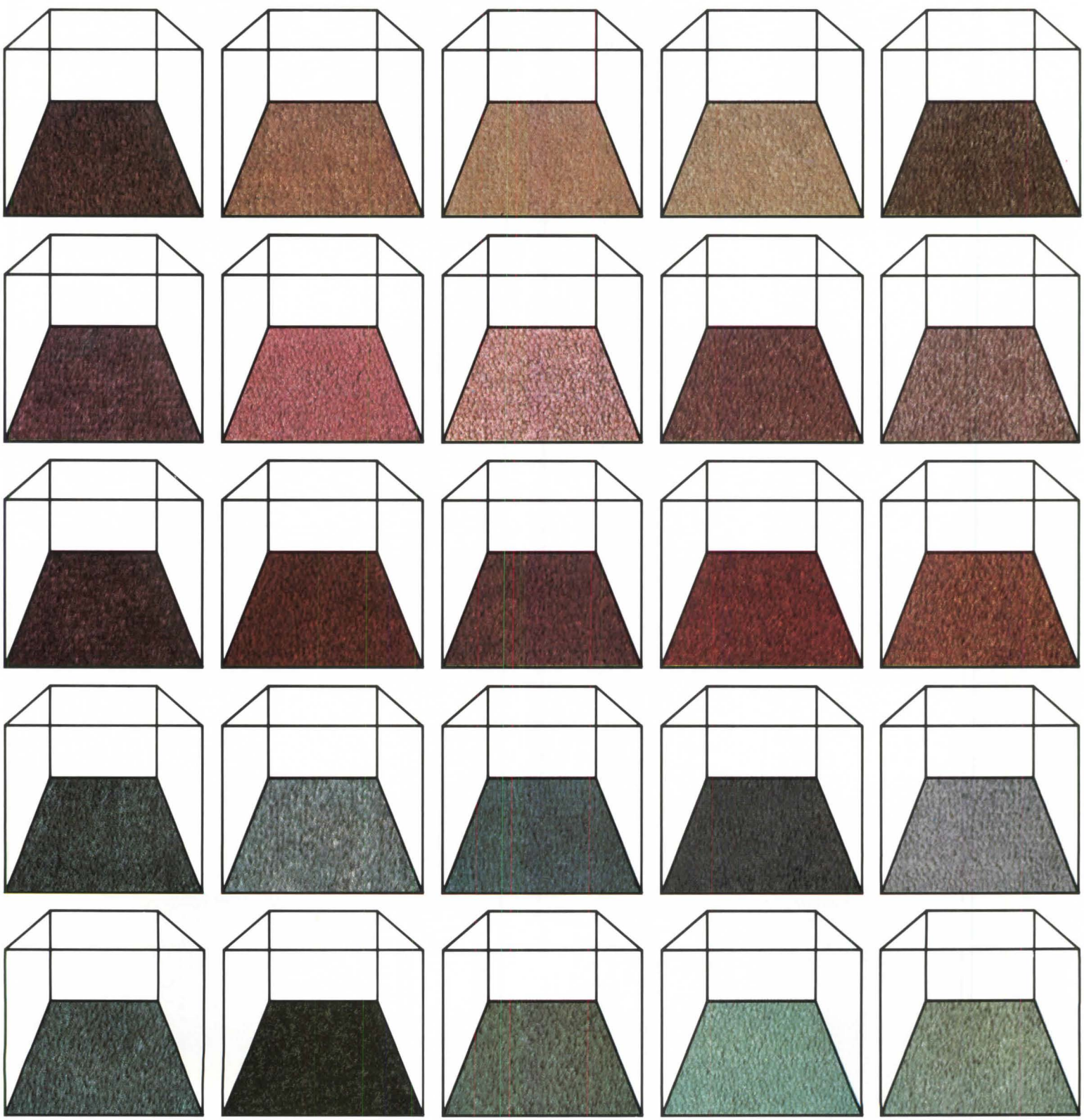
As an architect concerned with city-scale issues, Brodie sees his post as a good vehicle for articulating those concerns. "Being an architect brings to these kinds of positions a sensitivity to what were traditionally architectural issues," he explains. "Historically speaking, architects

continued on page 24

NEWS CONTENTS

Unless otherwise indicated, the news is gathered and written by Allen Freeman, Nora Richter Greer, Michael J. Crosbie, and Lynn Nesmith.

What new directions in color will interiors be following? Karastan offers 50 subtle hints.



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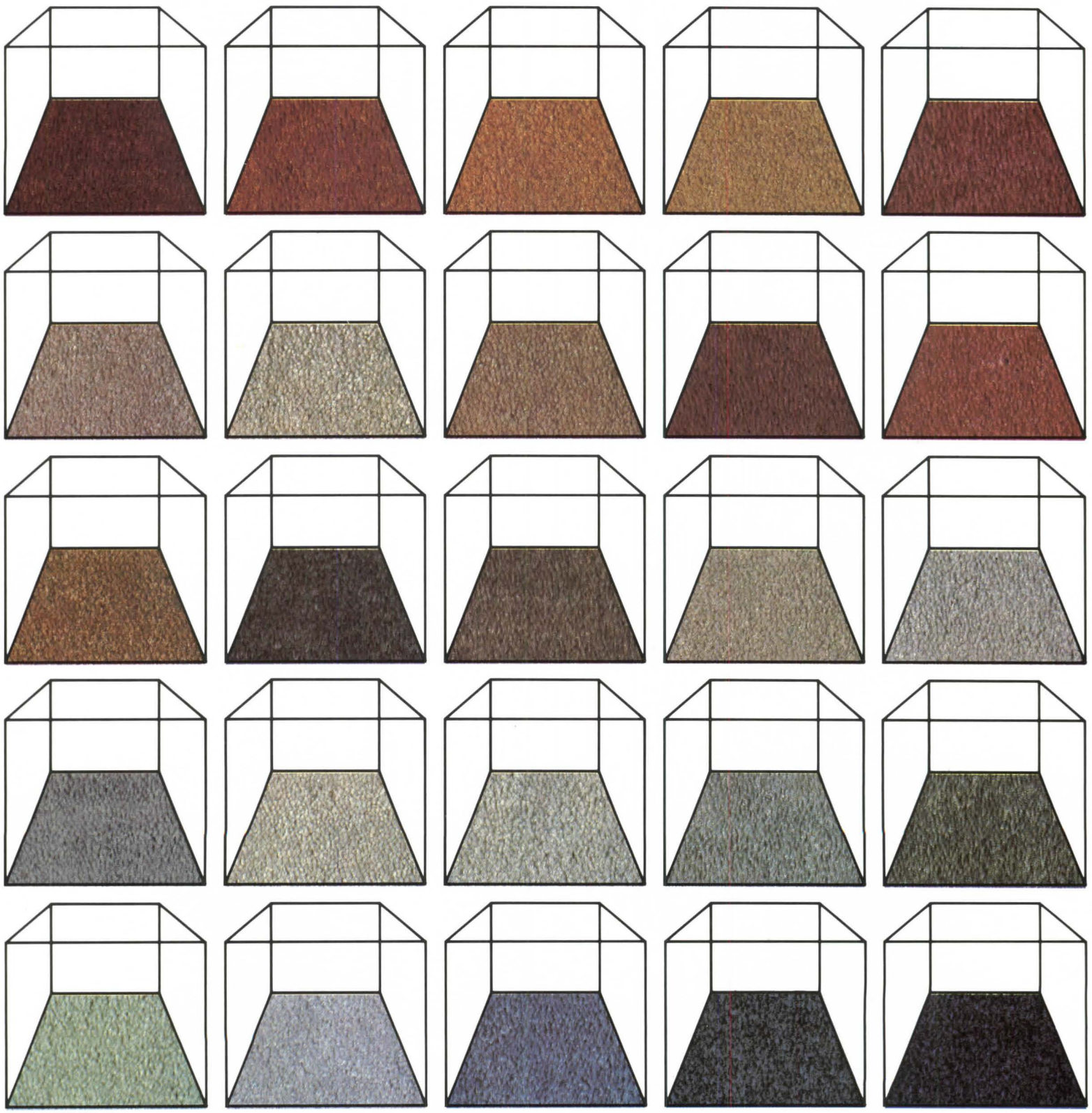
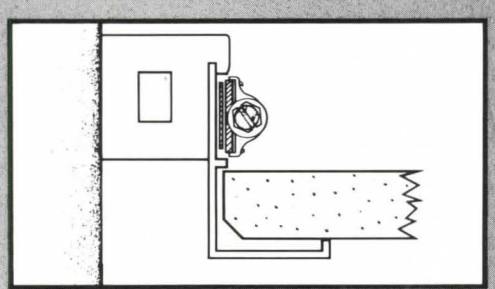


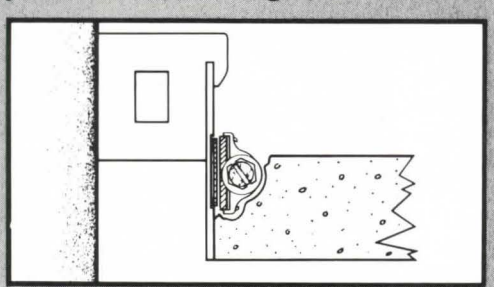
Circle 13 on information card

Fry Reglet's New Column Collar: You'll Find Us In Tight Circles.

Introducing Fry Reglet's new Column Collar — finally a workable molding which fits around small radius columns!

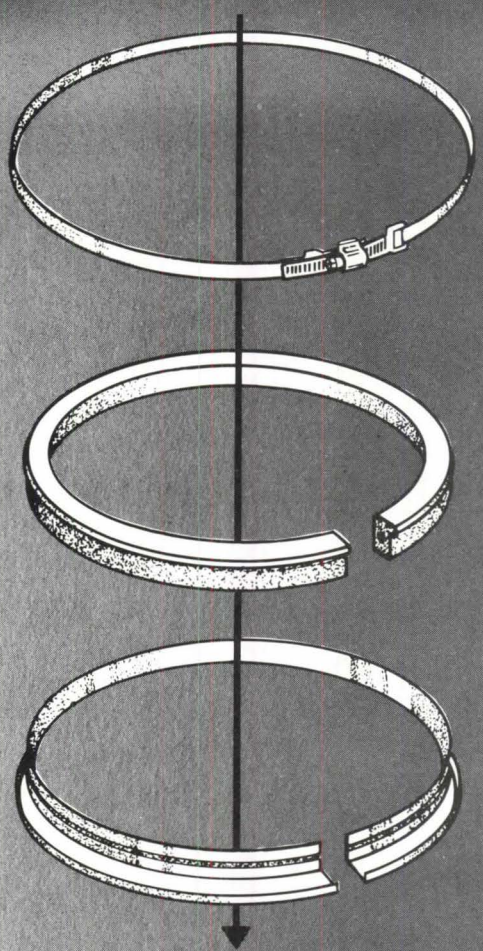


Acoustical tile rests in place on fitted aluminum angle.



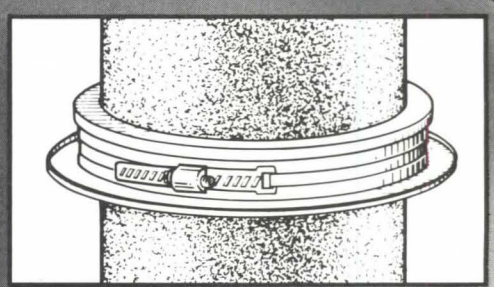
Plaster is screeded to aluminum reveal.

There exist today many well designed buildings with either crudely hand cut tiles fitted around a column or poorly joined plaster around a column. Accordingly, there is a demand by architects and builders for an economical molding which can be installed around columns to create a neat juncture for ceiling tile or plaster. Fry's new column collar does just that!



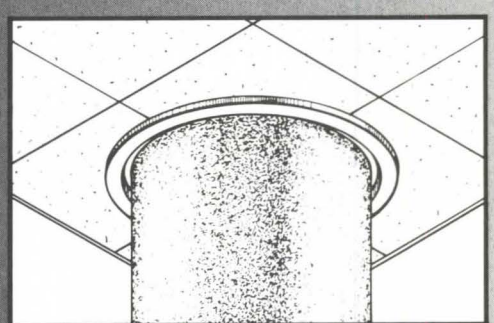
Two simple components secured by adjustable band.

Fry's new Column Collar is a simple and inexpensive reveal molding for use around a column with a small radius. One part comprises a plastic spacer easily wrapped around the column; the other part comprises an extruded aluminum molding (of simple configuration) that is flexed or roll formed to the curvature of the column. The two parts interfit and are secured to the column by a band clamp.



Fits on columns with a radius as small as six inches.

Collars can be manufactured to fit around columns with radii as low as 6″. The aluminum molding is available painted (medium bronze, dark bronze, black and white) and clear or color anodized (medium and dark bronze). The PVC spacer is available in white or dark bronze.



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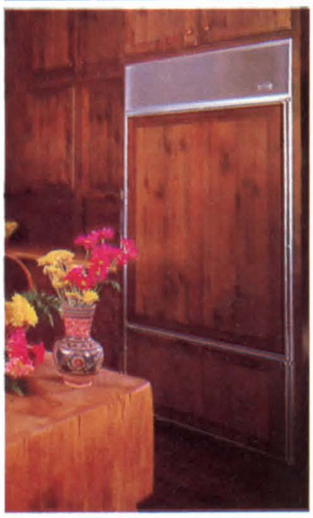

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Government *from page 19*
were city planners and urban designers, and we should be able to bring experience and imagination to a process that tends to be bureaucratic and legalistic."

And as a planner, Brodie appreciates PADC's work as it relates to the larger context of the city, "linking our efforts to other things like the new convention center, Union Station, and a revitalized retail section."

He also believes that whether an architect, planner, or developer, one should be exposed to the way the rest of the world "sees the business you're in." As an architect and planner working with developers, Brodie says that his role allows him to appreciate the concerns of all three. "It's been my experience that the better I understand the developer's point of view, the more developers have enjoyed the relationship and felt that we weren't adversaries; that I didn't *just* care about design and I didn't think they *just* cared about the bottom line."

Housing, Brodie's forte in Baltimore, is a component in PADC's mixed-use development that has yet to become a reality. A part of the plan from the very beginning, housing on the avenue is to be located at Market Square, between Seventh and Ninth streets. The number of units has been reduced to 1,200 from an earlier proposal of 1,500, with 1.5 million square feet of office space and 100,000 to 200,000 square feet of retail. The drop in the number of housing units was necessary, PADC claims, to make the project economically feasible.

Last month PADC received six development proposals for Market Square, a parcel comprised of 85,000 square feet with a total development potential of 650,000 square feet. Each of the six proposals contains at least 225 housing units. Brodie reports that the corporation was "delighted and encouraged" by the response.

These units, he admits, will be high rent, "because the avenue itself is very special and commands those kinds of prices. But off the avenue they're a bit less, and with some creative work I think we'll be able to realize some mixture of different income levels." Just north of Market Square, Brodie explains, are blocks on which 1,200 to 1,500 units could be developed.

Evaluation of the six proposals in terms of their development feasibility and architectural appropriateness is expected to be complete by the end of October, with selection by PADC's board shortly thereafter. Construction should begin sometime next year. Incorporated into the project will be Market Square Park, one of six parks along the avenue and site of the U.S. Navy memorial designed by Washington artist John Roach with Conklin Rossant of New York City as architect. The park and the memorial are now in the working drawings phase.

While the corporation has successfully stimulated private development and a transformation of the avenue from its shabby condition 20 years ago, there has been some criticism that it has not produced as high a standard of architectural design as one might expect. John Woodbridge, FAIA, who served as PADC's first director from 1973 to 1977, finds the caliber of design "disappointing" and points to the city's review process as part of the problem. "The reviewing agencies totally gutted the design for Robert Venturi's Western Plaza so that nobody's happy with it," Woodbridge contends, "but that's typical of the Washington review process —to come up with a camel."

Projects for Pennsylvania Avenue must pass not only PADC's review, but also that of the Fine Arts Commission and the National Capital Planning Commission. "We're not living in a time of great patrons who made the decisions about what was built," Brodie counters. "In a democratic process there is inevitably a lot of compromise, and we could all point to architectural ideas that got watered down. But that's very hard to avoid living in the time and in the system we have, and I think that generally the results can stand up against anything done through this kind of process in American cities."

And to a certain extent, Brodie adds, the emphasis at PADC has been to avoid an avenue filled with big, bold architectural statements. "I'm a believer in the notion that a lot of architecture in the city should be 'background' architecture," Brodie explains. "It shouldn't jump out at you, it should be quiet, it should be discreet, and it should fit in terms of scale, color, and texture." Against this background, landmark buildings should emerge, he says, "like the National Gallery of Art or the Old Post Office, which provide a special piece of architecture. I think that's good urban planning." MICHAEL J. CROSBIE

Smoke Toxicity Testimony Points to Increasing Dangers

Each year more than 8,000 people in the U.S. die in fires. Approximately 80 percent of these deaths are caused by inhaling smoke, which often contains toxic fumes released by synthetic building materials.

Over the past year the National Task Force on Fire/Gas Toxicity has heard testimony from architects, public officials, and representatives of the building materials industry to determine the scope of smoke toxicity dangers, develop a body of information on hazardous materials that might be made available to architects and others in the building trade, and determine whether legislative action is necessary for regulation.

The task force was jointly sponsored by the National Legislative Conference on Arson and the Conference of Insurance Legislators and was chaired by Maryland state Delegate Patricia R. Sher.

Dan Terry, president of the Federated Firefighters of California, testified that firefighters now work in a "totally different environment" than existed a few years ago. "They're worried about what they're ingesting today through their respiratory system, through their skin, through the very atmosphere that surrounds them, and if they're going to die today, tomorrow, next year, or five years from now," he said. Terry pointed to the increasing use of polyvinyl chlorides and plastic derivatives as the leading cause of toxicity.

It is estimated, continued Terry, that new hazardous materials are being introduced at a rate of 30 a day with a half-million in use right now. Harold Schaitberger of the International Association of Firefighters added that smoke from these burning materials "contains substances such as carbon monoxide, hydrogen chloride, hydrogen cyanide, sulfur dioxide, and so on."

The validity of tests to determine toxicity is questioned by some in the building material industry. "Small-scale laboratory tests are at the present time inappropriate for regulatory purposes because they do not replicate actual fire conditions," said Robert S. Strength of Monsanto's polymer products and environmental safety division.

Marshall Levy of Pittsburgh Plate Glass, however, said that results of research by PPG and the University of Pittsburgh prompted the company to develop safer products through the use of a "special class of polyester resins" that under laboratory conditions reduced toxicity. "It would be presumptuous to say that this fire modeling represents all of the actual fire conditions that could be experienced in the real world," said Levy, "but it should be recognized that [it] does offer some predictive manner in which to rank products and the related hazards to a base reference, such as wood."

Other research conducted by A. D. Little for New York State to determine the validity of toxicity testing methods found that some building materials were 50 to 70 times more toxic than wood and that at least two test methods exist that can provide reliable data on relative toxic content.

Based on these findings, last May New York's state secretary urged the state's Uniform Code Council to implement performance testing and data filing proce-

continued on page 29

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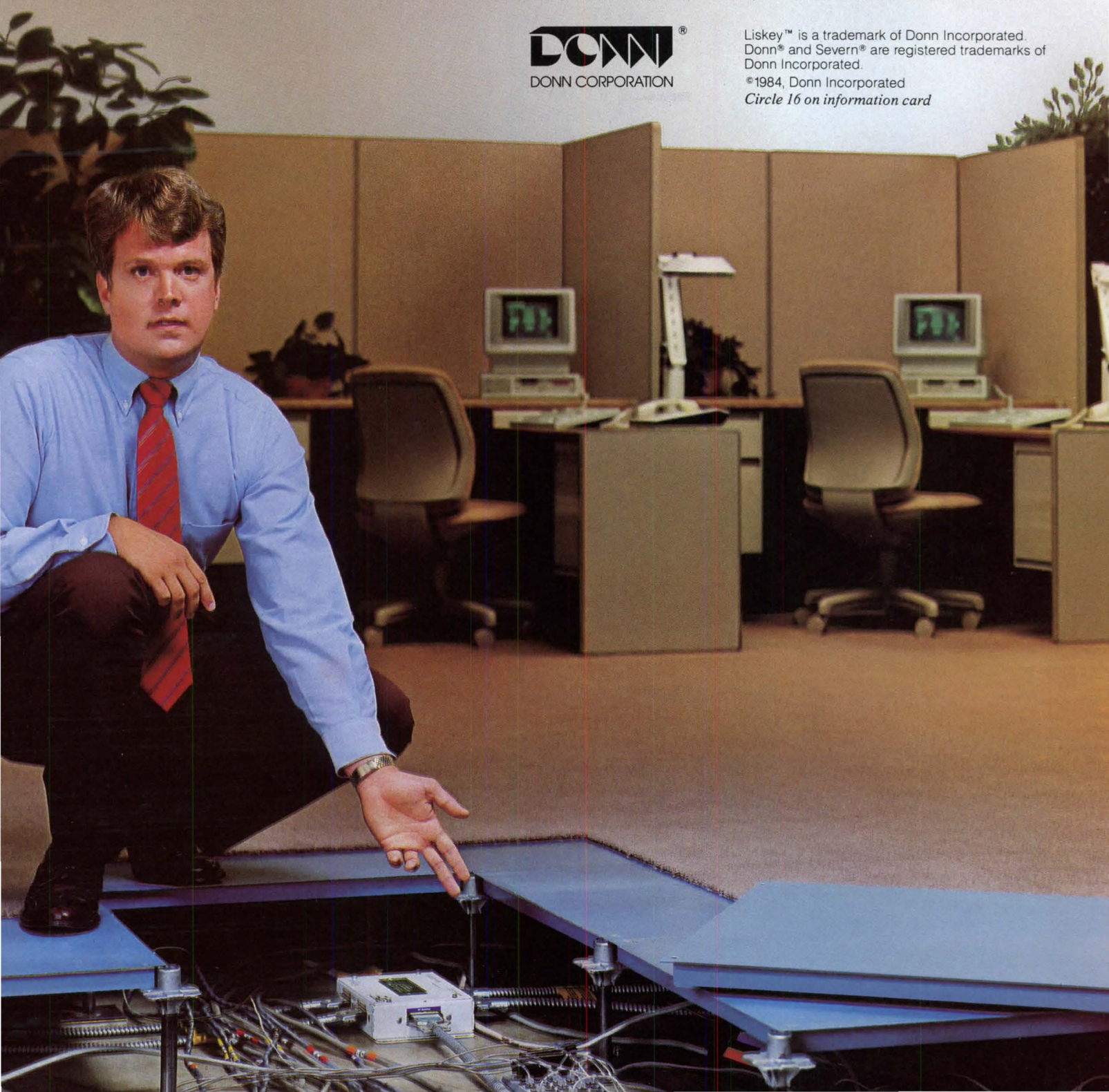

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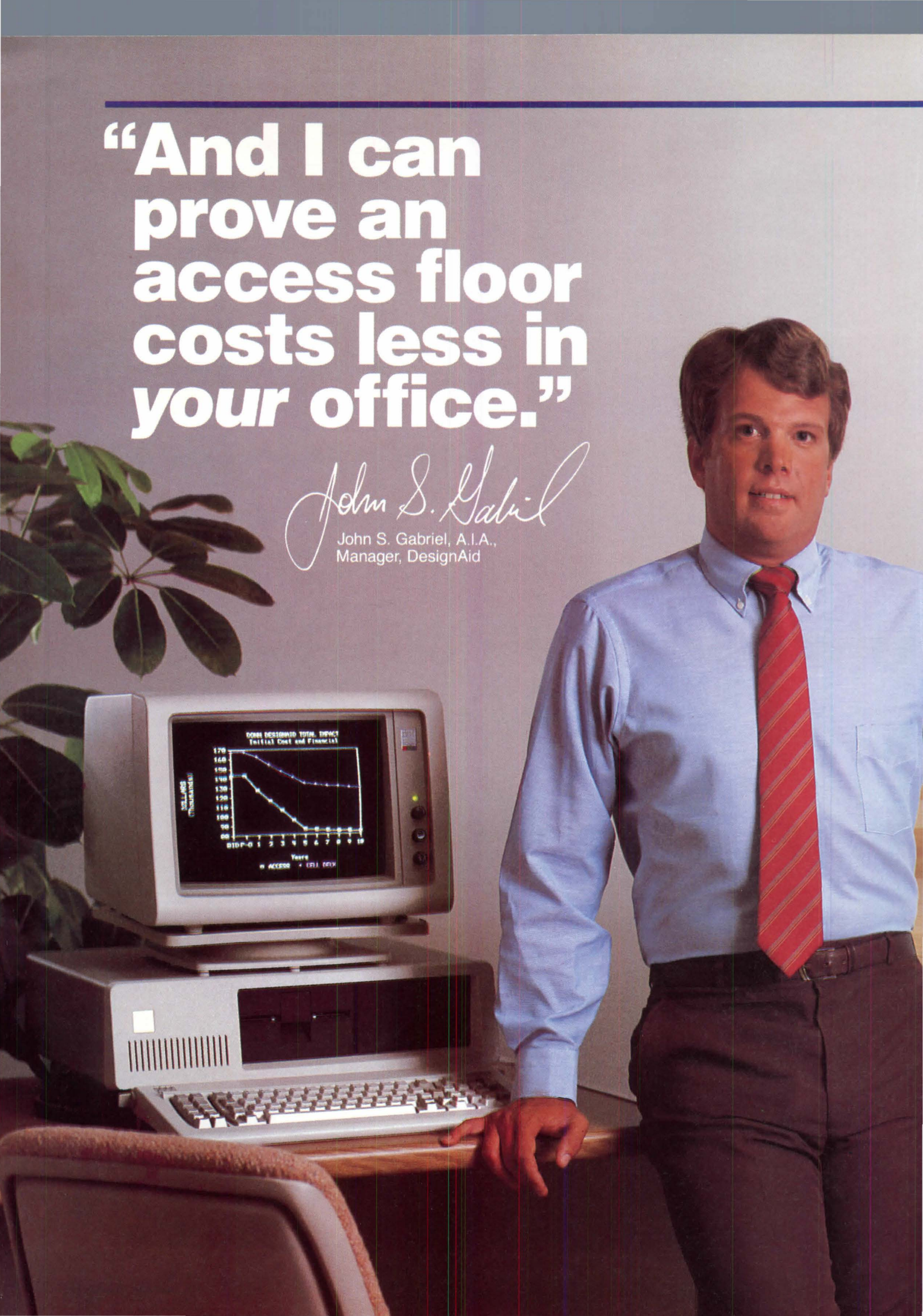

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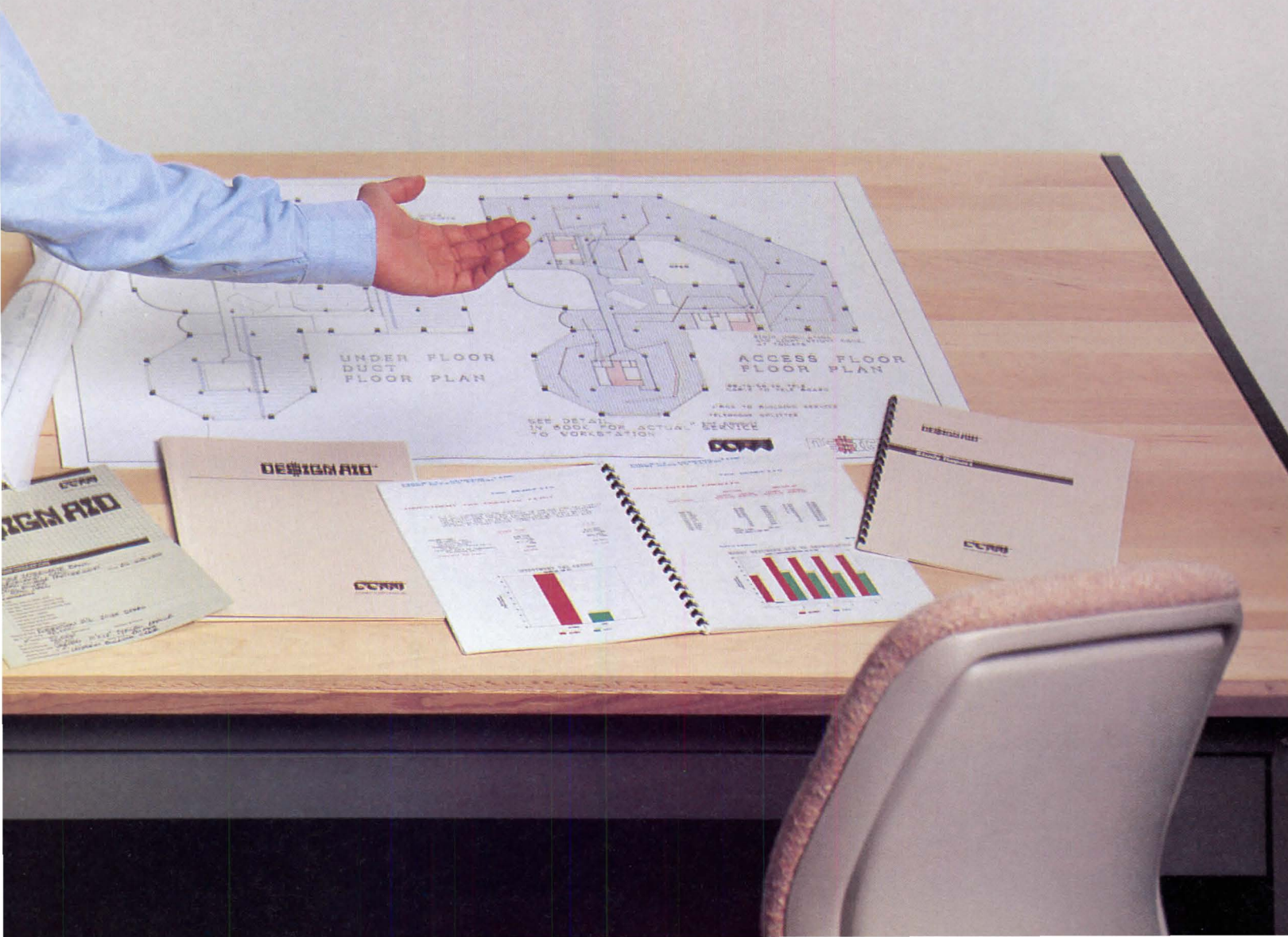

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Government *from page 24*
dures for specific classes of building materials and furnishings. According to Nancy Tidwell of the task force, "If adopted, this action would make New York the first state in the nation to require testing of materials in order to identify the potential harm of combustion toxicity." The council must act on the secretary's suggestion by the end of November.

California has also moved to establish toxicity regulation. Assemblywoman Maxine Waters testified that a bill introduced in that state's legislature would have permitted the fire marshal to determine regulation on the sale, installation, and use of building materials. The bill would have also required the development of a toxicity index and a combustibility index to distinguish between safe and hazardous materials. The bill succumbed, said Waters, "to the heavy lobbying efforts of the plastics and chemical industry. . . ."

Testifying on behalf of AIA, William A. Rose Jr., FAIA, of Rose, Beaton & Rose, White Plains, N.Y., said that the profession needs to understand the behavior of burning materials "so we may incorporate greater levels of fire safety into new buildings and those being renovated or rehabilitated."

He pointed out that architects are hampered in these efforts by the lack of conclusive research on smoke toxicity. "If building designers were required by law to use materials with lower smoke toxicity," said Rose, "they would be unable to identify the relative smoke toxicity of the materials being specified, because no widely accepted standard test method exists."

While it may be several years before such standards can be developed, accepted, and incorporated into building codes, said Rose, "in the meantime the architectural profession would like more information on the relative smoke toxicity of different materials and products made available to them."

Rose cited research being done by the Center for Fire Research at the National Bureau of Standards as a step in this direction. "NBS is now developing a design tool that will be able to quantify the toxicity of building products and materials during fires within the next three to five years," he said. The tool will be in the form of a mathematical model containing data on the fire behavior of building materials and furnishings. By plugging in such information as the building's configuration and geometry, specified materials, and different types of fires, the model would show how the occupants would be affected and design alternatives that would increase their safety. Rose concluded that if the model is successfully completed, "it should have considerable potential to reduce toxic smoke hazards."

New York Enacts Nation's First Acid Rain Legislation

Environmentalists hope the nation's first law intended to curb acid rain, signed last month by New York Governor Mario Cuomo, will prod other states and Congress to enact similar laws. The New York law requires reductions in the emission of sulfur dioxide, thought to be a major contributor of acid rain, about equal to those required for the state under federal legislation now stalled in Congress. Estimates of reductions are 12 percent by 1988 and 30 percent by 1991.

Acid rain is comprised of sulphur dioxide, nitrogen oxide, and other pollutants emitted by power plants, steel mills, and other industries that burn coal and oil. Carried high into the atmosphere, pollutants return in rain or snow, causing harm to buildings and plant and animal life. Because pollutants travel across state and international borders, Canada has criticized the U.S. for inaction, and states have disputed who should pay the costs. Industries in the Ohio River Valley are a sizable source of pollutants that are carried generally west to east, but there has been reluctance in the Midwest industrial states to spend cleanup costs when the states in the East that would benefit most have failed to reduce local emissions.

The issue of culpability was an argument advanced by some New York business interests against passage of the law. Raymond T. Schuler, president of the New York State Business Council, cited estimates that only 3 to 10 percent of the state's acid rain was caused by local pollution.

Meanwhile, one environmentalist says passage of the New York bill in June has helped chances for similar legislation in Massachusetts, Pennsylvania, and other states. "If five or six states pass their own controlling bills, that will create significant pressure on Congress," says Michael Oppenheimer, senior scientist of the Environmental Defense Fund.

Acid rain was called "the prototype of new environmental problems" in a report issued this summer by the Conservation Foundation. Most control plans would cost "billions of dollars a year," but the cost of inaction may be as great or greater, says the report. The Conservation Foundation is a Washington, D.C.-based environmental think tank.

Awards and Competitions

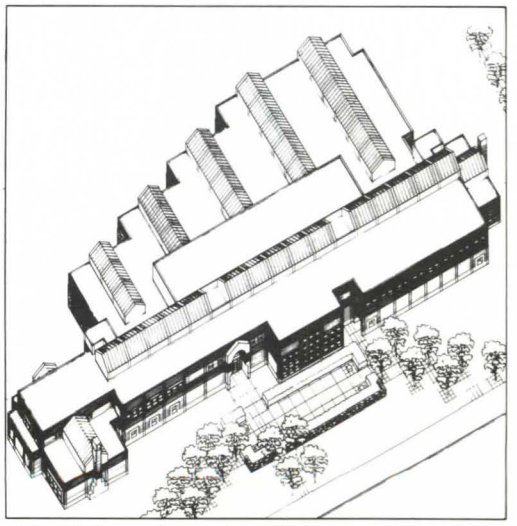
Providence Firm Wins for Architecture School Design

Kite Palmer Associates of Providence, R.I., is the first place winner of a national design competition for a new architecture building at Roger Williams College in Bristol, R.I. The competition was sponsored by the college and the design arts program of the National Endowment for the Arts.

The competition called for a 42,000-square-foot facility to house design studios, seminar rooms, an architectural library, model shop, photography studio, and exhibition gallery. The building will serve approximately 280 students enrolled in the school's five-year bachelor of architecture degree program, which is currently seeking professional accreditation from the National Architectural Accrediting Board.

Selected from a field of 152 entries, Kite Palmer Associates was awarded a prize of $30,000 and a commission to develop the design further. The jury cited the winning design for "extraordinary clarity of organization in plan, quality of the studio environment, relationship to existing campus buildings in materials, proportion and scale, buildability, and high quality of presentation."

The building will be located on a gently sloping site between the administration building and the main vehicular entrance. The building is set back 60 feet from the sidewalk by a diagonally oriented, landscaped courtyard that serves as an outdoor exhibition space and student lounge. The 24-foot-high front elevation has horizontal bands of dark colored concrete block and a projecting grid with recessed glass windows that relate to the horizon-



Kite Palmer Associates' winning design.

continued on page 32

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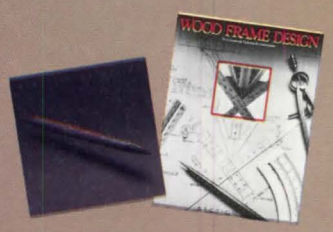

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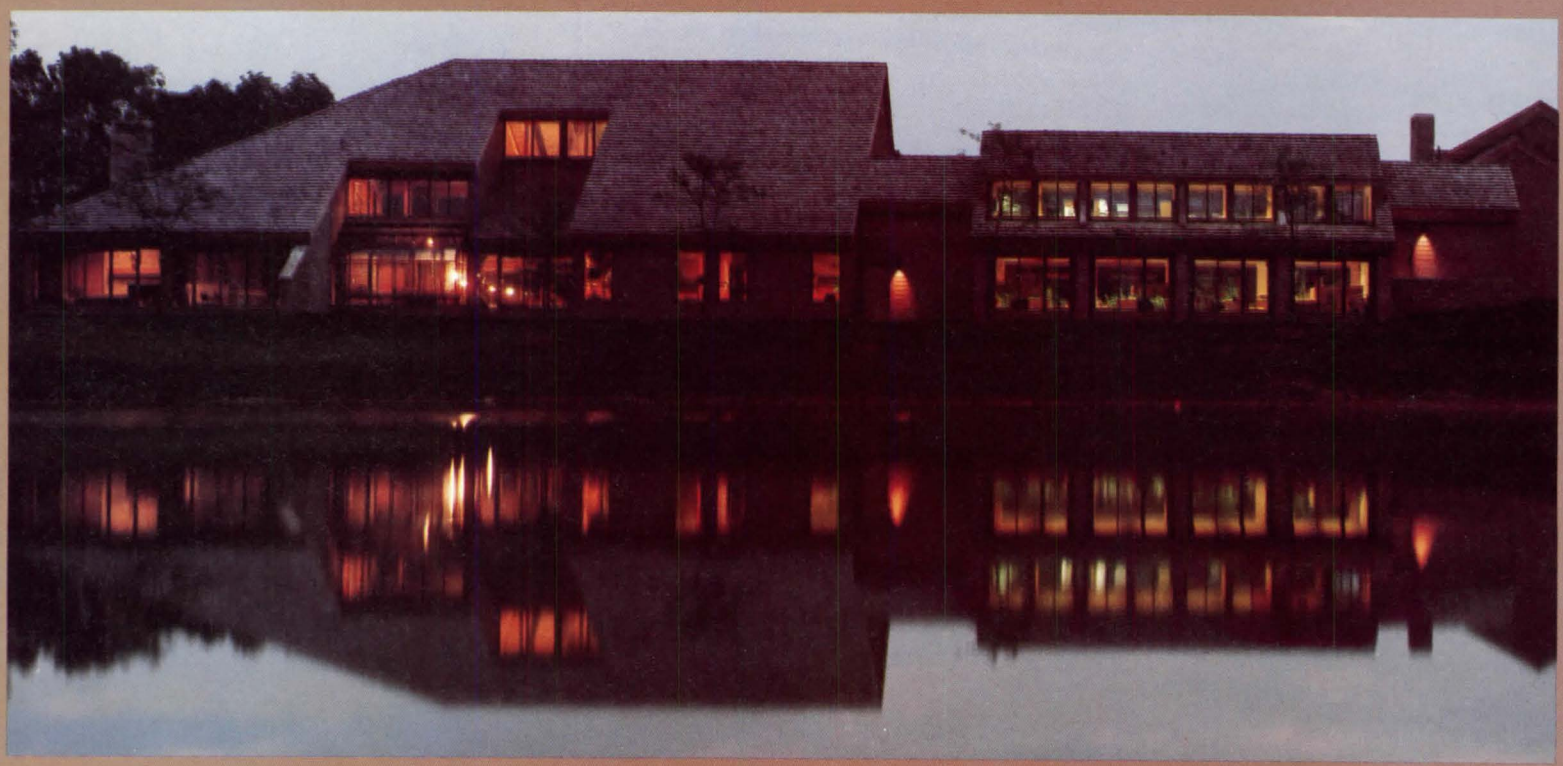
Architect: Trott & Bean



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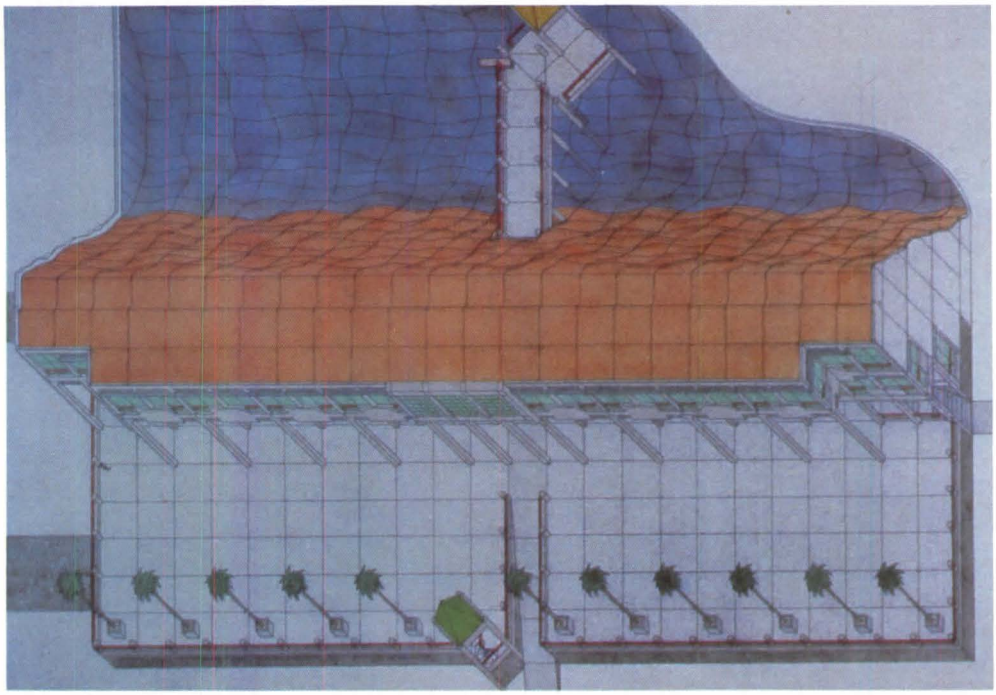
Awards and Competitions *from page 29*
tal wood fascias and window detailing of the existing campus buildings.

The interior plan is organized around a central skylit gallery that runs the length of the building and separates the design studios from support functions.

Ellezweig, Moore & Associates of Cambridge, Mass., and Stephen Morgan, AIA, and Robin Ringwald, AIA, of St. Louis tied for second place, and each received a $6,000 prize.

Awards of merit were presented to A/L Design of New York City; James Garrison of New York City; Hanno Weber & Associates of Chicago; Gifford Pierce of Groton, Mass.; Robert A. M. Stern Architects of New York; Suri Architects of St. Paul; and Jung/Brannen Associates of Boston.

The jurors were Robert Campbell, architecture critic for the Boston *Globe;* William G. McMinn, FAIA, dean of architecture at Mississippi State University; Ralph R. Papitto, vice chairman of the board of trustees of Roger Williams College; Michael J. Pittas, dean of Otis Art Institute in Los Angeles; William H. Rizzini, president of Roger Williams College; Raj Saksena, AIA, director of the architecture division of Roger Williams College, and Bernard P. Spring, FAIA, president of Boston Architectural Center.



Student Competition Winners. Mark Wilson Molen of the University of Utah was awarded the $5,000 first prize in the 1984 design competition sponsored by the Association of Student Chapters/AIA and the Du Pont Co. Molen's design for an office center (above) has a gently sloping southern facade made of reinforced earthformed gunite covered with Du Pont's Hypalon synthetic rubber single-ply roofing. Oklahoma State University students Joel Slaughter, Brad Thurman, and David Treece shared the $3,000 second prize, and Tim Gemmill of Texas Tech University was presented the third prize of $1,500. Three $500 honorable mentions were awarded to Timothy Thurman, Steve Considine, and Steve Rose. *News continued on page 34*

Ancient Egypt

UIA/XV Congress

Cairo, Egypt - Post Congress Tour

CAIRO–LUXOR–ASWAN

Jan 25 Cairo
Departure following XV Congress of UIA. Full day tour to the Egyptian Museum of Antiquities, Great Pyramids of Giza, Citadel of Saladin, Mohamed Ali Mosque, and Khan El Khalili's Bazaar.

Jan 26 Cairo/Luxor
Fly to Luxor, meeting and assistance at the airport. Transfer to the deluxe cruise ship Alexander the Great. Visit Thebes, the Necropolis of ancient Egypt, the Valleys of the Kings, Queens, Nobles, Ramesseum, and the Colossi of Memnon, and the great temples of Karnak and Luxor.

Jan 27 Luxor/Esna/Edfu
Sail to Esna, there visit the temple of Esna dedicated to the God Khnun. Sail to Edfu. Visit the temple of Horus at Edfu. Sail to Kom-Ombo, and overnight.

Jan 28 Edfu/Kom Ombo/Aswan
Visit the temple of Haroeris and Sobek at Kom-Ombo. Sail to Aswan. Visit Kitchener's botanical gardens, Feluca, sail around Elephantine Island to the Agha Kahn mausoleum. Overnight.

Jan 29 Aswan
Visit the High Dam, the granite quarries, and the Philae Temple. Remainder of the day at leisure.

Jan 30 Aswan/Cairo
Disembark Alexander the Great and transfer to the Aswan Airport for your flight to Cairo. Meeting and assistance at the airport, and transfer to your hotel. Farewell dinner at a local restaurant.

Jan 31 Cairo
Transfer to Cairo Airport for your return to the U.S.A.

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* Five days Nile cruise Luxor/Aswan
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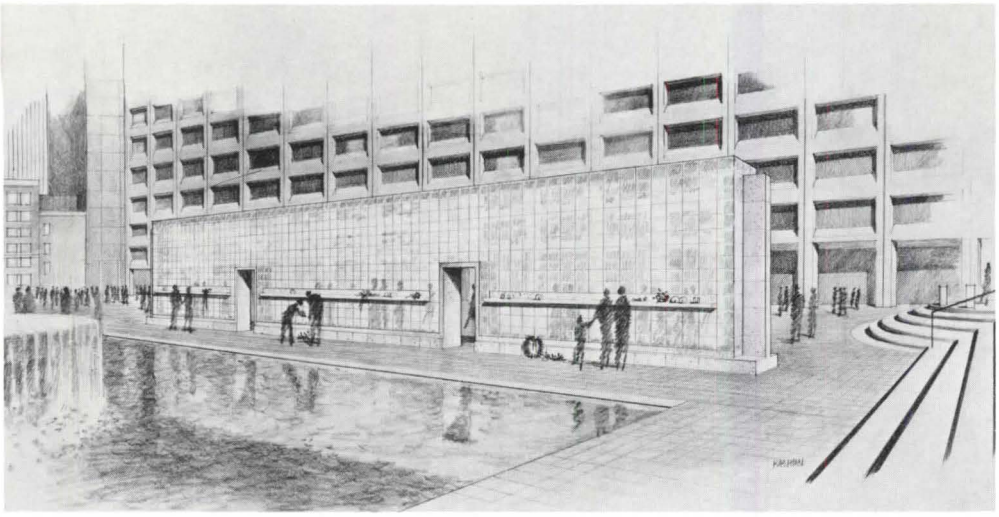

New York's Vietnam Memorial

A simple, glass block wall (drawing at left) etched with personal and historical accounts has been selected as the New York City memorial to honor Vietnam veterans. Designed by Peter Wormser and William Britt Fellows, both New York City architects, and Joseph Ferrandino, a writer who served in Vietnam with the 101st Airborne Division, the concept was chosen from 572 entries in a national competition.

The 14-foot-high, 70-foot-long wall is constructed of 12-inch-square glass brick and punctuated by two portals. Quotes from letters that American soldiers wrote while stationed in Vietnam, letters from families and friends, speeches and news reports of the period will be etched onto the interior surfaces of the glass blocks. The memorial will be located near the southern tip of Manhattan in the former Jeannette Park at Coenties Park, now renamed Vietnam Veterans Plaza.

Performing Arts Pavilion

Dagit-Saylor Architects of Philadelphia has been selected from among seven finalists to receive the $30,000 first prize in a design competition for a performing arts pavilion in Newport News, Va.

Sponsored by Newport News and the National Endowment for the Arts, the competition program called for a cultural arts center to house two theaters, exhibition space, and support functions as part of the city's Newport Center downtown redevelopment project.

Dagit-Saylor's winning scheme calls for three distinct sections constructed of yellow brick with a pink granite base and a blue clay tile roof, facing a piazza that opens onto a park. The wing housing the 1,300-seat theater will be connected to a long, basilica-like section containing the lobbies, exhibition space, conference rooms, and rehearsal halls. The smaller theater with seating for 300 would be oriented on a diagonal from the other two sections of the complex. Both theaters have double balconies.

Jury chairman Paul Kennon, FAIA, said the winning design is an "image that is appropriate for the city. And it's new. There will be no other performing arts center like this in the world."

The Delray Beach, Fla., firm of Robert G. Currie and Hugh A. Stubbins III was awarded the $7,000 second prize. Kelbaugh & Lee Architects of Princeton, N.J., received the third place award of $5,000.

The other finalists were The Benham Group of Tulsa, Okla.; Black Atkinson Vernooy of Austin, Tex.; Spillis Candela & Partners of Coral Gables, Fla., and Jerry A. Wells, FAIA, of Ithaca, N.Y.

News continued on page 219

Fritz Introduces a New Classic

The Fritz Designer Line of granite-like and marble-mosaic flooring offers users a beautiful, cost-effective floor.

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FRITZ

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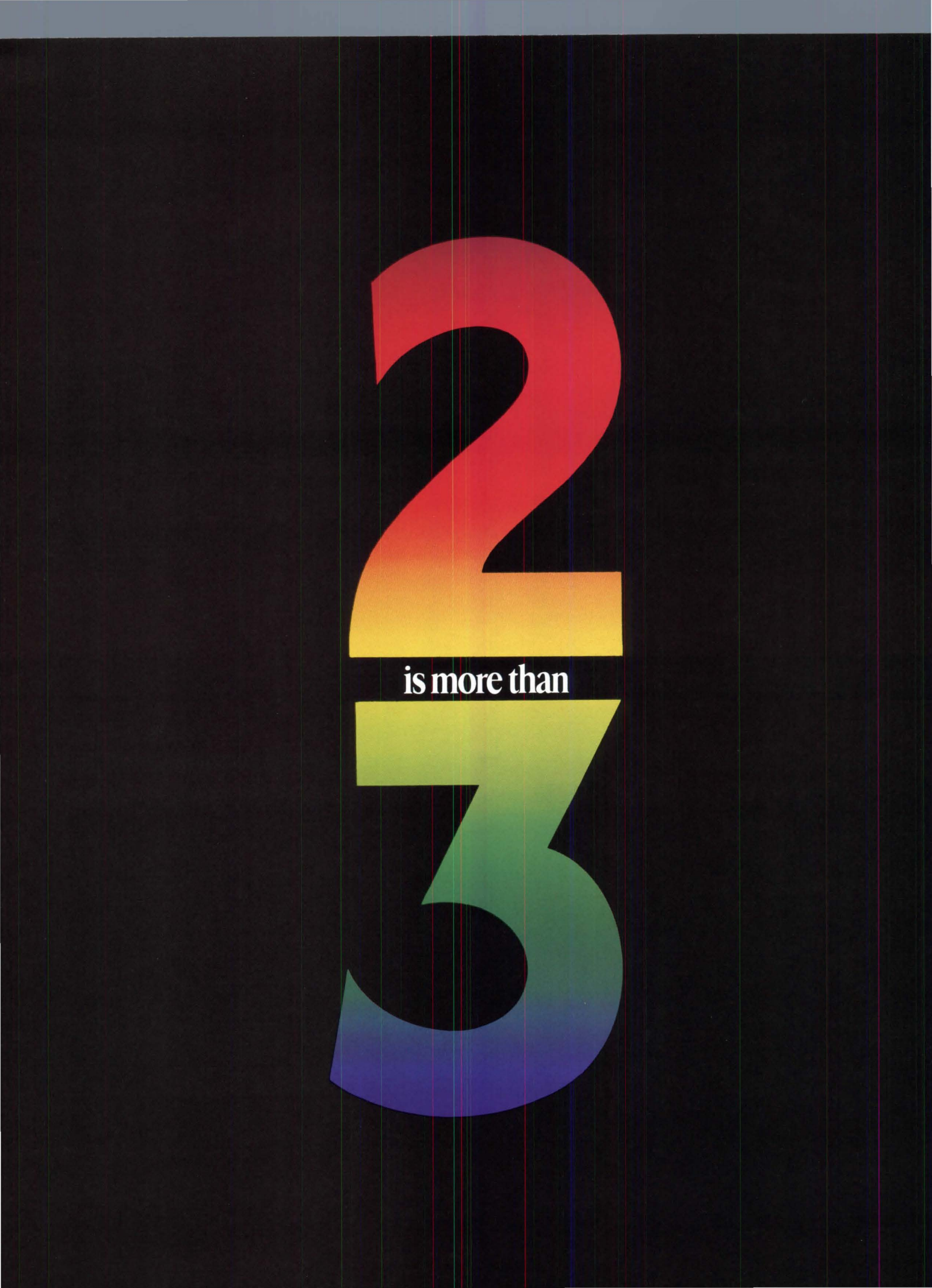
2
is more than
3

Introducing Andersen High-Performance Insulating Glass.™

It's specially coated to give 2 panes of glass more insulating power than 3.

Less is more. That's the idea behind Andersen High-Performance Insulating Glass™. It's a revolutionary new glazing that offers architects, builders and contractors what they need least and want most.

LESS CONFORMITY MORE TECHNOLOGY.

Except for the fact that it uses two panes, Andersen High-Performance Insulating Glass is little like double-pane insulating glass. In fact, it's less like any traditional glazing.

State-of-the-art glazing technology makes it so.

A microscopically thin metallic coating is applied to the airspace surface of the room-side pane. This coating is bonded to the glass, becoming a part of it. So there is nothing to install, operate or clean.

The coating is permanent, won't roll up, crack or wrinkle. It is between the panes, protected from the elements—outside and inside. And this coating is transparent.

LESS PANE MORE ENERGY EFFICIENCY.

Winter heat loss/summer heat gain occur by 3 methods: Conduction, convection and radiation.*

Up to now, glazings attempted to reduce heat loss/gain from a conduction/convection standpoint. By increasing the air space between the panes and/or adding more panes.

Andersen High-Performance Insulating Glass reduces heat loss/gain from a *radiation* standpoint.

It increases comfort and reduces heating and cooling costs by helping keep *radiant* heat in during the winter, out during the summer.

The special coating is the reason.

U-VALUE COMPARISON*				
	Single Pane	Double Pane	Triple Pane	High-Performance Insulating Glass
Perma-Shield Casement	1.04	.52	.35	.30
Perma-Shield Awning	1.04	.52	.35	.30
Perma-Shield Double-Hung	1.04	.52	.33	.30
Perma-Shield Gliding Door	1.10	.49	.39	.33
Andersen Roof Window @ 45° Angle	1.10**	.51**	.42**	.38

*At Andersen we use the average or mid-size window in the particular line to arrive at U-values. While this may penalize us in some U-value comparisons, we feel it gives you a more honest representation of the U-values for all our windows.

U-value measures the energy efficiency of all the materials in a window or gliding patio door. The lower the U-value the better. R-value can easily be calculated by using the following formula: R-value = 1 ÷ U-value.

**This glazing not available for Andersen roof window but is included for comparison purposes only.

In the winter it lets most of the sunlight into the room. When sunlight strikes indoor objects—table, floor, wall—radiant heat is the result. The special coating on Andersen High-Performance Glass is a transparent insulator that greatly reduces the flow of radiant heat between the panes.

Single-pane, uncoated double-pane and triple-pane windows let most of the radiant heat flow right through and escape to the outdoors.

By preventing the escape of most of the radiant heat, Andersen High-Performance Insulating Glass offers more insulating power than even triple-pane.

It's a fact. Andersen High-Performance Insulating Glass exceeds Andersen triple-pane U and R-values. When compared to Andersen® windows with triple-pane it improves their energy efficiency by as much as 14%. (See comparison chart above.)

2 *is* more than 3.

Andersen windows with High-Performance Insulating Glass are also 42% more energy efficient than Andersen windows with uncoated double-pane insulating glass.

LESS REGIONAL MORE SEASONAL.

Andersen High-Performance Insulating Glass isn't only a cold climate glazing. In southern climates it can help lower cooling costs because it greatly reduces the flow of outdoor radiant heat between the panes. (Outdoor radiant heat is produced when sunlight strikes asphalt driveways, brick patios, concrete sidewalks.)

All summer, Andersen High-Performance Insulating Glass offers a 42% increase in energy efficiency, compared to Andersen windows with uncoated double-pane.

Andersen High-Performance Insulating Glass works 24 hours a day, 365 days a year on all sides of the structure, in all parts of the United States.

And it meets the high quality, long lasting standards Andersen requires of all their products.

LESS WEIGHT MORE PROTECTION.

Andersen High-Performance Insulating Glass is one-third lighter in weight than triple-pane. It makes windows easier to handle and install. Its coating prevents 80% of ultra-violet rays from entering—reducing the chances of drapery, carpeting and upholstery fading and deterioration.

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At Andersen, celebrating a new product isn't important. What *is* is that it's the right product. And that is why we have spent years working with the foremost experts in glazing technology. Why we examined and discarded numerous glazings and application methods. And why, only after exhaustive research, testing, evaluating and re-testing, we chose the coated glass method for our new product.

We're convinced that when all things are considered no other glazing delivers more to you and your customers than Andersen High-Performance Insulating Glass.

Andersen High-Performance Insulating Glass is available for Andersen Perma-Shield® casement, awning and double-hung windows, Perma-Shield gliding patio doors and Andersen roof windows.

Check Sweet's File 8.16/An or the Andersen Product Detail Catalog for specifics. And contact your Andersen distributor or dealer for local product availability and a High-Performance brochure. They're all conveniently listed in the Yellow Pages under Windows.

*Conduction is the transfer of heat through a solid medium—like glass. Convection is heat transfer by movement of air. Radiation is the transmission of energy by means of electromagnetic waves.

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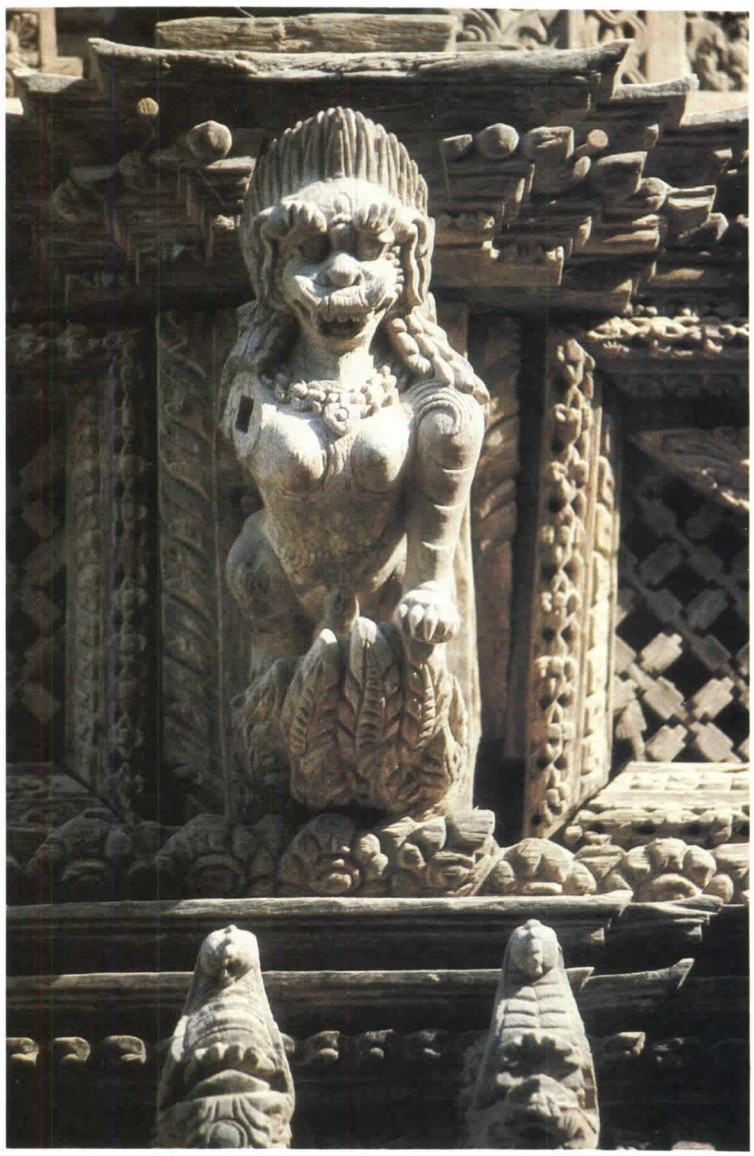
The Arts

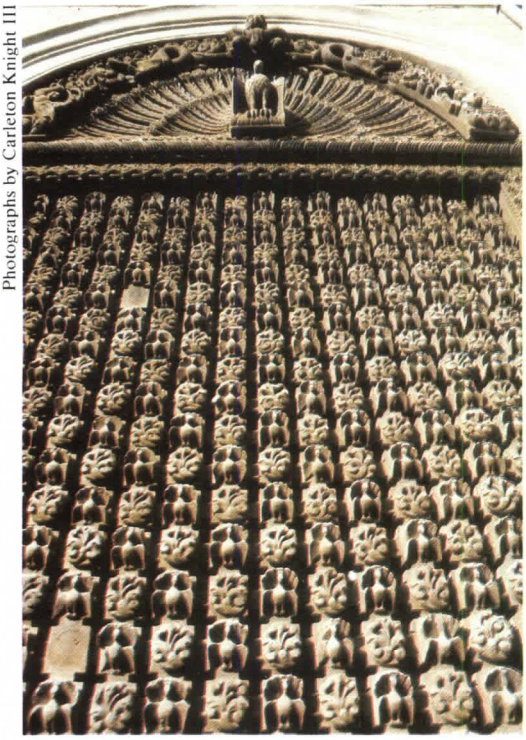
Nepal Treasures

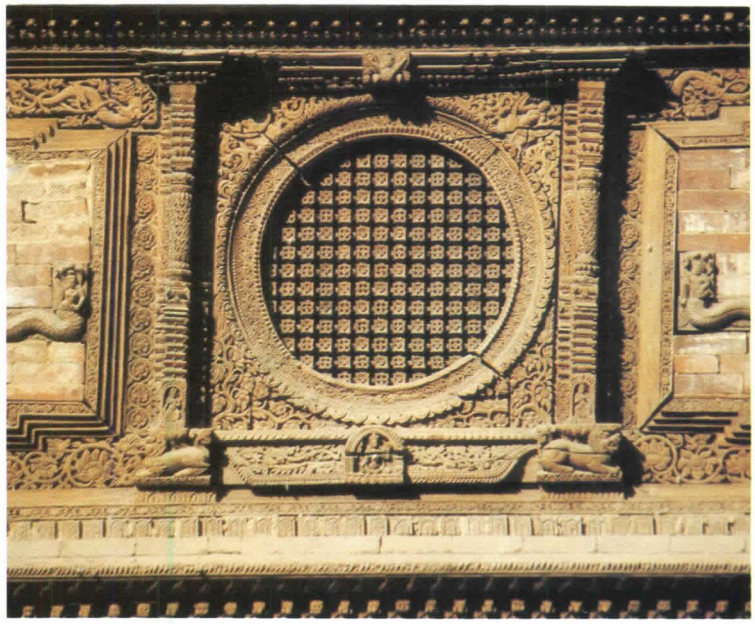
Nepal is noted especially for its wealth of natural heritage—the looming Himalayas—but this tiny Hindu kingdom is a treasure trove of cultural heritage as well. UNESCO pinpointed more than 800 significant architectural sites, mostly heavily ornamented religious shrines, in the Kathmandu Valley. The area, a World Heritage Site, is now the subject of a $6.4 million international preservation effort directed by British architect John Sanday.

Delegates to a recent Pacific Area Travel Association conference in Kathmandu saw a number of the buildings, which are usually brick trimmed with magnificent wood carvings. Intricate grilles are constructed of interlocking pieces of sal, a native tree. As part of the restoration, young people taught by their elders are carving anew the 200-year-old woodwork. CARLETON KNIGHT III



Photographs by Carleton Knight III





Clockwise from top right: mystical carved beast on bracket; typical Nepali round window, in courtyard of Hanuman Dhoka palace at Durbar Square, Kathmandu; arched grille on 19th-century palace, Kathmandu; handmade lock on window grille.

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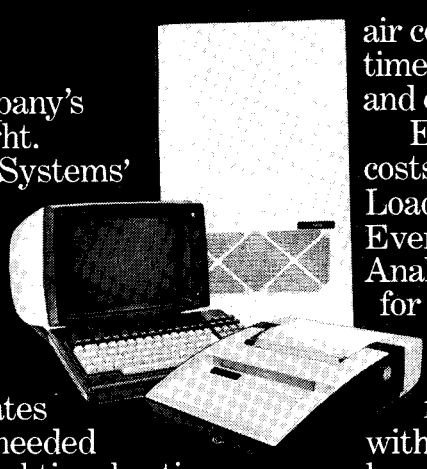

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Kawneer
The designer's element

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For more information on Polarpane Gold or Polarpane Silver, check your Sweet's Catalog Section 8.26a/Ho, or call or write Product Manager-Reflective Glass, Hordis Brothers, Inc., 825 Hylton Road, Pennsauken, N.J. 08110, (609) 662-0400.

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Shaklee Building, San Francisco, California. Architects: Skidmore, Owings and Merrill

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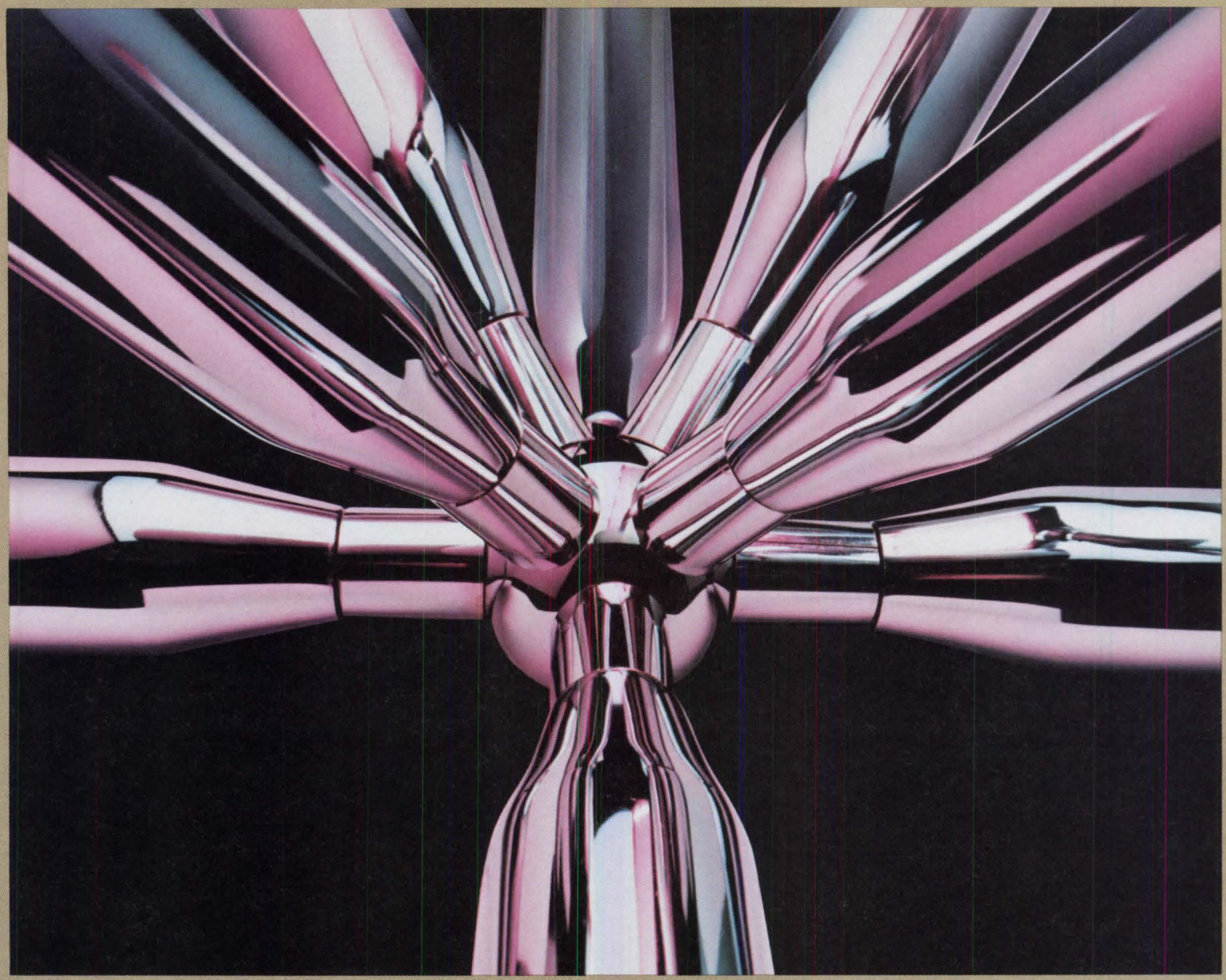

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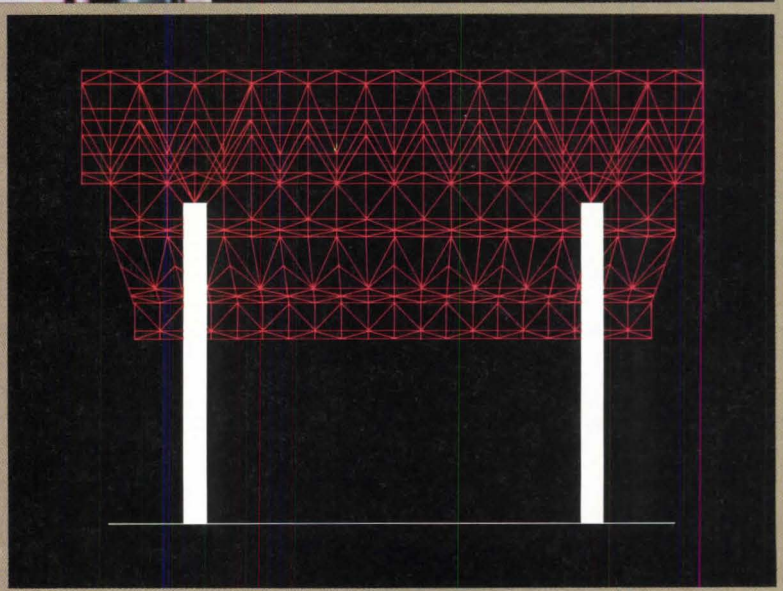

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World Architecture: News

Simmons/Annette del Zoppo

Spirited Olympic Design On a Spartan Budget

"It scores a 10 with me," says Juan Antonio Samaranch, president of the International Olympic Committee, referring to the spirited design, events, and fans of the summer games in Los Angeles as well as the competitions.

Now that the Olympics are over, did the design really work? Members of the design team, some of whom had devoted two years to the project, are pleased. A more objective assessment arrives at the same conclusion—the comprehensive design scheme was both successful and popular. Led by design director Jon Jerde, AIA, and design manager David Meckel, both of The Jerde Partnership, and creative directors Deborah Sussman and Paul Prejza of Sussman/Prejza & Co., the environmental program did what it was intended to do: provide instant visual recognition of the Los Angeles games and solve the associated architectural design problems such as circulation, life safety, and security.

The only early established parameters were a Spartan budget for materials ($9 million) and the use of 30 existing stadia (most of which were built for the 1932 Olympics). "The festive air we achieved," explains Jerde, "is a result of Harry Usher (LAOOC general manager) when he took the phenomenal risk of letting the design team loose."

Even with 11th hour construction and design refinements, the end result, stylistically coined "festive federalism," looked very much like the initial drawings and mock-ups.

Giving the L.A. games a visual identity were Deborah Sussman's innovative color palette of "hot" magenta, vermillion, aqua, and chrome yellow, augmented with lighter

continued on page 56


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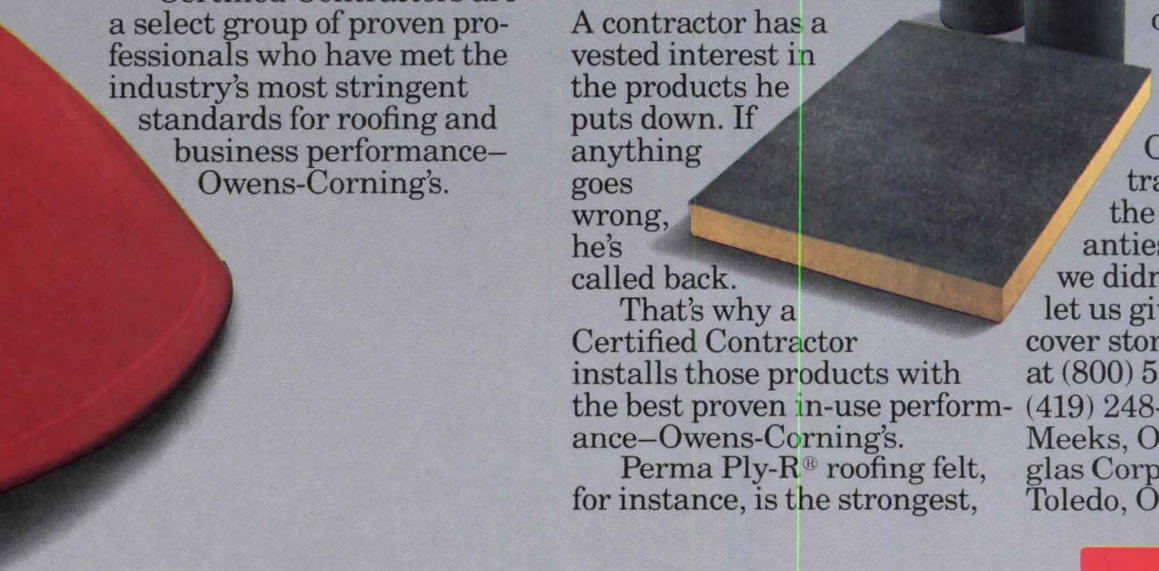

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Ave Pildos/Annette del Zoppo

World News *from page 51*

"Mediterranean" colors, and an array of temporary structures molded from a "kit of parts" including scaffolding, tents, Sonotube columns, flags, banners, sparklers, balloons, and confetti. These helped to make certain ritualistic spaces and landmarks, particularly the Los Angeles Memorial Coliseum and Olympic villages at the University of California at Los Angeles and Santa Barbara, and University of Southern California, popular gathering spots.

Also important, the greater Los Angeles area was made festive with flags, banners, and signs along the thoroughfares and by efforts of individuals, including store window displays, more flags and streamers, and sporadic fireworks.

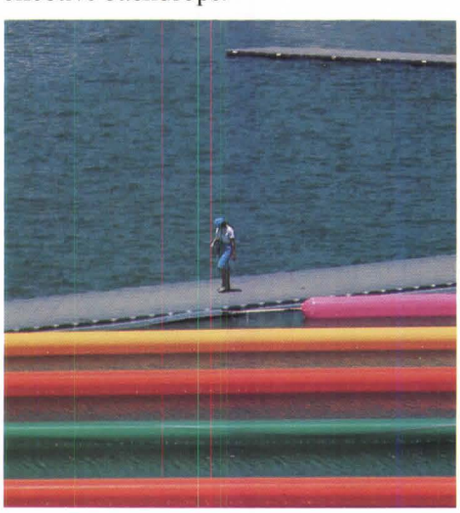
The "overlay of festivity," as David Meckel calls it, helped to unify the 30 different venue sites spread throughout the 150-mile region, both for the spectators in attendance and television viewers worldwide.

Some of these sites, however, were handled better than others, due to stadia idiosyncracies and the interpretation of the design program by architects assigned to each venue. The most successful were

Above, a cultural arts site in Exposition Park; below, tubular balloons at rowing and canoeing site, Lake Casitas.

the coliseum (opening and closing ceremonies, and track and field events), Pauley Pavilion (gymnastics), The Forum (basketball), and USC swim stadium. At each of these sites, large scale entry entablatures, banners and pictograms, and the star-in-motion symbol were positioned as effective backdrops.

Steve Slocomb/Annette del Zoppo



On the other hand, the equestrian event at Santa Anita was one of the worst visually. This was due to the operator's stringent stadium regulations that precluded more decorative elements and the traditional equestrian color palette of red, black, brown, and white.

Asked individually about their most rewarding experiences, members of the design team invariably mention the team effort, what Jerde calls "co-creation." "I felt more like a midwife," he says, "as I saw my role as bringing forth the creativity and expertise of the other designers. When the job became too big for the initially small design team, we expanded to include designers as 'look coordinators' and 'venue architects,' bringing the total to nearly 100 people.

"The enemy was the deadline; the goal was to achieve something unique and special. My energy level was so high I raced to work early every morning."

And what are the professional side effects of their work? Jerde believes the designers became known for atypical solutions oriented to community experience. "If nothing else," quipped one young designer, "the incredible mass media cover-

continued on page 61

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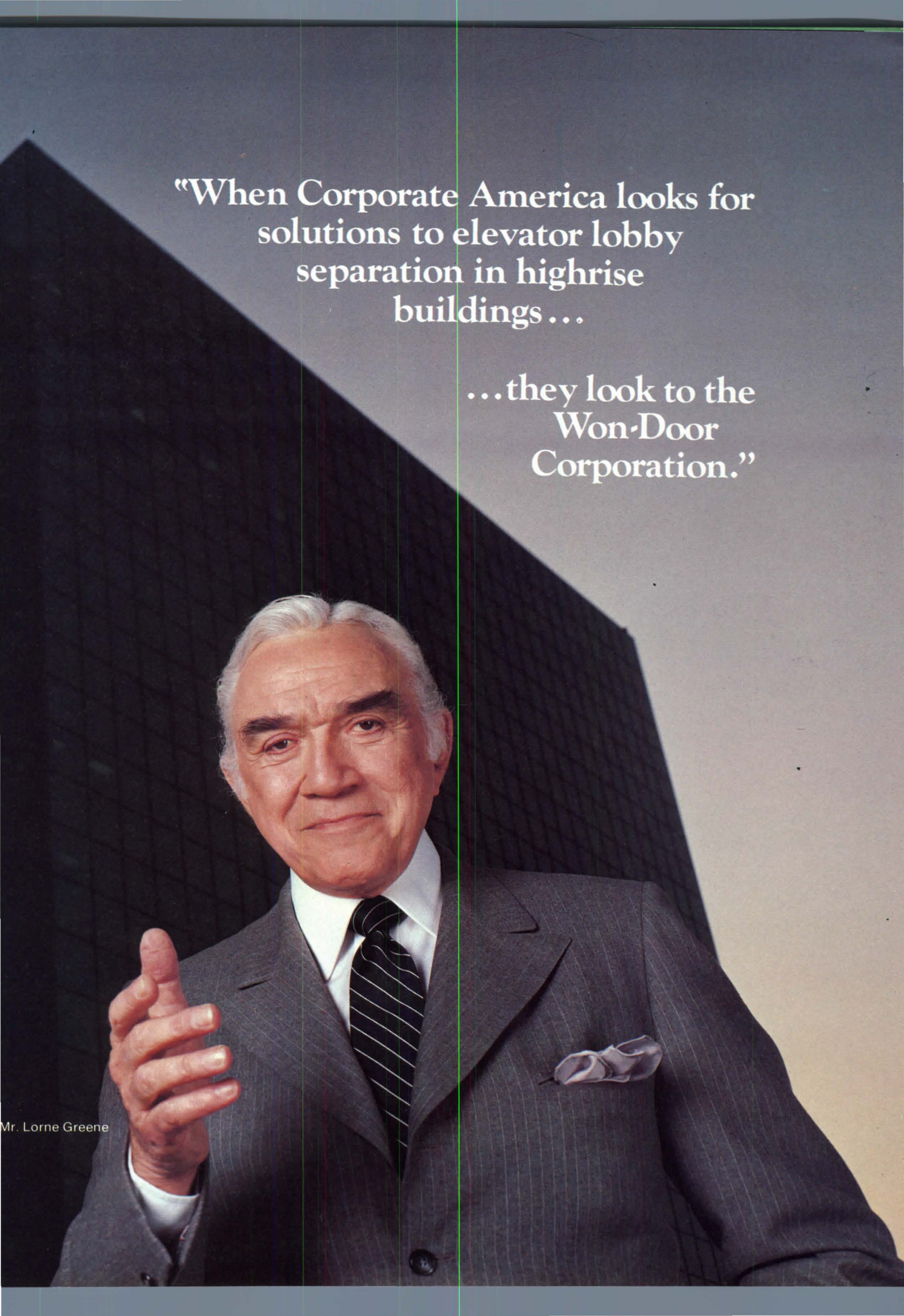
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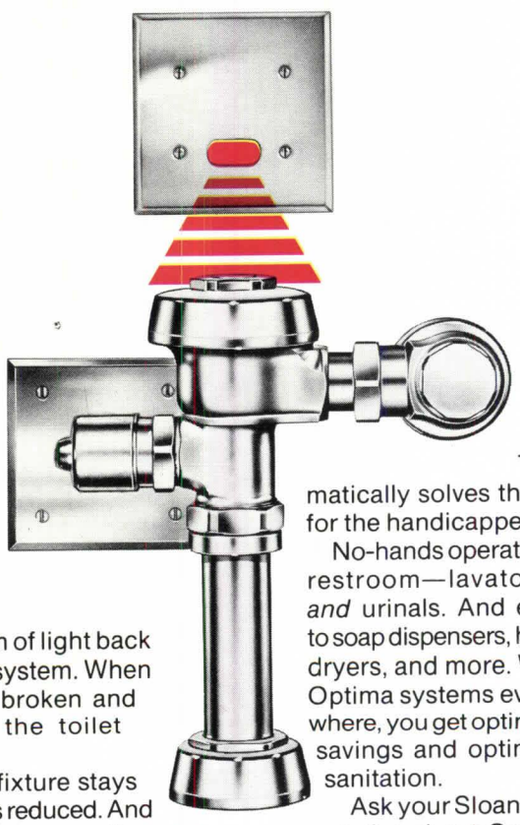

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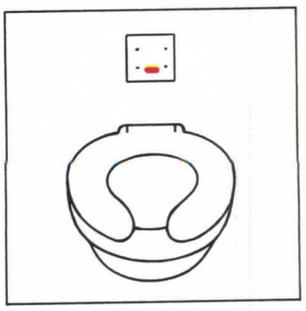

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World News *from page 56*
age has given 'design' a positive connotation."

