



WARREN PLATNER'S DESIGN FOR STANDARD BRANDS IN WILTON, CONNECTICUT  
VANCOUVER'S GRANVILLE ISLAND: A NEW KIND OF INDUSTRIAL AND RECREATIONAL MIX  
AINSWORTH GYMNASIUM AT SMITH COLLEGE, BY THE ARCHITECTS COLLABORATIVE  
INTERIOR CHANGES SUGGEST NEW DIRECTIONS FOR RE-USE  
BUILDING TYPES STUDY: LOW-RISE OFFICE BUILDINGS  
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# ARCHITECTURAL RECORD

SEPTEMBER 1980

9

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## Letters to the editor

*RECORD's editorial on the actions taken in convention this year by the American Institute of Architects making adherence to a code of professional ethics a voluntary matter for its members ("A sad day for professionalism: architects will now have a voluntary code of ethics," July 1980, page 13) elicited numerous—and various—responses from our readers. Readers should also see the arguments for the voluntary statement by Institute President Charles E. Schwing, FAIA, in this month's editorial (page 13).*

I have read your editorial on the voluntary code of ethics (RECORD, July 1980, page 13) and agree with you wholeheartedly, except for the last sentence on our descent to the lowest common denominator. It ought to read "And that is tragic."

William Keck, FAIA  
Chicago

In regard to your editorial on the AIA voluntary Statement of Ethical Principles, July 1980, I would never have expected sensationalism on the editorial pages of staid, solid ARCHITECTURAL RECORD! Your use of the scare heading "A sad day for professionalism" is right in line with what one would expect from the lively New York *Daily News*. You have taken a viewpoint that seems to be common among many AIA members, that since we can no longer slap wrists, we have lowered our standards.

Since when is it more professional to punish for doing wrong than to establish an attitude and climate in which it is unthinkable to do wrong? There is certainly a higher degree of personal morality in refusing to perform an unethical act voluntarily than to refuse because of the threat of future punishment.

You seem to be concerned about the loss of a "concept" (mandatory Code of Ethics and Professional Conduct) that has "long separated professionals from entrepreneurs." If you and others with similar views think we have done something that lowers our level of moral conduct, then there must be an overwhelming amount of opportunity for misconduct that isn't evident to me. There must be such a great number of AIA members so near to falling off the straight and narrow that we are a profession in trouble.

I just can't buy that

Your scare headline should have read "A great day for professionalism." For the first time, architects have the opportunity to show the highest possible degree of morality to the public. This high status, broadly publicized, will do more to identify the high standards you deplore as "descending" than any short-term suspension from AIA membership could ever do (or has done).

So, instead of beating your breast about the "good old days," how about taking the spearhead position and urging a higher degree of professionalism?

Ray E. Cumrine, AIA  
IPG, Incorporated  
Architects and Planners  
Valdosta, Georgia

My having just read the excellent editorial in the July ARCHITECTURAL RECORD has stimulated me to write this protest of the progress toward a totally voluntary standard of ethics for the AIA.

I was unable to attend the Cincinnati convention and lack the background to judge the validity of your statement under numeral 7, that "with a voluntary code, AIA would still maintain the right to discipline a member who violates state licensing law or commits a felony . . ." Disciplinary action following violation of a law is a governmental function and not within the province of a professional organization.

A brief scan of the Rules of Professional Conduct of the Board of Examiners of the State of Tennessee will make it obvious that every registrant in this state must conform to mandatory standards or lose his license. Thus we in the AIA are placed in the embarrassing position of having to wait for a person to have his license revoked, then remove him from AIA membership simply because he is no longer an architect, rather than because he has abridged the ethical standards of the Institute. In fact, it would seem that an unregistered associate member, not bound by the state rules, can violate them and still maintain his position in the Institute.

Whereas the AIA once was the established leader in promulgating and enforcing the highest standards of conduct for the architectural profession, we must now recognize that our standards are to be inferior to the minimum state requirements for retention of a license. William Marshall's proposed amendment would have allowed us to maintain a minimum core of unassailable standards, allowing us at least to match those of state licensing boards. I am sorely disappointed that the amendment failed.

I believe in the AIA and have served in various offices and positions in the local and state components over a number of years. I am concerned at the direction the Institute is heading, am concerned that we are allowing pragmatism to smother principle, to the detriment of the entire architectural profession and of our clients. Following the Dallas convention, we lost several members locally who opposed design-build and who believed that this "response to the marketplace" trans-

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## Correction

RECORD should have credited Norman McGrath for the photographs it published of the Vignelli apartment in July 1980 on pages 104-109.

## Calendar

## SEPTEMBER

**9 through October 2** Exhibition, "Art in Architecture," at the Gallery at the Old Post Office; sponsored by Lorenz & Williams Inc. Contact: Gallery at the Old Post Office, 120 W. Third St., Dayton, Ohio 45402.

**9 through October 4** Exhibition, "Photographs and Architecture: 1845-1980," at the Fraenkel Gallery, 55 Grant Ave., San Francisco, Calif.

**9 through October 26** Exhibition, "Boston: Forty Years of Modern Architecture," a tribute to the region's modern architecture presented as part of Jubilee 350 Boston. Contact: Institute of Contemporary Art, 955 Boylston St., Boston, Mass.

**17** Conference, "Health Facility Interior Designs & Layout," sponsored by United Hospital Fund of New York Center for Continuing Education; held at the Warwick Hotel, New York City. Contact: United Hospital Fund of New York, Center for Continuing Education, 3 E. 54th St., New York, N.Y. 10022.

**23-25** Seminar, "Solar Energy for the Architect, Engineer, and Commercial Builder," sponsored by Jordan College with the Michigan Energy Administration and the Energy and Education Action Center of the U.S. Department of HEW; held at Chicago's Sheraton O'Hare Hotel. Contact: James MacKenzie, Energy Programs, Jordan College, 360 W. Pine St., Cedar Springs, Mich. 49319.

## OCTOBER

**3-4** DESIGNERS' SATURDAY, New York City.

**4-11** Tour of the Southwestern United States, sponsored by the Society of Architectural Historians. Contact the Society at: 1700 Walnut St., Suite 716, Philadelphia, Pa. **9-10** "Passive Solar Workshop," on the design, sizing, calculation and construction of passive solar heated buildings. Contact: Passive Solar Associates, P. O. Box 6023, Santa Fe, N. Mex. 87501.

**19-26** The Fifth National Passive Solar Conference, "Passive Solar 1980," sponsored by the New England Solar Energy Association; held at the University of Massachusetts at Amherst. Contact: Passive Solar 1980, Box 778, Brattleboro, Vt. 05301.

**23** Seminar, "Design/Build and the Law (for Architects, Engineers & Owners)," at the Washington Plaza Hotel, Seattle. Contact: ARCHITECTURAL RECORD SEMINARS, 1221 Avenue of the Americas, New York, N.Y. 10020 (212/997-3088).

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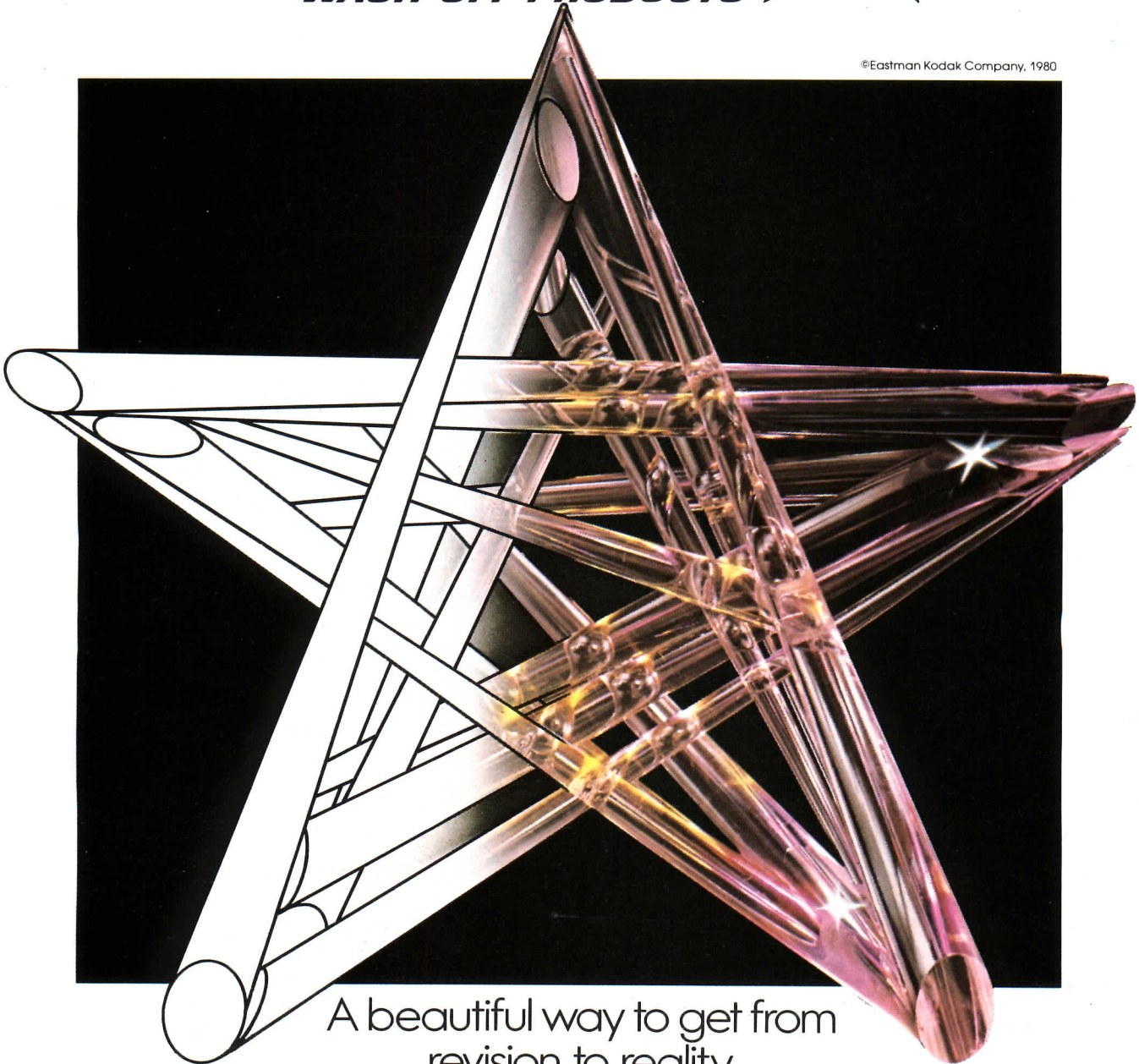
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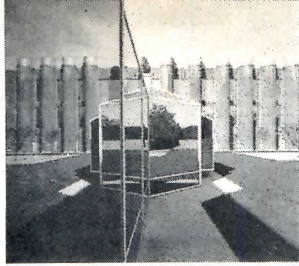
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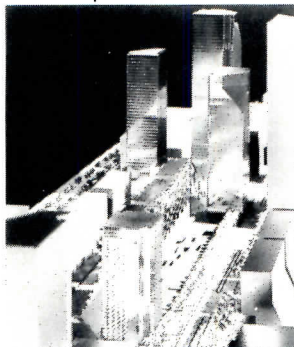
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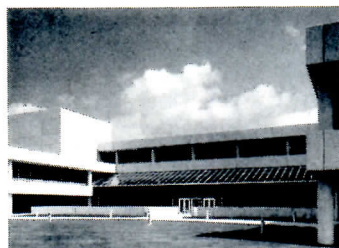
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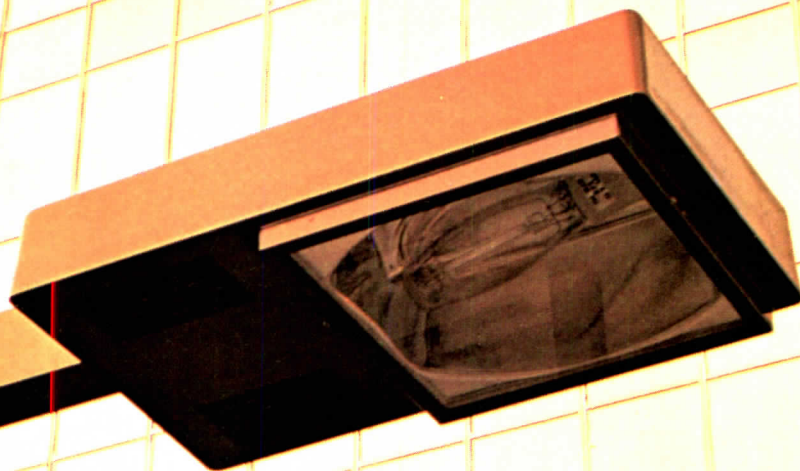
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**Building Types Study: Urban marketplaces**  
 A new type of development is taking hold of the public's imagination and promising to bring back to downtowns the sort of life that has been lacking since planners started separating various urban uses many years ago. Neither cultural, entertainment nor shopping centers per se, these developments are a combination of all three that assures a lively round-the-clock ambience. Next month the RECORD will explore examples of several types of these new structures.

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## On AIA's "code of ethics": a rebuttal from AIA president Schwing

The editorial in our July issue—"A sad day for professionalism: architects will now have a *voluntary* code of ethics"—has generated (see Letters, page 4) a strong response pro and con. AIA President Charles Schwing has written an especially thoughtful criticism of my argument—and it seems only fair (and a useful service to readers who weren't at the Convention and therefore missed the debate) to reproduce Chuck's letter. Herewith:

"I appreciated your thoughtful analysis of the decision taken by the AIA last June at our annual convention to adopt a voluntary Statement of Ethical Principles. That decision, as you rightly pointed out, was the most important action taken by the delegates. However, I would like to persuade you to my belief that the 1280 to 801 vote was not a 'sad day for professionalism,' but, in fact, was a creative and positive response to the concerns of our clients—the public.

"It occurs to me that in any discussion of this issue, three matters have to be addressed: the changing expectations of our society, the nature of ethics, and professionalism. We need to consider these three matters closely not only because they are the key to understanding why the majority of our delegates voted to discard mandatory standards of professional conduct, but also because much of the discussion surrounding our actions at the Convention stems from a not always precise use of these terms among ourselves.

"First, there is the context in which we practice—society. In the course of this century, especially during the past decade, society's expectations not only of architects, but of *all* professionals, have undergone a profound change. We could debate why this has been the case: perhaps our failure to do our best by society; perhaps a failure of society itself, or, as you suggest, a lowering of standards everywhere 'towards the lowest common denominator.' Whatever the reason or reasons, the result is that society through its representatives and its courts has challenged the right of the professions to police themselves. To respond reasonably as individuals and as a profession, we had to recognize our society's values as interpreted by the courts—a course of action which, by the way, was adopted recently by the AMA when it rewrote *its* code of ethics. To resist or even defy the courts beyond the legitimate appeals process would have been irresponsible, illegal and in fact unethical. Yet some have accused us of knuckling under to the Department of Justice and the courts—as

if compliance to the law of the land were somehow wrong, which is a curious position for someone to take in defense of ethics.

"Ethics have likewise been affected by society's evolving perception of what is implied by that term. Clearly, ethics have to do with conduct, with questions of right and wrong. Increasingly, however, a careful distinction has been drawn between laws and ethics. If ethics govern or set the tone of morality, laws may, by and large, be seen as a set of rules governing the resolution of disputes. Break a law and a clear punishment is meted out. Violate an ethic ('Thou shalt not covet thy neighbor's wife') and—and what? Where is the punishment on this earth for a moral lapse?

"In effect, we have been told by the courts that punishment is an action reserved strictly for breaking the law—not for any assumed or real violation of ethics. This is so because ethics define that pattern of conduct we agree upon when we *voluntarily* decide to associate with one another.

"In this sense, ethics are like etiquette. Like etiquette, ethics describe relationships between individuals. The nature of such relationships is measured not by punishment, but by performance.

"Which brings me to what I believe is the heart of professionalism. Among professionals, performance is measured not only according to how faithfully we discharge our obligation to serve and protect public health, welfare and safety; but also according to our willingness as professionals to put the interests of society and our clients ahead of our own. How well we carry out this trust of confidence the public places in us is what our ethics should be all about. Faithfully discharging this duty to our public must guide our interpersonal relationships.

"Spelling out this obligation on paper allows us to know what we may reasonably expect of others. It also protects us from our own rationalizations. Whether or not such a written statement is enforceable—'Thou shalt not covet thy neighbor's wife'—it is nonetheless a meaningful statement.

"As you well realize, no consideration of society's expectations is complete without facing a seeming paradox: at the same time that society has questioned the wisdom of our policing ourselves, society is more and more demanding accountability of all the professions.

"For architects, this paradox posed a real dilemma: how, as agents of the public good, were we to respond to these conflicting

demands? In keeping with our theme for 1980—Challenge/Opportunity/Response—our response was not to retreat as some have implied. Instead, we faced the challenge and saw in it an opportunity to develop a broad and strong written set of ethical statements that would guide young architects and communicate to our public what they had as a right to expect from us. Such a strong statement would, however, be legally indefensible if it were mandatory. A voluntary code, on the other hand, would allow us the moral emphasis demanded by a public seeking greater accountability.

"Like you, I believe that most professionals will perform in a professional manner, as I have defined it, with or without a mandatory code. A review of our own records over the past 15 years supports such a conclusion. During that time, an average of only eight cases a year is brought before our National Judicial Committee. Of these, only a *total* of five cases resulted in terminations.

"With all of these considerations in mind, this is why I am persuaded that the day in Cincinnati which saw us vote for a voluntary Statement of Ethical Principles was not 'sad.' Rather, that day opened to us an opportunity. As we write our new Statement, we have the opportunity to reaffirm publicly the highest standards of our art while we rededicate ourselves to the obligations and duties historically associated with professionalism. It is a great challenge for all of us, a challenge to which I believe we have the wisdom and courage to respond.

Charles E. Schwing, FAIA  
President  
American Institute of Architects"

With due respect (and I have great respect for the study, and doubtless the agonies, that went into this decision) I'm not persuaded that abandonment of mandatory standards was required. I think a little more "due process" was possible—even if it would have been expensive.

But at any rate that stage of the debate is over—the die is cast. What remains is for the AIA board to press for and to demand what AIA President Schwing describes in his final sentence—a Statement of Ethical Principles that does indeed "reaffirm publicly the highest standards of our art while we rededicate ourselves to the obligations and duties historically associated with professionalism." In other words, let's have a ringing statement of what the profession stands for.

—Walter F. Wagner Jr.



**You promised  
them beauty.  
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will deliver.**

**An exhibition, tracing the transition of Atlantic City** from a world-famous ocean resort to a casino-oriented community, is up at New York's Cooper-Hewitt Museum until October 19. The exhibition—entitled "Beach, Boardwalk, Boulevard"—includes photographs and graphic panels, with memorabilia such as promotion brochures, sheet music, "Miss America" programs, artifacts from now-demolished hotels, and a turn-of-the-century rolling wicker boardwalk chair. The show is the result of an advanced design studio in architecture at the Graduate School of Fine Arts, University of Pennsylvania, under the direction of Steven Izenour, an associate in the firm of Venturi, Rauch and Scott Brown. Can *Learning from Atlantic City* be far behind?

**After eight months, residential building made its first positive move in June** and boosted the Dodge Index of construction contract value for the first time this year. Residential construction on a June-to-June basis was down 30 per cent to \$5.1 billion from last year's \$7.3 billion. On a seasonally adjusted basis, however, the June amount was higher than the May figure, breaking an eight-month string of declines. For the first half of this year residential building totaled \$26.7 billion, 31 per cent below the \$38.6 billion in the first six months of 1979.

**The New York State Energy Research and Development Authority is soliciting applications** from New York State designers and builders for a competition to plan and construct passive solar demonstrations of one- to six-family retrofit residential projects. Ten awards, totaling \$120,000, will be awarded to selected designer-builder teams. For further information contact: Passive Solar Competition, NYSERDA, Agency Building 2, Rockefeller Plaza, Albany, New York 12223. (518/465-6251).

**M. Rosaria Piomelli has been appointed Dean of City College's School of Architecture and Environmental Studies** in New York City. Ms. Piomelli was formerly chairperson of the faculty at Pratt Institute School of Architecture, and since 1974 has headed her own architecture firm in New York. She has won design awards for the Oberlin College Learning Center and the Brown University Science Library (while project architect for Warner, Burns, Toan and Lunde). Ms. Piomelli received degrees from the Istituto d'Arte and the Accademia d'Arte in Naples, and a bachelor of architecture degree from MIT. She is the first woman to head a school of architecture in the United States.

**The third Downtown Development Awards Competition** honoring both public and private sector developers, will be accepting entries until January 10. The awards will be given for "creative and imaginative efforts" that have gone into revitalizing downtown cores of cities and towns. All entries should address the question: "In what ways did this project benefit its downtown?" For further information contact: Mary Dalessandro, Downtown Research and Development Center, 270 Madison Avenue, New York, NY 10016. (212/889-5666).

**The Boston Landmarks Commission has undertaken a major public awareness effort** by producing a permanent exhibit entitled "Place Over Time." The exhibit has been designed to trace the history of Boston's urban environment, architecture, and building technology. The exhibit will open at Boston's Museum Wharf on September 16, and includes a three-dimensional multi-media format. Visitors enter through a taxi-door to view a short film that recreates a cab ride through downtown Boston. The ride leads to a tour of seven sections of Boston as they have appeared during the last three and a half centuries. The concluding segment of the exhibit is an audiovisual dialogue among advocates of the different approaches to urban planning. According to Pauline Chase Harrell, project director and chairperson: "Our goal is to create an educated constituency for preservation, to make people understand why preservation is necessary and valuable."

**The 1981 Plywood Design Awards program**, sponsored by the American Plywood Association and *Professional Builder*, will be accepting entries from architects, builders, and developers until December 1. The program recognizes outstanding esthetic and structural applications of softwood plywood in each of six design categories (see RECORD, July). Projects must be completed after June 1, 1979. For further information contact: Maryann Ezell, Plywood Design Awards, APA, P.O. Box 11700, Tacoma, Washington 98411. (206/565-6600).

**A conference on "Classical America" will be held at the Museum of Science and Industry in Washington** on October 4. The conference will be conducted under the auspices of the Smithsonian Resident Associates of the Smithsonian Institution. The rostrum of speakers will include: Henry Hope Reed, president of Classical America and author of *The Golden City*; John Barrington Bayley, designer of the new pavilion of the Frick Collection; Allan Greenberg, architect to the Judicial Circuit of the State of Connecticut; and Pierce Rice, painter and author of the introduction to *The Classic Point of View*. For information contact: Edward Gallagher, at 202/357-1435.

**Eight planning and design professionals have been offered Loeb Fellowships in Advanced Environmental Studies** for 1980-81 to pursue a program of independent study at Harvard University. The program is based in the Graduate School of Design, and Fellows are chosen from the School's *professional fields of architecture, landscape architecture, planning and urban design*. Fellows are usually in their thirties, working in key private and public sector positions to improve the quality of cities, design, and the natural environment. This year's winners include Virginia Dajani, Jose Garza, Jerry Hagstrom, Charles Laven, Emily Lloyd, Roberto Nazario, Peter Stein, and Sherry Wagner.

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## Legislation to allow early contract for A/E services

Legislation is now winding its way through Congress that would allow the General Services Administration (GSA) to contract for design and engineering services on proposed buildings before the buildings are authorized by Congress. According to advocates of the new legislation, the benefits would be twofold: Congressmen would have a better idea of the nature and scope of a project they authorize, and the new system would allow for a speedier construction start up.

Under the existing system, the GSA prepares a "prospectus"—a rough statement of needs based on its preliminary considerations. This is sent to the Public Works Committee, the House and Senate, and if the committees approve, the Agency can engage the services of an architect/engineer team. The problem is that the committees are acting on data that does not fully explain what is involved, and once they act, several months pass—as drawings are prepared—before construction begins.

The disadvantage of the proposed legislation is that the Agency might spend tax money on the design of a project that Congress would then not approve. But proponents argue that with design fees limited to 10 per cent, whatever might be lost would be more than offset by avoiding costly delays.

The other question is how much design and engineering work should be authorized prior to Congressional approval. The Senate, which in June passed Senator Daniel Patrick Moynihan's bill (S. 2080) authorized the new program and said that 25-30 per cent of total design work would be an appropriate amount. The House is considering a similar provision in its H.R. 7579, and seems willing to go along with 100 per cent design effort prior to authorization. Whatever the number, the change is supported by architectural and engineering societies. Randall Vosbeck, president-elect of the AIA and spokesman for the Committee on Federal Procurement of Architectural/Engineering Services (COFPAES), recently voiced his support of the plan to a Congressional committee: "The effect will be to significantly speed up the process with attendant savings of construction and operations costs." Though Mr. Vosbeck noted the risk inherent in the new plan—a possible Congressional decision not to authorize a particular project—he believes "the investment in preliminary design will promote savings, viewing the GSA's building program as a whole."

Mr. Vosbeck also reiterated the construction/design community's support for a proposal in both bills that would effectively reduce the use of leased space to house government workers.—William Hickman, *World News, Washington*.



## New Jersey architects dedicate Architects Housing Company

Members of the Central Chapter of the New Jersey Society of Architects have recently completed the first senior-citizens' subsidized housing project in the United States ever sponsored by a professional organization. Architects Housing Company (photo above) was dedicated in Trenton, New Jersey, this spring, and according to its backers "stands as an example that a committed professional group can make a difference in a community and that innovative design for housing is possible at reasonable cost."

The project began in 1975, when Princeton architect John Zvosec presented his idea for a senior citizens' housing facility as a Bicentennial con-

tribution. Subsequently, a committee was formed to gain support from the city of Trenton, and from the State and Federal agencies that would be necessary to subsidize the project. A non-profit independent corporation was established, consisting primarily of architects, that would be responsible for conducting a competition for the design of the building and operating the project once it was completed. After selecting the design of Princeton architects Geddes Brecher Qualls Cunningham, Trenton donated a 1.2-acre parcel of land. Soon after, the New Jersey Housing Finance Agency committed \$5.2 million in construction and mortgage funds, and HUD agreed to provide rent sub-

## Washington landmark to become Smithsonian Museum of the Building Arts

A move is underway in Congress to install a Smithsonian Museum of the Building Arts in the historic Pension Building in Washington. But the 98-year-old structure is deteriorating rapidly, and in June, the Senate voted \$2 million to replace the roof and repair skylights and flashing, as the first step toward total renovation.

At present the ceiling is festooned with plastic sheeting to catch crumbling plaster and prevent water leakage. The General Services Administration (responsible for the management of the building) estimates that the necessary repairs would cost

over \$1.6 million.

The House Public Works Committee is irritated over what it sees as heavy-handed spending, and Senator Charles Mathias of Maryland is withdrawing legislation that would formally create the museum and authorize the GSA to spend \$20 million on renovation work. Mathias wants to await the report of a committee now developing plans for the museum, and reintroduce a new bill early next year.

Under preliminary plans, the museum would provide a showcase for the work of construction designers,

contractors and craftsmen. The Pension Building is considered an ideal site for the museum because of its proximity to the Smithsonian, and because it is occupied by only a small number of government workers.

The primary goal of the designers was to avoid the institutional character common to many Federally subsidized housing projects. The 123-unit apartment building is shaped like the numeral seven with two wings—one five stories and the other eight. The eight-story wing has double-loaded corridors, but the apartments on one side have been angled and their entrances turned to the side, to avoid the institutional appearance of long rows of doors down the corridor.

All of the apartments are one-bedroom units, but the layout allowed for a variety of floor plans. Twelve apartments are equipped for the handicapped and 25 units have balconies. The building was constructed at a cost of about \$1,000 per unit more than the average HFA subsidized project.

To qualify for an apartment, applicants must be at least 62 with a low- to moderate-income. Residents are charged a maximum of 25 per cent of their income, with the balance paid by Section 8 Federal funds.

According to Joseph Wirth, chairman of the Architects Housing Company: "I really hope that other architects—and other professional societies—learn from us that it is possible to contribute something valuable to a community outside of normal professional boundaries."

The red-brick Pension Building is a registered Historic Landmark, designed by General Montgomery Meigs of the Corps of Engineers in 1882. The building features an enormous court marked by eight 76-foot-high Corinthian columns, and has hosted nine Presidential Inaugural Balls.—William Hickman, *World News, Washington*.

Under preliminary plans, the museum would provide a showcase for the work of construction designers,

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## Congress to amend Housing Authorization Bill

The Government's \$675-million-a-year Urban Development Action Grant program has helped finance downtown and neighborhood redevelopment projects in 500 cities. But in many cities the Government's program has triggered costly battles with local preservationists.

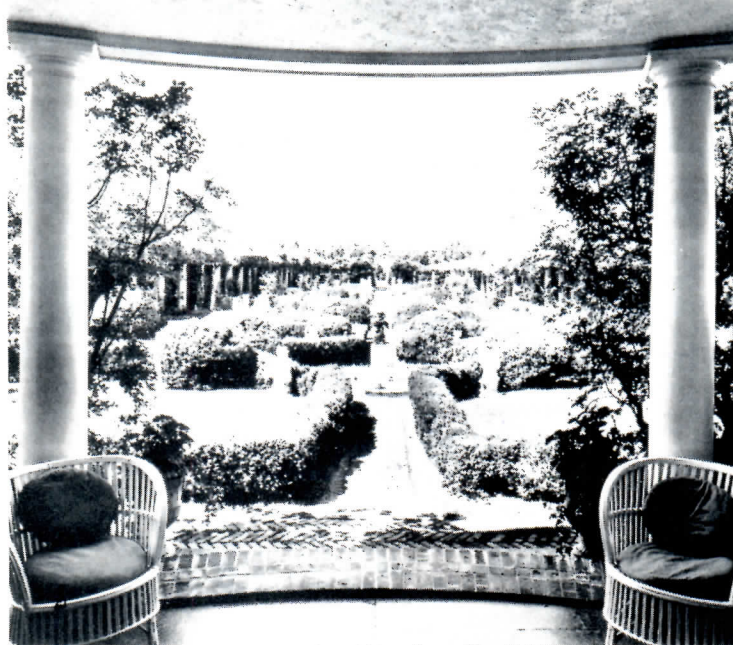
Congress is now considering an amendment to the Housing Authorization Bill that would place a time limit on the administrative clearance process that must precede construction or rehabilitation in a historic district or involving a "historic structure." A "Preservationists Law" requires a ruling from the Interior Department's Heritage Conservation and Recreation Service (HCRS) before construction can begin involving any of the 23,000 sites, structures, or districts already on the National Register of Historic Places. (The law also applies to an unspecified number that are "eligible" for National Register status.) And additional listings have been running at the rate of 3,000 per year, with an estimated 10 per cent of this number being Historic Districts, which may involve hundreds of individual buildings.

A 1976 tax law, pushed through by preservationists, also provides a five-year write-off of rehabilitation costs for rehabilitating any building on the National Register, or a building that is eligible for the Register. It is estimated that some 2,000 rehabilitation jobs (worth \$800 million) have taken advantage of the tax break.

A preservationists vs. development battle in Columbus, Ohio—where some 6,000 buildings may be protected by the Preservation Law—inspired Representative Chalmers P. Wylie to win adoption of a provision in the committee-approved Housing and Community Development Act of 1980 (H.R. 7262) designed to speed up the clearance process. The Wylie amendment would have cut the Advisory Council on Historic Preservation out of the process completely, but preservationist opposition produced a compromise that has the approval of mayors, state officials, and Robert C. Embry, Assistant Secretary of HUD, who runs the UDAG program. The compromise requires that the state historic Preservation officer and the Advisory Council on Historic Preservation in Washington, have only 45 days each to rule on an application. It also requires that the mayor—as the applicant for the UDAG grant—include the historic sites and structures on the application and certify that the Preservation Law process has been gone through.

HUD officials have countered their critics by reporting that 55 UDAG grants, totaling \$206 million, have involved historic preservation—either to develop historic districts or to preserve or adapt buildings.

—Donald Loomis, *World News*.



Stanford White and the condominium

A curious mixture of adaptive re-use and historic preservation will transform a Stanford White-designed mansion into the "centerpiece" of a condominium residential complex in Southampton, New York.

The 35-room, two-story Breese-Merrill estate (photos above)—designed by McKim, Mead & White at the end of the nineteenth century—has been part of the Long Island tradition of Gatsby-esque great houses for many years. But more recently the estate has undergone some less than felicitous alterations—from 1956 until 1972 the house was used as a boys' school. After the closing of the school, the property fell into disrepair and foreclosure.

Efforts to raze the structure were thwarted by local preservationists and shortly thereafter the estate was listed in the National Register of Historic Places. A group of enterprising architects and developers have

since acquired the property and converted the house into five condominiums (each with a room from the original house). Scattered about the 16-acre property, 24 new structures (containing five condominiums each) will be built. According to the developers: "The new units are conceived to complement the mansion as closely as possible in massing, scale and materials, recalling the cottage architecture of summer places in the Hamptons."

The developers will spend \$750,000 to "rehabilitate" the mansion—including restoration of the shingle siding, Tuscan columns, and bull's-eye gable windows.

Architects for the project are Merritt K. Meyer, Simon Rolf Thoresen, and Sean West Sculley of M.T.S. Associates. According to Whitefield Associates, developers of the property, occupancy is scheduled for late October.

## Uniform standards for the physically handicapped

Uniform minimum standards for making Federally financed buildings and alterations accessible to the physically handicapped have been approved by the Architectural and Transportation Barriers Compliance Board (ATBCB). The 21-member board approved the publication of the minimum standards or "guidelines" in the *Federal Register*, and they are to become final after a 60-day period for "public comment."

But the new rules won't be implemented until next spring because they must first be incorporated into the existing standards of the four Federal agencies that finance most Federal building construction—the Postal Service, the Department of Defense, the Department of Housing and Urban Development, and the General Services Administration. Each of these agencies will have 120 days, after the ATBCB standards become final, to bring their own regulations into line with the new guidelines. After that, they have another 120 days to consider comments and publish a final regulation.

According to the Board, "the new guidelines are to provide a Government-wide basis" for determining accessibility requirements that can be used by architects, designers, engineers, and public officials. The 124-page document describes which buildings and alterations are covered, and how to determine what kind of accessibility features—such as entrances, elevators, toilets, telephones, work areas, lounges, and cafeterias—are required. The guidelines will also spell out design requirements for such "accessibility features."

The board turned down the suggestion that it should adopt the recently revised Standard A. 1771.1 of the American National Standards Institute (ANSI).

The four Federal agencies are authorized to issue waivers, but the ATBCB staff will be given 20 days to comment: although "undue hardship" will be allowed as a basis for a waiver, "high cost of compliance" will not.

The guidelines specify that any rehabilitation or renovation work "no matter how described" is subject to the guidelines if it presents an opportunity to increase accessibility. And the ATBCB has enforcement powers to take non-compliers to court. For example, the GSA and an Atlanta firm were cited for failure to make their building fully accessible—violations included handrails, toilet stalls, and lack of a passenger elevator to the basement cafeteria. In June, an administrative law judge ordered the GSA and Piedmont Courtland Associates, the manager of the building, to remove the barriers and install an elevator by September 1. —Donald Loomis, *World News*, Washington.

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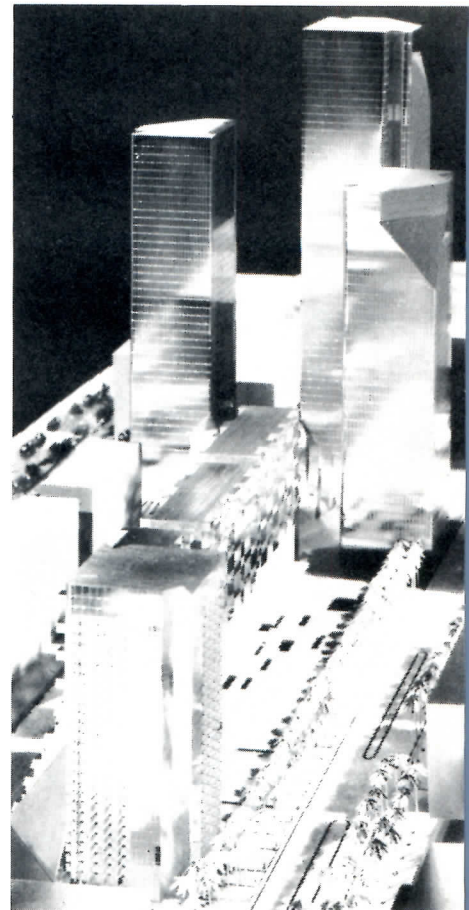
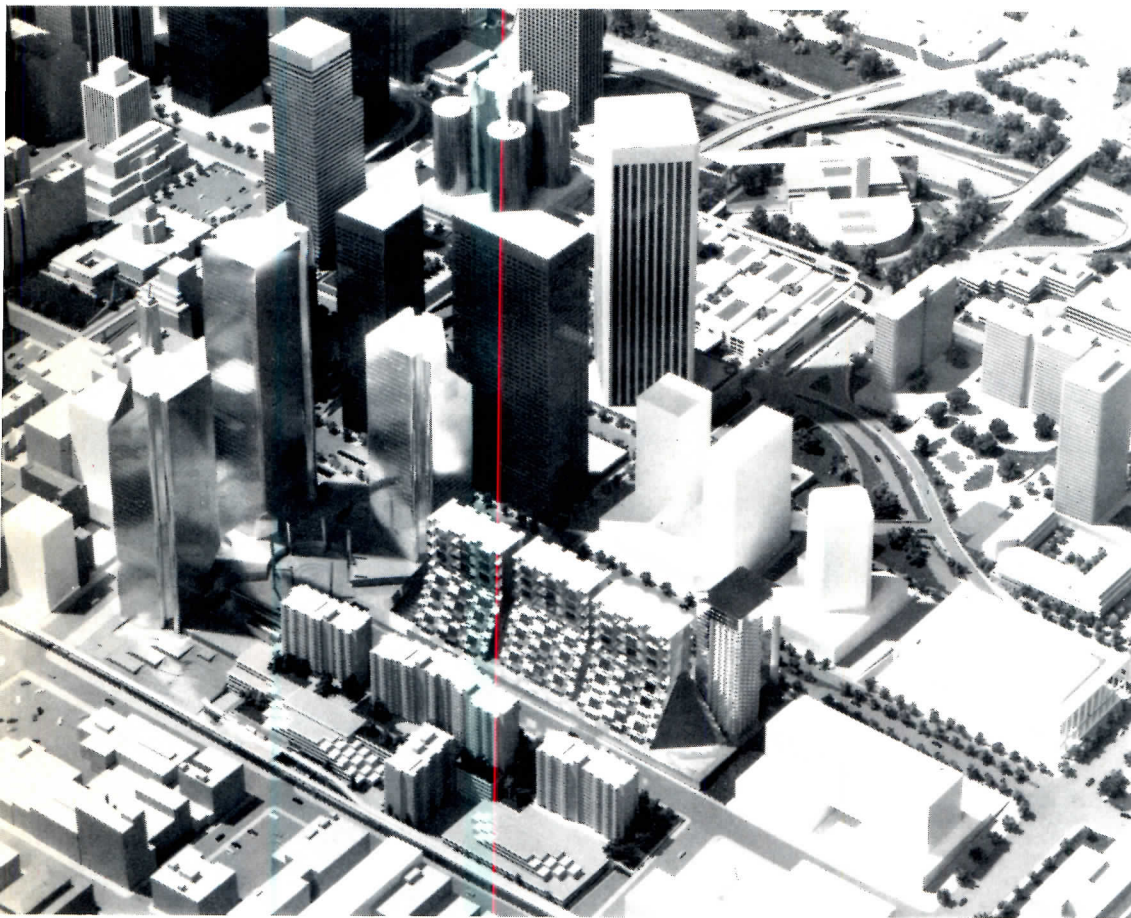
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**Bunker Hill Competition:  
Arthur Erickson to head design team  
for \$700 million development**

In 1979, the Community Redevelopment Agency of Los Angeles decided to begin redevelopment of 11.2-acres in the Bunker Hill section of downtown Los Angeles. The Agency envisioned a mixed-use complex of between 4 and 4.7 million square feet that would include much-needed office space, housing, retail space, a major museum, hotel, and a generous expanse of open

space for recreation. In the words of the Agency, the complex was to be a "people place" that would ideally create a cohesive, integrated "center of downtown ... a true regional focus."