It has, in fact, been difficult to find much negative criticism. One local architectural journalist wrote, "Give it a gold for economy, a silver for concept, a bronze for execution,and a warm round of applause to the designers for doing something different and doing it well."

"If I had to do it all over again," says Jerde, "I would pay more attention to lighting for twilight and nighttime activities. And we were too timid in the area of fabric technology." Evening events utilized existing stadium area lighting, and the villages were well lighted because of all the activities. Since so much work went into providing a distinct identity seen during daytime, and the inevitability of higher costs for experimenting with other lighting approaches, it is understandable that there is not a stronger impact. Part of Jerde's attitude, no doubt, is also the outcome of not being able to fully develop "skyline architecture" that would be more noticeable when lighted at night.

"When I looked at TV," says Sussman, "I saw the mistakes, usually minute details such as the folds in the fabric." But this seems expected with such materials and the use they had to sustain.

As for future work, both Sussman and Jerde envision continuing their established design approaches. "We have always taken a nontraditional role," states Sussman, "for as 'environmental designers' we mix all the disciplines, rather than separating graphics from architecture from interior design. We'll build on our experience, of course, but not by duplicating the look of the Olympics." Jerde wants to continue "the co-creative, synergistic process. I found it emotionally satisfying and the results were dynamic."

Even though everything was designed to be easily dismantled immediately after the games, "festive federalism" has had such a positive impact that coliseum operators are considering a recommendation that the peristyle and color scheme be retained. And the City of Los Angeles decided to keep its 10,000 street banners in place "until they fall apart," vows Mayor Tom Bradley. "This will allow our enthusiasm to diminsh slowly, rather than all at once."

While this civic gesture capitalizes on the sense of urbanity that most Los Angelenos felt, it could also lessen what psychologists have labeled as post-Olympic syndrome, the letdown from the festive games as people return to their non-Olympic lifestyles. JANET NAIRN

Ms. Nairn is a freelance writer in California who specializes in architecture and design. *(World news continued on page 66)*

Scaffold theme tower at entrance to Exposition Park and the Los Angeles Coliseum.

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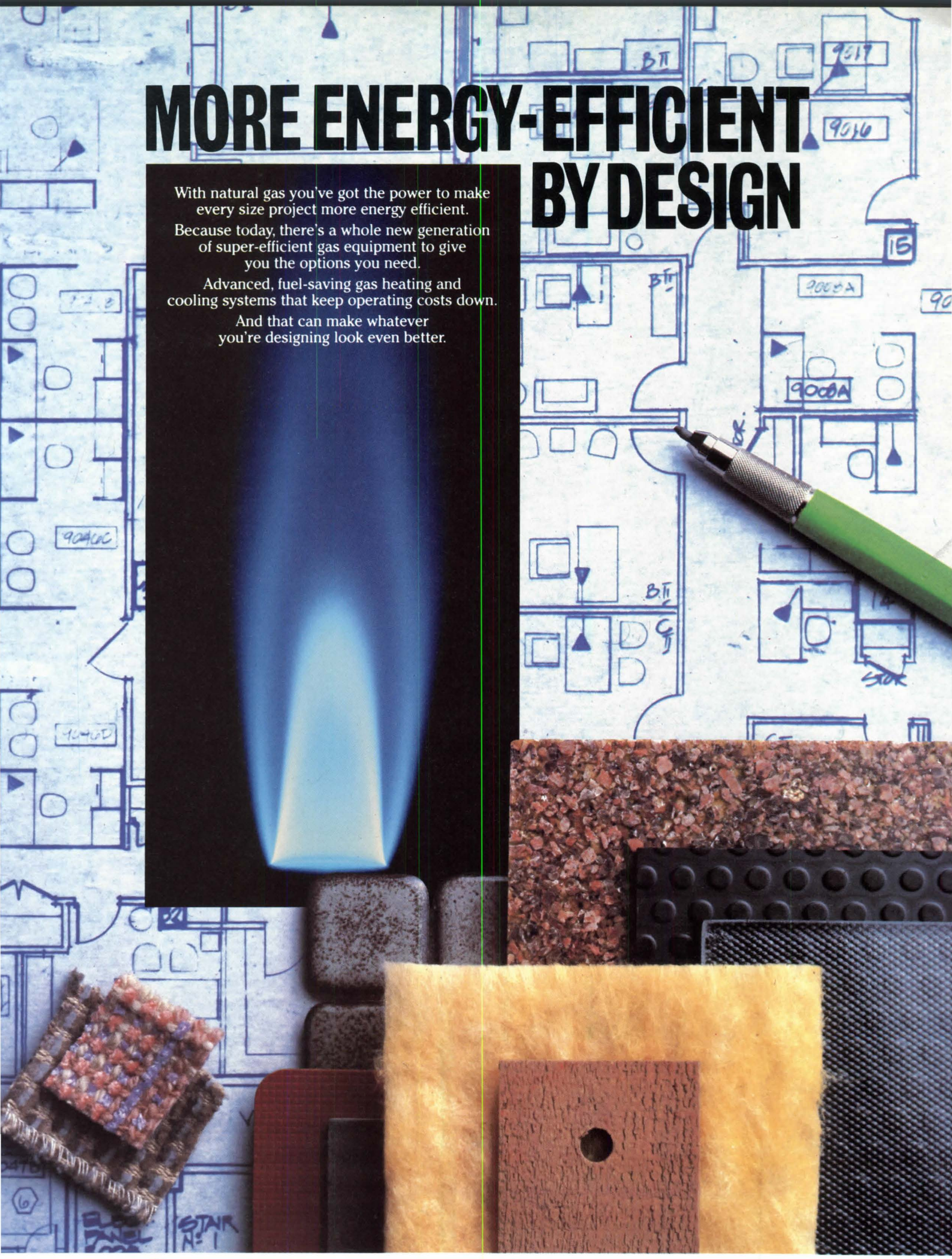

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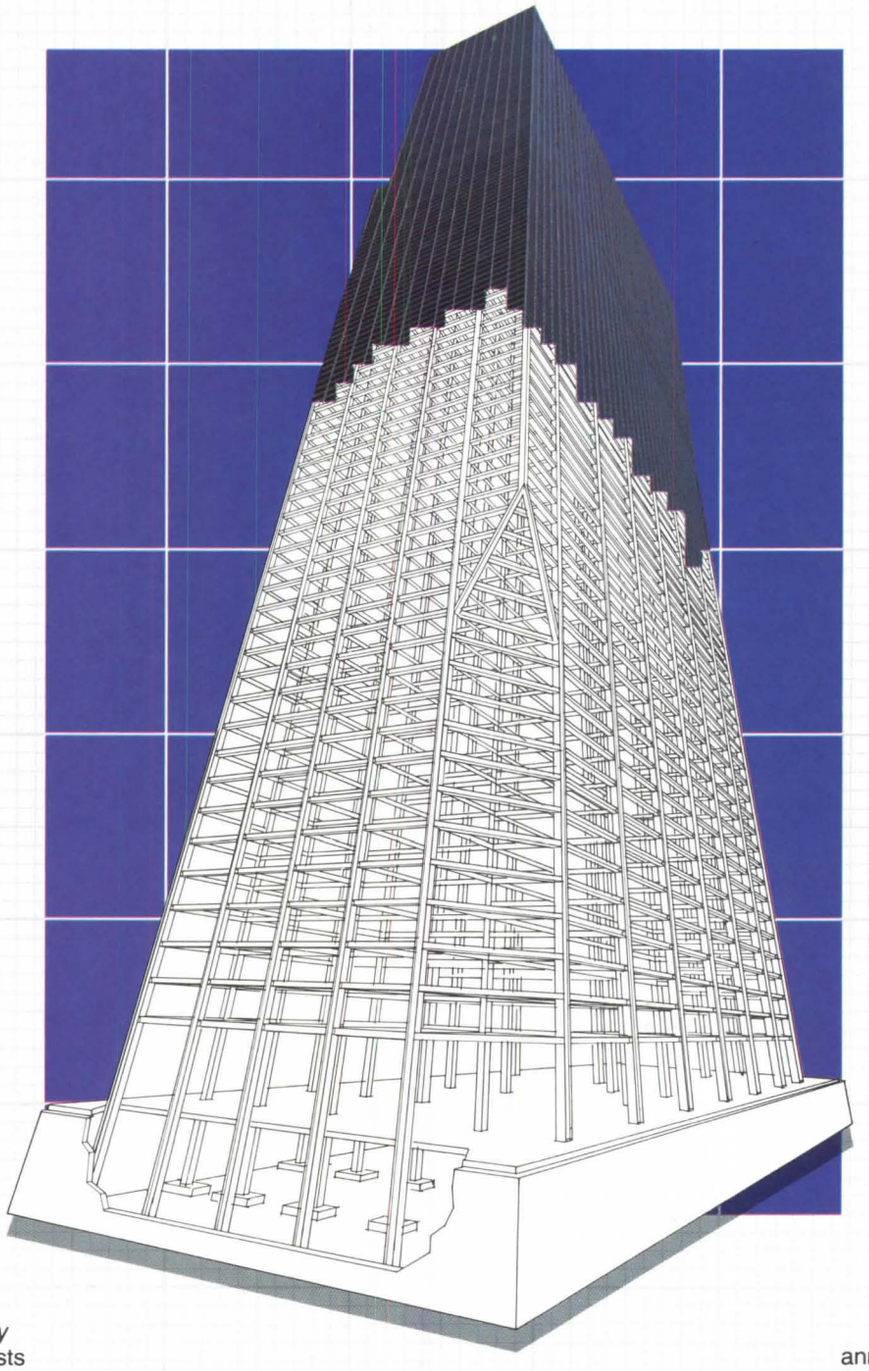

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Hazy American Themes In Brilliant Aspen Sun

Presentations at this year's International Design Conference at Aspen, "Neighbors: Canada, Mexico, and the U.S.," ranged widely up and down North America—from Eskimo art to Mayan architecture, from Quebec's politics to the tortured vision of Mexican artist Freda Kahlo. Less explicable was the surfeit of abstruse lectures on abstract topics, often producing an intellectural haze in the big tent that contrasted with the brilliant Colorado sun.

Several of the bright moments were produced by architects, including Moshe Safdie of Boston and Montreal, Barton Myers of Toronto, and Ricardo Legorreta of Mexico City. In a presentation on architect selection, programming, and design, Safdie and Jean Sutherland Boggs, head of the Canada Museums Construction Corporation, explained their work on the National Museum of Man and the National Gallery of Canada, which are to face each other across the Ottawa River in the Canadian capital.

Boggs said competitons for the projects were ruled out because of cost and fears of a "frozen" design lacking user input. Ninety Canadian architects were interviewed for the two buildings, she said. Safdie originally proposed a design for the Museum of Man but instead received the National Gallery commission in association with the Parkin Partnership. Approaching a half million square feet of space, the gallery will display the country's largest collection of Canadian, U.S., and European art. "Obsessed" with contextual factors of site, culture, and climate, Safdie said, he considered the museum as an extension of the city. Now under construction on a river promontory, the museum will feature a huge glazed pavilion reminiscent of Canada's Parliamentary Library and an ingenious system of through-floor vertical shafts with mirrors to bring natural light into vaulted galleries on the lower of two main levels.

In a separate presentation, Myers showed his concept for the same museum along with photographs of Unionville Library near Toronto (see page 150) and the Seagram Museum and Archives, Waterloo, Ontario. The latter project, for the preservation and display of industrial artifacts, occupies an 1857 brick warehouse and an adjoining new steel framed building.

Earlier, Legorreta showed examples of his houses and hotels in Mexico and spoke of attempts by architects to incorporate national "culture" into designs. He contrasted the traditional, colorful Mexican street market with a recently built enclosed shopping mall in one of Mexico's affluent areas, an anonymous building by unnamed architects that would fit into any U.S. suburb. "Mexicans are stubbornly Mexican," Legorreta said. "But we are losing the sense of quality and individuality. Happiness is being different. We should take all opportunities" to express those differences.

The loss of cultural distinctions was also noted by Canadians, notably by two psychiatrists, Stuart Smith of Montreal and Vivian Rakoff of Toronto. Smith, a former leader of the Ontario Liberal party, observed that Canada has moved from being a colony of France to a colony of England to a colony of the U.S. "We have imposed the last upon ourselves," he explained, through industialization, with over 70 percent of Canadian manufacturing owned by U.S. interests, and through dominance of U.S. culture. Canada's cultural identity is "mild, unstrident," Smith said, an observation that Rakoff, in his separate presentation, endorsed and celebrated, "because it allows someone like me"—a native of South Africa who immigrated to Canada as a young adult—"to become a Canadian."

Commenting on Mexican artist José Clemente Orozco's vision of man, as shown in a film the previous evening, Rakoff said with self-depricating humor that the Canadian national school of art "excludes human beings. We have empty landscapes done in a sort of fauvist style, but of course muted fauvist because it is Canadian, characteristically in small pictures." There are no Canadian heroic murals with "fists and flags and that perpetual high wind that characterizes heroic statements. The wind in Canadian art is reflected in the tormented shape of a twisted pine tree on a lonely island. Wind does it to the trees; we wrap up warm."

Canada's popular culture, by contrast, is absorbed through a "pourous" border to the south, Rakoff said, so that on arrival in Canada the immigrant realizes that the major images of North America come from the U.S., and that in fact "the whole world lives in that kind of America."

ALLEN FREEMAN

Correa, Krier, and Meier UIA Keynoters in January

The "present and future missions of the architect" will be explored at the 15th congress of the International Union of Architects in Cairo, Jan. 20-24. Keynote speakers will be Charles Correa, Leon Krier, and Richard Meier, FAIA. Also at the congress the first UIA gold medal will be presented, the medal's design having recently been the subject of a design competition.

Correa, who will address "new problems," is this year's Royal Institute of British Architects' gold medalist. (An example of his work is a hotel in Goa, page 158.) Krier, from Luxembourg, will address "new conditions." Meier, this year named the sixth recipient of the Pritzker prize, will address "new solutions."

Other activities at the congress will include workshops on education, practice, international architectural competitions, ethics, architectural criticism, among others; presentations of five regions of the UIA; meetings of UIA working groups; and ARCHEX '85, an international technical and cultural exhibition.

R. Randall Vosbeck, FAIA, AIA's representative to UIA, encourages the participation of U.S. architects in the congress: "It is easy to find reasons not to, but if you really want to expand your education, it is important to attend programs and workshops where you can see what else is happening around the world. . . . I think it is a fantastic opportunity for an American architect to really see and chat with and experience other architects and other architecture in a very interesting place." Vosbeck also believes that AIA's long-term involvement in UIA is "vital. . . . I think the world really looks to the U.S. for leadership in architecture. For us to abdicate that role would be ridiculous. We have a responsibility to contribute."

More information on the congress can be obtained from Susan Allen at Institute headquarters, (202) 626-7502.

Following the UIA congress, the AIA travel service is sponsoring a tour of ancient Egypt. After a visit to Cairo, participants will fly to Luxor and partake in a five-day Nile cruise stopping at the ancient cities of Ensa, Edfu, Kom-Ombo, and Aswan. The AIA travel service is also arranging deluxe hotel accommodations at the Cairo Marriott, which will be the UIA's headquarters hotel during the Congress. For information on these travel arrangements, contact Kimberley Hollenkamp at Institute headquarters (202) 626-7584.

continued on page 70

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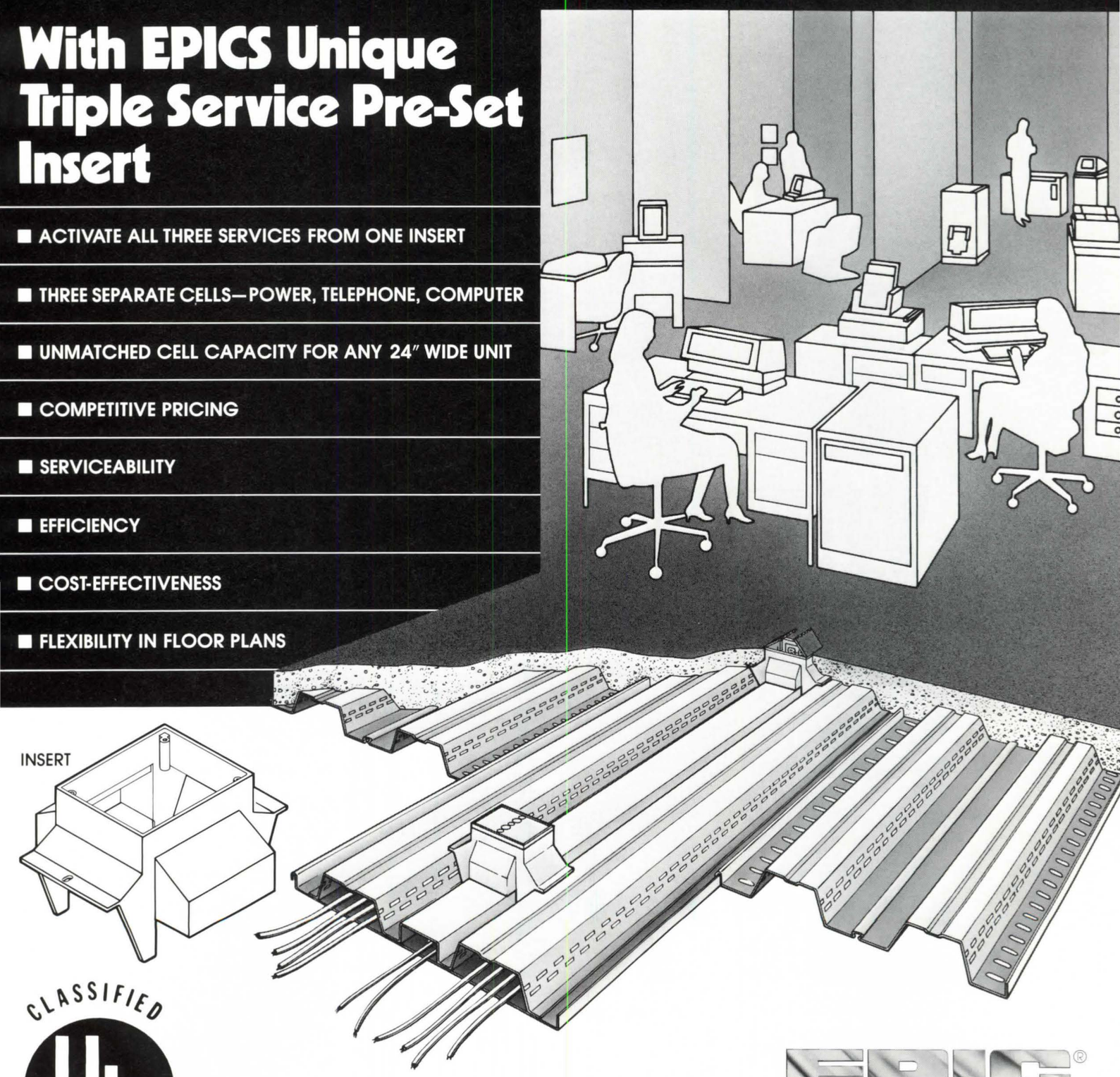

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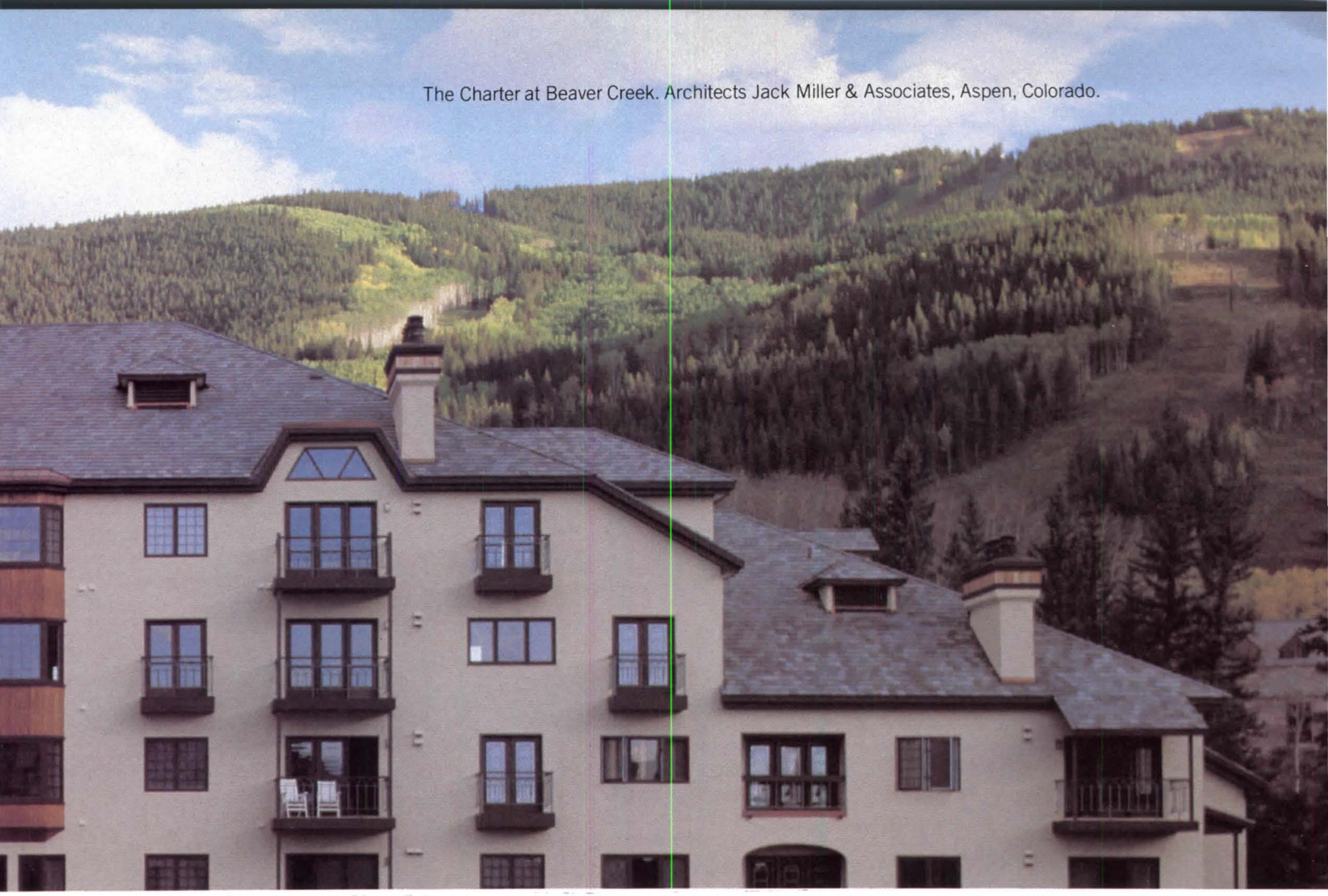

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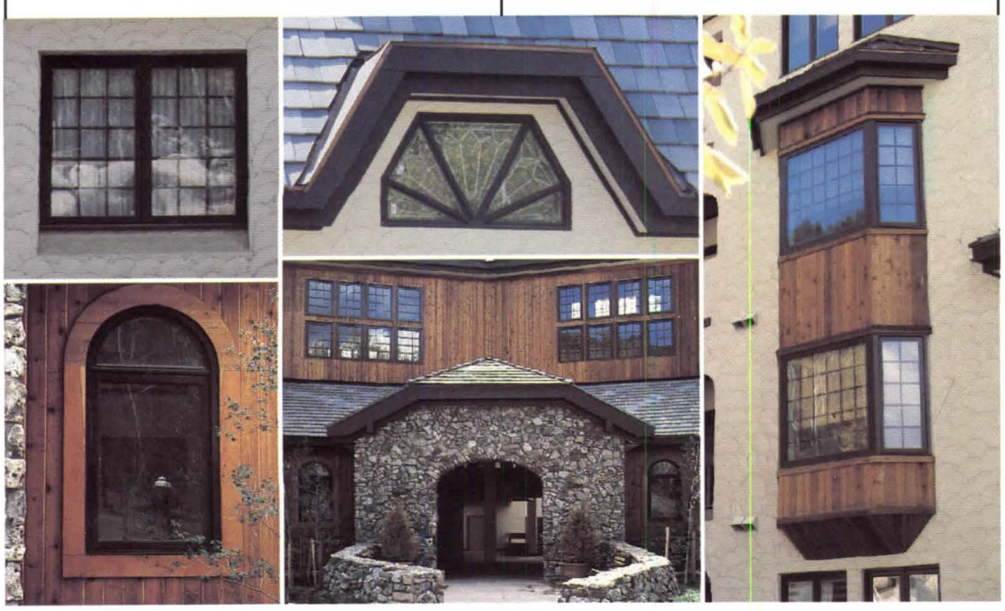

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World News *from page 66*

Jean-Paul Carlhian, FAIA, and James F. Clapp, FAIA, of Shepley Bulfinch Richardson & Abbott, Boston, have won first prize for their design of the UIA's gold medal. In a worldwide competition with over 80 submissions from architects in more than 20 countries, honorable mentions were given to Asunta Jose Manuel Alberto and Chapa Lopez Pombo of Spain, Yann-Denez of France, and Rudolfo Morzilli of Argentina. The winners were announced during a UIA congress at NEOCON 16 in Chicago.

The winning design incorporates a sculptured monogram of UIA. Particular emphasis is given to the letter A, which is common to all languages except for Arabic, and signifies "art," "architecture," and "architect," the designers explain.

The medal will be struck in gold donated by the Institute of South African Architects, under the supervision of Chicago sculptor Virginio Ferrari.

Jurors for the competition were Rafael de La-Hoz of Spain (UIA president), Jorge Glusberg of Argentina, Luis Oleas of Ecuador, Derry M. Robertson of Canada, Henning Larsen of Denmark, George M. Notter, FAIA, and Minoru Takeyama of Japan.

Prince of Wales Faults Postwar Architecture

At the 150th anniversary celebration of the Royal Institute of British Architects, the Prince of Wales strongly criticized modern-day architects for ignoring the needs of "ordinary" people while solely seeking the approval of fellow architects and critics. He also bemoaned the transformation of London since World War II into a "high-tech," modern city and expressed hope that new trends in architectural design, such as that of romantic pragmatism, will have a more "humane effect" on the environment. Excerpts from his speech, delivered in late May, follow. *Ed.*

It would seem that sesquicentenaries are coming thick and fast nowadays. Last year I was invited to become president of the British Medical Association for its 150th anniversary and greatly enjoyed holding that particular office. I am enormously relieved, I must say, that you have not asked me to be president of RIBA this year because while it is comparatively easy to be a practicing hypochondriac it is probably much more difficult to become the architectural equivalent.

On the other hand, my great great great grandfather, The Prince Consort, indulged himself wholeheartedly in a kind of architectural hypochondria as often as he could. Osborne and Balmoral are, of course, the most obvious examples of his personal involvement with the design of buildings, but he also busied himself with the design of farm buildings and the interiors of houses. No detail seemed to be too small to escape his attention, and, as a result, we have been left with a series of buildings which never fail to fascinate and which display great individuality (although always inspired originally by some earlier style of architecture).

Embellishment appears to have been a vital ingredient, as far as Prince Albert was concerned, to any building, and the more symbolic it was the better. I sometimes can't help wondering whether planning permission would be forthcoming nowadays for some of his designs, but perhaps with the present, welcome reaction to the modern movement, which seems to be taking place in our society, it *would* be forthcoming. For at last people

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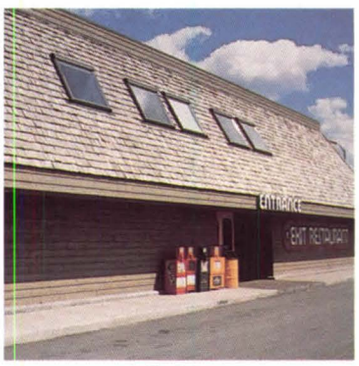

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World News *from page 70*
are beginning to see that it is possible, and important in human terms, to respect old buildings, street plans, and traditional scales and at the same time not to feel guilty about a preference for facades, ornaments, and soft materials. At last, after witnessing the wholesale destruction of Georgian and Victorian housing in most of our cities, people have begun to realize that it *is* possible to restore old buildings and, what is more, that there are architects willing to undertake such projects.

For far too long, it seems to me, some planners and architects have consistently ignored the feelings and wishes of the mass of ordinary people in this country. Perhaps, when you think about it, it is hardly surprising, as architects tend to have been trained to design buildings from scratch—to tear down and rebuild. Except in interior design courses students are not taught to rehabilitate, nor do they ever meet the ultimate users of buildings in their training—indeed, they can often go through their whole career without doing so. Consequently, a large number of us have developed a feeling that architects tend to design houses for the approval of fellow architects and critics, not for the tenants. The same feelings, by the way, have been shared by disabled people who consider that with a little extra thought, consultation, and planning their already difficult lives could be made that much less complicated. Having said that, I am told that the department of the environment is preparing an amendment to the building regulations which will mean that in the future buildings will have to be designed so that they are accessible, which in turn will make it easier for architects who are working for clients. This is excellent news and could ultimately transform the lives of over two million people throughout the country. . . .

But there is a particular problem to overcome, and that is the fire regulations which apply to all public buildings. Selwyn Goldsmith wrote about this in his *Designing for the Disabled,* which RIBA helped initiate in 1961. Referring to building hazards to disabled people and the demands that exist for strict controls, he says "for those who administer fire regulations the easy way out is always to say 'yes, we must impose more controls because we are bothered about people dying.' The more difficult alternative is to say 'no, we shall not, because we are concerned about people living.'"

To be concerned about the way people live—about the environment they inhabit and the kind of community that is created by that environment—should surely be one of the prime requirements of a really good architect. It has been most encouraging to see the development of community architecture as a natural reaction to the policy of decamping people to new towns and overspill estates where the extended family patterns of support were destroyed and the community life was lost. Now, moreover, we are seeing the gradual expansion of housing cooperatives, particularly in the inner-city areas of Liverpool, where the tenants are able to work with an architect of their own who listens to their comments and their ideas and tries to design the kind of environment they want, rather than the kind which tends to be imposed upon them without any degree of choice. . . .

Enabling the client community to be involved in the detailed process of design rather than exclusively the local authority is, I am sure, the kind of development we should be examining more closely. Apart from anything else, there is an assumption that if people have played a part in creating something, they might conceivably treat it as their own possession and look after it, thus making an attempt at reducing the problem of vandalism.

What I believe is important about community architecture is that it has shown "ordinary" people that their views are

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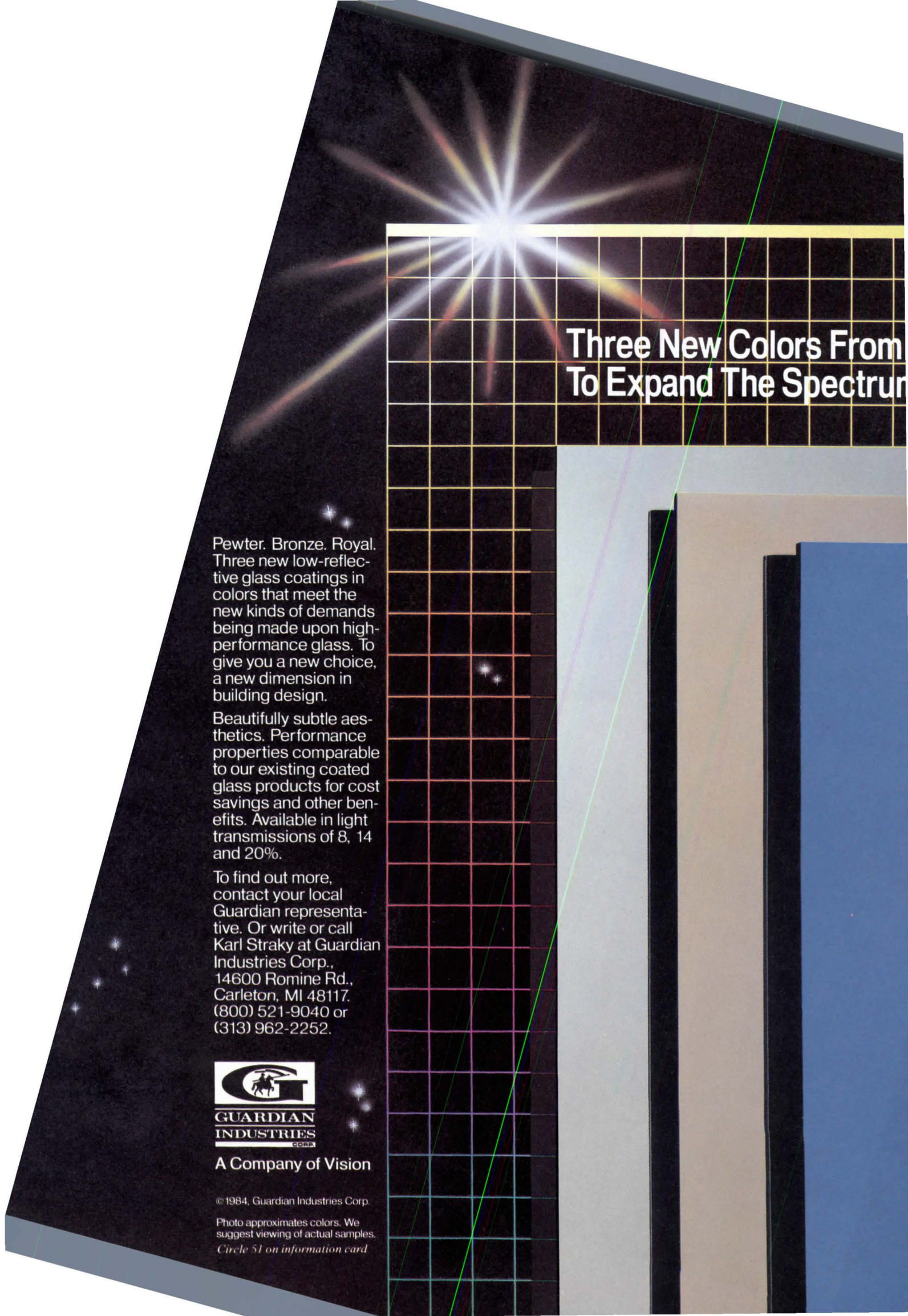

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World News *from page 74*
worth having; that architects and planners do not necessarily have the monopoly of knowing best about taste, style, and planning; that they need not be made to feel guilty or ignorant if their natural preference is for the more "traditional" designs—for a small garden, for courtyards, arches, and porches; and that there is a growing number of architects to listen and to offer imaginative ideas.

On that note I can't help thinking how much more worthwhile it would be if a community approach could have been used in the Mansion House Square project. It would be a tragedy if the character and skyline of our capital city were to be further ruined and St. Paul's dwarfed by yet another giant glass stump better suited to downtown Chicago than the City of London. It is hard to imagine that London before the last war must have had one of the most beautiful skylines of any great city, if those who recall it are to be believed. Those who do say that the affinity between buildings and the earth, in spite of the city's immense size, was so close and organic that the houses looked almost as though they had grown out of the earth and had not been imposed upon it—grown moreover in such a way that as few trees as possible were thrust out of the way. Those who knew it then and loved it, as so many British love Venice without concrete stumps and glass towers, and those who can imagine what it was like must associate with the sentiments in one of Aldous Huxley's earliest and most successful novels, *Antic Hay,* where the main character, an unsuccessful architect, reveals a model of London as Christopher Wren wanted to rebuild it after the Great Fire and describes how Wren was so obsessed with the opportunity the fire gave the city to rebuild itself into a greater and more glorious vision.

What, then, are we doing to our capital city now? What have we done to it since the bombing during the war? What are we shortly going to do to one of its most famous areas—Trafalgar Square? Instead of designing an extension to the elegant facades of the National Gallery which complements it and continues the concept of columns and domes, it looks as if we may be presented with a kind of vast municipal fire station, complete with the sort of tower that contains the siren. I would understand better this type of high-tech approach if you demolished the whole of Trafalgar Square and started again with a single architect responsible for the entire layout, but what is proposed is like a monstrous carbuncle on the face of a much loved and elegant friend. Apart from anything else, it defeats me why anyone wishing to display the early Renaissance pictures belonging to the gallery should do so in a new gallery so manifestly at odds with the whole spirit of that age of astonishing proportion.

Why can't we have those curves and arches that express feeling in design? What is wrong with them? Why has everything got to be vertical, straight, unbending, only at right angles—and functional? As if the National Gallery extension wasn't enough, they are now apparently planning to redevelop the large, oval-bellied 19th century building, known as the Grand Hotel, which stands on the southwest corner of Trafalgar Square and which was saved from demolition in 1974 after a campaign to rescue it. As with the National Gallery, I believe, the plan is to put this redevelopment out to competition, in which case we can only criticize the judges and not the architects, for I suspect there will be some entries representative of the present-day school of romantic pragmatism, which could at least provide an alternative.

Goethe once said, "There is nothing more dreadful than imagination without taste." In this 150th anniversary year, which provides an opportunity for a fresh look at the path ahead and in which by now you are probably regretting having asked me to take part, may I express the earnest hope that the next 150 years will see a new harmony between imagination and taste and in the relationship between the architects and the people of this country. □

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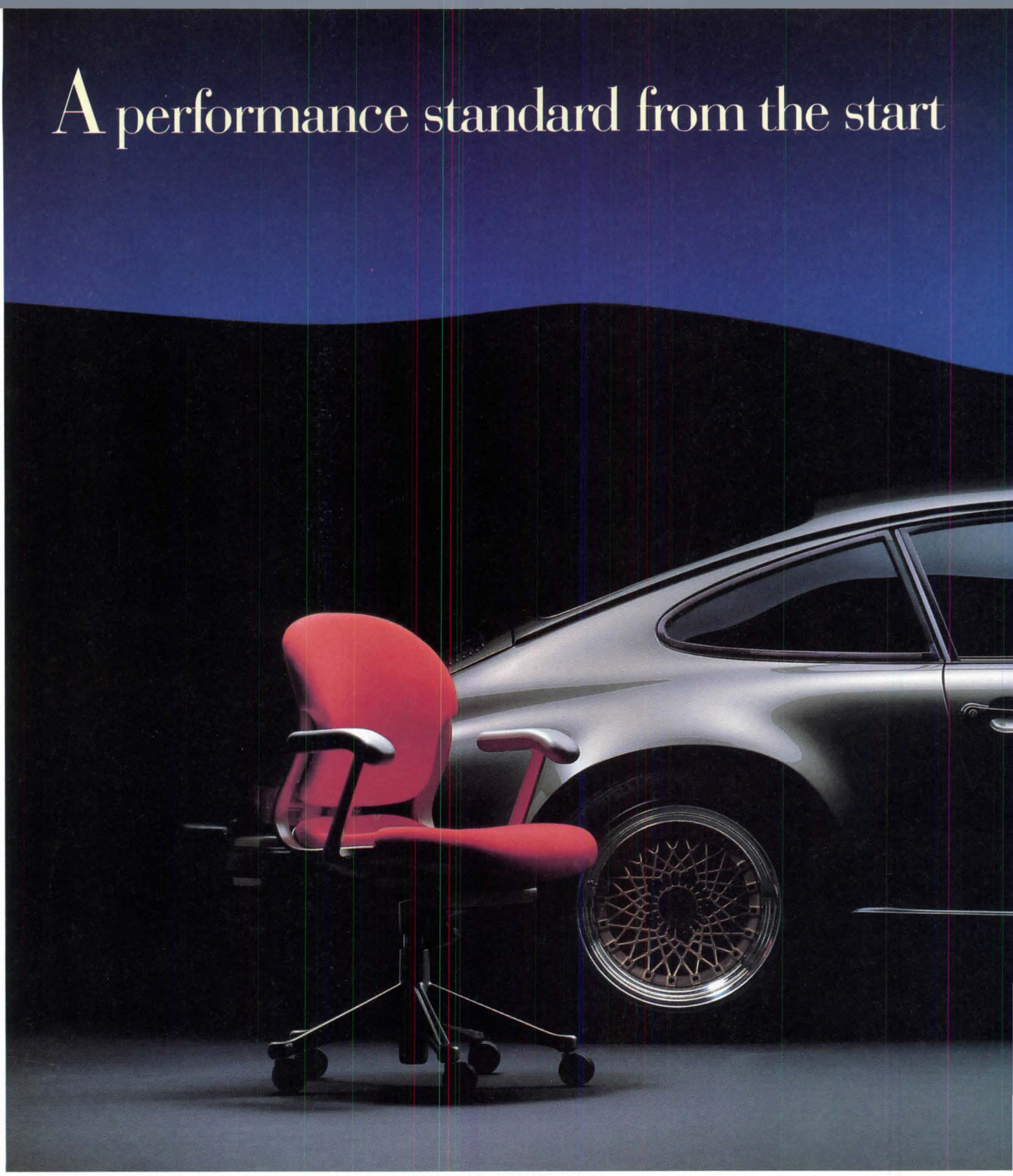

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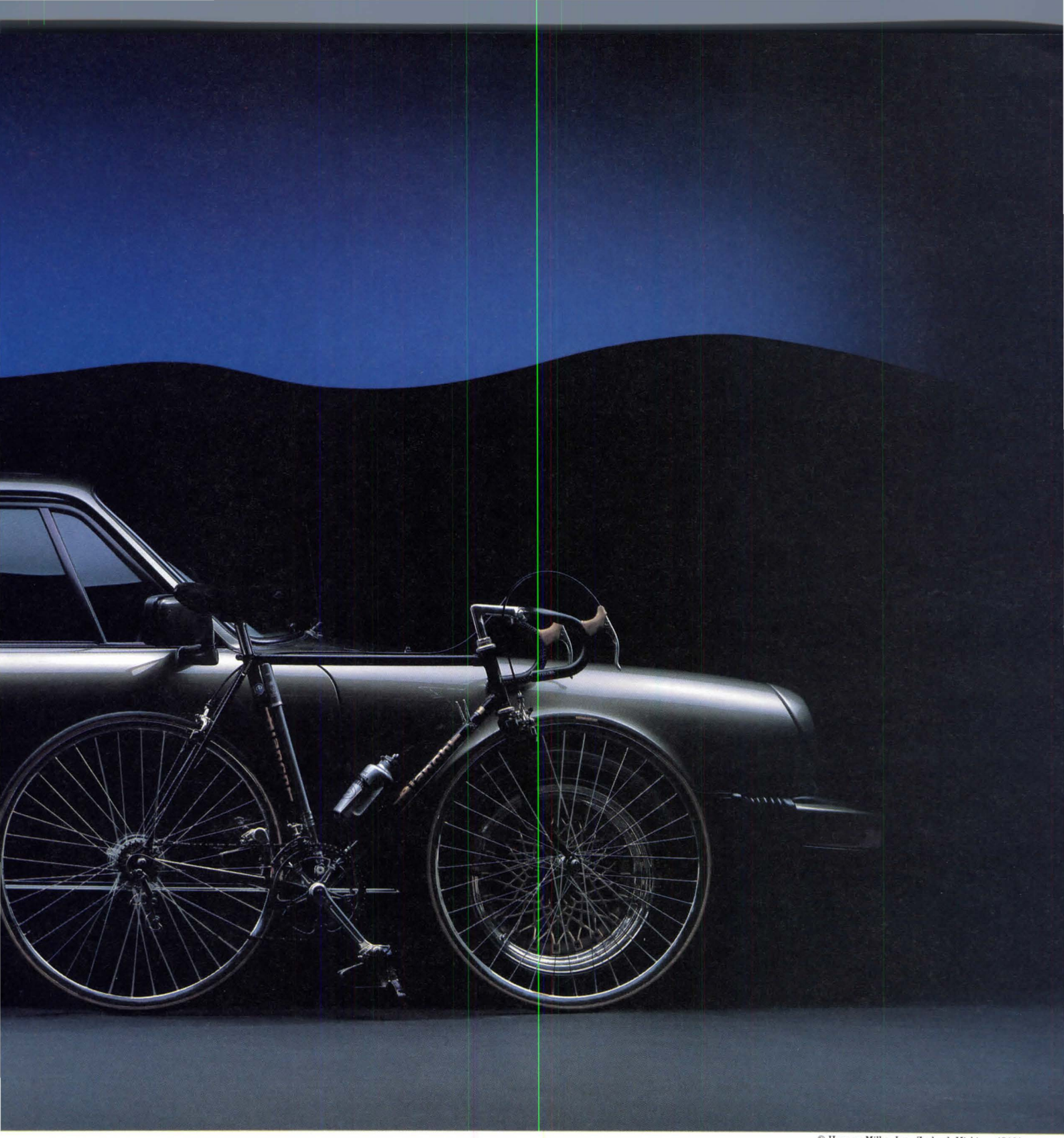

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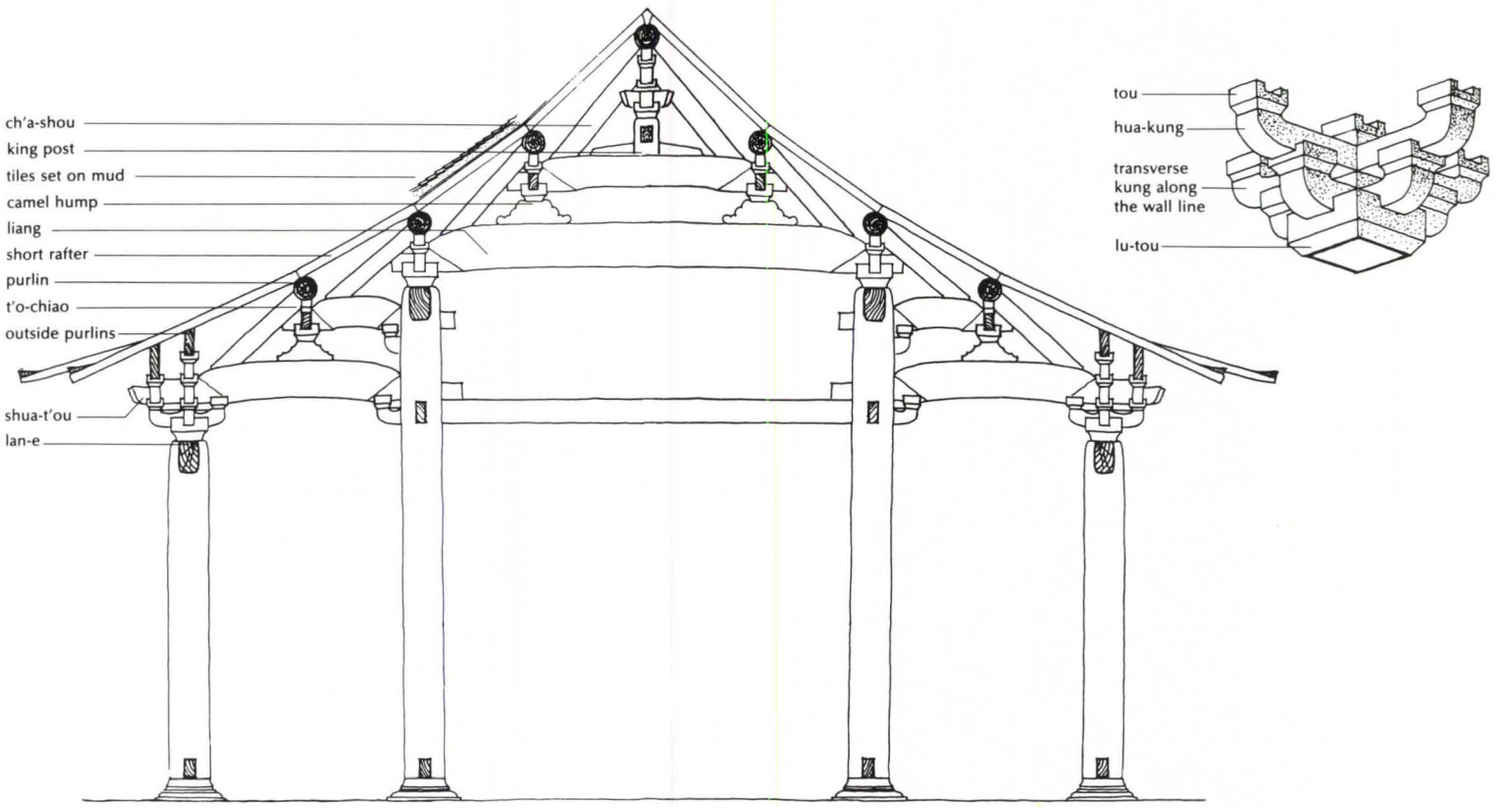
World Architecture: Books



Seminal, 'Lucid' View Of Chinese Architecture

A Pictorial History of Chinese Architecture: A Study of the Development of Its Structural System and the Evolution of Its Types. Liang Ssu-ch'eng. Edited by Wilma Fairbank. (MIT Press, $30.)

The Western perception of traditional Chinese architecture has long been shrouded in the mists of ignorance and the language of exoticism. Little of substance has found its way into Western languages although foreigners since the time of Marco Polo have been aware of the spectacular achievements of Chinese builders. The publication of this book changes all that. It brings to light in the West the authoritative work of the late Liang Ssu-ch'eng, the pre-eminent Chinese architectural historian of the last generation. This volume is a lucid distillation of his lifetime of epoch-making discoveries and research and will long serve as the basic English language reference in the long awaited development of this field in the West.

It is impossible to overstate Liang's importance to the field of traditional Chinese architecture. Can you imagine studying the classical architecture of the Mediterranean without being able to understand the all important text of Vitruvius' *Ten Books of Architecture?* Or look at Greek architecture meaningfully without knowing the meaning of the distinction between the Doric, Ionic, and Corinthian orders? An analogous situation prevailed in the field of Chinese architecture before Liang began his work in the 1930s. There were two ancient texts of building style, the *Kung-ch'eng tso-fa tse-li* ("Structural Regulations") dating to the Ching Dynasty (1644-1912), and the earlier *Ying-tsao fa-shih* ("Building Standards"), first published in 1103. Even the hereditary master carpenters engaged in the upkeep of the Imperial Palace buildings in Peking could not decipher their meaning. As far as actual buildings were concerned, local gazeteers were sprinkled with enticing-sounding references to early structures, but most had not been investigated and there was no reliable method for determining the date of the structure according to formal, stylistic characteristics.

Drawing by Liang Ssu-ch'eng of a building section showing the 'flexible beam' skeleton supporting a curved roof.

Liang made definitive strides toward solving the fundamental problems in each of these three areas—the interpretation of key texts, the seeking out and scientific recording of extant buildings, and the formulation of a definitive methodology for determining their dating and stylistic meaning. He carefully analyzed the Sung and Ch'ing texts, discovering through them a comprehensive system of modules that ordered the proportions of the traditional timbered frame building in China. In much the same way that the writings of Vitruvius revealed a proportional order based on the pillar in classical architecture, the Sung and Ch'ing texts revealed a complex system of dimensions based on the module of the arm of the bracket set, the *ton-kung.* This is the cantilever group that sits on top of each pillar and balances the load of the heavy tiled roof across the fulcrum of the pillar head to create the uplift to support the eaves. As a consequence, the eaves of the traditional Chinese monumental building extend well beyond the wall plane,

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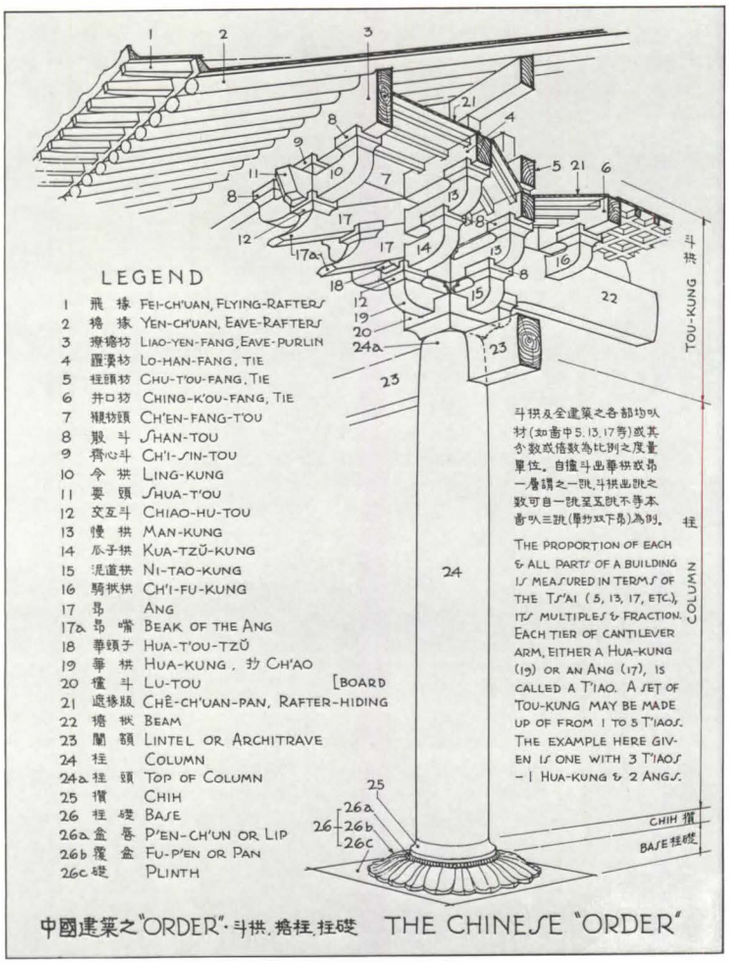

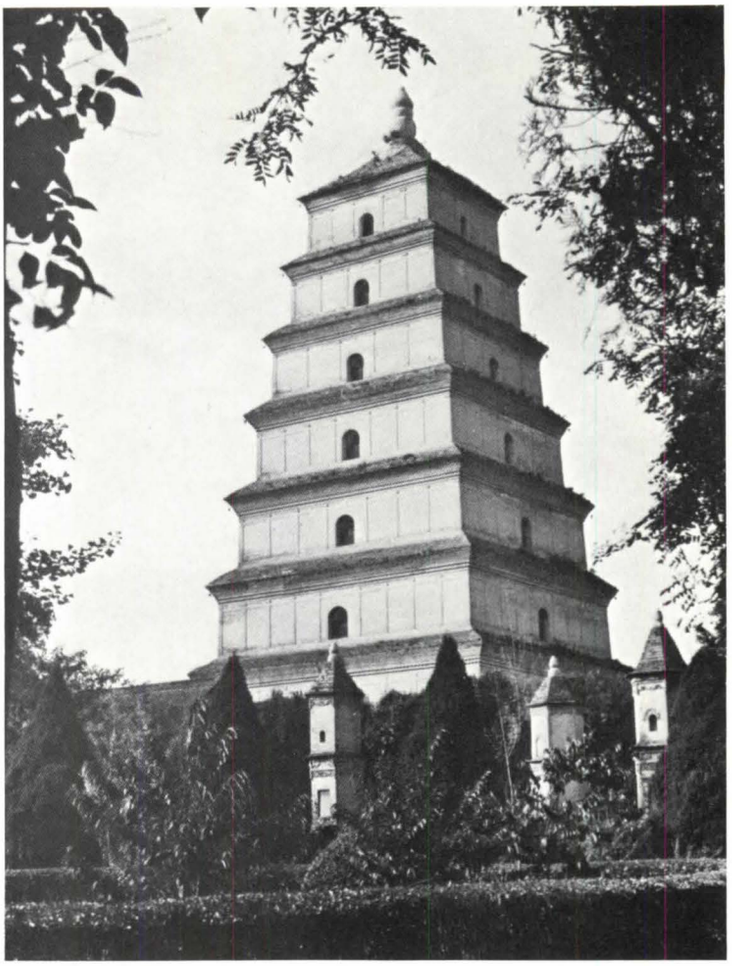

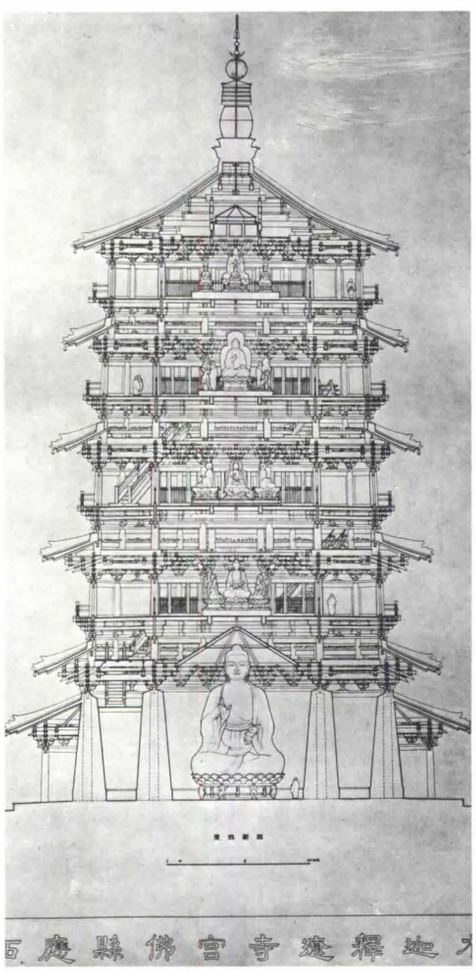

Above left, author's drawing of the Chinese 'order'; above, multi-storied pagoda, this one the 'Wild Goose' in Sian, Shensi, dating from the eighth century; left, section of wooden Pagoda in Ying Hsien, Shansi, dating from the 11th century.

World Books *from page 83*

giving it its characteristic appearance. Using evidence from the early building manuals, Liang established that the bracket set not only served an important structural role but also was the module for determining the proportions of the entire building.

Concurrent with his theoretical studies, Liang embarked on a series of arduous expeditions into the Chinese countryside in search of buildings of historical importance. Throughout the 1930s, Liang and his team from the specially created Institute for Research in Chinese Architecture scoured inland China, recording their findings with detailed measured drawings and technical reports published in their periodic journal.

Liang's discoveries started on the very first expedition in 1932 with the Kuan-yin ke (Hall of Avalokitesvara) of Tu-le ssu, dating to 984, and culminated in June 1937 with Fo-kuang ssu. This was built in 857 and until recently was the earliest known extant Chinese timbered frame building.

By collating the information gained from the building manuals with the field discoveries of extant traditional buildings, Liang was able to formulate a methodology for interpreting the styles of Chinese buildings. He placed the buildings he had investigated into chronological sequence, and the historical pattern of Chinese architecture became clear for the first time.

These monumental findings are summarized in this book. Liang describes first his ground breaking research into the building manuals. Then he traces the evolution of Chinese buildings from a "Period of Vigor" (ca. 850-1050), through a "Period of Elegance" (ca. 1050-1400), to a "Period of Rigidity" (ca. 1400-1912). The style of the *ton-kung* is symptomatic of the general process of change, going from a simple, robust, and effective functional form in early buildings to an ornamental conceit by the Ch'ing Dynasty.

The English text was originally written by Liang in China in the 1940s and brought to America for publication in 1947 while he was a visiting professor at Yale. He intended it to serve as an introduction to the extensive series of technical drawings that present his field work discoveries in detail, hence the title of this volume. Indeed, these drawings will surely cause considerable interest, including both major buildings and visual summaries of the

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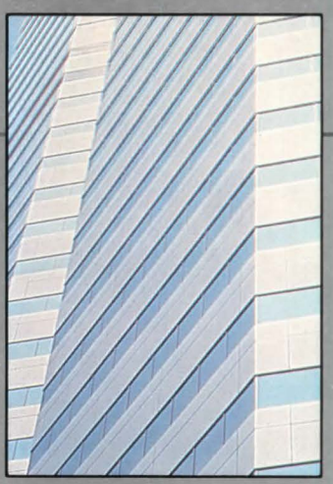

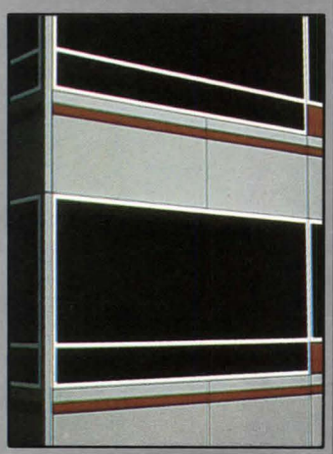
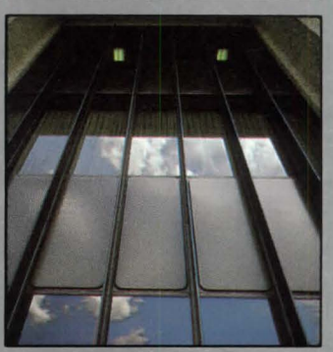

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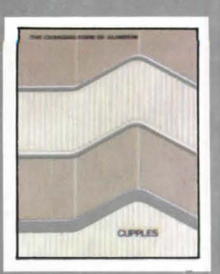

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evolution of various stylistic features ranging from the plan of the bays to the *tonkung* itself. The drawings themselves are models of technical rigor, revealing Liang's thorough grounding in the Beaux-Arts tradition, which he received under the guidance of Paul Cret while he was a student at the University of Pennsylvania in the 1920s. A number of the drawings, such as plate 2 showing in detail the organization of the pillar, bracket set, and eaves raftering, are already classics in the field, having been freely "borrowed" for other publications without acknowledgement of Liang's authorship. The drawings and text are accompanied by many of Liang's own black and white photographs, including several buildings subsequently destroyed by war or disfigured by clumsy restoration.

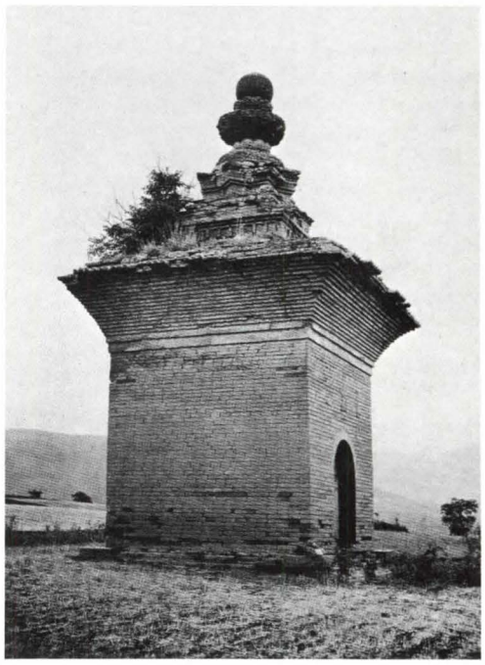
The story of the publication of this volume is an epic in its own right. In the confused circumstances surrounding the Chinese Revolution, the text and drawings became separated. The drawings were believed lost in transit between the U.S. and China until 1979. Only the determined efforts of Wilma Fairbank succeeded in reuniting text, drawings, and photographs in this present publication. Mrs. Fairbank and her husband John were close friends of Liang and actually accompanied him on one of the architectural field trips in the 1930s. Informed by this first-hand experience, she has skillfully edited Liang's original text and assembled and collated it with his drawings and photographs. She has also added a glossary of technical Chinese building terms, maps, and an extensive bibliography of Western, Chinese, and Japanese references, all of which considerably enhance the usefulness of this book as a research tool.

Other publications on Chinese architecture are beginning to appear in English, but all owe their fundamental method and basic information to Liang, and this summary publication of his life's achievement should take precedence over them.

WILLIAM H. COALDRAKE

Mr. Coaldrake is a lecturer on fine arts at the Fogg Art Museum, Harvard University.

Tomb of T'ung-kuang in Shao-lin Ssu, Honan, built in 771. Such one-storied pagodas are more like shrines than pagodas as the latter term is generally understood.



Lively Narrative Account Of Lutyens in New Delhi

Indian Summer: Lutyens, Baker, and Imperial Delhi. Robert Grant Irving. (Yale University Press, $45 hardbound, $15.95 paperbound).

At his dazzling coronation durbar in Delhi in 1911, King George V electrified and startled Parliament by announcing the transfer of the capital from Calcutta to Delhi. Before the durbar tents were struck, planning for the transfer began. For the next 20 years the India Office in London, four successive viceroys and the Indian government, the Delhi Town Planning Committee, the two principal architects (Edwin Landseer Lutyens and Herbert Baker), and hundreds of staff aides hurled themselves into creating "a monument worthy of British rule in India."

Robert Grant Irving's title for his fine documentation of the planning and design of New Delhi, *Indian Summer,* describes perfectly this period in the relationship between Britain and the subcontinent just before World War I. (The book has received awards from the Society of Architectural Historians and the British Prize Council in the Humanities for distinguished scholarship.) The New York *Times,* reporting on the King-Emperor's visit to India, referred to "British rule fast drawing to a close," but Britons in general rejected the thought. Only one member of the viceroy's council questioned the future of "patriarchal government" and thought "benevolent despotism as no longer suitable nor acceptable to India." The planners' goal, as one old India hand declared, should be "an Imperial City—the symbol of the British Raj in India—and it must like Rome be built for eternity."

The gigantic project began under a cloud of controversy over the transfer. The desirability of ruling from a more centrally located capital had been thoroughly debated, particularly since the mutiny in 1857 and Britain's increasing preoccupation with the northwest frontier and suspicion of Russia. Months of official vacillation over the exact site at Delhi required constant changes in the proposed city plan, delaying the beginning of construction—and building costs soared.

For his lively narrative of these difficulties, Irving has thoroughly researched many sources previously unavailable. Most of the book, however, is devoted to his portraits of the two principal architects, their bitter dispute, and details of their monumental structures. The appointment of Lutyens as architect, although controversial, proved fortunate.

It was beyond the capacity of even Lutyens to complete the Delhi commission in the four years originally specified, and he asked that Herbert Baker be appointed as associate architect. They were long-time friends, and Baker had designed the Union Buildings of Pretoria, South Africa. Unfortunately, their friendship did not survive the bitter argument over the placement and perspective of their buildings.

There was general acceptance of Lutyens' conception that Government House, from its eminence on Raisina Hill, would be the focus of the entire city plan. What the authorities desired was the "majestic dominance" of the capitol building in Washington, D.C.,then a critical decision was made to move the two secretariat blocks by Baker up from the plain to the brow of the hill and to move Lutyens' Government House back. Lutyens did not focus on the change in the new gradiant of the inclined plane between the secretariats until it was too late. When he became aware that Government House would be hidden from the central plaza below, he felt betrayed and tried unsuccessfully to have the plan altered. Irving carefully takes the reader through the argument and, with obvious regret, judges that "the very label both architects hoped to spare New Delhi is writ large across Raisina Hill."

If the perspective of Government House, also known as the Viceregal Palace, was ruined, the monumental design succeeded. There is nothing in Western architecture to compare with Lutyens' dome; it neither rises nor floats above the building and does not appear to be a shell. Encircled by a Buddhist rail, it resembles the stupa at Sanchi not just in

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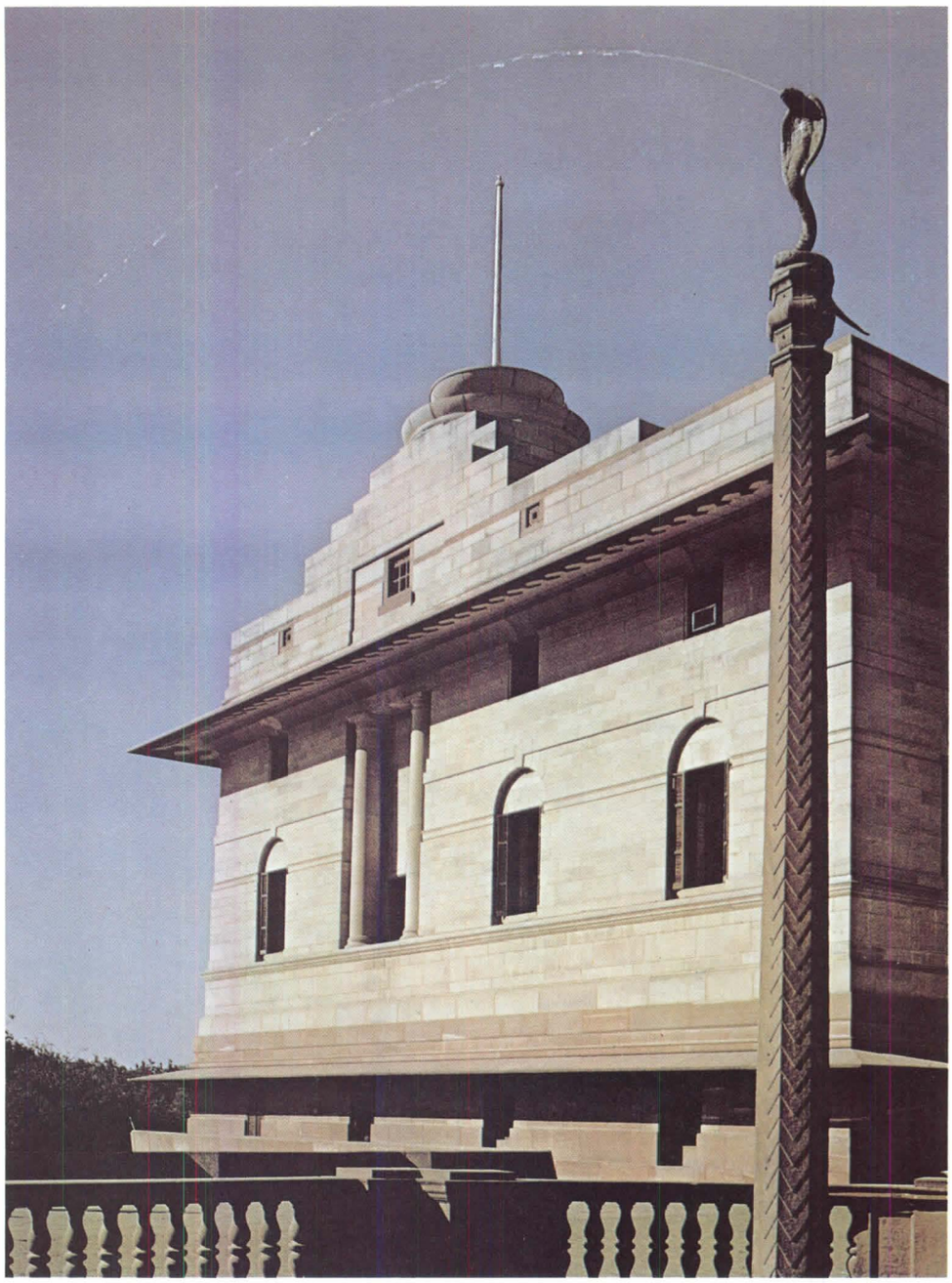
shape but in the impression of its solidity. Stupas are singularly inert architectural forms, but, paradoxically, the greatest of them radiate energy.

Lutyens was equally successful in his adaptation of Hindu and Moghul elements—more so than Baker whose Indian touches remain oddly ornamental, nonintegral parts of the architecture. Uniform in their massive scale, the buildings are all constructed of the same pale gold and rusty rose Dholpur sandstone that contributes so much to their visual appeal and character. They would seem severe but for the effect of light and shadow in the columned porticoes, recesses, and the eavelike overhang. The sandstone turns even a richer shade when soaked or splattered by water in the huge fountains and sheets of water flanking the King's Way.

This book is sumptuously illustrated with photographs and the watercolor perspectives of William Walcot, which played a key role in the acceptance of the plan. Irving concludes his history with a vignette of Mahatma Gandhi being received at the Viceregal Palace by Lord Irwin just two days after the festivities inaugurating New Delhi in February 1931. The first of a series of meetings, this led to the Delhi Pact, an agreement that weathered the storms of the next 16 years when India achieved independence and the palace became the residence of India's president.

ELIZABETH B. MOYNIHAN

Mrs. Moynihan is author of Paradise as a Garden in Persia and Moghul India. *She studied architecture while living in India, 1973-1975, the period during which her husband, now U.S. senator from New York, was U.S. ambassador to India.*



Spouting cobra fountain in the south court of the viceroy's house in New Delhi.

French Gothic Architecture of the 12th and 13th Centuries. Jean Bony. (University of California Press, $115.)

This handsome volume, abundantly illustrated with photographs, drawings, and maps, sets the standard for scholarship in the evolution of Gothic architecture.

Recognizing that Gothic architecture did not evolve in a neat chronological fashion, Jean Bony has chosen not to write a successive account of Gothic buildings, one after another, but rather a history of the dominant concepts that shaped the architecture. In his own words, Bony sets out ". . . to uncover the urges which at each stage dictated the new orientations that were taken by the Gothic movement, and to see how the creations of art both expressed and fashioned the turns of thought and the sensibility of their age."

Beginning with an analysis of the three basic characteristics (*the rib vault*, the pointed arch, and a deliberate insistence on height), Bony goes on to study how these are manifested in the ground plans, elevations, and orderings of bays. He then investigates how certain technical innovations, such as detached shafting, double wall construction, and flying buttresses, were designed as solutions to structural problems and often later became the inspiration for radical imaginings of succeeding generations of architects.

Bony's examination of the cycles of impetus and renewal that propelled this architectural form through two centuries underpins his study. Following these lines, Bony traces Gothic architecture from its unexpected beginnings around 1140 B.C. at St. Denis to its glorious achievements at Chartres and Bourges, to its subsequent transformation in the *rayonnant* style, and to its final dispersal far from its origins in the Ile de France.

Bony's historical perspective, so accurate and essential to the understanding of his subject, is summarized in his comment that "the true significance of Gothic architecture can be captured only if one does not lose sight of the unexpectedness of the course of history. The art we call Gothic was the assertion of a spirit of modernity which went on renewing itself for centuries, almost ceaselessly. . . ." Bony imbues his account with the vitality of the Gothic movement, and in so doing brings new meaning to an architecture that otherwise might seem very distant.

While his exclusion of sculpture and stained glass windows might bother some as a failure to consider ecclesiastical architecture as the sum of its parts, Bony's perspective is that of an architect, and his analysis of these buildings recognizes

continued on page 91

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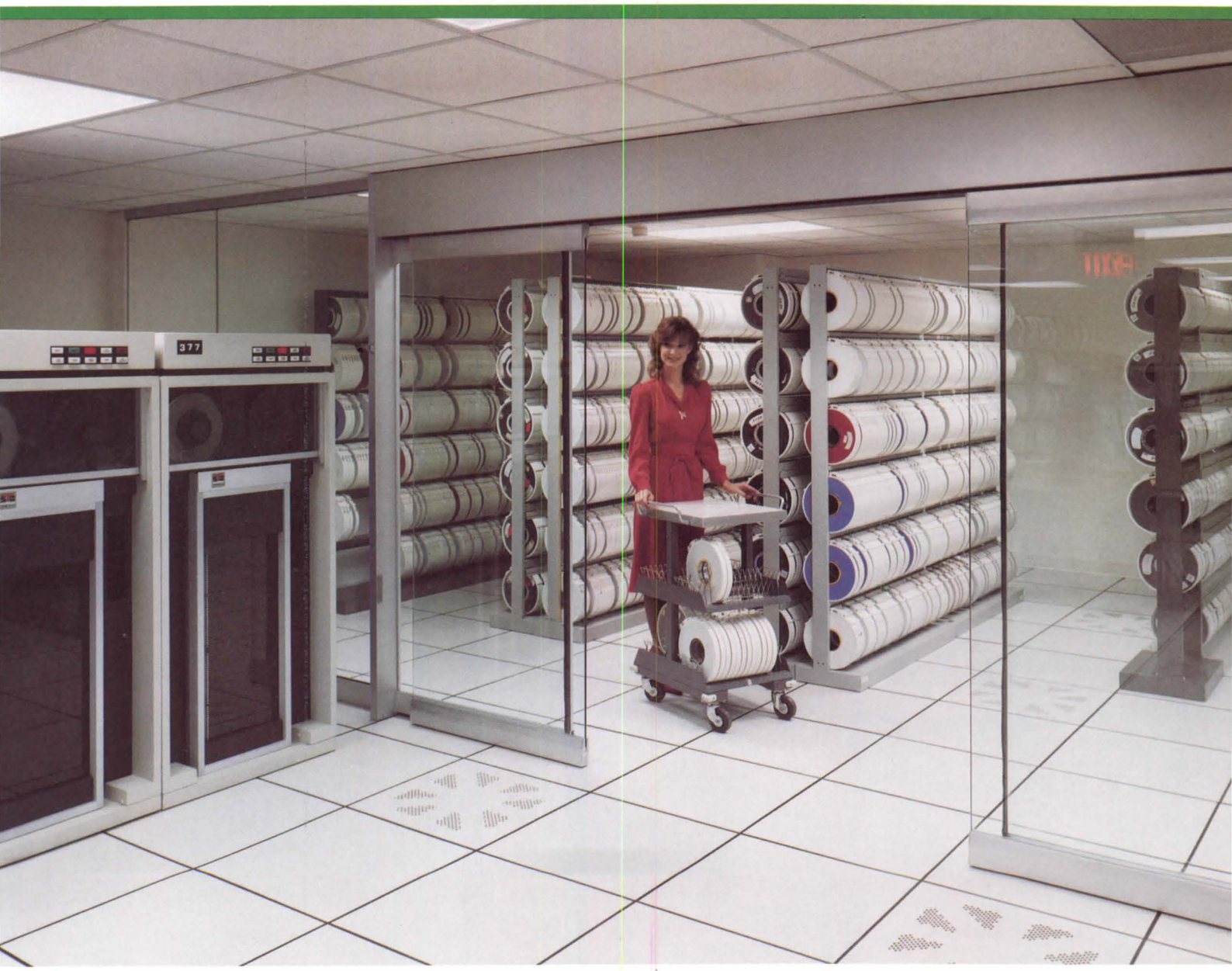

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World Books *from page 88*
the genius of those who created them.

Derived from a series of lectures, the book retains a delightful verbal quality and lively cadence. It reads more like a novel than a history book, making this study particularly appealing to layman as well as scholar. Rarely is a book on any subject written as clearly, understandably, and eloquently as this one.
WILLIAM H. SCHALLENBERG

Mr. Schallenberg is a Washington, D.C., critic.