In an effort to attract a major developer—with the financial clout for a project of such magnitude—the Agency issued and publicized an official Request For Proposals. Ac-

ording to the RFP guidelines, each proposal was to include 875 to 1,050 residential units and a central park area of at least 1.5-acres; a minimum of 1½ per cent of the total budget was to be allotted for construction of the museum. The design plans were "not to be viewed as final architectural solutions, but rather as an indication of the conceptual understanding of, and approach to, the urban design potential of the property by the developer and his architect."

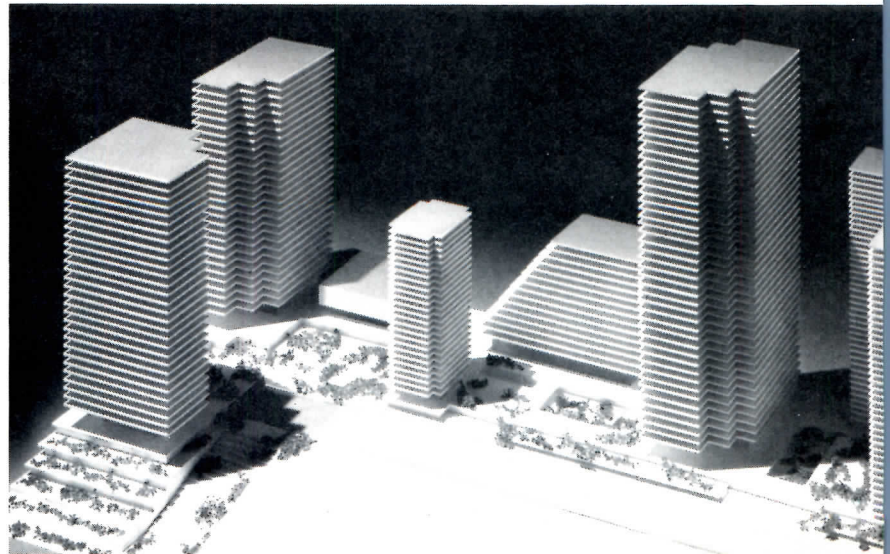
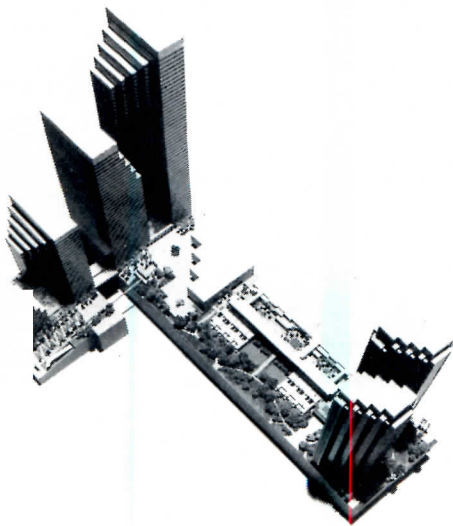
In February of 1980, proposals were received from

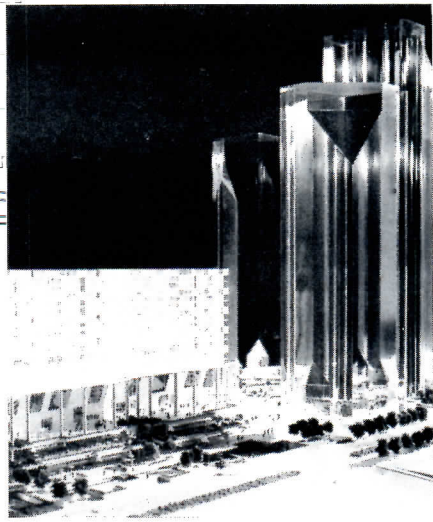
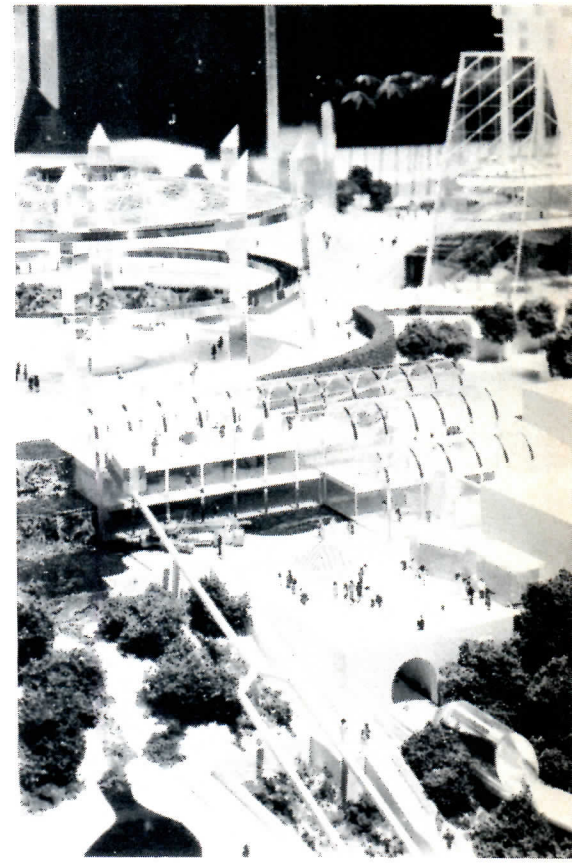
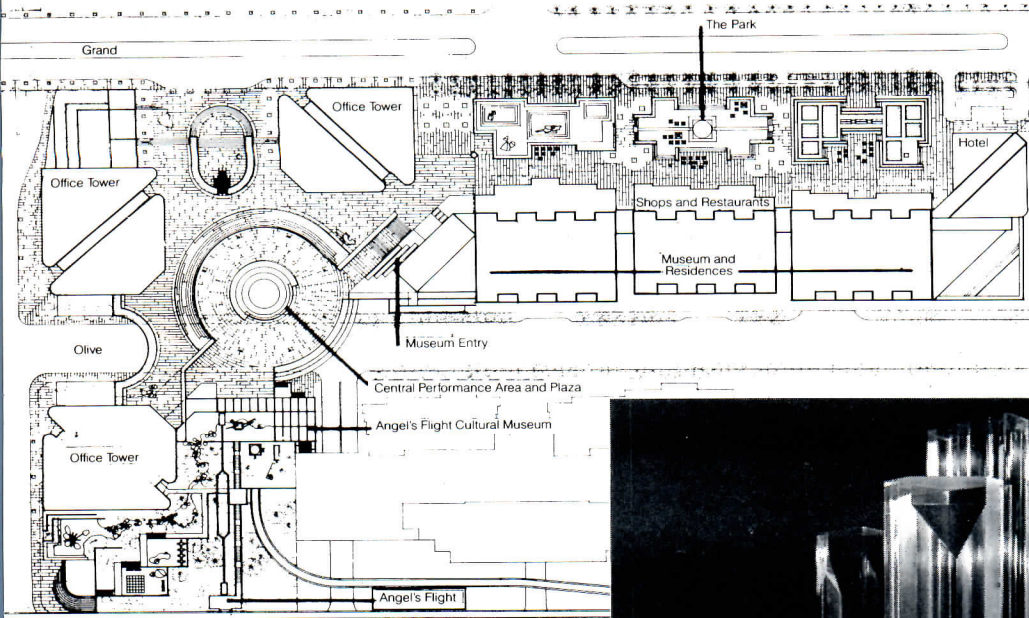
five North American development groups (each with its own architect). The proposals were submitted by: 1) Bunker Hill Associates (Cadillac Fairview/California; Goldrich, Kest and Associates and Shapell Government Housing)—architects: Arthur Erickson Associates, Kamnitzer Cotton Vreeland, Gruen Associates 2) Cabot, Cabot & Forbes—architects: Albert C. Martin and Associates, Davis, Brody & Associates 5) Maguire Partners—architects: Barton Myers, Harvey Perloff, Edgardo Contini, Charles Moore,

Lawrence Halprin, Cesar P. Hardy Holzman Pfeiffer Associates, Gehry & Krueger Inc., Robert Kennard/KDC, Ricardo Legorreta 3) Metropolitan Structures Inc.—architects: Jikawa, Conterato, Loan Associates 4) Olympic York/Trizec Western—architects: Skidmore, Owings Merrill.

On July 14, the Agency's three person selection committee—Marilyn Hudson, Arnold Goldstein, Everett Welmer—was to submit a recommendation to the Agency Board for approval. However, an ent

2 3





The central performing plaza (top right) spans Olive Street and forms the cultural and commercial hub of California Center. The museum galleries, residential units, shops and restaurants (photo right) open onto the linear park and Grand Avenue. The museum will have 100-foot-high glass openings, making the gallery space visible from the street.

...astic difference of opinion  
...tted two recommendations:  
...ne from Messrs. Goldstein  
...nd Welmers (the majority  
...commendation), and one  
...om Ms. Hudson (the minority  
...commendation favoring the  
...aguire proposal). The majori-  
...opinion recommended Bun-  
...ker Hill Associates' proposal—  
...amed "California Center"—  
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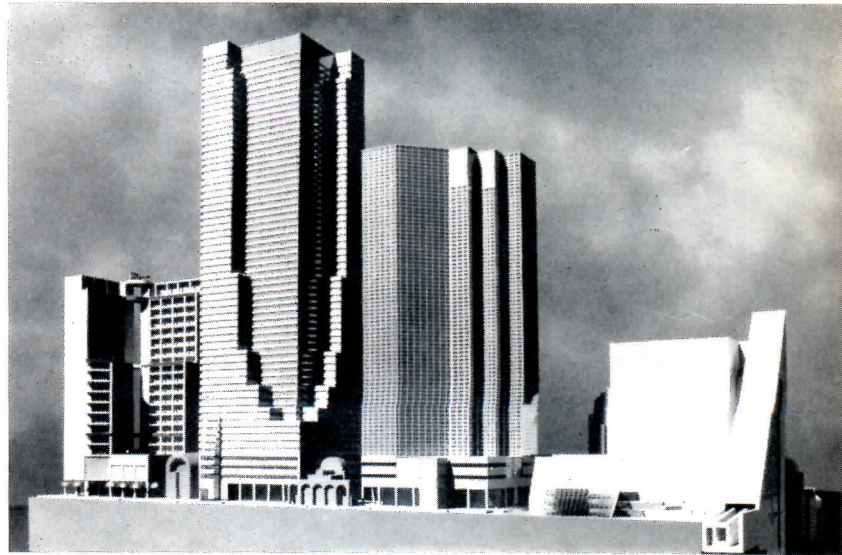
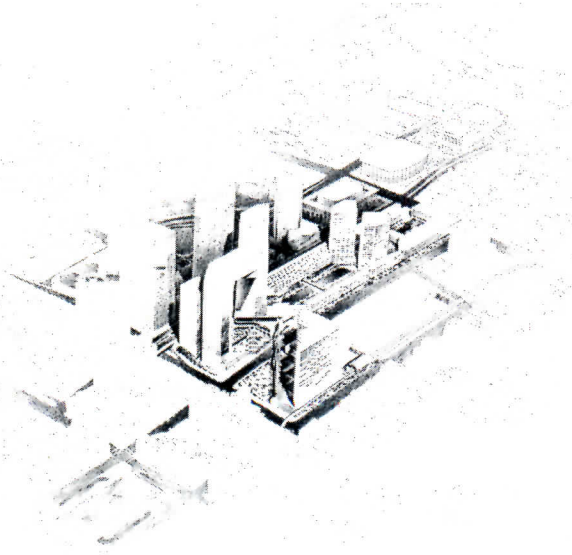
ker Hill team was given 180 days to put together a lease and development agreement. The Bunker Hill Associates' proposal includes 3.25-million square feet of office space in three towers at the south end of the site (photo above). Approximately 800 residential units will be located in three buildings of approximately 26 stories each: the museum and two levels of retail space and restaurants are also located in these buildings. A 450-room hotel is to be situated at the north end of the site. A surprising 55 per cent of

the total land will be given over to a 6.2-acre park (four times the area required). The entrance to the four-level, 100,000 square-foot museum is to be a 100-foot-high trapezoidal glass structure that opens onto a central performing-area Plaza. The elevated, two-level Plaza (glimpsed at top of photo right) will serve as the "hub" of California Center. An 18-theater Cineplex, dance gallery, people-mover station, art galleries, restaurants, the three office towers, and the Angel's Flight Cultural Museum (named after

the historic tramway) will all be situated around this 200-foot-wide circular core. Parallel to Grand Avenue, a four-block-long landscaped linear park (photo above) will provide space for recreational and commercial activities. According to Arthur Erickson: "The nature of our proposal is to stress continuity and linkage. Grand Avenue, as the elevated spine to the area is bordered with double rows of royal palms. . . . Parallel to this, a continuous linear park of gardens and a Hispanic plaza scattered with pavilions would

provide a broad continuous recreational retreat fronting the commercial strip along Grand, culminating in the Performance Center by the gallery entrance, and resuming as a park for the elderly and the children down Angel's Flight. This plan would provide a potential pedestrian way through eight blocks of the city." California Center is expected to cost \$700 million (1980 dollars), and construction will continue for up to eight years after initial negotiations are completed.

4 5



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## How the West was won

CITIES OF THE AMERICAN WEST: A HISTORY OF FRONTIER URBAN PLANNING, by John W. Reps; Princeton University Press, \$75.

Reviewed by Richard Guy Wilson

In 1893 at the World's Columbian Exposition in Chicago, a young historian from the University of Wisconsin, Frederick Jackson Turner, gave a talk entitled: "The Significance of the Frontier in American History." Two years earlier, the superintendent of the census had announced the closing of the frontier. Settlement patterns had created such a patchwork that the line of the frontier could no longer be distinguished. For Turner, this meant the end of one of the great molders of American character: the Westward Movement and the frontier. According to Turner, the presence of the frontier had led to an inventive, make-do attitude of strong-willed individuals, and shaped the nature of American democracy. The availability of free or cheap land had acted as a "pressure valve" on the festering cities of the East. The attitude of escape, of beginning anew—strongly ingrained in the American character—would disappear. For American settlement, Turner felt a sequence had existed: first the trapper, followed by the hunter, the farmer and rancher, and finally the financier, the real estate speculator and the businessman. They turned the hamlets and crossroads into cities of brick and stone, with stores, hotels, factories, schools, churches, city halls and possibly the county seat or even the state capital. Since 1893, Turner's thesis has been questioned by many American historians; much of his evidence has been found faulty and some of his ideas such as the "pressure valve" have been disproved. Yet the concept of the frontier and its manifold implications for action and behavior has been an enduring legacy, not simply in "horse operas" and pulp fiction, but in the underlying response of Americans toward their urban environment.

Certainly one of the more problematic areas of Turner's thesis concerned the sequence of settlement; it is on this note that John Reps begins his latest book. Reps observes that "the founding of towns preceded rural settlement or took place at the same time that agricultural or range lands were being opened for farming or ranching." He proceeds to prove in detail that few, if any, of the cities of the American West grew from a simple crossroads of a building or two. Most cities were preplanned at least in the sense of the location of a promising site and the laying out of the streets, lots and civic spaces. The growth that took place after the initial plan frequently was haphazard; few, if any, of the cities followed exactly their founders' dreams. These dreams varied, and the plans represent many interests, from single individuals to church-related groups such as the Mormons, and from military interests such as the Spaniards to corporations intent upon maximizing profit such as the railroads. A great many cities were laid out; some failed, others succeeded for a period and then languished, and a few succeeded greatly. As Reps points out in his conclusion, of the 31 Western urban areas that contained a population of over 200,000 in 1970, all, with the exception of Tulsa, Oklahoma, had been founded by 1890. In fact, only four cities with a population of over 20,000 in 1890 (Lincoln, Nebraska; Topeka, Kansas; Galveston, Texas; and Pueblo, Colorado) did not grow enough to be included in the 1970 list of major Western urban areas. *Cities of the American West* encompasses the history of planning in roughly one-half of the United States. The result is a large and impressive book, heavily illustrated with plans and lithographic views. The range of materials consulted and the number of cities and towns covered is exhaustive, and while not every plan is treated, the number mentioned and illustrated (nearly 500) testifies to Reps' fortitude.

The organization of a work of such magnitude presents problems: Reps has chosen a scheme of geography and culture. The first chapter of the 20-chapter book covers the Eastern and Mid-Western background. Then specific cultural and regional topics are treated: "Spanish Settlements in the Southwest;" "Oklaho-

*continued on page 45*

Richard Wilson is chairman of the Division of Architectural History at the University of Virginia in Charlottesville.



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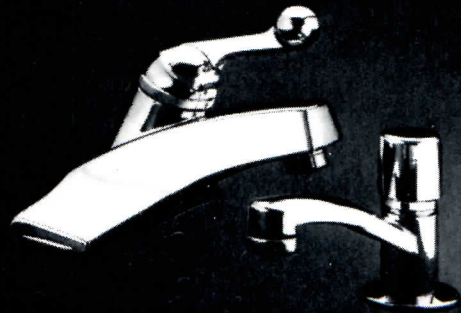
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ma's Overnight Cities;" "Railroad Towns of the Mountain States and the Southern Plains;" and "Cities of Zion." Consequently, an over-all understanding of the development of Southern California, or Nebraska, can be gained by turning to specific chapters, rather than paging back and forth between the index and specific pages. Panoramic in scope, the book makes a substantial addition to the history of American planning and to Reps' other contributions in the area: *The Making of Urban America* (1965), *Monumental Washington* (1967), and *Tidewater Towns*, (1972). *Cities of the American West* is a monumental work certain to become the standard book, but the book has certain blemishes.

Illustrations are prolific, but disappointing. In general, the plans reproduce well, the lithographic views not so well. Many of the views are blurred either through printing or photographic reduction. Plans and aerial or bird's-eye lithographic views are the most common illustrations. Only a few photographs are used and only a few street views appear. No side or back streets are shown, and no parks or public squares except as small elements in the plan.

The criticisms of the illustrations could apply almost equally well to the text. So many plans are discussed, so much detail is given, that the whole blurs under the onslaught. The book is a compulsive catalog, and overkill threatens the reader. Further, in the rush to include so much, it is description rather than analysis that dominates. In fairness to Reps, it should be noted that he attempts to add to the two-dimensionality of the ground plan the third dimension of the buildings built and the fourth dimension of time—of the historical development. But in most cases, this becomes a list, and the urban qualities dim.

Of the patterns that do emerge, one is the overwhelming use of the gridiron. The exceptions are few and far between, and of these alternatives, few were actually executed. Out of all the cities planned in the American West, only a few were laid out by individuals with any design background. Of these, Frederick Law Olmsted was the most notable and he did plans for Berkeley, California, and Tacoma, Washington. Both were in curvilinear-topographic pattern, and neither was carried out. Perhaps appropriately, since with the Tacoma plan there were no business districts nor community focal points. Olmsted's influence can be felt in some of the projected parks with their naturalistic lines, but how many, if any, were actually constructed is unknown. Even Los Angeles, the apotheosis of grid city, had an addition in 1877 laid out in the latest suburban pattern of sinuous street with an open space appropriately named Prospect Park.

But in contradistinction to this attempt to make a place, put down a pattern within which a community could live, was another attitude—the attitude of the frontier mind. Most of the cities were quickly planned and laid out. Their founders' intentions were generally exploitative, not simply in selling land but also in doing without the frills of major public improvements, of time lost or land lost in laying out. The town promoter, whether a church group or a railroad company, had a similarity of purpose in wanting to get a town settled as fast as possible so the surrounding countryside, whether agricultural or mining, could be exploited. What exactly the relationship was to the surrounding countryside is never adequately explored.

Certainly a few Western cities did rival their Eastern contemporaries, but many did not. Quickly planned and unmemorable, they were easily forgotten, ephemeral creations. Perhaps one of the reasons why Reps does not talk about the spatial qualities of the Western cities was that they had none, or we do not know how to talk about it. We are still learning how to describe the "strip," and, as the views of streets in Leadville, Colorado or Guthrie, Oklahoma show, the strip existed then. A new type of city was created, of amorphous space, of atomistic units, of every man for himself. Its origins certainly lie in the East Coast but the peak of development came in the West. It was on the level of commitment, of every individual *vis à vis* the community, of the right to do as one pleases against the greater good, that the frontier mind spoke. Turner was wrong in facts, and Reps certainly proves that; the West had a history of cities and conscious planning. But does it have a legacy that one would want to perpetuate?



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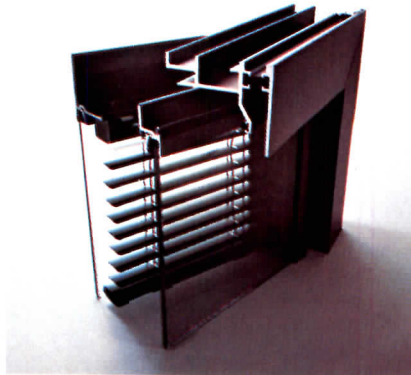


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"Everybody around the quarry takes pride in custom jobs. Like Ed Barnes' Cathedral in Burlington, which was shown in the January 1979 *Architectural Record*. We did the bishop's chair, the reredos wall, the base for the font, and those beautiful circular steps that fit into a sloping floor. Of course we did the whole floor, but that was easy—even though the whole main space dishes down like a movie house and we had to do some rather nice edge work as you can see in the photograph.



"This is the kind of work we'd like more of. The whole job was done on good faith—we had no contract. We received no complaints about any of the stone we shipped up. The only piece that was missing was a triangular slate to go under a statue which we cut immediately and I put in the station wagon and ran up to Burlington.

"Fancy work and all, the slate was well within Barnes' budget.

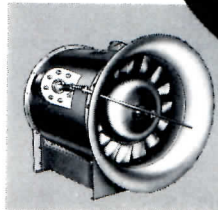
**We could handle about ten custom jobs like this a year. We've got the slate and the skills for a job we'll all be proud of.**

"Our slate is all fading color, and we've got mottled, purple, greens and reds. I've just been to China and we'll soon have some extraordinary slate in most unusual creams and yellows. If you're visualizing slate in a job you're designing, don't worry about the budget until you've talked to me. I'll sharpen the pencil for any job like Barnes' cathedral. Call me at 802-265-4933."

—Bill Markcrow

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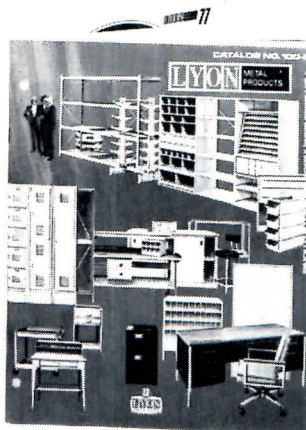
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## Reversing the decline in educational building

For the past thirty years, educational building has responded directly to the "postwar baby boom." When this group was in school, educational construction flourished, rising steadily in the 1950s and early 1960s. Then, as they matriculated, educational building slowly withered in the 1970s. Shortly, however, this group will again have another positive effect on educational building, as their children enter elementary schools in the early 1980s.

At its peak in the mid-1960s, educational building averaged 240 million square feet a year. In the next fifteen years this type of construction drifted downward. Currently, only 98 million square feet is expected in 1980—barely two-fifths of the peak activity.

The slide in educational building is nearly over. Even though "postwar baby boomers" are reproducing at just under the replacement rate, the sheer size of this group is lifting the annual number of births. In the early 1980s this rising tide of children will begin entering schools, bolstering educational building. Still, the recovery will be a gradual process with educational construction only likely to reach 115 million square feet in 1985.

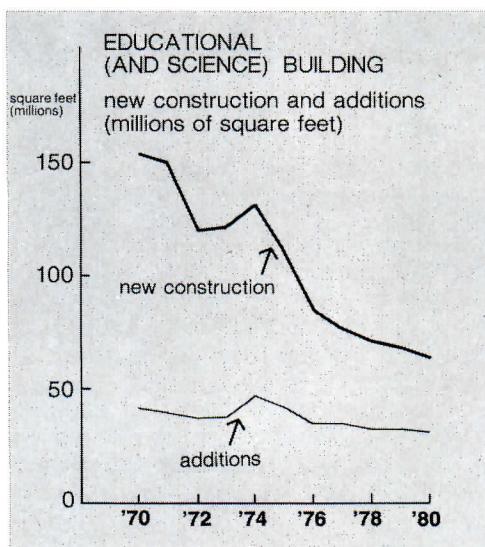
### New construction or additions: a delicate balance

The long swing from peak to trough has significantly altered the relationship between new construction and additions to existing structures (see chart 1). In the early 1970s, new construction dominated this market, averaging nearly 150 million square feet and accounting for four-fifths of total square footage. But at the end of the decade, new construction, at 68 million feet, was less than half its earlier level and accounted for only two-thirds of total square footage.

The slippage in square feet of additions has been much more gradual, as school districts found it easier and more economical to add to existing structures rather than construct new ones. In effect, there appears to be some minimum of additions (33 million to 37 million square feet) that will occur annually, regardless of long-term enrollment trends, school boards adjust to student movements within and among school districts.

Square feet, because it excludes alterations, does not provide a broad enough measure for identifying the extent of upgrading of existing educational buildings. Contract value, specifically the percentage share of construction, is a better indicator.

On this basis, new construction has consistently lost share, falling from 75 per cent of contract value in 1970 to 50 per cent in 1979. Additions have remained remarkably stable,



hovering around 25 per cent. Alterations have been the growth market, improving their share from barely 5 per cent in 1970 to more than 20 per cent in 1979.

In real terms, the educational alterations market has grown from \$320-\$330 million in the early 1970s to \$650-\$675 million currently—roughly a 6 per cent real growth rate. The moderate rise in new construction expected in the next five years will not undercut growth in alterations. Thus these expenditures are likely to continue rising at a 5 to 6 per cent real growth rate in the early 1980s.

### Regional shifts in population affect educational building

Not surprisingly, the South and West, which received the greatest number of the school-age population, raised their share of educational building contract value in the second half of the 1970s compared to the first half (23 per cent to 33 per cent in the South and 16 per cent to 21.5 per cent in the West). The Northeast, which lost population, suffered a substantial reduction in its share of this building activity (35 per cent to 21 per cent). The Midwest maintained its share at nearly 24 per cent throughout the decade.

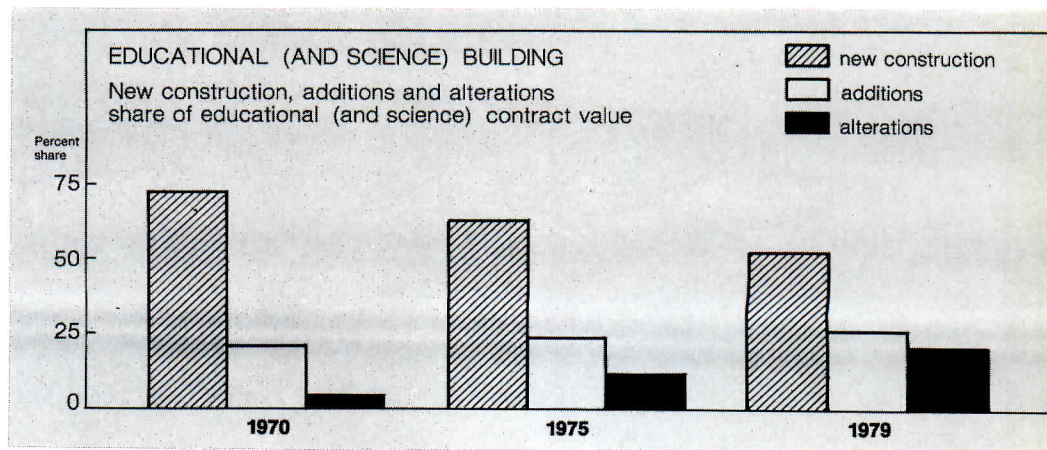
Because they have been rapidly gaining school-age population, the South and West rely much more extensively on new construction (two-thirds of their total contract value) to create educational facilities. In contrast, the Northeast and Midwest, with a slower growth in school population, have used new construction and additions/alterations equally to meet their needs. Even though migration to the Sun Belt is likely to slow in the next five years, the South and West will continue to emphasize new construction to meet their educational building needs. And the Northeast and Midwest will continue using a balanced mix of new construction and additions/alterations to satisfy their requirements.

Because of the gradual increases in enrollments in the early 1980s, a modest expansion in educational building is expected in the next five years—the first opportunity for sustained growth in fifteen years.

Phillip E. Kidd

Director of Economic Research

McGraw-Hill Information Systems Company





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# Costs still up, but inflation improving

The bad news: Construction costs are still climbing. The good news: Inflation rates of major indexes have improved.

From September 1979 to September 1980, surveys by McGraw-Hill Cost Information Systems show reinforcing steel costs have increased only 4 per cent. This contrasts sharply with a 10 per cent increase in steel, a 12 per cent climb in mechanical equipment, a 13 per cent rise in concrete, and an 18 per

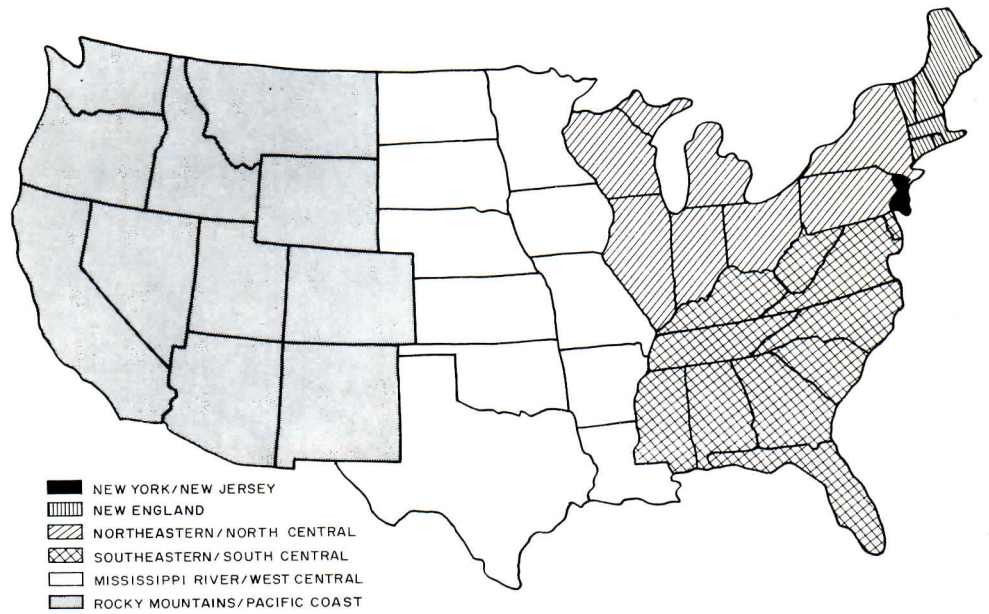
cent average increase in insulation prices over the last 12 months.

The rate of increase in electrical equipment has varied substantially, according to the McGraw-Hill report. While fluorescent fixtures have increased 8 per cent, panel boards and THW building wire have jumped 35 per cent in the past year.

Lumber prices, which declined between 10 per cent and 11 per cent over last year,

have been gaining slowly over the past three months at 1/2 per cent per month. Millwork prices—doors and windows—have decreased between 3 per cent and 4 per cent nationwide over a year ago as a result of declining lumber prices. There has been a slight decrease in unit fuel prices in the period from September 1979 to September 1980, and asphalt and energy-sensitive material prices should stabilize in the coming months.

Districts	Number of metro areas	3/80 to 9/80 %	9/79 to 9/80 %
<b>Eastern U.S.</b>			
Metro NY-NJ	16	3.5	8.5
New England States	21	4.4	10.6
Northeastern and North Central States	46	3.9	9.8
Southeastern and South Central States	39	3.8	8.9
<b>Average Eastern U.S.</b>	<b>122</b>	<b>3.90</b>	<b>9.45</b>
<b>Western U.S.</b>			
Mississippi River and West Central States	35	3.5	8.6
Pacific Coast and Rocky Mountain States	25	3.9	8.5
<b>Average Western U.S.</b>	<b>60</b>	<b>3.7</b>	<b>8.5</b>
<b>United States: Average</b>	<b>182</b>	<b>3.80</b>	<b>8.97</b>



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

1941 average for each city = 100.00

Metropolitan area	1970-1978									1979				1980			
	1970	1971	1972	1973	1974	1975	1976	1977	1978	1st	2nd	3rd	4th	1st	2nd	3rd	4th
Atlanta	422.4	459.2	497.7	544.8	575.0	598.7	657.1	714.2	755.8	819.6	836.0	872.1	904.3	875.6	901.9		
Baltimore	348.8	381.7	420.4	475.5	534.3	581.1	585.0	635.6	662.2	729.6	744.2	773.6	802.2	779.0	802.4		
Birmingham	309.3	331.6	358.3	402.1	421.2	448.9	551.9	585.4	609.2	704.1	718.2	724.5	751.3	736.8	758.9		
Boston	328.6	362.0	394.4	437.8	462.5	513.2	555.9	587.7	759.5	691.9	705.7	718.9	745.4	736.2	758.3		
Chicago	386.1	418.8	444.3	508.6	529.6	560.1	635.2	689.9	717.3	805.4	821.5	885.9	918.7	889.4	916.1		
Cincinnati	348.5	386.1	410.7	462.4	500.1	550.6	609.8	656.6	669.5	750.7	765.7	810.0	840.0	823.0	847.7		
Cleveland	380.1	415.6	429.3	462.2	509.5	531.0	632.9	625.2	653.5	794.7	810.6	853.6	885.1	881.8	908.3		
Dallas	327.1	357.9	386.6	436.4	477.9	499.6	538.5	615.2	637.6	739.0	753.8	873.0	905.3	787.7	811.3		
Denver	368.1	392.9	415.4	461.0	510.0	553.6	616.0	703.8	730.5	803.2	819.3	847.4	878.8	905.9	933.1		
Detroit	377.4	409.7	433.1	501.0	538.7	597.5	617.2	664.2	756.6	840.6	857.4	865.5	897.6	860.5	886.3		
Kansas City	315.3	344.7	367.0	405.8	444.9	509.1	547.3	603.0	631.8	657.7	670.8	711.0	737.3	735.2	757.3		
Los Angeles	361.9	400.9	424.5	504.2	531.8	594.1	673.1	756.8	784.2	886.3	904.0	955.4	990.8	978.3	1007.6		
Miami	353.2	384.7	406.4	447.2	485.5	558.9	592.5	628.4	649.0	686.1	699.8	736.9	764.1	742.8	765.1		
Minneapolis	361.1	417.1	412.9	456.1	488.6	538.0	564.1	629.4	651.3	793.4	809.3	824.3	854.8	827.6	852.4		
New Orleans	318.9	341.8	369.7	420.5	442.1	494.7	534.8	614.7	637.0	697.7	711.6	734.7	761.9	753.8	776.4		
New York	366.0	395.6	423.1	485.3	515.3	533.5	580.8	619.8	646.3	666.6	679.9	778.9	807.8	793.7	817.5		
Philadelphia	346.5	374.9	419.5	485.1	518.5	567.5	579.2	658.8	680.0	778.0	793.5	814.6	844.8	830.9	855.8		
Pittsburgh	327.2	362.1	380.3	424.4	465.6	509.5	526.3	589.6	614.0	692.2	706.0	736.5	763.8	746.1	768.5		
St. Louis	344.4	375.5	402.5	444.2	476.7	528.9	537.1	617.1	637.4	752.0	767.0	782.8	811.8	786.7	810.3		
San Francisco	465.1	512.3	561.0	632.3	672.5	753.3	820.8	963.2	990.0	1239.0	1263.8	1200.3	1244.8	1202.7	1238.8		
Seattle	341.8	358.4	371.5	424.4	450.2	515.1	570.5	629.6	669.0	700.7	714.7	761.0	789.1	763.3	786.2		

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## Organization for good design: one firm's experience

How does the individual architect fit into the larger architectural firm? Does he work in a department and acquire a specialty? Is he set on "a corporate ladder" and urged to climb? Or can he approximate the traditional role of the independent practitioner within a larger organization? In answering these questions, the New Orleans firm of Perez Associates began a reorganization which has set a new direction for itself. And the experience of this firm may prove a valuable example to others.

By Malcolm Heard, Jr.

In 1976 Perez Associates (then called August Perez and Associates) enjoyed a well-established reputation as one of the largest and busiest firms in its part of the South. Its organization was loose and pragmatic. By the time August Perez III assumed control of the firm in 1976, there were 40 employees with few clear demarcations of responsibility. Perez wanted a more manageable system.

During this same time of transition, a feeling grew that the quality of the firm's architectural design deserved more consistent emphasis. Through the years, the firm had done careful design work on selected projects but had, here again, no clear policy or standards. Spurred in part by the firm's united effort in winning the competition for New Orleans' Piazza d'Italia in 1975, optimism grew into a belief that consistently good design work was an attainable goal. The question became one of *how*. What shape of organization could give more order to a lively operation without cramping its style?

### Neither corporation nor atelier

One step in reorganization was to set up a series of meetings within the office. Another step was to send a young architect in the firm to visit several architectural firms across the county. Each had evolved a finely tuned organization that was hierarchial in much the same way that a modern corporation is—chief executives at the top and a middle level of project managers, among whom all of the projects were divided. Below project managers there was either a system of project assistants or a division into design and production specialists. Again the question came up: is current architectural practice a matter of a group of specialists operating under managers after the corporate model, or would a system of more independent project architects performing a wider range of architectural activities make sense?

Gradually, a philosophy emerged. It focused on the individual project and on having each building attain a level of excellence. Organization became not an end but a

means to further the quality of each project. Translating the idea from projects to people, the focus fell on the author of the individual project, the project architect. Latent in all of this is the conviction that the best architecture is ultimately a single vision (if not an individual act) sustained from conception through construction. The conditions of modern practice, however, and the complexities of construction require the participation of many people. The ideal solution, therefore, is the synthesis allowing the strongest individual conception to be advanced by the most supportive infrastructure—something akin to a classical balance between the individual and the group.

### Project architect: the key figure

The project architect becomes the continuity in a project. Perez Associates' organizational structure has no project managers as such, no equivalent to the corporate middle management level. On smaller jobs the project architect performs as wide a range of activities as possible: he deals with the client, designs the project, supervises construction documents, and works with the construction administration department on design questions and change orders. On larger jobs the project architect delegates more authority, sometimes in areas of design, sometimes in administration, according to his personal bent. The person delegating tasks on one project may be performing delegated tasks on another.

With this system, the quality of the project architect is ultimately the quality of the firm. It is necessary to attract and keep the best project architects. It is also essential to support and educate the less experienced project architect and give him the benefit of the firm's total experience. Perez Associates has developed a number of mechanisms to accomplish this.

### Technical and design support

Two positions have been created, the technical advocate for technical support and the architectural advocate for design support.

Instead of management from above, the architect receives support from his peers. The term "advocate" is intended to imply the championing of a cause within the office.

The technical advocate has established a systematic approach to contract documents and has written a detailed contract check list for office use. He works with each project architect, establishing the format for drawings, raising and answering questions throughout the project's development, and checking the finished set of construction documents. He recommends corrections and refinements to the project architect. His job is a chance to learn as well as teach. He researches new techniques in both construction practices and construction documents, maintains the technical library, and is in the process of developing a file of standard details.

The position of architectural advocate rotates annually. The architectural advocate organizes the peer review, a process by which each project architect presents his project to a group of his peers for discussion. The emphasis is on the advocacy of ideas which might otherwise be dismissed in favor of something more expeditious.