Architecture and the Crisis of Modern Science. Alberto Pérez-Gómez. (MIT Press, $30.)

This book has a rather intriguing but misleading title in that its content deals not so much with the crisis of science as with the crisis of modern architecture. The original title, "La génesis y superación del funcionalismo en arquitectura," is more accurate.

The book is written in philosophical language and at times gets quite heavy. Nonetheless, the author has thoroughly researched his subject and presents a good case for his thesis. That thesis, if it can be simplified, is that through reliance on science and technology, modern architecture has lost much of its historical sense of geometrical order, symbolism, and harmony.

At such a time as now, when chaos seems to be all around us, the thesis has a certain measure of appeal. On the other hand, several recent books have been enunciating the opposite position; namely, that modern science and technology have freed architecture from the limitations and constraints of the past.

The author contends here that in the early 19th century architects turned from natural and spiritual principles of design to those of positivism and scientific functionalism. He writes: "It might be said at this point external reality lost its divine character and was reduced to matter, and thus it finally came to be dominated by mankind." The writings of the French architect Jacques-Nicolas-Louis Durand (ca. 1800) are cited as precipitating this change, although the works of scientists of the time who made physical laws less mysterious must also be acknowledged.

It is evident from the many historical, philosophical, and theological references discussed that Pérez-Gómez's sympathies lie with the earlier views of architecture. Whether one agrees with him or not, however, the book is an excellent and well documented exposition of how early architects used the rules of geometry and proportion along with a sense of the divine and mystique of the cosmos to create their many noble and classic works of architecture. *continued on page 93*

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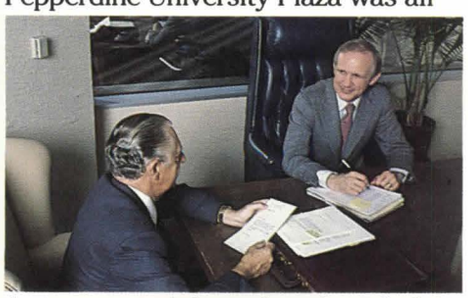

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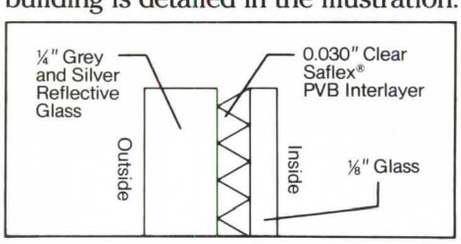

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World Books *from page 91*

The book has been published at a good time, when contemporary architecture seems to have lost its way. Theoreticians and others looking for directions or reasons should find some thoughtful insights in this volume. WILLIAM ZUK

Dr. Zuk is professor of architecture at the University of Virginia.

Architecture of the Nineteenth Century in Europe. Claude Mignot. (Rizzoli, $60.)

Now that 19th century architecture has emerged from the cloud of opprobrium that covered it in a self-consciously modern time, it is valuable to have this richly illustrated volume on the subject. Claude Mignot has come to the rescue of those who are looking for a painless brushup on history in order to catch the allusions of the postmodernists. He brings to us the vitality of architecture in that century when suddenly all of the past and much of the future was available to stimulate the imagination of designers. The abundance of new types of buildings, new materials, new esthetic ideas, and old forms in new molds make a genuinely dizzing prospect. In fact, the subject turns out to be too expansive for even this 300-supersize-page treatment. Mignot had a task that was nothing less than heroic.

From the point of demographics alone, the 19th is an overwhelming century. A population of 187 million in Europe in 1800 exploded to 420 million by 1900. As a consequence, the very number of buildings needed makes for a quantitative picture rather than one emphasizing quality. Material values loomed inevitably larger than the old moral and religious ones. Eclecticism was as diverse and as disconcerting as is the pluralism in society today.

Mignot attempts to cover the question of style, the battling out of Greeks versus Goths, in the first half of the book. Settling into acceptance of eclecticism (or choosing from history but not copying the past), he then turns to the topic of engineering. Among examples of engineering art, Paxton's Crystal Palace of 1851 is rather dismissed as being a repetitive overgrown greenhouse with little variety or interest, managing to be built simply because the job could be done in a hurry for the exposition deadline. Changing architectural sensibilities were far more clearly revealed in later buildings, notably Garnier's Paris opera house.

The development of metallic construction, which Ruskin predicted in 1849 as necessitating a new system of architectural laws, began with the use of cast-iron framing in mills and warehouses, largely in an effort to cut down the risk of fires. Economic and safety factors, noth-

continued on page 94

World Books *from page 93*

ing to do with architectural or design concepts, dictated this engineering, as did the demand for spatial enlargement and interior light in conservatories, theaters, and markets before mid-century. As the glass industry was also booming, architects began to use their design skills on light and on cast-iron motifs for railway stations, shopping arcades, and exposition buildings. The Sainte-Genevieve Library in Paris by Henri Labrouste (1842-50) shows how elegant and refined metallic architecture could be.

There is an essay on prisons and hospitals and an interesting account of shopping facilities and railway stations in various areas of Europe. The concluding section deals with the new type of residential building, the private house on the outskirts or suburbs of towns. All over Europe, residences for the proliferating, newly prosperous middle class made up a flourishing proportion of architectural practice. At the same time, paternalistic employers and philanthropic societies were concerned with the problem of working class housing, with multiple essays into basic standardized inexpensive units, as in "affordable housing" of today, while middle class emphasis was upon the picturesque and comfortable.

When Sacheverell Sitwell pronounced in his *British Architects and Craftsmen* (1945) that 1830 marked the turning point from triumph to decay, he was denigrating what he called "the century of soot and smoke" and expressing favorite attitudes of his period. This is what Claude Mignot has attempted to avoid, even as he resists the classic French chauvinism that puts every artistic achievement in France far above what can be attained in any other country. He gives us a flying visit to an immense number of 19th century buildings in Europe, with contemporary comment to accompany them. He can be commended for having given us a good read-through, aided by more than 500 photographs to help bring his examples alive. We do indeed rediscover the taste for quotation and evocation as we reach a clearer understanding of historical reminiscences and emotional associations in architectecture.

Sara Holmes Boutelle

Ms. Boutelle is founder/director of the Julia Morgan Association in Santa Cruz, Calif.

Contemporary Canadian Architecture: The Mainstream and Beyond. William Bernstein and Ruth Cawkes. (Toronto: Fitzhenry & Whiteside; distributed in this country by Architectural Book Publishing Co., $25.)

This thin and ordinary looking book is

continued on page 97

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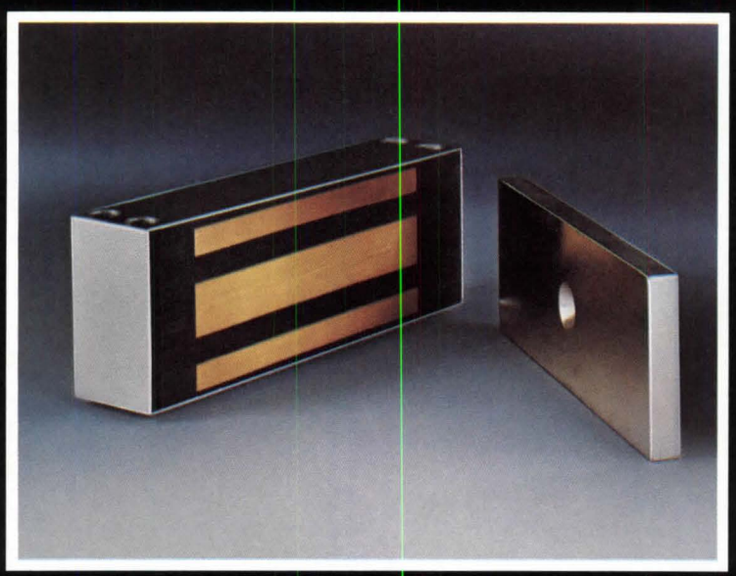

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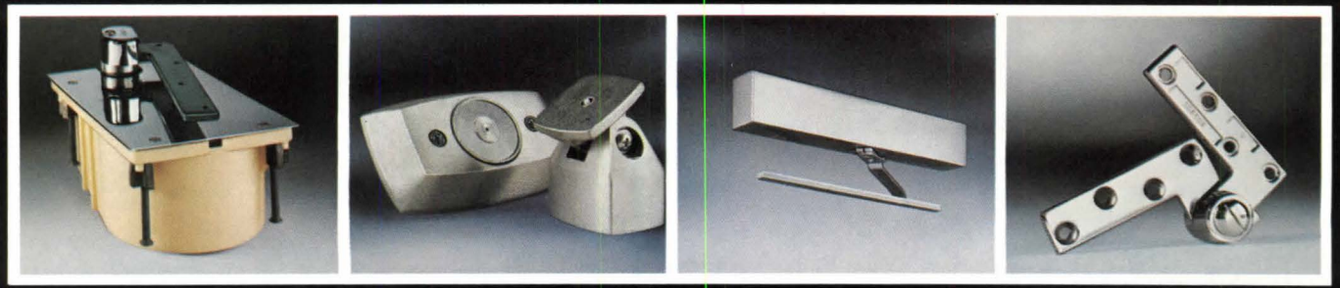

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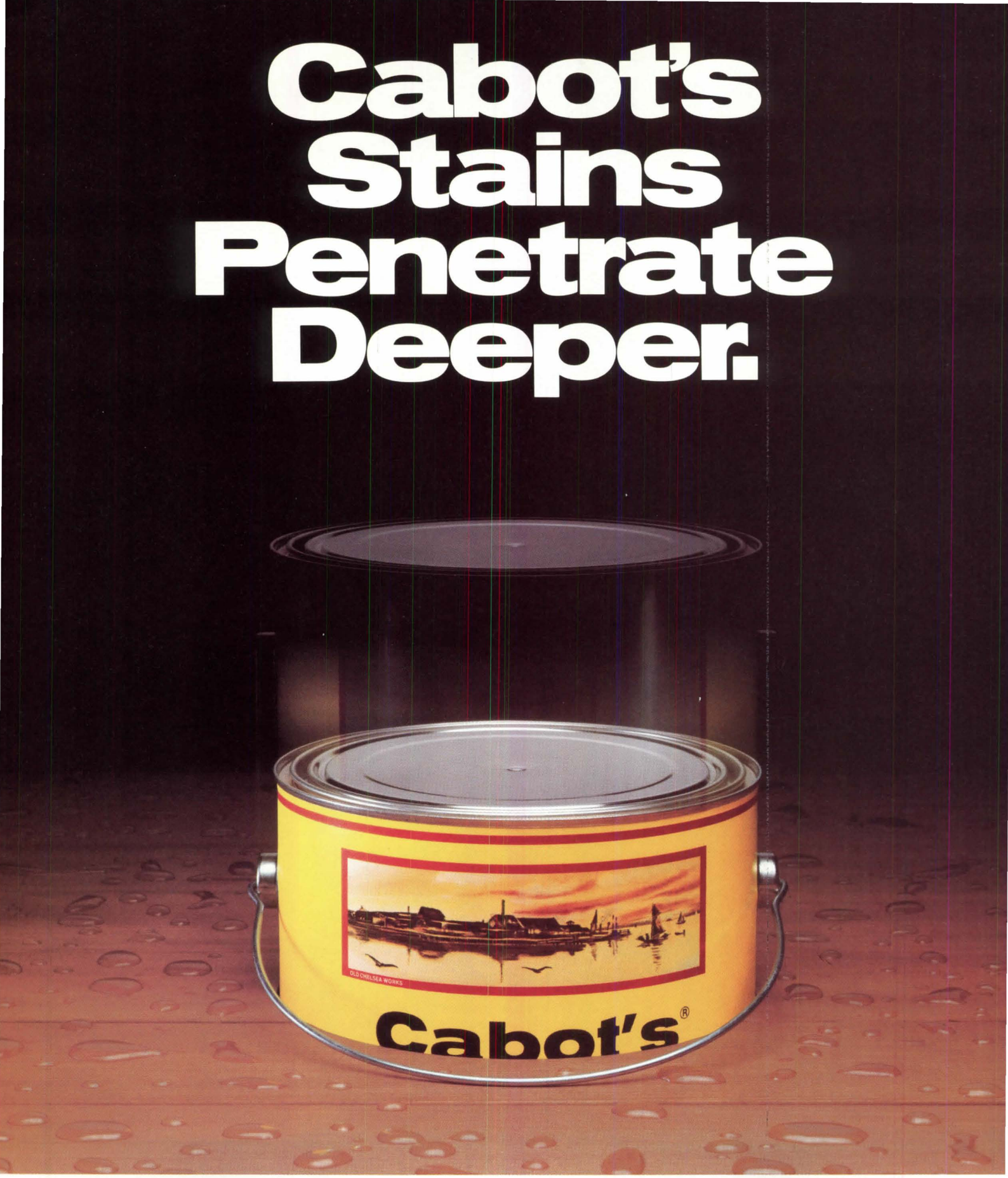

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World Books *from page 94*
a potent account of an extraordinary period in the recent architecture of Canada. It deals exclusively with public, commercial, and institutional buildings, without real mention of single homes or even public housing. Historically, this intense episode began with Expo '67 in Montreal and concluded with the 1976/77 competition for the National Gallery in Ottawa. Within that decade, many generous public architectural visions were conceived and a surprising number were built.

This is a real book, both in content and information. It has an extensive bibliography, four pages of footnotes, a thorough index, and an appendix of the assessor's report on the National Gallery competition. The dust jacket illustration of the 1979 Galleria of the Toronto Eaton Center is the only slick color photo in the book, and the jacket lamely promises to contribute "to our understanding of the forces and ideas infusing our surroundings." But between the ordinary layout and mixed quality of black and white illustrations is a lean and well informed text that is almost naive in its absence of the verbal foolishness that characterizes so much of architectural writing. Fortunately, there is also no attempt at stylistic classification or at comparative evaluation of buildings that are so close to the present moment. The content of Canadian architecture, as selected by these young authors, has an integrity that seems inherent even before that program is known, an attribute that might challenge others to ask why.

JEFFREY COOK, AIA

Professor Cook, who teaches in the department of planning, college of architecture, Arizona State University, is also an author and critic.

Kunio Maekawa: Sources of Modern Japanese Architecture. Edited by Mitsuaki Adachi and others. (Tokyo: Process: Architecture, distributed in this country by Van Nostrand Reinhold, $19.95.)

An editorial note in this publication expresses surprise that no collection has yet been made of Kunio Maekawa's work. It is reported that Maekawa himself thinks such an *oeuvre* "is something published after the artist is dead." Although the editor says that this present work is "inadequate," he hopes that it will be a bridge to the ideal of a complete work on this Japanese architect. The publication, in Japanese and English, is not, by Maekawa's own request, a chronological survey, but rather an overview of some of his more important work. Nor are the comments about the various projects analytical. They briefly describe such Maekawa projects as the Kyoto Hall, the Fukuoka Art Museum, the Tokyo Metropolitan Festival Hall, the Hirosaki Community Center, the steel pavilion for Expo '70, and an array of other auditoriums, commercial structures, educational and institutional buildings, and apartment houses. There are many photographs, and they aid the text considerably.

Gaudí. Ignasi de Solà-Morales. Photography by F. Català-Roca. (Rizzoli, $14.95.)

Architect Antoni Guadí i Cornet (1852-1926) has come into his own recently so far as book publishers are concerned. In this time of expensive books, it is heartening that Rizzoli can produce such a handsomely illustrated book for so modest a price. The first 33 pages discuss the Spanish genius's work—apartment houses, park complexes, religious institutions, private residences, concentrating on his masterpiece, the Church of the Sagrada Familia in Barcelona. Contending that Gaudí's work is inseparable from the city of Barcelona, the author discusses that city's cultural milieu in the architect's formative years as well as the general condition of European architecture. The text is beautifully supplemented by more than 175 photographs, mostly in glorious color, that dazzle the eye and reveal the flamboyant nature of Gaudí's work. They show, as words cannot, the genius of a man whose work stands alone. □

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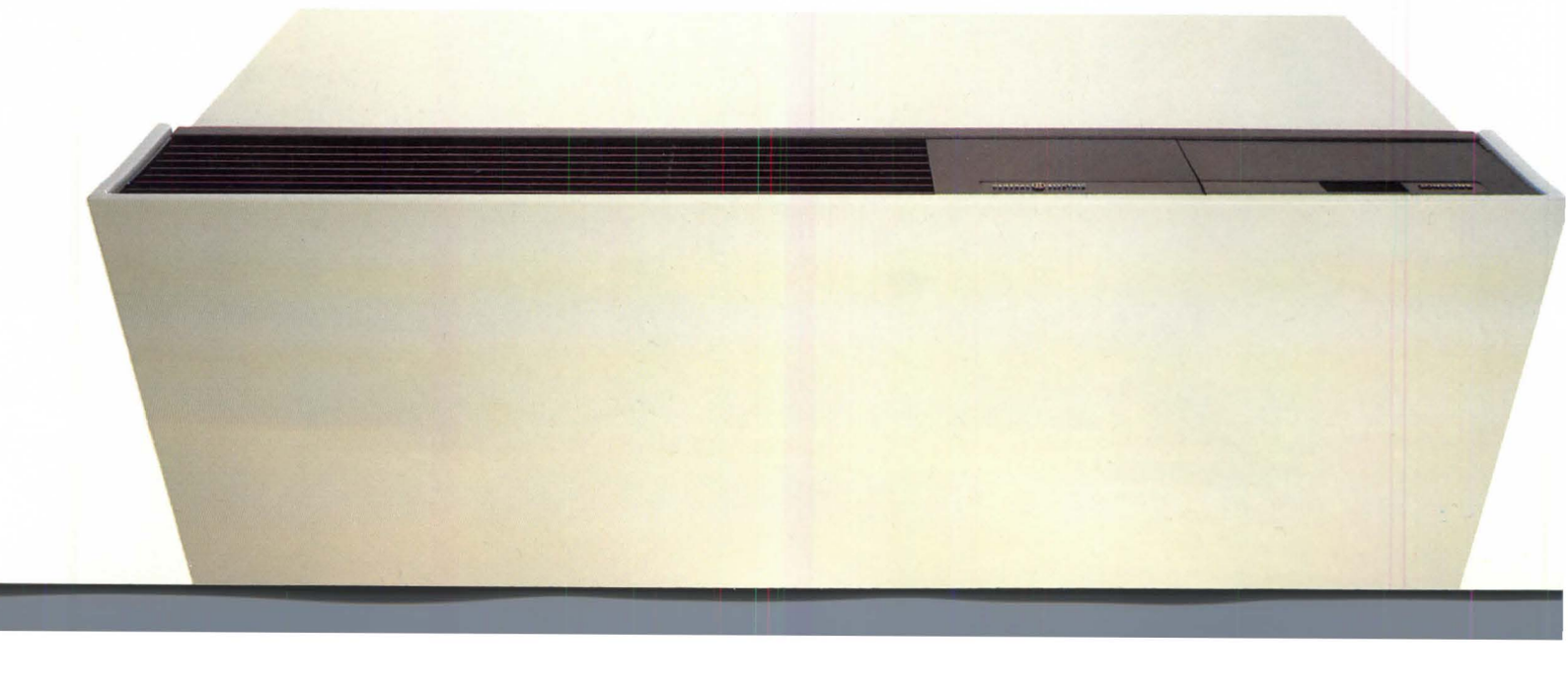

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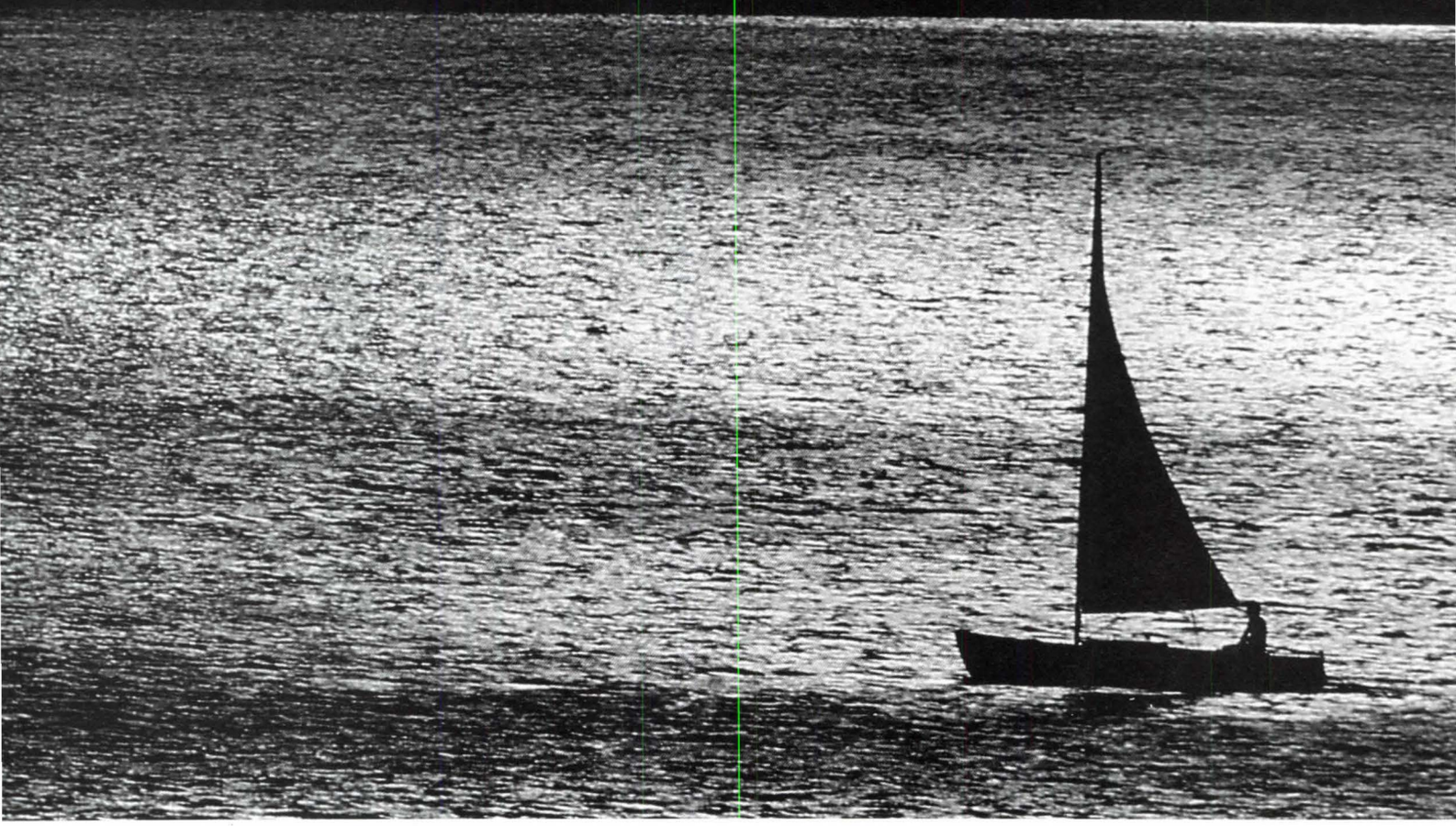

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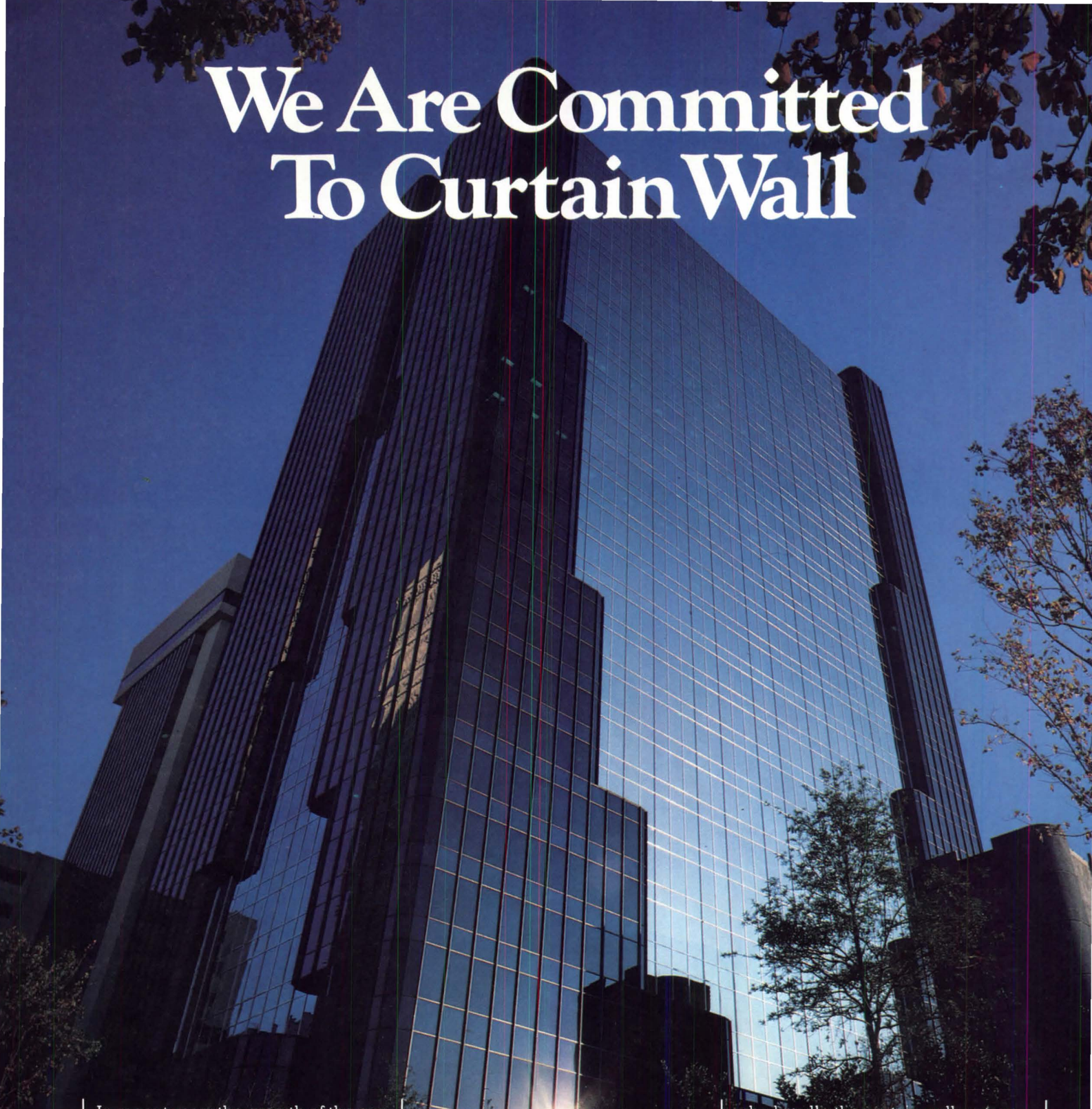

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World Architecture Annual 1984

For the third year in a row we invite our readers on a tour of the world in search of notable recent buildings (all of the world, that is, except the U.S., which we traverse editorially each May). This year, on the following pages, we visit an unusually rich assortment of buildings. Like those in the domestic annual, their most striking characteristic is diversity. It is also striking how many reflect the character and traditions of the nations and regions in which they are built. (This is partly by selection: We make a conscious effort to find buildings with a "foreign accent," rather than bland imported styles.) A final prevalent characteristic of this year's collection is contextualism. A large percentage of the buildings pay respects to, or link directly with, their older neighbors. Once again the editor in charge of this issue is Andrea Oppenheimer Dean. *D.C.*

Scotland

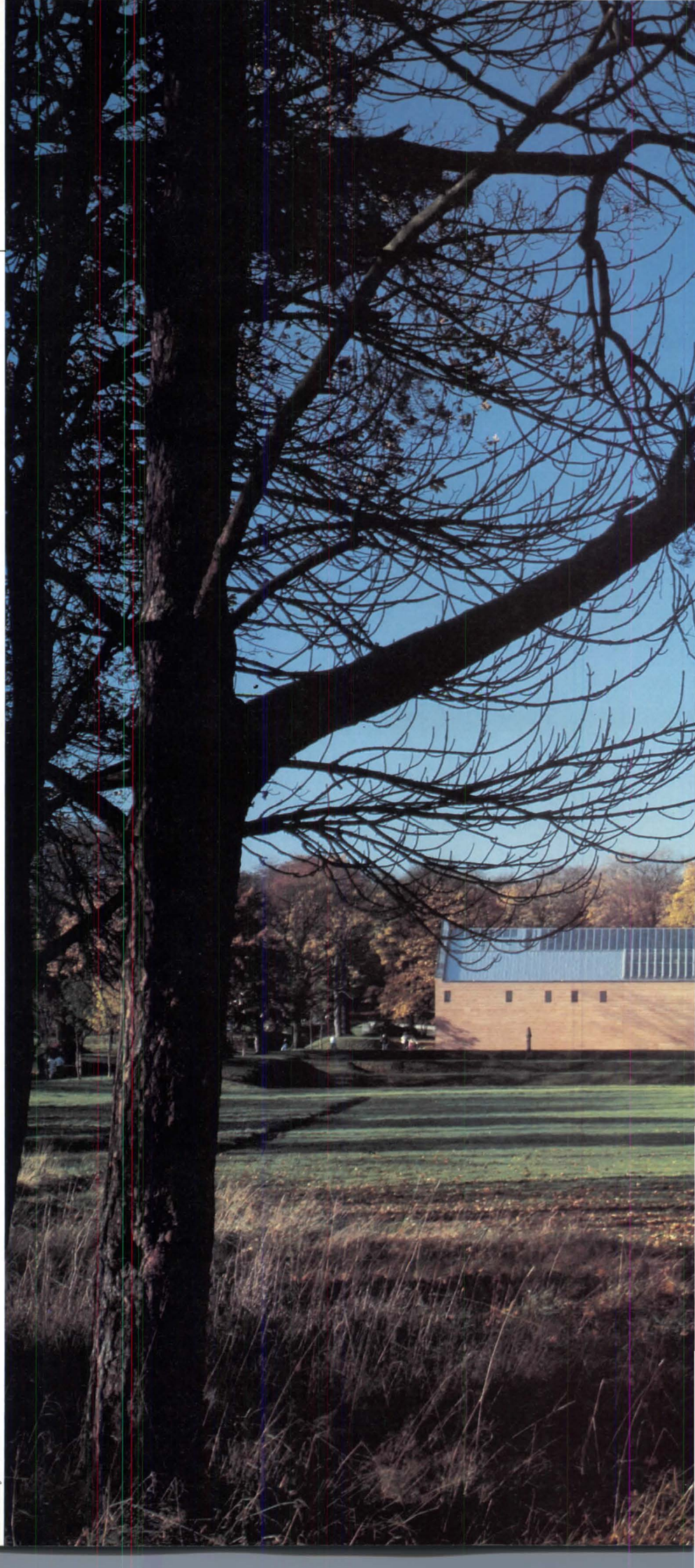
Gallery of Strong Character Blends Past and Present

In 1944, Sir William Burrell, a Scottish shipowner, gave his encyclopedic private collection of some 8,000 objects to the city of Glasgow together with an endowment to build a public gallery. It has taken nearly 40 years to bring the project to fruition, and even the opening last October of the long-awaited Burrell gallery was troubled by the city's announcement that it did not have sufficient funds to operate the building.

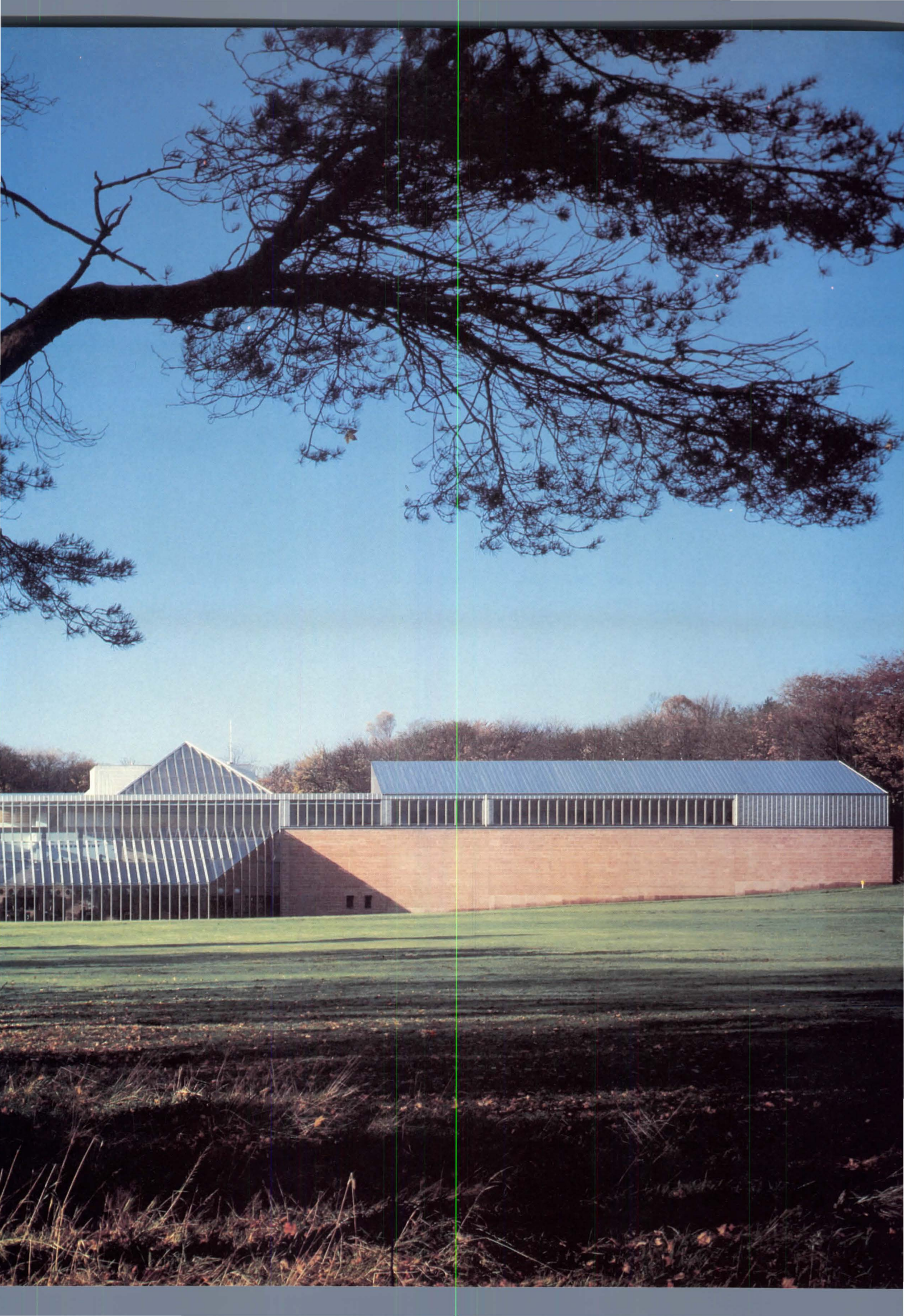
Nonetheless, the gallery—a competition winning scheme designed in 1971 by Barry Gasson with John Meunier and Brit Andreson—has scored a huge success, attracting thousands of visitors daily. Located in the park of a stately home five miles southwest of the center of Glasgow, the gallery achieves a convincing synthesis of present and past and of nature, architecture, and the wide-ranging objects in the collection.

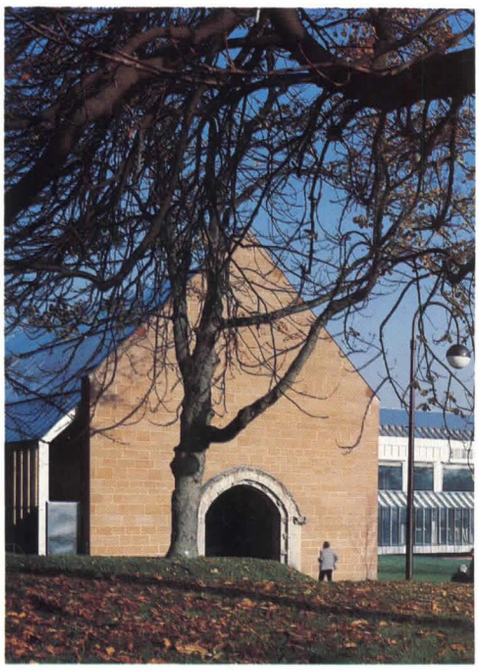
The incorporation of architectural fragments from the collection as permanent features of the new architecture, the integration of exhibition and amenity areas, and the "windows on the world" that are provided throughout—ranging from panoramic views of the site to the small medieval window placed high in the entrance foyer to frame a particular view of the treetops—all imbue the gallery with character.

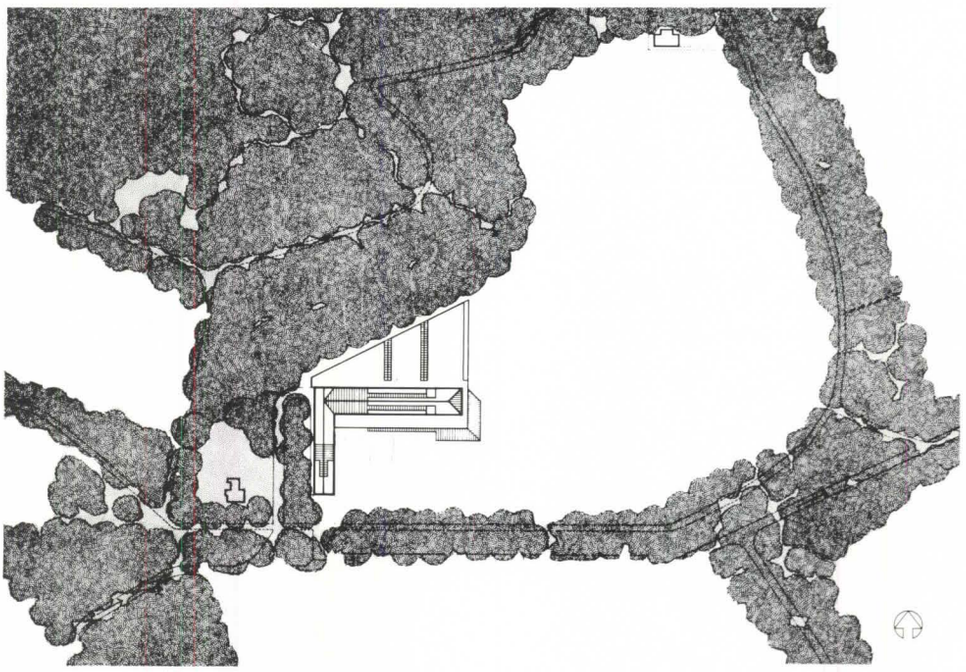
The 14,430-square-meter building, sited at the lower end of a vast sloping meadow, nestles close to woods to the north and is exposed to green fields to the south and east. From the outside, the Burrell appears—surprisingly for a museum—to be a predominantly glass building. It is in fact a series of solid rooms set within a glass showcase. Objects that are not damaged by or, like the stained glass, are enhanced by natural light, are displayed in a long glazed gallery that wraps around the perimeter of the building. Tapestries, paintings, and other light sensitive objects are located in relatively darker rooms at the heart of the scheme. The major pe-



Sited in a park southwest of Glasgow, the museum is wrapped by glazed galleries and bisected by an east-west wall.







rimeter route-cum-gallery provides for the quick tour, while minor routes detouring to the adjacent inboard rooms allow for more leisurely study of the collection.

The perimeter circulation route is marked by "events" shaped by light, form, materials, and by objects in the collection. Contrast is emphasized, not played down. In addition to the perimeter route, a major organizational device is a wall along the east-west axis that divides the building roughly in half. In the south galleries, the bright light is enhanced by warm pink sandstone walls and floors. In the north, the cool reflected light from the woods is emphasized by gray stone floors and white plaster walls.

The south-facing entrance facade reaches out from the mass of the building. The focal point of the simple church-like stone front is a portal from 16th century Hornby Castle. Within a stone lobby, unframed glass doors with patch fittings provide maximum contrast with the portico. A high toplighted foyer announces the museum shop, which is articulated as a building within the building, with a gabled interior facade, low ceiling, free-standing timber display units, and contrasting low light level. Beyond the shop, the route explodes into an elegant interior courtyard, a timber and glass roofed conservatory surrounded by the reconstructed rooms from Burrell's castle home. The courtyard is punctuated by fig trees, an immense urn from Hadrian's Villa, and a pink and gray checkered stone floor. Burrell's rooms, with windows onto the courtyard and into other gallery spaces, reiterate the theme of the building within the building.

The main route continues through an

Across page: top, north elevation at dusk; below, entrance facade with portal from 16th century Hornby Castle. Right, Oriental gallery—a brightly lit cross axis with second story bridge.

Photographs by Alstair Hunter

impressive medieval doorway that frames a view of the woods, then turns to reveal the north galleries. The long north face of the building, sliced off at an angle, is completely glazed. The angle of the facade relative to the structural geometry creates a series of pockets of double height gallery spaces all intimately related to the woods in a manner reminiscent of the Louisiana museum in Denmark.

Tall concrete columns carry laminated timber beams and the exposed timber deck of the roof. At the external wall, chunky parallelogram-shaped timber struts carry roof loads onto a low level beam and support the glazing. The timber screen might have been more successful if it had been limited to the high level, with only the concrete columns coming down to the ground.

Along the length of the north galleries is a variety of natural lighting conditions. Soft, muted side lighting from the woods contrasts with bright toplit cross axes that slice through the building from north to south, providing shortcuts on the route and views of the out-of-doors at both ends. This device orients visitors deep within the building as they pass between dark exhibition rooms. The double height north galleries are overlooked by mezzanine level exhibition/study areas.

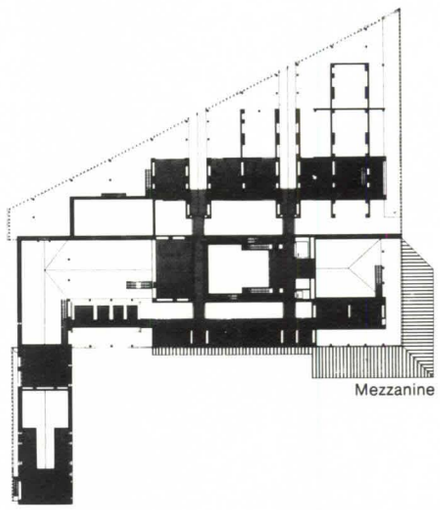
At the northeast corner of the building the route turns again and focuses on another medieval doorway in the distance. The approach is via a tall, narrow, and relatively dark paintings gallery. Reentering the south galleries through the portal the sense of enclosure gives way completely. Wall becomes balustrade and solidity is transformed into a fully glazed conservatory that houses the sculpture gallery and temporary exhibition space at the main level, with stairs leading to the museum restaurant below. Trees inside the restaurant obscure the boundary between architecture and parkland. The restaurant is cleverly made to work as gallery space with much of the secular stained glass collection displayed to advantage between the timber mullions in the south and east facing glazed walls.

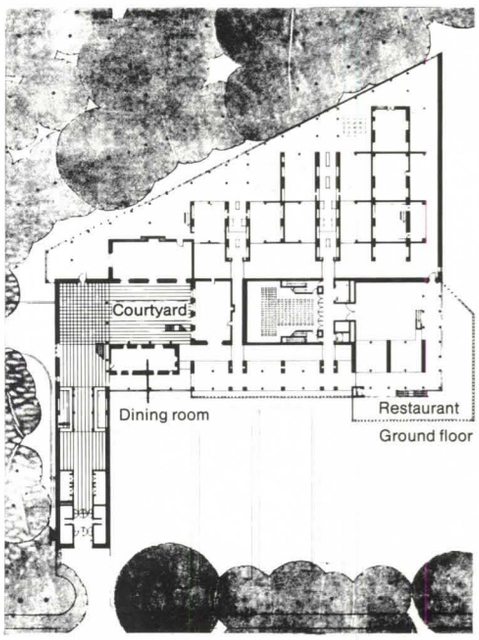
With the restaurant turning the corner, the route continues along the south side of the building through a zone heavily structured with paired columns that provide a sunny entrance porch to the dark tapestry galleries set back from the edge of the building. A final narrow south-facing stained glass gallery delivers visitors back to the museum foyer and shop.

The inside of the building deftly exploits a rich mix of sections, materials, and lighting effects. The exterior, by contrast, is surprisingly consistent. Along the extensive and fully exposed south and east elevations, the Calvinist severity of stone, glass, and stainless steel is austere and monotonous, without string courses or contrasting trim in the massive sandstone walls. Even the vernacular stepped stone gable, so frequently seen in the area, is eschewed in favor of a simple gable end, making the entrance facade unnecessarily plain. Adjacent to the entrance, the stainless steel access door to the caretaker's flat attracts undue attention to itself and might have been set back or more subtly integrated into the otherwise symmetrical composition.

The simplicity of the building, which is

Alistair Hunter





Above, south-facing stained glass gallery. Across page, north-facing sculpture gallery with medieval doorway.

a disappointment on the exterior, works to advantage within. The building is architecturally rich but does not upstage the objects on display. The structure of the interior courtyard and the galleries, for example, is almost barnlike in its directness. Simple steel shoes transfer beam loads to the columns, which still bear the seam lines of their molds. Massive security shutters that rise out of slots in the floor to protect the glazed north facade at night are handsomely made to look rough and tough with unfinished zinc panels face fixed onto a steel frame.

Air is distributed within thick walls between galleries, freeing the ceiling zone for natural and artificial lighting. Ordinary galvanized industrial air supply grilles are set discreetly between the rafters, and the return units are let into the stone skirting of the gallery walls. Small spherical chrome light fittings, suspended on slender rods, do not distract from the exhibits. Natural light—which has generated cumbersome automated screening systems in other galleries—is simply controlled by manually adjusted white fabric roller blinds within the building and by push-button controlled PVC-covered glass fiber exterior blinds, which are tuned by staff when natural light levels exceed the maximum. Even with two screening systems, the blinds are hardly noticeable and the direct quality of the natural light in the galleries is refreshing.

While dignified, the unassuming nature of the building makes it seem less pompous than a museum and more like a home—a successful transformation of Burrell's private residence where the collection was originally kept into the public domain. It is hoped that Glasgow will find the resources to keep the museum open for a long time. ANNETTE LECUYER

Ms. LeCuyer is a designer and writer living in London.

Hungary

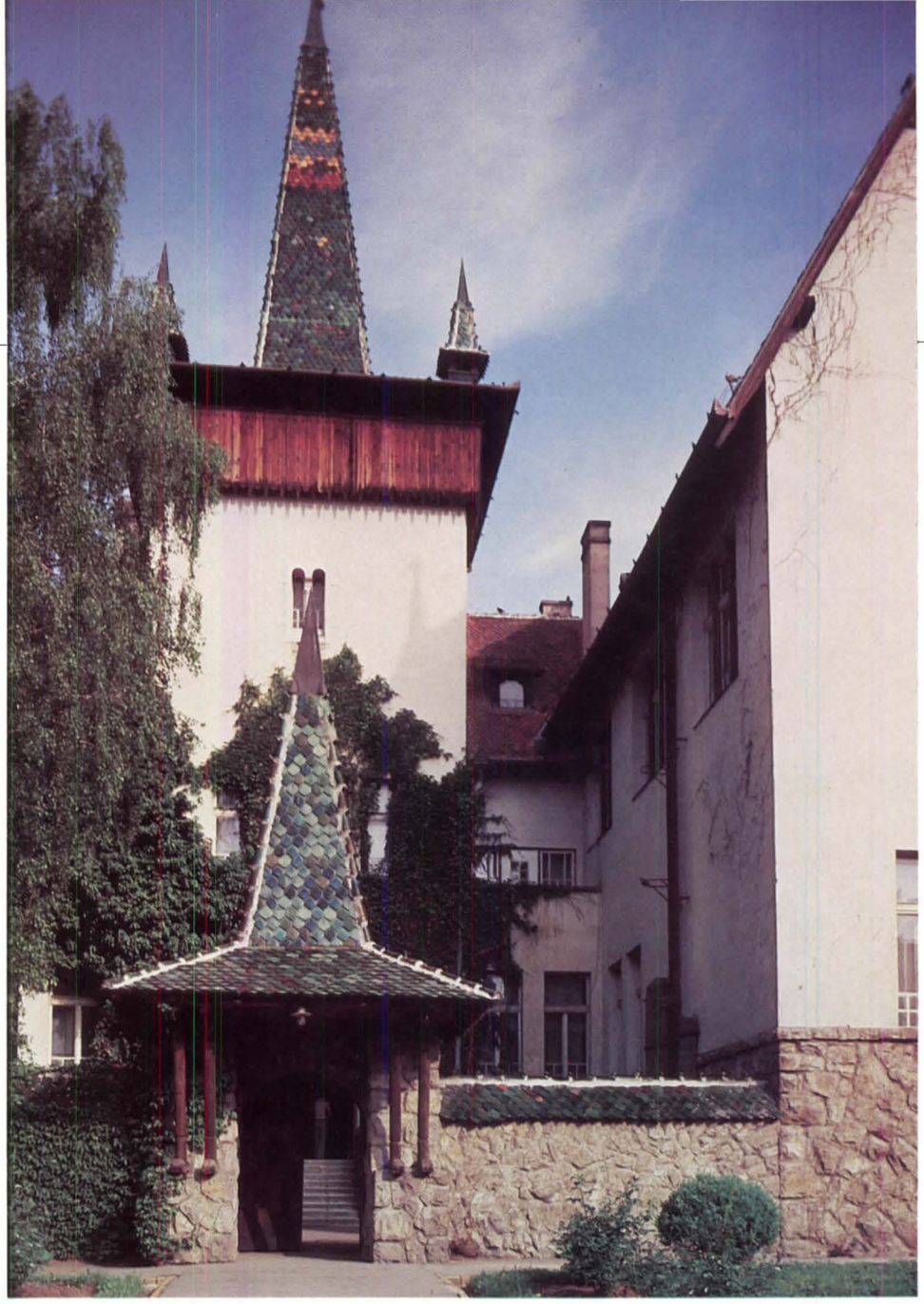
A New Movement To Reflect Indigenous Forms and Materials

The predominant design tendency among young Hungarian architects, locally called organic architecture, is rooted in an indigenous vernacular tradition. By the 1960s modernism was viewed with widespread disillusion in Hungary, and the search was on for a more appropriate architectural language. Postmodernism's symbolism, wit, and purpose had little meaning for most Hungarians, and its neoclassicism suggested something completely different than in the West. For a Hungarian it recalled first the authoritarian Hapsburg imposition of German language, culture, and bureaucracy as expressed in neoclassical buildings imported directly from Vienna. It also recalled the more recent German aggression of World War II symbolized in stone by Albert Speer, plus Stalin's dictatorship as embodied in overblown, Corinthian-columned structures.

The current search for an architecture that grows out of the local soil parallels a brief turn-of-the-century movement when Ödön Lechner and his colleagues set out to create a national architectural style.

Lechner's attempts occurred at the fortunate confluence of several factors: Art nouveau, by declaring war on 19th century eclecticism, paved the way for the new national style, currently called national romanticism. The strong influence of English arts and crafts in Europe guided the national romantics toward the vernacular, folk architecture that was still rich and abundant in the Hungarian countryside. Nationalism, which opposed the ruling Hapsburgs as well as Hungary's Slovak, Serb, Croatian, and Rumanian minorities, was another impetus. The examples of an intense national romantic movement among the Finns also served as encouragement to the Hungarians, their linguistic cousins.

Lechner was soon followed by a younger generation under the leadership of Károly Kós whose work between 1900 and 1914 went beyond Lechner's in analyzing folk architecture. Kós and his group used in their work what was accepted as the essence of rural vernacular: plain wall surfaces where nonhistorical ornament is limited to the space around openings and to the junction of architectural members; strong, dominant roof forms; an emphasis on truth to materials and craftsmanship.



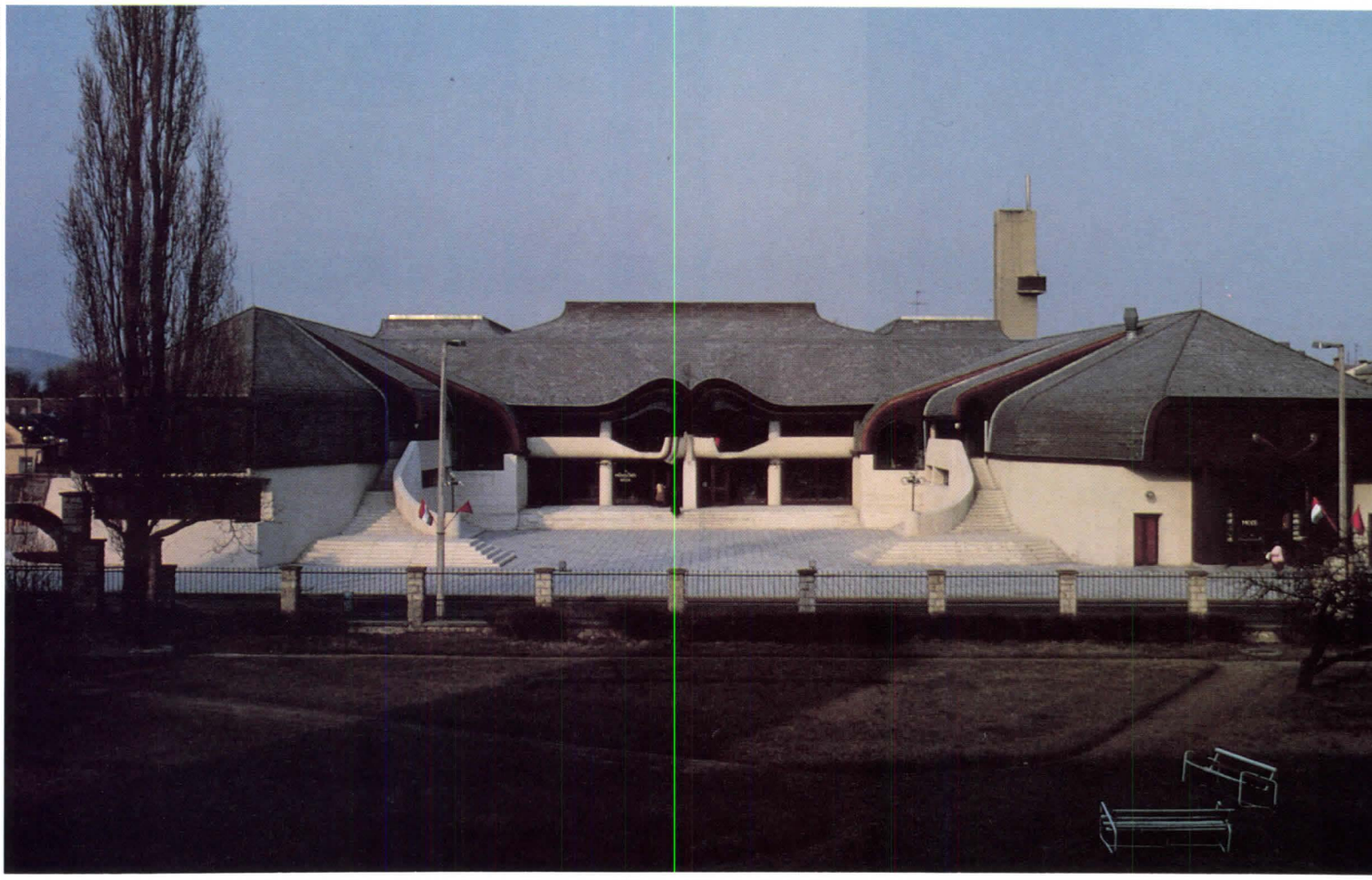
An antecedent, K. Kós' Folk Art Museum of 1912 in Sepsiszentgyörgy.

The death of this flourishing movement after World War I was caused by economic conditions, the policies of a reactionary government that commissioned buildings in the official neobaroque style, and to the emergence of modernism. Village-inspired architecture revived for a short period in the 1940s as a reaction to the Bauhaus and again, though minimally, after World War II in the work of architects who rejected slavish adherence to Stalinist neoclassicism (misnamed social realism).

The current revival of vernacular-inspired architecture was also born under the banner of resistance to the soulless sameness of postwar housing epitomized by ubiquitous panel-built mid-rise apartment buildings. Centralized planning and a large, government-run architectural bureaucracy resulted in a stripped, anonymous modern style that not only disregarded local context but practically destroyed the historic village or town. This movement was spearheaded by Imre Makovecz who is still considered its leader. Besides Makovecz's group of young followers in the city of Pécs, the other outstanding and independent figure of the new direction was József Kerényi in the city of Kecskemét, whose sensitive historic preservation first dramatized the problem and helped fuel the new vernacular-inspired movement. By the early 1980s the movement had gained international attention.

"Architecture that is not born out of local inspiration may be outstanding in volume and space, may be elegant, may be good art, may be anything, but it cannot be a vital influence in our cultural life," says Makovecz. His work, however,

Photographs by John Macsai



Imre Makovecz's 1983 cultural center in Sárospatak.

is not simply "local"; in addition to local forms, scale, and material it shows many other influences. He is an astute student of Hungarian folk art; he has devoted much of his time to analysis of human movement systems; he is a follower of the philosophy of Rudolph Steiner (anthroposophy); and his work is clearly influenced by Gaudí, Aalto, Wright, Goff, Herbert Greene, and the Dutch and German expressionists.

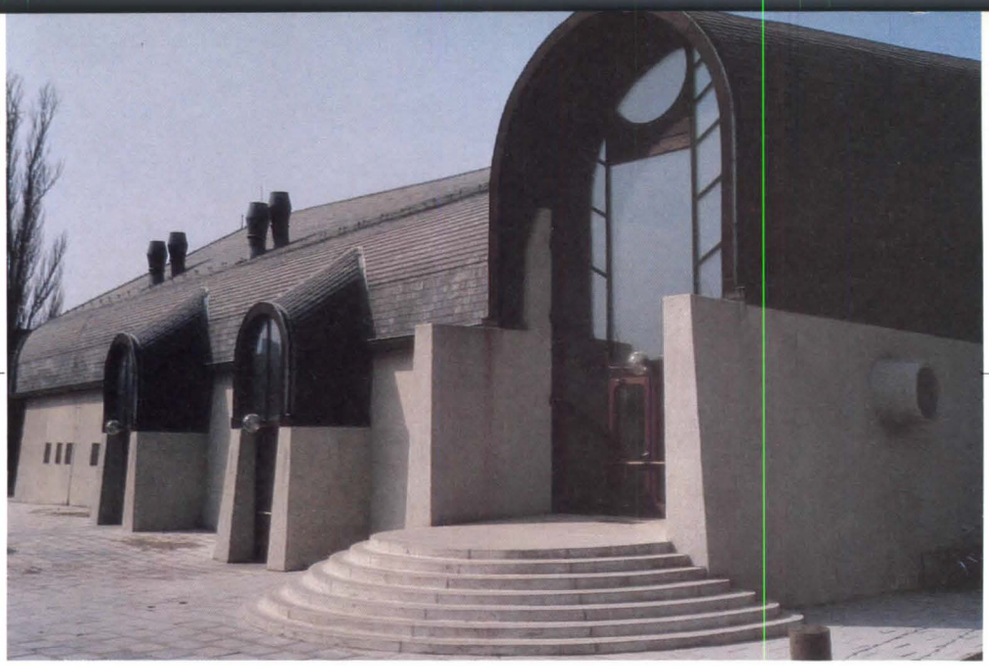
His recently completed cultural center in the historic college town of Sárospatak faces an L-shaped, turn-of-the-century school and responds to this charming building by completing its space with a new U-shaped configuration. This U also clearly articulates the three major components of the buildings: auditorium in the center, library in one arm, cafe and exhibit space in the other arm, which also incorporates a pre-existing movie theater. The building's fundamentally symmetrical arrangement easily tolerates asymmetrical wings with one wing even slightly skewed to accommodate the position of the movie theater. The scheme embraces the plaza and has arms or wings giving rise to its frequent comparison to a gigantic bird. The central face with eyes over the entrance feeds constant anthropomorphic references surely not accidental in the work of an architect who admires Steiner.

The three major functions of the cultural center are linked by a wide cross-corridor perpendicular to the central axis that serves as the major circulation spine between the main entrance and the side entrances at each end of this corridor. In addition, each significant function in the building (library, cafe, movie theater) has its own entrance from the plaza or from the street, inviting the public to wander in and out. Makovecz says he "intended to express and foster democracy" with the floor plan.

The white limestone aggregate concrete base that seems to grow out of the paved plaza (early schemes actually showed a mound around the building reaching to the top of the concrete) and the dark reddish-gray slate roof relate to each other in a ratio that reflects the wall-to-roof proportions of typical two-story buildings in small Hungarian towns. The tentlike roofs recall rural roof shapes, and the slightly tilted concrete walls are reminiscent of the whitewashed massive adobe walls of village houses. The roof weaves, as old countryside barn roofs so often do, in order to accommodate various functional needs. Makovecz's characteristic calligraphy, strongly inspired by the floral shapes of Hungarian folk art, is present everywhere: in the undulating concrete forms, in the meandering roof shapes and eave lines, in softened, rounded corners.

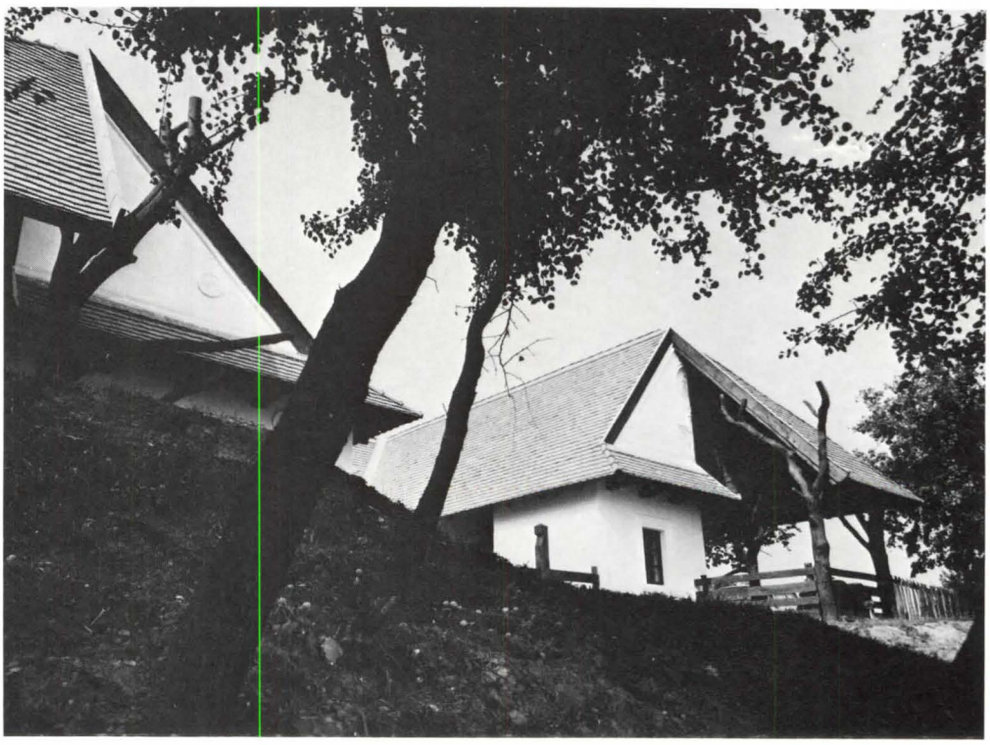
The contrast of concrete and slate con-

John Macsai



John Macsai

White walls, dark ceilings of Makovecz's cultural center, across page, echo motifs of exterior; the rear facade is shown above. Center's branchlike elements become actual trees used as supports at restaurant, in Visegrád, right. Below, Mogyoróhegy camping area resembles tribal ceremonial ground.



Ferenc Callmeyer

John Macsai

tinues in the building's interior where walls are white concrete or plaster and ceilings exposed wood construction stained to a natural hue. Everything inside, from light fixtures to furniture, is carefully designed in the same spirit of rural craft.

Characteristic of many Makovecz buildings and indicating a strong continuity from one structure to another are the interior supports, concrete columns above which wood members branch out and grow into space like live trees.

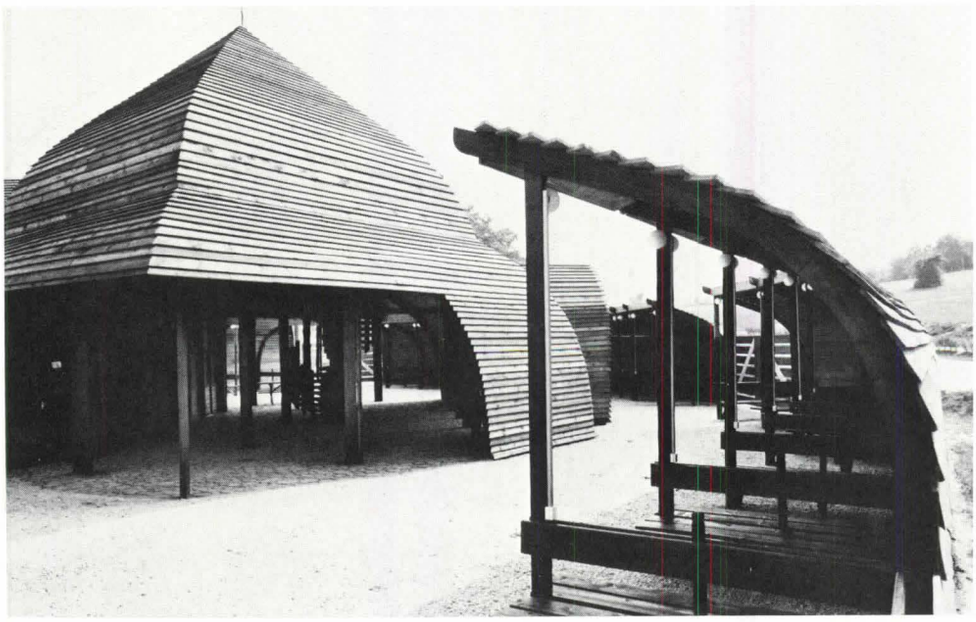
The logical next step was to use actual trees in their natural shape as "organic" supports, which Makovecz did in the farm-restaurant in Visegrád (1980). This building is carefully designed in the shape of the courthouse, an age-old Hungarian farm type. The inner half facing the court is enclosed and treated traditionally, while the outer half, which serves in the summer as an outdoor eating area, is split away, opened up, and supported on actual tree trunks. The building is full of symbolism, achieved by subtle and witty detailing.

Makovecz's Mogyoróhegy camping ground began in the mid 1970s, and new structures have constantly been added. The most recent, the two food service buildings (1980), are examples of his interest in simple, almost archetypal shapes in wood construction and veneering that covers the building from ground to roof.

The open air eating area resembles a tribal ceremonial ground. The semi-enclosed, tentlike structures surrounding the central open space appear as mysterious reminders of huddled helmeted heads of ancient warriors. The restaurant

Ferenc Callmeyer

Ferenc Callmeyer



building consists of a central, enclosed circular space with a semi-open ring surrounding it. Perched effortlessly on the gentle slope of the mountain, it resembles a rock that has been there for ages.

József Kerényi, the other outstanding figure of the movement, was instrumental in the redevelopment of the old city center in Kecskemét. Four churches (one dating from the Middle Ages), a monastery, and several turn-of-the-century buildings were restored or retrofitted by him: The monastery became the Kodály music academy, the synagogoue was turned into a lecture center. Some insignificant buildings were demolished to "liberate" the good ones, vehicular traffic was banned from the center and replaced by a much used park that unites this historic assembly of buildings and creates a harmonious whole out of structures of various vintage (including a modern hotel).

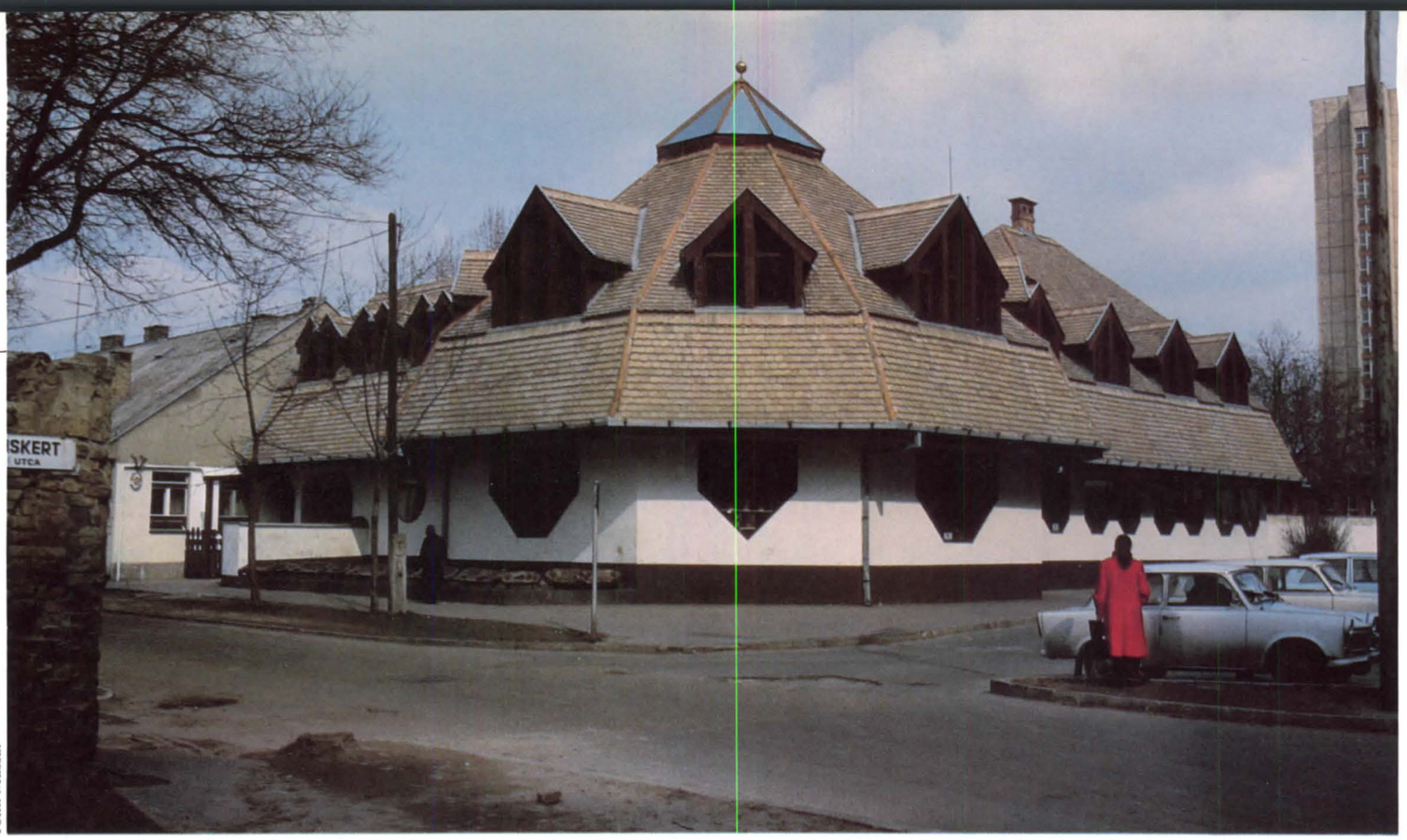
His buildings seem to effortlessly fit into the local context.

Kerényi's recent toy museum (Kecskemét, 1980) is a direct outgrowth of his contextual sensitivity, except here both site and program called for a less self-effacing architectural solution. While he perpetuates village scale and imagery (white walls and prominent tile roofs), as well as village detail (dormer windows, entrance fence), he freely invents round, octagonal, or dumbbell shaped windows in the playful spirit of children's toys. In a similar mood, the roof shape itself, exuberant, blown up in scale, and richly silhouetted with many dormers, not only gives the building presence and identity, but also recalls the enchanted palaces and castles of Hungarian children's stories.

In addition to respect for folk art, continuation of local tradition, and love of local craft, there is another common characteristic running through the work of Makovecz, Kerényi, and others of the organic school—the scale of their buildings. Their proportions fit beautifully into the small Hungarian town. Yet this charming scale, though desperately needed to salvage the disappearing townscape, presents challenge: What would be these architects' approach to larger buildings such as high-rises? Makovecz's four-story apartment building (under construction in Sárospatak) indicates that he can transcend the two-story village scale yet still does not meet the challenge of a 12-story building on top of which the prominent sloping roof is not very likely to be successful. The unanswered question remains whether large scale structures can be designed in the organic manner.

When confronted with these questions, Makovecz responded that " . . . I am not about to be commissioned by the state to do a high-rise office building or a major hospital." Then he thought for a while and smilingly added, "I wish though I could get such a commission and have an opportunity to prove my architectural ideas in a different scale." We hope that he, Kerényi, and their colleagues will be given such a chance soon. JOHN MACSAI

Mr. Macsai has his own firm in Chicago. Research and travel for this article was made possible by the Graham Foundation for the Arts.



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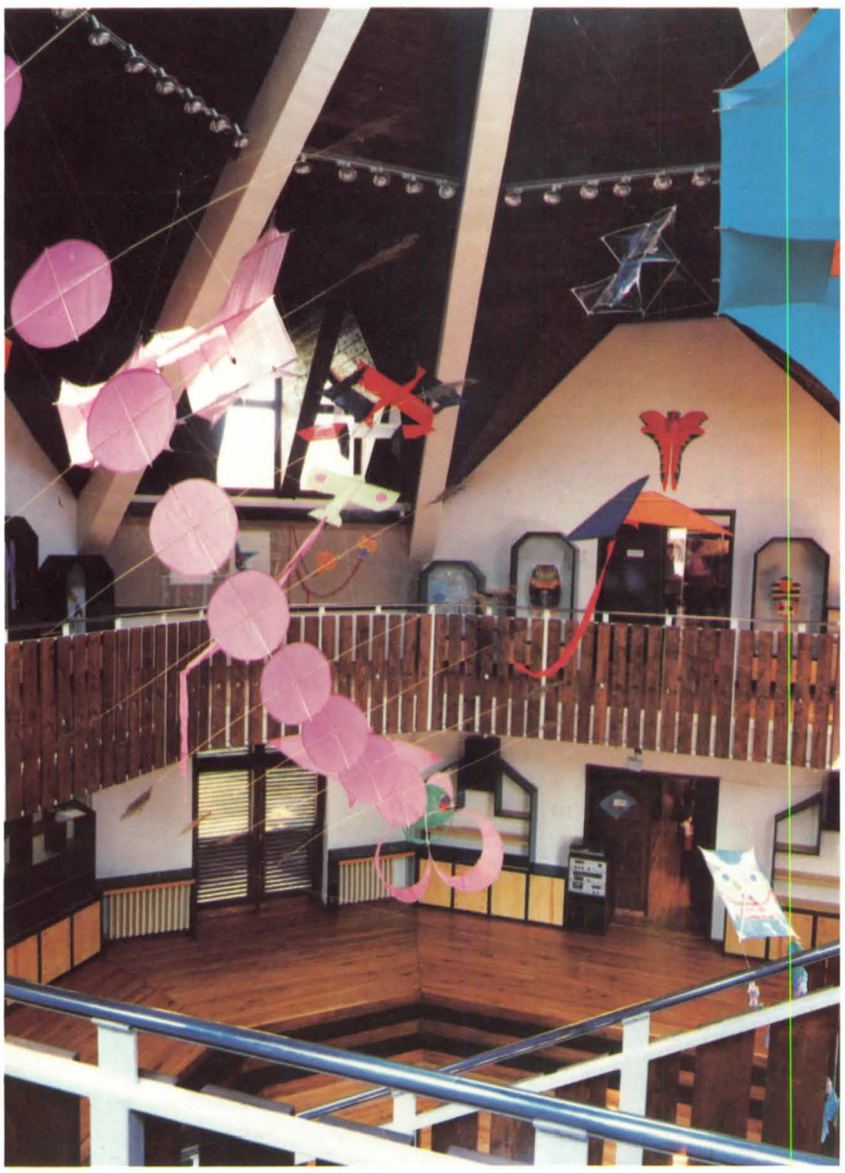
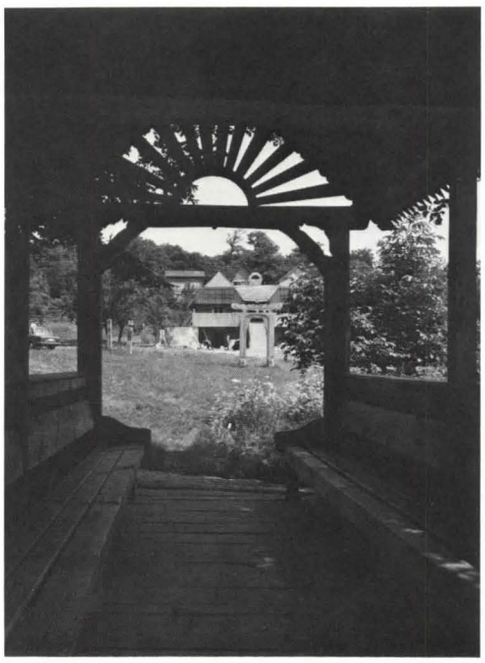


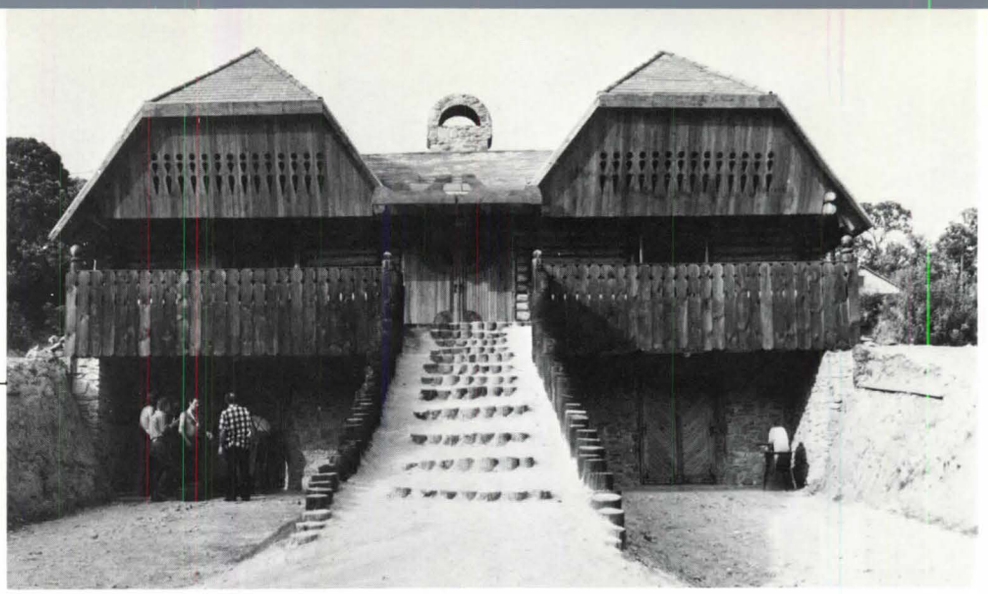
John Massai

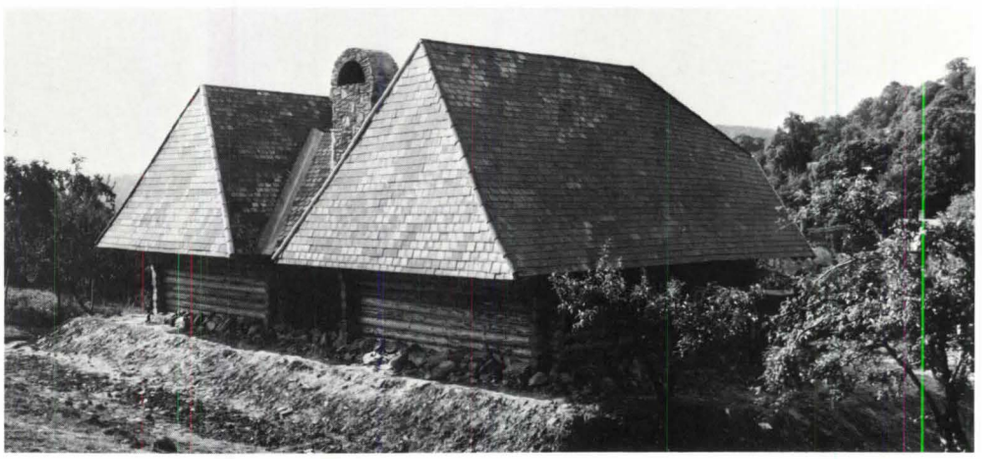
John Massai

Makovecz's open air restaurant, across page, an inner closed space encircled by a semi-open ring, seems to grow from the ground. Kerényi's toy museum, this page, retains village scale and imagery but is transformed into a fairy tale-like fantasy through fancifully shaped openings and selective exaggerations.