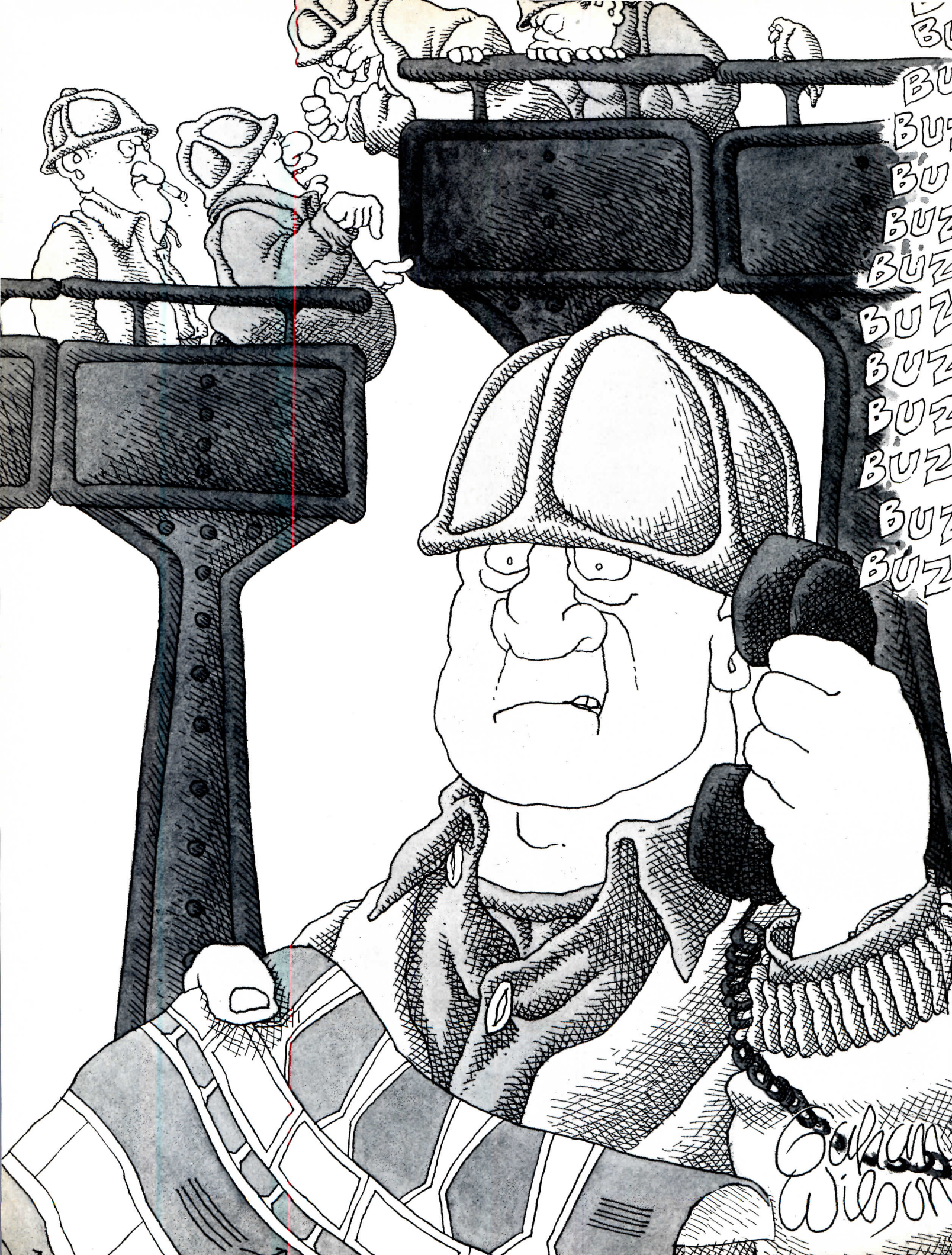
From one viewpoint, the Perez organization looks like a cluster of architectural offices under a single ownership sharing common support facilities. The complex task of orchestrating the whole belongs to the president and manager of the firm. He handles assignment of support to projects, financial monitoring, and contracts.

### Positive reaction from within and without

Support for the system has become increasingly strong within the firm. A recent meeting to discuss the need for uniformity in handling details of project administration caused the group to adopt a program to educate project architects in the fine points of project administration. Such a program has just started under the direction of a project architect with a special interest in project administration.

Clients respond well to the new system in which they maintain direct contact both with the firm's owner and with the specific architect who is designing their project. On several occasions clients have returned to the firm with new work and stipulated that they want the same project architect they had before. What better tribute to the project architect and to the system?

Malcolm Heard, Jr., AIA, is a project architect at Perez Associates, New Orleans.



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Graham Wilson

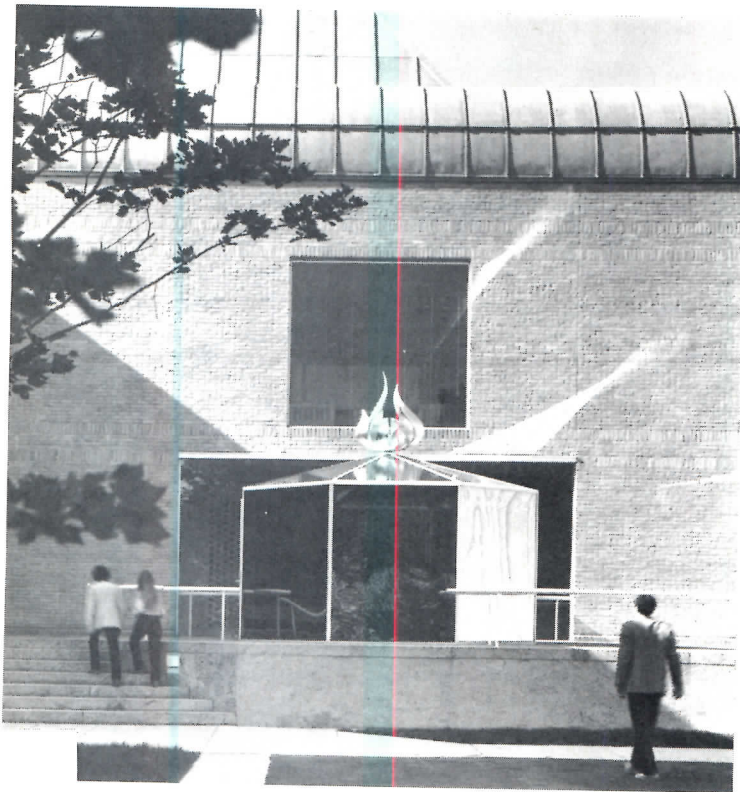
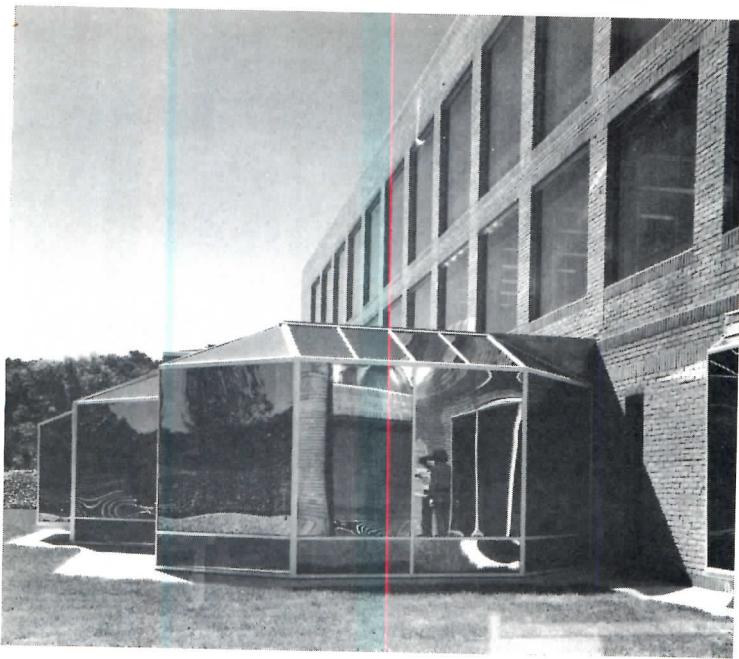




Ezra Stoller ©ESTO photos

## EFFICIENT, ECONOMICAL, AND ELEGANT: WARREN PLATNER'S DESIGN FOR STANDARD BRANDS

A design by Warren Platner seems so clearly logical that it is difficult to think of an alternative to it—though you know perfectly well there were other ways to solve the problem. He argues with precision for every detail of his designs—not just the building, but the choice of plantings on the site and the furniture and artwork inside. He is precisely logical in showing how the plan of the building grew from the users' needs, how the form grew from the internal function and the constraints and opportunities of the site, and how the esthetic expression grew from both function and site. His argument is the same whether he is describing commissions with the generous budgets of, say, a *Windows on the World* or *Water Tower Place* (RECORD, May 1977 and April 1976) or modest-budget jobs like *Teknor Apex* (January 1975) and this research center in Wilton, Connecticut. For him the thinking and design-development processes are the same—which is of course the way it should be. —W. W.



The elevations of the Standard Brands Research Center reflect the nature of the work inside. The rounded-tower forms (photo right) house extensive services for the sophisticated labs just inside; the larger windows (same photo and photo left above) light desk spaces for the lab technicians. These two basic elevations alternate around the building (see site plan) and give the building its essential character. Aluminum-framed and skylighted extensions house different kinds of spaces: the executive-office wing (left above), the cafeteria (far right in photo to right), and the entrance. Walls are sand-cast pink brick, the roof and tower caps are lead-coated copper.



The program for this 100,000-square-foot project called for it to be a strictly functional working tool. Standard Brands asked for "a versatile research and development facility, with the most creative working environment for our scientists, thoughtful community relations, and maximum cost effectiveness." It was not intended—as many corporate buildings are—as a high-profile statement (which it isn't) or an image-builder (which it turned out to be). Standard Brands now speaks of this building as its flagship, and the chairman of the board and the president asked,

late in design development, whether there was some way a hide-away suite of offices could be added for them.

The elegance of this building grows not from expensive design details or materials (for there are none) but from forthright plan development and generally modest means and materials. For example: The core of the cruciform plan makes use of the framing and stairwell of an existing building on the site. The arms of the cruciform are as compact as possible consistent with the programming decision to provide views and daylighting for almost



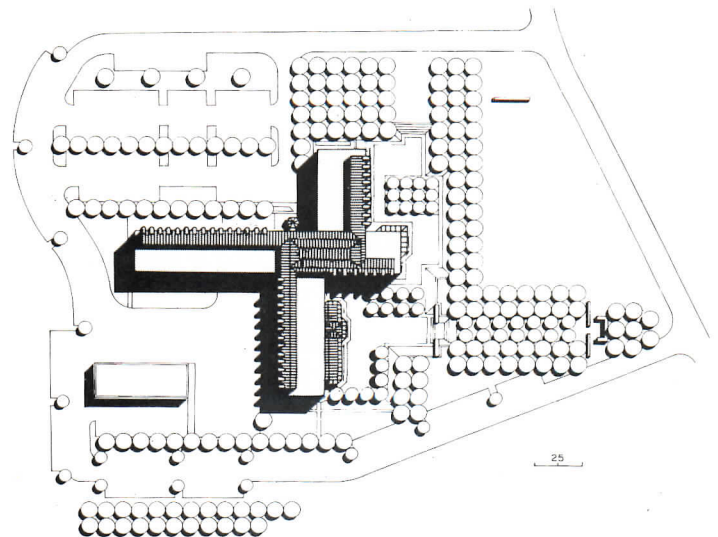
every employee—which dictated a 50- to 55-foot width. The structure is strictly "run of the mill"—with no long spans, and exposed corrugated decking with poured concrete floors. The air-conditioning ducts and the extensive piping and exhaust systems associated with the laboratory are run in a carefully planned and ordered way—but left exposed and painted white. The interior partitions are gypsum board, the walls in public areas common brick painted white—and in the lobby (see photo page 74) brick is laid up to create a visually interesting patterned screen and a remark-



ably handsome low-relief American flag. The lighting fixtures are exposed fluorescent tubes whose up-light bounces effectively off the white surfaces above—and in some areas where food or packaging is under study, the user has an option of switching in incandescent lighting for light balance. The spiral newels ending the “plain pipe” handrails of all major stairs (photo page 74) are the same detail rendered in polished brass at Windows on the World.

Platner’s design presses the opening envelope without in any way abusing it—for community

relations with the town of Wilton were important to the client, and the site is in a secluded field very close to the town center. The maximum height permitted under zoning was 35 feet to the median height of a pitched roof—so the central part of the building has a pitched roof to get the above-median “bonus” height and the mechanical penthouse was thus fitted above the roof. Further, on the essentially flat site, sunken garden courts were dug out to create premium “ground floor” space from what would otherwise be basement space. And from this functional decision





The office of the research director is in one of the skylighted extensions, looks out on one of the landscaped courtyards that was dug out to create a premium space at what is in fact a basement level. Below, an upper-floor office overlooking the entry courtyard and the handsome form of the mechanical service towers. While these and other offices have an elegant feel, they are handled with simple painted brick, and the steel structure and service lines overhead are left exposed and painted white—an appropriate (and budget-saving) expression for a laboratory building.



grew the landscaped courts that add so much to the drama of the building and add something special to the views from many of the offices. (On other sides of the building, the grade is simply notched away to daylight ground-floor offices and public spaces.)

The courts are also the site for skylighted extensions of the building—aluminum-framed all-glass “prisms” that express by their special character the special nature of the spaces inside. One such “skylight extension” gives special prominence, light, and views to the office of the direc-

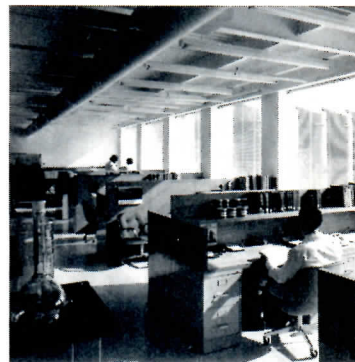
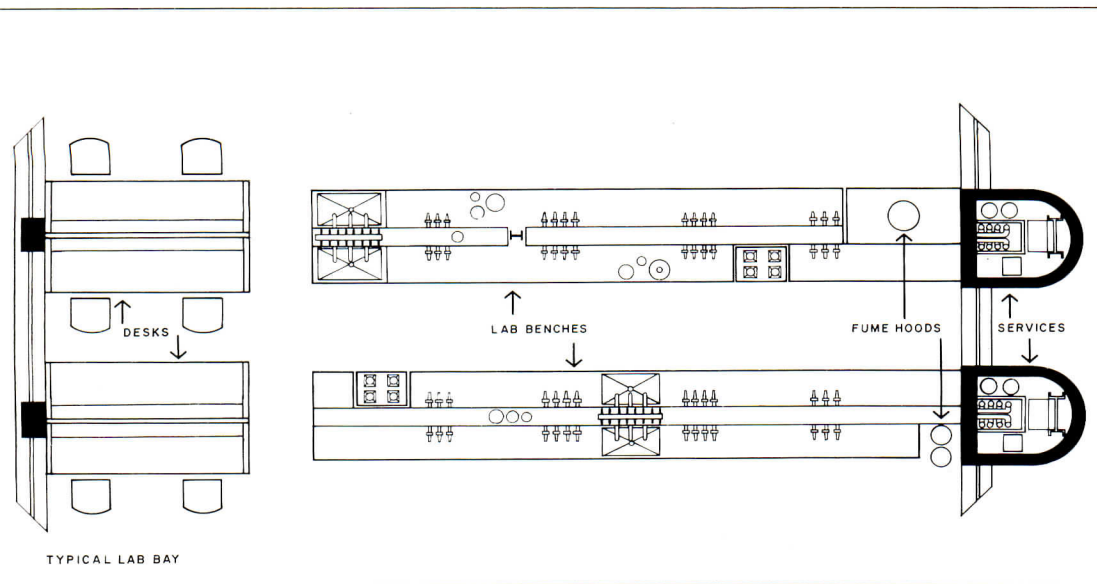
tor of research (photos top and left, this page)—and this office, since it is mostly outside the line of the brick wall, also has a pyramidal vaulted ceiling. The adjacent executive offices and conference room (page 74) share this special treatment. Another skylighted extension makes a garden pavilion of a cafeteria (bottom photo, page 75).

The aluminum-and-glass “skylight extension” theme is also used to give prominence to the main entrance. The entrance is at an interior angle of the building—but the bright little prism (photo, page 70) topped with an

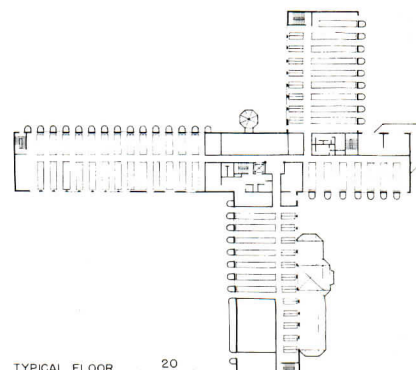
architect-designed “bursting seed” finial signals unmistakably to visitors. This entrance is at the median level—so all spaces in the three-level building are only one flight away.

As suggested earlier, the cruciform shape of the building, and the rounded tower shapes so dominant on the exterior, grow out of the program. Each of the four wings of the building is set up around the laboratory spaces. Each wing is about 50 feet wide, and that space is divided (see plans and section, opposite) about two-thirds laboratory bench space, one-third desk area

for the lab people. All of the services for the lab tables are carried vertically to the three floors by the rounded towers connect at top to the main service lines on the roof. Inside the labs, the services are ceiling-hung. Thus, changes or additions of any sort and all maintenance work on the service lines can be made with virtually no disruption of the laboratory work. Opposite the lab spaces, desk stations are placed at large windows, which create light and views throughout the space. The pinwheel of alternating elevations of service towers (with narrow windows

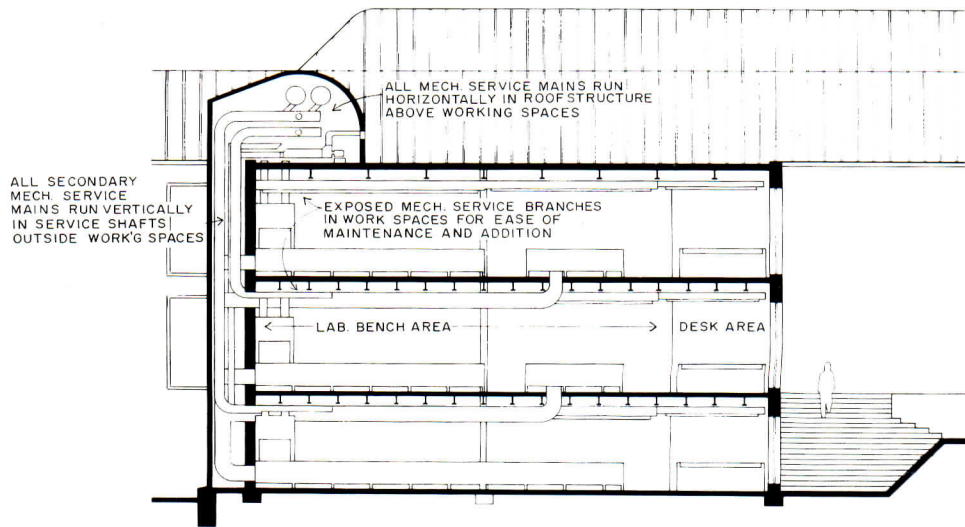


The laboratory spaces in all four wings of the building are designed to the same plan—two-thirds of the width of the wing is given over to laboratory tables, one-third to the central aisle and desk space for the technicians. On the laboratory-bench side, services are carried vertically by the rounded towers, led into the building at ceiling level for easy maintenance and change. Small windows between the towers offer some light and view, though the desk side of the space is wide open to the view. All of the exposed services are simply painted white, and the lighting is exposed bare-bulb fluorescent.



between) and the broad windows on the desk side creates, of course, the exterior expression of the building. The soft pink brick is not only an economical solution to the rounded shapes, but a solution appropriate to the New England countryside—and is appropriately set off by the lead-coated copper roof and the bright, white-trimmed prisms of the "special spaces."

In the end, this precisely logical design looks simple—but of course making it simple is very hard work. Platner's commission for this building required extensive consultation with the staff to





With modest means, architect Platner has created a sense of elegance in all of the building's public spaces. Left, a handsomely patterned screen wall and low-relief flag, laid up as part of the brick wall in the lobby. Below, the conference room, set off by a perimeter strip of skylight; and a handsome stair detail. Right: One of the well-equipped (and very handsome) test kitchens, the serving line of the cafeteria, and the cafeteria—which is given a garden pavilion look by its skylighted extensions which wrap around a corner of the building. Far right: the research library.



organize labs of varying character and the development of all kinds of special spaces. Since the client, Standard Brands, is in the food business, the architects had to devise special test kitchens (photo opposite) which—along with a conventional kitchen—serve the cafeteria (plan, lower right). There is also a pilot plant for test manufacturing, food demonstration rooms, and a number of special tasting rooms—both for company officials and for consumers brought into the building for market research studies.