Hungary







Seemingly Sculpted Woodcarver's House And Covered Bridge

"My designs are not creations of fantasy, or of production or economy, but creations of my ancestor's life. They are part of a continuity, concerning housemaking, lovemaking, knowing each other. In a word: honor for life." This was an answer to questions put to Andras Erdei by the Finnish magazine *Arkkitehti* during an exhibition of Hungarian New Wave Architecture in Helsinki. Together with Imre Makovecz, Gyoergy Csete, and other young Hungarian architects, Erdei is convinced that the rural tradition of the past can be revitalized in contemporary buildings through use of local materials and forms.

Erdei was asked by Laszlo Peterfy in 1978 to organize a workshop for his woodcarver friends from the Vas country. As earlier Bartok and Kodaly revived Hungarian folk music, the woodcarvers revived the tradition of rural wood carving and integrated it into contemporary life.

The selected site for the woodcarver's house was at the southern slope near a spring in the center of the village of Velem, and the purpose of the building was to create a meeting place for the woodcarvers and their apprentices. In the process of working out the design, it was decided not only to build the house but an ensemble of related buildings to explore a lost tradition and to incorporate its symbols.

As the first symbol, a covered bridge was built to replace an old one that had been destroyed. Both crossing the water and acting as an invitation to the inner area of the woodcarvers center, the bridge separates and connects at the same time. The second symbol is the dragon gate, which is halfway between the bridge and the house and serves as a midway sign for the traveler approaching the house. The third symbol of the Velem ensemble is the house proper in its traditional shape, the front analogous to the face of a human being. The fourth symbol is the interior of the house, which is metaphorically used as a shelter. In the center is the hearth symbolizing the sun.

The functional needs of the building are secondary in relation to its symbolic relevance. The two-story structure contains a workshop for the woodcarvers on the ground floor, a fireplace on a lower level, and a second floor gallery for resting and sleeping, which is reached by a central outside staircase. Construction of the house and related structures was completed in 1981 by 30 to 35 woodcarvers as a practical experience in revitalizing their profession.

It is important to recognize the human-

Left, the small complex's three elements, the covered bridge, dragon's gate, and house, its front at top, its back, above.

istic attitudes of the Velem experiment. The architect articulated his feelings when he wrote: "There is room for doubt regarding the architectural method employed in the building of the workshop in Velem. I am sure that this is not the best solution to reinterpreting and humanizing architecture in our present time. It has its problems, but one thing is certain: Beyond the technical and architectural scope of the task I was pleased because a living community accepted me, and not only me, but a whole house that entailed a concept which I never dared to dream of before. Everybody suffers from the lack of a sense of community. What kinds of artifical forms do we create in lieu of examining the cause of this alienation? When we verged on losing this kinship suddenly a gate became ready, soon afterward a plan was made, and a few months later a house. I think we built a memorial to comon work, belief, and thought. We became believers again, believers in Man." Udo Kultermann

Mr. Kultermann is professor of architecture at Washington University, St. Louis, and is author of Architekten der Dritten Welt *(Architects of the Third World).*

Czechoslovakia

Office Building Stylishly Completes Historic Square

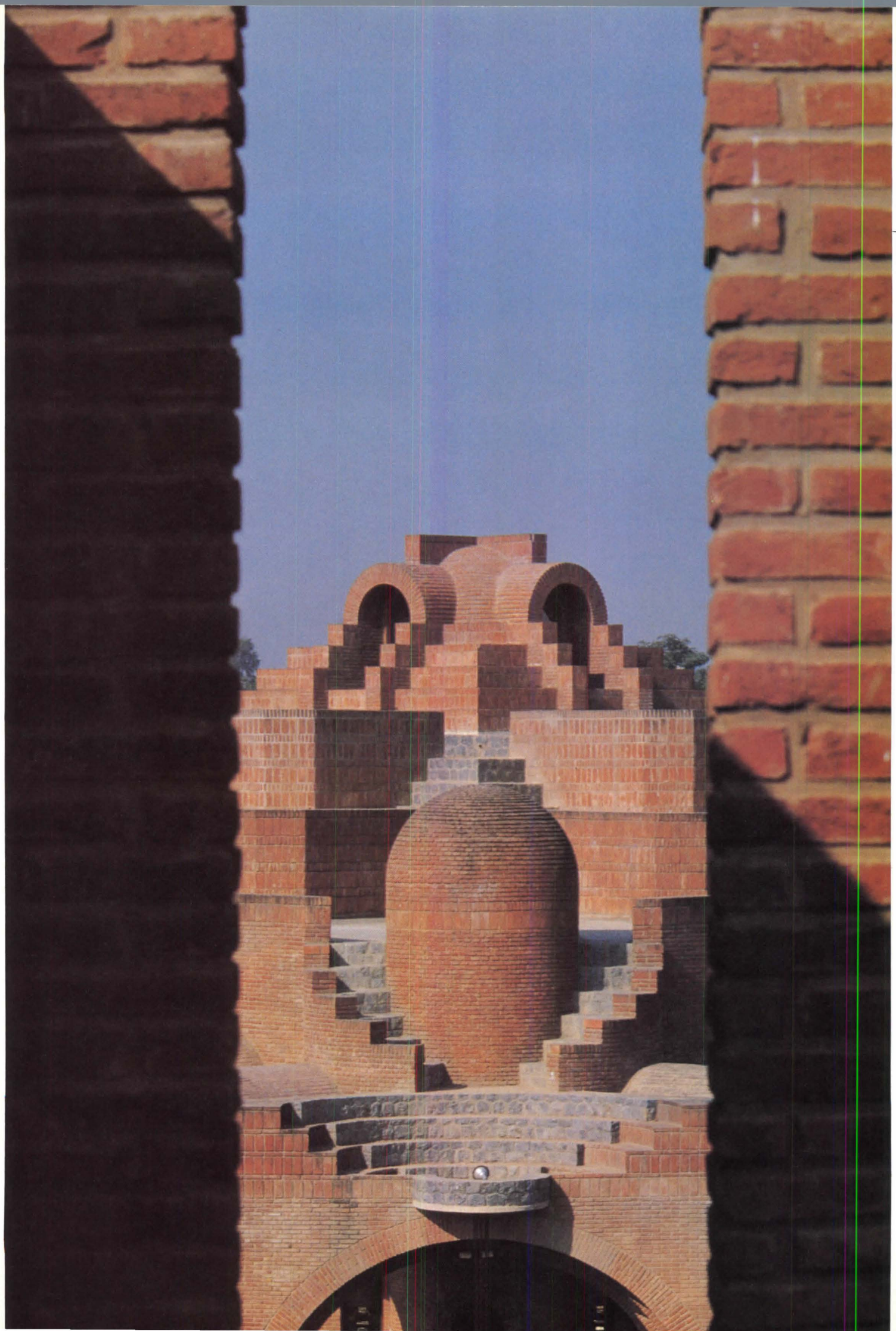
The design for the Universal Office Building by Alena Srámkoýa, which was begun in 1974 on the Wenceslav Square, had to fulfill two requirements. It had to serve as a closing wall of the greatest public space in the city of Prague and relate harmoniously to the urban fabric of the city's old town with its historical monuments dating back to Gothic and baroque times. The architect successfully combined these needs and created not only a functional five-story administration building, but also interconnected important historical areas in central Prague.

The facade facing Wenceslav Square is a continuation of the other buildings, mostly from the 19th and 20th centuries. It relates to the adjacent facade of the neighboring office building and is emphasized at the corner by means of a glass wall. The glass structure on the side of the roof facing the square is topped by a large round clock, which is visible from a long distance.

The facade on the street that leads into Wenceslav Square is articulated in a different manner. It has open space that interconnects building and street and an enclosed staircase that leads to the second floor. The building both interconnects and separates the new and old parts of Prague, each of which contribute to its architectural identity. A subway station is part of the overall structure, as are a trade center, restaurants, offices, and other facilities.

The building in its conservative architectural articulation, in the tradition of Auguste Perret and Erik Gunnar Asplund, interconnects and harmonizes areas of the urban fabric from different periods, while having an identity all its own. U.K.

The building completes the enclosure of Prague's principal public square, respecting its historic neighbors but achieving its own distinct identity.



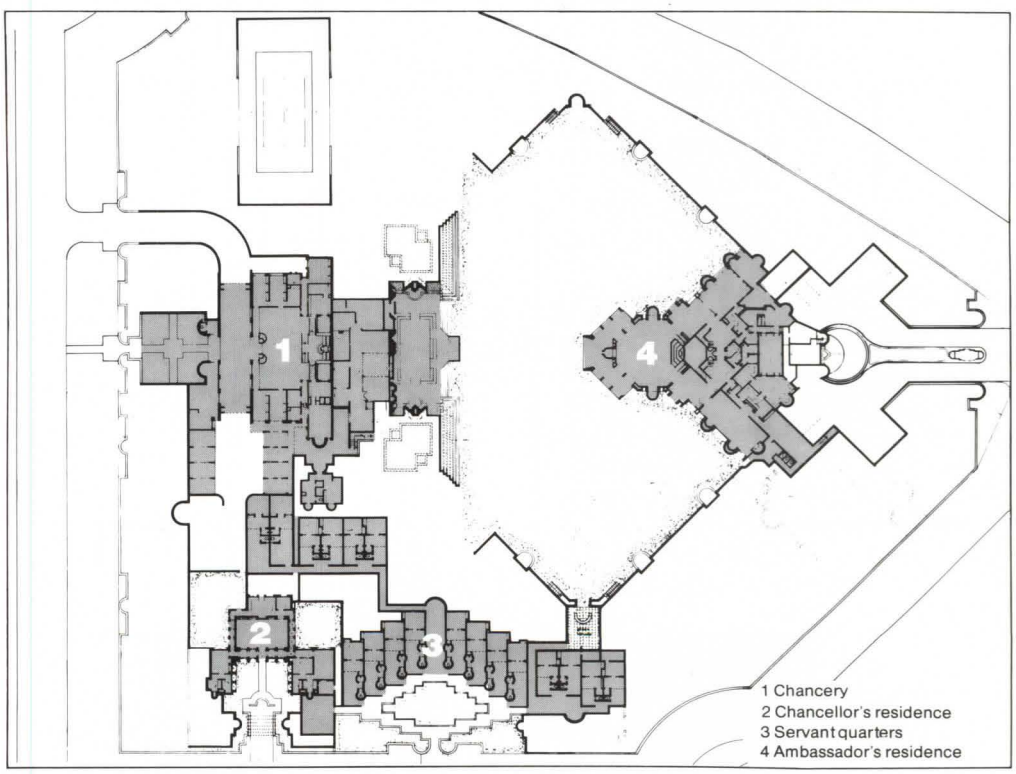
India

Sculptural and Sensual Embassy Complex for Belgium

The recently completed Belgian Embassy complex in New Delhi by the Indian artist and architect Satish Gujral is what one feels contemporary Indian architecture should be. One feels it should impress with layers of historical evidence, yet be inventive rather than imitative. It should be full of strong sculptural forms and colors, sensual and mysterious on the outside, yet full of surprises, airy, and light on the inside. It should feel very old, pragmatic, and wise, yet very new, vibrant, and creative—all at once.

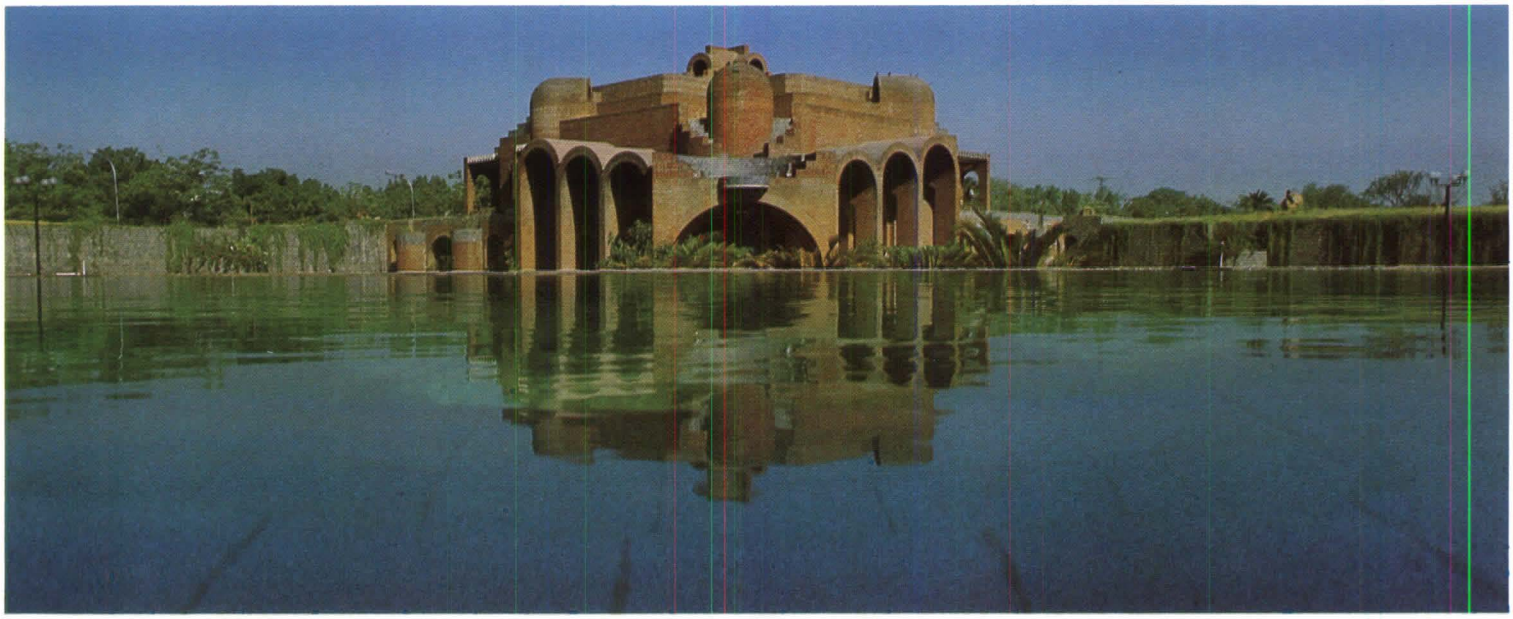
The complex, consisting of a chancery building, ambassador's residence, staff quarters, and a chancellor's residence, had to be able to function as a whole and as separate parts. The ambassador's residence, in addition, needed to have a sense of privacy and a large garden space for entertaining. And though Satish Gujral stands "against the vulgarities of functionalism," as he puts it, he has conceived a very functional ensemble, for which he acted as landscape architect, interior designer, sculptor, as well as architect.

The site is a flat, five-acre triangular plot facing Shanti Path, the major street in New Delhi's diplomatic enclave. Through cut and fill Gujral transformed it into an undulating terrain of different levels and garden terraces that suits functional requirements and adds visual interest.



Two views of ambassador's residence: above, entrance; opposite, roof drain.

The two major buildings, the chancery and ambassador's residence, are organized around an axis perpendicular to Shanti Path and bisecting the triangular site almost equally. The chancery is positioned to face other embassy buildings;



the ambassador's residence has a more residential corner location at the tip of the triangle. The chancellor's residence and staff quarters face the side lane.

From the street side Gujral's retaining walls in local gray stone create a series of landscaped terraces that form a streetscape, yet provide a visual barrier for privacy. From within the compound, the buffer of earth and landscaping generate a feeling of intimacy and privacy without the claustrophobia one frequently feels in Delhi's more typical gardens with high walls.

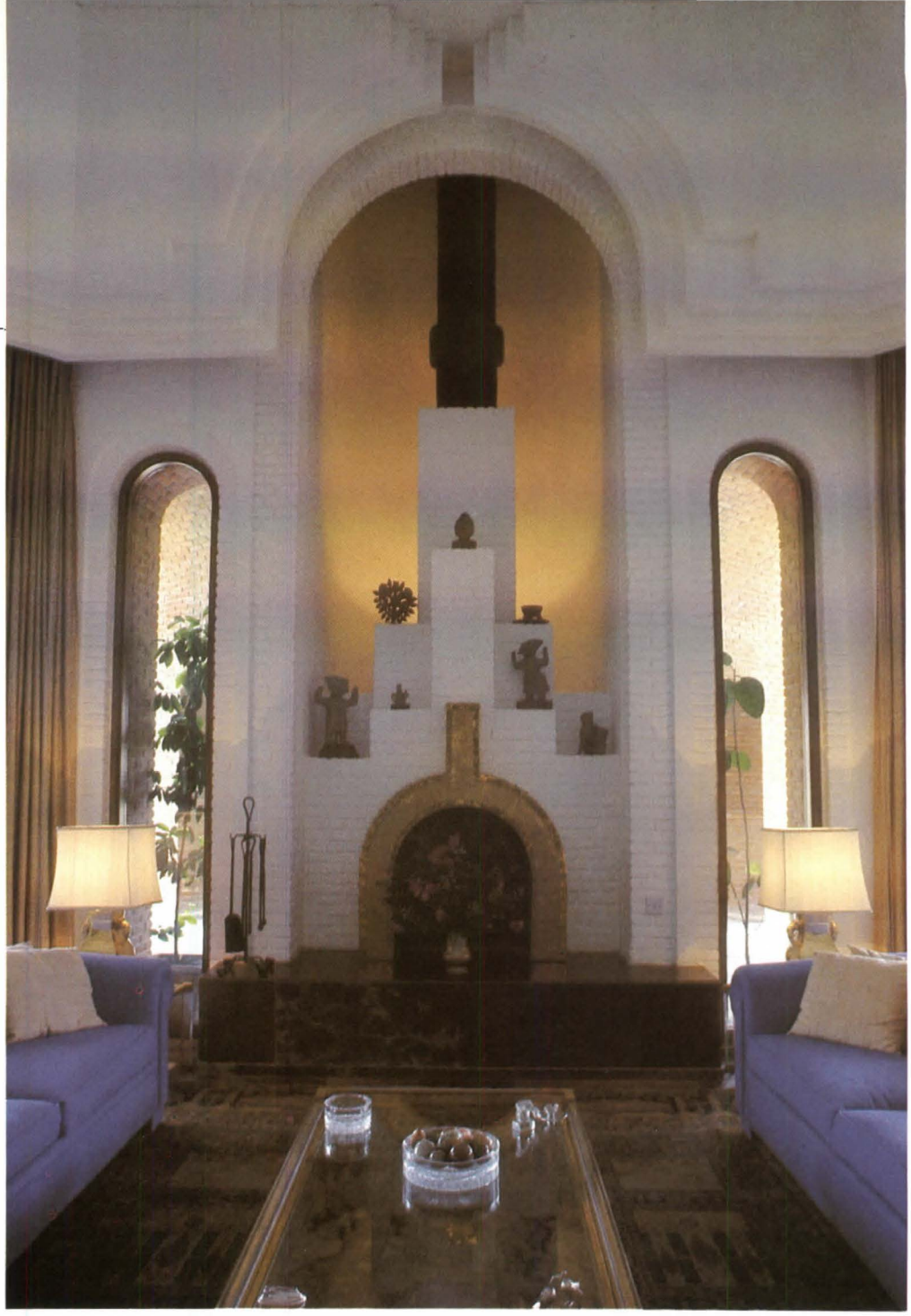
The extensive landfill keeps the summer temperatures down without airconditioning. Use of water on the exterior enlivens the landscape and helps create a pleasant micro climate where the air is continuously cooled through evaporation.

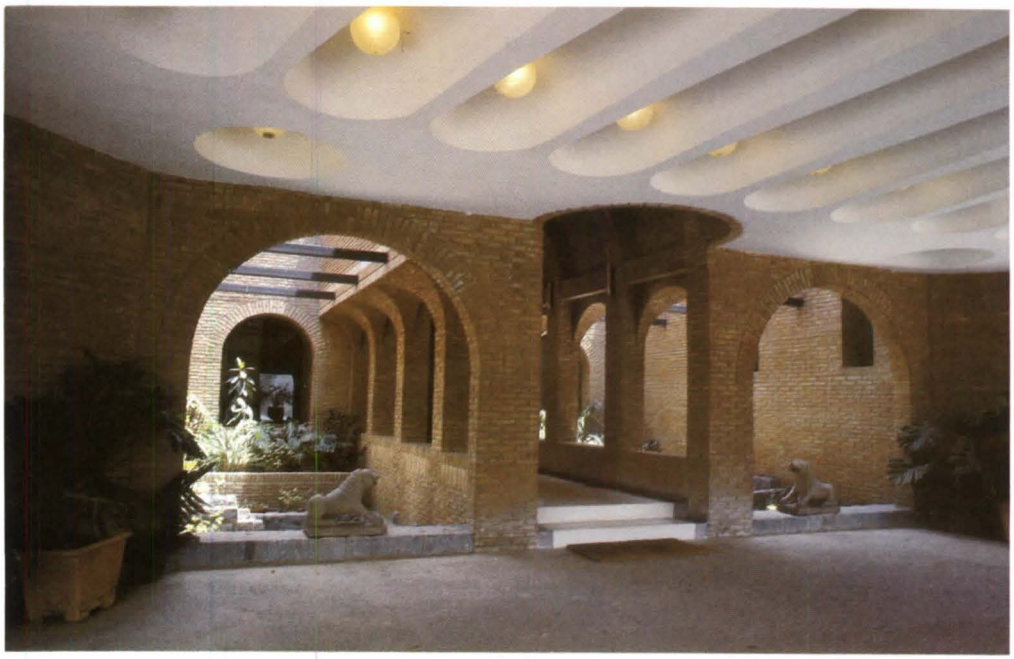
All buildings are faced in local brick, and all the retaining walls are indigenous stone, the best and most easily available construction materials.

The tour de force of the complex is the ambassador's residence with its garden, swimming pool, voluptuous exterior forms, and spatially complex interiors. The tip of the triangular plot on which the residence was to be located was about one meter higher than on the Shanti Path side. Gujral turned this seeming disadvantage into a bonus by raising the driveway level at the residence, thus positioning the entrance lobby at roughly the first floor level. As one enters the one-story structure through a processional arcade flanked by fountains one is overwhelmed by a drama of interior space that explodes in all directions—up, down, and sideways where the garden is framed through magnificent arches. The processional stairway, with a fountain and grand lobby, serves as the major entertaining space. It is immaculately detailed. Materials are few, mainly white marble with brown trim on the floor and brick painted white on the walls. In the kitchen and bathrooms there is plenty of beautiful ceramic tile, custom designed by Satish Gujral's artist wife. Such attention makes these areas, which in India usually receive low priority in design effort, into glamorous and exciting spaces. However, the element of surprise, the light, the spatial drama, the sophisticated articulation of all surfaces, all finally create an experience of perfect balance and offer exceptional visual rewards. One senses many historical references, especially to Moghul palaces, but interpreted in a decidedly contemporary language as just a subtle reminder of a once glamorous past.

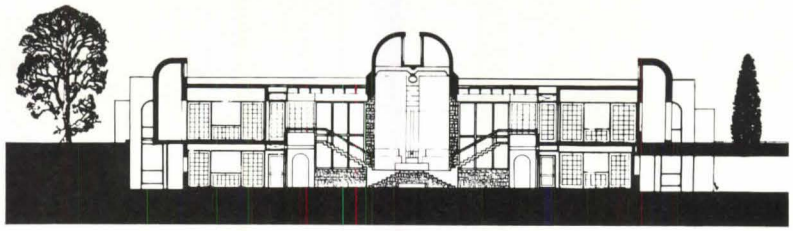
The residence is organized around the axis in two almost equal halves, one for the ambassador's use and the other for the use of frequent visitors. The ambassador has his own offices, private dining, living, and bedrooms on one side of the grand lounge; formal facilities are on the other. Both areas are approachable through the grand lounge and also by separate stairs, thus preventing disruptions while the grand lounge is in use. The social functions taking place in the grand lounge can expand into the gallery of covered patios accessible through arched openings on both sides of the lounge. This transitional spatial layer affords spontaneous and easy movement between interior spaces and the garden.

Facing the garden side of the residence is an idiosyncratic and beautiful, three-dimensional mural, also by Gujral, which forms a backdrop for the swimming pool and a connection between the chancery and the residence.





A 'tour de force,' the ambassador's residence has complex space exploding in several directions and separating public from private areas: right, the entrance; above right, grand lounge; above, a wall niche. Opposite page, rear elevation reflected in pool.

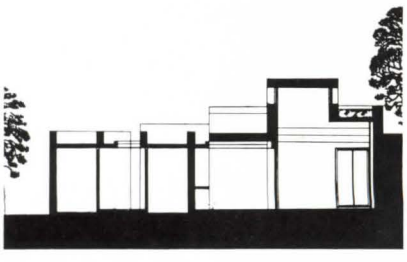


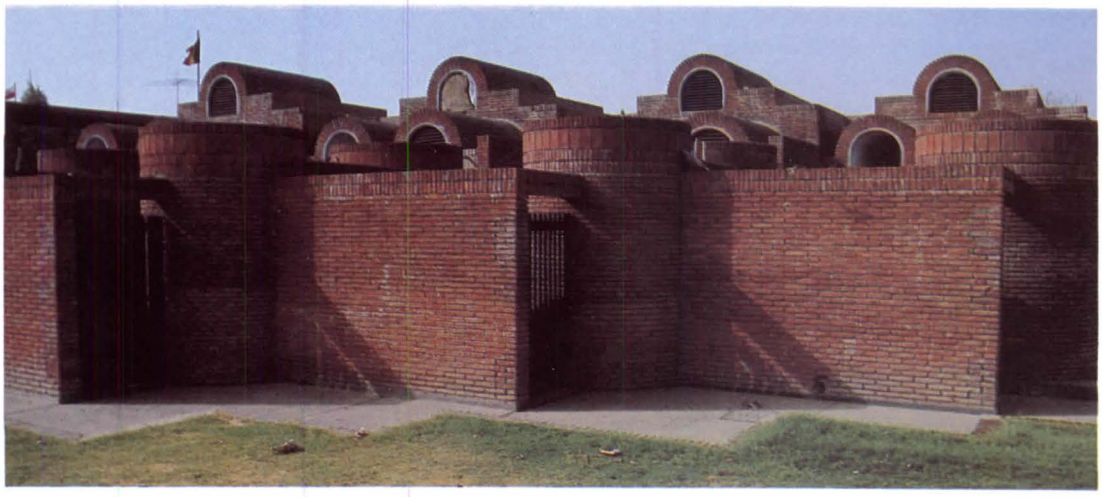
In conceptualizing the chancery, the major challenge was to give an imposing image to a program that could be accommodated in a very small building. Because some embassies across the street are large, high-rise buildings, the problem of scale difference and image becomes extremely important. In response, Gujral created a large two-story atrium, also used as an exhibition space, around which he organizes all the required office areas. Even so the chancery is a small building compared to its neighbors, but its presence is undeniable.

Adjacent to the chancellor's house are staff quarters oriented toward a side street. Though each unit consists of only one room and kitchen, with sanitary facilities, there is great beauty and dignity in this modest accommodation. This is achieved in part by skillfully planned common grounds, to which each unit relates through a private court. The sanitary facilities enclosed in cylindrical brick forms are integrated with a party wall and create a strong separation between the units. Consequently, a feeling of pride in possession, rarely found in typical low income housing units, is very much in evidence here. SYLVIA GOTTWALD

Ms. Gottwald is a practicing architect in Washington, D.C., and visiting design critic at Catholic University of America; she visited India during the winter of 1983-84.

Opposite page: top, the swimming pool, terraces, and fountains behind the Chancery, with its entrance at left and front lobby, right. This page, two views of the staff quarters.





India

Intricately Woven Fabric of Housing, Streets, and Spaces

In his Olympic Village housing in New Delhi, Raj Rewal recognizes the neighborhood as the critical building block in cities and has gone back to the basics of traditional urban Indian neighborhoods (Mohallas). After careful analysis of old villages and what makes them work, he translated their planning principles, with all the familiar spatial elements and symbols, into a contemporary architectural language. Olympic Village is, thus, a synthesis of modern amenities and building techniques with old cultural patterns and symbols.

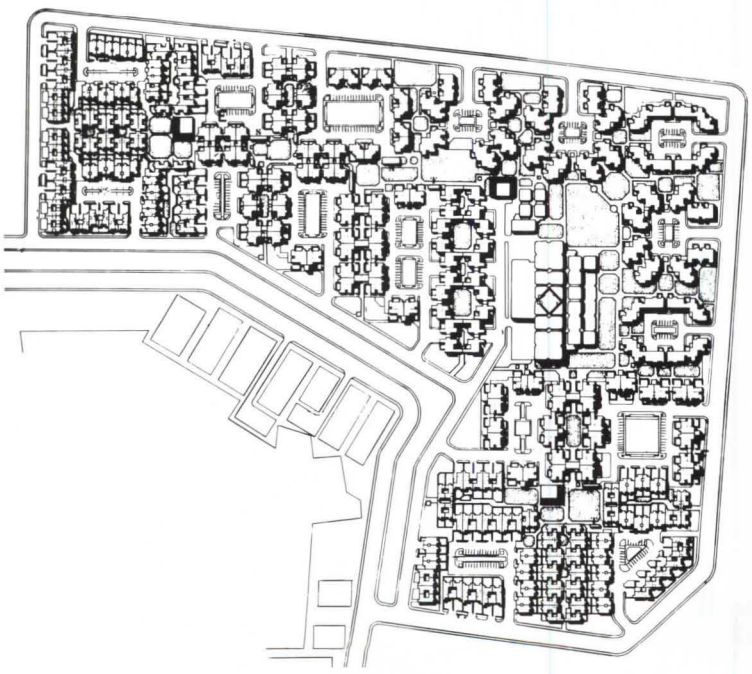
The complex is in South Delhi near the medieval ruins of Siri Fort on a 35-acre plot. The Delhi Development Authority was the client, and the fairly dense complex (28 units per acre) is made up of 700 units of which 200 are town houses, the remainder apartments. There are also commercial and recreational facilities.

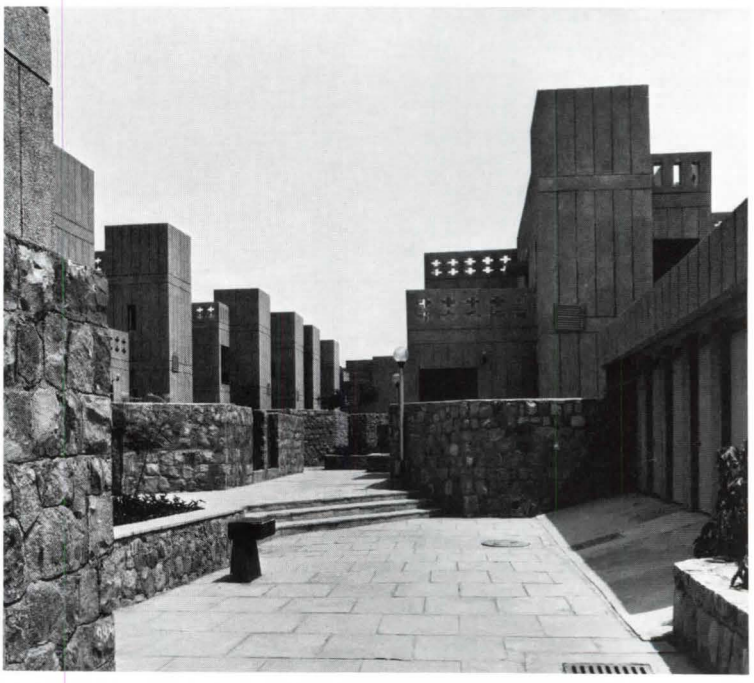
The site plan was generated by linking a network of narrow pedestrian streets with clusters of residential and commerical buildings and a system of small and large open spaces. The hierarchy of primary and secondary pedestrian networks is well established; the same is true of open spaces, which range from very private to completely public, with appropriate changes in scale and accessibility. Vehicular traffic is totally separated, yet 80 percent of the units are approachable by car since parking areas in cul de sacs are located adjacent to the residential clusters. For bicycle and scooter users, there are garages at each entry into a residential cluster.

The main pedestrian spine, which recalls familiar main streets in Indian small towns, is full of surprises, due to constantly changing vistas, scales, and mixtures of commercial buildings with housing. The size of residential clusters also varies. Each contains anywhere from 12 to 36 houses and terraces and connecting walkways overlooking the pedestrian network. The apartments range in size from 960 to 2,150 square feet. Each has its own private courtyard or terrace and has access to a larger, semi-public open area.

In order to give further identity to each cluster (Mohalla), Rewal uses doorways of different colors, which are potent symbols in every small traditional town. He carefully positions them to define the territory of each cluster and to create the symbolic boundary line between the different neighborhoods. By differentiating clusters through different bright accent colors, Rewal gives a sense of territoriality while transforming a basically monochromatic scheme into a rich palette of color. This and other design devices create a comfortable scale despite the size of the project, and Rewal has created opportunities for socializing plus protected play areas for children.

Rewal uses local materials that are easily available and affordable. Most courtyard walls are Delhi quartzite stone, in mellow tones of gray, while exterior walls are a sand-colored aggregate, which is especially suitable considering Delhi's frequent dust storms. Rewal's good judgment





Contemporary rendition of traditional neighborhood plan—clustered housing linked by paths, bridges, small and large open spaces shaded by balconies—in Delhi quartzite stone, sandstone, and aggregate.

in use of materials is underscored by neighboring projects with white facades that are already full of black streaks and give an impression of age and decay.

Climatic considerations have also been very important. Most units have cross ventilation, and even private terraces are cross ventilated by means of perforated openings in the parapet, which add another visually pleasing element to otherwise solid walls.

In talking about his intentions Rewal said, "The traditional values in the small town, its streets narrow, shaded, and vitally alive, are totally missing in new urban developments. I wanted to create a sequence of spaces, respecting human scale and brought to life by a judicial mix of recreational and commercial spaces. Because traditionally housing was never an isolated phenomenon, commerce was part of the total urban environment, I felt a serious attempt could be made with Asian Olympic Village housing to create a new urban pattern evolved from these basic values." S. G.

New Zealand

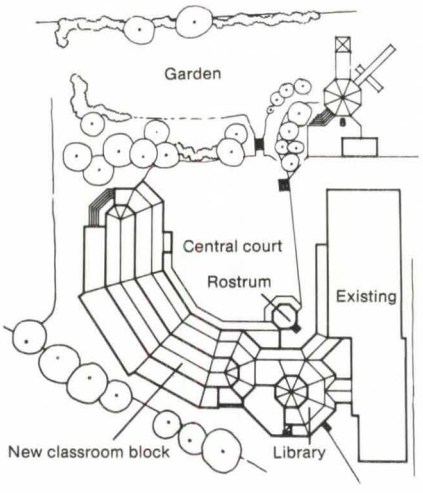
School with the Scale and Character of a House

Our best New Zealand architecture personifies E. F. Schumacher's "small is beautiful" maxim. The most creative New Zealand architects solve their problems, for the most part, with pragmatic sense and sensibility. This unselfconscious approach to architecture has found a clear expression in domestic timber architecture. A New Zealand architecture of heart and downright common sense celebrates the small and the personal.

Within this ethos Gerald Melling's Worser Bay School in Wellington is a search for informality and fantasy in educational and architectural terms. This is never easy within restricted budgets. But in his design Melling has sought to replace the boxed mentality of an irretrievable cell block of 1898 with a new open-schoolhouse approach of flexibility, identity, and fantasy. At the same time his architecture seeks out and encourages a creative response from pupils and teachers, so that together they may heighten the experience of learning together in groups, in twos and threes, or individually if required. Melling's building then can be considered as a generator of the learning environment.

Any school that is going to generate a dialogue between the teacher and the taught needs to be a values statement in itself. What are these values embodied by this school? First, the building is small children's territory and must engender fantasy, be able to be enjoyed, and create a variety of places to work and play. Second, the addition must generate a center for the school and fully exploit its setting: sun, garden, impressive views of Wellington's harbor entrance. Third, this school is in New Zealand, and therefore the architect has used forms and materials traditional to the country and for the most part recognizably domestic: weatherboards, corrugated roofing, timber windows, barn and verandah forms.

There are two sides to Melling's answer to the challenge of values. First, he has planned the building as an extension and a transition from the conventional classroom block it appends. Second, in physical terms and capitalizing on the existing



1972 simple, gabled building, Melling has created a cradling clerestory arm, which hugs the perimeter of the site creating a central courtyard that defines the heart of the school. But the challenge is compounded by the problem of linking an "old" education system and an "old" building with a "new" educational system and a "new" building. To achieve this, Melling has used the library as symbol and center of learning, by using it as a physical hinge between the old and new. Beside it is the major point of entry to the school, and this is reinforced by the library's octagonal form and fantasy hat. This form is reflected and repeated in the apsidal ends of the classroom block, the elevated rostrum, and the play structure and slides that reach out toward the garden and the harbor beyond.

Internally, the generous timbered volumes under the cranked open roof structure define the major teaching spaces: There are two on either side of a central, raised teacher preparation mezzanine. The edges of these major spaces are variously appended by lower scaled adjunct spaces for more personal and private activities like storytelling. These introverted small-group meeting places are made up of carpeted steps or tiers and are called *kivas* or enclaves. The very essence of a successful *kiva* lies in its relative seclusion and coziness, which places a strong emphasis on appropriate scale and use of materials.

This additive planning principle is translated into the section and volume of the building, which stimulates delight and movement as well as exploiting the switchback changes in level along the edges of the site. The interior impression is of magnanimous volume with an abundance of mystery and personal accommodation for the individual at its edges.

From the members of the six-person

teaching team and the pupils one receives a host of wholesome reactions. The teachers thought the learning environment "lent itself imaginatively to play and drama." The teaching spaces "were socially and esthetically stimulating—more so than the traditional classroom box." . . . "They allow different types of learning situations to arise." . . . "They are flexible and easy to use and cross group." Some children said they "liked the *kivas* because the teacher couldn't see them." But the teacher quickly replied, "I can hear you." In all, one senses a strong domestic response to the learning environment.

As a parent of two children attending this school, I am comforted and pleased to hear these sentiments from the users of this open-schoolhouse. Clearly this school is a personal and a human place to be. Indeed, architect Melling has created an enduring, cradling metaphor of the mother's arms. This is the memorable feeling of this school. And here is personal New Zealand architecture at work. RUSSELL WALDEN

Dr. Walden is reader in the history of contemporary architecture, Victoria University of Wellington, New Zealand. He edited The Open Hand, Essays on Le Corbusier, *published by MIT Press.*

Cozily scaled and employing domestic materials and forms—corrugated metal, verandahs—new courtyard, heart of school, is across page. At left, a typical timbered interior space under cranked open roof structure.

Provocative Church With Columns that Seem to Genuflect

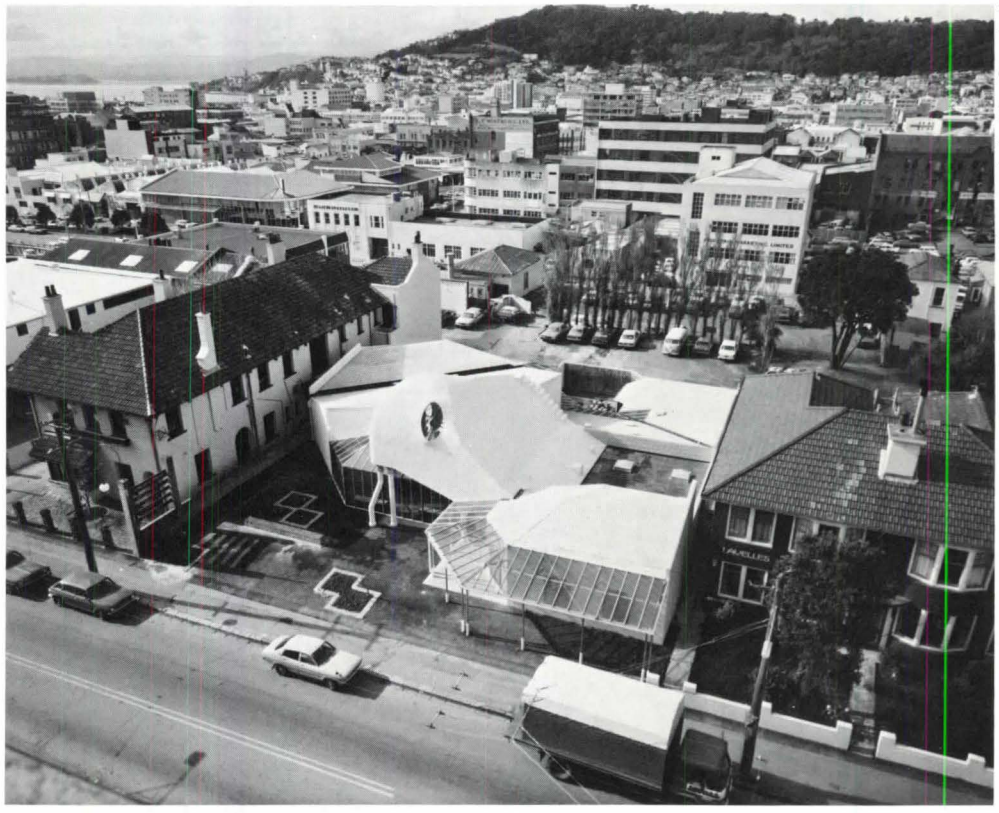
Once perceived by his New Zealand colleagues as a mere *enfant terrible,* Ian Athfield has matured into a potent architectural *provocateur.* His buildings persist in asking fundamental questions of the people who use and experience them. They are deliberately ambiguous—romantic and pragmatic, comic and contemplative, rational and irrational. But they are always inclusive.

The First Church of Christ Scientist in Wellington represents Athfield's first ecclesiastical exercise, though any relationship the building may bear to traditional church architecture is entirely accidental. Majority religious organizations have small need for powerful physical public statements—centuries of cultural symbolism guarantees an automatic unquestioning response in the mass psyche to their visual cues, however gentle and understated. The buildings of minority sects, however, are passed by far more than they are passed into, and the predominant public experience is an external one. Thus Athfield has turned his church inside-out, externalizing its spiritual content. The building wears its heart on its sleeve.

As such, it is touchingly vulnerable. The stoic New Zealander prefers to keep his heart tucked quietly out of sight; he finds such openness unsettling, almost a threat. That, perhaps, is the first question. Then there is the form of the building, that curious one-eyed skull with its crazy, crooked column. Does it suggest the flowing-on of an afterlife, or does it speak merely of the bones of death itself?

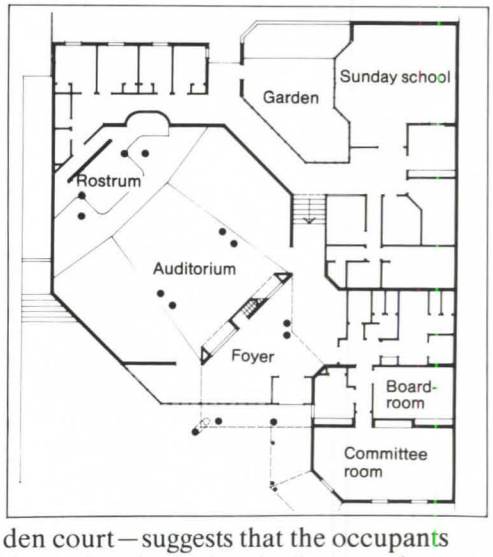
At the very least, the imagery is exceedingly clever. From twilight onward, the white-plastered shell of the building melts into invisibility, leaving the stained-glass eye floating unsupported in the heavens like some cosmic wink. Simultaneously, light pours out of the patent-glazed ambulatory onto the footpath at ground level, firmly "earthing" the building to the street: head in the clouds, feet in the soil.

The building's form reflects Athfield's continued interest in exploiting the tension of juxtaposing Gaudian "freestyle" with Miesian rigidity, combined further with delicate references to the youthful historicism of New Zealand domestic vernacular (the verandah, its posts and fretwork), and, perhaps, to demonstrate a literacy beyond his native shores, comic allusions to postmodern decorative classicism. Ceramic column capitals were designed by Claire Athfield, the architect's wife. This ad-hoc marriage of disparate elements has been consummately coordinated by an architect who has carefully developed a limited materials philosphy in order to become highly skilled in its use. There is no question of risk in the detailing.



Photographs by Meg Campbell

The church, tucked into a midblock site, orients its auditorium diagonally to the street. Opposite page: skull-like form covers foyer, below left; rostrum, below right, stands between tortured columns.



The question of the bent column is amplified internally, where the chapel's altar is surrounded by an astonishing array of contorted columns. Once again, the questions bubble to the surface. Are they trees branching upwards or a tangled inferno? Renewal or despair?

The absence of such drama in the remainder of the building—Sunday school, administration area, study wing, and garden court—suggests that the occupants themselves have already discovered satisfactory answers to their questions; for the rest of us, the importance of Athfield's church is its open soliciting of religious and architectural inquiry. Is it a church? Is it architecture? The answers come back thick and fast, each one subtly different.

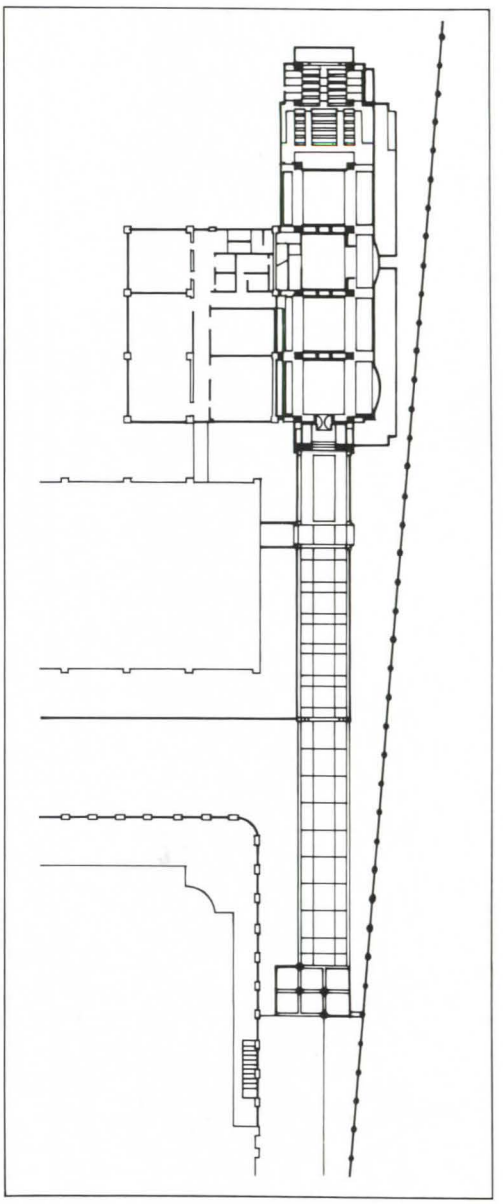
GERALD MELLING

Mr. Melling is editor of New Zealand Architect.

Japan

Photographs by Taisuke Ogawa, The Japan Architect

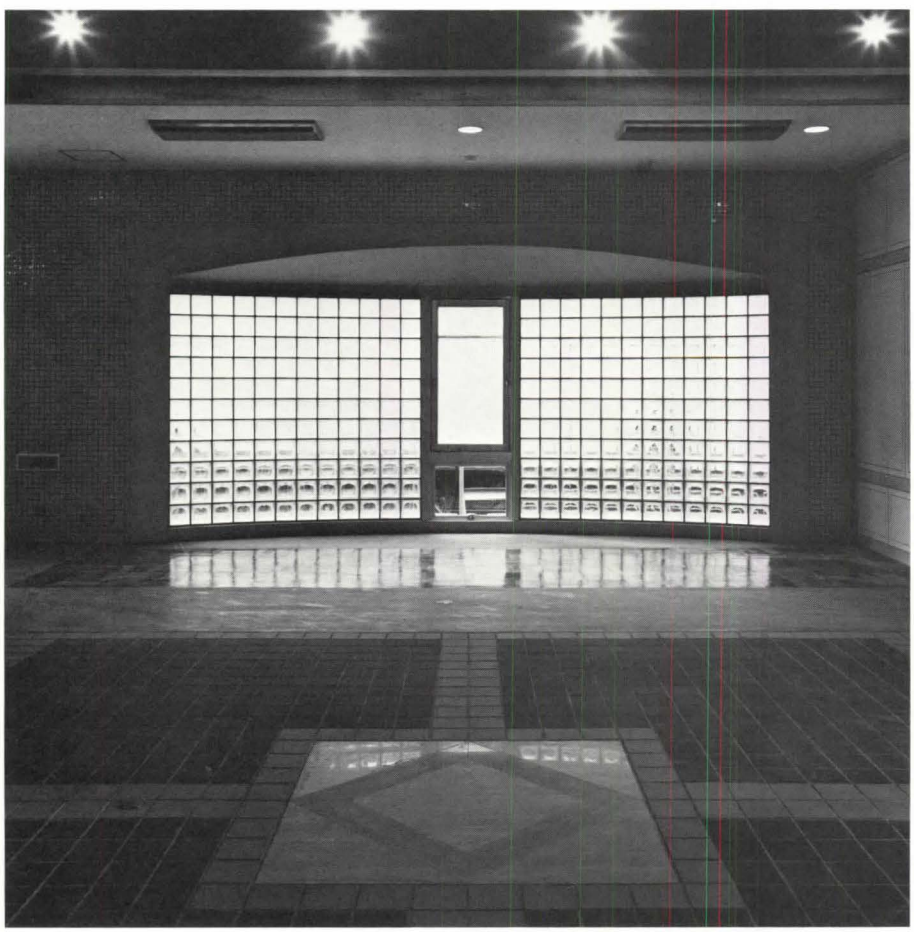
Museum building just inside university gates is identified by a four-story concrete pediment form at gable-shaped entry.

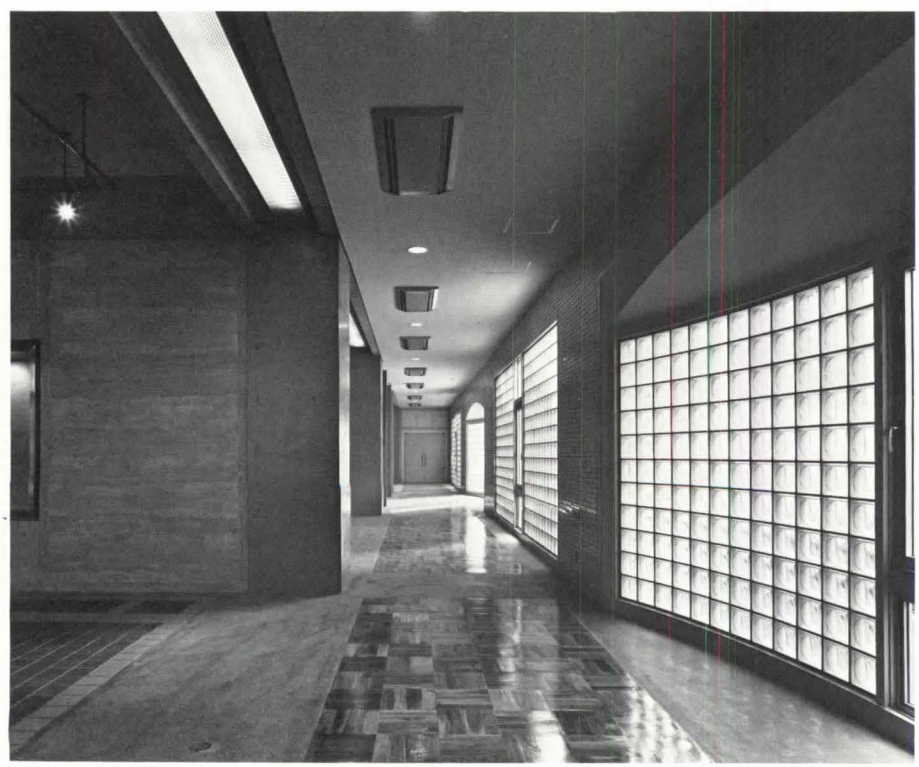


Narrow Extension Gains Presence with A Distinctive Face

In 1982 Tokyo University engaged Hisao Koyama to design an extension to the University Museum. Officially called the new general research archives, the four-story concrete frame building displays artifacts from the departments of natural history, cultural history, and geology and serves as a storehouse for the faculty's extensive research collections. The building occupies a site typical for Tokyo: a sliver of space between a multistory building and a garden wall. The location is important for its proximity to the university's main gate (the *Akamon* or "Red Gate"), although in the crowded southwest corner of the campus, it is difficult to see.

The building, which has only one visible facade, is found by taking a sharp right turn immediately after passing through the *Akamon* and proceeding down a long, narrow walkway, which has as one edge the new arcade and facade of the economics faculty building (another project of Koyama's, designed concurrently with the research archives). The museum's narrow facade, which is framed by the arcade, has been given symbolic prominence befitting its role as building entry by the use of a four-story concrete pediment form that can be clearly read from the *Akamon.* This imagery is further reinforced by a lower gable-shaped





opening over the entry porch. The materials of the facade respond to the context of the campus by using a concrete frame with flush brick, tile, and glass block.

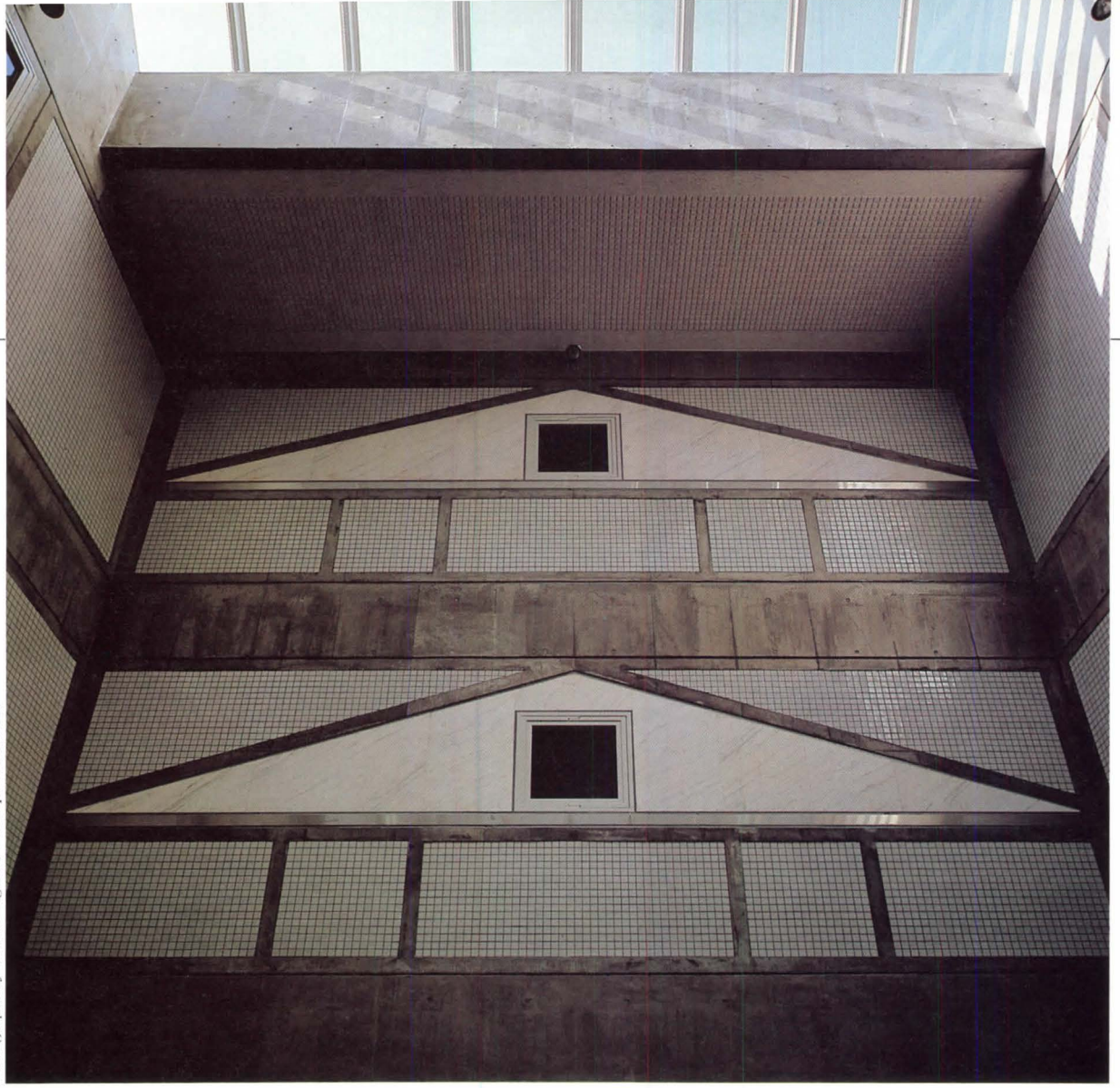
The new archives is one bay wide and five bays long with the same column spacing as the building to which it is attached. The new structure is pulled away from the existing one to create a narrow mediating zone for passage, and this zone is repeated on the opposite unattached side of the building, where it varies a bit more freely in configuration and dimension. The first and last bays in the sequence of five are extended for entry and lecture hall projections, and at the middle bay a cross axis is introduced and marked by a repetition of the gable figure, here inscribed on the interior walls. Along both axes the plan is a tripartite composition with clear center and flanking sides.

The entry porch has a ceremonial quality in keeping with its European-inspired antecedents, although in a characteristically Japanese way Koyama has executed it with elegant and meticulously detailed materials. Light, shiny plated steel "colonettes" appear to support the pediment. On the inner facade of the porch, stainless steel framed entry doors are flanked by panels of glass block and ceramic tile inset between the concrete structural frame elements.

On entry, the first four bays are exhibit rooms *en suite* with circulation in the narrower lateral zones. In the circulation zone on the unattached side of the building, a glass block wall bows out at significant points in rhythmic progression and ends at the entry to the lecture hall in the fifth bay. The composition of structure and infill found on the facade is repeated in the flooring patterns, with concrete and terrazzo in bands marking the lines of structure, while panels between the bands are inlaid with tile or wood parquet.

The center exhibit room on the first floor has a cryptlike quality (in the spirit of the archaeological artifacts to be shown there) with a low ceiling, dark surfaces, and a rectangular oculus overhead providing dramatic natural light from the three-story toplighted central hall above. The visitor crosses this compressed, dark space to reach a stair that leads up to the glowing volume of the central hall.

In the hall, the side walls are composed once again of patterns of concrete frame

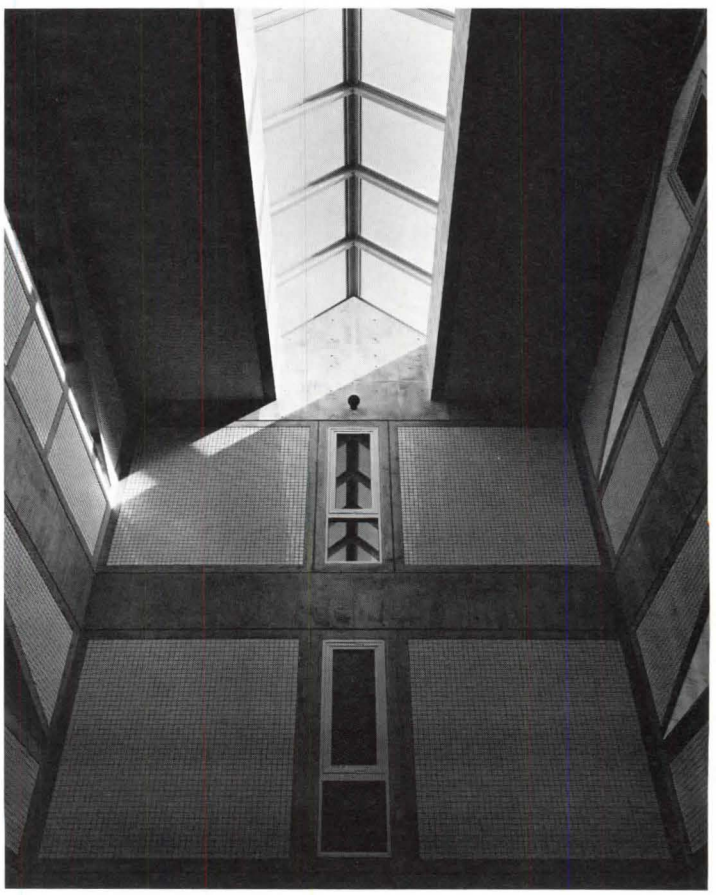


Photographs by Taisuke Ogawa, The Japan Architect

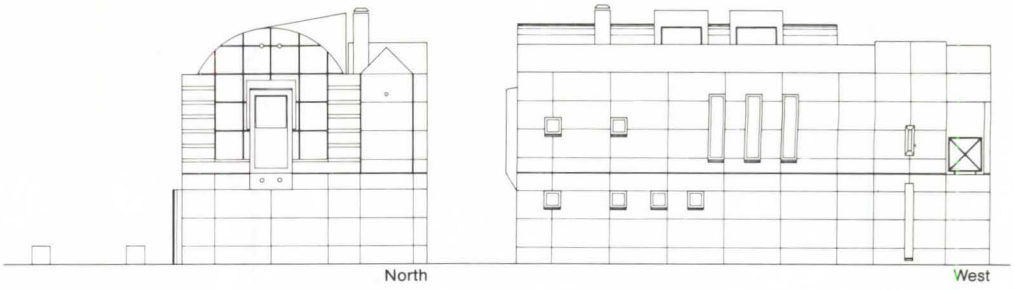
and textural infill. It is here that the symbolic figure of the pediment, inscribed in concrete on the sidewalls, indicates the cross axis of the building.

Koyama was a student of Louis Kahn at the University of Pennsylvania, and the influence of Kahn is still strong in Koyama's work. Measured classical rhythms, the order of structure and materials, and the use of light to reveal the form and content of space are all elements that find their place in Koyama's thinking. The basis of the Western rational tradition, which Kahn represents, has been transformed, however, by Koyama's sensibility to his own cultural context. Geometric order is subtly undermined and given an intuitive complexity, while the tactile and visual qualities of materials are emphasized. In the new general research archives this sensibility is displayed with a mood of dignity and austerity, while the delicacy and sumptuousness of surface are celebrated. ANDREA P. LEERS

Ms. Leers, who has her own practice in Boston, Mass., and is a critic at Yale University, was in Japan from January 1982 to June 1983 on a National Endowment for the Arts/U.S.-Japan Friendship Commission fellowship.



Across page: Bowed glass block wall flanks one side of hallway ending at lecture hall door; edging other side are display areas. This page: three-story top lit central hall at building's cross axis with pediments inscribed on side walls.



A House that is a A 'Postmodernist Temple to the Arts'

A parcel of land carved from a graveyard redolent of burning incense at the end of a narrow and unprepossessing back alley in a dusty town of 100,000 in the hinterlands of Nagano Prefecture: A more unlikely site for a postmodernist temple dedicated to the arts can scarcely be imagined. The clients, a couple involved in the international music scene—she as a violinist, he as an expert repairer of musical instruments—wanted a place that might function as a local catalyst for artistic activities. They turned to a Tokyo architect, Kunihiko Hayakawa.

Born in 1941 and trained at Waseda and Yale, Hayakawa opened his own office six years ago after a stint at Takenaka Komuten, a major Japanese construction firm, which has several hundred architects in its employ. In a country where until recently "serious" architects almost invariably apprenticed themselves to other "serious" architects—and where a connection with a large organization was looked on by some with suspicion—his has been a rather unorthodox career course.

On the outside, Nakazawa Hall (finished in 1983) is a pachydermal gray save for a few touches of color—and there is a slight suggestion in its gridded vault of Michael Graves' Fargo Moorhead Cultural Center project. The two-story, reinforced concrete structure is about 25 feet deep and nearly twice as wide. The relatively simple mass is given the appearance of great sculptural complexity by means of joints and projections that are only three-quarters of an inch or an inch and a half deep. It is possible to enter the building on the ground floor or, by climbing a flight of steps, directly on the floor of the hall, though in practice only the lower vestibule is used. The slit window carved into the cylindrical element that provides the focal point for the front steps of the hall seems to be at the distant end of a grand approach. All this gives the modestly sized building the air of a monumental pile.

The ground floor vestibule is also to be made available for small art exhibits. On the ground floor too is a studio for music lessons and a guest room where a musician scheduled to perform in the hall can stay overnight. On both floors the rear third of the building is devoted to service spaces. Upstairs the hall is under a vaulted ceiling, and the auxiliary spaces—a kitchenette for preparing refreshments and a storage area—have a pitched ceiling. Columns with bases that serve as extra seats during a performance separate these two zones. The vault is interrupted at two points to create high windows. The general layout of the spaces and the arrangement of the ceiling recall Le Corbusier's Maison d'Artiste of 1922.

From the window at the north end of the hall one can see a mountain in the distance that was long an object of worship in the area. The window has been so detailed as to create the illusion of a framed picture. Space has been thus extended beyond the confines of the building. The quadripartite window at the opposite end of the hall, on the other hand, is detailed to exaggerate its projection into the room. Small, low windows just above the floor on the street side of the hall introduce light and aid ventilation, but for all practical purposes the cluttered urban environment has been shut out.

Photographs by Tomio Ohashi

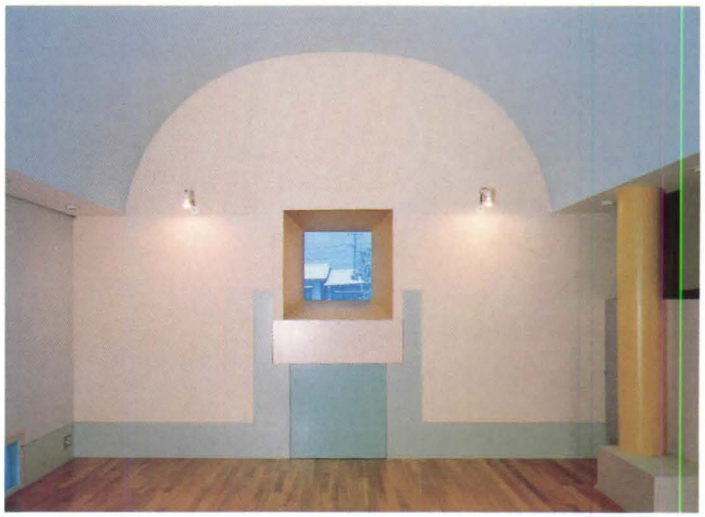
Across page, north facade. Under vault is music hall, above, with two high windows, east, and quadripartite one, south.

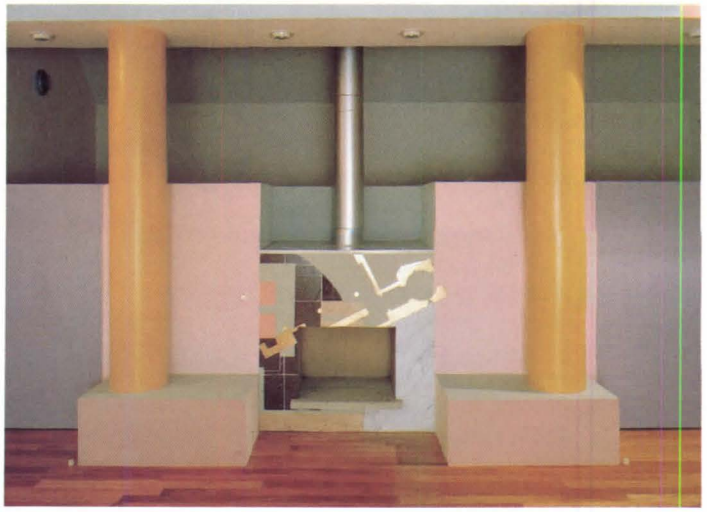
In recent works Hayakawa has shown great interest in manipulating colors to break down forms into their constituent planes. In Nakazawa Hall, he used a different color for practically every distinct surface, 28 hues in all. The lower floor was given what Hayakawa considered masculine colors, and the upper floor feminine colors.

A fireplace, above which is a collage of the second floor plan and the western elevation of the hall rendered in marble, granite, travertine, *oya* stone, brass, duralumin, and two colors of paint, is intended to give a residential character to the space. The clients wanted a place where performers and audience could come together "without the barrier of a proscenium arch." The vault does succeed in giving performers and audience a sense of being together, and the hall can seat 70 to 80 persons.

In his earlier works, Hayakawa showed an interest in injecting a dramatic, stagelike quality into residences. His houses, which interestingly enough are often for performing artists, always seem to be awaiting an "entrance." Given this interest in blurring the distinction between fiction and reality, it seems only fitting that Hayakawa should have been asked at last to design a stage and to give it the semblance of a home. HIROSHI WATANABE

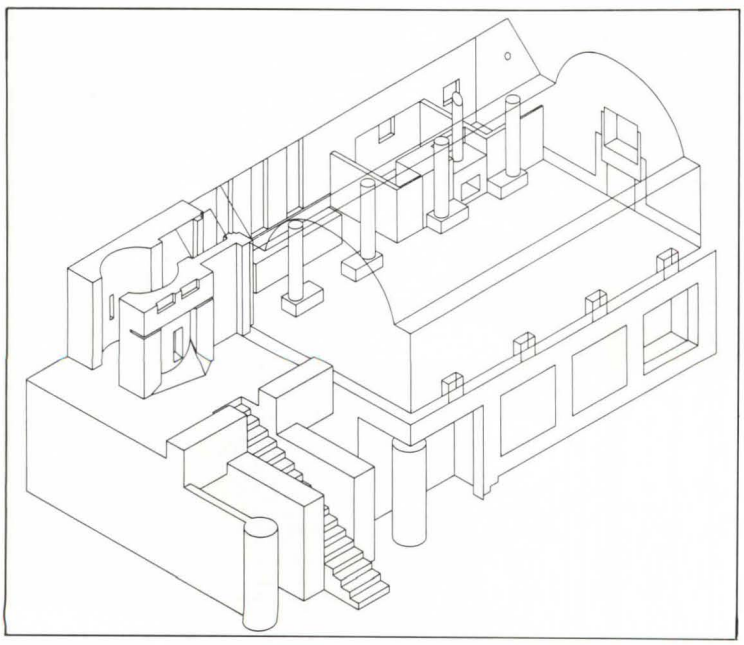
An architect working in Tokyo, Mr. Watanabe was a correspondent for Architecture Plus *and is a frequent contributor to this magazine.*





Photographs by Tomio Ohashi

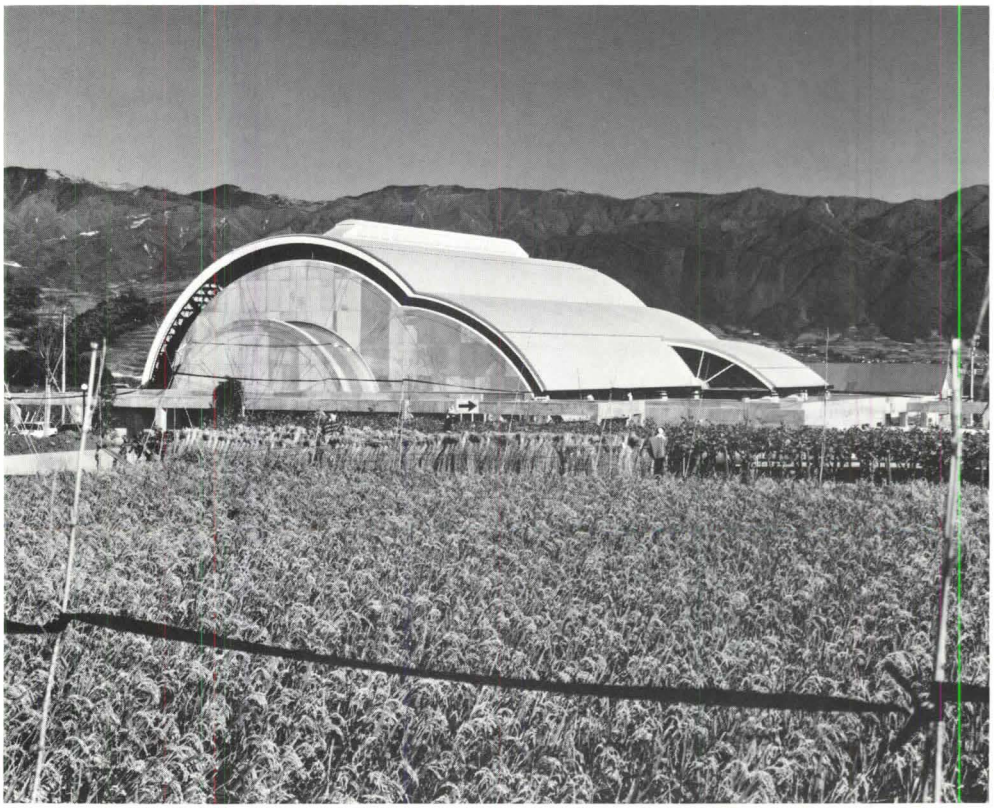
Clockwise from above: south facade with stairs leading to music hall; east wall with column bases for seating; north window framing mountain view; fireplace with collage of second floor plan. Across page, many-hued second story hallway. □



Japan

Mitsuo Matsuoka © SHINKENCHIKU

Rolling Roof Held Aloft by a Complex Structural System



K. Furudate

Yamanashi City is located in the northeastern corner of the Kofu basin, an area known for wine grapes and peaches. A successful businesswoman who was born in the city donated $870,000 toward the construction of a community gymnasium, and the municipality provided a site, set among vineyards. By one account, the donor, who is now blind, stipulated that the building be in the image of clouds, which were still vivid in her memory. By another, the architect himself conceived the cloud-metaphor. In any case, the Nachiko Ishihara Memorial Gymnasium is a romantic gesture and won for its designer, Koichi Nagashima, an award presented each year by the Japan Architects' Association for up-and-coming architects.

Trained at Waseda, Harvard, and the Graduate School of Ekistics, Nagashima was for many years a key member of Fumihiko Maki's office; in 1976 he started

Mitsuo Matsuoka © SHINKENCHIKU

Three parallel vaults of different sizes create a cloud image, with portico, left below, masking the base. Glazing traces the exposed structure, emphasizing the shape of vaults while providing daylight.

AUR with his wife, Catharine, and Tsutomu Nakamura, another former member of Maki's team. That the 48-year-old Nagashima should be considered a comer is not necessarily evidence of the gerontocratic character of the Japan Architects' Association. Having worked mostly on urban design projects while at Maki & Associates, Nagashima is in fact only now coming into his own as an architect.

The building has a total floor area of just under 13,000 square feet, with the actual gymnasium taking up about 700 square feet. A portico provides a transitional space and masks the base of the structure. Three parallel vaults of different sizes based on a series of steel arches, placed at 17-foot intervals, and purlins paired by diagonal braces, span the gymnasium and auxiliary spaces and suggest a stylized cloud. The relatively slender members of this structural system (designed by Toshihiko Kimura, one of the leading structural engineers in Japan, whose work includes Harry Weese's American Embassy housing in Tokyo) are exposed and painted white and give the interior a very light quality, as if indeed we were passing through a fleecy cumulus. Two rows of columns provide intermediate support. The two ends of the compound vault are closed off by concrete walls, whose heavy, forceful appearance is at odds with the airy quality of the rest of the building. A stage is incorporated into the western wall so that the space can be used for community events.

The roof vaults are visually detached from the end walls by windows, and there is also a window at the top of the largest vault. The quality of the light inside the gymnasium is excellent, but since the people of the community are nearly all engaged in agriculture the building is used mostly in the evenings.

Up to a certain height the gymnasium walls and columns are covered with painted wooden slats for the protection of players, but these slats—and the wooden front doors as well—were obviously low-budget items and detract somewhat from the building. It is as if an otherwise elegant dining room were furnished with a roadside picnic table and benches. (There is talk of at least having the front doors replaced.)

And while one is at it, one might also quibble about those zoots that Nagashima is fond of—not only in this work but in other designs as well. Here, a rest corner and a part of the vestibule jut out at a diagonal from the main body of the building and are distracting in the overwhelmingly orthogonal plan.

In designing buildings that are centered around one big space, such as a gymnasium, the integration of that space with the host of lesser but necessary spaces that demand a different scale is a difficult problem. Nagashima has succeeded in providing both a strong overall form and spaces at different scales that communicate with each other. One can be outside the main vaulted area, in the adjacent hall, and still be a part of whatever is happening in that area. The spatial interpenetration is much more subtly effected here than elsewhere with angled walls. H.W.

Japan

'A Series of Planes Cupped in the Palm Of a Mountainside'

When one thinks of Tadao Ando's houses, one pictures uninsulated concrete residences with humorless solid facades slit for entry. There is no sense of site or contextuality. Yet the residents of Ando's houses interact with nature in an intensely personal way, usually through unsheltered skylights over strategic passages. The Azumas, inhabitants of Ando's 1976 row house at Sumiyoshi, must change shoes, run across an exposed bridge, down a flight of stairs, and through an open court, then change shoes again, to get from the bedroom to the kitchen, living room, or bathroom. Their interaction with nature is disquietingly real; they get snowed on while running to the bathroom in winter. Yet the Azumas' relationship to the elements is extremely private. Only from a helicopter overhead could one see how they live, constantly crossing back and forth through their exposed court. The house itself has no windows.

Over the past decade one has been conditioned to expect the persistence of certain architectural conventions in Ando's work. Primary is his establishment of the wall to assert the unassailable privacy and autonomy of the dwelling. Ando is a master craftsman working with reinforced concrete, manipulating it to shape space, while refusing to soften it, to make it easier to live with. He orchestrates a subtle and continuous interplay with nature through light slits in isolated spots.

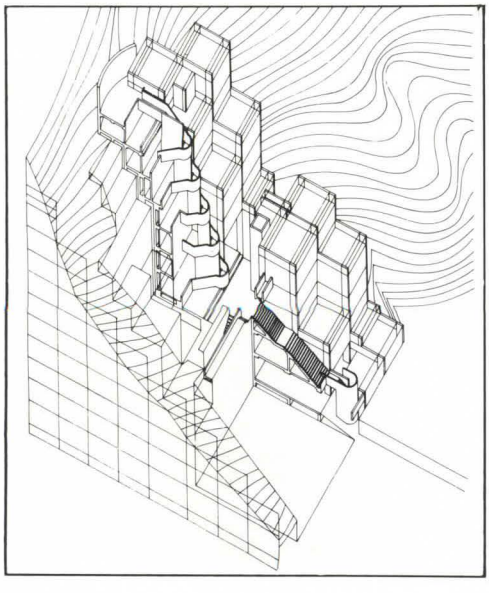
Realizing this about Ando, the Rokko apartments come as a surprise.

The 18-unit complex is nestled into the Rokko Mountains, near Kobe. The building has its origin in Ando's 1976 project for a 17-unit complex at Okamoto, which was abandoned because of legal and financial restraints, but Ando tailored the general scheme specifically to this site. He used computer generated graphics to determine the minimum degree of geological excavation necessary. The building presents itself as a series of planes cupped into the palm of the mountain. The planes establish the directionality of the building, which faces Kobe Bay, one of the most beautiful Japanese ports. The view of Kobe Bay is the key to this work, and Ando shrewdly took advantage of it. He even traded in his obsession with the wall for beautiful open views. Ando's ubiquitous solid facade is now but a vestigial beam before the garage entry, like a torii or gateway before a Shinto shrine.

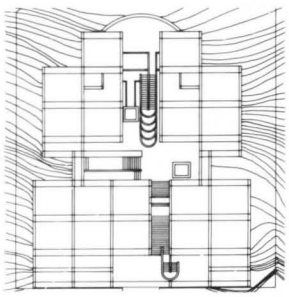
Each apartment is comprised of three or five units measuring 5.8x4.8 meters. (Shi, or four in Japanese, is a homonym for death and is scrupulously avoided.) The units are oddly proportioned, too low-ceilinged for Western furniture though designed for it. And each piece of furniture is set off as an art object, rather than seeming part of an agglomeration. The free spatial arrangement of the furniture derives from traditional Japanese houses, where an item—a table, a cushion, a bed—was taken out of a closet and immediately replaced after the task—writing, reclining, sleeping—was completed.

In contrast to his usual stark concrete interiors, Ando has plastered and painted the walls and carpeted the floors. One might even call these apartments comfortable. In fact, one would not have to be a fan of Ando's to enjoy living in them. He seems to be letting go of his obsession with privacy. In front of each apartment is a concrete terrace on the roof of the unit below. Rather than walling up the terraces as private courts, he has left them open, with low railings. Ando explains, "These terraces are not enclosed, totally private places but places that permit visual contact between people in different units." The biggest surprises, though, are the enormous glass windows and doors: American picture windows in shoji scale. In the Koshino residence of 1981, the living room window began at floor level and was less than two meters tall. "We don't want to see other people's land," Ando admonished. But the Rokko apartments are all about seeing—Kobe Bay, one's neighbors, direct sunlight. In all the photographs of the Rokko housing published by Ando's office, though, the window shades are fully drawn, establishing a temporary, familiar screen.

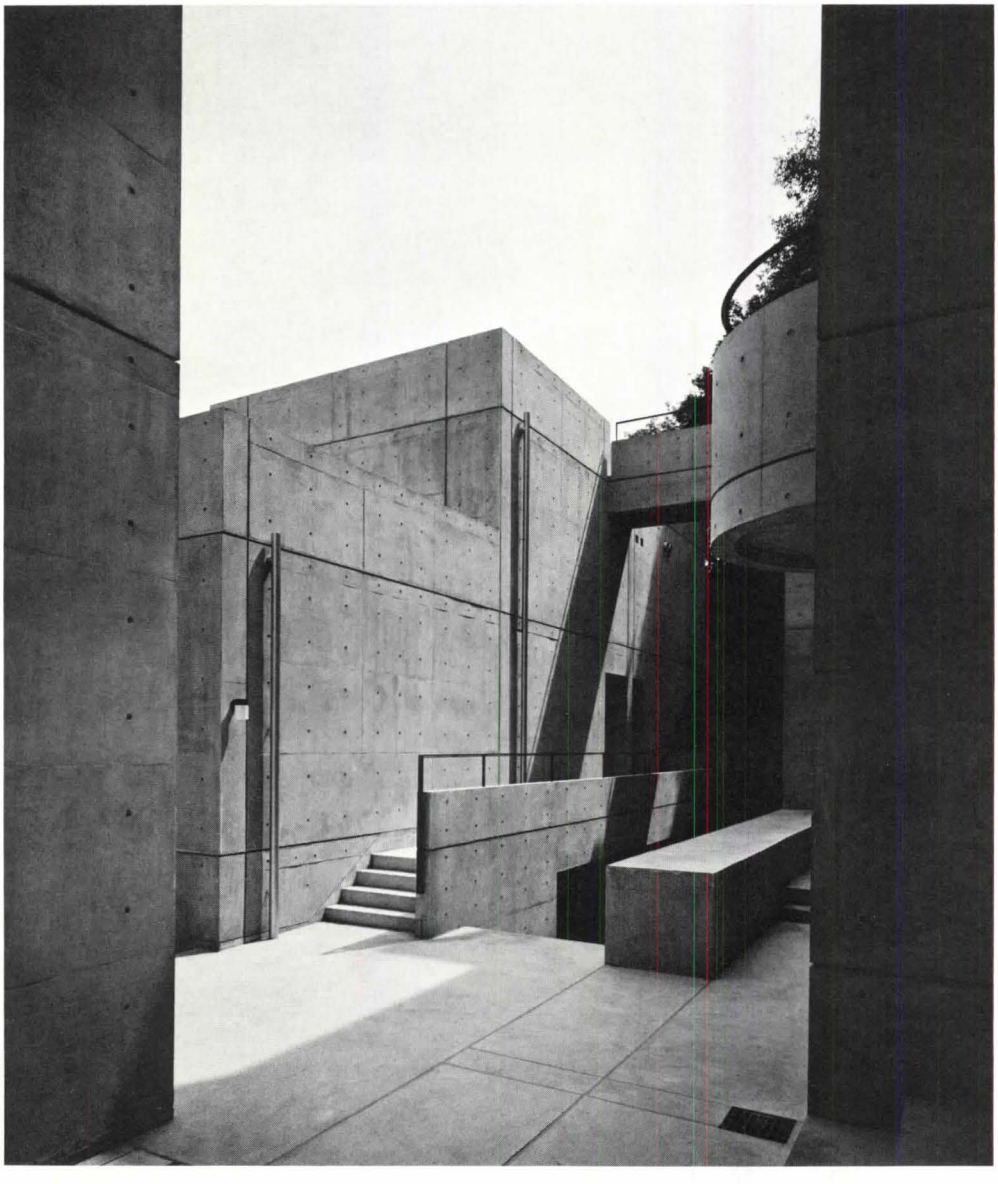
Ando insists that his buildings be comprehended physically, and one is forced to move through, around, and across them. The entry is anti-monumental, just a driveway with no concession to the pedestrian.



Photographs © Tomio Ohashi

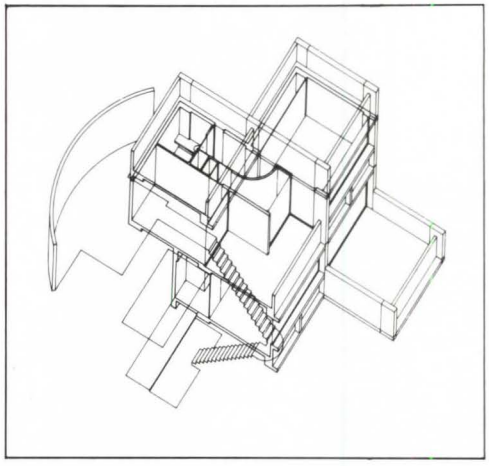


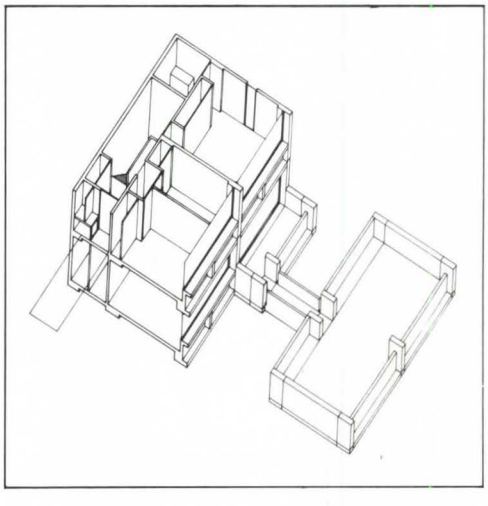
A series of terraced planes with enormous windows and doors for views, all following a mountain slope overlooking Kobe Bay. The project is far airier and less ascetic than Ando's usual work.

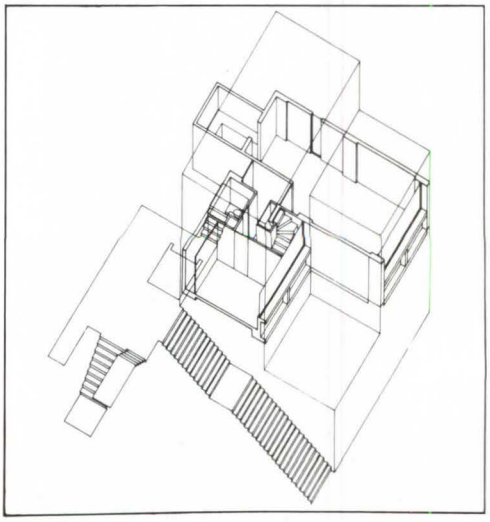


Tomino Ohashi

A master craftsman of reinforced concrete, Ando creates a procession of curved walls, asymmetrical stairs, each with a different number of steps, leading to terrace entries on roof of apartment below that allow visual contact between neighbors.







One is shunted into a small, closed circular stairway. Not unlike guests at tea ceremony houses, who must crawl through tiny openings to enhance their spatial awareness, one turns around within this curved concrete wall, becoming self-consciously aware of entering an utterly new place, and walks up the asymmetrically placed straight staircase.

This building, like all of Ando's, is split in two. The dim passage between the lower and upper halves, at best a dismal lightwell, prepares one for the treat of climbing the bull-nosed stairway. Each flight has a different number of steps, and the method of entry into each of the apartments is a physically different experience. The projecting axial elevator and stairway should be seen as examples of motifs, rather than methodology, copied from Louis Kahn, for hidden in the court between apartments is a second elevation that Ando chose to express hardly at all. A concrete retaining wall caps the building and distinguishes it as architecture from the mountain behind. This concave wall sculpturally parallels the two curved stairways, giving a sense of closure and completeness to the otherwise open work.

JAQUELINE E. KESTENBAUM

Ms. Kestenbaum is a graduate fellow in art history at Columbia University. She studied architectural history in Japan on a Barnard College fellowship.

Holland

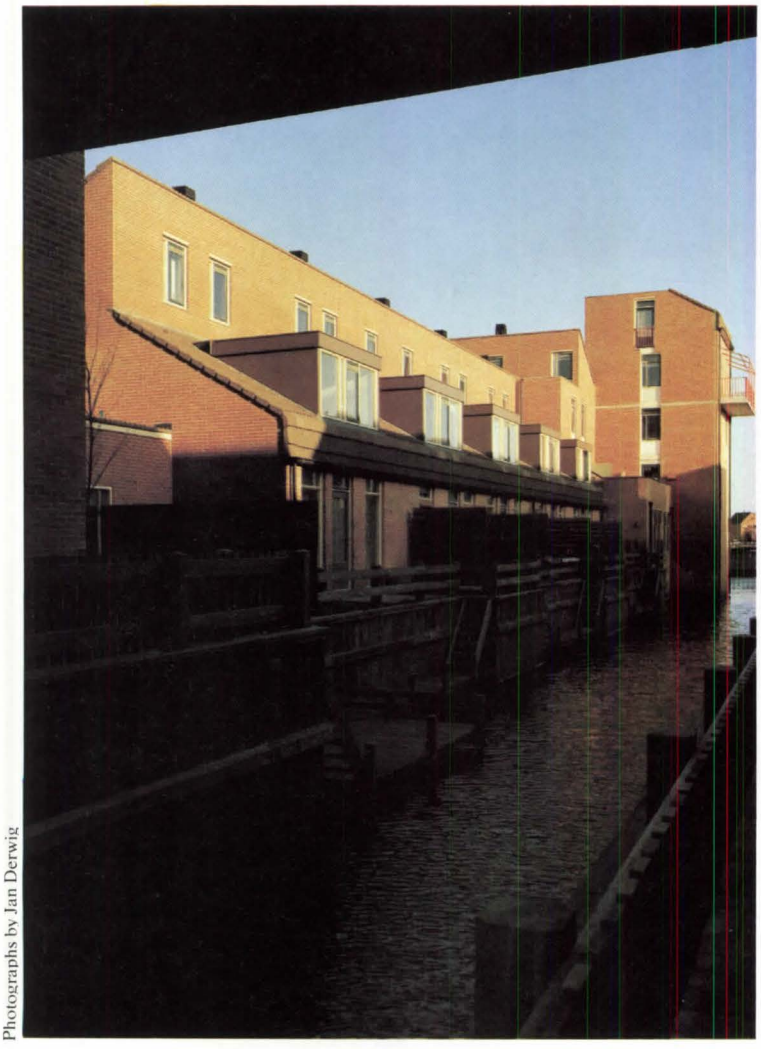
A 'New Sobriety' and A Return to Large Scale in Housing

There is a new sobriety in town planning and housing in Holland. Production has been reduced, as have building costs for subsidized housing, and there is something like panic in the architectural firms. Moreover, the Dutch, who had developed a rich vocabulary for housing based on tried and true vernacular planning and design principles in the '70s (what the English in the '80s are promoting as romantic pragmatism) are now rejecting this in favor of huge, anonymous, often isolated housing blocks on the one hand, faceless small ticky tacky on the other. Economics is one reason; a reaction against what many Dutch architects perceive as their own provincialism during the '70s is another. The result is that Holland is following a course diametrically opposite from that of most nations, both industrial and developing, that are turning to their own roots, rather than internationalism, for appropriate design solutions.

Over the years the production of housing in the Netherlands has become gigantic. During 1945-81, 1.5 million dwellings were built, the largest part of which had some state subsidy. The history of Holland's attempt to give decent shelter to all its citizens goes back to the social housing act of 1901, instigated by terrible shortages and bad sanitation. Second came the expressionist, so-called "apron architecture" of the Amsterdam School around 1910-1920, which was initiated by socialist organizations to give working people a sense of "home as castle." The third milestone was the competition for "cheap worker housing" of 1933, where functionalist architects like Van Tijen, Van den Broek, and Merkelbach prevailed with their flat roofs, central heating, and "rational" plans.

After World War II the shortage of building materials and dwellings, plus a baby boom, prompted the government to build fast and cheap. In Amsterdam garden cities were developed according to functionalist precepts, while in Rotterdam

'70s housing by Jan Verhoeven in Niewegein: vernacular forms with tiled roofs, curving landscaped sites, careful brickwork.



Photographs by Jan Derwig

Community housing (centraal wonen) *in Huizen by Hartsuyker Architekten (second phase completed in 1982) for singles contains 50 private living units plus collective spaces. Left, view from canal.*

there was a mixture of functionalist and traditional architecture, with its use of brick, pitched roofs, and the grouping of single family houses around churches, municipal buildings, or schools.

By the end of the '50s, because production had to be stepped up, the traditionalists lost favor, and big system buildings got into full swing. The result, as elsewhere, was a plethora of anonymous slabs with meager landscaping on wide streets. The first warnings against this sterility were uttered at the end of the '50s by movements like Team Ten and individuals like Aldo van Eyck.

At the end of the '60s a group was formed called the *Stichting Nieuwe Woonvormen* (Foundation for New Forms of Living). Consisting of doctors, architects, town planners, sociologists, and psychologists, the group criticized high-rises, deeming them dangerous for the very young and old. Their thinking was related to other antihierarchic or anarchistic political movements of the time. The greatest contribution of this group was the introduction of *inspraak* (speak-in, or participation) for the people, who up to that time had no voice in shaping their living quarters or environment. It made

people aware of their power as consumers of housing.

Such participation and return to notions of neighborhood assumed great importance in the '70s when people living in old urban neighborhoods insisted on their democratic rights to oppose official urban renewal. There were furious clashes, mostly in big cities like Amsterdam and Rotterdam, between inhabitants and city governments. One result was to strengthen socialist coalitions in local governments that adopted notions like *inspraak* as political slogans to win votes. The problems of the city were no longer dealt with behind closed doors.

As a result of *inspraak* architecture became more adaptable, modest, and subordinated to the texture of the city, though *inspraak* slowed the building process so that some projects designed in the late '70s were just recently completed. The building boom in housing was sustained by an endless stream of subsidies. People got more living space, a technically better product, financial help or favorable mortgages. There seemed no end to Dutch prosperity.

For the people the experience was a new one. They were asked how they wanted to live and got what they wanted: single-family houses with gardens, safe playgrounds for children, no through traffic in residential areas. New towns like Spijkenisse, Almere, and Zoetermeer proliferated to relieve pressure on the cities. They were characterized by a mixture of building types, age, and income groups. The extraordinary quality of social housing in the '70s is seen in the fact that it is difficult to distinguish it from private-sector housing.

Formally, the planning and architecture of the '70s ("the brown decade") was marked by a maximum of variation, with labyrinthine layouts of roads, foot, and bicycle paths; plasticity and complicated corner solutions; variety in roof heights, detailing, and use of materials. Brick and differently colored wood cladding were used to obtain a "homey" effect. The best loved colors were brown, dark red, and blue. One critic aptly called this architecture the "Hansel and Gretel phase." Small lots were parceled out to many different architects, and so the famous patchwork of the '70s was born. What was forgotten was that variation, repeated a hundredfold, finally bores as much as the "linen chests" of the '60s set along straight lines. Another reaction against the '60s was the appropriation of public space for private ends. In the new towns gardens flow over into streets; in the cities heavy balconies obstruct clean, clear sweeps of street.

The steady flow of money also allowed for extra stipends for experimental housing such as the *paalwoningen* or treehouses of architect Piet Blom in Helmond. The changing structure of society was reflected in *centraal wonen* housing for single people, which provides private space plus communal rooms for cooking, eating, and socializing. The fact that the state supplied funds for such experiments showed its growing concern in the '70s with peoples' well-being and the built environment.

The best architectural firms worked in housing, grew, and prospered. Many architects spent long evenings talking with clients about whether a kitchen should be in front or at the back, whether a staircase should be open or closed. People in decaying old neighborhoods were put on buses and driven to well-known social housing projects for their opinions. Architects talked about communication between people and hospitableness as a characteristic of architecture. The traditional focus on details like doors, windows, and balconies was revived. The regionalist style of the '70s came easily to most architects, and "innovative" design was largely lost in the process.

What could the '80s bring after this remarkable, culturally rich, and captivating decade in the Netherlands? Another reaction was inevitable, especially as economic circumstances changed and austerity set in.

The system of government subsidies is tottering, and with the ravaged economy people have trouble paying rent and electricity. The thinking is that housing should be as cheap as possible, as projects of the late '70s are being criticized as too expensive to build or live in. The latest town planning again emphasizes a clear

Stichting Wonen/G.v.d. Vlugt

Recession and reaction against perceived parochialism produced '60s urban renewal-like complexes: Carel Weeber's 'Paper Clip,' Rotterdam, top, influential for curves and rationalism; across page, Amsterdam-Bijlmermeer by Loerakker Rijnboutt Ruijssenaars. Above, still exemplary Amsterdam infill: units at left in photo by Van Herk Nagelkerke, right by Herman Hertzberger.

separation between public and private space. The serpentine, often car-hostile roads, the extreme variation in parcelling of lots and architectural forms, and the luxurious landscaping of the '70s are things of the past. The urban plan for the Venserpolder development in Amsterdam, for example, shows sober massive blocks grouped around communal central spaces in a grid-like plan, with parking spaces in front of entry doors.

Most architecture is less plastic, more uniform, less articulated into smaller elements. There is less brick and more stucco. Finishes lack care, and plans have become standardized. Also there is more use of light colors, probably under influence of international trends. Formally, there is a sense of uncertainty. Some architects have cautiously adopted postmodern motifs, such as arches and classical columns; a stronger influence is neo-rationalism.

The big cities like Amsterdam, Rotterdam, The Hague, and Utrecht are doing their utmost to keep their citizens in town. The cultural and economic emptying of cities of the '70s had become frightening, which has resulted in a complete reversal of '70s ideas about thinning out the cities through the building of new towns, of which Holland created a record number. The "compact city" has become the ruling slogan, and city governments are looking for and finding new land for housing, such as unused ports. Much urban construction, however, resembles older and unsuccessful English and American urban renewal. *Inspraak* is now often thought of as time-consuming, therefore expensive and not very worthwhile.

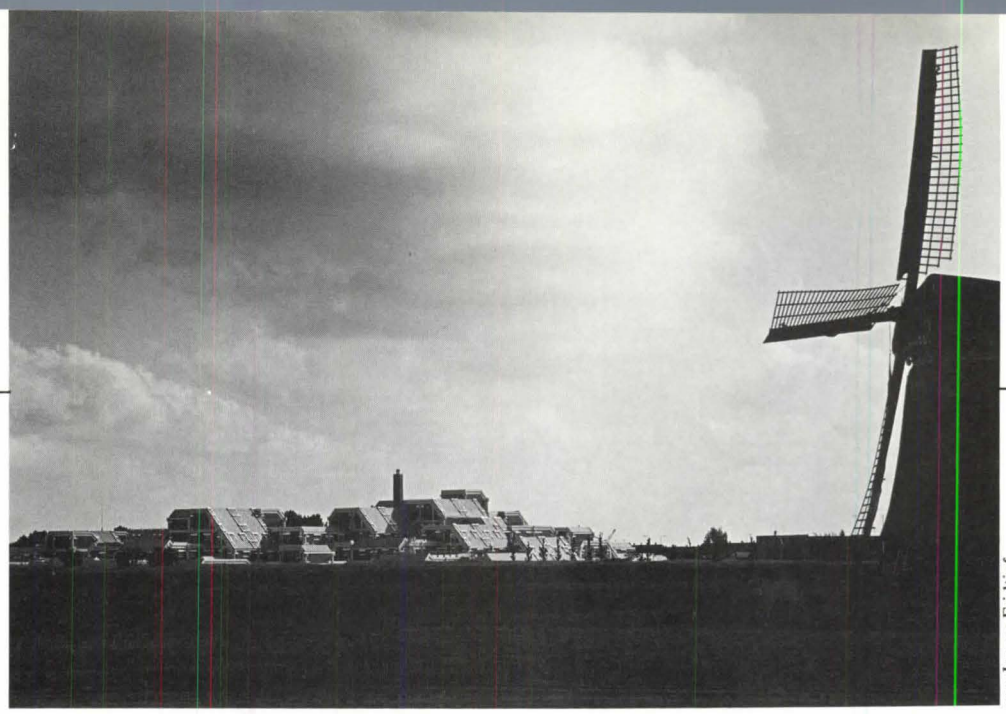
In short, everything points in the direction of pragmatism, though not a romantic pragmatism, and the danger is that many attainments of the '70s will be dismissed as superfluous luxuries. There remain, however, a number of architects—such as Theo Bosch, Arne van Herk, Kees Nagelkerke, Paul de Ley, Herman Hertzberger, Aldo van Eyck—who believe that economic austerity is no excuse for poor design, and their work proves it.

GERDA TEN CATE

Ms. ten Cate is architecture editor of Bouw *magazine in Rotterdam.*

Holland

An Office Building With the Profile of A Waterside Village



van Jan en Fridtjof

The PEN (telephone company) office building by A. Bonnema in Alkmaar exemplifies an approach embraced by architects from San Diego to Sri Lanka. It is an approach that has been developed in few countries as successfully as in Holland. Yet the Dutch, perversely reacting against their own tradition (regarding it as parochial just because it's theirs and they are a small nation), are foresaking it in favor of precisely the sort of emotionally vacant, uninterrupted, blocklike designs that are being rejected almost everywhere else.

It is an architecture that makes distinctive, discrete spaces scaled to the dimensions of individual humans rather than to an abstract, nameless entity. It acknowledges and defers to existing natural and manmade surroundings and follows the logic, if not the specific forms and shapes, of vernacular architecture while incorporating modern ideas about construction, space, and general good sense.

Although it is very large at 24,000 square meters, Bonnema has reduced the PEN building's mass to residential scale. In fact, from the highway it looks like a small village of low brick and concrete elements with red tiled roofs of varying heights and angles. Nor is the illusion shattered at closer range where two- and four-story elements are clustered around a courtyard containing a gently disciplined landscape of decks, plants, rocks, seating, brick walkways, and bridges spanning a manmade pond.

The design process included detailed input by a committee of PEN employees—the Dutch have institutionalized user participation as part of design procedure for almost all buildings. At PEN it resulted in a very specific set of requirements.

After visiting some buildings with open landscaping, others with traditional offices having full-height walls, the committee chose a combination of closed and open offices with movable partitions of three different heights. It additionally specified: that white and blue collar workers not be separated in different buildings; that the premises have a roof garden accessible from every floor; that energy efficiency be 60 percent better than in comparable buildings since PEN distributes electricity and should set an example; that the building's structure and most service equipment be exposed to underscore the company's technical orientation; and that natural materials be used where possible—wood, brick, and tile for walls, floors, and ceilings.

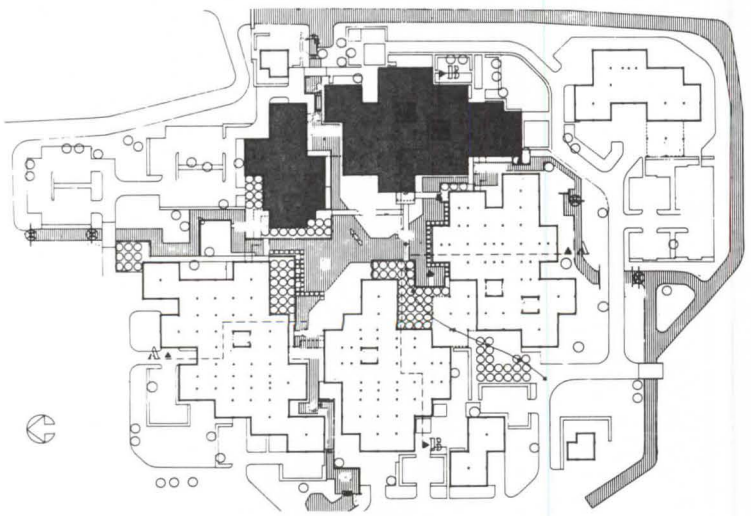
To offset the high cost of this shopping list, architect Bonnema and PEN chose a prefabricated concrete construction system of repeated 50-meter modules on a 7.20 x 7.20-meter grid and used it to create a structure of unusual variety.

There are no long, straight hallways; most meander, and virtually all have courtyard views. There are no boxy rooms; most are shaped into odd configurations by slanted, elegantly finished, knotless pine ceilings, and walls that follow the building's long roof lines. Nor are there any dark offices, as the building is narrow and most offices have two exterior walls and all interior walls have clerestory glazing. The place feels friendly with its light wood finishes, light gray carpeting, warm natural materials, and transparency.

Exemplary interior detailing is consistent, reaching right into the WCs. All furniture and fixtures were designed by Bonnema. Elegant black tubes of lighting in corridors, sandwiched between silver colored ducts, throw light upward as well as down. All electric cables are in the ceiling plenum and easily accessible. In offices lights are suspended from the ceiling, and since all electric outlets, including those for telephones, plug into light fixtures and can be readily moved, making changes in offices configurations is easy and fast.

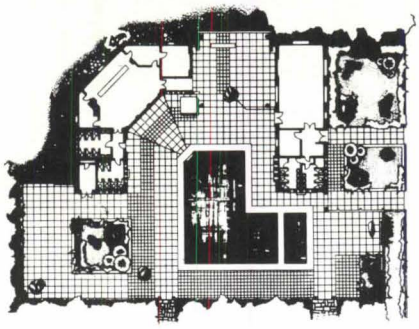
Among the PEN building's lessons is that it shows that tight restrictions imposed by the client can be an impetus, rather than an inhibition, to good design.

ANDREA OPPENHEIMER DEAN

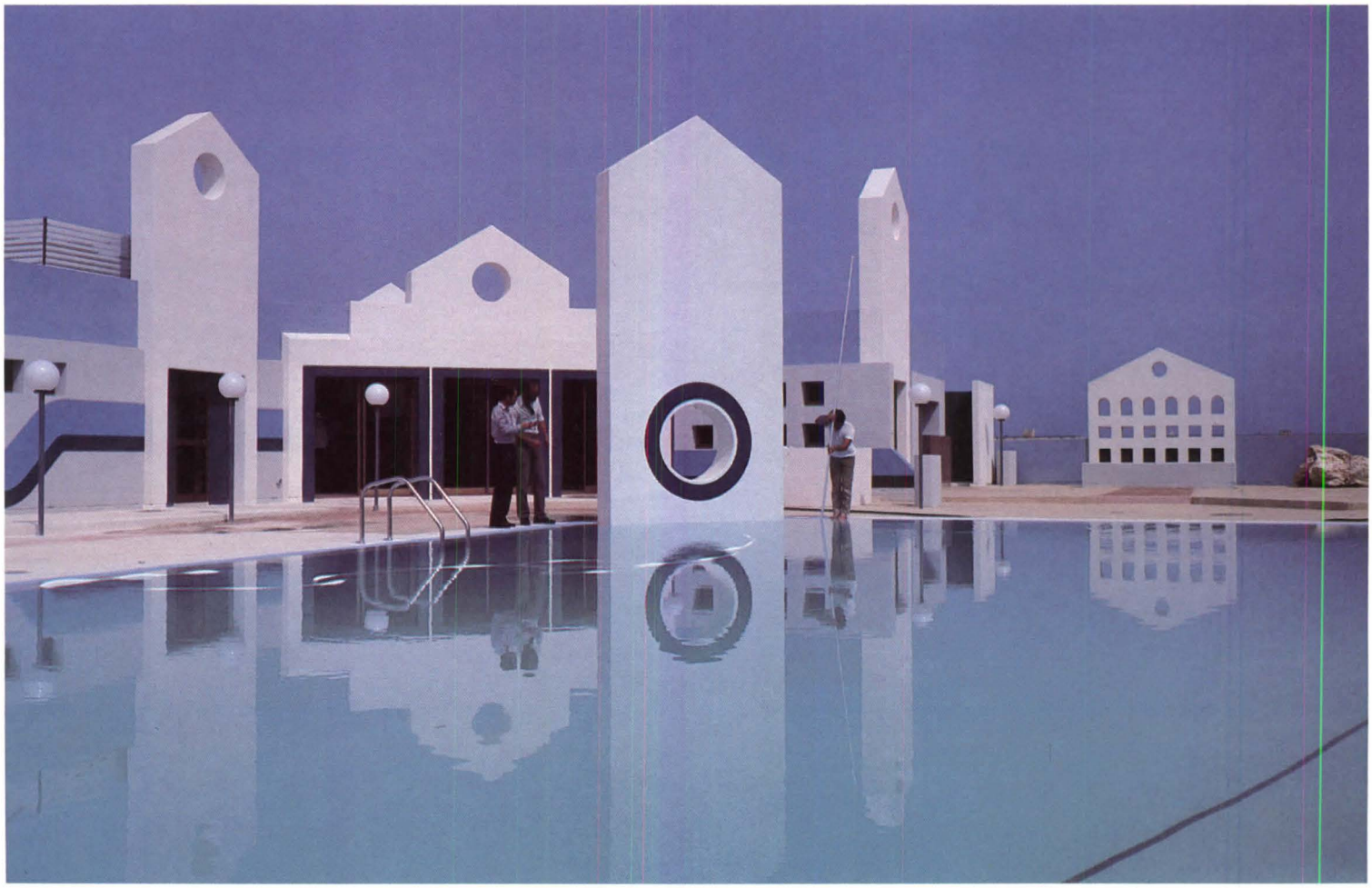


van Jan en Fridtjof

Opposite page: On approach, the office complex resembles a village. It is arranged around a manmade lake, shown in lower photo, with bridges, decks, and plantings. This page: Structure is exposed, volume broken down to residential scale with long, glazed roofs creating odd-shaped rooms. Right, multilevel, first floor cafeteria.



Malta



Swim Club Made Into a Realm of 'Childhood Fantasy'

The Aquasun Lido, designed by Richard England and completed in 1983, attempts to provide a very special "place" by creating an environment distant from the realities the visitor has come from. Ostensibly a pool club containing changing facilities, a bar, and outside dining terrace, all covering an area of 4,200 square feet, this work of architecture tries, in the words of its architect, to generate an "emotional rebirth" for the visitor.

Often characterized as a poet/architect, Richard England speaks of forms "borrowed from the summer of my childhood. . . . Hovering between the horizons of dream and reality these tower-forms and shapes evoke play-images and fantasies of abodes of princesses, castles to be conquered, but above all the sheltering reassuring refuge of the archetypal house."

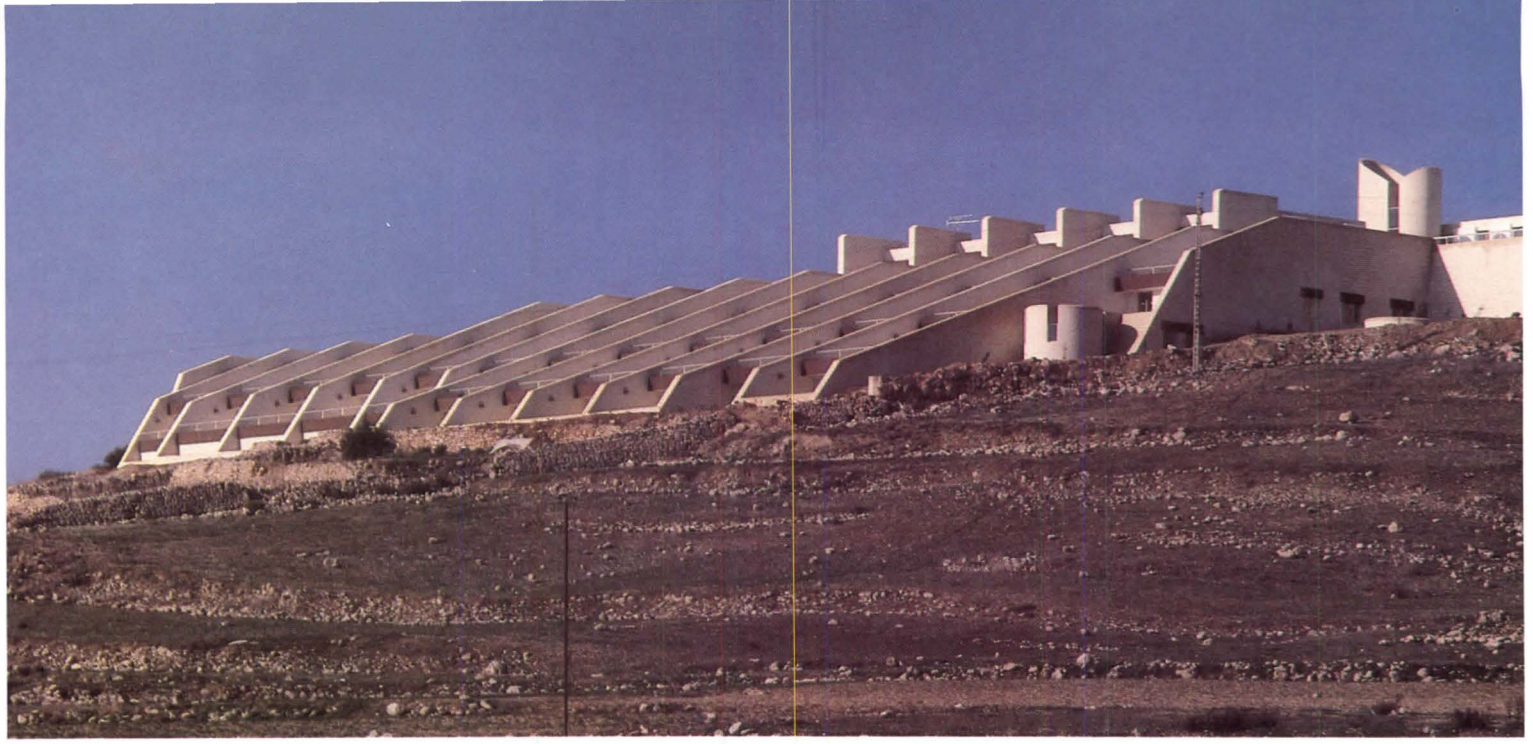
He continues, "Childhood memories, echoed and recalled in the depths of changing skies, mirrored on thin floating planes of sheenlike waters, provide the necessary therapeutic aspects of these grounds defined within their introvert courtyard walls. The sound of cascading water helps provide a further adoptive sense of welcome to a precinct far removed and distant from the prison spaces of modern cities. This controlled environment allows the move from the everyday world of grown-ups into one of childhood fantasy."

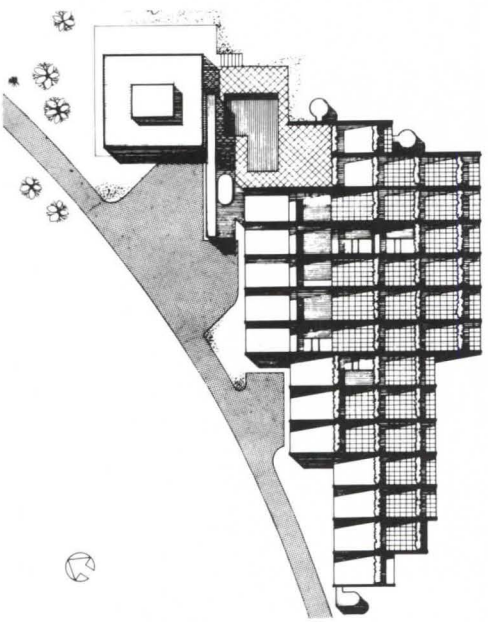
Addressing this project as a work of architecture, what is clearly evident are those other environments real and imagined that England admits influenced him. The one is the vernacular architecture of the Greek islands of the Aegean, and in particular Mykonos. Those sculptured geometries with their clear chiseled recesses and openings emphasized by bands of color all in relief against that incredibly deep blue sky of the Aegean, left an indelible image on his memory.

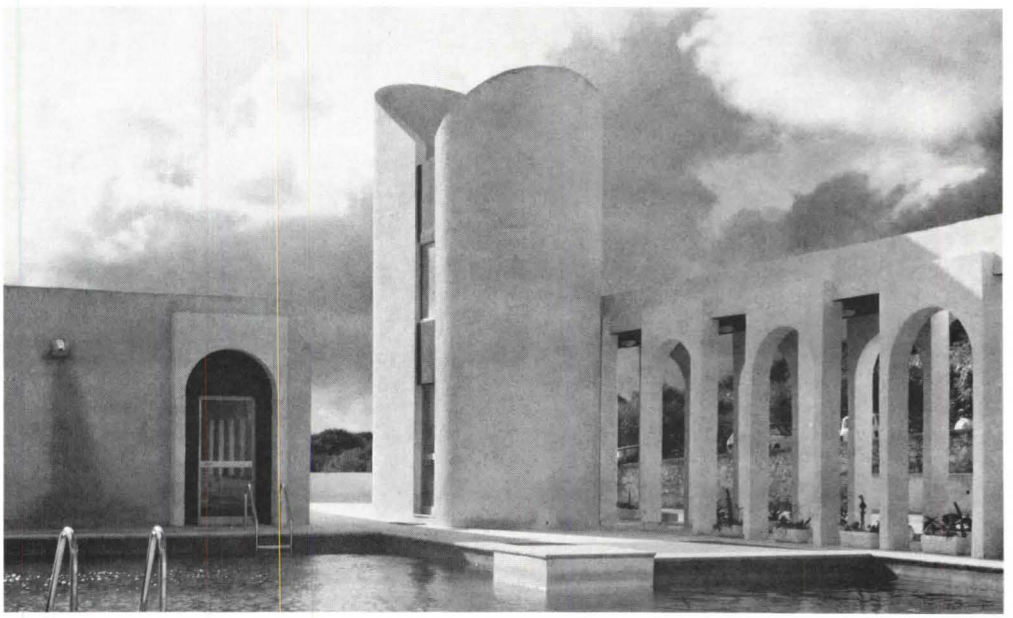
The impact of the stark imagery of the modern painter De Chirico is also evident here. The Maltese landscapes, not unlike the sparseness of the Aegean Islands, with fields of stone that turn into rambling, undulating walls, eventually joining with stone fortifications and farmhouses, provide an appropriate canvas for England's surreal compositions.

Furthermore, this is an architecture that depends for its effectiveness on a solitary one-to-one relationship between built form and the individual, not unlike being in a religious space. One cannot help but wonder if the intended spiritual and visual illusions will be disrupted by the sights and sounds of people with diverse backgrounds shattering the liquid reflections. THEO. DAVID

Mr. David is chairman of graduate architecture at Pratt Institute and practices in New York City and Cyprus.







A series of terraces overlooking the sea, with swimming pool, above, on main terrace.

Tourist Apartments Terraced Down a Rocky, Sloping Site

Like many third world architects, the 47-year-old Maltese designer Richard England regards his country's vernacular as its only true architecture, while berating both colonial styles and importations of the International Style.

His Festaval Tourist Village is situated on the northwestern part of the Island of Malta overlooking the sandy beach of Mellieha Bay beneath a historic 17th-century defense tower. The "village" consists of 10 one-bedroom units, 15 two-bedroom flats, and six three-bedroom apartments. Also included are a clubhouse and transit lounge building with internal pool, plus mini-market and playroom facilities. The main terrace, which is situated adjacent to the clubhouse, contains a large open-air swimming pool and enjoys uninterrupted panoramas down to the sea. The complex has been designed in a series of large terraced apartments fitted into the landscape and framed between long, sloping spine walls that follow the angle of the terrain. These terraces formed from the roofs of the apartments below provide partially private open-air living and sunbathing facilities.

This most recent design by England speaks two languages to the tourists who come to it, one more successful than the other. From a distance it shows a thorough understanding of the character of the landscape. The alternating textures of sand, brush, rubble stone walls capped by the 17th century defense tower silhouetted against the clear Mediterranean sky all seem to gain from the presence of this 20th century building type. While unobtrusive, the main structure does not try to camouflage the fact that it is manmade and new, and yet it does mirror the primitive manmade forms of old Maltese field walls. Construction of local limestone further cements the building to its natural and cultural environment.

The clubhouse and its attachments, on the other hand, speak a different language, one that is derivative with arched facades acting as a kind of curtain wall. Also the sensuously curved elevator tower can only play second fiddle to the old tower near by.

One cannot honestly say that to look at Festaval Village one would know that it is in Malta. That kind of instant identification is not important. In fact it has been proven that whether on the Riviera, or in the Middle East, architects who consciously try hard to make a building look like such and such a place or style often fail miserably. What is important is that this work complements its environment, drawing its materials and forms from it, while complementing what has already been put there by man. T. D.

Canada

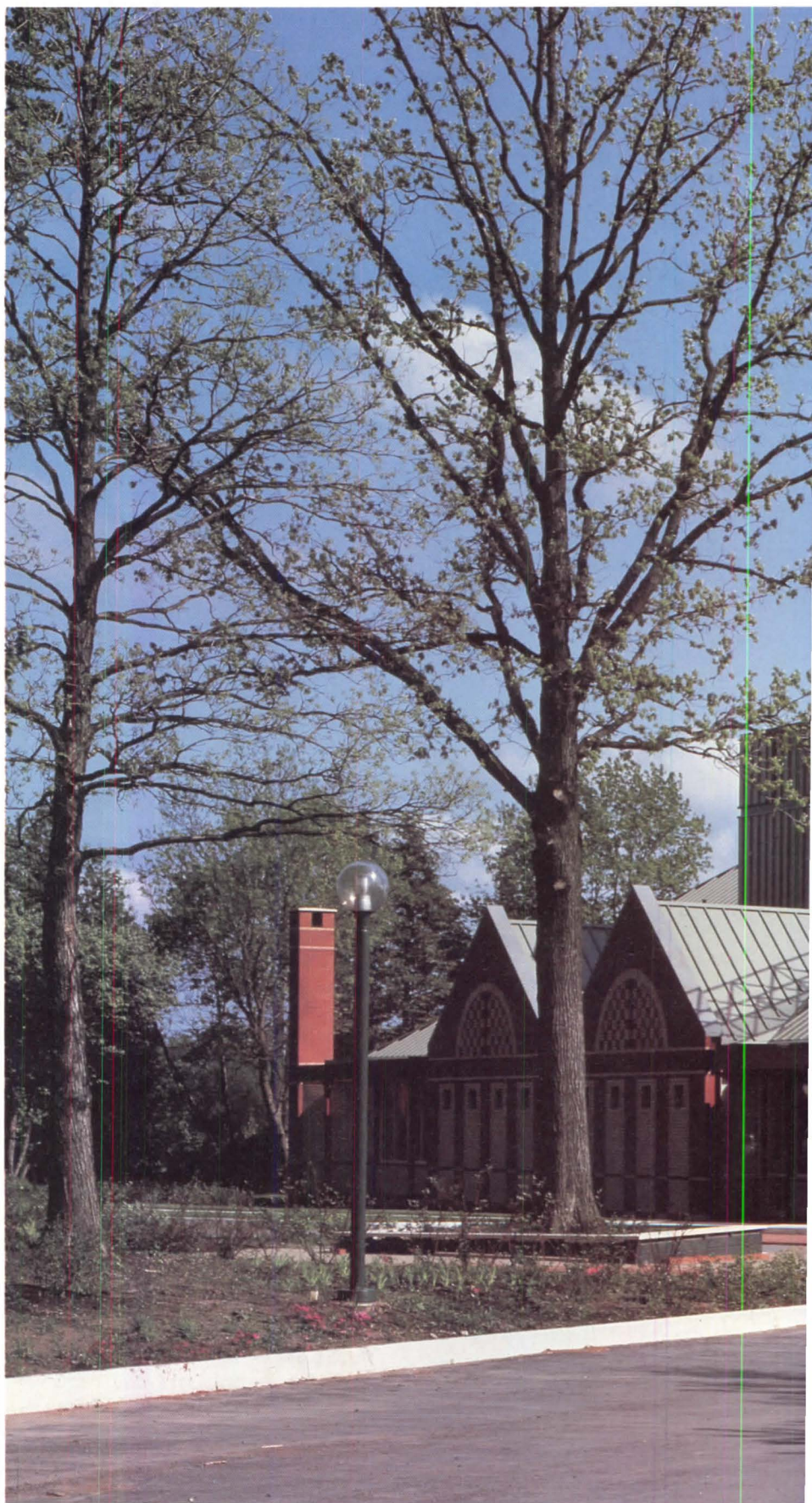
Solid Library in A Self-Consciously Nostalgic Village

Unionville is one of those charming little agricultural villages on the edge of large metropolitan regions that have become slightly arch commuter refuges for busy executives. The Victorian board-and-batten and decorated brick farmhouses with entrancing fretwork porches are renovated within an inch of their lives. The towers of the small churches, the turrets of the firehall are all-too-freshly painted. A livery stable is now The Old Stable boutique. The last drop of nostalgia is squeezed from the cobbles.

It takes an architect of considerable subtlety to insert a new public library into such a setting without striking a wrong note. The context must be respected and yet not taken too solemnly.

In this library in Unionville 20 miles from downtown Toronto, Barton Myers Associates has created a small masterpiece. The designers have picked up the genuine Victorian imagery of the place in gabled facades of red brick with buff stripes but not succumbed to fake reveries of the past. The building, set on a grassy knoll above a creek at the end of the village, reveals the sinews of its steel frame painted a deep red. The steep, standing-seam metal roof and the open steel tower over the entry mimic the church steeples in a contemporary idiom.

Gabled facades of red and buff brick with standing-seam metal roof play on Victorian imagery without fakery or mockery.



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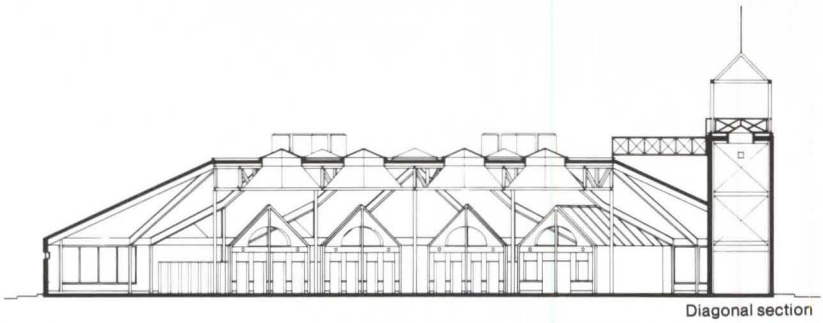
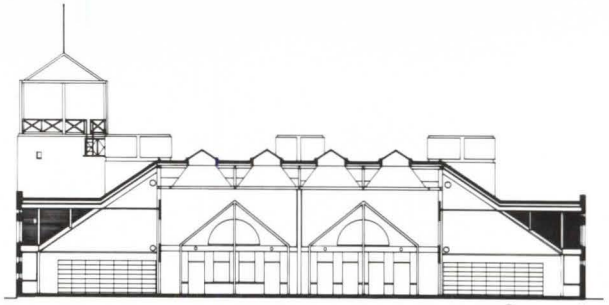
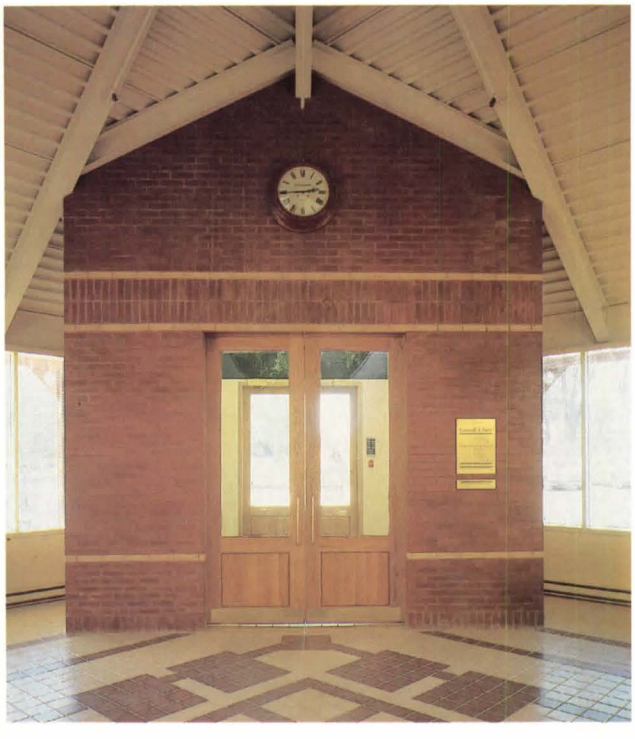


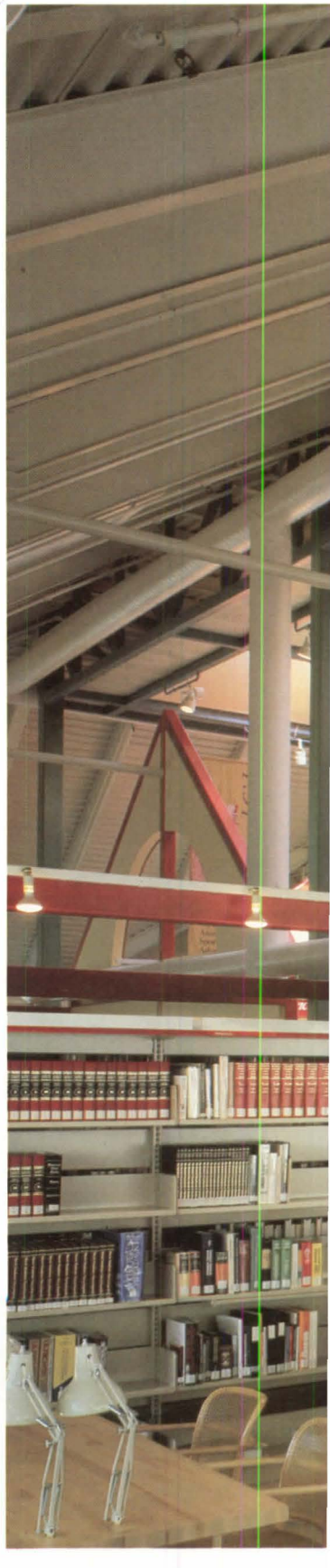
Diagonal section



Cross section



Ground floor



Left: open steel tower over entry, top; its interior, center; and glazed court with steel envelope enclosing mock pavilions of books, bottom and right.

The 14,000-square-foot plan is perfectly symmetrical. A skylit central court filled with plants is surrounded by stacks, offices, and a meeting room. Each corner contains an intimate reading room.

The central court, in Barton Myers' words, "echoes the famous Library of Alexandria where the sages of antiquity strolled under a blue sky." This courtyard is in Canada where the skies are more often white, so the roof is glazed and the light softly diffused by canvas linings. The economical industrial steel envelope encloses what appear to be a series of small mock pavilions housing books at a total cost of around $120 (Canadian) per square foot.

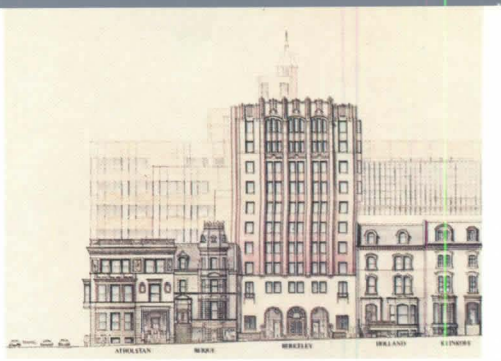
This is architecture as set design, a playful take-off of the traditional Mediterranean piazza. A Victorian touch with wood is wedded to an off-the-rack assembly of bolted metal components out of Eames.

"I've long been interested in Eames, ever since I worked for Louis Kahn," Myers says. "But, for me, the spatial play comes first. My primary interest is the architecture, not the technology."

In the Unionville Library respect for context, an urbane wit, and a light grace of means affect a design that is true to its rural heritage yet is ironically modern in its overlay of styles. LEON WHITESON

Mr. Whiteson, formerly the Toronto Star *architecture critic, is now with the Los Angeles* Herald-Examiner.

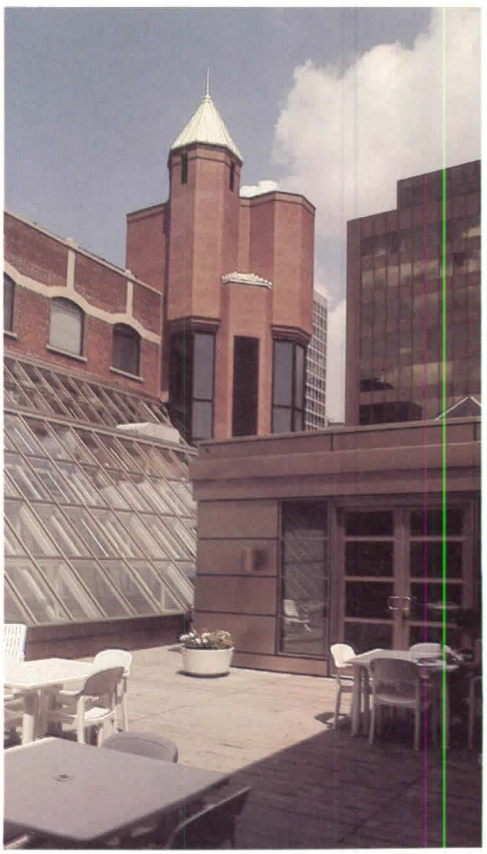
Canada



Fiona Spalding-Smith

The three-story Atholstan house, in center of photo left and left in drawing above, is Maison Alcan's cornerstone, while the 10-story Berkeley Hotel facade forms the centerpiece of the Sherbrooke elevation. Backs of these buildings line atrium, right, one end of which has a vertical core, below, that links buildings. Turrets top elevators next to atrium roof, bottom.

Allen Freeman



Allen Freeman

Old and New Joined Around Significant New Public Spaces

Sherbrooke Street in downtown Montreal, especially the mile or so between McGill University and affluent Westmount, is an avenue graced with graystone Victorian houses, many containing lively galleries and boutiques in rows punctuated by new high rises. Unfortunately, many of the latter are banal, sometimes brutal, intrusions.

Into this context comes Maison Alcan, headquarters for the international operations of the giant aluminum company, as a model of preservation and sensitive infill. Arcop Associates of Montreal was architect; the project team consisted of Ray Affleck, Ramesh Khosla, and Allan Thomas.

Alcan, attuned to the value of low-rise urban diversity, began quietly assembling property in the late '70s. It bought the three-story, mansion-sized Atholstan house at Stanley Street and then, westward along Sherbrooke, purchased a 1928, 10-story brick and stone hotel and two other late-1800s row houses flanking it. (A fourth attached house facing Sherbrooke remains separately owned).

To penetrate farther into the block, Alcan incorporated a midblock parcel that runs from Stanley to its north-south parallel, Drummond Street. On this land stood an undistinguished office building and a handsome Greek revival church, both belonging to the Salvation Army. The concept was to restore the houses, adapt the hotel to offices, renovate the church, replace the Salvation Army office building, and tie the whole together with urban-scaled spaces and new buildings.

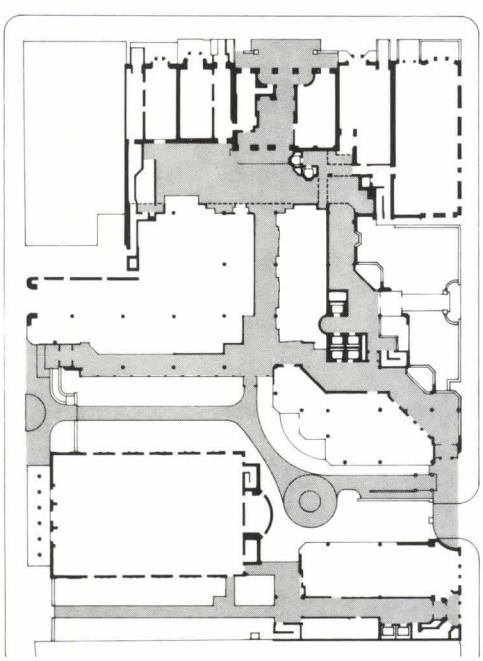
The three old houses were in various states of neglect, requiring replacement of a fire-damaged rear wall in one and meticulous recreation of lost or damaged interior details in all three. Period rooms in each now provide sumptuous office, conference, and dining spaces. In contrast to the house restorations, the hotel was gutted to its steel frame and its interior redesigned in a deco-ish motif compatible with the restored facades. Because the elevator core consumed a large portion of the floor space in this sliver of a building, elevators were removed and replaced by new ones in a tower appended to a rear corner. This important vertical

Fiona Spalding-Smith

Photographs by Fiona Spalding-Smith

core, which also serves and links two of the houses and one of the new buildings, forms a complicated "crank joint" with bridges and short stair sets connecting the varying floor heights in each of the four connecting buildings.

The two new components of the complex, a 180,000-square-foot, eight-story building for Alcan and a seven-story building one-fifth as big for the Salvation Army, comprise the vast majority of usable floor space. Clad in aluminum and glass, they strike a note of subtle contrast to their masonry companions. The aluminum is anodized a champagne color that ranges from almost white in direct sun to a deep bronze in shadow. Use of aluminum was not prescribed by the client, Affleck says, but once the material was chosen he knew its application had to be state-of-the-art.

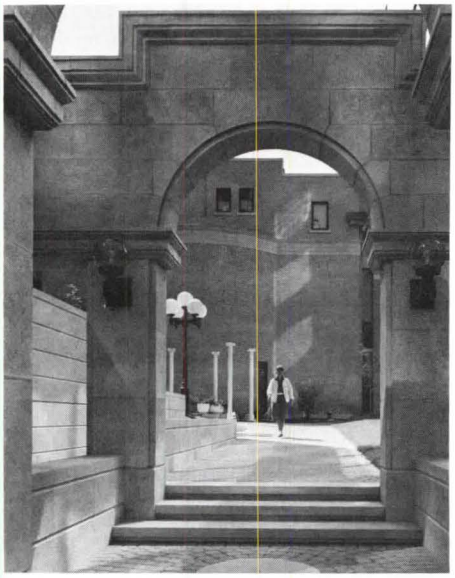


Stone gate, opposite page, marks entrance from east into Alcan's second major space, which runs through at midblock. Gate arch is expressed in aluminum over adjacent door, a secondary entrance into the Alcan office building. Ring of columns, right, forms a folly at a joint in the dog-legged park. The columns were taken from renovated church, whose brick rear elevation is adjacent. Top photo, from roof of Salvation Army building, shows church at left, gate at right, and stepping-back Alcan building.

It is an exceptionally beautiful skin fronting a rain screen wall system developed by the National Research Council of Canada.

Perhaps the most important aspects of Maison Alcan are its interior circulation and spaces. Affleck, a peripatetic urbanite, sees buildings as definers of pedestrian spaces. He carved out two important spaces within the complex, one under a glass roof and the other a linear, open-air park. Both are bordered by a combination of old and new buildings, yet each has a singular identity and purpose.

The atrium space backing the houses is a lively place topped by a glass gable 90 feet high at its peak. Varied and rich in materials, it is enclosed by four elevations each different from the other: the masonry backsides of the houses and hotel face a sleek aluminum and glass facade, while the intricate confluence of glass elevators and bridges at one end contrasts with a subtly articulated party wall of concrete brick at the other. Entered from Sherbrooke through the hotel, the artium functions as a winter garden and giant lobby for Maison Alcan.



Its counterpart is a doglegged swath running through the complex from southeast to northwest at midblock. This open space is softer and simpler—curving walk, grass, trees—and is likened by Affleck to Montreal's urban churchyards, which is appropriate since it borders the side and rear elevations of the Salvation Army church. An intimate park that amounts to a much-used gift to the city, it is, like the low-key, $43 million complex that surrounds it, informed corporate benevolence of a high order. ALLEN FREEMAN

Goa

Hotel Designed To Be a Colorful, Varied 'Hill Town'

Top, a cluster of apartments from the beach. Above, the arched entrance.

The Indian architect Charles Correa, Hon. FAIA, who this year won the Royal Institute of Architects' gold medal, writes as follows about his Cidade de Goa. *Ed.*

This in not a conventional hotel building. It is a hill town. Through the center runs a pedestrian spine, off which are the "casas" and suites. This configuration evolved naturally from the contours of the site, which slopes down from a hilltop to the beach.

We started to search for a name that would describe this hill town. Surely there was a mythical city which the Portuguese had yearned for, in vain . . . and El Dorado? But alas, our historian could find nothing. (Unlike the Spanish, the Portuguese were not metaphysical.) However, we did uncover the title "Cidade de Goa." It was the original name for Panaji, Goa's capital: city of Goa, a marvelously evocative phrase! It could be the name of a luxurious ocean liner or a supersonic airplane or an elusive city that echoes down the corridors of time.

Once the name was finally accepted by the client (which happened after the construction was well under way), the design changed course completely, because with a name like "Cidade de Goa" we knew one couldn't just drive up to a building. One had to arrive in the center of a town. And with that decision, everything fell swiftly into place.

The main road is up on the barren ridge of a rocky plateau. At a distance there appears a great ochre gateway—the entrance to the city. One passes through this portico and descends down the long driveway into a lush green valley, to arrive in a plaza, surrounded by key symbols and signs that connote city. Some of these images are the artifacts of a stage set, others the *trompe l'oeil* of the cinema poster artist. These facades are layers one passes through, a highly fragmented, kaleidoscopic series of visual sensations: firstly, the city abstracted; secondly, the city of virtual imagery; and finally, the city of real dwellings and balconies and terraces.

The departure point for all this was, of course, Goa itself—with its marvelous towns and villages. One sees this vernacular architecture as one moves around, in the historic old Fontaines area of Panaji, and in Ribandar, on the way to Old Goa. This is an architecture of great panache and exuberance, of vivid color, baroque balconies, and silhouette. We took these rich earth colors and intensified them. (It's incredible what paint can do—especially under the impressive, blue sky of Goa.)

There has been a number of extraordinary events that have made Goa into what it is today: a unique amalgam of hedonistic values from Mediterranean Europe, combining with the pluralistic, life-accepting credo of Hindusim. Nowadays it is being "sold" to tourists as just another banal place in the sun. Nothing could be more foolish. Goa deserves much more than the usual fatuous junk (fake Spanish arches and tiles) of the other tourist traps. To the Portuguese of the 16th century, it was Goa Dorado—Golden Goa, a center of great wealth and vitality larger than London and with a conglomeration of cathedrals and basilicas second only to Rome.

But even before the Portuguese arrived, Goa was one of Asia's greatest ports—a vital link on the trade routes. In its history were men like the fabled Adil Khan; before that, the powerful dynasty of Kadamba kings whose famous ancestor, Trilochana Kadamba, i.e. the Three-eyed Kadamba, was believed to have sprung from a drop of Shiva's sweat that fell at the foot of the Kadamba tree.

These rich images form the principal themes of the interiors of our hotel. The main reception area of the lobby is the House of Kadamba, with the classic Hindu symbols of welcome: the plantain tree framing the doorway and the garland of zandu flowers. On the left is the House of Adil Khan, an area of low divans and luxuriant silks. Ahead lie the Portuguese, signified by three conquistadores in conversation (Alfonso Albuquerque, Vasco da Gama, and a friend).

The interaction of these elements, i.e. of Portuguese and pre-Portuguese Goa, is a theme that occurs again and again through the hotel, finding expression even in the suites and rooms themselves. □

The hotel as 'city' appears almost more painterly than architectural. Rich colors are spread over a variety of planes. All figures in the photo below are painted on the walls. The architect calls this view of the project 'Homage to De Chirico.'

West Germany

© Siegfried Büker

Versatile Theaters In a Restored Erich Mendelsohn Building

In 1928, Erich Mendelsohn completed a remarkable complex of buildings along the Kurfürstendamm, now known as West Berlin's "Fifth Avenue." The key building in the complex was the Universum movie theater (other buildings included apartments, restaurants, a hotel, and an 830-seat cabaret). While most of this powerful complex of buildings survived World War II, the Universum was badly damaged.

A few years ago, the young Berlin architect Jürgen Sawade, whose father had been a well-known actor and whose mother had been a singer, decided that the Universum should be saved from impending demolition and that it would make an excellent space for the justly famous experimental theater known as the Schaubühne, which happened to be looking for a new home. All that was needed was enough money to gut the old shell and construct, within it, a totally new facility—that, plus some knowledge of, and love for, the theater.

Thanks to Sawade's energy, persuasiveness, and skill—and thanks to the generosity of the Bonn government in its support of the arts in West Berlin—the job was done; so that today, more than half a century after Mendelsohn's original structure opened its doors, the former movie theater has been transformed into what may be the most completely flexible performing arts facility anywhere.

What Sawade did was this: He gutted the entire Mendelsohn building, meticulously repaired and restored its exterior, and then built a completely new, mechanized theater complex within the restored shell.

The new theater complex occupies the entire space once taken up by the 1,800-seat cinema and divides this space into three individual theaters that can be used separately or combined into one vast performance-and-audience space, or into two spaces (one large, one smaller)—by simply raising or lowering two double sets of enormous roller shutters concealed within the roof structure. When all three spaces are lumped together, the total capacity is around 1,500; when the theaters are used separately, the capacity of each space varies according to the seating arrangement (and performance area) selected for each specific production. All three theater spaces can be used simultaneously as well as separately, for the roller shutters are carefully detailed so as to provide sound insulation for adjoining spaces.

To increase the theater's flexibility still further, Sawade divided the floor into 3x7-meter sections, and supported these sections on 76 scissorlike hydraulic lifts that can raise or lower the sections as required to any position within a 3-meter range. As a result, it is possible not merely to divide the vast, original auditorium space horizontally, but also to create a wide range of levels for both performers and for spectators. According to Sawade, the new facilities are so flexible that one can create just about anything from a traditional proscenium stage, to arena, peep-show, Roman forum, Kabuki, apron, or thrust stages—as well as "some configurations that we can only dream about today. . . ."

All of this extraordinary assemblage of theater technology is topped by a steel lighting grid suspended from the roof trusses. And the entire facility is further served by various electronic communications devices that enable directors, actors, managers, etc., to control the timing of performances and effects to split-second perfection.

All of this impressive array of theater

hardware in the hands of able directors like the Schaubühne's Peter Stein has generated productions with stunning visual effects. Chekhov's "Three Sisters," recently performed in a three-theater configuration, had one of the actors departing into a distant landscape, first disappearing into a "valley" then reappearing in the far distance on the stage "horizon"—an effect that brought down the house. One senses here a new dimension in live theater made possible as much by advanced technology as by architectural ingenuity.

All those changing levels and changing configurations in space, seating, timing, etc., created practical problems that Sawade solved with as much skill as he applied to the design of the performance areas themselves: For example, the changing levels within each theater obviously created problems of audience-access so Sawade designed a two-level lobby, which permits spectators to enter their theaters at whichever elevation has been selected by the director.

Because legitimate theaters require many more supporting facilities than do movie theaters, Sawade borrowed space where available to house some of those supporting services. Part of the former, next-door cabaret was turned into workshops, rehearsal spaces, and storage rooms, and cloakrooms and toilets were stashed away at basement level, just off the lower lobby and under the adjacent sidewalk.

While Sawade saved and restored the exterior precisely as it had been—even reproducing a certain random-colored and rough-cut brick that Mendelsohn loved—he made no effort to restore the streamlined, art deco details Mendelsohn used in the original interiors. Sawade's public spaces are white and bright and thoroughly contemporary; only an occasional, polished brass stair rail reminds one of the vocabulary of the 1920s.

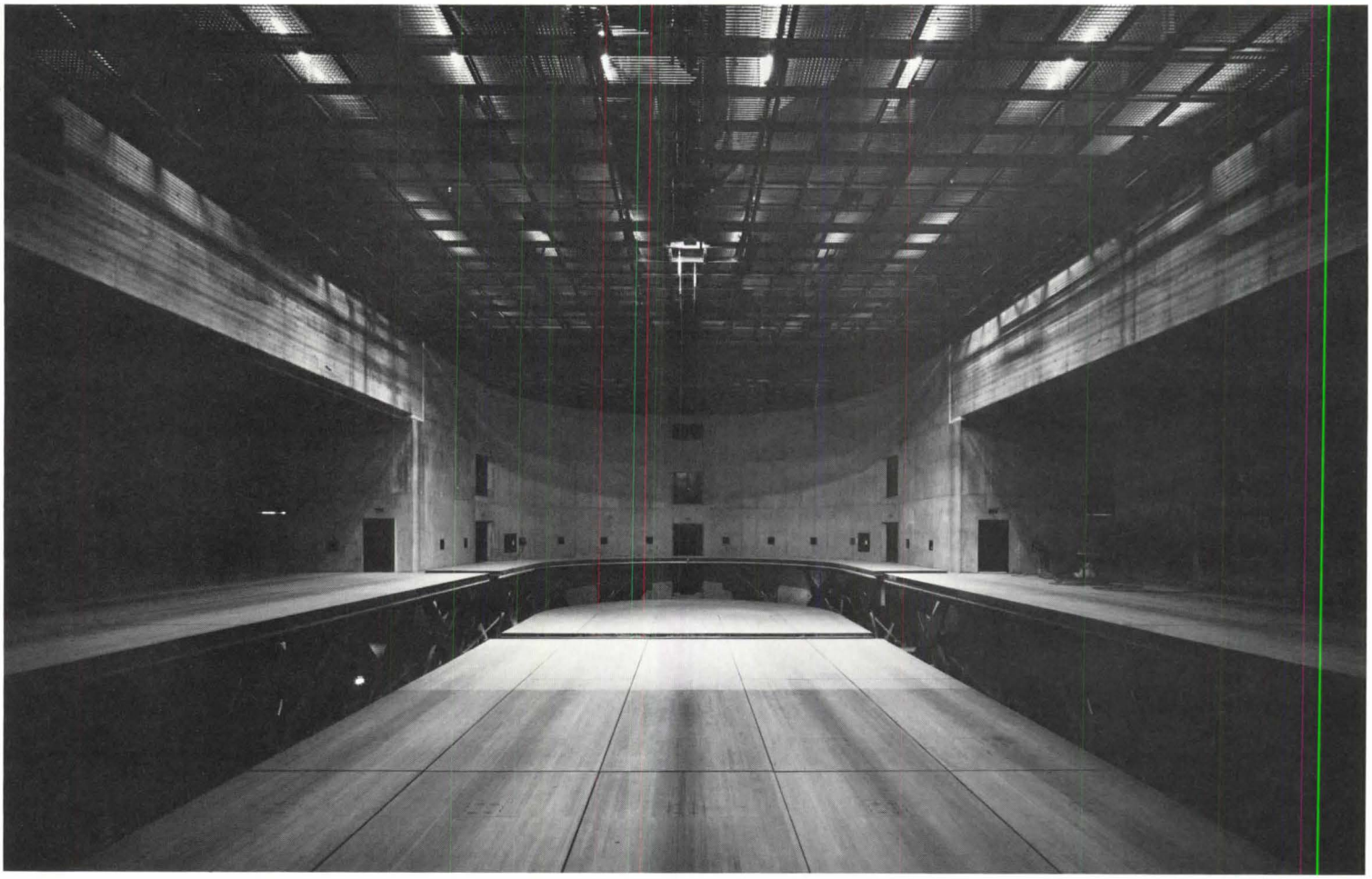
Does so thorough a job of reconstruction and of recycling make economic sense? It clearly does in a place like West Berlin, and it may make considerable sense in less bizarre locations as well, if one looks at the economic equation in broader terms. The total cost of this project, between 1978 and 1981, was about $35 million, most of it paid for with subsidies from West Germany. But the City of West Berlin (which owns the Schaubühne) recognized a long time ago that the arts were one of the city's most rewarding industries in terms of attracting tourists, creating jobs, and generating the vast array of ancillary services that go with all of this. When viewed in that light, an investment of $35 million—and the probable future investment needed to restore the balance of Mendelsohn's elegant, urban complex—seems reasonable. PETER BLAKE, FAIA

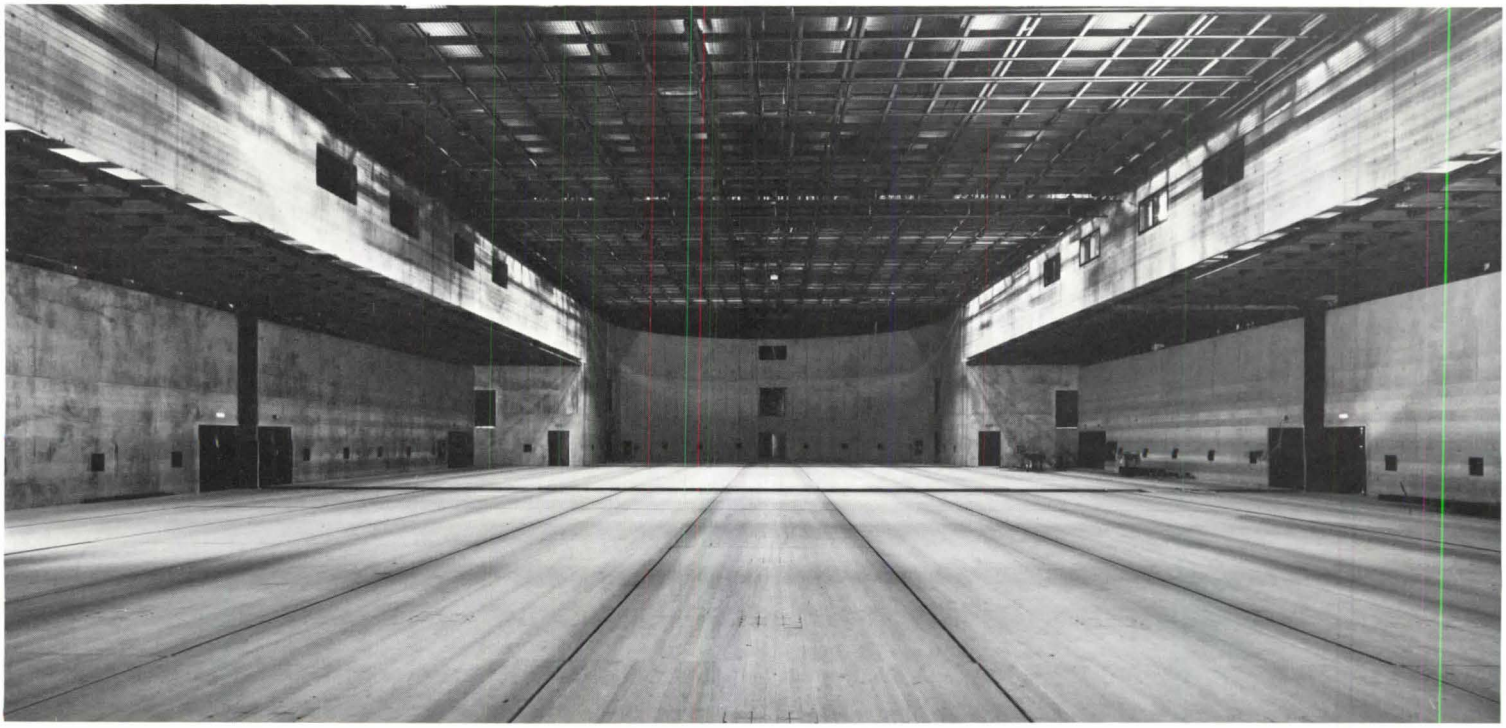
Mr. Blake was editor of Architectural Forum *and* Architecture Plus *and is now chairman of the architecture department, Catholic University of America.*

Exterior of Mendelsohn's 1928 cinema, left, was faithfully restored, but interior was transformed into experimental Schaubühne theater. Below, Chekhov's 'Three Sisters,' staged against a deep horizon.

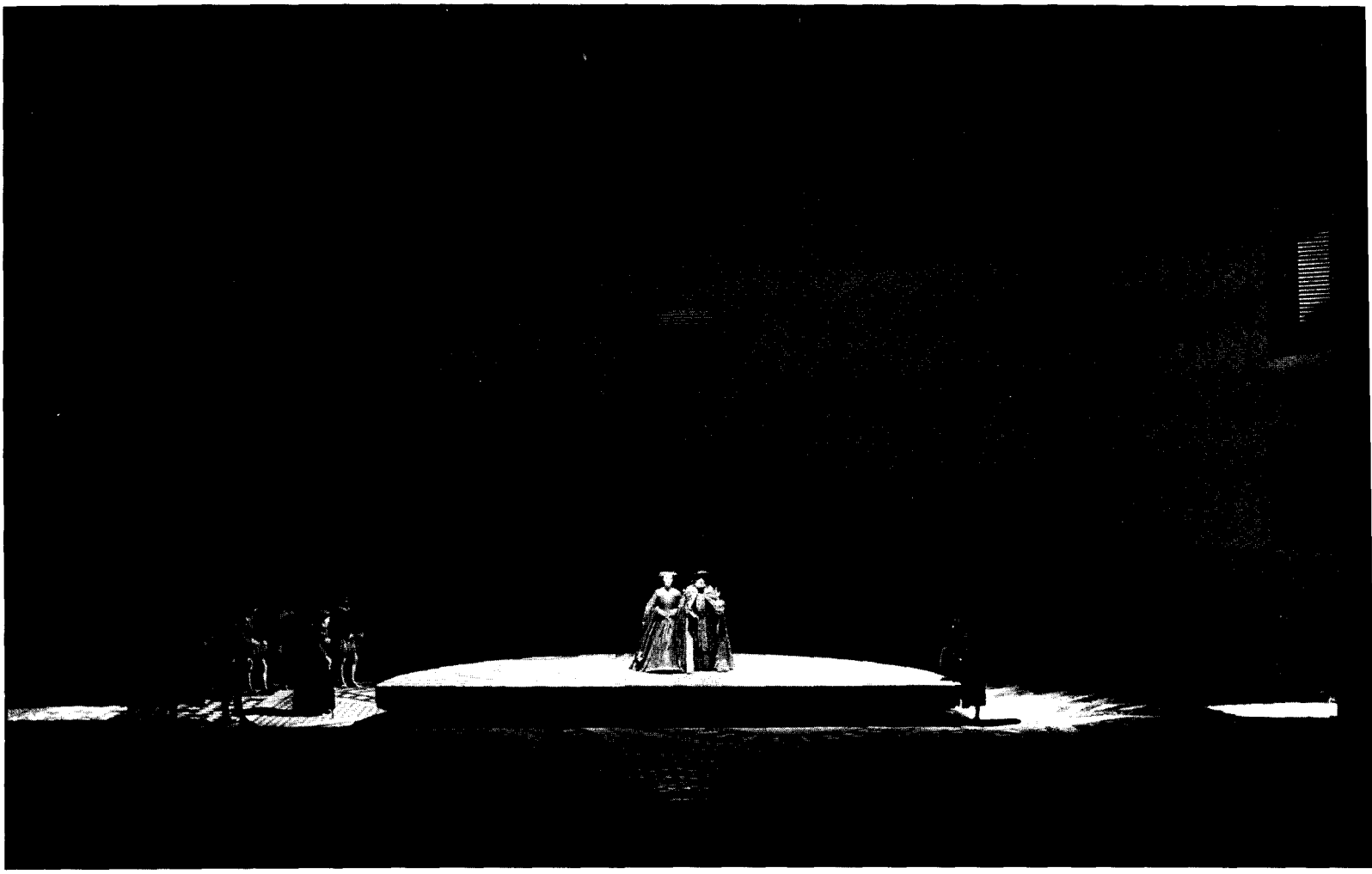
Ruth Walz

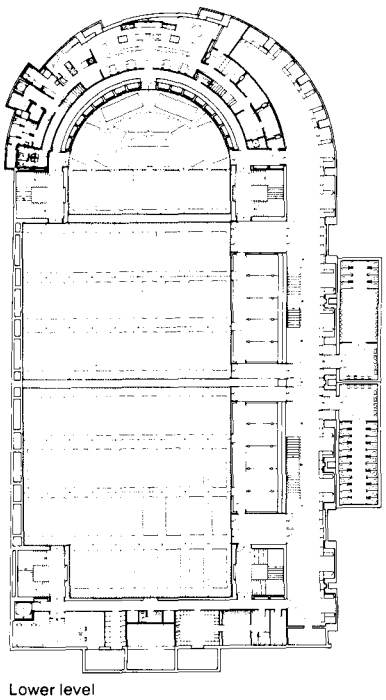
Below, two configurations showing arena-shaped 'apse' plus central seating performance area combined into one theater, with modular floor sections set at different levels. Set for 'Hamlet' occupied 'apse' in recent production. Plans explain layout of movable floor sections, dual access to theaters from two-level foyers. Scissorlike hydraulic lifts, bottom right, were developed in Bremen shipyards.