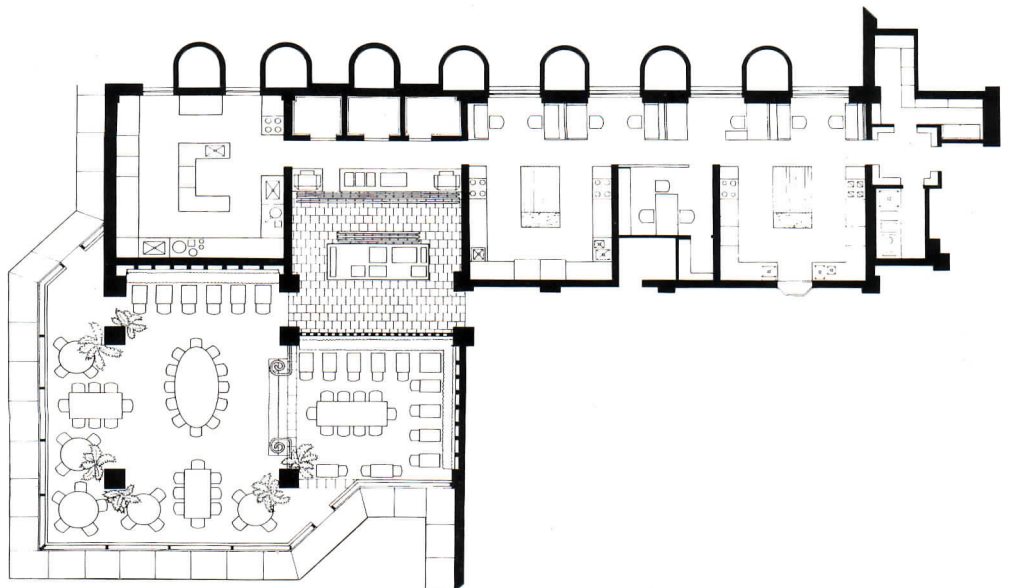
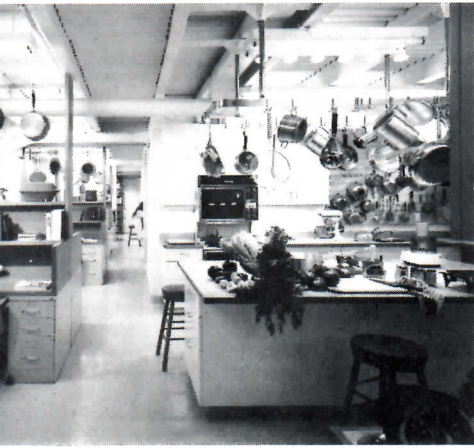
Similarly, the creation of the

courts and all of the landscaping was an integral part of the design—intended not just to create that premium "ground floor" space and not just to set off the building, but to create the best possible views from every office and lab. Canadian hemlocks and London plane trees are formally planted (see site plan), and when they mature, will be sculptured into large-scale blocks outlining the garden courts.

Finally, the architects managed to "design in"—within the fee—meaningful art and decoration which neither budget nor client instruction would other-

wise have encouraged. Examples: the finial at the entrance—which has become a company logo—was designed and modeled in the architect's office, then cast in bronze and gold-leafed, the low-relief flag and screen in the lobby, decorative brick work in the cafeteria, the handling of the stair rails, and even a hand-painted menu board (photo opposite) in the cafeteria. Says Platner: "I think it is a special responsibility of the architect—particularly on tight budget jobs—to try and create special amenities as part of the commission." It appears he succeeded.

STANDARD BRANDS RESEARCH CENTER, Wilton, Connecticut. Architects and landscape architects: *Warren Platner Associates—associates of Warren Platner on this project: Robert Brauer, project architect, design; Jesse Lyons, project architect, construction; John Merriman, Carl Gottschalk, Paul Sargent, Arnold Gans, Dave Miller, Vincent Leto, Lee Ahlstrom, Anita Holland-Moritz, Douglas Hirshak, and Kathy Pope.* Landscape technical consultant: *James Fanning Engineers: Tor, Shapiro & Associates (structural), John L. Altieri (civil/mechanical/electrical).* Contractor: *Owner, and J.W. Ryan Construction Company.*



# RECYCLING VANCOUVER'S GRANVILLE ISLAND

by Michael and Julie Seelig

"You should see the people we have down here! There are women in mink coats buying a few shallots while chauffeur-driven limousines wait outside. There are families shopping carefully for produce which is below supermarket prices. There are kids buying freshly baked cookies and doughnuts." The manager of the Granville Island Public Market sounded incredulous during his interview on a local radio station. The large crowds at the market and the mixture of people, from sleek sophisticates buying handmade pasta, to teenagers with backpacks snacking on roasted nuts, to the down and out, startled even the planners and managers of the island.

As one Vancouver developer commented, "You can do all the market research you want, but the big test is the opening week. If something is going to be a success, it will show then. If it doesn't go immediately, no amount of prodding and patching and gimmickry will help." The point of view may not always be true—many projects which are ultimately successful do get off to a slow start. But it certainly has proven true for Vancouver's Granville Island Public Market. From the day its doors opened, it has been a crowded, bustling success.

## A magnificent setting

Granville Island, with its Public Market, theaters, restaurants, art school and factories, is a recycled industrial area along Vancouver's waterfront. It is another sign of the development boom this young city has been experiencing over the last decade. Vancouver is less than 100 years old, and during its recent surge in development, it seemed about to follow the pattern of other North American cities. High-rise offices were developed downtown, dominated by the office towers of Canada's major banks, towers which are strikingly similar in Toronto, Montreal and Vancouver. Yet Vancouver, because of its youth, has very few of the older landmarks which serve to soften the brashness of the new construction.

What the city does have, however, is a magnificent setting. From the foot of each of the major downtown streets there is a panoramic view across Burrard Inlet to the mountains, which appear to rise directly out of the sea. Vancouverites' attachment to these views became quite apparent in the early '70s

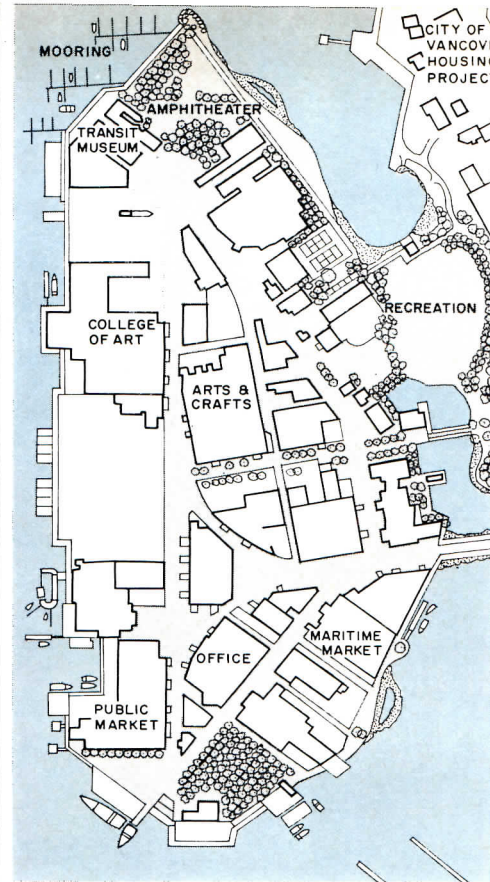
when citizen opposition prevented construction of both an office tower which would have obstructed the view from one of the downtown streets and of a high-rise tinted glass tower which the public feared would darken the city's skyline. In 1972 and 1973, these bouts of citizen opposition, such as the anti-"black tower" campaign and others, coalesced into a positive force in the city. The boosterism of the Chamber of Commerce and other civic organizations began to give way to a public awareness of the opportunities to make the city a unique environment whose man-made structures would be compatible with and worthy of the beautiful sea and mountains which surround them.

This change in attitude manifested itself politically in the election to City Council of a group of enlightened civic leaders who responded to public demands for more careful guidance of the city's development. A number of projects were undertaken which capitalized on Vancouver's assets and which responded to the local situation by developing appropriate "home-grown" solutions rather than by importing programs from other cities. Programs included rehabilitation of Gastown, Vancouver's original townsite, the down-zoning of the city's densest residential area, creation of a pedestrian mall on the main downtown street, rehabilitation of the Chinatown area, and development of the False Creek flats into one of the largest and most experimental in-town housing projects in North America.

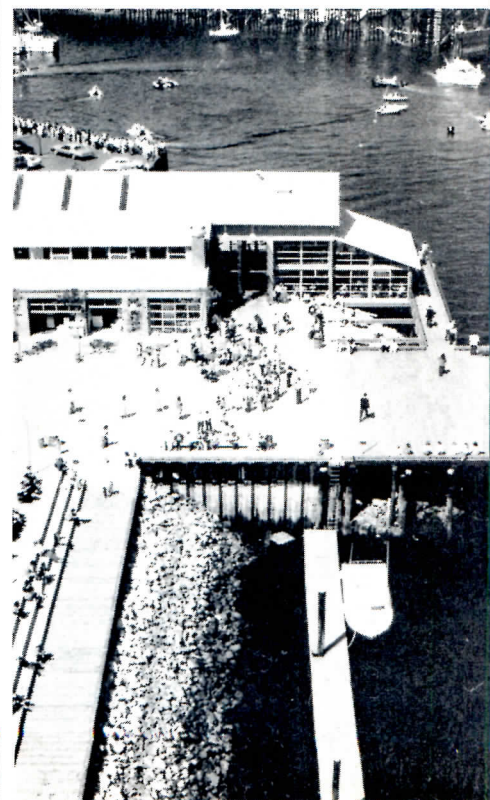
## Granville Island

Contiguous with the False Creek area, the "island" was actually once a sandbar in what is now called False Creek. In 1913 a bulkhead was built, and silt dredged from False Creek was pumped onto the site to form a new industrial area. The island is in fact a peninsula extending into False Creek Basin, an inlet formerly used for industrial purposes and now being redeveloped for housing, offices, marinas and public uses. Rising above the island is Granville Bridge, which adds to the industrial, "tough" character of the island. The bridge ramp, once considered a hopeless eyesore, is perceived today as adding a rough charm to the area.

When planning for redevelopment of Granville Island began in 1973, the island contained a number of functioning industrial operations, including a cement mixing plant and a steel factory. It also contained a number of vacant usable structures and some dilapidated ones. The jumble of industrial buildings represented both a challenge and an opportunity. The difficulties were obvious:



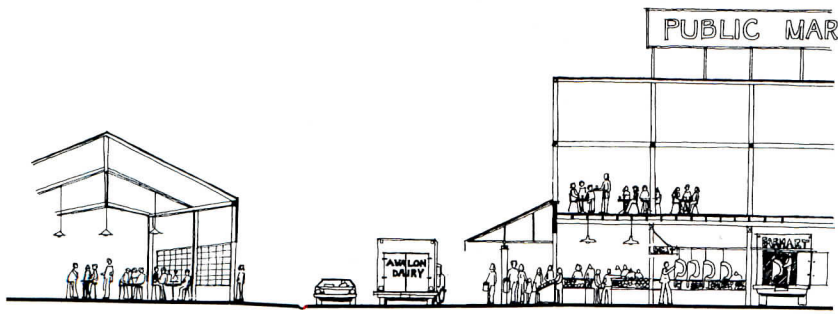
The over-all plan for the Island (above) indicates the general use areas, which include extensive markets and arts and crafts facilities. More generous recreational space was created by extending and improving wharf areas (below). The main street (opposite page) was photographed from the Granville Bridge.



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the street system was convoluted and whatever was not a building was a road; some existing industries, particularly the cement plant, were too large and costly to relocate; the Granville Bridge ramp rises directly above the 38-acre site; few residents had even heard of this ramshackle industrial area.

But two factors made the redevelopment of the island an almost romantic opportunity. First, the location—adjacent to downtown—is superb. The bridge ramp above the island is in fact the main access route to the center of the city. The “island” is surrounded on three sides by water, and the view of the boats moored nearby is charming. The adjacent False Creek housing development houses roughly 5,000 people who provide a ready market for the wide variety of services developed on the island.

Second, Granville Island belongs to a single owner, the federal government. In 1975, Vancouver’s Member of Parliament, the Hon. Ron Basford, then Canada’s Revenue Minister, arranged for a study of Granville Island to be commissioned through Canada Mortgage and Housing Corporation. The study, prepared by the Vancouver firm of Thompson, Berwick, Pratt and Partners, provided the initial framework of objectives to be realized, concept plans, development strategy and the administrative structure necessary for this undertaking. As a result of this report, the federal government made a major commitment to invest \$25 million in the redevelopment project. Approximately \$11 million went to buy out the remaining leases on industrial properties which were to be redeveloped for other uses. Single ownership of such a sizable parcel of land so close to downtown represented a unique opportunity for coordinating development within a single environmental theme.

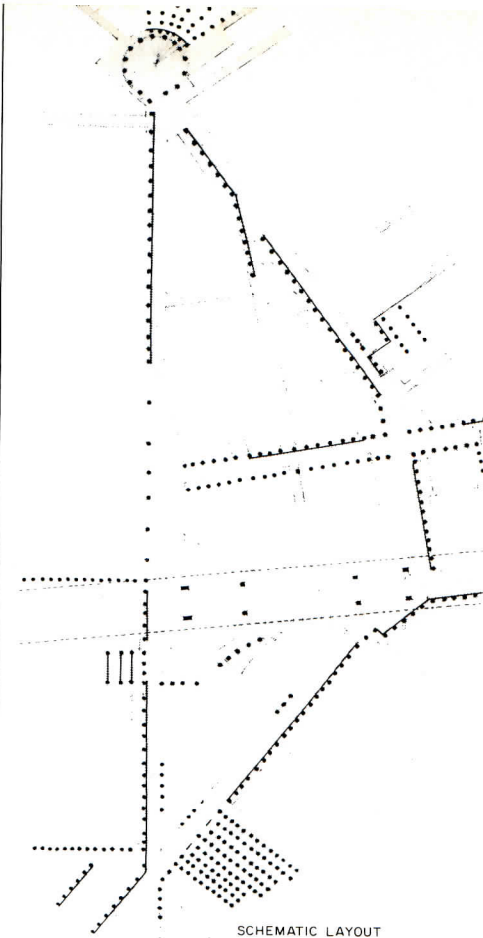
### Revival of a lost urbanity

In accordance with the recommendations of the report, a five-member board of trustees—the Granville Island Trust—was appointed to oversee the development of the island. At the outset, the Trust made the unusual decision to retain a large portion of the island’s industry, including the massive Canada Cement factory. The new plan was to be woven around these existing uses and around the existing street pattern. The overall aim was to create a public recreation place both for residents of the newly developing False Creek area and for the community at large. Prior to the selection of Norman Hotson Architects, the urban designers for the project, the Trust itself established the over-

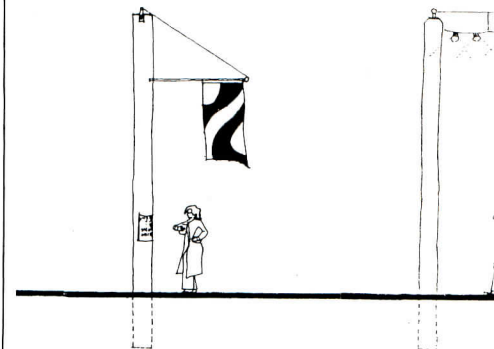
all concept plan and provided the urban designers with three strong directives: First, to assist the Canada Mortgage and Housing Corporation (the arm of the government administering the project) and an urban economic consultant in arriving at an appropriate development program and implementation strategies to create a public place; second, to design the public infrastructure for the island, including a network of streets and other open spaces, and to recycle certain buildings as key public projects; and third, to establish specific architectural guidelines for other building projects as they develop.

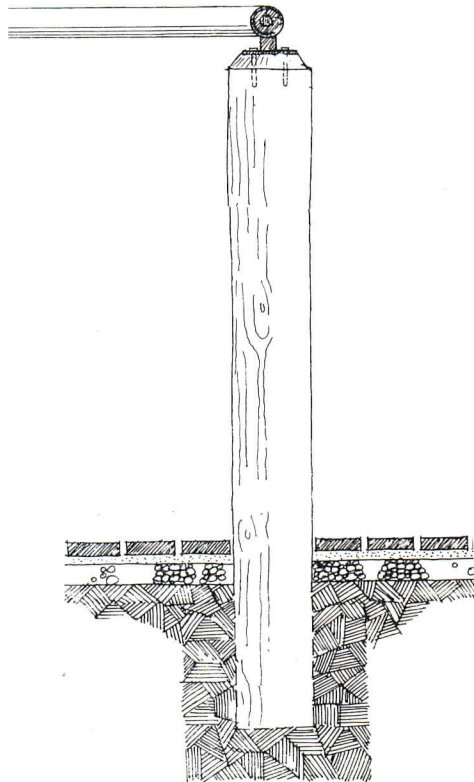
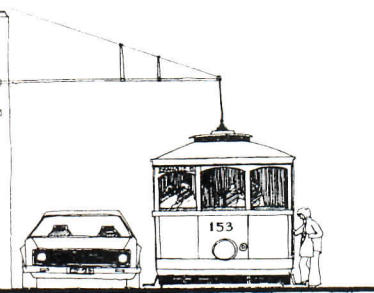
The urban designers found that the key task was to define what constitutes a contemporary public place, particularly in light of the industrial activities which were to continue on the island. Three concepts emerged in the definition of Granville Island as a place for public recreation—first, the revitalization plan aimed at “the revival of a lost urbanity.” Through the juxtaposition of a wide variety of small-scale activities, the designers hoped to achieve a truly urban recreation spot. Now that several of the key developments are in place, particularly the Public Market and two theaters, it is plain to see that this plan has succeeded.

“Variety” and “diversity” are the key words in describing not only the people wandering through the Public Market and surrounding streets and shops, but also the nature of the entire Granville Island development. The broad goal for Granville Island is the regeneration of a level of urbanity generally lacking in our society today. The urban designers note that “randomness, curiosity, delight and surprise have all but disappeared [from our cities]. There is a growing concern amongst our citizens that real urbanity not be lost everywhere, and it is intended that it be encouraged to flourish on Granville Island.” The island represents a return to that period before zoning sterilized our urban environments—the period when a single city street contained bars, furniture workshops, a tailor, and a corner grocery store. A second factor in making the island a public place was the designers’ concept of an “opportunity place,” a place for those uses which are interesting but have difficulty finding space to lease elsewhere in the city. So the island redevelopment has provided space for artists’ studios, theaters, workshops, and, of course, the public produce market. The third concept involved in creating a public place was the idea of promoting active rather than passive recreation. The Trust was careful to focus on activities which are very public in

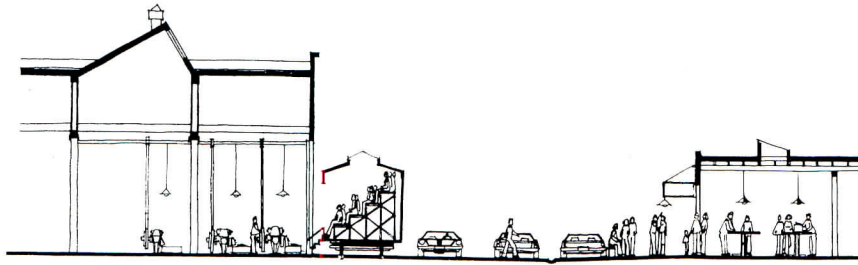


SCHEMATIC LAYOUT





The drawings on this and the opposite page show the poles, pipes, canopies, lighting and pavings which are the basic design elements that unify the island, and the photos indicate specific uses. The interior of the Public Market (left) shows the use of this system to carry indoor lighting fixtures. The new Arts Club Theater (above) is located on the market plaza.



nature, such as the market; activities in which people become involved, as in arts and crafts studios; and activities where people see and learn about something new, as in the production of hand-forged chain and other industrial processes.

### A unique job of recycling

The location and the single ownership of Granville Island have provided unique opportunities to develop an unusual and even romantic public place. The original feel of the area has been kept throughout the redevelopment. The island was an industrial section that grew into a jumble of streets and buildings with cranes, winches, and trucks throughout. The approach has not been to prettify and sanitize the place, à la Ghirardelli Square in San Francisco or Pioneer Square in Seattle. The project sets a precedent in recycling a whole area while retaining existing industries. It creates a mixture of cultural, educational, commercial, and industrial uses as opposed to the more typical recycling of industrial buildings for commercial and office purposes only.