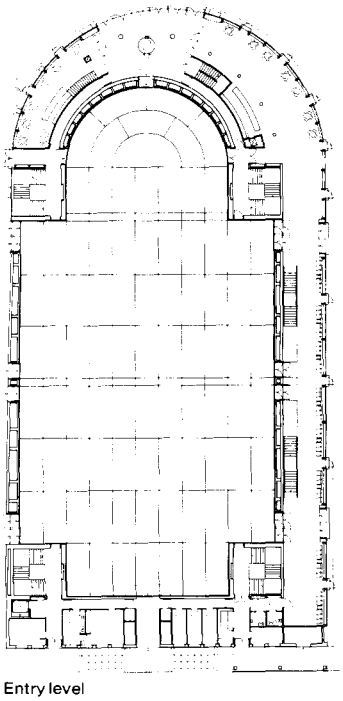


Ruth Walz





Lower level



Entry level

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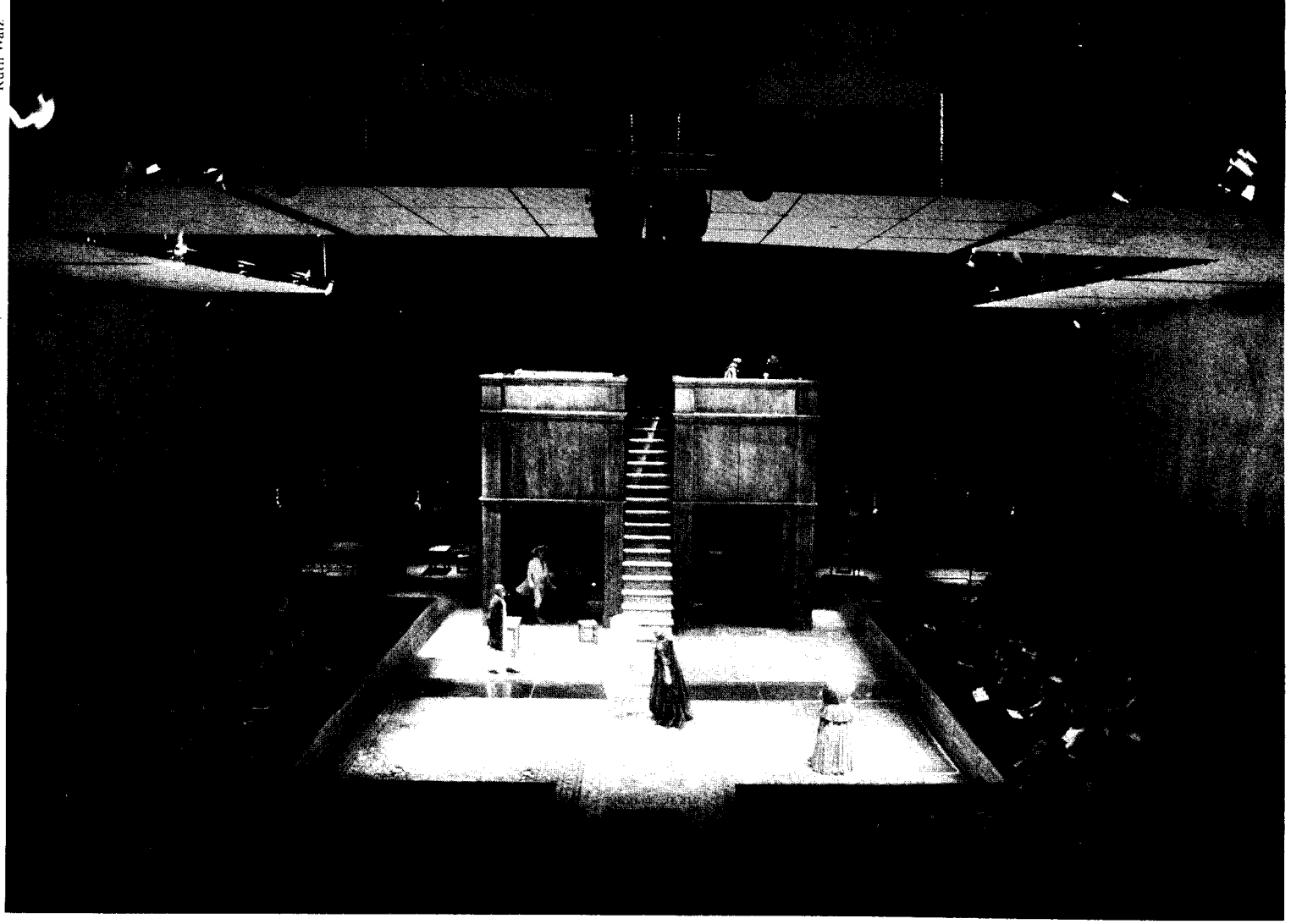
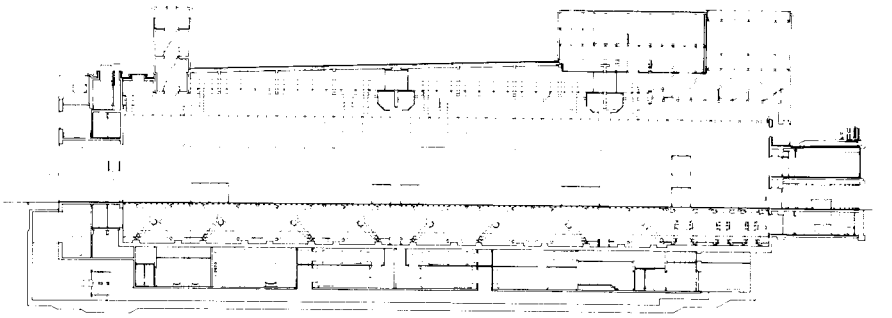
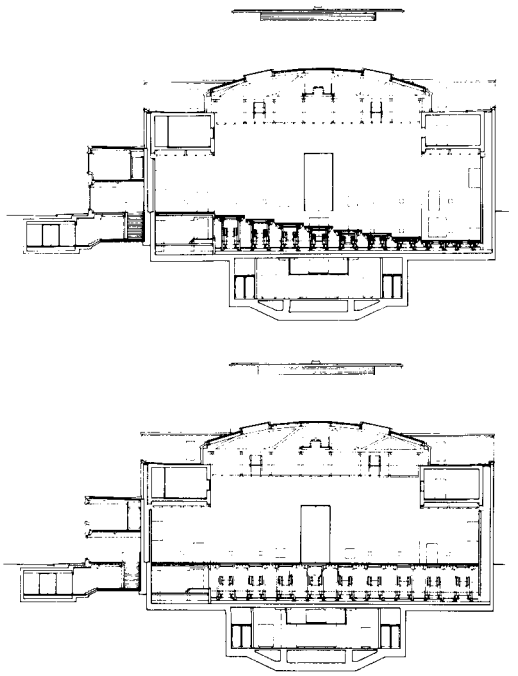
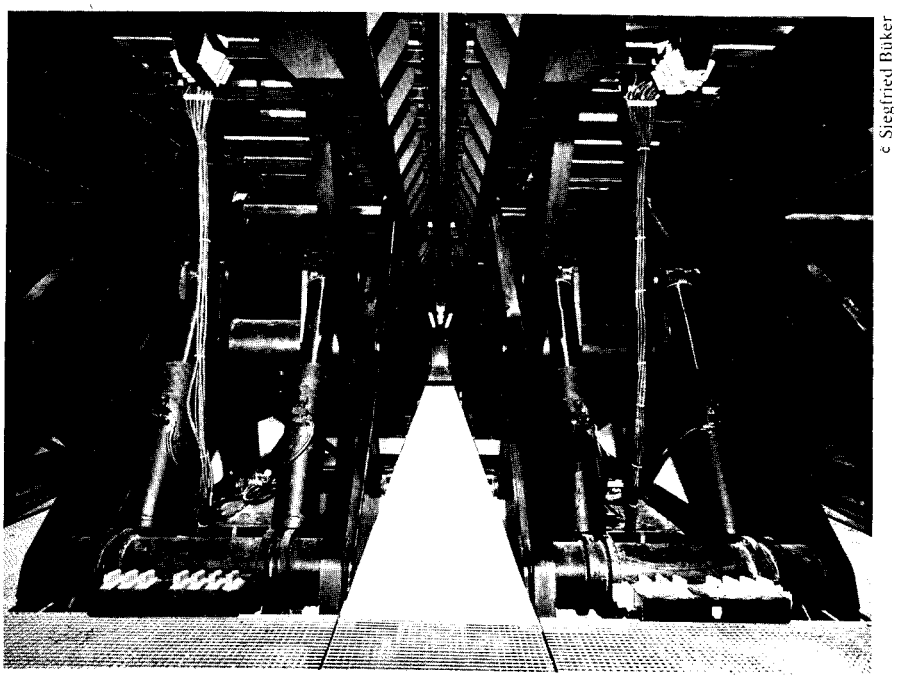
Ruth Walz



Left, three views with floor sections at different heights. Top view (from 'apse') shows two large spaces joined, roller-shutter walls retracted. Middle view has shutters down, 'apse' combined with central space. Side view, bottom, shows shutters between large spaces up. (Sections explain possible arrangements.) Stage set, above, was built for thrust configuration. Bottom right, walkways between stage lifts permit access from below. □







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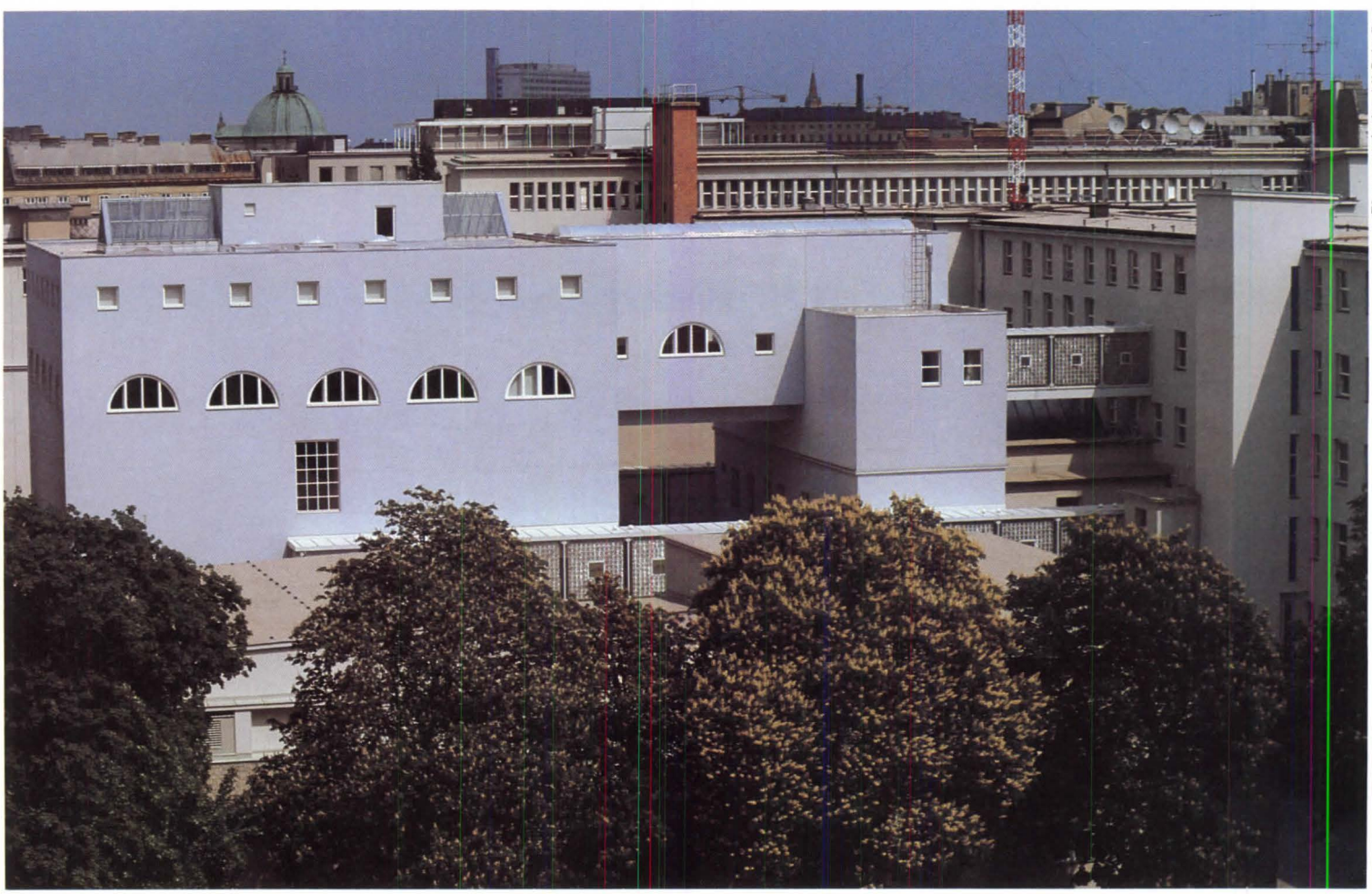
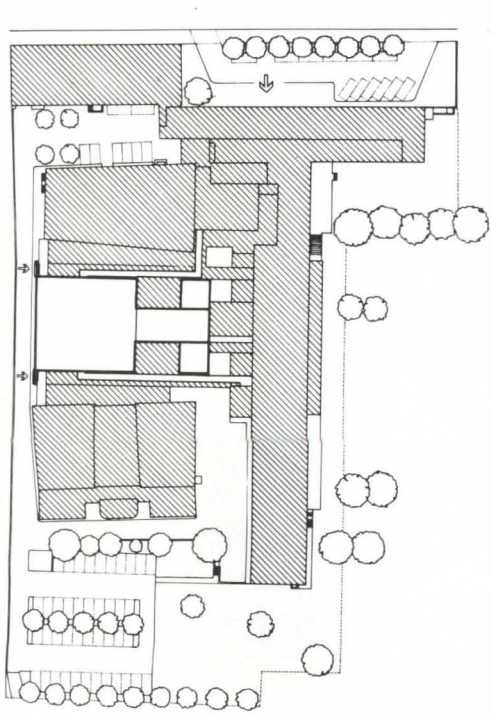
Austria



Photographs by Ali Schafler



Skillful and Intricate Addition to an Early Modern Monument

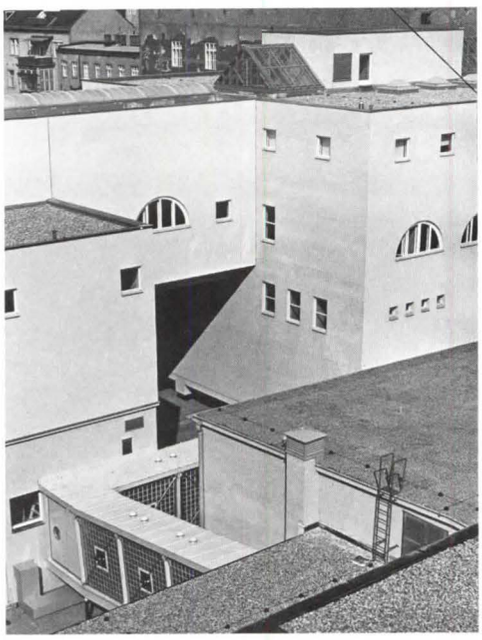
The headquarters complex for the Viennese (and Lower Austrian) radio network was completed in 1937 according to plans by Clemens Holzmeister. Holzmeister was an influential early Austrian modernist whose former students include Hans Hollein, Wilhelm Holzbauer, and Gustav Peichl.

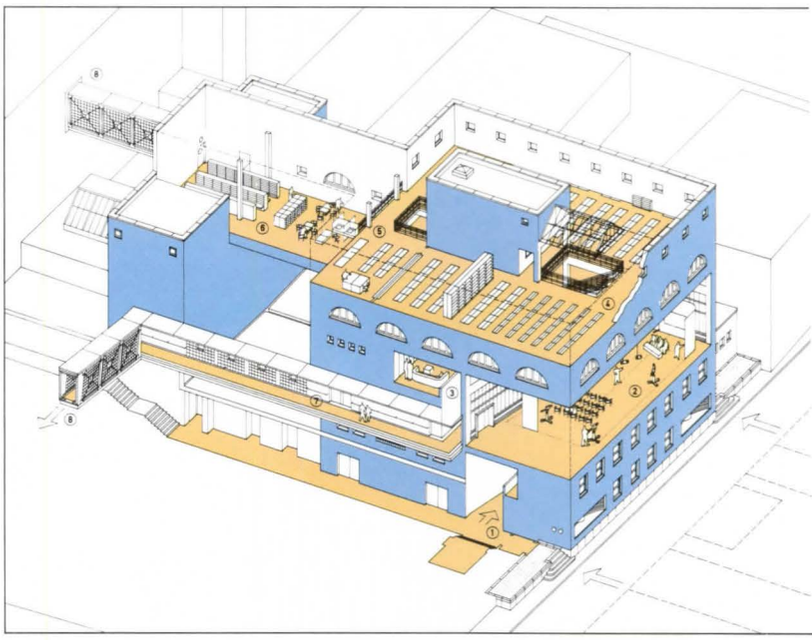
Some five years ago, Peichl—now a distinguished practitioner in his own right, who had done several remarkable, high-tech buildings for the Austrian broadcasting system in the 1970s—was asked to expand the original complex. Last year the expansion was completed. It is a massive, intricate, and exceedingly skillful infill structure, full of the sort of detailing and craftsmanship one has come to expect from Austrian architecture.

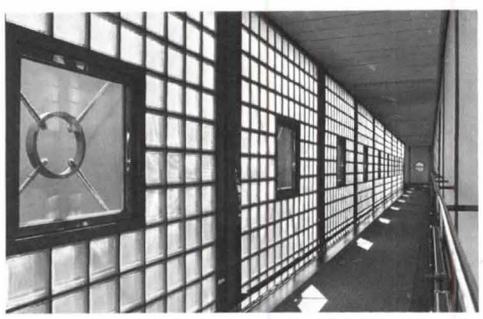
The original headquarters had been built on a typically urban property, and so the site was quite fully utilized. Still, between wings of offices and of broadcasting studios there remained one sizable courtyard; and this is where Peichl decided to plug in his 300,000-cubic-foot addition.

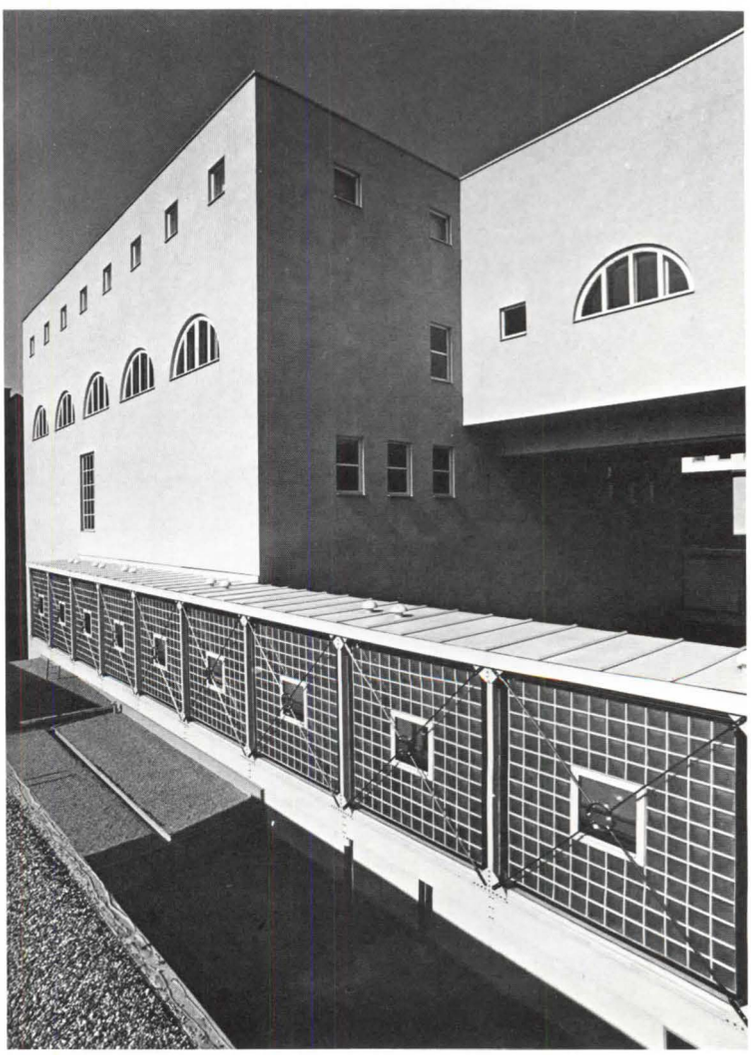
This addition, in effect, houses all the television studios for Vienna and Lower Austria, plus such ancillary facilities as rehearsal rooms, offices, circulation, and storage areas. But the most impressive spaces are the two-story archives for video tapes, recordings, and an elaborate card index to give researchers access to all the stored material.

The infill structure is four stories tall and has been connected at every level to Holzmeister's original building. Yet, despite its considerable mass, the new block is almost unobtrusive. Except for a few exterior touches, it is simple and seemingly ordinary, revealing very little of the elegant detailing and subtle spaces to be found within.





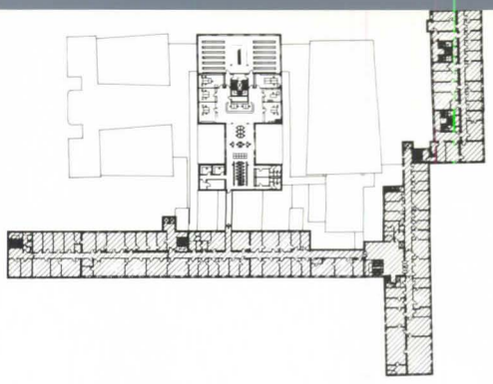




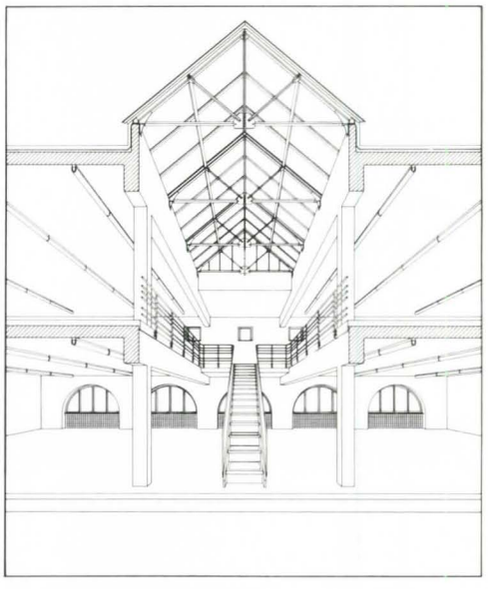
The block has been respectfully differentiated from the original headquarters complex in color (the original is a pale buff stucco and the infill is a pale blue) and in its fenestration. The original has modular, repetitive, rectangular windows, whereas the infill block is more varied, and includes rows of semicircular windows that avoid the monotony often associated with conventional, modern office fenestration, and turn the most mundane workspace into something resembling an artist's studio. But apart from these variations, the infill block looks entirely at home within the original complex.

It is a different story on the inside. Here all the subtle and playful detailing for which Peichl is famous has come into

Blue infill block, opposite, respects old complex built in 1937. It is linked to original buildings by gangplanks, above and right, walled with glass block, framed with stainless steel, and slightly ramped to bridge differences in elevation.



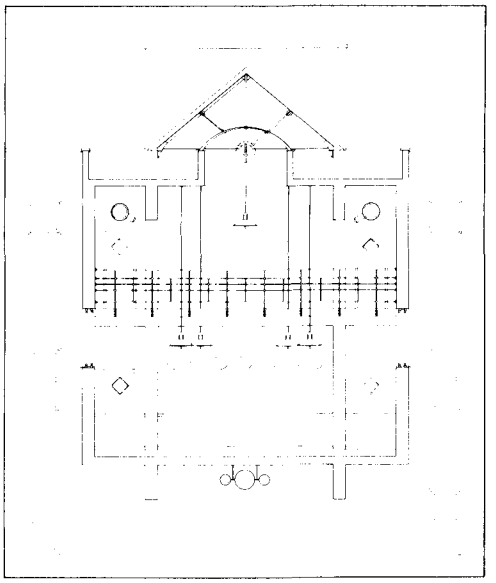
Photographs by Ali Schafler

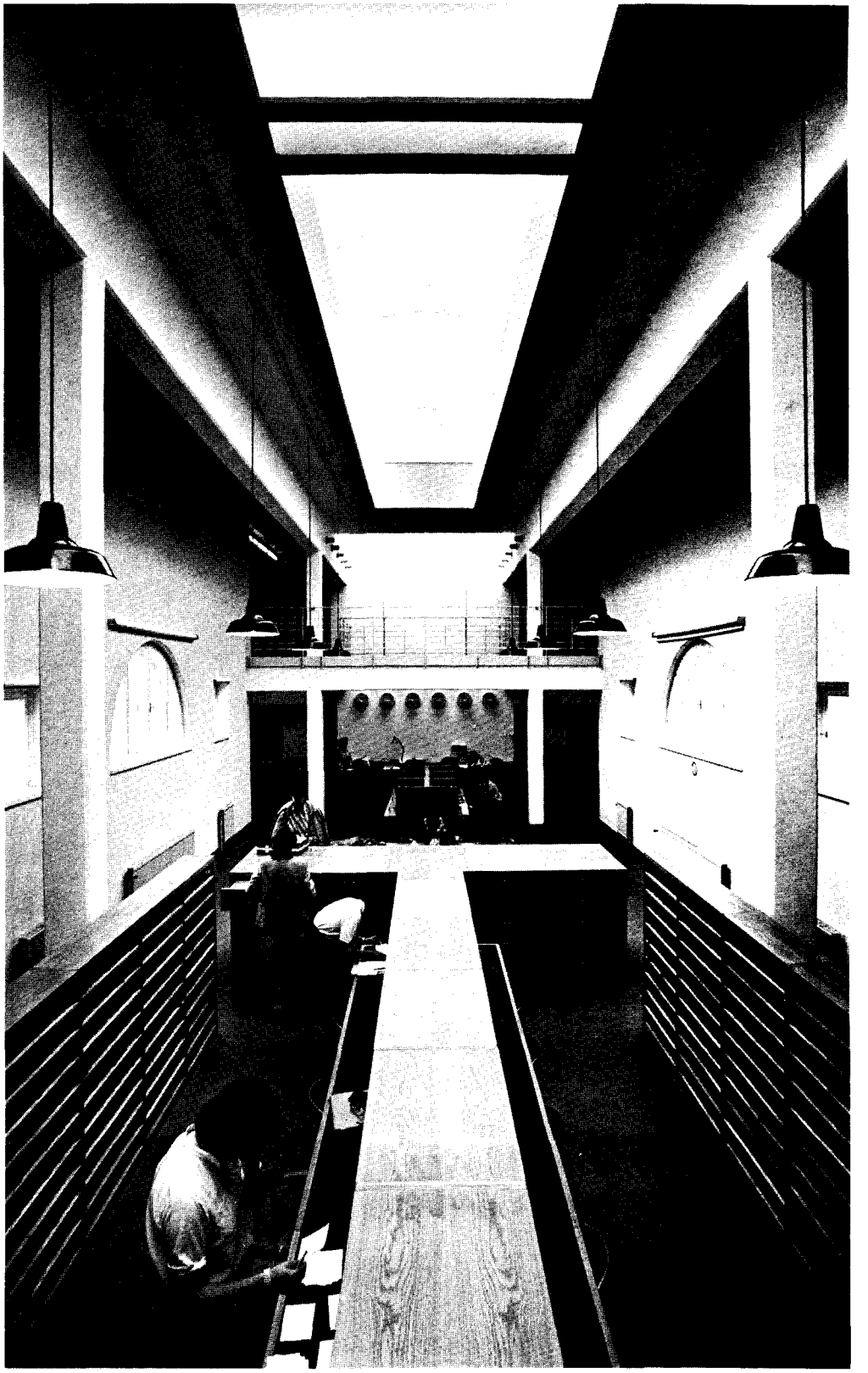


Double-story archives on top floors of infill, skylit and delicately detailed, contain video tapes, recordings, and other background material. Isometric on previous page, and plan and sections above, explain layout of archives.

play, especially in two areas: in the skylit, double-story archives on the top floors of the infill block
bridges that link the new building to its predecessor.

For a country that hasn't had a proper navy for several generations, Austria seems almost perversely preoccupied with nautical motifs—or, at least, Austria's architects seem to be. Peichl's buildings, like those of his idols, Otto Wagner and Josef Hoffmann, bristle with portholes, gangplanks, funnels, ship's rails, ship's lighting fixtures, decks, bridges, and the like. This building is no exception. The connecting walkways that link the new block to the older building are straight out of naval architecture, as are the spare and sleek details in the double-story archives. The latter—a compact, efficient, and beautifully detailed research library that houses electronic records rather than books—is skylit in the manner of Vienna's numerous urban arcades. Its equipment and fittings are so understated that they virtually escape notice, a refreshing departure from some of the extravagant, self-conscious detailing currently in vogue.





This understatement permeates all of Peichl's interiors (he redesigned several major and minor spaces in the old Holzmeister complex as well). Airconditioning grilles, wall switches, baseboard friezes (rendered in ceramic tile), lamps, windows, signage—all these are flawlessly aligned, centered, and just as flawlessly installed. Nothing has been left to chance, and therefore nothing jolts the eye. Even the radiators line up with the window openings (or is it vice versa?). One wonders how the Austrians manage to train such craftsmen—or how they manage to train architects who pay such meticulous attention to detail. (One explanation: No Austrian architect may be licensed to practice until he or she has done practical work in a building trade for at least two years.)

During the 24 months it took to construct the new infill block, several of the older broadcasting facilities in the Holzmeister complex were modernized and re-equipped as well. All this—new construction as well as modernization—was accomplished without interruption to the daily operations of the original headquarters and of the programs broadcast from its studios. That alone represents an accomplishment of considerable magnitude: To have been able to create a significant work of architecture without, at the same time, gumming up the works is little short of miraculous. P.B.

Spain

Classicism Used To Give Presence To a Small Building

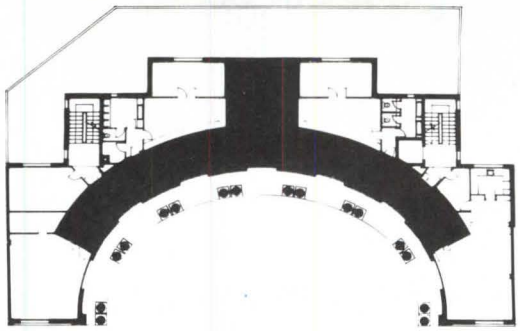
Especially now with regionalism and vernacular traditions guiding the work of architects the world over, this municipal services building in Girona, Spain, by Bosch, Español, Frigola, Hereu is something of a conundrum. Its classicism in a country known for its Moorish and Mediterranean design is understandable enough: The architects wanted to give the building a sense of public significance and order in an urban setting marked by chaos, and classicism has traditionally been used to signify and house authority. What is less comprehensible is that the architects, by their own admission, looked to two works of 19th century British architecture, both residential, for inspiration. The one is a building by John Nash in Regents Park, London; the other is Lutyens' Homewood house in Knebworth.

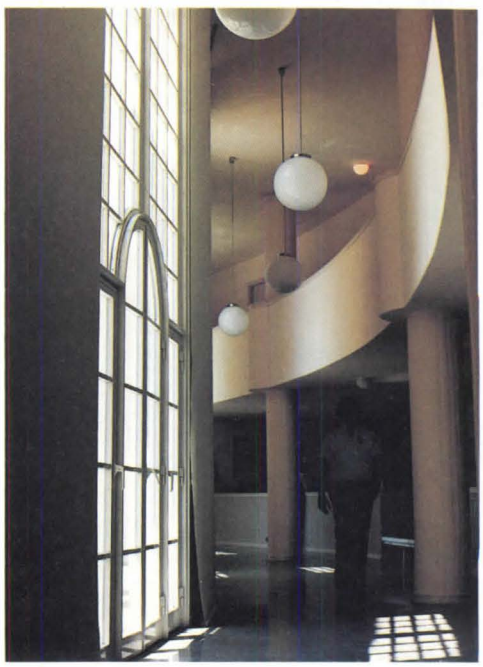
The municipal center houses the police (including offices for the chief and others, a club room, and conference rooms), a police training center (with classrooms, a gymnasium, library, and administrative offices), an arms depot, guard room, detention center, and infirmary, plus a garage for police vehicles and a parking area for impounded cars. One of the main requirements was to separate public and private functions and protect high security areas, while creating connections between the two.

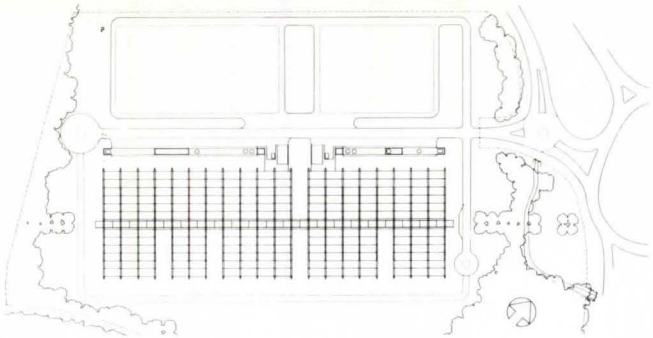
The main body of the structure is five stories high with public access via the second floor. The principal facade is semi-eliptical and concave, leaving an open space next to the street. The structure is reinforced concrete, while columns, pilasters, entablatures, and cornices are of smooth, artificial stone. Exterior walls are covered with ceramic bricks.

The interior plan is determined by the shape of the facade, with rooms distributed along a columned, curved corridor. The ground floor houses garages, guard rooms, and a gym. The second, primarily for public use and consisting of reception areas and offices, is double height. On the third, which is visible from the second, are offices for the police chief, his corporal, and a police command central. The remaining floors house the police academy, lecture halls, and the like. Floors are marble-grained concrete tile, and the interior framework is lacquered wood, ironically, from Belgium. A.O.D.

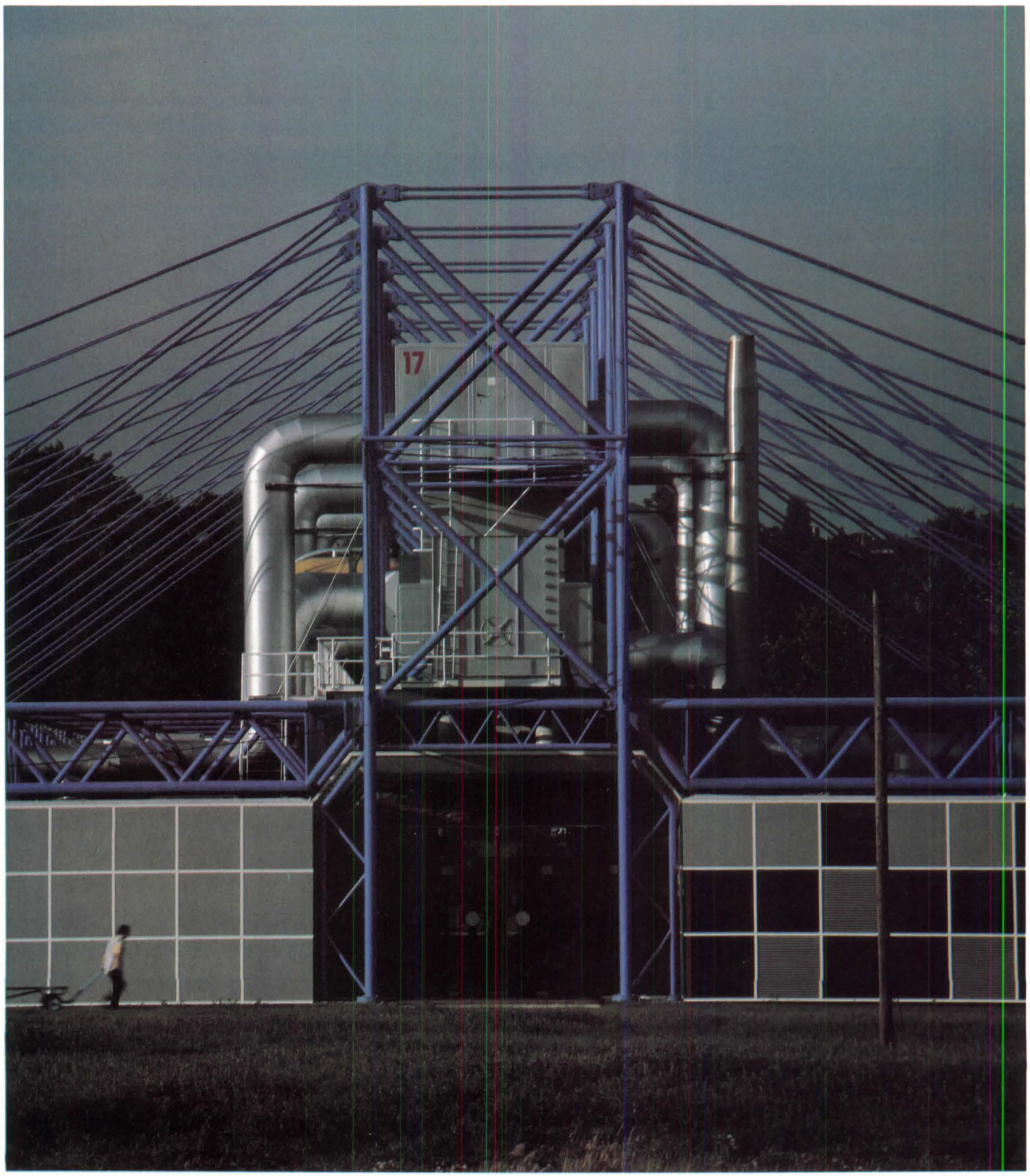
Classical forms to give significance in somewhat chaotic urban setting, below. Across page, above, a direct quote from English models; below, details of concave facade and public area within.







England



Photographs by Ken Kirkwood

Factory Bespeaks the Craftsmanship of British High-Tech

Sequence of giant blue H-frames across a green Welsh field, top. Rear entrance is across page, interior spine with continuous roof light is above.

When "King George V"—the railway locomotive, not the reigning monarch—visited the East Coast of the United States in 1927 and paced so silently up and down the Baltimore road, what impressed American reporters and engineers was her sophistication and refinement. She looked small and pretty compared to her massive and rugged U.S. stablemates, but surprised her hosts by proving to be powerful, efficient, and fast. The quality of her construction, of top grade South Wales steel, became legendary. She was, for her time, a remarkable combination of high technology and skilled engineering craftmanship, rather like today's British high-tech buildings. Her mechanical American rivals were not only considerably bigger, but conceptually much cruder and built soundly rather than beautifully—rather like the slick-tech high-rise blocks of SOM or Helmut Jahn, among many others today.

Discussing a British steam passenger locomotive of the late '20s in the same breath as Richard Rogers' early '80s Inmos silicon chip manufacturing plant might seem slightly arcane. In fact, the two have much in common. British architects of more or less Richard Rogers' generation were optimistic about the promise of an ever developing technology and studied the workings of locomotives, ships, planes, and cars as keenly as they drew and analyzed the structures of windmills and suspension bridges. As boys they played with "Meccano" sets—boxes of steel elements that enabled them to build anything from cranes and planes in miniature—and gaped at the double page full-color exploded drawings of new road, rail, sea, air, and space vehicles by the artist John Batchelor in the celebrated British comic *The Eagle*. Boys of this generation who went on to architectural schools found it easy to match their love of contemporary technology to the future of the building world.

Of course there have been other influences at work, and no one looking at Inmos could fail to recognize the contribution of Ezra Ehrenkrantz's SCSD schools (space-frame roofs packed with servicing suspended over flexible partitioned classrooms) or the U.S. space program. But, what is so different about British high-tech buildings and their American namesake is much the same difference as between "King George V" and a B&O Pacific: The American buildings are built from well-established, mass-produced components—simple, logical, functional, manly—whereas the British are honed from specially produced pedigree tools and materials. So Inmos has as much to do with traditional British craftmanship and engineering as it has to do with high technology proper. Inmos is not only an immensely refined piece of architectural packaging, but also has an extraordinary vitality and energy that most so-called high-tech buildings in America lack altogether.

For a high-tech client, Inmos is the per-

fect building. It evokes the 20th century myth of man's control of technology leading to progress and freedom (and, therefore, the building looks right for the function it serves: the production of silicon chips). It also realizes the further dream of truly flexible space that can be finely tuned to the needs of the user.

Inmos represents the very closest collaboration between Rogers and structural engineer Tony Hunt. Rogers' brief was to design a factory building that would be both responsive to any site (it is actually sited in Newport, Gwent, South Wales) as well as being capable of change and growth. According to Rogers the building had "to act both as a high performance precision production machine and as a friendly and stimulating environment for employees." The resulting building is both notably simple and remarkably complex, which sounds all wrong but isn't. The space enclosed by the planes of ceiling, floor, and wall cladding is essentially isotropic (a high modernist dream fulfilled), yet the structure holding up the partitions and walls is as elaborate as it is logical. Rogers' building is not concerned with traditional spatial qualities, and hence the architecture is essentially the elaborated structure and not the space contained by it. So the plan of the building is clear and simple.

A sequence of giant blue H frames has been staked out in line across a field to form the spine of the building. The H above the crossbar is loaded with service installations: The H below the crossbar is the 106x7.2-meter internal street running through the center of the factory and housing reception and meeting areas, public telephones, vending machines, and so on.

From both sides of the H frames (the only rigid structural elements of the building) is suspended a series of 38-meter trusses at 13-meter intervals. These are held in place by tension tie rods suspended from the spine towers—all the joints are held together with aluminum bolts and split pins (a reminder of locomotive technology). It is a seemingly delicate structure, so beautifully stressed that there is no need for massive compression elements. The building perches on the ground like a long-legged fly upon a stream.

The structure makes the internal space genuinely flexible as the structure itself. The building will be able to grow, bay by bay, simply by adding further H frames along the central spine and suspending further trusses from them.

Inside, the workspaces are markedly different on either side of the central street. On the one side (identified on the elevations by irregular glazing) are the informal offices and cafeteria as well as the plant, while on the other is the inner temple or the "production clean room" where the silicon chips are manufactured in an atmosphere notably cleaner than a hospital operating theater—thus the need for so much servicing atop the building.

Inmos is probably not great architecture—that would seem to have far more to do with the plastic handling of space—but, as a research tool, an exercise in spatial freedom and structural daring, in the beauty of its complex structure it is a welcome visitor to the earth. How will Americans receive it? Rather as they did "King George V," I suspect.

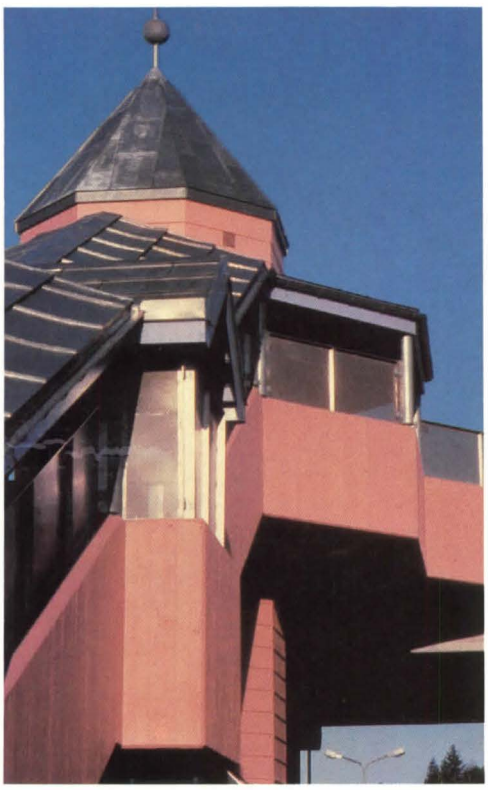
JONATHAN GLANCEY

Mr. Glancey is an assistant editor of The Architectural Review.

Photographs by Ken Kirkwood

Spectacular roofscape with 38-meter trusses at 13-meter intervals held by tension rods suspended from towers with joints linked by bolts and split pins. Right, future bays can be added at either side of spine at rear entrance.

Norway



Tiny Railroad Stop Made a Somewhat Medieval Landmark

Holmlia is a new suburb under construction south of Oslo. By 1986 more than 11,000 people will be living here, in blocks of flats among pine trees. The area is served by a railway line connecting Holmlia to Central Oslo only 12 minutes away.

The railway station at Holmlia is unmanned and very small. But it wants to be big. It plays an important part in the lives of the inhabitants, so there is no reason to be modest.

The architect, Arne Henriksen of the Norwegian State Railway Architects' Office, had only three elements to use to show the importance of the building: a staircase, an elevator for disabled persons, and a shelter for people waiting at the platform. With this minute program he created a rather monumental building, a landmark in a very nondescript area. It is a long, symmetrical building starting with one octagon and ending with another. Movement is the ordering principle behind the design: to lead people from the bridge down to the platform.

The architecture does its utmost to articulate this journey. The entrance is emphasized by the elevator tower with its pointed medieval hat. The balustrades make an embracing gesture, creating a tiny entrance space. Roofs and balustrades lead one downward. Halfway down, the movement is halted by a landing with inviting teak benches. One walks under the roof along the platform and finally reaches the octagonal pavillion where movement is brought to a standstill. The pavilion is static and expresses that this is the place to wait.

Far left, the entrance is underscored by elevator tower with pointed hat. Left, stair rises toward entrance. Below, the stairway interior.

This short journey takes place on a floor of ceramic tiles emphasizing the outline of the roof, making the station a complete building, although it lacks walls.

The colors—concrete painted pink, wood stained blue, and the silver gray of the galvanized steel—make it a graceful and elegant building. This is contrasted with the roughness of a public building that is going to have to withstand an unfriendly climate and tough use and will get little maintenance. Solidity and extra weight are also given to the building by layering the vertical concrete elements with horizontal strips emphasizing their loadbearing function.

There is a tradition of monumental railway stations in Norway. The station building was the symbol of an international network linking the narrow Norwegian mountain valley to strange places far away. But the station was also a rational piece of planning with a carefully articulated sequence of functions and spaces.

The Holmlia Station follows this tradition. There is something ancient and exotic about the building. This is probably due to its mixing of Aldo Rossi's World Theatre in Venice with memories from architect Henriksen's journey to China 10 years ago.

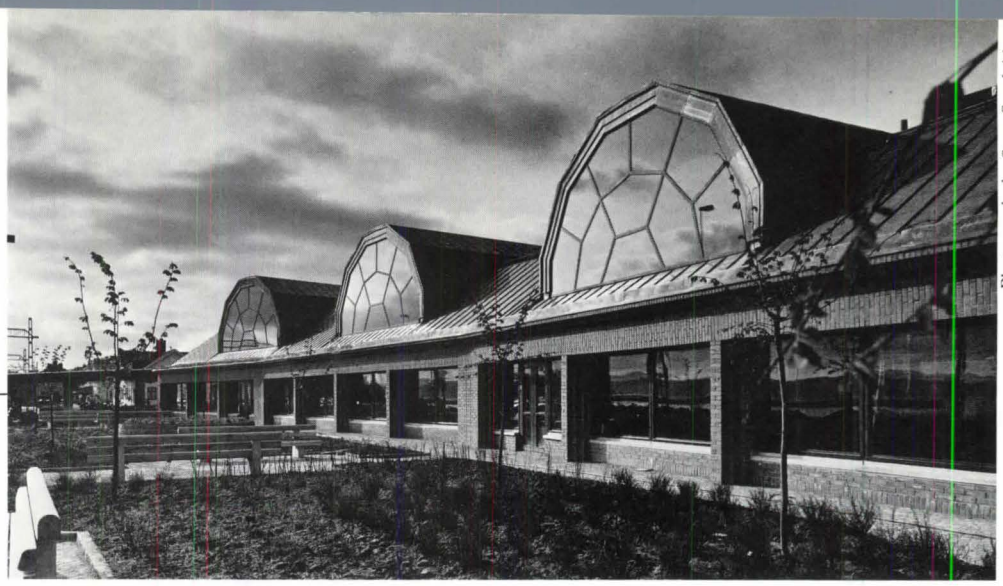
But what is important to the passengers is that they feel the strong presence of this building. It has a quality that is hard to come by in architecture today.

Next to the station is a shopping center. It is embellished with rows of small flags showing the symbol of the shopping center: the silhouette of the station. So, this minute station has already become the symbol of Holmlia. A lift, a staircase, and a shelter were enough to give the new suburb an identity. ULF GRÓNVOLD

Mr. Grónvold is editor of Bygge Kunst, *in Norway.*

Sweden

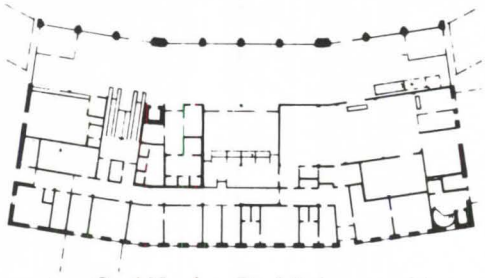
Vaulted Railroad Station Reflects a Heritage of Warmth



Photographs by Sune Sundahl

Carl Nyrén has methodically and consistently worked on refining his vocabulary of special materials and interior details, which he has carried from building to building. Yet, each new structure is different and reflects his time, though none is stamped by fashion. His work is traditional and is said to be very Swedish, rooted in a rationalism that goes back to the 18th century. Nyrén's traditionalism does not, however, come from borrowing elements of style, and his work doesn't follow recent tendencies toward the vernacular. He belongs to a generation of functionalists who opposed the classicism that dominated Swedish architecture before 1930 and still takes a strong position against historicism. Nyrén's traditionalism lies instead in a certain simplicity, unaffectedness, lightness, and feeling for natural materials, which have always been strong in Scandinavian architecture.

Few were surprised when the commission to design a new station for Jönköping went to Carl Nyrén. Jönköping was his hometown, and some years ago he designed a church there that is not only famous for its architecture but has become the most popular place in town to go for a cup of coffee.



Jönköping, a city of medium size by Swedish standards, is situated on the south shore of Lake Vättern, one of the nation's largest lakes. It is an old city whose roots go back to medieval times, but it grew with the railway, whose tracks were laid along the shore, cutting the city off from the lake.

Nyrén's new station provides a link, at least visually, between the city, toward which one of its entrances opens, and the lake, which is visible through its big, vaulted windows.

Slightly bowed copper-roofed facade, top, interrupted by three vaulted openings to bring soft light into two-story waiting room, left, and give views of lake, above.

The two-story building has two waiting rooms: one at grade, the other on the second story where there is a cafeteria with views of the waiting rooms and lake.

With its gently bowed plan, the layout of the building is simple and easily grasped. The cross section, by contrast, is complex, with three, large vaulted openings that break through the bowed ceiling to bring in soft, alive looking light, one of Nyrén's specialties. Floors throughout are typical of Nyrén floors, brick arranged in a square pattern, which he has used in a couple of his churches. The soft brown color gives a benevolent, light feeling to the rooms.

The station's red brick cladding and copper roof give it its exterior character. "That's how I remember the shore of Lake Vättern, with its match factories, in the old days," says Nyrén. Eva Eriksson

Ms. Eriksson is editor of Sweden's Arkitektur.

Dormitory that Is a Variation on Steiner Themes

The Rudolph Steinerseminar is a self-supporting community in Järna, 50 miles south of Stockholm. Its main activity is the education of teachers for the so-called Waldorf schools whose curriculae follow the ideas of Rudolph Steiner, founder of the anthroposophical movement. So do the biodynamic methods of farming practiced at Järna that, among other things, yield bread sold to markets all over Sweden.

Since the start of the community in the '60s, it has seen continuous building activity. There are a couple of student dormitories, of which Ormen Långe (long snake) is the latest and largest. There is a Waldorf school, a library, a building for performing "eurythmi" (a kind of rhythmic dance), a building containing a restaurant and shop, a music center, and a hospital now under construction. Erik Asmussen has been designer for all the buildings.

All reflect the work and ideas of Steiner himself. While Steiner's model was organic forms, he did not believe that architecture should imitate nature or be decorated with shapes drawn from nature, in the tradition of Louis Sullivan. Instead, he felt that the language of form should express the basic character of nature, its eternal change and growth. The organic forms that Steiner adopted were also rooted in the expressionist architecture that developed in Germany around World War I. Steiner, who lived from 1861 to 1925, spent most of his life in Germany and Switzerland.

Erik Asmussen talks of metamorphoses as did Steiner and, though influenced by Steiner, is no uncritical epigon. He is undogmatic and self-reliant. He has worked mostly in wood rather than concrete, Steiner's ultimate favorite material, and uses it in accordance with the traditional wood-building culture characteristic of Sweden. And though Asmussen's architecture may seem very exotic and even strange at first glance, it is strongly rooted in Scandinavian traditions. The interiors are light and have a meditative stillness, with light softly falling over walls thinly painted in pastels. This gives surfaces a living character. They change whenever you open a door or window.

South facade, top, the north above.

In this sense Ormen Långe reminds one of the earlier buildings, but it is stretched out instead of being tightly knit together. It is situated close to a north-south hill and forms a wall defining the north edge of the community while tying the area together.

In many ways, it is different from the earlier buildings. Contrary to most, which are painted in strong, very untraditional blue colors, Ormen Långe looks light and soft. The first floor is white; the second has a pinkish tone. Wood, painted a light blue, is used for structure and detailing but not for cladding, which is stucco, and a more permeable structure is used than for earlier buildings of the community.

Open stairs lead to an exterior balcony under the roof's deep overhangs, and walls and roof are different in color.

The 38 student rooms are grouped in twos, with each pair having an entrance of its own. A main motif in the architecture, according to Asmussen, is a movement up and a movement down, aimed at creating contact with heaven as well as earth.

Both chimneys gesture upward, "talking to each other over the roof." The treelike wood pillars also give the facade a rhythmic up-down movement.

The interaction between exterior and interior, a main motif in anthroposophic architecture, is manifested in ceilings that follow the angle of the roof, creating irregularly shaped rooms. At both ends of the building are collective rooms with fireplaces. E.E.

Brazil

Old Brick Factory Made into a Lively Recreation Center

The conversion of the huge Pompeia factory into an urban recreational center for the workers of Sao Paulo, Brazil, by architects Claudio Ferlaudo and Lina Bo Bardi is auspicious for two reasons. It is evidence that out of the shell of its own industrial past, Brazil can provide antidotes for its pervasive image of a country clogged by enormously scaled, anonymous buildings lining traffic-jammed boulevards. And it provides suggestions for uses to which Western Europe and the U.S. might put their many abandoned factories.

The Pompeia Factory is constructed of brick in the most traditional English industrial architecture style. For 50 years metal barrels and refrigerators came rolling off its production lines. Today there are still workers inside the factory, but they are not there to work. With the inauguration of its newest recreation center, the municipality has provided employees in commerce and all other city dwellers with one of the most important cultural areas in Sao Paulo. For a city whose recent history is the actual history of labor and the industrialization of the

Below, the barrel factory before conversion and the library in use today. Right, an internal street paved in granite blocks, where children exercise to music, and across page, the pottery atelier.

Flieg

country, what could be more fitting than the preservation of a factory? For this reason the Pompeia Factory constitutes a landmark, since it is the first large factory structure to be recycled in Brazil for the purpose of housing a worker's recreational center. It has also achieved a symbolic character, for it incorporates two fundamental human dimensions—work and leisure.

In addition to the historical value of the building, the architects and the developer, a public body, saw in the large open interior of the old factory ideal spaces for theaters, creativity workshops, a library, and lounge areas in a friendly, informal atmosphere. After years of careful restoration work the factory today looks almost exactly as the day it was built, with internal streets paved with granite blocks, high brick walls, long lines of windows in section after section, and large wooden rafters supporting the roof tiles.

Thus, in the 130,000 square feet of this restored factory, a final result was obtained that, both for the beauty as well as for the functional spaces of the project, is magnificently suited to its purpose as a large urban recreational center. The existing glass tile roof permits excellent lighting throughout the complex. The long central interior street now functions as an indoor walkway that leads to the different sections. To the right is the 8,000-square-foot exhibit area, where art shows are held. Next to it is the library, stocked with 7,000 volumes and sophisticated facilities that include film, tape, video, slides, etc., as well as a section for children.

Further on is a multi-purpose 16,820-square-foot area for reading, relaxation, games, or just talking with friends. In the next section is a theater in the form of an arena able to seat 1,000 people.

At the end of the central street and to the right are the creativity workshops. Here one can try engraving, drawing, painting, carpentry, ceramics, music, photography, dancing, or gymnastics. To the left is the restaurant and cafe. The large, modern restaurant can provide 2,000 meals per day. At night, and also during the day, a bar and snack service in the area transforms it into a pleasant meeting spot. Future plans include a 121,552-square-foot area, under construction, that will contain a sports center with courts, gymnastic rooms, and a swimming pool complex. THEO. DAVID

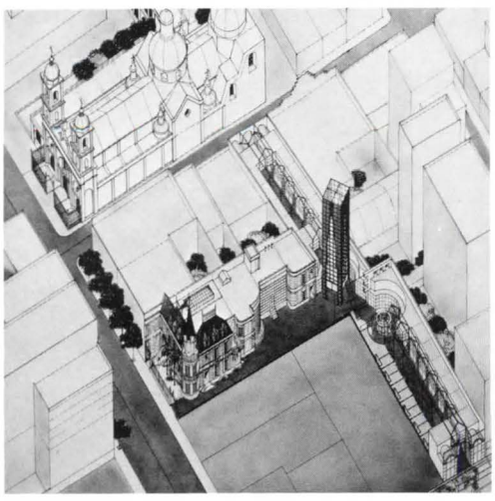
Argentina

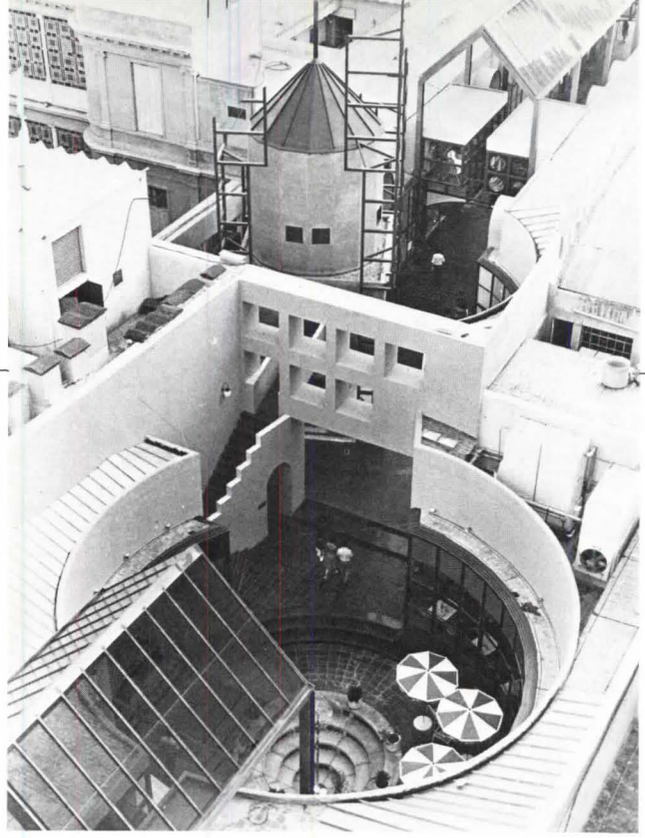
Two Arcades by Two Architects Meet and Meld

Córdoba, a city of one million people in the center of Argentina, was founded in 1573 and has the usual square grid pattern of Spanish colonial cities. The grid serves now as a downtown area, the city having far outgrown its former limits.

During the last 20 years, an intricate network of shopping arcades has been superimposed on the original grid, perforating the massive square blocks. Such an intensive use of land is the consequence of the traditional urban role of the "centro," a restricted area where the most important commercial activities are assembled near the colonial monuments and the old university area.

In a few cases these "perforations" have attained some architectural interest, but the *Paseo de la Ciudad* is without doubt the most successful. It is the consequence of a complex venture: Two outstanding local architectural firms—José Ignacio Díaz and Gramática/Guerrero/Morini/Pisani/Rampulla/Urtubey—received a commission from two different clients to build a shopping arcade going from two parallel streets to the center of the same block, arriving almost at the same point. They proposed to their clients to work together uniting the two sections into one single design. There was a useless open passage belonging to the city's art museum arriving at the center block from a third street, which the architects convinced the city authorities to open for





The heart of the complex with double height, glass-roofed galleries, left and below left, is at the intersection of the three arcades marked by a turret, a circular sunken fountain, and twin glazed domes of Santo Domingo's church.

public use as an open-air exhibition gallery for sculpture, with access from the arcades. The complex would now have three branches meeting approximately at the same point, one of them being part of the museum and the other two a shopping arcade with restaurants and coffee shops.

The museum, a picturesque composition with an elegant pinacled turret at its corner, became an important point of reference for the new design. The other one was the double-domed Santo Domingo's church, a 19th century structure across the street from one of the arcade's entrances.

The kernel of the whole complex is in the intersection of the three arcades. It is an interplay of a turret crowning something like a tempietto and a circular sunken fountain echoing the museum's turret and the glazed church domes. The main dome is also the focal point toward which the views from the arcades are directed.

The double-height galleries are glass-covered but not entirely roofed. The climate being rather mild, except for two months during the year, this kind of protection seemed sufficient and enabled the architects to retain the lively character of an open-air passage.

The entrance from the museum's gallery to the arcades is a glass curtain, delicately articulated by slender columns that repeat the partitions of the museum's lateral facade, thus establishing a sensible relationship between the old and the new.

A light postmodern flavor marks the entrances from the streets and the classical profile of the arcades' cross section. Some "Rossiana" can also be detected in the central tower. MARINA WAISMAN

Ms. Waisman is editor of Summarios *in Buenos Aires.*

Strongly Articulated, Brightly Colored Emergency Hospital

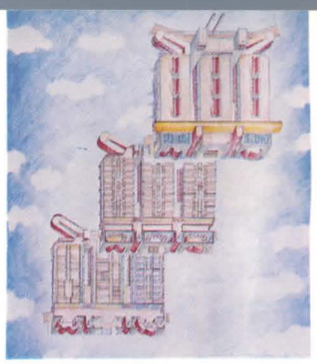
Miguel Angel Roca, who likes to express his architectural ideas metaphorically, compares the main, double-height lobby of his Emergency Hospital in Cordóba to a street and its courts to plazas. He says, "The hospital, like a railway station, is a place for departures to an uncertain voyage among life and death landscapes. Connected to the great hall, the passenger cars wait for the journey to inner time and space."

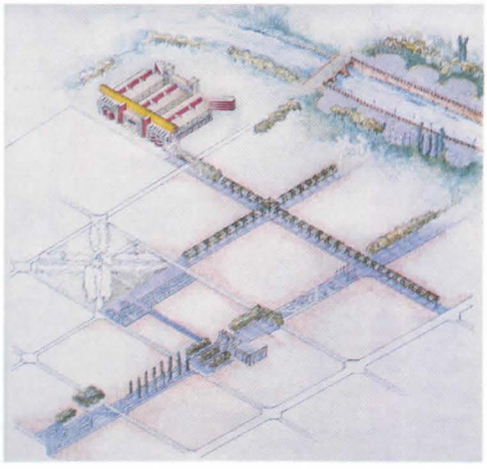
The Emergency Hospital, with its strongly articulated and colored volumes, provides a sort of gate to downtown Cordóba at its western edge, creating a vital focus in an otherwise decayed urban landscape.

A monumental concrete portico and a double-height waiting room roofed with a metallic vault mark the main entrance and public area (auditorium, chapel, cafeteria) located in low volumes freely arranged under the high portico. The outpatient area, organized in three parallel blocks of emergency and operating theaters, a diagnosis area, and consulting offices, is separated by two internal courts and forms a second "building" of low profile. The rear section—emergency and services entrances and circulation areas—closes the whole with a very strong two-towered volume, flanked by diagonal red ramps. Two levels of residences for medical staff bridge the entrance void linking both towers.

The inpatient area with 120 beds oc-

The double height, public entry space with vaulted roof.





The rear of the building, above, with emergency and services entrances and circulation, plus parking garage. Right, the front elevation with vaulted portico, plus outpatient facilities, right in photo.

cupies the second floor, with support facilities located in a spine in each block; public and technical circulation is separated. Administration, kitchen, laundry, storage, mechanical services, maintenance, etc., are located underground, where there is also a staff parking garage with a ramp entrance from the rear of the building. The circulation system consists of a public network and a second one for inpatients and technical services. They are connected by transverse "streets" resembling two facing "combs."

To attain the necessary flexibility for hospital life, the building has been planned on the basis of a 24-foot module, and panels are removable. The building's structure consists of a concrete frame—columns, beams, and cast-in-place slabs. Internal partitions are sandwiched or plaster panels fixed to metallic profiles designed to house small ducts; external concrete walls with slim white marble bands are meant to reduce maintenance, a task usually neglected in this country. M.W.


ATENCION
INGRESO DE
EMERGENCIA
UNICAMENTE

Australia

Murcutt's Metal Vaults Shelter a Regional Museum

Corrugated iron is the quintessential colonial building material. Strong, light, readily transported, it was widely used in the Australian colonies throughout the second half of the 19th century. And it assumed a deeper significance, for it alone could compare with the large sheets of bark that the Aboriginal inhabitants used for their own shelter, especially in the tropical north where heavy rains necessitated substantial shelters. Their arched roofs of bowed bark antedate by thousands of years the segmented iron vaulted roofs that Glenn Murcutt introduced in the Local History Museum and Tourist Information Centre at Kempsey. The parallel, such as it is, is one which Murcutt discovered after the event.

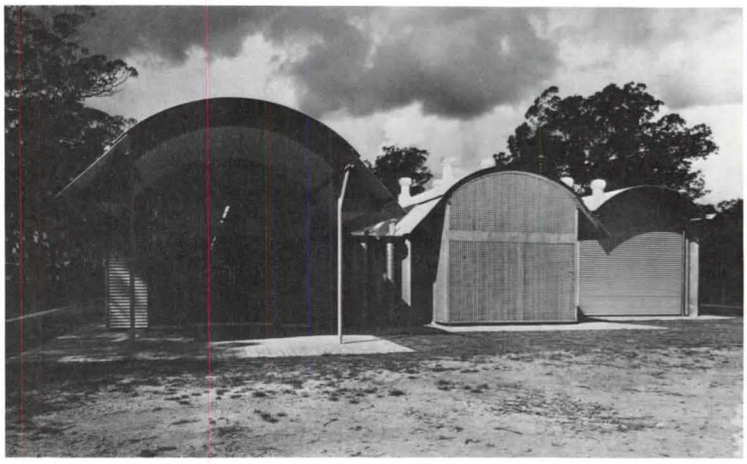
Murcutt welcomed the wind in his design for the museum. It may without exaggeration be described as a large wind instrument! Thus air movement was encouraged by locating narrow horizontally pivoted vents in a line on top of each wall to facilitate cross-ventilation during the hot, humid summers. In addition, two rows of Western rotary turbine vents were put on either side of the roof ridge. These vents exhaust stale air and add to the liveliness of the architecture.

The museum accommodates terrain conditions; each segmental-shaped corrugated iron vault echoes the rounded profile of the nearby tree canopies. Furthermore, the vaults are as light and delicate in appearance, if not in fact, as the semi-transparent umbrella-like canopies of sun-shading leaves. In places, gaps have been left to reveal the sky. If the roofs resemble the tree canopies, then the walls can be compared to bark girdled trunks.

The walls are constructed with brick on the inside and corrugated iron fixed horizontally and insulated by a three-inch thickness of Insulwool on the outside. This inversion of normal building practice has the advantage of keeping the heat out, while the mass of brickwork on the inside maintains the interior at an even temperature all the year round. The corrugated iron functions as a furrowed metal bark around the trunk of the building.

The activites of the museum have been

This page: top, longitudinal view; center, entrance facade; bottom, auditorium in shortest of three pavilions. Across page, rear of building plus exhibition area in longet pavilion.



Photographs by Max Dupain

organized in separate though interconnected pavilions. The display and exhibition areas are in the longest of the three, the tourist information service is in the middle pavilion, with a small theater in the third and shortest pavilion. Located opposite the main highway on the coast linking Sydney with Brisbane, at a point approximately half-way between these two state capitals, the site has for years been a popular stop-off place for motorists.

The composition of the three linear pavilions results from their fusion in a roughly symmetrical arrangement. Except for the theater pavilion, which was modified slightly to suit its specialized function, the construction of all three pavilions conforms to a standard section. They give an impression of great lightness and delicacy, combined with strength. From the outside the museum reveals a hard character not all that different from the sclerophyll foliage of the nearby tallowood trees. This was achieved by the ingenious structural alliance of the long brick walls on either side of each pavilion with light steel pipe columns at each four meter. The wall and column elements work in unison as bone and musculature in the human body.

Sunlight plays an important role in the museum. There are roof lights on the north straight-pitch of the main hall above the reception areas, to enliven these spaces when seen from the outside, and over the entrance of the theater. These louvered sky-windows, besides admitting sunlight in winter to warm the space below, also provide a visual connection with the sky, which is such a powerful presence in the Australian scene, and relieve the inwardness of the interior space. In several instances, the gable ends of the pavilion vaults have been screened for privacy by cedar lattice that serves a similar function to the louvers over the roof openings in admitting a soft filtered light to the interior while simultaneously permitting veiled glimpses of the outside.

The Kempsey Museum is a tent-like shelter whose mass, like that of the Aborigine's bark huts, has been kept to a tolerable minimum so as to preserve, so far as it is feasible, the freshness of nature. The museum is a truculently Australian building, one that makes no concession to international architectural fashion, for Glenn Murcutt is haunted by the uniqueness of Australian nature and with the necessity to build in harmony with the land.

D. H. Lawrence insisted that, "Australia is outside everything." The Kempsey and other Australian buildings in this issue are proof, if such is needed, of the veracity of Lawrence's assertion. They are unlike any other architecture, and that must be the measure of their rightness.
PHILIP DREW

An architect and critic, Mr. Drew is the author of monographs on Frei Otto and Arata Isozaki. More recently, he has written Leaves of Iron, *a study of Glenn Murcutt, which explores the theme of giving architecture a regional identity.*

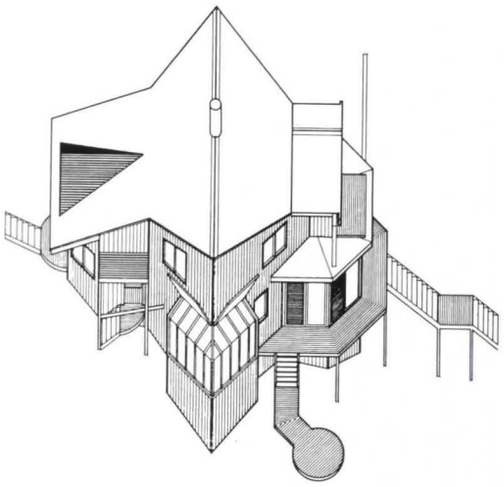
Australia

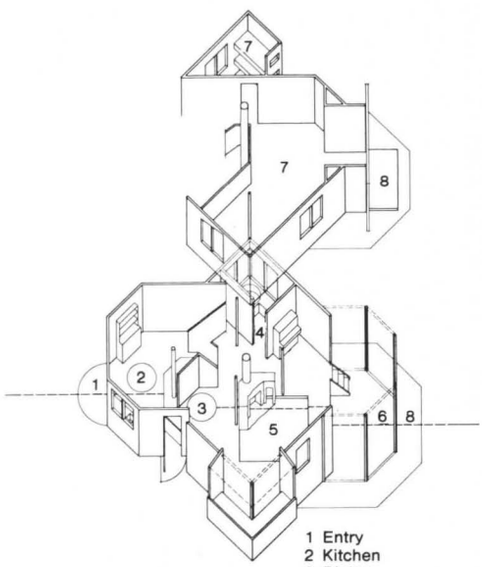
House Seems 'Part Of the Ecology' of A Seaside Cliff

Peter McIntyre's cliff-hanging Seahouse is imbued with the atmosphere of its place. So involved is it with the memory of the sea experience that it is easy to imagine that it formed spontaneously from lumber as it was hurled by a rogue wave against the Mornington cliff face. In fact, the building was assembled with great care, each post and beam cut and fitted to the sloping terrain. But so well has this been accomplished that the house always seems to have been there and forms a part of the natural ecology of the cliff. There is about it a subtle accommodation of man and nature, so that the building is never subservient.

McIntyre, a keen yachtsman, designed the house as a retreat for his family and to enable him, as he grows older, to stay in touch with the sea and with sailing. But the house, constructed of weathered timber, has little that is either direct or obvious in the application of the boat metaphor. Instead, McIntyre evokes such features of the sea experience as being out on the water and being surrounded by it, along with the protective, mothering aspect of being cupped-up inside the boat shell—a mixture of exposure to the sea and of safety at the same time.

On first encountering the Seahouse one is struck by its obvious simplicity. Yet in a great many respects it is an extremely baffling work. For one thing the apparent symmetry of the outside is attacked inside to produce a kind of approximate symmetry. In plan, the house consists of a central diamond covered by a pitched roof whose ridge is opposed to the view axis. Two octagonal shapes with gables are lodged at either end. The envelope is then added-to or cut-away to suit the view. This pragmatic adjustment of what is in essence a symmetrical scheme arises from McIntyre's admiration of the timber beach shed and gabled seaside houses that line the shore of Port Phillip Bay. The axis, which runs through and at the same time ties together the interior spaces connecting them with a distant view of the Mornington yacht harbor, is interrupted by a number of lateral displacements that make the plan asymmetrical in all its





1 Entry
2 Kitchen
3 Dining
4 Bath
5 Inner living
6 Outer living
7 Bed
8 Verandah

Photographs by John Gollings

A house inseparable from the sea, perched on Mornington cliff, across page. View from verandah-wrapped living space, above; entrance, top photo.

subtle genuflections to the view and obviate boredom. The Seahouse has an elusive complexity, one that suggests, if only obliquely, the hardy subtlety of the surrounding tea-treed landscape.

The wind was also an important design consideration. It affected the Seahouse in two ways. First, the building was positioned within a bubble of negative air formed by the wind as it rushes up the cliff face. And second, a low profile was sought to further reduce turbulence around the building, which could have adversely affected the surrounding vegetation so essential to soil stabilization. Louvered timber screens on the outside of doors and windows can be slid back to open up the interior and allow the sea breezes to enter in summer. In the event of an approaching storm, the house can be closed off in much the same way that one might prepare a yacht before a squall.

Though frail looking, the Seahouse contains such features of the rough-and-tumble boat shed as the wide boat ramp leading down into the water. It is replaced here by a broad stair connecting the lower deck with the seashore by means of an extended irregular ramped pathway. The timber, both inside and outside, has been stained a light gray to enhance its weathered sea-washed appearance. Inside, the bluestones forming an open fireplace in the living area are laid dry to simulate a marine character, which is reinforced with rustic gray-stained furniture.

The interior consists of a main floor on three stepped levels and an upper floor for sleeping overlooking the central living space. The social importance of the kitchen was recognized by making it the first space encountered on entering the house from the road. It is covered by a

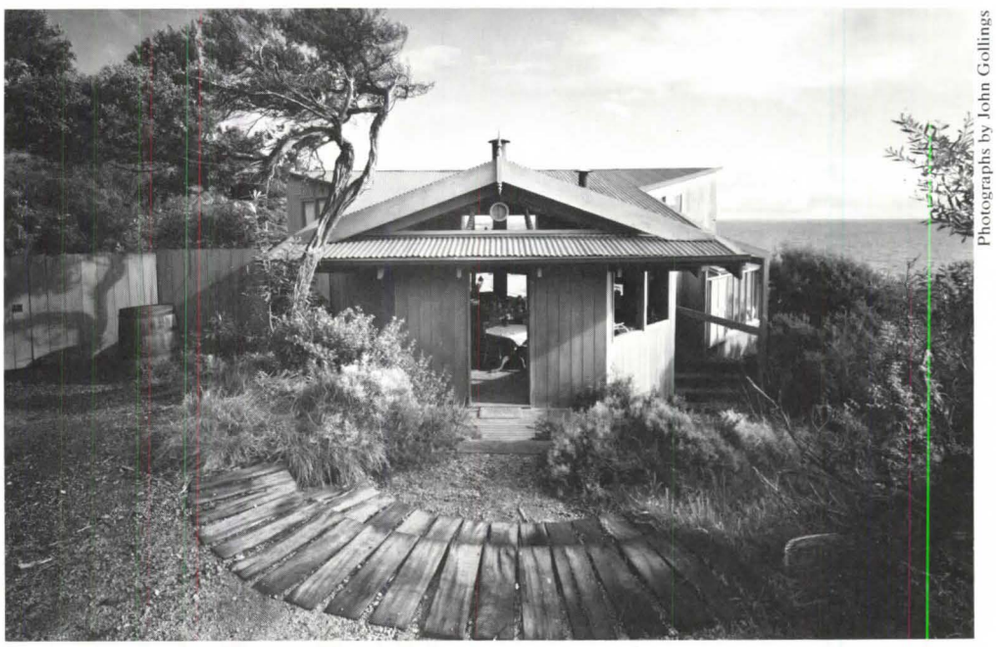
Australia

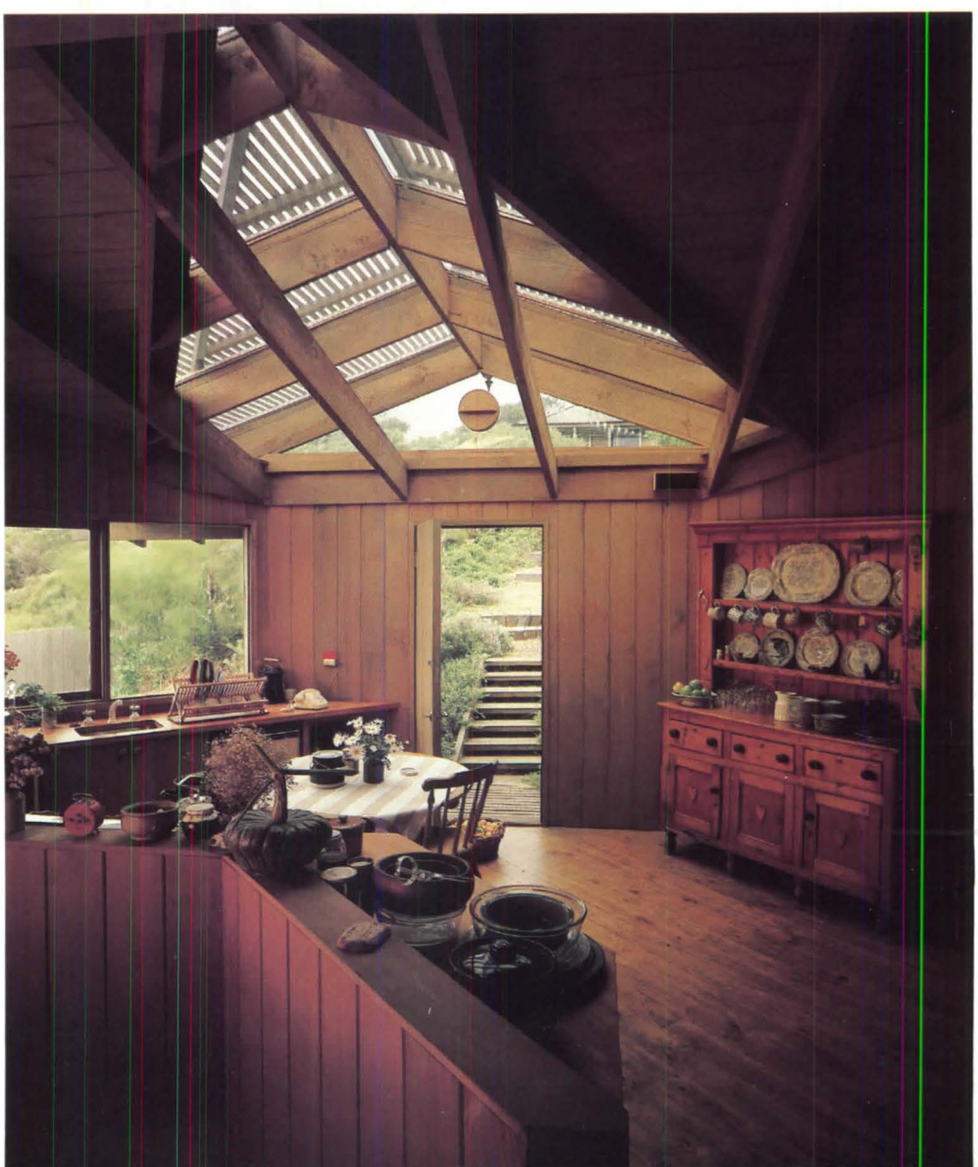
glass roof shielded from direct sun rays by a screen of timber slats. On the next level down in a double-height space is the dining area. This is followed by the living area on two levels: a winter living area on the upper level centered on an open fireplace that forms the core of the interior space and a summer living area oriented to the deck to take in the view down the coastline. Overlaying the view axis, the interior is rotated to create three significant view corridors to the sea, each of which has been recognized by having a special space devoted to it.