Tenant selection has been based on the following checklist developed by Norman Hotson, Architects: 1. Is the activity people-oriented, and is the ratio of people to space high? 2. Will it open to the street, open spaces or pathways, focusing outside to the public rather than being hidden away? 3. Are there views inside and enticement to enter (i.e. an artist's studio with a gallery, a workshop with a display room)? 4. Will the activity recognize the particular opportunities of location, ambiance and water access, and be different from those found elsewhere in the city? 5. Is it an activity with immediate appeal whose contribution of well-being can be sensed directly by a wide range of people? 6. Will the owners or directors be present on the island, to provide a sense of daily involvement in its activities? 7. Will the activity see extended use beyond the typical 9 to 5 day? 8. Does it have a high spin-off use for other activities in terms of use and image? 9. Are the people involved interested in becoming part of the community? 10. Are the space needs small, to allow for diversity and hence opportunity? 11. Are tenant applicants interested in participation rather than merely the provision of services or goods? 12. Does the activity allow for direct public-participation? 13. Is there some "fun" in the idea?

### Urban design elements

While no individual reconstruction on Granville Island is a design masterpiece, the over-

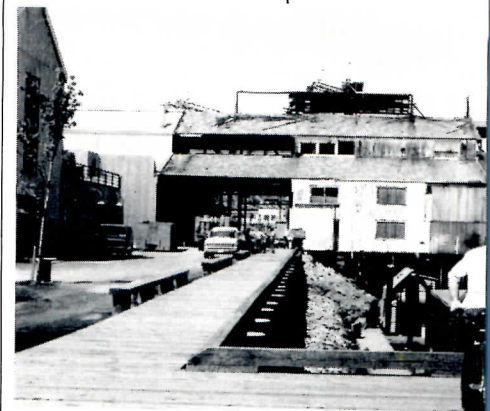
all project concept is a real architectural accomplishment. This is due largely to five key urban design elements established at the outset by the urban designers. First, the traditional separation of pedestrians and automobiles by means of roads and sidewalks was abandoned. Instead, all circulation areas are paved with a handsomely designed concrete brick, allowing cars and pedestrians to intermingle. The interesting results are that drivers are extremely cautious and courteous on the island, small areas that would normally be wasted serve for additional parking, and pedestrians are not confined to narrow sidewalks but instead feel that the entire island is theirs. Second, the entire periphery of the island is unobstructed and a pedestrian walkway was developed to enable visitors to appreciate the unique setting. Indeed, many people are drawn to the island for the sole purpose of walking along the waterfront rather than for the commercial attractions offered. Third, a system of pipes in strong colors supported by heavy timber poles runs between the buildings and through the open spaces and serves as a powerful unifying element. These pipes also house the street lighting and provide support for canvas canopies to protect pedestrians from Vancouver's rainy climate. Fourth, the continued use of the two traditional cladding materials on the island—stucco and corrugated sheet metal—are major contributors to the unified character of the development. Fifth, to add interest and excitement to the project, the designers insisted on different colors for almost every building. Strong colors, traditionally associated with industry, were specified.

### Role of the developer

One of the most important aspects of this project is the role played by the federal government through Canada Mortgage and Housing Corporation and the commitment made by the government to the project's success. Traditionally, government has been involved with development only in a regulatory manner. It is very rare that government does take the entrepreneurial initiative to create a project which will eventually stimulate further development through private investment. Granville Island's success even at this early stage indicates that some new directions in the involvement of government might be in order. Although large sums of public funds have been spent on this development, they certainly have been well spent. It may therefore be just as important for different levels of government to study this project as it is for architects and developers.



An attractive feature of Granville Island is the boat houses located on its northern shore (right). The island has extensive moorage facilities for small boats and a number of dock-side restaurants. Wharf areas, with few exceptions, are accessible to the public, and as much of the Island's perimeter as possible is being developed as linear open space for walking, cycling and jogging. The streets which crisscross the island are shared by cars and pedestrians (sketch above). Motorists drive carefully and pedestrians feel that they have the run of the place.





# Ainsworth Gymnasium at Smith College by TAC

The physical health of the student body has been a vital concern of Smith College in Northampton, Massachusetts, from its founding in 1875. Just two years before, *Sex In Education*, written by the eminent physician Edward Hammond Clarke of Harvard College, admonished parents to spare their daughters the agonies of higher education—arguing that the demands of higher education could destroy a woman's ability to bear children by overtaxing her at a critical stage in her adolescent development.

The argument sounds patently ridiculous today. But many parents took Clarke's words to heart. And pioneering women's colleges, including Smith, Vassar, and Wellesley, required students to take a certain number of hours of physical education just to reassure anxious parents.

The new Ainsworth Gymnasium at Smith, designed by The Architects Collaborative, is a striking example of how far this concern has matured. In the century since the founding of Smith and the completion of Ainsworth, women's college sports have developed from exercises to intramural recreation and intercollegiate competition.

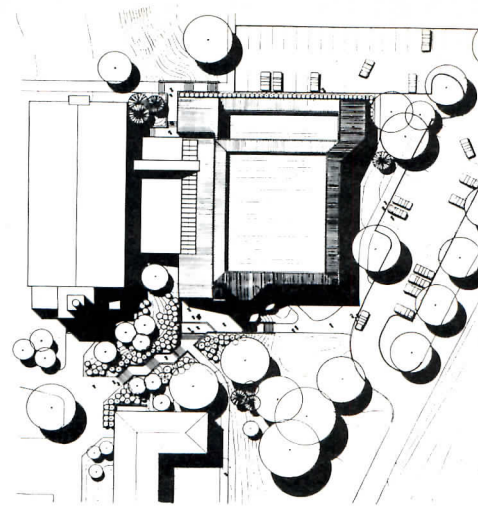
As a modern physical education facility, Ainsworth comprises a full-sized gymnasium with spectator seating for 600, a 25-yard, six-lane swimming and diving pool with spectator seating for 300, six squash courts with spectator seating for 150 overlooking two courts, and locker, shower, and office space for students, staff, and faculty. As an addition to Smith's physical plant, Ainsworth enlarges

the capabilities of adjoining Scott Gymnasium, erected in 1923, while enhancing the attractiveness of both.

The need for a new gymnasium for Smith became clear by the mid-1960s, when then-president Thomas Mendenhall began a formal inquiry with TAC. Growing interest in women's sports had rendered Scott obsolete. Its pool, three lanes wide with a shallow visitors' balcony, had always seemed too narrow for such events as the school's traditional "Life-guard Show," a water ballet and comedy staged during Parents Weekend and Commencement. The gymnasium too had been considered dark and confining because of its overhanging mezzanine gallery, which constituted the only spectator space. Nor could the few squash courts in the old Alumnae Gymnasium satisfy new recruits to this once male-dominated sport.

Working with the school's department of physical plant, TAC has created a compact, efficient, and logical solution that stresses easy movement within the two integrated gymnasiums near Smith's renowned playing fields, sports facilities that conform to contemporary regulations, generous provisions for spectators attending competitive events, and energy conservation—an important consideration in a voluminous four-story 52,000-square-foot space. School and designer dallied briefly with a more remote site. Concentration won out over dispersal for numerous reasons.

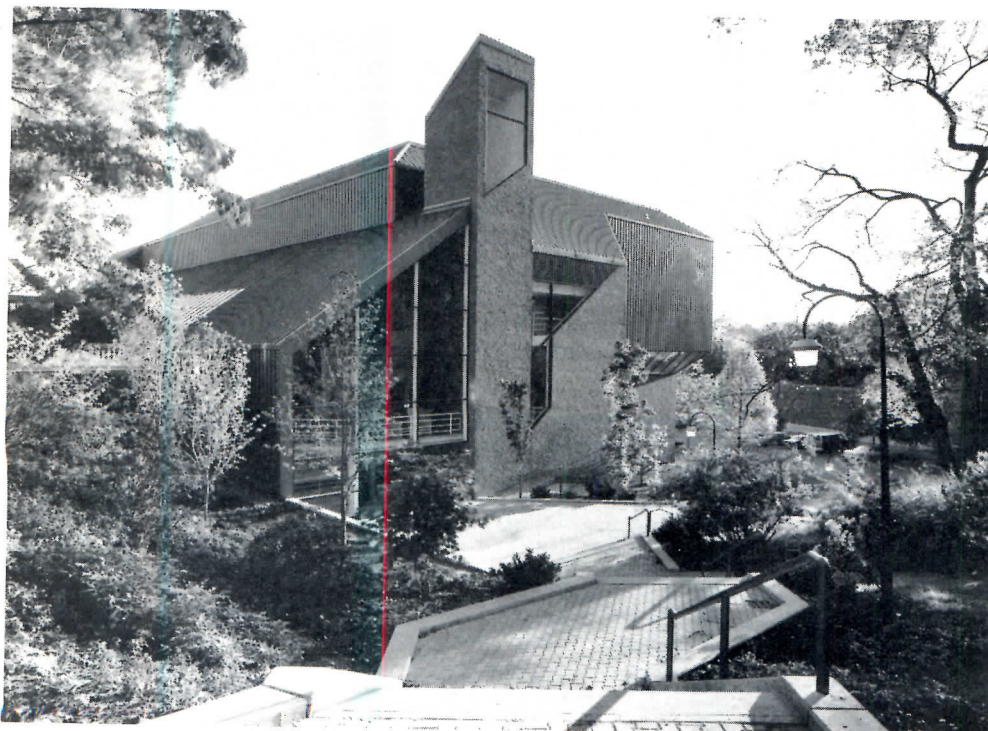
Scott was already located at the school's "back door," where the unavoidable bulk of



SITE PLAN



The circulation corridor that joins the new Ainsworth Gym to the older Scott Gym to its east dominates these views of the north facade. Rising beside the trapezoidal opening is the north stair tower.



©Nick Wheeler photos



the new building would least encroach on the open space of this bucolic campus of residential "houses" and classroom buildings. Consequently, Ainsworth could share Scott's precious parking area. Walking distance between different sporting events could also be saved. Perhaps most important of all, merging Ainsworth and Scott made possible the modernization of Scott's outmoded interiors, as well as the elimination of redundant facilities.

The genius of the resulting design is its circulation. To quote David G. Sheffield, one of two partners-in-charge at TAC with John C. Harkness, "Circulation is the only area in a gymnasium where you can be creative. The rest is set by sports regulations."

A low pavilion housing that Scott swimming pool became the logical dividing line between old and new. Originally slated for demolition, this masonry structure impressed TAC with its graceful vaulted ceiling. TAC converted it into a lounge, pierced its glazed walls with doorways, and ran an enclosed multi-level "street" beside it as the principal circulation corridor for both buildings. Besides providing access to all four levels of the new building, the corridor connects directly to two of Scott's three levels.

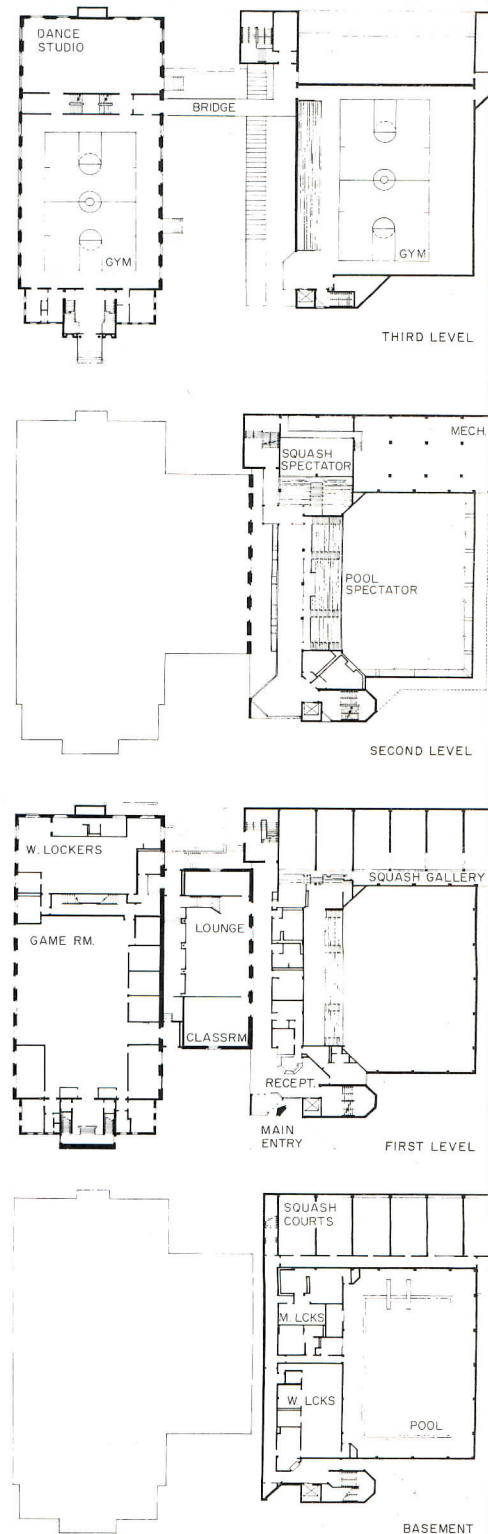
Finding your way in Ainsworth is greatly facilitated by the many visual cues that line this passage. Each level has its own distinct character. The basement level is below grade, and runs strictly within the space joining pool, women's and men's lockers, and squash courts. At the ground-floor level, the elevation rises past the second-level balcony

and third-level fascia to a sloping skylighted ceiling three stories high.

Primary color is liberally applied throughout, emphasizing the strongly industrial character of the building by articulating its component parts. The pipe railings that line the second-level gallery and the rafters carrying the skylights from the third-level fascia of Ainsworth to the cornice of Scott are painted yellow. The ground-floor security booth, office doors and window frames, and overhead air duct are blue. Second-level doors and window frames and new doors and trophy cases in Scott's window openings are red. The informal color scheme is consistently applied in the other interior spaces of both buildings.

Each sport expresses its own character nevertheless. The natatorium, whose six-lane 25-yard-long pool conforms to NCAA standards, is a serene study in white tile walls with blue tile seating covers for poolside use. Direct outdoor lighting is not permitted to reach the pool since glare can confuse swimmers and cause accidents. However, outdoor light is permitted to spill indirectly into the large (70 feet by 103 feet by 27 feet high) room by way of windows fronting the second-level gallery and a slanting clerestory window band on the opposite wall.

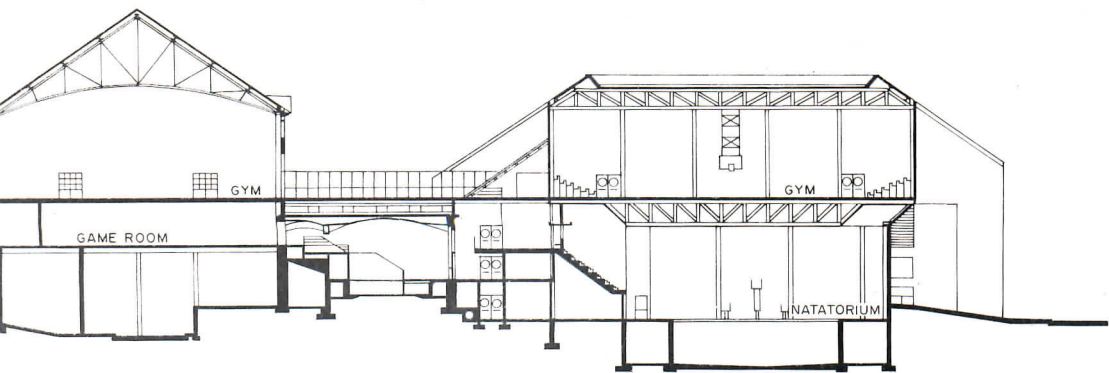
Yellow trusses threaded by blue air ducts generate a sense of drama in the airy (96 feet by 108 feet by 26 feet high) third-level gymnasium. The views from the almost windowless room are surprisingly rewarding—a projecting bay window at the north stair tower



As plans and section show, the two buildings join at two levels: through the lounge shown at left and on the bridge visible in the circulation corridor shown at right. Banners represent important Smith sports, years founded, and class colors for years.







looks down to the indoor "street." A bridge at the south stair carries pedestrians from this gymnasium to its newly renovated counterpart in Scott.

There is palpable tension in the design for the squash courts, perhaps owing in part to the constraints of the game—small (18 feet 6 inches by 32 feet by 16 feet high) court size, use of four walls for play, and difficulty of viewing the game from any vantage point but above court. The design creates considerable excitement here while exercising strictest economy. The intersection of concrete encased columns and beams, block-wall infill, and plaster court walls, traversed by oversized ducts and a narrow teaching gallery, produces the same restless shifting and sliding suggestive of historic styles like De Stijl.

Quite a different temperament is manifest in the lounge fashioned from the Scott natatorium. Where sports facilities are stripped to bare structure and surfaces left hard and often impervious, the lounge responds with carpeting, rounded foam sectional seating, and, in the raised balcony where limited food service is available, pedestal chairs and tables in the Saarinen tradition.

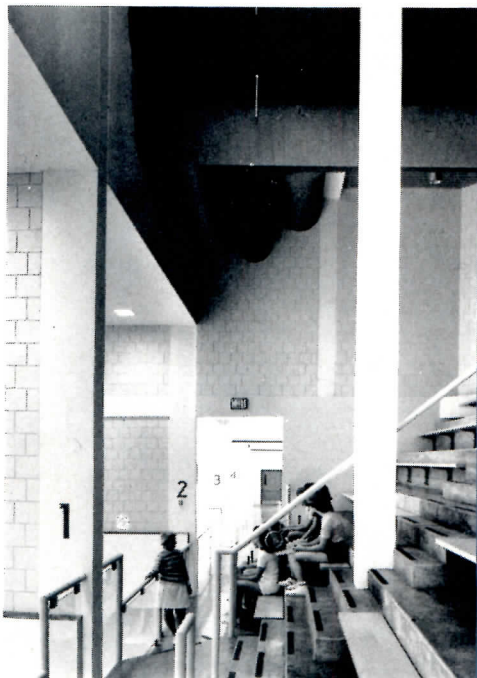
This is a most workable building, to judge from the comments of school officials. Maintenance is uncomplicated, thanks to the abundant use of ceramic tile, exposed block, and polyurethane coatings over oak plank and concrete slab. Circulation is straightforward; users consult the directory map—here a section rather than a floor plan, just once or twice to understand how the building works.

Energy consumption, based on forced hot air using heat exchangers and steam supplied by the campus central steam plant, is minimized by a highly effective (70 per cent) air to air heat exchanger that preheats fresh air with heat transferred from exhaust air via aluminum plates. (The engineer's estimated payback period for the exchanger is less than two years.)

Ainsworth is also a good neighbor. To blunt the visual impact of its 154 feet (east-west axis) by 172 feet (north-south axis) by 72 feet (pool deck to parapet), TAC stopped the brick facing common to virtually all campus buildings at the second floor spandrel. Above steel siding painted a dark brown has been applied over the steel frame. The angular facade gestures to New England vernacular.

Smith College has wasted no time assimilating Ainsworth Gymnasium and the renovated Scott Gymnasium into campus life. The buildings are busy during the school year from 7 A.M. to 10 P.M.—Roger Yee

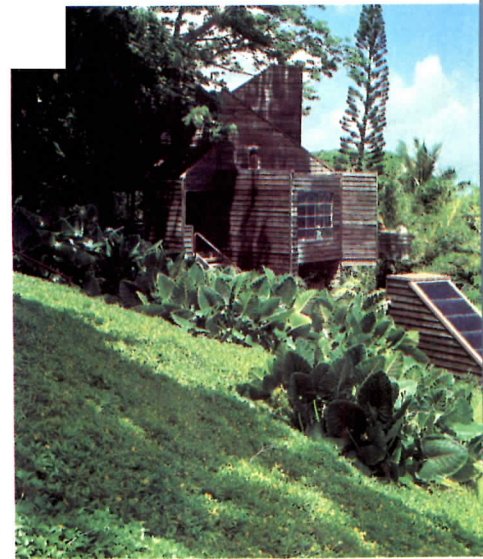
AINSWORTH GYMNASIUM, Northampton, Massachusetts. Owner: *Smith College*. Architects: *The Architects Collaborative—David G. Sheffield, John C. Harkness, principals-in-charge; James Armstrong, project architect; Mark Hammer, Toby Sirois, architectural team; Sherry Caplan, interior designer; Chuck Gibson, graphic designer; Laurence Zuelke, Terry Jacoby, landscape; Bill Robinson, supervision; Ronald Chiamonte, specifications*. Engineers: *Souza & True (structural); Van Zelm, Heywood and Shadford (mechanical/electrical)*. General contractor: *Aquadro & Cerrutti*.