One of the distinguishing characteristics of the design is the approach that relates nature with the interior. It is based on the presence of large openings of timber post-and-beam construction. The openings are deep and large, resulting in the establishment of intermediate spaces that mediate between interior and exterior. The character of the views is spatial rather than planar. Instead of the usual picture window framed by a two-dimensional rectangle, views in the Seahouse are bounded by the edge of the verandah deck, by the two walls on either side, and by the underside of the upper floor deck. Instead of merely framing the view, this spatial treatment produces an active dialogue between the interior space and the surrounding seascape without seeming in the least to constitute a barrier.

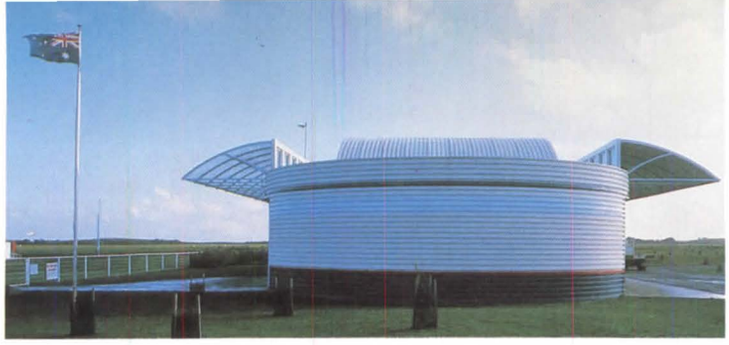
Quite unconsciously and without overt borrowings, McIntyre has created a type of beach pavilion that also has characteristics in common with the *Sukiya-Zukuri* teahouse style. Its two principal features were asymmetry and a reduction in size dictated by requirements of movement during the tea ceremony. The scale of the Seahouse's interiors is reduced, not so much as to be immediately detected but enough to intensify surfaces and textures, which results in a heightened awareness of natural materials and intimacy of space. P.D.

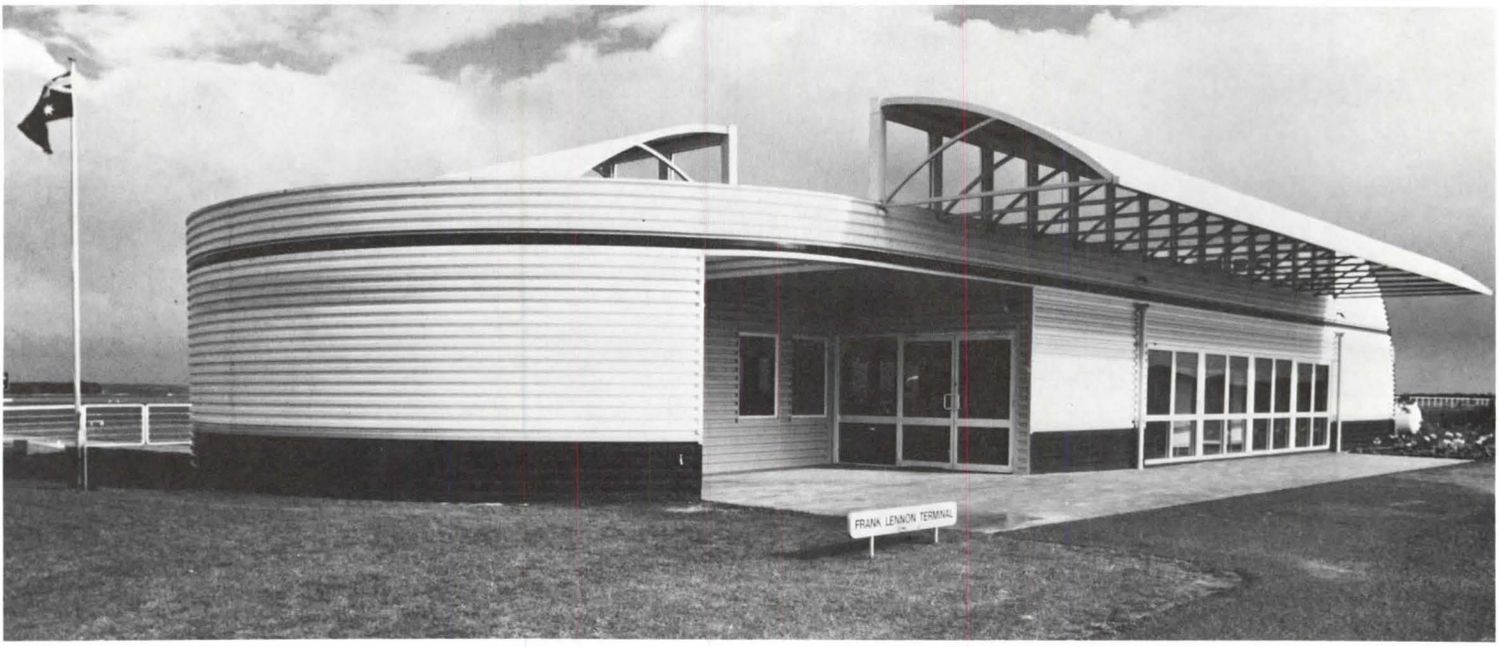
Back entrance, top, leads into the kitchen, right, the heart of the house covered by a screened glass roof.





Photographs by John Gollings





Provincial Airport That is a Sprightly Set of Metal Sheds

Portland, Victoria, began as a whaling station and is now once again becoming a significant port. The port facilities attracted a major aluminum smelter plant that occupied the site of an old aerodrome. Since Australia's network of local air services is vital in mitigating the tyranny of the country's distances, a new airport, tiny but complete, had to be built. The complex consists of a passenger terminal, a building for the local aero club, a maintenance shed, and two hangers. There also is provision for two more hangers to be built in the future.

In functional terms this airport is no more than a collection of sheds, the largest of only modest size; it could have been left at that, and often enough that is what happens. But Gunn Williams Fender chose to address the problem of symbolism in what is, after all, one of the most emotionally significant buildings in a community. The solution has an apparent effortlessness that one suspects is the product of much argument and oceans of late night coffee.

A listing of the elements of their architecture does not lead one to hope for much. Ribbed metal cladding, fashionable

Though just a curved metal shed with cantilevered overhangs, the tiny terminal appears an effortless metaphor for flight, seen from tarmac, top left and center. Above, local aerodrome club.

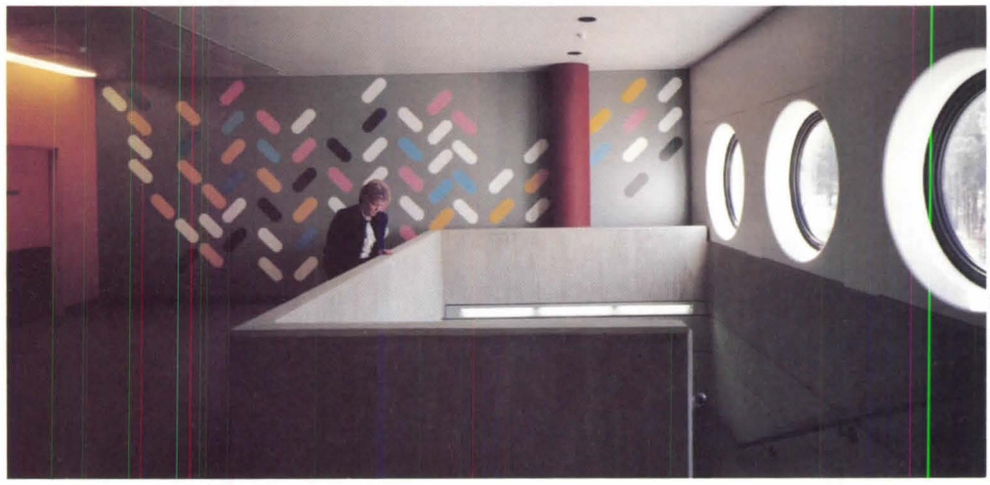
in Australia because of its rural/nationalistic associations, suits a country shed and has some associations with early aircraft. Curved forms in plan and section again score for fashion, aviation, and agricultural associations. Sheltering cantilevered overhangs are framed in light metal, like aircraft wings or half the end of a haystack roof. Include a row of square windows—very fashionable and just like portholes—and finish off with some stripes of bright color to remind everyone of aircraft markings, and the result could have been as banal and contrived as all this sounds. Instead it is magic.

Out of the hat comes not a tranquilized rabbit but a real live dragon (miniature of course), a true invention, a fusion of common elements into something quite else; something that is not a specific image of aircraft as they were or now are, nor a piece of folk nostalgia, nor even an abstracted image of flight, but a metaphor for the link between a provincial town and the world. Tom Heath

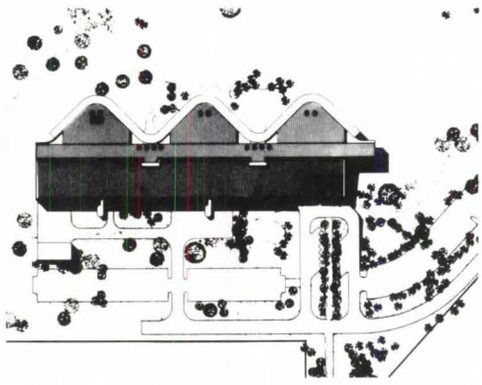
Mr. Heath is head of the school of the built environment at Queensland Institute of Technology, and editor of Architecture Australia.

Australia

Hospital Divided Into 'Factory, Hotel, and Street'



Photographs by Max Dupain



Curved ward faces parkland, top. Above, 'street' linking 'factory' and 'hotel.'

Mt. Druitt is a "new town" on the plain to the west of Sydney, the direction in which the Sydney-Newcastle-Woollongong conurbation is now growing most rapidly. The town of 90,000 has one of the highest proportions of young families and children in the Sydney area, where sprawling suburbs depend heavily on cars for transport. The accident rate is high, and accommodations provided in the new Mt. Druitt Hospital reflect these social conditions. The total of 200 beds is made up of 120 general and surgical beds, 62 pediatric beds, and a small number of intensive care and day-care beds, and an accident and emergency department with extensive X-ray facilities is provided to cope with trauma cases.

The site, until recently open bush and farm land, is on the boundary of the developing town center. Pedestrian access is from the railway and bus station through the town center to the south. The architect, Lawrence Nield & Partners, has responded to the site by locating the building as near as possible to the southern boundary, minimizing walking distances, providing a "wall" to the somewhat diffuse town center, and retaining as much as possible of the site as parkland.

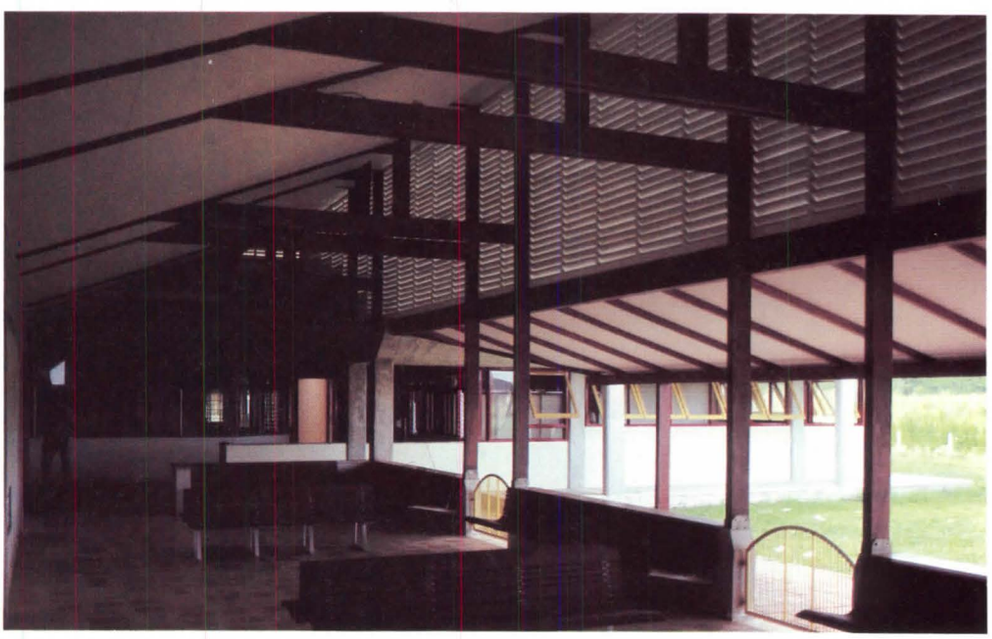
The plan is exemplary in the clarity of its functional division into "hotel" and "factory" elements. The "factory" component faces the town. On its lower level are the catering, dining, pathology, and plant areas. On its upper level are the treatment and diagnostic areas and the entrance. The air handling plant occupies a third level. The "hotel" component, which consists of two floors of wards, nurses' stations, and ancillary rooms, faces the parkland and eucalyptus forest. Between these two elements runs the "hospital street," from which branch the more private loop corridors that serve the wards. The curving plan of the wards elegantly overcomes the perennial problem of the ratio of periphery to core; all rooms enjoy the view without excessive runs of corridor. Future expansion can be dealt with by extension of the hospital street at either end. Modification of clinical and support facilities can be achieved by extension to the south.

Energy conservation measures are not mandatory in Australia, but they make economic sense. Here the ward areas with their large windows face north (this is the Southern Hemisphere, remember) and are provided with efficient sun shades to reduce airconditioning loads, and incidentally permit views without glare. Elsewhere windows have been kept to a minimum. Because a hospital has a fairly constant energy demand, electricity can be purchased at the cheap industrial rate, and the energy system is therefore all electric with computer control.

In its expression Mt. Druitt Hospital is without affectation, but by no means without art. The entrance side may perhaps be criticized as too severe and institutional for a "family" hospital, but this is more than compensated for by the seductive quality of the park front. The elements of the plan are clearly exhibited in three dimensions. The contrast between the slab of the service block and the sensuous shapes of the ward units could easily have been harsh, but this is moderated by the general unity of material and the subtle device of bringing the upper roof level out over the nurses' stations to the back of the wards, so that the skylines of the two elements join in a smooth curve. The sweeping horizontals of the north facade cut across the flat landscape with controlled force. Overall, despite its use of verandahs and profiled aluminium siding, Mt. Druitt does not speak of country buildings but rather of other equally essential parts of the Australian countryside, the railway, and the road train. The train that brings health is not a bad image for a hospital. T.H.

Surinam

Vaulted 'Lungs' Cool A Hospital in a Tropical Climate



Deep overhangs, bands of wind scoop-like louvers largely obviate airconditioning.

Surinam, a former South American Dutch colony, still suffers from a miserably hot and humid climate and pervasive poverty. Its contractors and construction workers are mostly either untrained, were trained in Holland in skills irrelevant for work in the tropics, or have abandoned Surinam for the Netherlands. As Aldo Van Eyck has written, good "buildings are still so scarce here—where everything is so different—that quantitatively speaking almost nobody is in a position to enjoy them."

An exception is the work of Lucien Lafour, a Dutch architect of Surinam extraction, notably his Marienburg Health Center. Built on a former plantation across the Surinam River from Paramaribo, the nation's capital—from which patients come by ferry—the center provides a combination of outpatient and inpatient care, doctors' offices, laboratories, and other services.

Most unusual in this torrid climate, Lafour's health center has airconditioning only in rooms with sensitive instruments. And his efforts to reduce direct sunlight and admit cooling breezes into the building have generated its distinctive forms. Timber walls were used for their low thermal capacity and high insulation value, and an east-west orientation was chosen to lessen the amount of sunlight beating on wall surfaces and draw in the prevailing northeast breezes. Most important, though, are the center's heavily insulated, pitched and overhanging roofs that provide shade and shelter, and the double bank of louvers along their elevated ridges that act as motionless, built-in fans. As Van Eyck said of the clinic, "It receives people from roundabout as generously as it collects the rain from above; the 'gutters' are at the same time overhangs for the concrete verandahs underneath. These bear the striking timber roofs that function like enormous lungs."

The reinforced concrete gutters act as a ring beam connecting the columns beneath them on a 17-foot grid. Within this grid are three pavilionlike wings with glass and timber louvers and vertical pivot windows. One wing houses the public polyclinic, another the nonpublic wards, and the third is for workspaces—laboratories, staff rooms, etc. These workspaces flank both polyclinic and wards, serving each while separating them. The public spaces have high, sloping ceilings that follow the slant of the roof trusses, while internal rooms have flat ceilings shaped by the horizontal truss ties.

To again quote Van Eyck, "In the tropics uncomfortable numbers of people often have to wait very long and patiently for something which sometimes does not even exist—in dust and scorching heat. Someone who is tired and anxious and attends Lucien's clinic at Marienburg is already less badly off, because of the way the building receives him and makes him feel at home." The clinic also proves that sensitive design, without help from costly, complicated mechanical systems, can create comfort even in sizzling climes. A.O.D.

Ireland

Job Training Center Combines Strength And Neighborliness

Approximately half the total population of Ireland is 25 years old or younger. At this writing the unemployment rate hovered around 20 percent. Hence, the Irish government puts high priority on training the young for what jobs there are on the market.

The AnCo Centre in the Dublin suburb of Loughlinstown was built last year for the industrial training authority as part of this effort. Designed by A. & D. Wejchert, Architects, it is a sizable facility, serving some 800 trainees plus staff on a typical day. Yet it was built on a narrow six-acre site that had been a walled orchard between two small-scale housing developments.

This context, and fire codes, required that the center keep a low profile. It is essentially a linear, one-story building, but a 30-foot drop in the site permitted insertion of extra space on the lower side.

Along this side (foreground in photo at right) are strung classrooms, small-scale training spaces, and miscellaneous communal and administrative rooms. Aligned behind them, in the body of the building, are three very large (130-foot, clear span) training spaces. They and the smaller rooms open onto—and are separated from each other by—a wide corridor that serves as a pedestrian "street." This circulation spine avoids penetration of any of the other interior spaces. It culminates at the angular projection (right in photo) that houses offices, a greenhouse entry, and, on the lower level, the dining hall.

Striping the building's roof are 13 long skylights. They are pyramidal in section, so that where their ends protrude they reflect the peaked roofs of the neighboring houses. The skylights give the interiors a bright and cheerful character. They also result in some heat gain, but more often than not this is welcome in Ireland's cool, damp climate. The cheerfulness is enhanced by an almost exuberant use of color inside. Among the colors is

a variety of greens, as might be expected, including an especially pleasing dark one that is used on the steel framing, inside and out. The colorful metal surfaces contrast with unadorned gray masonry interior walls.

The big spaces—and the huge, factory type doors leading into them from the upper driveway—were scaled to serve training in the use of large industrial equipment. However, in the less than two years

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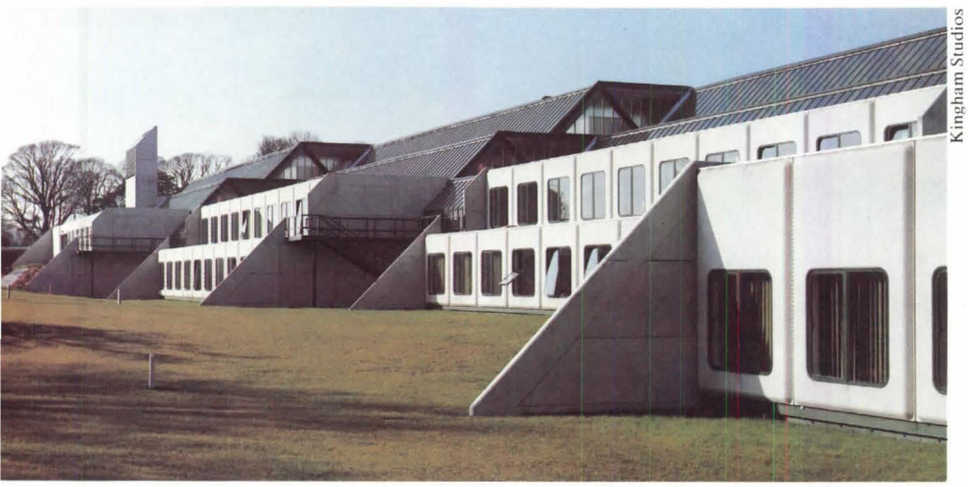
The linear, angular training center sits between two clusters of small detached houses. The pyramidal ends of its many skylights reflect the roofline of the houses, across page.



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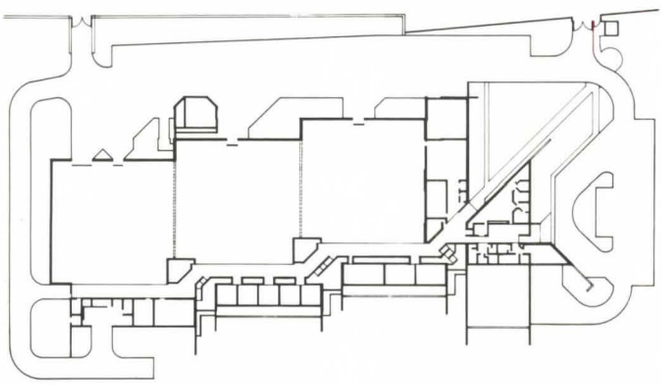

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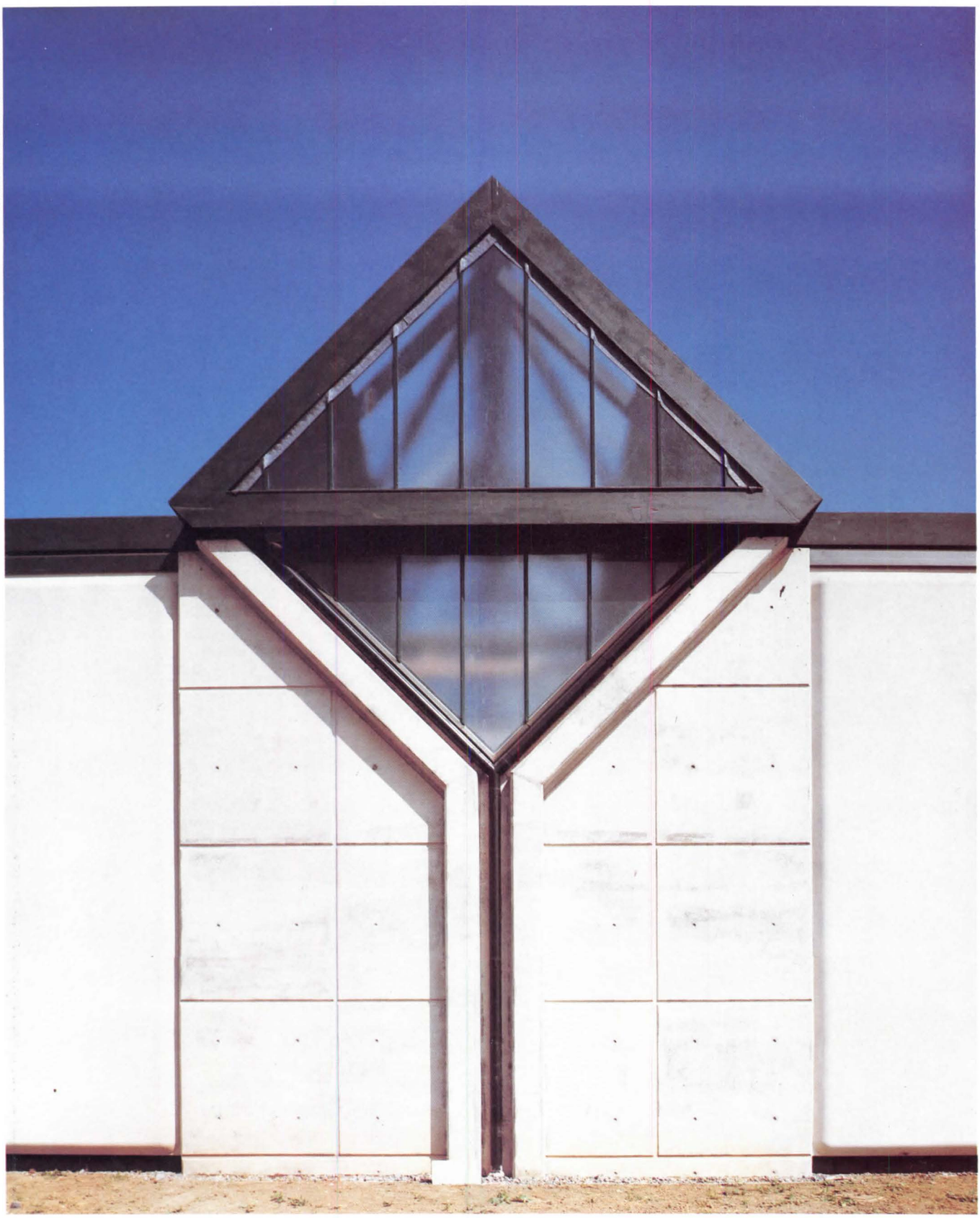
Top, the lower elevation is a pleasing composition of protruding fin walls and smooth prefabricated panels. Top right, the glazed, canted entry. Right, a view along the central circulation spine. Below right, a large training space, as yet unpartitioned for computer work.

since completion, the pendulum of employment opportunities has swung so strongly from heavy equipment to computers that some of the big spaces have been partitioned into cubicles for computer training. Partitioning has cut them up, but it also has proved the building's flexibility.

Exterior walls are of prefabricated lightweight panels of glass-reinforced cement, incorporating polystyrene bead aggregated concrete insulation and finished with exposed coarse sand. They have softly rounded edges (to emphasize that they are made of a plastic material, according to Martin Carey, project architect). Concrete, Carey points out, is "Ireland's only truly indigenous material." The rocky island, he notes, "has plenty of limestone and cement." DONALD CANTY



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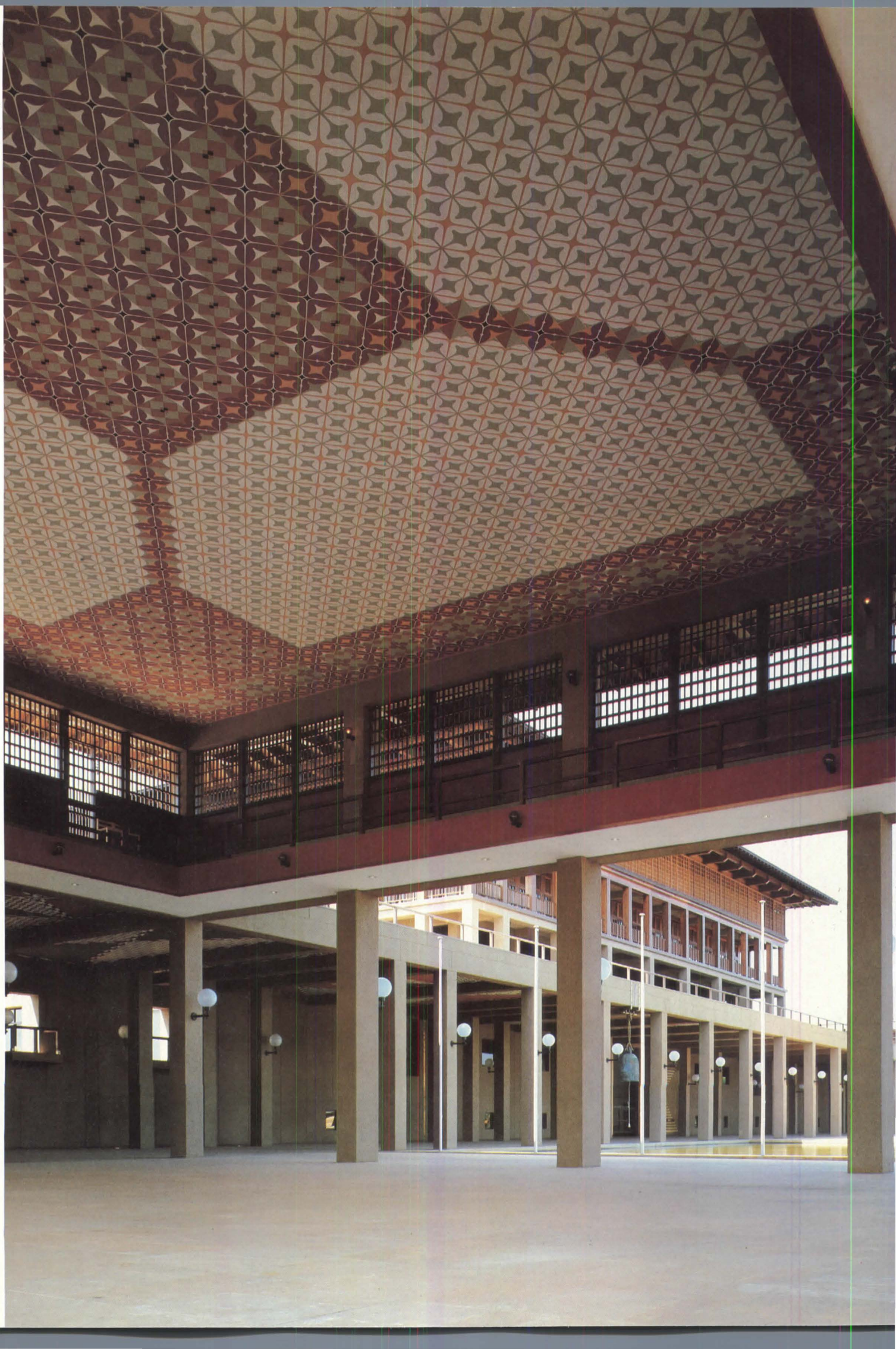
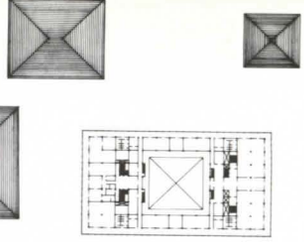
Photographs by Richard Bryant





Sri Lanka

'Quietly Monumental' Parliament Building In a New Capital City

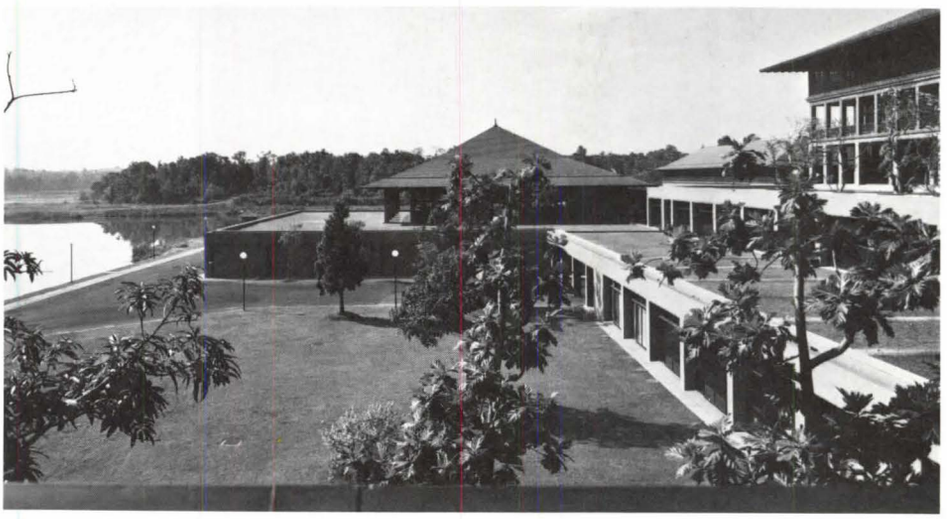
Ironically, in most former colonial countries International Style buildings—self-important-looking, ponderous, and without individual distinction or character—house nationally significant institutions and have come to be associated with independence and liberty. The reaction against them is now pervasive as leading third world architects search for a more suitable design idiom in their own country's often lost or neglected vernacular traditions.

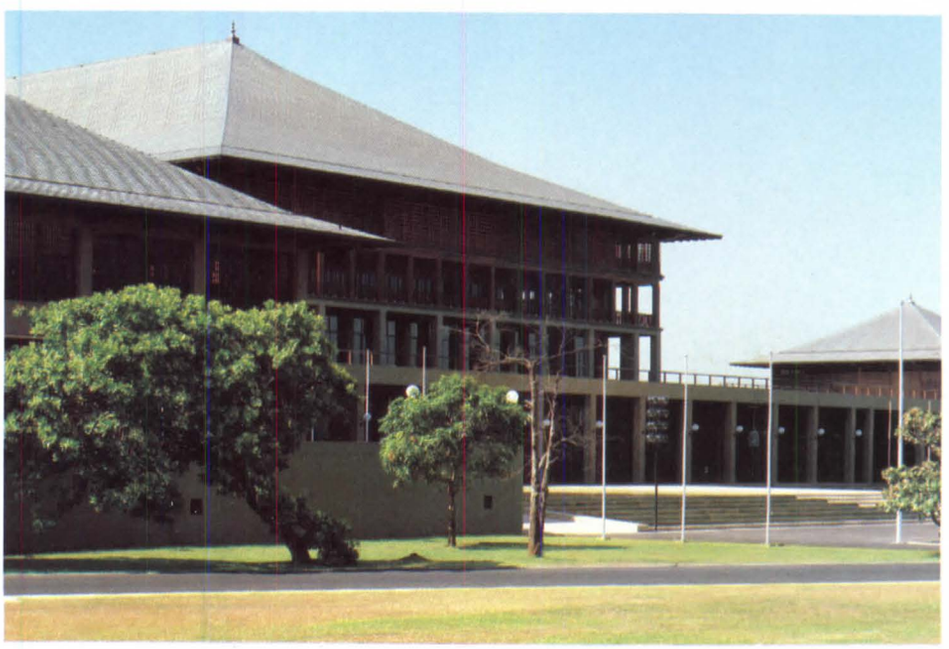
What makes Sri Lanka different is that indigenous approaches to design were neither lost nor ignored in recent years, and much of the credit must go to Geoffrey Bawa, the nation's best known architect. Throughout his career Bawa has worked in a wood, tile, and stucco idiom that modifies and blends Sri Lanka's ancient traditional forms with those from the Mediterranean, which were brought by the Portuguese in the 15th century.

Bawa's new parliament building is not only a grand and quietly monumental presence, but the first step in moving the capital from overcrowded Colombo (population over one million) to nearby Kotte, which served as capital during the 15th century, Sri Lanka's golden age of cultural renaissance, peace, and prosperity.

The parliament's monumental appearance from a distance is achieved through the traditional device of surrounding it with water. A 300-acre lake was created, and the buildings sited, in splendid isolation, on an island in its center. The actual height and size of the complex (500,000 square feet) is disguised by the dark, tentlike, Kanyan copper pitched roofs, which cover each of the parliament's five major elements. A central block is flanked by four lower square corner pavilions, all of different sizes and elevations. The building can, therefore, only be seen by walking around it, and then only a piece at a time. And although the complex appears symmetrical, it isn't.

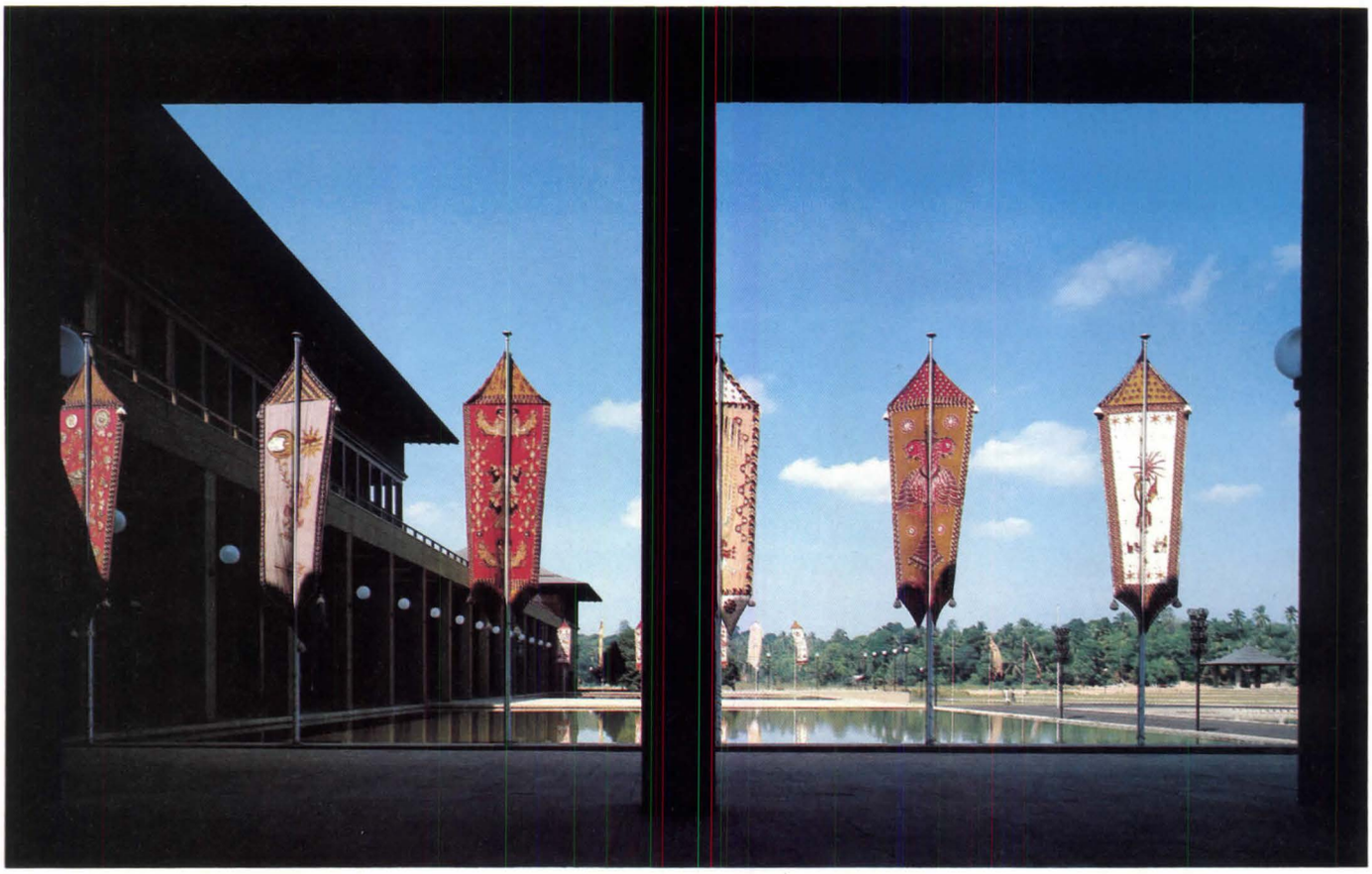
The parliament's focal point is the five-story chamber, which is entered with due





On an island in a manmade lake, central block and flanking pavilions are stepped and topped with Kanyan copper pitched roofs.

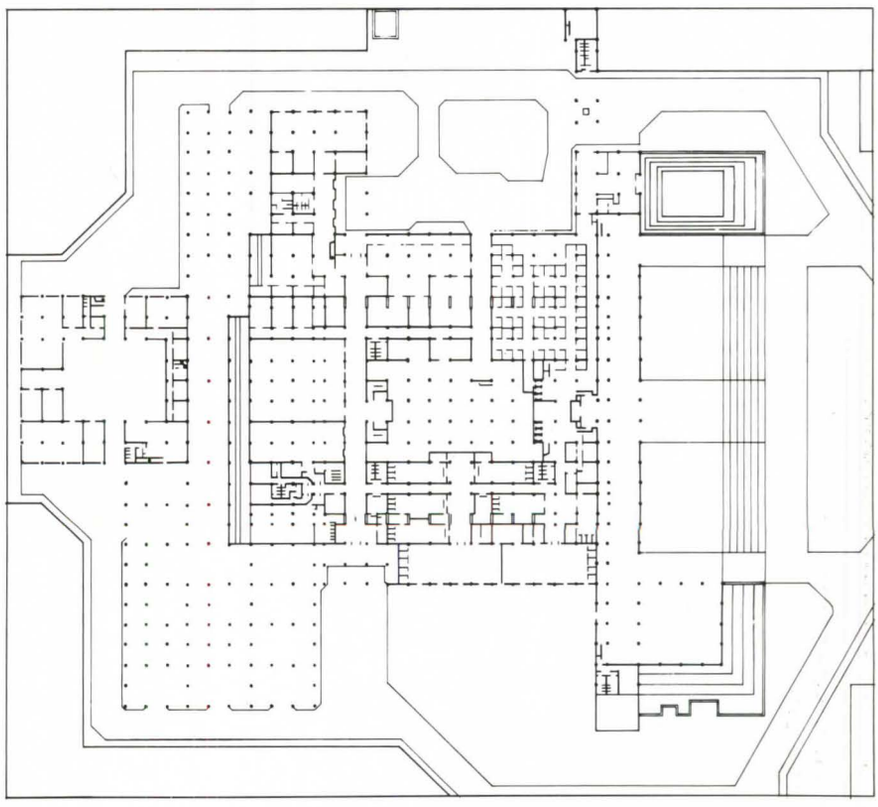
Looking out at north elevation with festive banners, below; at right, the interior of main chamber with tentlike ceiling made of thousands of small pressed aluminum panels linked by tiny copper squares.



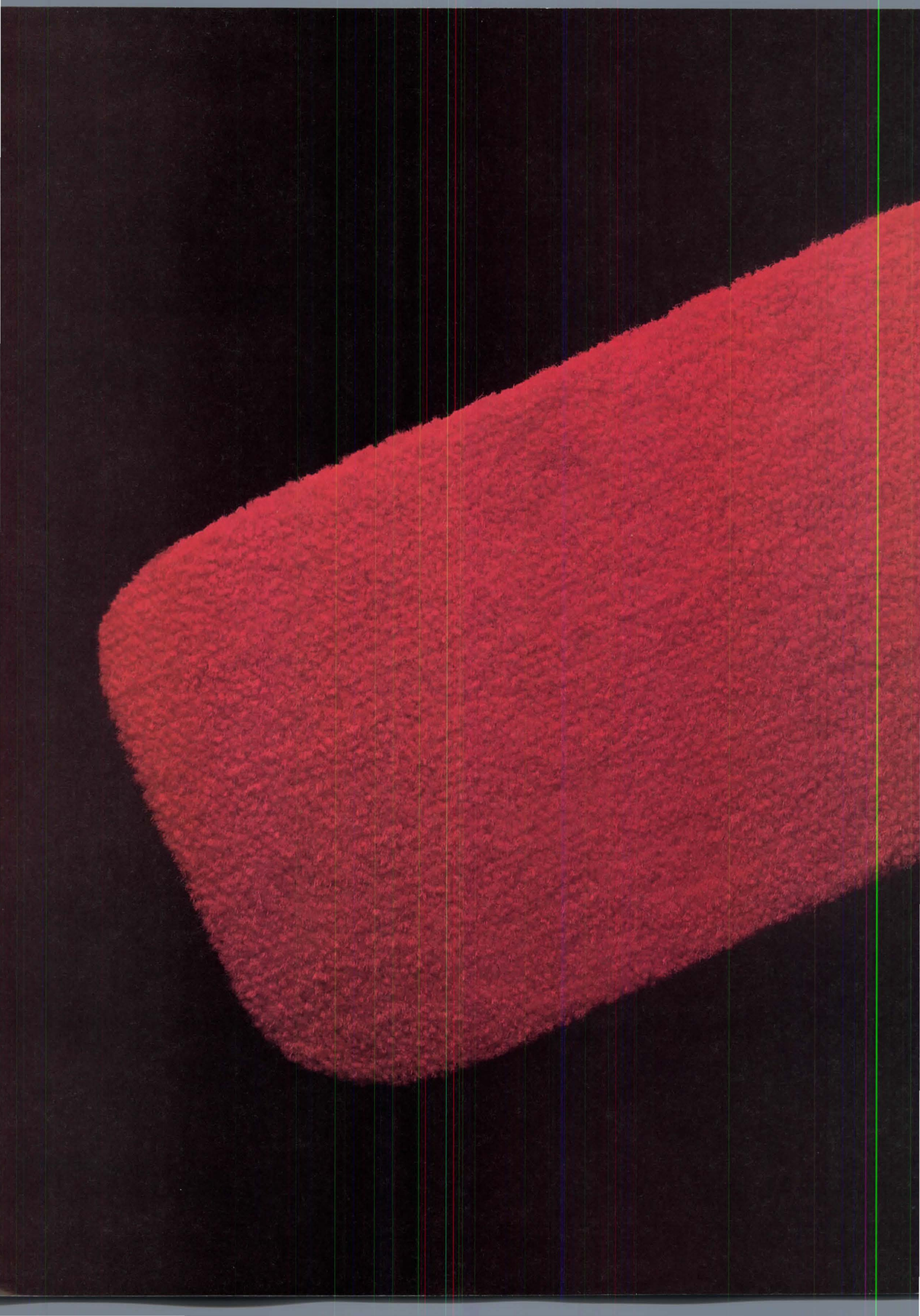
drama. A broad flight of stairs leads to a landing from which a narrow, slightly steeper flight proceeds to the chamber's silver door in which is etched the Sri Lanka constitution.

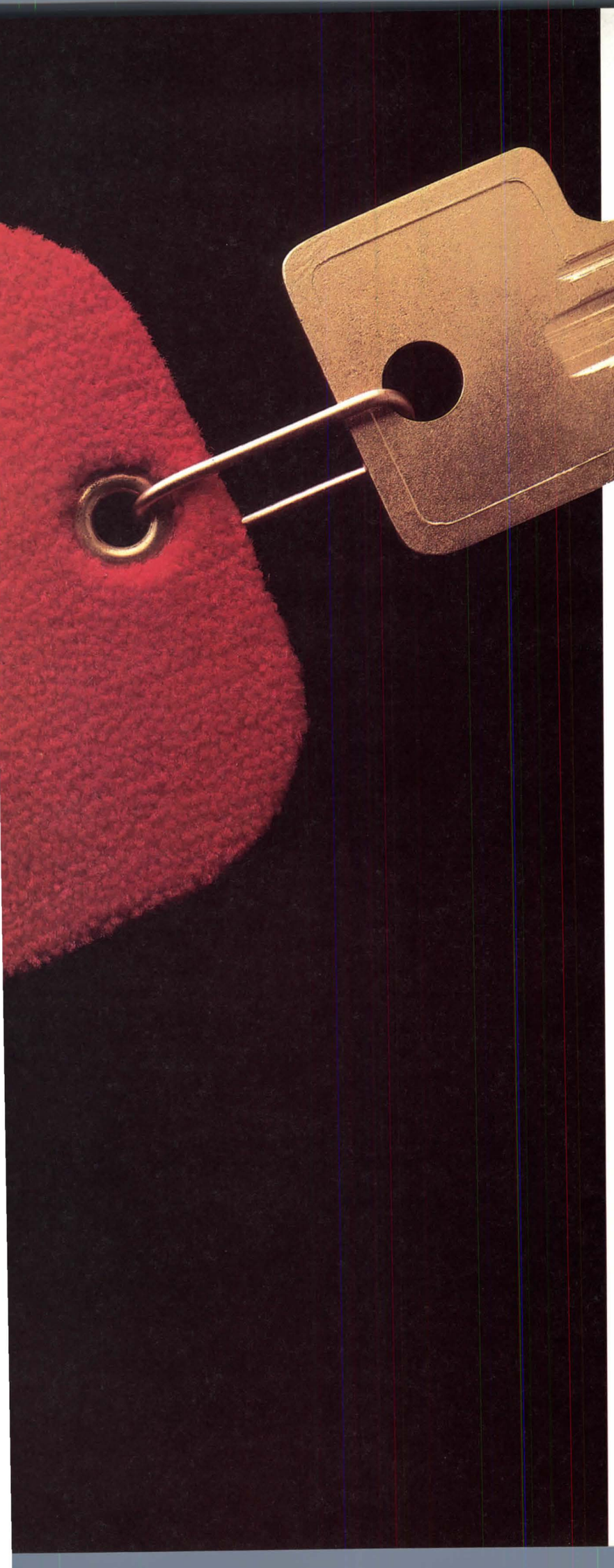
Once inside, there is a shimmering tent-like ceiling that looks like gold lamé but is made of thousands of small pressed aluminum panels linked by tiny brass squares. To either side of the raked seats are silver flags, designed by a local artist, and suspended from the ceiling is a gigantic silverplated chandelier with the double palm motif, the work of another Sri Lanka artist. Combine these lush artifacts with the plush red carpeting and billowing ceiling and you have a parliamentary chamber of grandiose national expression.

Yet, with exception of this room, construction and detailing are apparently merely competent, sometimes pedestrian. Rupert Scott of London's *Architectural Review,* after visiting the complex lamented that "above all there is a simplicity in the detail that is monotonous and that fails to divert an impression of immense bulk. The details are the product of international high-technology construction." A.O.D.



Photographs by Richard Bryant





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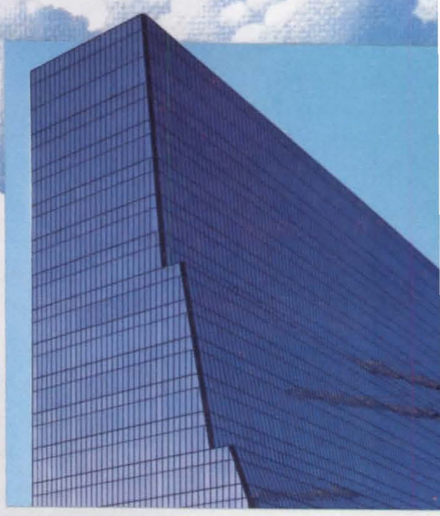

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BOOKS

Documenting the Scope Of a Pre-eminent U.S. Firm

McKim, Mead & White, Architects. Leland M. Roth (Harper & Row, $40).
McKim, Mead & White, Architects. Richard Guy Wilson (Rizzoli, $35).

Persons interested in American architecture at the turn of the century owe a debt of gratitude to Leland Roth and Richard Guy Wilson for these two books. Through their dissertations on McKim, Mead & White (completed in the early 1970s) and a number of subsequent essays, both historians have been instrumental in reshaping our perspective of that firm and the period as a whole. Now Roth and Wilson have each written monographs that offer the most detailed accounts to date of this formidable practice from the time its partners began work to the middle years of this century's first decade when Stanford White was shot and Charles McKim retired.

Roth's book is by far the most ambitious of the two. He provides an initial, yet in many ways definitive, chronicle of the three architects' training, careers, designs, and other professional activities. The sheer number of commissions (more than 900) received by McKim, Mead & White during the years under study makes this task an awesome one. Roth meets the challenge in an exemplary fashion. The text is concise, well organized, and highly readable. At the same time, it is packed with information about the firm's methods and intentions in design, the ways in which it drew from and adapted historical sources, the impressive range of building types it produced, and equally diverse forms of expression it developed, its responses to the urban environment and culture, and its pioneering collaborative ventures with artists.

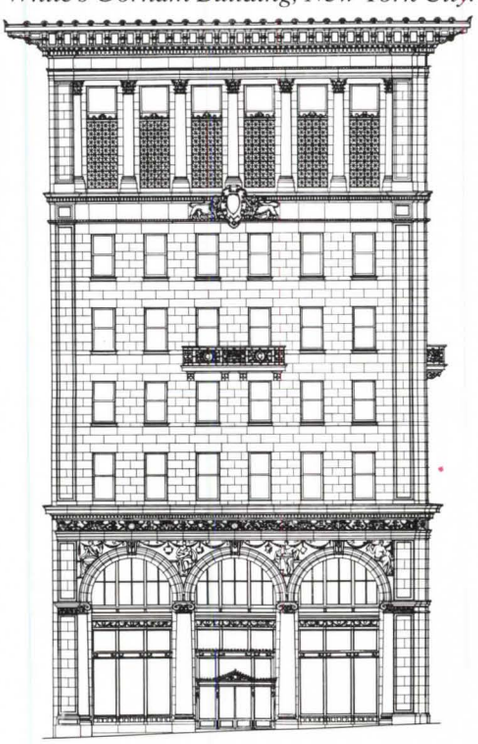
Coverage is necessarily selective, and, while many schemes are mentioned only in passing, many others are given fuller treatment and some major buildings such as the Boston Public Library and Manhattan's Pennsylvania Station are examined in considerable detail.

With the material arranged topically, even brief references serve a clear purpose. The content is broadened by a discussion of such factors as external conditions that affected the nature of the firm's work and the influence that key examples had on tendencies in architecture and urban planning. Roth lucidly conveys the personalities of these men, their commitment to championing architecture as a fine art, and their managerial skills in creating what became a paradigm for large architectural offices in the U.S. Roth qualifies his work as being primarily descriptive in order to establish a basis for more thematic and interpretative writings in the future. Yet, even persons who are familiar with the American academic movement should find their knowledge and understanding of the subject substantially enriched after reading this book.

If the text has a flaw, it lies with the lack of attention paid to interiors. One does not always get a good sense of the spatial order and, often, the decorative richness that distinguishes McKim, Mead & White's finest buildings. But this omission is minor when weighed against the book's many attributes. Roth has written one of the best monographs about an American architectural firm published in recent years.

While more modest in scope, Richard Guy Wilson's study nevertheless affords a valuable complement. An introductory essay gives a synopsis of the partners' backgrounds and practice, then focuses on general characteristics of their designs. The observations are informed, insightful, and often provocative; the paragraphs devoted to urbanistic concerns are especially revealing. On the other hand, Wilson's assertion that the firm gave primacy to exterior form at the expense of internal arrangement needs further qualification, for it can be easily misunderstood. Moreover, the categories of "synthetic" and "scientific" eclecticism that are often used to distinguish McKim, Mead & White's early and later projects seem unnecessarily divisive. A supple tension between freedom with and fidelity to historical sources can be found in much of the firm's *oeuvre* irrespective of the time frame; the degree to which each facet is expressed appears to be based on a variety of circumstances beyond a growing veneration of scholarly classicism.

Fifth Avenue elevation of McKim, Mead & White's Gorham Building, New York City.



The second part of Wilson's book is a catalog of 31 buildings, some mentioned only briefly or not at all by Roth. Wilson also places greater emphasis on plans and interiors in accompanying commentaries that are at once taut and substantive. For so limited a selection, however, the rationale for including some examples and omitting others is not always apparent.

That McKim, Mead & White occupied a leading position in American architecture from the 1880s until about 1910 has long ceased to be a matter of dispute. But the extent of the firm's contributions still has been underestimated in many circles. Roth and Wilson show in these two books that in both design and practice McKim, Mead & White possessed a degree of energy, optimism, inventiveness, talent, and breadth attained by few architects in any era. The two authors have rendered a great service in so ably documenting the scope of that accomplishment and, thereby, in also suggesting how much may be gained from further inquiry.

RICHARD LONGSTRETH

Mr. Longstreth is associate professor of architectural history and director of the graduate program in historic preservation at George Washington University.

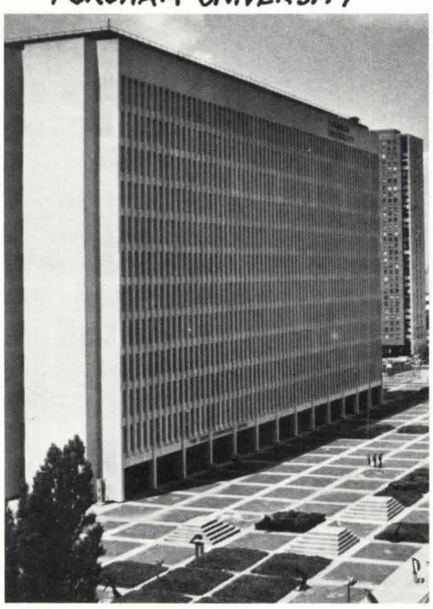
Common Landscape of America, 1580 to 1845. John R. Stilgoe. (Yale University Press, $35.)

Landscapes are the autobiography of a culture. Much is demanded of those who would "read" them, however. One must be willing to move freely among the realms of history, folklore, anthropology, sociology, social psychology, architecture, geology, plant science, and a host of other disciplines, without floundering into superficiality or error. In an age of hyperspecialization and information prolifera-

continued on page 212

What Do These Prestigious Buildings Have In Common?

FORDHAM UNIVERSITY



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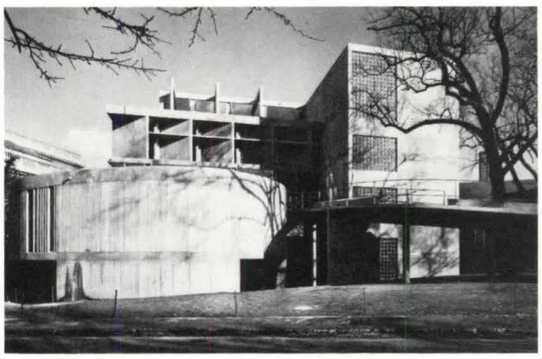
Lincoln Square of Fordham University
New York, NY
Architect: The Perkins & Will Partnership

CARPENTER CENTER, HARVARD UNIV.



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Architect: Le Corbusier

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Libertyville, Illinois

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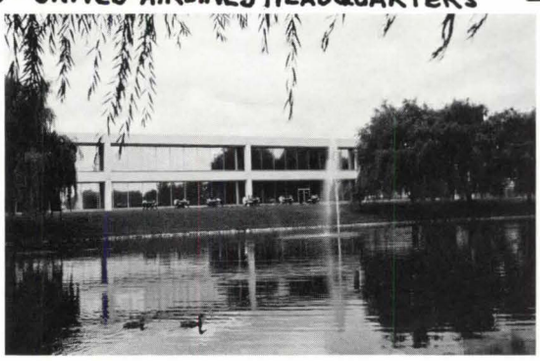

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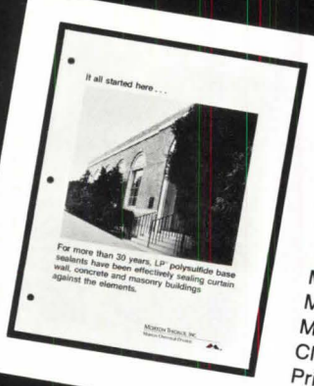

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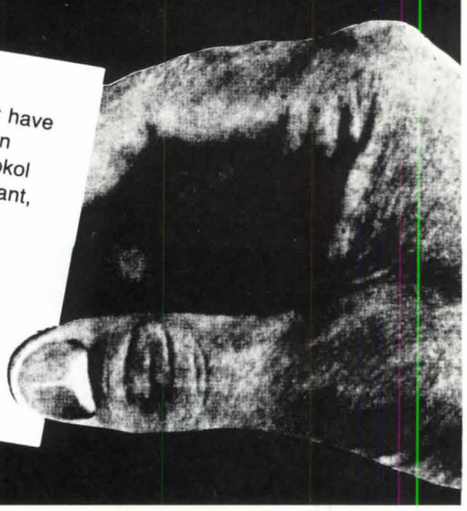

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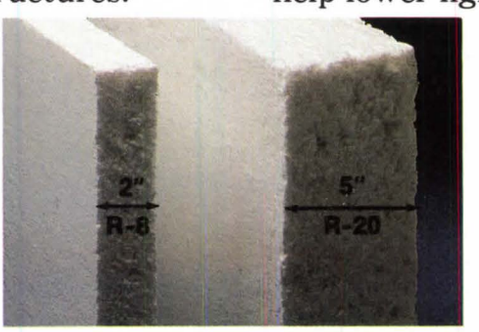

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Books *from page 209*
tion, this is obviously no easy matter.

One discipline currently engaged in such an undertaking is often referred to as "landscape studies." It has undergone a period of rich and varied maturation over the past 30 years, especially in the U.S. One of its most distinguished practitioners is J.B. Jackson, founder and former editor of *Landscape* magazine and professor at Harvard and the University of California at Berkeley. Jackson's writings have been a wellspring for architects and landscape architects interested in the basic issues of contextualism. Preservationists seeking a deeper understanding of the cultural significance of their work have also derived fresh perspectives from Jackson's writings.

John R. Stilgoe, assistant professor of visual and environmental studies and landscape architecture at Harvard, has produced a seminal work in landscape studies. Stilgoe studied with Jackson at Harvard, and the bold scope and interpretive depth of his work reflect in many instances the deep and abiding influence of his mentor.

Stilgoe's well-written and carefully documented study is an interpretation of the "common" American "landscape" from 1580, when the Spanish colonists crossed the Rio Grande, to 1845, when pioneers moving west from Indiana and Illinois encountered the open prairie. By "common" Stilgoe means "belonging to a people," a shared body of traditions of space-making passed from generation to generation. It is to be clearly differentiated from design by professionals. "Landscape" refers to rural land that has been modified for permanent human settlement through traditional modes of agriculture and traditional practices of "artifice," such as milling and mining. As such, it is to be distinguished from cityscape. This landscape, with its rich regional variations derived from Old World traditions lacquered with a thin veneer of national culture, was succeeded by the spatial organization of the Industrial Revolution, an organization of steam transport, heavy industry, mechanized farming, and corporations.

Stilgoe's structuring of this complex array of material is masterful. It is part chronological and part topical. An initial chapter defines landscape and its roots in Old World traditions. Four pre-Revolutionary War regional variations (New Spain, New England, Tidewater, and Piedmont) are discussed before the analysis turns to the landscape of the post-Revolutionary War period. This landscape is broken down tropically, with analysis and interpretation of such elements as farm buildings, farmsteads, the national grid, roads and turnpikes, camp meetings, churches, graveyards, woodlots, mills and factories, lighthouses, cowpens, and market towns. Stilgoe excludes analysis of cities on grounds that they have been dealt with extensively elsewhere and do not constitute the focus of his inquiry, which is landscape in the sense he has specifically defined it.

A concluding chapter considers briefly the survival of landscape today, both in the sense of remnants of built forms and their adaptive use and of attitudes deeply embodied in the American populace, such as preference for freestanding houses "surrounded by land kept in equilibrium," a passion for do-it-yourself alterations of space in wood materials, and a love of agriculture and distrust of industry. Indeed, Stilgoe's sweeping survey ends on a somber note: "The landscape value system, and particularly the esthetic it produces, unfairly condemns whole areas of industrial cityscape, of non-landscape. And as long as the vestiges of landscape endure, partisans of cityscape and great industry must fight a lonely fight. . . ."

Stilgoe's analysis is incisive and penetrating. At times, his digressions into folklore threaten to sever the strands of his argument. He is rather cavalier in his brief critiques of space shaped by traditions of professional designers. For example, he lambasts Nicholson's emphasis on "form over use" in the cypher street plan of Williamsburg, Va., without mentioning his brilliant use of civic buildings as focal points of the town's excellent, functional outdoor spaces. The most serious flaw in the book, however, is its woeful lack of illustrations. Stilgoe's attempt to avoid the coffee table as well as high cost (so that students can afford this book) is well-intentioned, but the meager selection of graphics and their poor integration with the text is most unfortunate when one is dealing with what are primarily visual phenomena. Clarity suffers, despite Stilgoe's obvious gift as a writer.

Nevertheless, this is one of those rare books that instructs without being pedantic. It avoids nostalgia, yet enhances one's understanding of and affection for the American landscape. REUBEN M. RAINEY

Professor Rainey chairs the division of landscape architecture, school of architecture, University of Virginia.

Atrium Buildings: Design and Development. Richard Saxon. (Van Nostrand Reinhold, $50.)

The atrium building will become one of the generic building forms of the late 20th century. After a dormancy since the turn of the century in this form, the atrium building is here to stay. The technical problems that caused its disappearance have been solved, and other significant cultural and economic forces have been added. Many influential architects (among them I.M. Pei, Louis Kahn, Kevin Roche, Helmut Jahn, John Portman, and Skidmore, Owings & Merrill) have used the atrium and demonstrated its efficacy.

Not since the phenomenal growth of skyscrapers, 100 years ago, has a building form experienced such rapid development. While the skyscraper developed due to technological breakthroughs, primarily elevators and structural skeleton, and urban economics, the reasons for the growth of atrium buildings are more varied and complex. They include social forces, real estate economics, urban design, energy conservation, and technical innovation.

Richard Saxon has written the first comprehensive book about modern atrium buildings. The first part, "The Rise of the Modern Atrium," containing eight chapters, explores the historical precedents, greenhouse architecture, urban design factors, energy conservation, as well as the influences of futurism, fantasy, and science fiction. The second part, with six chapters on "Constructing the Atrium," is organized to enable the designer to consider the major technical factors unique to atriums, including servicing (heating, cooling, and lighting), fire safety, structures and skins, vertical transportation, landscaping, and economics. The appendices are mostly design checklists; a useful bibliography and index are included.

In building his case for this new (old?) building concept, Saxon ranges quite broadly to gather the influences. The concentration here is on modern architectural history, with little mention of the Roman atrium or Renaissance cortile, and shallow treatment of the 19th century, when the enclosed atrium was first developed. Urban design is undoubtedly an important influence for the atrium from its inception to ordering urban paths and places. The chapter on conservation epitomizes these dual influences, for the preservation movement has at once caused architects to become inspired by earlier building forms and to adapt or add to existing buildings, thus preserving the urban fabric. Atrium forms are useful in conserving building-operating energy and as such respond to this general societal concern. For some atrium designs, utopian architectural visions and science fiction films may be an influence, albeit not as important as others presented.

Saxon has made little effort to show relationships among such influences or to weight them in importance. Although the establishment of relationships is difficult to do on an absolute basis, the discussion would have added a dimension to this book. Such an effort was initiated in the first chapter where there is a discussion, though brief, of the four functions of buildings (cultural, economic, shelter, and accommodation) as they re-

continued on page 214

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Books *from page 212*
late to atrium structures. More complete case studies indicating how these influences are manifested in specific buildings would have served this purpose.

Part two is more coherent, with longer, more completely developed chapters. They are presented in order of potential design significance, except for the last chapter on economics, which is to embrace all others. It should have been the first in the series, or in part one. Each chapter has a similar format, beginning with principles and concepts, leading to options and examples. Chapter nine on shaping and servicing and chapter 10 on fire safety design are particularly well written.

This is a handsome book, with well considered page composition. There is a variety of photograph sizes, including some that are full page and quite compelling. Unfortunately, several significant projects are presented in drawing form because the structures were not completed at press time. There are many extremely clear diagrams (especially those on fire safety) with informative legends.

Saxon has made a significant contribution to the architectural profession by both documenting and analyzing the atrium building. For all interested in this architectural phenomenon, he has explicated its influences and explored its present and future potential. This book is indispensable for every architect who designs atrium buildings, both for its thoughtfulness and its technical information. As with any trend of this magnitude, Saxon's book is the first of what will surely be a series of books on this topic. MICHAEL J. BEDNAR, AIA

Mr. Bednar, associate professor of architecture at the University of Virginia, is writing a book on atrium buildings to be published in 1985.

The Architect's Guide to Law and Practice. Bob Greenstreet and Karen Greenstreet. (Van Nostrand Reinhold, $23.)

The authors—an architect and a lawyer—supply the reader with concise information on legal matters that affect the practice of architecture, such as copyrights, professional liability, forms of association, licensing, and zoning and building codes. Throughout the book, there are simulated office memos and letters that give "action required" and "action taken" to help the architect make decisions in similar situations.

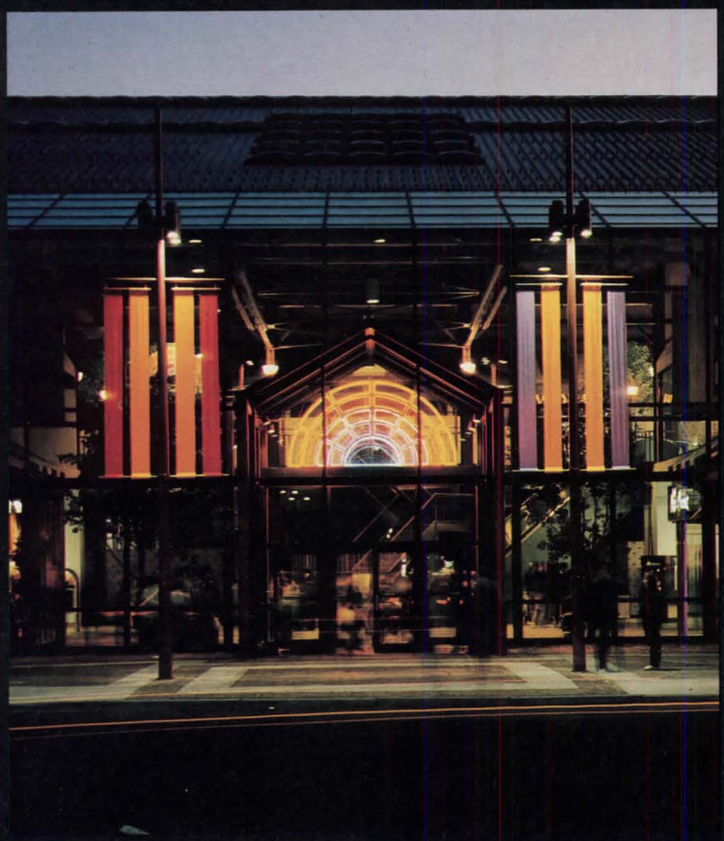
A Guide to Chicago's Public Sculptures. Ira J. Bach and Mary Lackritz Gray. (University of Chicago Press, $8.95.)

If you live in or near Chicago or plan to go to that city in the future, you should have this paperback book of 379 pages to guide you in a visit to the city's vast array of public sculpture. Franz Schulze says in the introduction that "there is probably no urban setting in the world where more public art by a more illustrious company of contemporary names can be found." Arranged according to geographic location, the entries give information on location, title, sculptor, and a brief description of the work of art.

Inventions: The Patented Works of R. Buckminster Fuller. (St. Martin's Press, $40.)

The manuscript for this book was Buckminster Fuller's last one, completed before his death at the age of 88. It is an illustrated catalog of his 28 patented inventions—the geodesic dome, the tensegrity truss, the dymaxion world map—all are described and drawn in detail. But the book is far more than a catalog. Fuller's introduction and comments about each invention will be cherished by the many admirers of this remarkable man whose self-effacing confessions and poignant professions of faith are deeply moving. He wrote that he hoped that the book would be "an encouraging example of what the little, average human being can do if you have absolute faith in the eternal cosmic intelligence we call God." □

Arsenal Market Place/Boston, MA—Sumner Schein/Architects and Engineers



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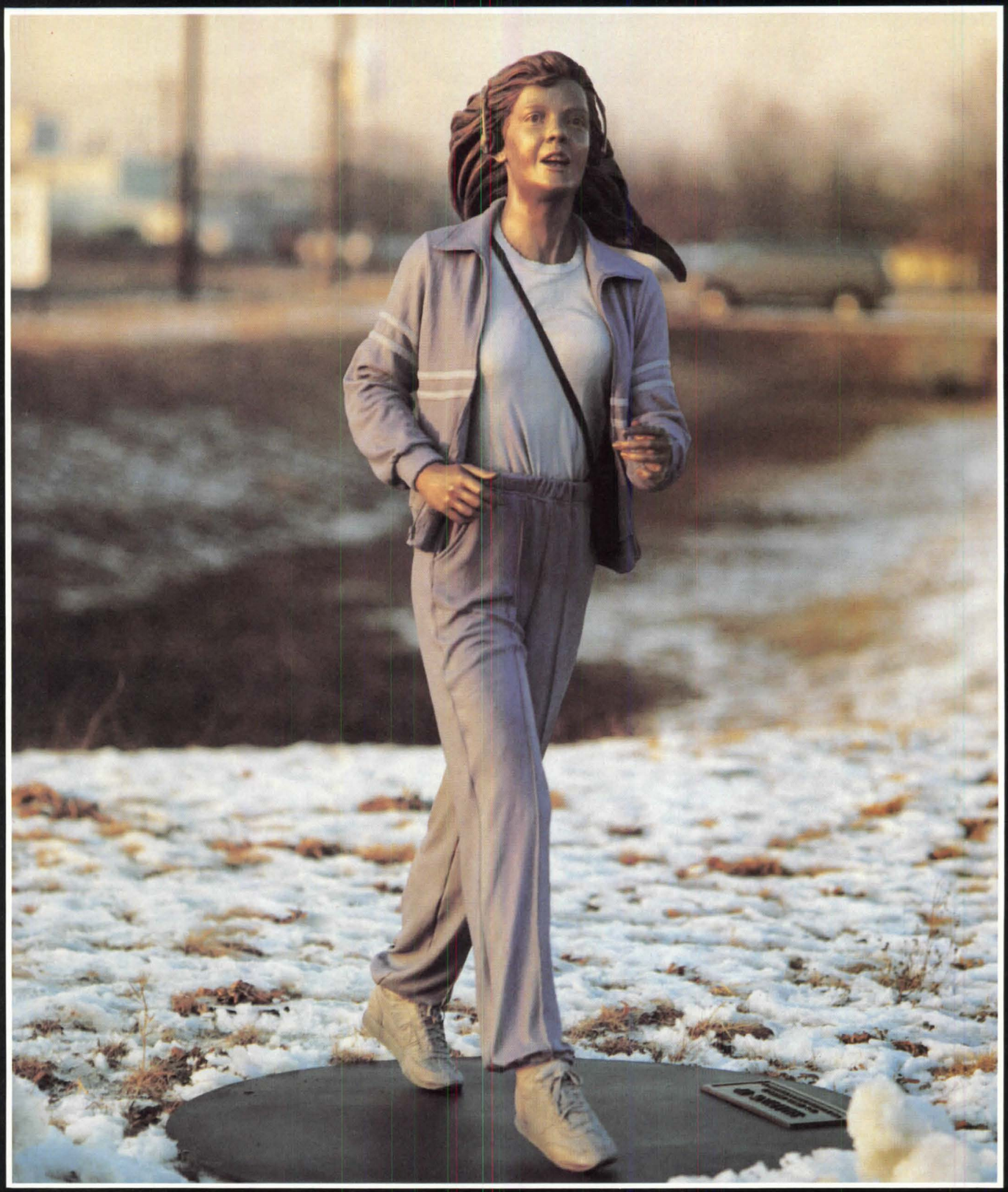

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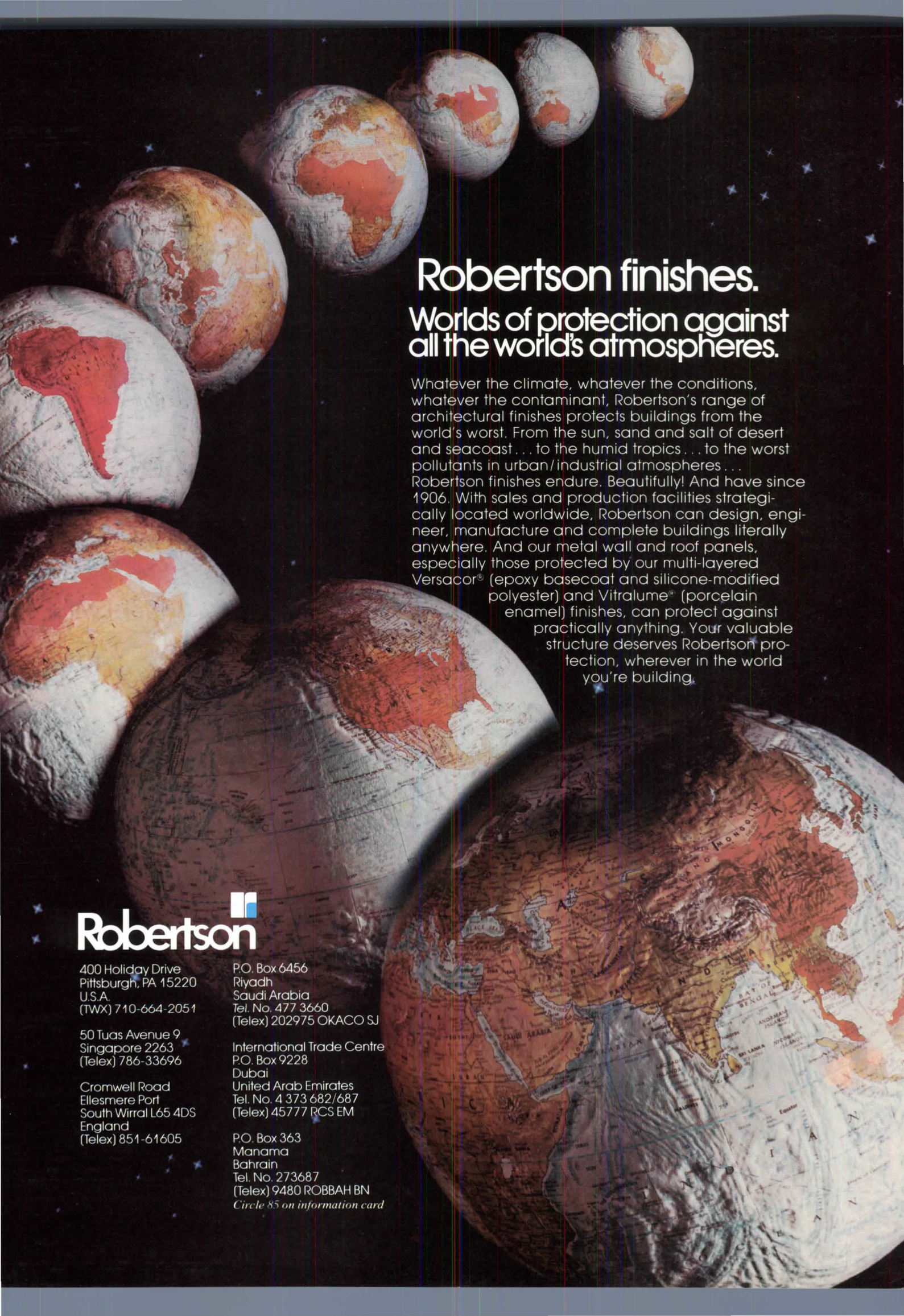

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DEATHS

Joel W. (Jay) Solomon: A shopping center developer and urban renewal authority chairman for Chattanooga, Tenn., Solomon became an ardent convert to historic preservation during his tenure as administrator of the U.S. General Services Administration from 1977 to 1979. Although perhaps best remembered for tackling corruption in the scandal-plagued agency, Solomon's esthetic interests were no less strong. He revived the moribund art-in-architecture program, and it was under his enlightened leadership that preservation was moved off the bureaucratic back burner. Just weeks after taking office, he participated in judging designs to renovate the Old Post Office in Washington, D.C., into federal offices and commercial space. During a break, he rushed down to the site for a first look and subsequently became an enthusiastic advocate of recycling and of mixed-use for federal facilities. His ideas were to see fruition later in St. Louis and other cities and caused urban affairs columnist Neal R. Peirce to describe Solomon's two years at GSA as "brief but memorable." Moving to Nashville, he resumed his real estate career. Solomon died there July 29 of heart failure. He was 62 and suffered from a long-term kidney ailment.
CARLETON KNIGHT III

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Robert Wales, AIA, Baltimore

BRIEFS

Housing Publications.
The Center for Community Development and Preservation is offering a number of publications covering low-income housing projects, nonprofit development, and tax-exempt financing. Contact Center for Community Development, 18 Hamilton Place, Tarrytown, N.Y. 10591.

Architectural Reference Guide.
The 1983 edition of *The Architectural Index* consists of an index of ARCHITECTURE, *Architectural Record, Arts and Architecture, Builder, Interior Design, Interiors, Journal of Architectural Education, Landscape Architecture, Progressive Architecture,* and *Solar Age.* General articles are listed by subject, and building articles are listed by architect, location, and building type. Copies are available for $16 from *The Architectural Index,* P.O. Box 1168, Boulder, Colo. 80306.

Architecture Scholarships Awarded.
AIA and the AIA Foundation have awarded scholarships totaling $117,400 to 175 students at 68 U.S. and Canadian schools of architecture. In addition, Norman P. Lo of Providence, R.I., a student at the Rhode Island School of Design, was awarded a $1,000 scholarship sponsored by Knoll International, and Robert D. Campoamor, a student at the University of Oregon, Eugene, was presented a $500 scholarship from Blumcraft of Pittsburgh.

Corbu Exhibition.
An exhibit of more than 40 paintings, collages, and drawings by Le Corbusier undertaken from 1922-62 will be on view Sept. 18-Nov. 3 at the Prakapas Gallery in New York City.

Computer-Aided Design Kit.
The American Consulting Engineers Council's professional development package on computer-aided design and drafting, which includes a manual and video

continued on page 220

Briefs *from page 219*
cassette tape, is available in VHS or Beta formats for $250 prepaid from the ACEC, 1015 15th St. N.W., Washington, D.C. 20005.

Stern Directs Architecture Center.
Robert A. M. Stern, FAIA, has been named the first director of Columbia University's Temple Hoyne Buell Center for the Study of American Architecture. The Buell Center, a scholarly resource focused on the past, present, and future of American architecture, was established in 1983.

Call for Design Competition Entries.
The Florida South Chapter/AIA and the City of Miami are sponsoring a competition to design a mall for the Southeast Overtown Park West Redevelopment Project. The mall will be located in the center of a 200-acre site adjacent to downtown. Sept. 28 is the deadline for the receipt of a $25 entry fee; completed submissions are due Oct 26. For more information, contact FSC/AIA, 1150 S.W. 22nd St., Miami, Fla. 33129.

Chicago Architecture Award.
Philip Johnson, FAIA; John Burgee, FAIA; and Arthur Erickson, Hon. FAIA, are the recipients of the first Chicago Architecture Award, presented by the Illinois Council/AIA and *Architectural Record.* In presenting the awards, Richard Cook, AIA, president of the council, said that the recipients were recognized for their "significant contributions to architecture and to the design of our urban environments through the noble and visionary architecture tradition of the city of Chicago."

Lighting Design Competition Deadline.
Ziggurat Lighting and Furniture has set Nov. 3 as the deadline in its international lighting design competition for architects, designers, artists, and students. Cash prizes of $1,000 will be awarded in professional and student categories. For more information, contact David Baird, Ziggurat, P.O. Box 2654, La Jolla, Calif. 92038.

Student Design Competition Winners.
The Association of Collegiate Schools of Architecture announced the winners in its second annual ACSA/American Wood Council student design competition. Winners in the category for a country club in Colorado were Gregory A. Heiser, University of Illinois, Urbana-Champaign; Jane Tannehill, Rice University; Edward Carr, University of Washington; Jeffrey C. Burke, University of Idaho; and Jim Moorkamp, University of Kansas. Winners in the second category for a medium-scale project emphasizing the use of wood were: Patricia Kucker, University of Pennsylvania; Dan Wetherell, University of California; Jose Marcos Sama, University of Florida; and Patricia M. DeLauri, Rensselaer Polytechnic Institute.

AIA Foundation Lecture Series.
Lecturers in the fall Octagon Museum series "The Shape of the Future—Current Issues in Architecture," sponsored by McGraw-Hill Information Systems, will be Wolf von Eckardt, Oct. 17; Bernardo Fort-Brescia, Oct. 24; Helmut Jahn, Nov. 7; and Robert Geddes, Nov. 14. Each lecture will be held at 8 P.M. in the Armand Hammer Auditorium of the Corcoran Gallery of Art, Washington, D.C.

International Design Competition.
The Japan Design Foundation is sponsoring its second international design competition, open to architects, industrial designers, interior designers, and landscape architects, to make "concrete proposals to solve a series of problems confronting human beings and to visualize the surrounding society and culture." The deadline for entry requests is Oct. 31; submissions are due by Jan. 10. Contact

the Japan Design Foundation, Second International Design Competition Office, Semba Center Building, No. 4, Higashi-ku, Osaka 541, Japan.

Design Competition Seeks Entries.
The college of architecture and urban studies of Virginia Polytechnic Institute is sponsoring a one-stage design competition for a Center for Innovative Technology for the Commonwealth of Virginia, to be located in Northern Virginia. For more information, contact Paul D. Spreiregen, FAIA, CIT Design Competition, College of Architecture and Urban Studies, Virginia Polytechnic Institute, Blacksburg, Va. 24061.

Honor Awards Entries Deadline.
AIA has set Oct. 24 as the deadline for receipt of entry forms and a $100 registration fee in the 1985 honor awards program. Completed submission binders must be returned postmarked by Nov. 14. Jurors will be James Stewart Polshek, FAIA (chairman); Alejandro Barberena; Thomas L. Bosworth, FAIA; Robert Campbell; William H. Grover, AIA; James Kalsbeck, student; O. Jack Mitchell, FAIA; Roger Schluntz, AIA, and Harry Weese, FAIA. For more information, contact the awards program at Institute headquarters, (202) 626-7390.

Du Pont Design Award Winners.
Lamberto Moris and Phyllis Martin-Vegue of Marquis Associates in San Francisco are the grand prize winners in the 1984 Du Pont Antron design award competition for "outstanding design in commercial interiors with carpet of Antron nylon." They were cited for the renovation of the Cecil H. Green Library at Stanford University. Honorable mentions were presented to Lee Foster-Crowder of Interspace Inc., of Philadelphia; Samuel J. De Santo & Associates of New York City; and a joint design by Barry N. Eiswerth of H2L2 and Robert L. Decker of Philadelphia.

Stone Awards Deadline Set.
Dec. 1 is the deadline for submitting entries in the Building Stone Institute's Tucker award program. Awards will be presented in residential, nonresidential, renovation, and landscape categories. For more information, contact the Building Stone Institute, 420 Lexington Ave., New York, N.Y. 10170.

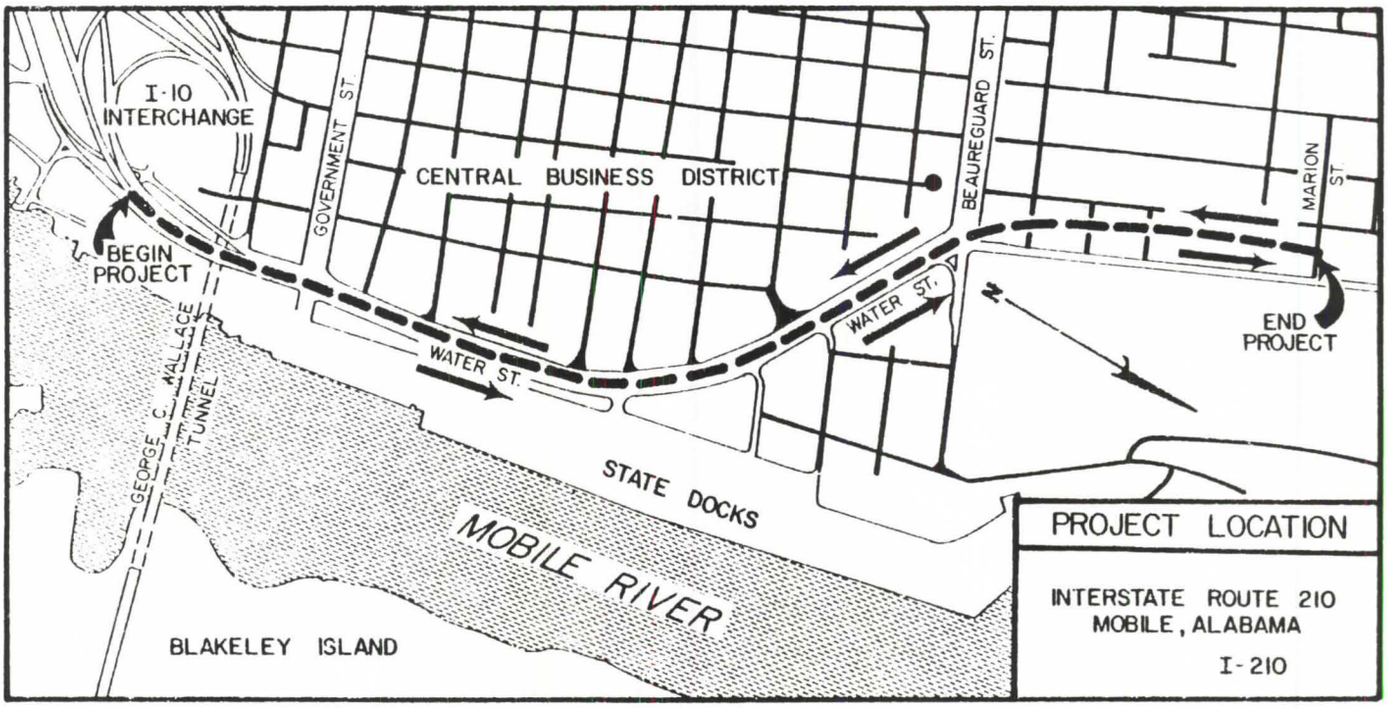
'Chicago and New York' Exhibit.
An exhibit of more than 70 drawings, photographs, prints, models, posters, and architectural fragments that traces the evolution of the skyscraper, the development of city planning, and suburban environments of New York City and Chicago will be on view Oct. 17-Jan. 6 at the AIA Foundation's Octagon. Entitled "Chicago and New York: More Than a Century of Architectural Interaction" the exhibit is sponsored by the Art Institute of Chicago and the New York Historical Society.

Wright Fall Tour Series.
Wright in Wisconsin: Spring Green has scheduled two tours of the architecture of Frank Lloyd Wright. Day tours to Racine including the Johnson Wax Administration Building, Wingspread, and Annunication Church are planned for Oct. 11 and 18. Tours of Wright's birthplace, Taliesin, and buildings in Madison are scheduled for Oct. 12 and 19. For more information, contact Wright in Wisconsin: Spring Green, Box 370, Spring Green, Wis. 53588.

Japanese Architecture Exhibition.
The first exhibit in the U.S. of Japanese architect and designer Masayuki Kurokawa will be on view through Oct. 27 at the Gallery 91 in New York City. Entitled "From Pushpin to Architecture: Masayuki Kurokawa of Japan," the exhibit includes drawings, photographs, and models of his architecture, furniture, and industrial design. □

STATE OF ALABAMA HIGHWAY DEPARTMENT

NATIONAL COMPETITION TO DESIGN A SECTION OF INTERSTATE ROUTE 210 MOBILE, ALABAMA



The State of Alabama Highway Department (AHD) is offering a national competition for the design contract of a section of Interstate Route 210 in Mobile, Alabama, from Interstate Route 10 at the George C. Wallace Tunnel under the Mobile River northerly for a distance of 1.6 miles to Marion Street.

Firms participation in the competition will be at the sole expense of the participants. No payment will be made by the AHD for any expense of firms electing to participate in the competition.

The proposed project has been developed through the approval of the Environmental Impact Statement and approval of the location corridor by the Federal Highway Administration.

The proposed improvement lies along the Water Street Corridor which is adjacent to the Mobile CDB on the west and the Alabama State Docks on the east. The facility more or less parallels Mobile River. The corridor is very restricted. During development of designs, historic values are to be given consideration in order to minimize adverse affects.

This competition is being offered for the purpose of leading to the ultimate selection of a firm to prepare final design contract plans.

The AHD will meet with all interested firms on October 4, 1984, at 10:00 a.m. in the Conference Center located in the AHD Central Office at 1409 Coliseum Boulevard, Montgomery, Alabama. Copies of background data including the Environmental Impact Statement, mapping (scale 1 inch equals 200 feet @ 5 feet contour intervals and 1 inch equals 50 feet @ 1 foot contour intervals) and photography (scale 1 inch equals 1000 feet and 1 inch equals 500 feet) will be made available to interested firms on this date provided they have officially notified the AHD in writing of their interest by September 20, 1984.

Firms desiring to enter the competition will be afforded an opportunity to present their design to the Governor's Advisory Committee. Firms presenting designs will be required to document that such design is feasible and buildable as to geometric and structural criteria subject to detail modifications. Firms are free to present any information in such a format as considered appropriate by the firm. As a minimum the firm should present preliminary profiles, paving layouts and bridge layouts in such a format as to be readily comprehensible to the average lay person. A preliminary cost estimate of the plan proposal is required to be a part of the presentation.

Presentations will be made in the City of Mobile on or about February 4, 1985. Firms will be responsible for advising in writing the AHD not later than January 3, 1985, that they will make a presentation. The AHD will then advise the firm of the time and location in Mobile to make the presentation. A maximum of two hours will be permitted for each presentation.

Upon completion of the presentations, the Governor's Advisory Committee will recommend to the Department three prospective firms for its consideration.

Upon receipt of the aforementioned recommendation, the AHD will detail the scope of work and the three selected firms will be required to make a technical proposal and man-day estimate categorized by professional and subprofessional man-days required to the Alabama Highway Department. At the time of the presentation of the technical proposal to the AHD, each firm will be expected to clearly document its expertise and demonstrate its ability to provide the complete and final design plans. The AHD is not interested in any joint venture; however, due to the complexity of the proposed improvement, firms will be permitted to subcontract for expertise not normally maintained by the firm. Following presentation of the three technical proposals, the AHD will then make the final selection of a firm to prepare final design plans.

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The handsome Bent Tree Green office condominiums in north Dallas capitalizes beautifully upon the atrium concept through use of structural ridge skylights by Naturalite.

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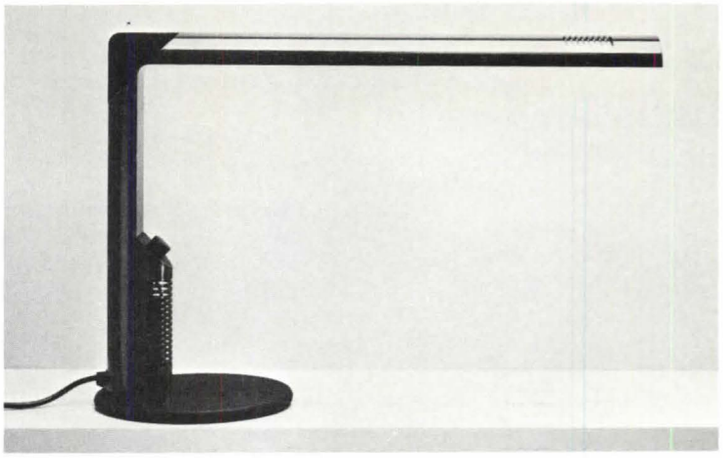

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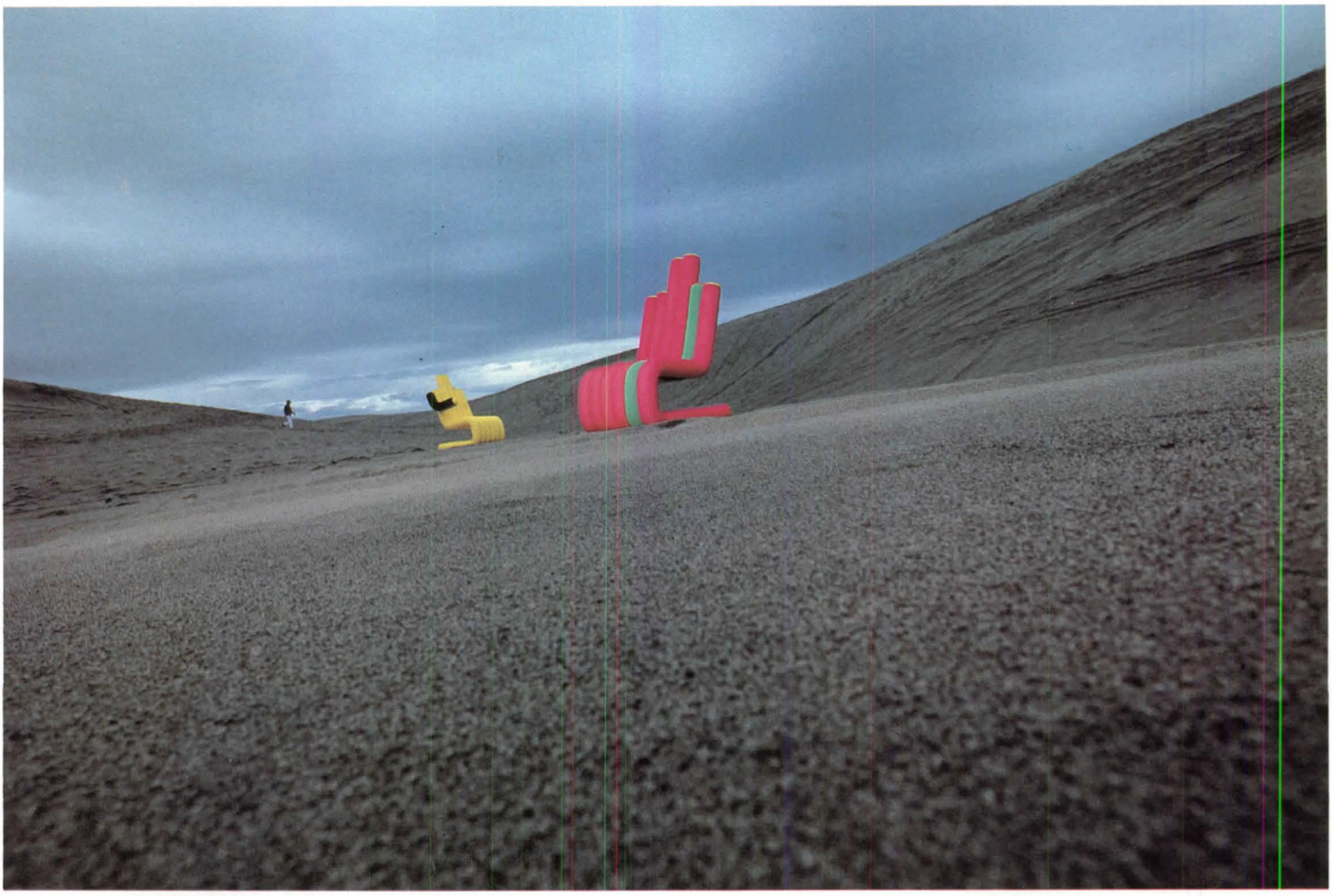
The high-tech design of the Luci lamp (1) reflects the efficiency of its low voltage halogen light source. Designed by Fratini in Milan, Italy, and distributed in the U.S. by Nessen Lamps, the lamp is of die cast aluminum with a heavily weighted base and is available in three electrostatic paint finishes—red, white, and black.

From Japan are the People armchairs (2), manufactured by Yokota Design Work Studio Inc., which are reminiscent of some of the more outlandish chair designs of the '60s. The chairs consist of tubes of brightly colored fabric joined together to produce an almost human form. The human metaphor is carried further with the addition of ski goggles and sports watch (4). Manufactured by Saporiti Italia (and distributed by Campaniello Imports Ltd., of New York City, Miami, Los Angeles, and Dallas), the Miamina chair (3), which can be easily folded, has a frame of eight chromed or lacquered tubes fixed on a central molded joint. The boldly patterned fabric seat with attached headrest simply fits over this frame. A smaller version becomes an ottoman; a carrying bag is also offered.

For Avarte's Experiment chairs (5), Finnish designer Yrjö Kukkapuro sought a neofunctionalist design. Basically the chair is a plastic-laminate covered seat with a somewhat larger than expected backrest. To this Kukkapuro adds a surprising touch of wit—wavy, colorful armrests. There are three varieties in three colors—pale green, pinkish-red, and light blue. The chair is distributed in the U.S. by Beylerian Ltd., New York City.

Charles Gwathmey's aerial impressions of the American landscape—its layering and overlaying of rich earth tones and forms as seen from an airplane—were the basis for the Le Soleil Couchant rug (6), manufactured by V'Soske. □



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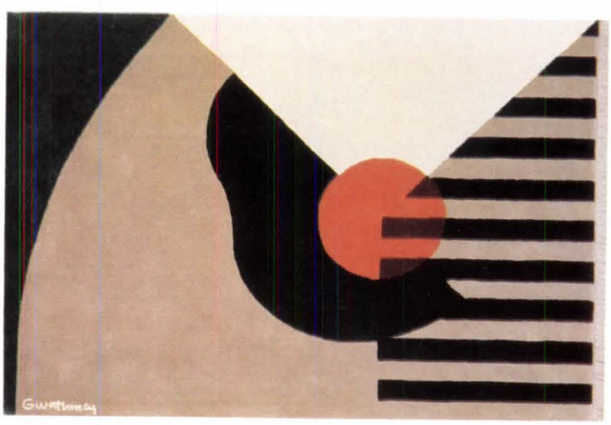

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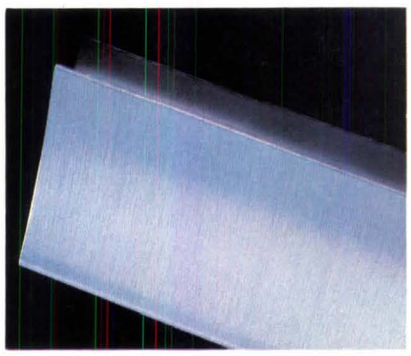

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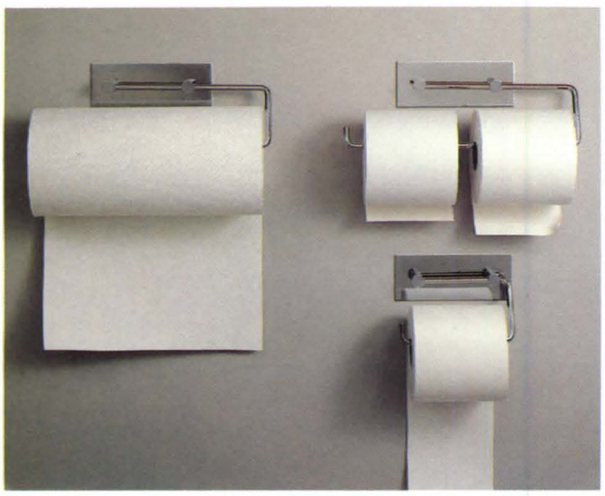
Products

A selection of notable offerings and applications. By Lynn Nesmith



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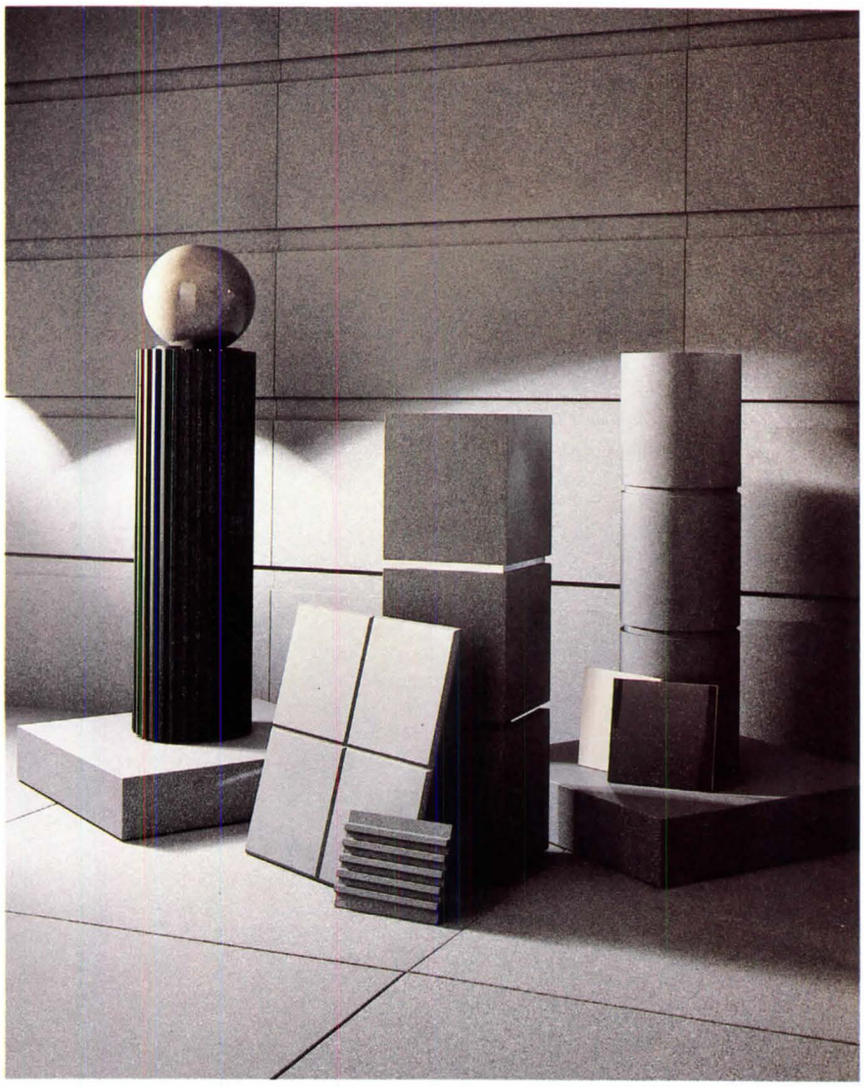

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Polished chrome kitchen roll holder and toilet paper holders (1), designed by Danish architect Arne Jacobsen in the '60s for Kroin Architectural Complements, are part of a series of brass modular plumbing accessories for residential and commercial installations. Fixtures are also available in 10 colors and polished brass. (Circle 201 on information card.)

Cy Mann Designs' Geo Wall collection (2), designed by Elyse Lacher, is made of synthetic granite veneer with a textured painted finish in eight standard and custom colors. Floor to ceiling panels are installed on an interlocking grid on a wooden substructure. Solid panels, matched stone, chamfered edges, and fluted patterns are designed to resemble masonry techniques. (Circle 202.)

Eldonwal office accessories (3) are designed to be used with most fabric-covered open office wall systems, as well as metal, glass, and wood panels, to provide filing and storage space. (Circle 203.)

Products continued on page 230

Wall Insulation.
Commercial cavity wall insulation is made of inorganic glass fibers bonded with a thermosetting resin. It is available in lengths and widths precut to meet specific dimensions. (Manville Building Materials Corporation, Denver. Circle 240 on information card.)

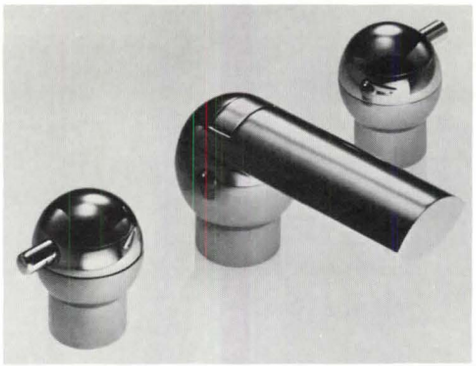
Safety Tiles.
Transit-Tiles with raised discs and vivid orange and yellow glaze are designed to be installed in strips a safe distance from the edge of platforms, ramps, stair landings, and walkways to meet requirements for the visually impaired. Six-inch-square tiles, ½-inch-thick, are made of semivitreous red clay. Tiles may be installed with conventional mortar, thin set mortar, or epoxy mortar. (American Olean Tile Co., Lansdale, Pa. Circle 239 on information card.)

Security System.
Proximity-Plus cardkey system requires no direct physical contact between the card and reader. It is designed to read cards through thick walls of glass, brick, cement, wood, or wallboard. The system uses micro-chip technology, crystal chemistry, and an antenna signal processor. Each card has a unique code and that cannot be erased, altered, or demagnetized. The system can be integrated with the Cardkey Pass Series security management and the Multi-Tyme attendance and time system. (Fairchild Industries Co., Chatsworth, Calif. Circle 233 on information card.)

Thermal Storage System.
Megatherm controlled electric storage system is designed to use off-peak power and balance the electric load profile to reduce electric demand. Systems are individually designed and engineered to meet specific applications. (Megatherm Corporation, Sandwich, Mass. Circle 235 on information card.)

Door Hardware.
Italian Touch series of lever set door hardware has brass fittings and handles in six natural woods. The round rosette series is adaptable for standard cross bore, edge bore, and backset installations. (Valli & Colombo, Duarte, Calif. Circle 232 on information card.)

Acoustical Corner Panel.
System 2 one-piece fabric-wrapped radius panel has oak or mahogany wood cap trim. Panels are available in several standard heights and widths and fabric colors. An optional electrified base has a three-circuit, six-wire system designed to provide isolated power for computers. (Conwed Corporation, St. Paul, Minn. Circle 231 on information card.)



Bathroom Fixtures.
Constellation lavatory set (above), designed by Stanley M. Paul, has a convex configuration. Handles turn within circular control fixtures, and the lift knob lays flush with the spout. (Paul Associates, Long Island City, N.Y. Circle 205 on information card.)

Skylight Canopies.
Solar Deck walkway covers and marquees have barrel vault design with heavy duty extruded aluminum frames in six-, eight-, and ten-foot lengths. Each module can be used singly or in continuous patterns with arched and quarter arched profiles. Frames are produced in bronze baked enamel or anodized finishes for wall mounted or freestanding applications in new construction and renovations. (Mapes Industries, Lincoln, Neb. Circle 234 on information card.)

Ceiling System.
Arcaline clip-on ceiling elements are attached to existing T-bar grid ceilings. Made of extruded aluminum with a baked enamel finish, elements are available in eight-foot lengths measuring 2½x5 inches. They may be mounted directly beneath, parallel with, or diagonal to existing grid members. The elements are designed to be spaced between 12 and 24 inches apart in installations with ceiling heights of nine feet or less; 12-inch spacing is recommended for ceilings that exceed nine feet in height. Plates, end caps, and elements are installed and removed with hand pressure. (Integrated Ceilings, Inc., Los Angeles. Circle 238 on information card.)

Thin Blinds.
Bali Micro Blind has slats measuring 6/10-inch in width, half the size of standard miniblind slats. Made of aluminum with a polyester enamel painted surface, the slats are available in 100 colors. Custom shapes including triangles, A-frames, corner blinds, and cut-outs are also available. (Marathon Manufacturing Co., Houston. Circle 230 on information card.)

Double-Hung Window System.
Magnum heavy-duty window unit is constructed of fine-grain Ponderosa pine with a 5/4-inch frame and a 1¾-inch sash. It is equipped with four double-coil springs on block and tackle balances contained in foam-backed vinyl jamb liners. Insulating glass ¾-inch in thickness is standard, but triple glazing, solar bronze, solar cool reflecting glass, and divided lites are also available. (Marvin Windows, Warroad, Minn. Circle 229 on information card.)

Building Board.
Ultra-Board is an asbestos-free, noncombustible, fiber-reinforced cement building board designed for external and internal applications including wall linings, partitions, ceilings, and infill panels. Rectangular flat sheets measure 4x8 and 4x10 feet. (Brit-Am, Middlesex, N.J. Circle 228 on information card.)

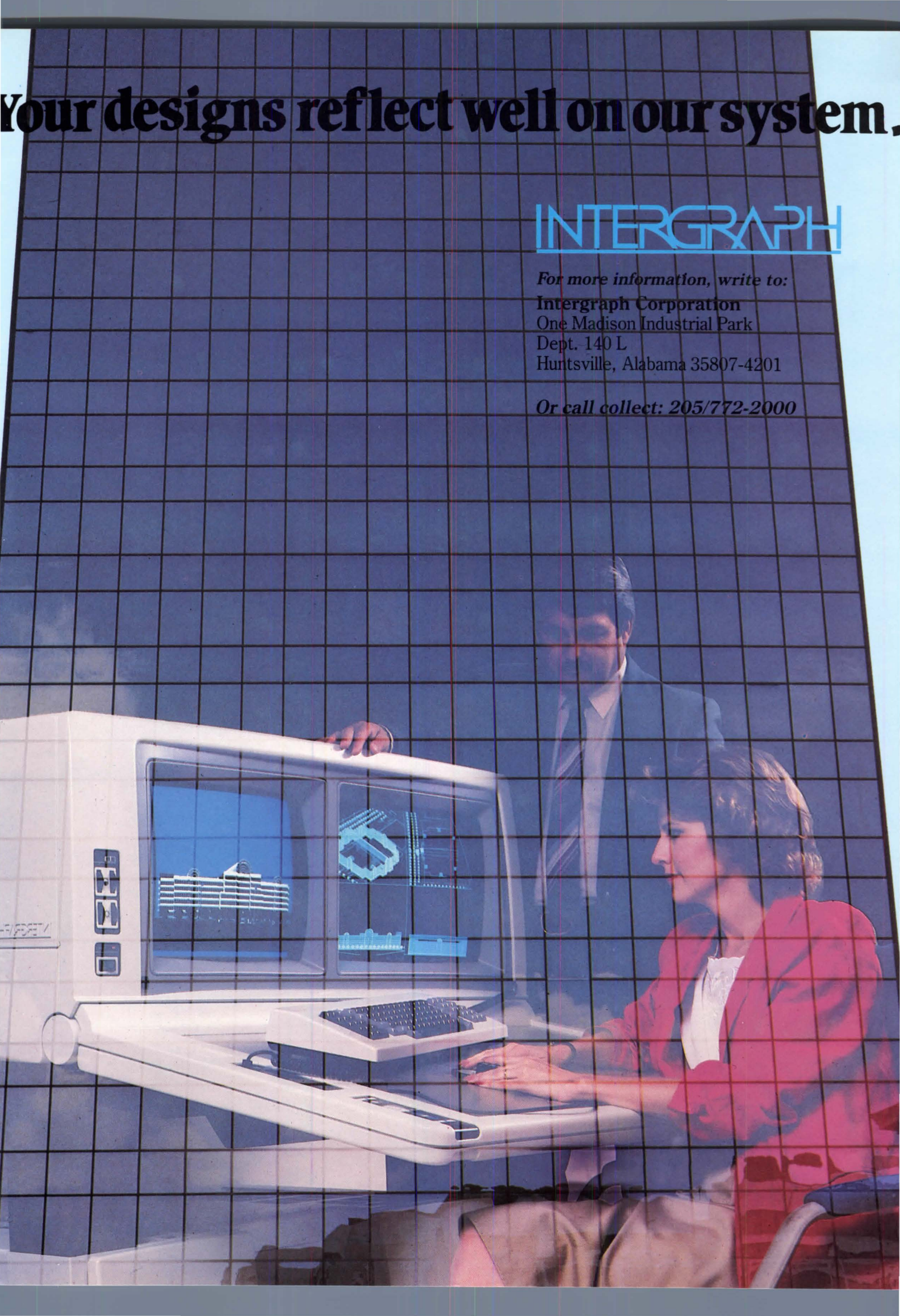
Architectural Wall System.
Vitralume porcelain enamel finished wall panels have an inert glass layer fused to an aluminized steel substrate. Panels are available with a foam core or honeycomb core insulation in three thicknesses. (H. H. Robertson Co., Pittsburgh. Circle 227 on information card.)

Automatic Printer.
Model SMA-7750 fully automatic reader printer has automatic focus, automatic exposure, and a stepless 7.4x to 16x enlarging range with optional interchangeable lenses to extend the range to 48x. The system is designed to provide accurate enlarging by direct projections on the large screen and printing onto zinc oxide paper. An optional card reading attachment with preprogramming is also available. (Extek Microsystems, Inc. Van Nuys, Calif. Circle 226 on information card.)

Furniture System.
Movable Walls modular office furniture system has computer-support components including mobile pedestals, an articulated keyboard shelf, an adjustable VDT stand, and an open frame panel for shared terminals. Power panels accept three-way circuit wiring. Panels are available in four heights and seven widths. Binder bins, bookshelves, task lights, and files are included with the system. (Steelcase, Grand Rapids, Mich. Circle 236 on information card.)

Insulated Sun Room.
Solarium glass enclosures are designed to extend living spaces and provide passive solar heating in residential installations. The hollow aluminum frame is thermally broken and weatherstripped, and sealant surrounds glass units to reduce heat loss and drafts. Double-glazed units are available with clear or bronze tinted safety glass, laminated, and reflective glass. Fully insulated sliding doors and single-

continued on page 233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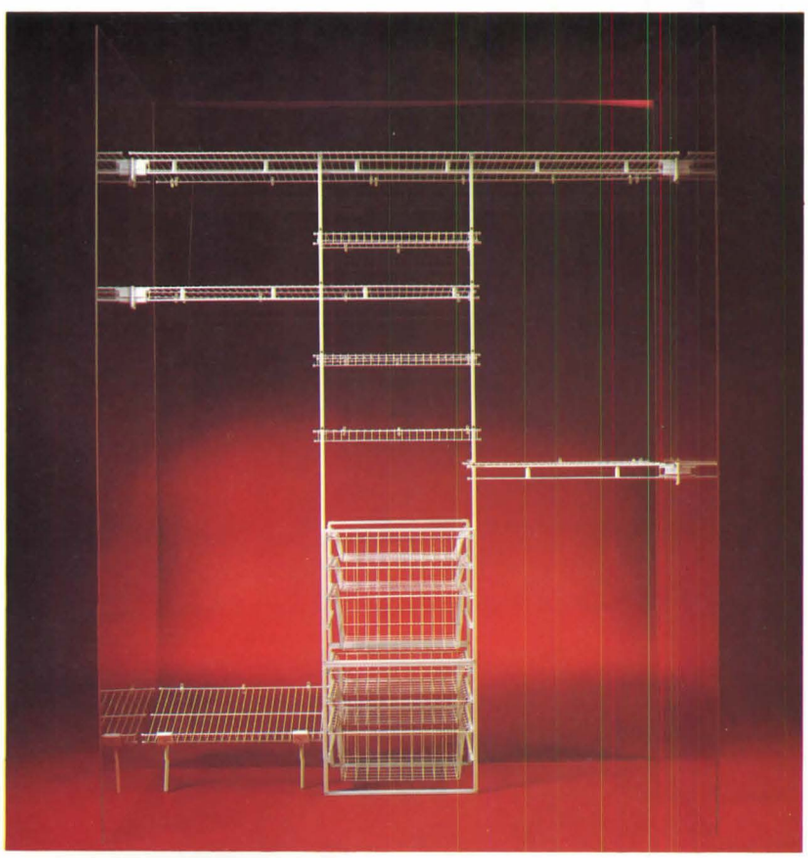

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hung windows are also available. The system can be used in retail shops, restaurants, and commercial office buildings. (Lord & Burnham, Irvington, N.Y. Circle 237 on information card.)

Instant 35mm Slides.
Polaroid instant slide system for 35mm color and black and white photography provides finished slides in three minutes. The system consists of a manual processor, slide mounter, and slide mounts. The lightweight autoprocessor measures 4x4x8 inches and weighs 21 ounces. (Polaroid, Cambridge, Mass. Circle 225 on information card.)

Exit Hardware.
Touch bar exit device is designed to be used with narrow stile aluminum, stock prep, flush hollow metal, and wooden doors in renovations and new construction. It is available with painted finishes or a stainless steel chrome finish. (Monarch Hardware, Shepherdsville, Ky. Circle 224 on information card.)

Interior Wall Panels.
Nova Cork panels are prefinished laminated paneling with a 1/16-inch veneer of virgin cork. Panels are available surfaced on two sides with the long edges beveled or surfaced on one side with all edges finished square. (Homasote Co., Trenton, N.J. Circle 223 on information card.)

Door Hardware.
Knurling and abrasive coatings for door handles are designed to identify potentially hazardous areas such as electrical closets and mechanical equipment rooms. The coatings comply with free access legislation to protect the visually impaired. They are available on the heavy duty "D" series of hardware and the "K" series of mortise lock knob and lever designs. (Schlage Lock Co., San Francisco. Circle 222 on information card.)

Parking Tower.
Park Mobile is an electrically driven automatic parking device designed to accommodate 22 cars in a rectangular space the size of approximately two cars. The 22 platforms are linked on a continuous chain and move up one side and down the other like a vertical Ferris wheel. The tower can be used with or without a facade or located in the core in the first eight stories of a building. (Computower Corporation, North Miami, Fla. Circle 214 on information card.)

Pipe Fittings.
Pipe hoppers and cornices (above) are constructed of glass reinforced plastic. Components are taken from original historic patterns and are designed to accompany aluminum and zinc extruded guttering. Custom designs are available for specific period restorations. (Kestner Building Products, Ltd., Kent, England. Circle 206 on information card.)

Roof Shingle.
Rustic Rampart glass fiber shingles are coated with weather resistant asphalt. Shin-
continued on page 235

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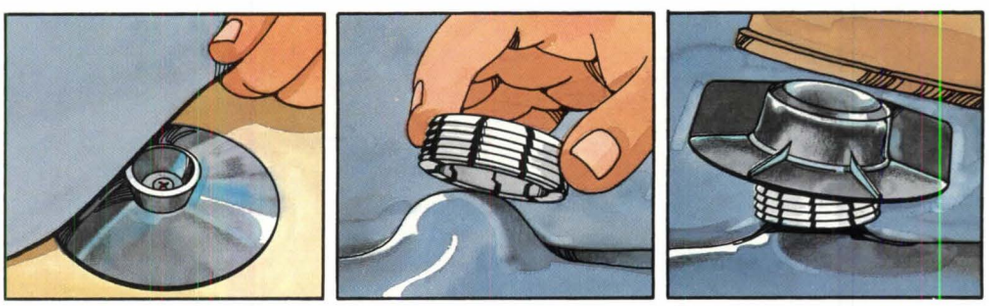

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Circle 102 on information card

Products *from page 233*
gles are designed for three-tab installation with staggered butting and carry a class A fire rating. (Manville Service Center, Denver. Circle 216 on information card.)

Molded Fiber Glass Details.
Architectural detailings, including cornices, balustrades, and dormers, are made of molded fiber glass designed to require less maintenance than wood or cast aluminum. Color is integrated into the plastic to eliminate the need to paint. (Molded Plastic Industries, Inc., Holt, Mich. Circle 220 on information card.)

Solar Window Unit.
Tesch Window has double axis tracking and a concentrating device mounted in window opening designed to look like two sets of Venetian blinds. Specular solar rays are transferred to the ceiling collector to heat air and water or be converted into electricity by photovoltaic cells while diffused daylighting is directed to the ceiling to increase the down-lighting of the room. During cold nights the louvers close to increase the insulation of the window. (TCT Ltd., Hubertus, Wis. Circle 219 on information card.)

Greenhouse Window.
Sun Garden window unit projects 12 inches from the exterior wall and opens from the screened top for ventilation. The adjustable mesh shelves can be raised or lowered, and weep holes in the bottom of the window provide drainage. Units are available with sealed insulating Spaceglass with single or triple glazing, in seven sizes with acrylic painted finishes. (General Aluminum Corporation, Dallas. Circle 213 on information card.)

Soap Dispenser.
Liquid hand soap or hand lotion dispenser is designed for deck mounting with connection to an under sink refillable container bottle. Units are constructed of plastic with white, ivory, or brown finishes. (Franke, Inc., North Wales, Pa. Circle 212 on information card.)

Replacement Window.
Thermal-Gard insulated replacement windows are made of rigid aluminum frames clad with vinyl with double or triple glazing and built-in screens. Double-hung, slider, bow, bay, and casement models are available. (Season-all Industries, Indiana, Pa. Circle 211 on information card.)

Acoustical Wall System.
Silent Elegance series of acoustical walls are available in eight woven fabrics measuring 30x108 or 30x120 inches. The system carries a .60 to .70 NRC sound control listing. (Conwed Corporation, St. Paul. Circle 210 on information card.) □

Résumés des Articles Principaux

Lècosse.
Page 102: La galerie Burrell de Glasgow, réalisée par Barry Gasson avec John Meunier et Brit Andreson, est un long et lumineux bâtiments dans un bâtiment avec un toit vernis qui prend appui sur une base de brique. La galerie abrite des objets historiques et des objets d'art, ainsi que des fragments anciens d'architecture et ceux-ci ont été incorporés au bâtiment par les architectes aux mêmes. La surface au sol totale est de 14,430 mètres carrés et offre de larges perspectives sur les bois, les prairies, et les champs avoisinants.

La Hongrie.
Page 108: Les deux têtes de file dans le courant réanimé de la tradition indigène populaire, appelé localement architecture organique, sont Imre Makovecx et Joszef Kerenyi. Le centre culturel de Makovecz datant de 1983 à Saraspatak, est une structure en forme de U qui rappelle tradition collègiale de la ville. Dans son musée du jouet à Kecskemet, Kerenyi perpétue l'imagerie et la superpositon, (murs blancs et toiture de tuile proéminente.) détails traditionnels, et amusantes fenêtres en forme de cloche ronde et octoganale.
Page 114: L'architecte Adras Erdei a utilisé des formes banales, des matériaux locaux, et une symbolique traditionalle dans le plan d'une salle de rencontre pour les tailleurs de bois et leurs apprentis. Le petit ensemble, comprenant un pont couvert, une barrière hérissée, et une maison a deux ètages, a été construit en 1981 par prés de 35 tailleurs de bois.

La Tchecoslovaquie.
Page 115: Le bâtiment de l'Administration générale de Alena Sramkova complète l'encadrement du square Wenceslav de Prague tout en se rapportant à son voisinage historique. Mais en maintenant une identité bien distincte. Ce bâtiment administratif à cinq étages, abritant une station de métro, un centre commerical, des restaurants, des bureaux, à la fois sert de liaison comme sépare la vieille ville de la nouvelle.

Les Indes.
Page 116: L'architecte Satish Gujral a utilisé un dessin aux formes puissantes, sculpturales et un paysagisme adéquat pour cette ambassade de Belgique située à New Delhi. La complexe comprend la Chancellerie, la Résidence de l'ambassadeur, les quartiers des employés, et la Residence du chancelier. La Chancellerie et la Résidence de l'ambassadeur sont agencées autour d'un axe perpendiculaire à la voie de communication principale. Des terrasses panoramiques dominant le site de 5 acres, et en encadrant les bâtiments, permettent aux temperatures interieures de rester fraîches et de préserver une certaine intimité.
Page 122. Pour son village olympique de New Delhi, Raj Rewal est une combinaison d'élements traditionnels empruntés à l'environnement urbain de l'Inde (Mohallas) avec des aménagements modernes et des techniques de construction modernes. Le site de 35 acres comprend 700 unités (Incluant 200 maisons individuelles)., jalonnées par un ensemble du ruelles piétonnières étroites et une distribution d'espaces publics plus ou moins grands. Les appartements aliant de 320 à 716.6 métres carrés, sont regroupés en 12 et 36 unités.

La Nouvelle Zelande.
Page 124: L'ecole de Worser Bay de Gerard Melling, a Wellington, est une quête de l'imaginaire et de l'informel autant dans le domaine de l'éducation que de l'architecture elle même, encourageant ainsi une réponse créative d'élèves à professeurs. L'école est un bâtiment de petite envergure, répondant au besoin de ses occupants principaux. Cest un centre qui utilise a bon escient le soleil, la perspective, et le jardin. Il emploie a cet effet des formes et des materiaux locaux; planches résistantes, toitures ondulées, fenêtres en bois de construction, grenier, et vérandas.
Page 126: La première église scientiste de Wellington réalisée par Ian Athefield, est une disposition impressionnante de formes qui porte a se poser des questions quant a son symbolisme. Le crâne cyclopien qui flotte au dessus de l'entree est inquiétant mais, en même temps, est une référence à une vie future. L'architecte a utilisé les matèriaux dans un style régional, et y a inclu quelques allusions comiques pour l'utilisation post moderniste de détails classiques.

Le Japon.
Page 128: Hisao Koyama a réalisé l'annexe du musée universitaire de Tokyo. Cette annexe a une façade étroite dont l'entrée est encadrée d'une structure de béton à quatre épaisseurs lui donnant une proéminence symbolique. Les salles d'exposition à l'intèrieur offrent une variété de matériaux comprenant des blocs de verre, céramique, tuile, brique, béton, terrassement, et parquet de bois. La structure rappelle l'oeuvre de Louis Kahn.
Page 132: Le "Music Hall" de Nakasawa, réalisé par Kunihiko Hayakawa, est situé dans la circonscription préfectorale de Nagano, dans la campagne, prés d'un cimetière, endroit peu commun pour un temple dédié aux arts instrumentaux. Le Hall est gris à l'exterieur, mais spacieux et coloré à l'interieur. Fait de béton renforcé, son plan structural est composé de vôutes. En dehors des espaces réservés à la compétition, il y a des plans d'exposition, des salles de cours, et des salles d'accueil pour les artistes de passage, ainsi que des espaces de service.
Page 136: Le gymnase monumental Nachiko Ishihara à Yamanashi, dessiné par Koichi Nagashima, attrape les nuages comme une métaphore quant à la structure du bâtiment. Le stade à trois vôutes à lui seul couvre 233 mètres carrés de la superficie totale de l'ordre de 4,333 mètres carrés avec les autres espaces de service. L'architecte a marrié avec succés le large et imposant espace du stade avec ses parties fonctionnelles plus petites, en utilisant l'imposante forme qui enveloppe le tout.
Page 138: Les appartements de Rokko dans la ville de Kobe, ont été dessinés par Tadao Ando. Le bâtiment composé de 18 blocs est distribué comme une suite de plaines, chacune comprenant de trois à cinq unités, le tout enclavé dans les montagnes de Rokko, et offrant une superbe vue de la baie, que l'architecte a su mettre en valeur. Chaque appartement a de trés grandes fenêtres peu communes pour le Japon. Chaque appartement a également une entrée differente.

La Hollande.
Page 141: Il y a en Hollande une nouvelle sobriété dans la réalisation urbaine et l'habitat. La production s'est attenuée ainsi que les coûts de construction pour l'habitat social. La volonté du pays de fournir un abri décent a commencé avec son plan de l'habitat datant de 1901. Entre 1910 et 1920 l'école d'Amsterdam cherchait à donner aux travailleurs un sens de l'habitat dans le style "vie de château." Dans les années 1930 on dénotait alors un habitat frustre avec des toits plats, chauffage central, et répartition rationnelle. Durant les années 1930 et 50, et début 60, de larges complexes d'habitation étaient realisés à peu de frais. Un habitat plaidoyer en quelque sorte et une réponse traditionnelle banale quant un style a fleuri dans les années 70. Mais aujourd'hui les architectes hollandais rejettent cela en faveur de blocs immenses et annonymes, et de maisons sans expression, petites, construites chichement d'autre part. La Hollande suit un cours diamétralement opposé à celui de la plupart des autres nations qui reviennent à leurs propres origines, plutôt que de donner dans l'internationalisme pour des solutions de réalisation.
Page 146: A. Bonema a fourni une échelle résidentielle pour les complexes de bureaux de 24,000 m² de la compagnie de telephone PEN à Alkmaar en enclavant des éléments de deux et quatres étages

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Début des résumés en page 236
autour de coures panoramiques avec un lac artificiel. L'interieur est une association de bureaux ouverts et fermés avec cloisons mobiles à trois hauteurs differentes et aux configurations de forme variée pour les bureaux.

Malte.
Page 148: Richard English reconnaît l'influence de l'architecture courante des îles grecques et la représentation désolée du peintre moderne De Chirico dans son plan de réalisation du lide Aquasun, un club nautique de 1,400m² avec des vestiaires, un bar, et une terrasse ouverte pour dîner. Des ensembles géométriques sculptés avec des replis ciselés sur le fronton de la façade sont accentués par des bandes de couleur contre la grande bleue.
Page 149: L'architecte Richard England utilise des motifs de l'architecture populaire dans son plan de réalisation du village Festaval Touris dominant la baie de Mellieha. Le village se compose de 10 blocs d'appartements deux piéces, 15 blocs de trois piéces, et six blocs de quatre piéces. Il y a aussi un Clubhouse et un bâtiment avec une galerie avec piscine interieurs, mini supermarché, et ère de jeux. Ce complexe est réalisé comme des séries d'appartements à larges terrasses allant avec le paysage.

Le Canada.
Page 150: Dans la bibliothèque de Unionville, Barton Myers et Associés a utilisé des façades à pignon en brique rouge avec des rayures à soufflets, un toit avec arpent de métal soudé à forte inclinaison, et une tour d'entrée en acier respectant l'héritage rural sans toutefois donner dans de clinquantes rêveries du passé. La parfaite symétrie de la bibliothèque de 4,667m² comprend en son centre une coure éclairée de lumière naturelle et envahie de plantes.
Page 154: Ces quartiers généraux pour les opérations principales d'Alcan, le géant de l'aluminium, sont situés à Montréal et ont été realisé par Arcop et Associés. Le complexe qui comprend des bâtiments retaurés, réhabilités ou nouveaux, est un exemple de la préservation des sites urbains et d'un plan achevé de façon astucieuse. Les ensembles comprennent trois maisons en enfilade qui ont été restaurées, un petit hôtel, deux nouveaux immeubles de bureaux, une église, et deux espaces ouverts remarquables.

Goa.
Page 158: En décrivant Cidade de Goa, l'architecte indien Charles Correa appelle l'hôtel non pas un immeuble conventionnel mais une "ville colline" qui suit les contours du site, dérapant de sa hauteur vers la plage. Distribué en suites groupées le long d'une arrête centrale pédestre, l hôtel a de longues façades aux couleurs riches, et des murs rappelant l'art du poster de cinema en trompe l'oeil.

L'Allemagne.
Page 160: La salle de cinéma Universum d'Eric Mendelsohn datant de 1928, à Berlin, a été récemment restaurèe et complètement rénovée par Jürgen Sawade. Le bâtiment était complètement vide, son extèrieur soigneusement restauré, et un complexe scénique automatisé construit à l'interieur de l'enveloppe. Il est maintenant devisé en trois salles distinctes avec une capacité totale de 1,500 sièges. Les trois cinémas peuvent fonctionner simultanément, lorsque les murs modulaires sont retranchés afin de creer un espace unique.

L'Autriche.
Page 166: L'annexe de Gustave Peichl de 100,000 m3 ajoutée à l'ensemble des quartiers généraux de Clemens Holzmeister datant de 1937, pour la radio diffusion viennoise, comprend tous les studios de télévision, les pièces de répétition, de circulation, de stockage, et des archives à ciel ouvert sur deux étages pour les cassettes video, et les enregistrements. La pleine structure de quatre étages est reliée à l'originale par des courssives à chaque niveau.

L'Espagne.
Page 170. Cet immeuble des services municipaux de Girona, réalisé par Bosch, Espagnol, Frigola, Hereu, utilise un certain classicisme pour rendre sa définition civique plus évidente quoique l'origine de ce classicisme soit anglais. Abritant plusieurs services de police, il est haut de quatre étages avec accés public au Ier. La structure en est en béton armé, avec de la pierre tendre pour l'ornementation architecturale, et des briques de terre cuite pour l'extérieur.

L'Angleterre.
Page 172: La fabrique de déchets de silicone de Inmos, réalisée par Richard Rogers, était supposée s'associer à toute sorte de site comme être également capable de produire. L'espace compris pour le plafond, sol, et mur, est isotropique avec une structure élaborée. De larges cadres bleus en "H" forment l'épine dorsale du bâtiment et comprennent tous les équipements, avec des bandages suspendus en dessous. Cela rend l'interieur et la structure réellement souples.

Norway.
Page 176: Cette gare ferrovière de Holmlia, juste aux portes d'Oslo, a été réalisée par Arne Henriksen. Bien que la gare ne soit pas équipée et de petite taille, il ne s'agit pas d'un bâtiment modeste, et ne devrait pas l'être car elle servira bientôt une population de 11,000 habitants. La station se compose d'une cage d'escalier, d'un ascenseur, et d'un quai abrité. Il est long et symétrique et ses matériaux sont le béton peint, le bois teint, l'acier galvanisé, et la tuile de terre cuite.

La Suède.
Page 178: L'architecture traditionnelle de Carl Nyrén est basée sur la simplicité, un manque de prétention, de la lumière, des matériaux naturels, plutôt que sur la tradition historique ou des éléments superflux. Située à Jonköping sur la rive du lac Vättern, la station à deux étages a de larges fenêtres en ogive, un revêtement de brique rouge, et un toit en cuivre et fait la transition entre la cité et le lac.
Page 179: La philosophie anthroposophique de Rudolph Steiner continue d'inspirer l'esprit architectural de Järna, une communauté qui perpétue l'enseignement de Steiner dans les écoles de Walforf. L'architecte Erik Asmussen a réalisé une école de Walforf, une bibliothèque, un bâtiment de dance, un centre de musique, un restaurant, des boutiques, et un hôpital, mais le plus important étant le dortoir de Ormen Länge. Adapté à la philosophie de Steiner, le bâtiment exprime l'éternel changement et l'évolution de la nature dans ses formes organiques.

Le Bresil.
Page 180: En convertissant une usine de 43,333 mètres carrés en un centre de plein air urbain à Sao Paulo, Claudio Ferlando et Lina Bo Bardi ont restauré le toit de tuiles de verre original pour l éclairage de jour naturel et ont conservé les combles avec leurs poutres apparentes. Un volume de 2,333 pour la bibliothèque, des ateliers de création, et des foyers sont regroupés le long de rues pietonnes pavées de granit et séparées par de hauts murs de briques.

L'Argentine
Page 182: L'Arche commerciale de Paseo de la Ciudad à Cordoba, réalisée par José Ignacio Diaz et Gramatica/Guerrero/Morini/Pisani/Rampulla/Urtubey, prend les limites de la cité comme de référence dans son plan. Les galeries dédoublées en hauteur sont revétues de verre mais ne sont pas complèment recouvertes d'un toit. Un rideau de verre indique l'entrée de l'arcade à partir du musée.
Page 185: L'hôpital des urgences à Cordoba réalisé par Miguel Angel Roca, a des volumes vivement articulés et colorés et procure une ouverture à la cité sur son bord ouest. Ce bâtiment est réalisé sur un module de 72 mètres avec des panneaux mobiles. Sa structure est un cadre en béton avec colonnes, poutres, et planches encastrées. L'espace publique de l'hôpital est souligné par un portique monumental en béton et une voûte métallique.

L'Australie.
Page 188: Situé á Kempsey, le musée d'histoire locale et le centre d information touristique sont dessinés par Glenn Murcutt. Le bâtiment est fait de métal ondulé pour les murs et les toitures. Une ventilation latérale est augmentée par des pivots ventilants qui courent le long des trois sections vôutées du musée, à la base même de chaque vôute. Des turbines à vents situées sur l'arrête aide également l'air à circuler. Les éclairages du toit et les treillis de cèdre apportent la lumière du soleil et produisent un effet de fondu enchaîné avec le ciel australien.
Page 190: La poissoneerie de Mornington, dessinée par Peter McIntyre, est emplie de l atmosphère locale. Son plan est soigneusement adapté au terrain marécageux, un exemple de l'adaptation de l'homme à la nature. La structure a des colonnes et des poutres en bois de construction semblable à celui utilisé pour la construction navale. Il y a deux niveaux à l'interieur avec une cheminée placée au centre, et de larges perspectives ouvrant sur la mer.
Page 193: Le métal ondulé est utilisé de façon originale pour ces petits immeubles à l aéroport provincial de Portland, Dans le Victoria. Gunn Williams Fender a utilisé le matériau régional ajouté a des formes courbes, des rayures de couleurs vives, des fenêtres à hublots carrés, et des leviers de commande en saillie, dans un ensemble évoquant le voyage aèrien. Les espaces comprennent un terminal pour les passagers, un aeroclub, un entrepôt et deux hangars.
Page 194: L'hôpital du Mont Druitt de Lawrence Nield et Partners répond au site broussailleux et campagnard situé sur son aile sud, limitant la nécéssité de transport public à quelques lieux à pied. L'hôpital comprend à peu près 400 lits. Le plan est exemplaire dans la division clairement établie entre zones postoperatoires et bloc operatoir, soins, et entretien. L'hôpital présente aussi par bien des aspects une économie d'énergie.

Le Surinam.
Page 195: Situé sur le lieu d'une ancienne plantation, le centre médical de Marienburg a été realisé par l'architecte hollandais Lucien Lafour avec des toits trés isolés et pentus d'est en ouest, et des volets à double bord en bois de construction pour profiter des brises du nord est, le long de faîtes élevés. Des gouttières en béton armé agissent comme une poutre circulaire reliant les colonnes dans un quadrillage de 5 mètres 6 avec trois ailes en forme de pavillon.

L'Irlande.
Page 196: Le complexe d'entraînement sportif professionel de Anco réalisé par A&D Wejchert, est organisé par une agence nationale du gouvernement irlandais et est situé dans les faubourgs proches de Dublin entre deux complexes immobiliers d'habitations à I étage. Cela represente un immeuble large mais une section proéminente en améliore l'échelle, et des lucarnes angulaires font face aux pignons des maisons adjacentes. A l'interieur se trouve une suite d'espaces considerables pour l'entraînement demandant un équipement important et se subdivisant maintenant que se l'emphase est donnée à l'utilisation d'ordinnateurs.

Sri Lanka.
Page 200: Le nouveau bâtiment du parlement de Geoffrey Bawa est la première tentative de décentralisation de la capitale de Colombo trop populeux vers Kotte à proximité. Situé sur une île, au centre d'un lac artificiel, de 300 acres, le complexe de 166,666 m² habillé de toitures bithumées, en cuivre foncé de Kanyan, ressemble à des tentes. Un bloc central est flanqué de pavillons aux quatre coins, tous de différentes tailles, et hauteurs.

Resúmenes de Artículos Principales

Escocia.
Página 102: La Galería Burrell en Glasgow, diseñada por Barry Gasson con John Meunier y Brit Anderson, es un extenso "edificio dentro de otro edificio" lleno de luz, con un techo vidriado que se apoya sobre una base de ladrillo. La galería aloja objetos artístocos e históricos, inclusive fragmentos de arquitectura antigua, y éstos los han incorporado al edificio los arquitectos. El área total del piso es de 14,430 metros cuadrados y ofrece amplias vistas de los bosques, prados y campos que los rodean.

Hungría.
Página 108: Dos importantes arquitectos en el actual reavivamiento de la tradición vernacular autóctona, localmente denominada arquitectura orgánica, son Imre Makovecx y Joszef Kerenyi. El centro cultural 1983 de Makovecx en Sarospatax es una estructura en forma de U que guarda relación con el histórico pueblo universitario. En su museo del juguete en Kecskemet, Kerenyi perpetúa las dimensiones e imagen de la aldea (paredes blancas y techo de tejas sobresaliente), detalles tradicionales y ventanas octagonales, graciosamente redondas y en forma de pesas de gimnasia.
Página 114: El arquitecto Andras Erdei usó formas vernaculares, materiales locales y símbolos tradicionales en el diseño de un sitio de reunión para talladores en

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Resúmenes de página 239
madera y aprendices. El pequeño complejo, que consiste en un puente cubierto, una puerta de dragón y una casa de dos pisos, fue construida en 1981 por 35 talladores en madera aproximadamente.

Checoslovaquia.
Página 115: El Edificio de Oficinas Universal, por Alena Sránkoýa completa el contorno de la Plaza Wenceslao de Praga, a la vez que hace referencia a sus históricos vecinos pero manteniendo una identidad particular. El edificio administrativo de cinco pisos, que comprende una estación del tren subterráneo, un centro comercial, restaurantes y oficinas, conecta y separa las secciones nuevas y antiguas de la ciudad.

India.
Página 116: El arquitecto Satish Gujral utiliza formas poderosas y esculturales, así como delicados diseños del paisaje en esta embajada belga situada en Nueva Delhi. El complejo consiste en el edificio de la cancillería, la residencia del embajador, habitaciones del personal y residencia del canciller. La cancillería y la residencia del embajador están distribuidas alrededor de un eje perpendicular a la avenida principal. Las terrazas con jardinería ornamental dominan el sitio de cinco acres, con instalación de bermas en los edificios; las temperaturas interiores son frescas y se mantiene el ambiente privado.
Página 122: En sus viviendas de la Villa Olímpica en Nueva Delhi, Raj Rewal combina los elementos de los tradicionales vecindarios urbanos de la India (Mohallas) con las modernas comodidades y técnicas de la construcción. El sitio, de 35 acres, contiene 700 unidades (inclusive 200 casas individuales contiguas) que se comunican mediante una red de callejuelas para peatones y un sistema de espacios públicos abiertos, grandes y pequeños. Los apartamentos, que varían de tamaño, de 960 a 2,150 pies cuadrados, están colocados en grupos de 12 a 36 unidades.

Nueva Zelandia.
Página 124: La Escuela Worser Bay de Gerald Melling, en Wellington, es una búsqueda de informalidad y fantasía en educación y arquitectura, que aliente una reacción creativa de parte de estudiantes y maestros. La escuela es un pequeño edificio a escala, que responde a sus usarios iniciales. Este es un centro que se aprovecha del sol, del panorama y del jardín. Y utiliza formas y materiales del área: tabla de chilla, techos corrugados, ventanas de madera, establos y diversas formas de miradores.
Página 126: La Primera Iglesia Científica de Cristo en Wellington, diseñada por Ian Athefield, contiene una serie impresionista de formas que motiva preguntas sobre su simbolismo. La "calavera" de un solo ojo que flota sobre la entrada es inquietante, pero al mismo tiempo hace referencia a la vida futura. El arquitecto ha usado materiales al estilo regional y ha incluido algunas alusiones cómicas al uso post-modernista de detalles clásicos.

Japón.
Página 128: Hisao Koyama diseñó la extensión hecha al museo de la Universidad de Tokío. La adición tiene una angosta fachada cuyo pórtico está enmarcado por una estructura de concreto de cuatro pisos en forma de frontón. Las salas interiores de exposición muestran una diversidad de materiales, que incluye bloques de vidrio, mosaicos de cerámica, ladrillo, concreto, terrazzo y mosaico de madera (parquet). La estructura recuerda la obra de Louis Kahn. *sigue en página 242*

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Resúmenes de página 240

Página 132: La Sala de Música Nakazawa, por Kunihiko Hayadawa, está localizada en la región interior de las Prefactura Nagano, en las cercanías de un cementerio—un sitio inverosímil para un templo ultramoderno dedicado a las artes musicales. La sala es gris por fuera, pero está llena de colorido y es espaciosa por dentro. Su sistema estructural está hecho de concreto reforzado a base de bóvedas. Además de las áreas para escenificaciones, hay espacios para exposiciones, aulas, recámaras para alojar a artistas visitantes, y espacios para servicio.

Página 136: El Gimnasio en memoria de Nachiko Ishihara, en Ciudad Yamanashi, diseñado por Koichi Nagashima, se vale de las nubes como metáfora para la estructura del edificio. El propio gimnasio de triple bóveda cuenta con 700 pies cuadrados de un total de 13,000 pies cuadrados del edificio para funciones útiles. El arquitecto ha combinado felízmente el gran espacio dominante del gimnasio con los pequeños espacios para servicios mediante el uso de un estilo vigoroso y global.

Página 138: Los apartamentos Rokko en la ciudad de Kobe son diseñados por Tadao Ando. El edificio de 18 unidades está organizado como una serie de planos, cada uno con tres o cinco unidades, acopadas en las Montañas Rokko, y ofrece vistas excelentes de la bahía, que el arquitecto ha sabido aprovechar. Cada apartamento tiene ventanas muy amplias, cosa poco común en Japón. Cada apartamento tiene también una forma de entrada diferente.

Holanda.

Página 141: Hay una nueva sobriedad en el urbanismo y la fabricación de viviendas en Holanda. La producción se ha reducido, así como los costos de las viviendas subvencionadas. El propósito del país de proporcionar alojamiento decente comenzó con su ley de vivienda de 1901. Entre 1910 y 1920 la Escuela de Amsterdam procuró inculcar en el pueblo trabajador un sentido de la casa como castillo. En los años 30 prevaleció la vivienda barata para el trabajador, con techos planos, calefacción central y planificación "racional". En los años 40, 50 y principio de los 60, los proyectos de vivienda en gran escala se construyeron rápidamente y a bajo costo. En los años 70 floreció la de la vivienda y de una reacción vernacular más tradicional en la forma. Pero hoy, los arquitectos holandeses están rechazando esto en favor de bloques enormes, viviendas anónimas de una parte, y casas sin identidad propia, pequeñas, a bajo precio, de la otra. Holanda sigue un rumbo diametralmente opuesto al de la mayoría de las naciones que están volviendo a sus propias raíces, más bien que al internacionalismo, para soluciones en el estilo.

Página 146: A. Bonnema proporciona una escala residencial para el edificio de oficinas de 24,000 metros cuadrados de la compañía telefónica PEN, en Alkmaar, mediante la agrupación de los elementos de dos y cuatro pisos alrededor de un atrio con jardinería ornamental que incluye lago artificial. El interior es una combinación de oficinas abiertas y cerradas con divisiones móviles de tres diferentes alturas y variadas configuraciones de las alas para oficinas.

Malta.

Página 148: Richard English admite la influencia de la arquitectura vernacular de las islas griegas y las rígidas imágenes del pintor moderno De Chirico en su diseño de Aquasun Lido, un club de piscina con instalaciones variables, una cantina y una terraza para comer fuera. Los diseños geométricos esculpidos en la fachada frontal se realzan con bandas de color sobre un fondo azul intenso.

Canadá.

Página 150: En la biblioteca pública de Unionville, Barton Myers Asociados utilizaron fachadas de caballete de ladrillo rojo con bandas sobresalientes, un techo de metal con los empalmes parados y una torre de acero abierta a la entrada que respeta la herencia rural sin falsear los sueños del pasado. La biblioteca perfectamente simétrica de 14,000 pies cuadrados posee, bajo una claraboya, un patio central lleno de plantas.

Página 154: Esta sede de las operaciones internacionales de Alcan, la gigantesca empresa de aluminio, está localizada en Montreal y fue diseñada por Arcop Asociados. El complejo, que comprende edificios restaurados, adaptados y nuevos, es modelo de preservación urbana y de delicados diseños interiores. Los componentes son tres casas en hilera restauradas, un pequeño hotel, dos nuevos edificios de oficina, una iglesia y dos amplios espacios abiertos.

Goa.

Página 158: Al describir la ciudad de Goa, el arquitecto indio Charles Correa califica el hotel no como un edificio convencional, sino como un 'pueblo en la colina' que sigue los contornos del lugar, descendiendo del tope de la colina a la playa. Organizado con "suites" agrupados a lo largo de una vía central para peatones, el hotel tiene fachadas ricas en colorido y paredes con el efecto del arte de los cartelones de cine.

Alemania.

Página 160: El teatro-cine Universum, de Eric Mendelsohn, de 1928, en Berlín, fue recientemente restaurado por Jürgen

sigue en página 244

Brasil.
Página 180: Al convertir una fábrica de 130,000 pies cuadrados en un centro de recreación urbano en Sao Paulo, Claudio Ferlando y Lina Bo Bardi restauraron el techo original de tejas de vidrio para iluminación diurna natural y retuvieron las alfardas de madera al descubierto. A lo largo de las calles de granito para peatones, y separadas por altas paredes de ladrillos aparecen agrupadas una biblioteca de 7,000 volúmenes, talleres para labores creativas y varios salones.

Argentina.
Página 182: La galería de tiendas Paseo de la Ciudad, en Córdoba, diseñada por José Ignacio Díaz y Gramática/Guerrero/Morini/Pisani/Rampulla/Urtubey, se vale de los sitios famosos de la ciudad como puntos de referncia en sus diseños. Las galerías de doble elevacióm están cubiertas de vidrio pero no totalmente techadas. Una cortina de vidrio marca la entrada de la galería desde el museo.
Página 185: El Hospital de Emergencia en Córdoba, diseñado por Miguel Angel Roca, tiene estructuras masivas fuertemente combinadas y coloreadas, y sirve de puerta hacia la ciudad en su límite occidental. El edificio está planeado sobre un módulo de 24 pies con paneles móviles. Su estructura es una armazón de concreto —columnas, vigas y baldosas vaciadas en el mismo sitio. El área pública del hospital está marcada con un pórtico monumental de concreto y bóveda metálica.

Australia.
Página 188: El Museo de Historia Local y Centro de Información Turística está localizado en Kempsey y ha sido diseñado por Glenn Murcutt. El edificio tiene metal corrugado para las paredes y techo. La ventilación cruzada se facilita por medio de ventanas pivotales a todo lo largo de la base de las tres bóvedas que componen el museo, a la altura de la base de cada bóveda. Un ventilador de turbina en el caballete también ayuda al movimiento del aire. La celosía de cristal y cedro en el techo deja penetrar la luz del sol y establece contacto con el cielo australiano.
Página 190: Esta casa junto al mar en Mornington, diseñada por Peter McIntyre, está saturada de la atmósfera del lugar. Su plan está cuidadosamente adaptado al terreno inclinado, precisamente un ejemplo de las casa como medio de adaptación del hombre a la naturaleza. La estructura es de postes y vigas de madera, parecida a la construción de buques. Hay dos niveles interiores con un hogar de lumbre céntricamente ubicado, y con amplias vistas al mar.
Página 193: El metal corrugado es utilizado en formas ingeniosas para estos pequeños edificios en un aeropuerto provincial de Portland, Victoria. Gunn Williams Fender usó materiales de la región además de formas curvas, franjas de vivos colores, ventanas en forma de portillas cuadradas y voladizos proyectados en un conjunto que es toda una metáfora del vuelo. Los espacios incluyen una terminal para pasajeros, club aéreo, un nave para servicio de conservación y dos hangares.
Página 194: El Hospital Mt. Druitt, por Lawrence Nield y Asociados, responde al hecho de hallarse en campo abierto poblado de arbustos mediante su ubicación en sus linderos Sur, reduciendo las distancias a pie hasta los transportes públicos. El hospital cuenta con 400 camas aproximadamente. El plan es ejemplar en cuanto a la claridad de la división de las zonas de recuperación post-operatoria, de tratamiento y de apoyo. El hospital también cuenta con muchas características para conservación de energía.

Surinam.
Página 195: Situado en el lugar de una antigua plantación, el Centro Salud Marienburg fue diseñado por el arquitecto holandés Lucien Lafour con techos inclinados, fuertemente insulados, con una orientación de Este a Oeste, y una doble hilera de rejillas de ventilación de madera a lo largo de elevados caballetes para arovechar las brisas del Nordeste. Canaletas de concreto reforzado sirven como viga circular que conecta una serie de columnas dentro de una reja de 17 pies, con tres alas en forma de pabellón.

Irlanda.
Página 196: La instalación ANCO para adiestramiento profesional diseñada por A & D Wejchert, está dirigida por una agencia del gobierno nacional de Irlanda, y está localizada en un suburbio cercano a Dublín, entre dos "haciendas" con viviendas independientes de un solo piso. Es un edificio grande, pero una seccion escalonada mejora la perspectiva de su tamaño, y las claraboyas angulares se reflejan en los aguilones de las casas adyacentes. En el interior hay una serie de enormes espacios para adiestramiento en equipo pesado, que se ha subdividido a medida que el énfasis ha pasado a las computadoras.

Sri Lanka.
Página 200: El nuevo edificio del parlamento, de Geoffrey Bawa, es el primer paso del traslado de la capital de la superpoblada Colombo a la cercana Kotte. Localizada en una isla en el centro de un lago artificial que cubre 300 acres, el complejo de 500,000 pies cuadrados está disimulado con techos inclinados de cobre Kanyan oscuros, al estilo de tiendas de campaña. Un bloque central está flanqueado por cuatro pabellones de esquina, todos de diferentes tamaños y elevaciones. □

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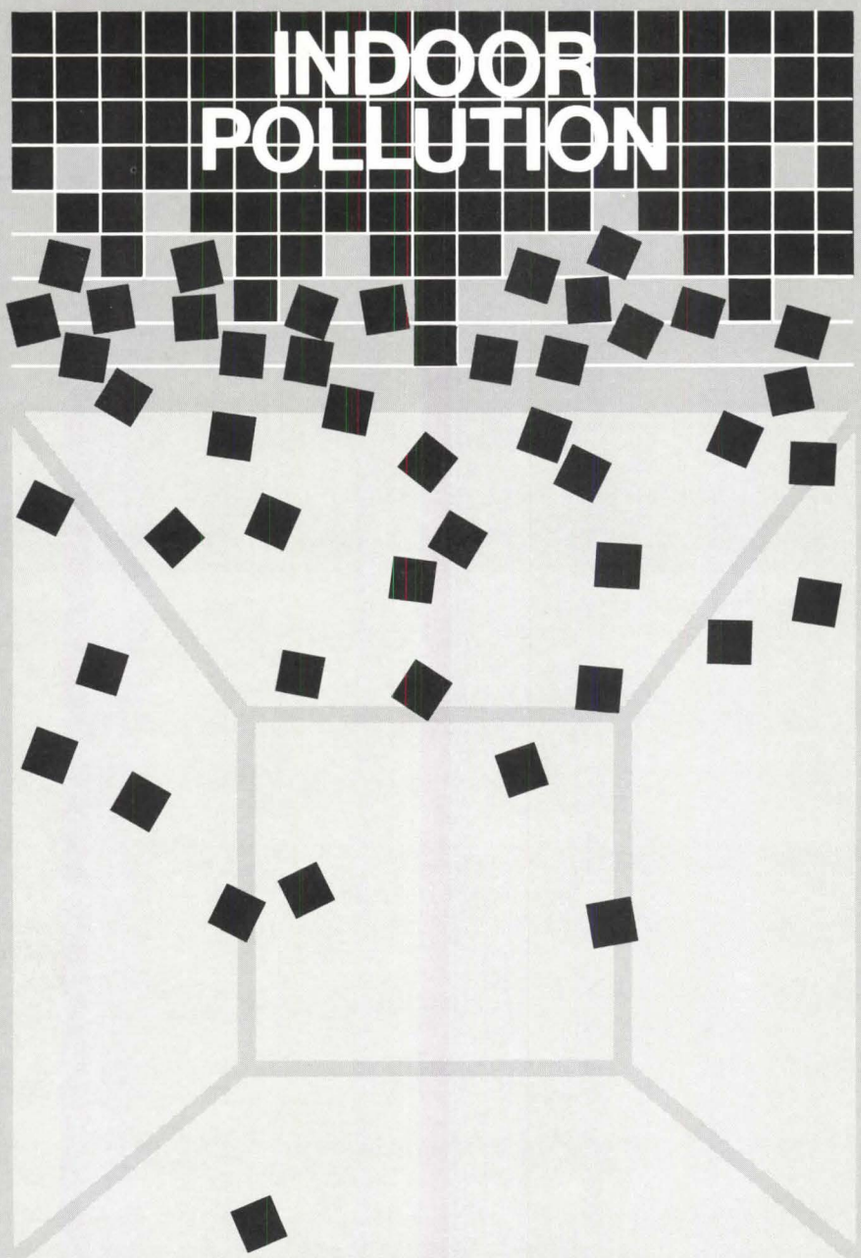

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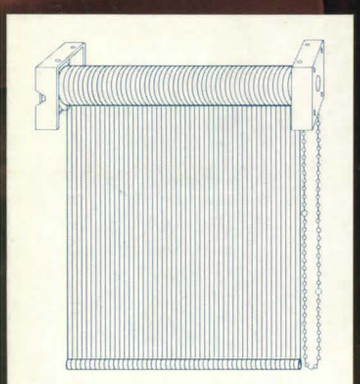

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