Each sport receives individual interior treatment, including swimming at left, basketball and other gymnastics at right, and squash, above. The top view is of the bay window in the gym, which overlooks indoor "street."



# CLUSTER HOUSING ON HAWAII'S WINDWARD COAST



©David Franzen/ESTO photos

The young architectural team of David Knox and Beverly Hoversland decided to forego tradition by becoming their own developer, contractor, designer, and client. Together with their company, Construction Ahead, they form a design/build firm known as Zephyr Architectural Partnership that has as its aim "the realization of unusual projects that otherwise might not have been completed." Genesis, a four-unit cluster housing development, is one such project.

In 1976, Zephyr purchased 2.3 acres on a steeply sloping hillside overlooking Kaneohe Bay, on Oahu's northeastern coast. Though the views are spectacular, the configuration of the site and the presence of venerable trees precluded conventional subdivision, and the property was considered "difficult." Under a "special use" clause in Hawaii's zoning law, Hoversland and Knox devised a four-unit cluster solution that would allow for a maximum number of houses with minimal disturbance to the site. By placing the houses close together—and using the trees and existing vegetation as a buffer—both individual privacy and a generous expanse of communal recreational space (a requirement under the "special use" clause) have been achieved.

Group parking—always a problem for this building type—has been handled with discretion: the eight-car garage finds itself in a

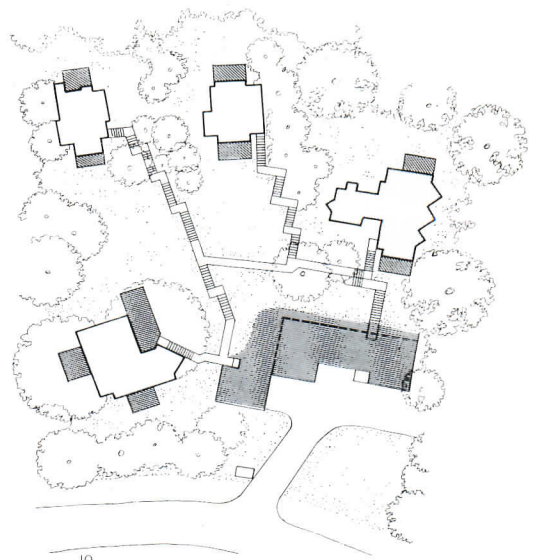
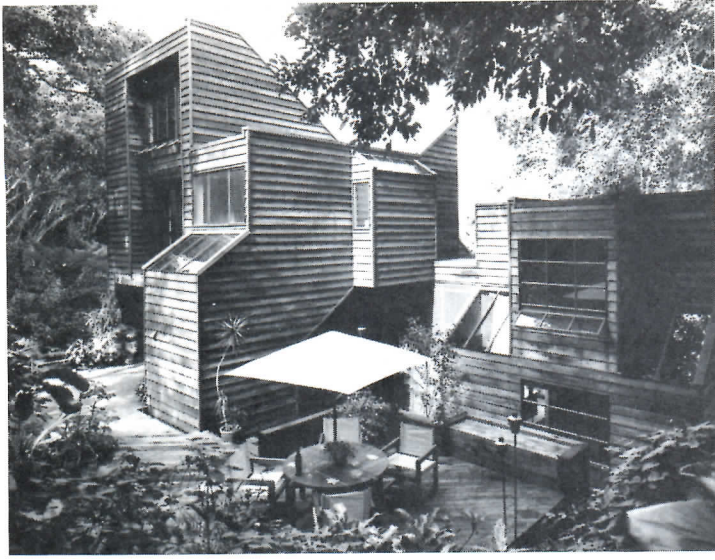
subterranean L-shaped berm, located at the bottom of the property with a 12-inch earth/sod covering. The sod camouflages the garage from the four houses (color photo top) and mounds of earth shield the cars from the road (photo above).

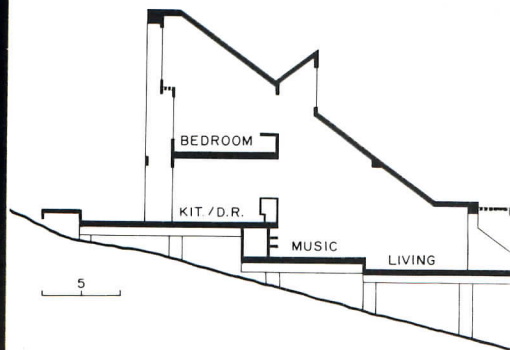
Though each of the houses was tailored to a specific client's program—including one for Hoversland and Knox—there is an over-all continuity in materials and forms. The rough redwood siding and the irregular but simple geometry of the houses provide both cohesiveness and variety.

The general plan and the specific fenestration of each house were governed by Hawaiian tradition rooted in folklore (power and spirit emanate from the mountains and flow to the ocean) and functionalism (trade-winds from the ocean provide natural ventilation). The architects' house (shown here) has generous expanses of glass opening to the ocean and the hill; the side walls are relatively closed to ensure privacy.

To minimize damage to the site, the house steps up the hill, supported by 18-inch concrete piers. And the angle of the roof is parallel to the slope of the hill, with a large "wind scoop" window to balance ventilation on the upper level (see section overleaf). The slanted roof plane and the stepping floor planes are not only a response to economics







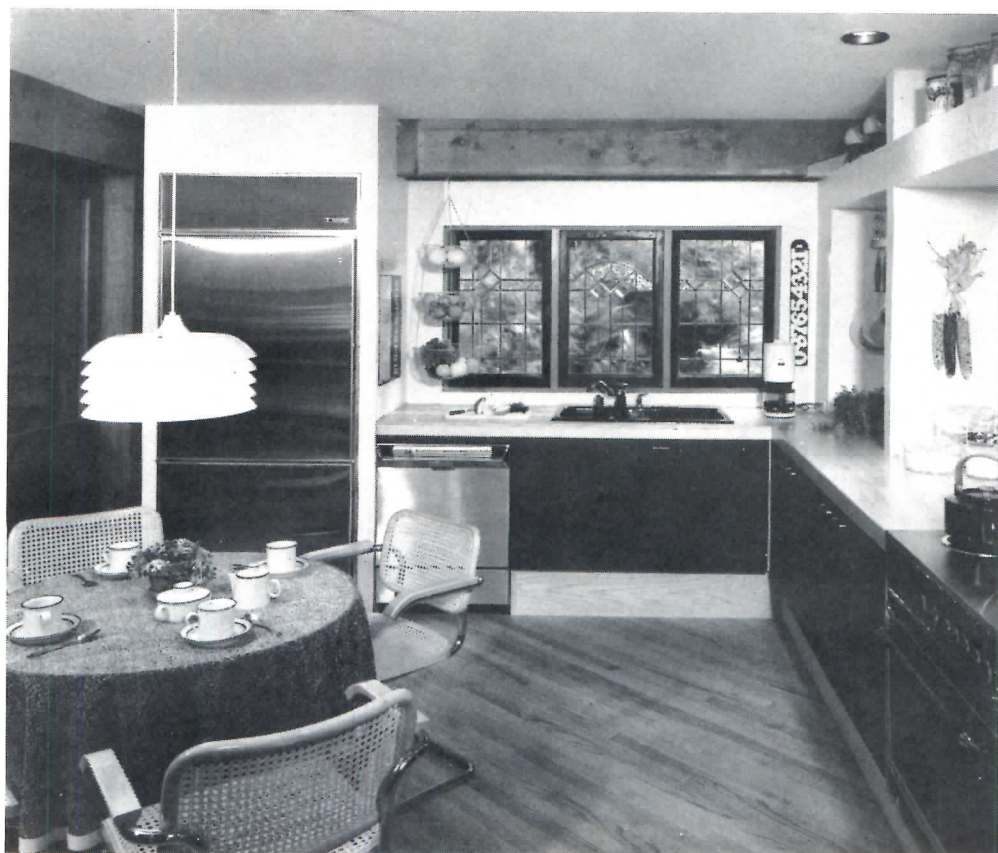
and folklore, but together serve to nestle the house comfortably against the hillside, without abrupt juxtaposition of building and site.

The more active living spaces face the ocean to capture the expansiveness of Kaneohe Bay, while the more private spaces look out onto the verdant hillside sharply climbing from the rear of the house.

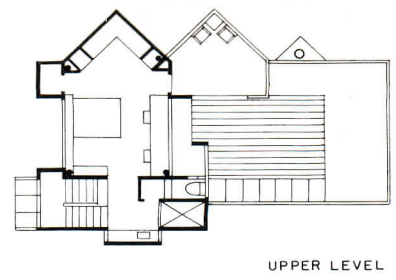
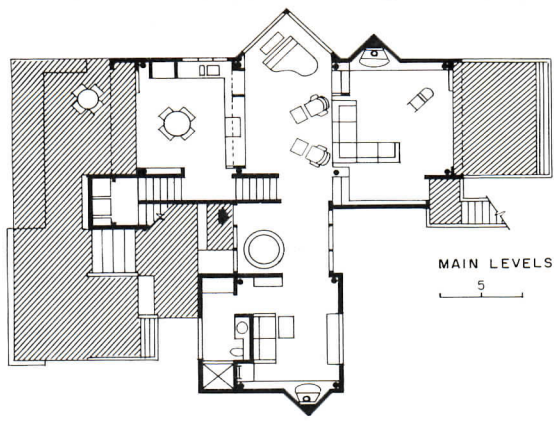
Though the house is small (1800 square feet), decks, trellises, and verandahs expand the space by opening the house to the lush surroundings. And for the interiors, the architects have left the space unobstructed. The level changes (determined by the stepped pier support), rather than walls, give definition to the rooms: even the second-floor master bedroom opens to the living areas below (photo above).

The Hoversland/Knox house is the result of the most careful thought—in plan, materials, and siting. The expression is not so much "Hawaiian" as a straightforward architectural response to the functional requirements of the region. —*Charles K. Gande*

GENESIS, Honolulu, Hawaii. Owners: *David A. Knox and Beverly J. Hoversland*. Architects: *Zephyr Architectural Partnership*—project architects: *David A. Knox, Beverly J. Hoversland*. General contractor: *Construction Ahead, Inc.*—partner-in-charge: *Jeremy T. Stewart*.

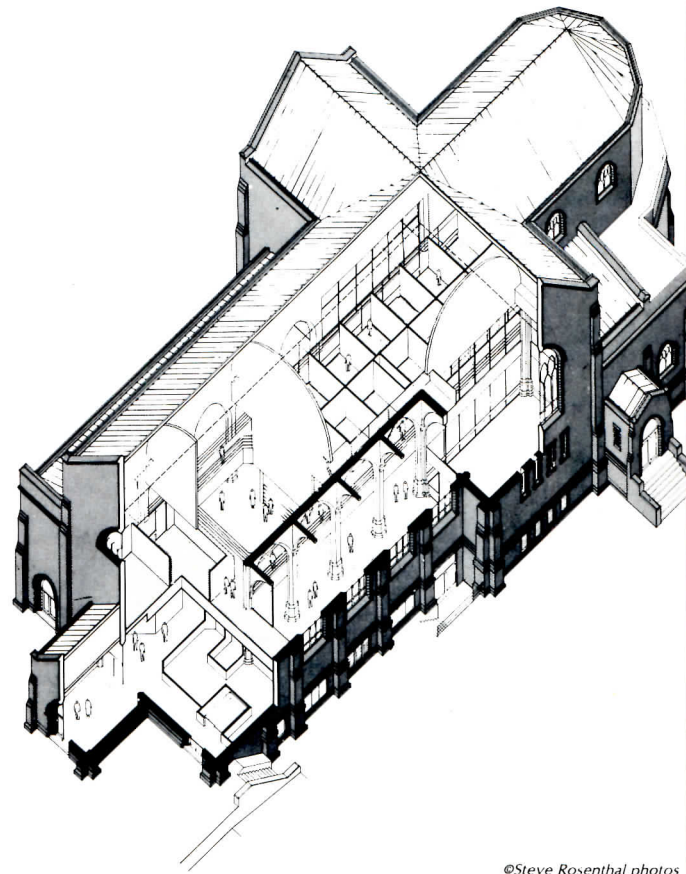


Each of the four houses was custom designed for a particular client; as a consequence, the materials and finishes are of a higher quality than in most built-for-sale houses. The interior spaces achieve their "room" status through level changes and a heavy timber fascia band that encircles the main living areas. The architects have opened the house to its tropical environs by extending the living spaces out onto decks and verandahs. The "industrial" scale of the windows affords maximum exposure to the ocean and the hillside.

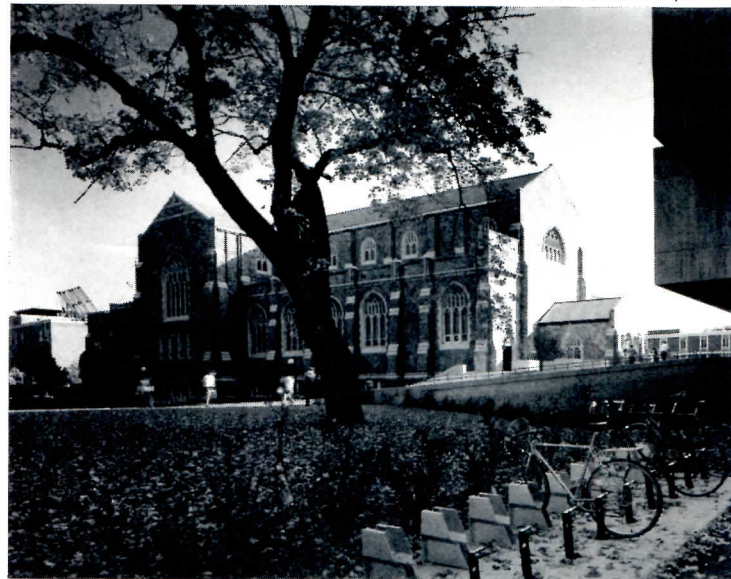


# RADICAL INTERIOR CHANGES SUGGEST NEW DIRECTIONS FOR RE-USE

Adaptive re-use usually means the conversion of older buildings into something of a similar nature, such as hotels recycled into apartments or courthouses reborn as offices. But recently there have been less likely renewals. Factories have become apartments and banks have been transformed into restaurants or discos. So it should come as no surprise that re-use now should embrace even more imaginative conversions, such as the two shown on the following pages: the Alan M. Voorhees Computing Center at Rensselaer Polytechnic Institute—once a grandiose chapel, and the Awty School—until recently a gritty oil-tool factory in Houston. In both cases, the architects have inserted complex programs requiring relatively small specialized rooms into large spaces that had been conceived very differently. But, the architects' approaches had to vary considerably for the two projects, because of the particulars of each program and because of the character of each building they started out with. Given the formal nature of the original chapel and the extensive new program requirements, architects Wallace, Floyd, Ellenzweig, Moore, Inc. had a difficult problem at RPI. But, they have saved a campus landmark, and they have done it with great sensitivity and skill, producing distinguished new spaces by using the old in very different ways. And given the basic nature of Awty's original factory, architects S.I. Morris Associates have done more than seemed possible, by making a once dismal environment into a joyful place. And, the architects for both projects, with a commendable economy of means, have had the pleasure of making something useful out of something which would otherwise have been cast off. —Charles Hoyt



©Steve Rosenthal photos



## A CHAPEL BECOMES A COMPUTER CENTER AT RPI

Rensselaer Polytechnic Institute never used this vast, collegiate-gothic-style structure as a chapel. Built in 1933 for nearby St. Joseph's Seminary, it was acquired in 1958 by RPI and used as a library, until a new one was completed in 1976.

The transformation of the building into a computer center accomplishes some worthwhile objectives: first, it preserves the over-all volume of the building as a distinguishing landmark, at what now has become the center of the campus. In fact, the older building forms the division between the two major academic quadrangles, and is a significant factor in defining the shape and character of both. Second, the architects have inserted the new functions in a way that capitalizes on the character of what they could use of the original interiors. While not using the whole, they have effectively used some of the parts; and, in doing so, they

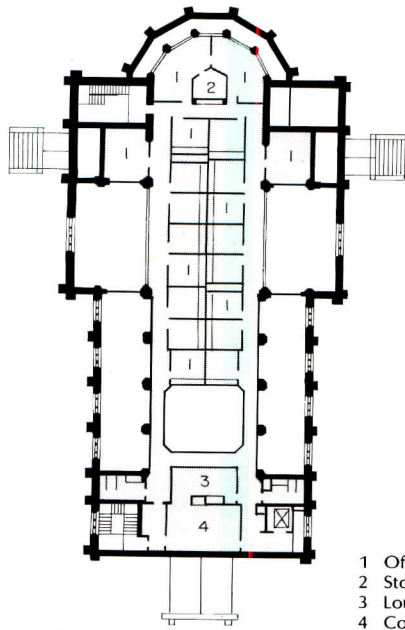




have made the spaces for the students' use far different from the sterile atmosphere usually associated with the housing of computers. There are three types of space in this center: rooms for the basic computer elements, offices for the administration, and areas for the users where—among other functions—many of the terminals that tie into the computer are located.

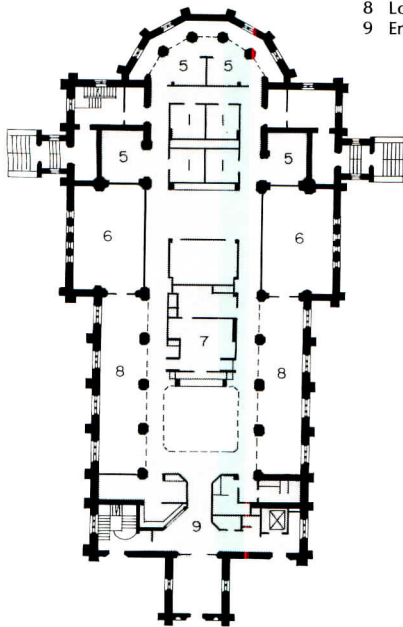
The computer is a large one. And it requires an area of limited access, careful atmospheric control, and a network of plenums—both under its floor and throughout the building—for connections to terminals in the center and in other campus buildings. The many offices were required to be private and enclosed. In starting design, the architects quickly realized that these latter uses required an assemblage of small relatively standardized building parts that would fill most of the interior volume. Also, they realized that the major problems in reconciling new to old would occur

where any new construction met the exterior walls, with their monumental stained glass windows. Accordingly, for the offices and ancillary public and administrative functions, they decided to insert a new steel-frame-and-deck structure in the form of a "glass box" that would virtually fill the nave. The computer area was placed in the basement. By these means, the side aisles were left in their original lofty form to house the only nonstandardized program component, the user spaces. Here, lockers are distributed along the narrower sections, while the terminal positions are located in the wider original transept. The spaces in the "glass box" look out over these side aisles and through the undisturbed original windows. Only the reception area (right side of photo above and large photo overleaf) extends to the full height of the original nave—the mezzanine-level offices having dropped ceilings for privacy and fuel economy.

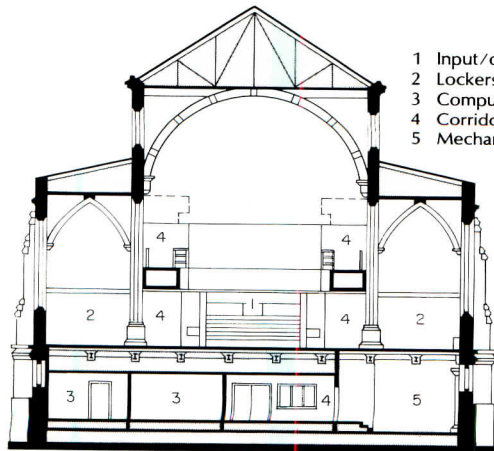


MEZZANINE

- 1 Office
- 2 Storage
- 3 Lounge
- 4 Conference
- 5 Study area
- 6 Terminals
- 7 Printer
- 8 Lockers
- 9 Entry



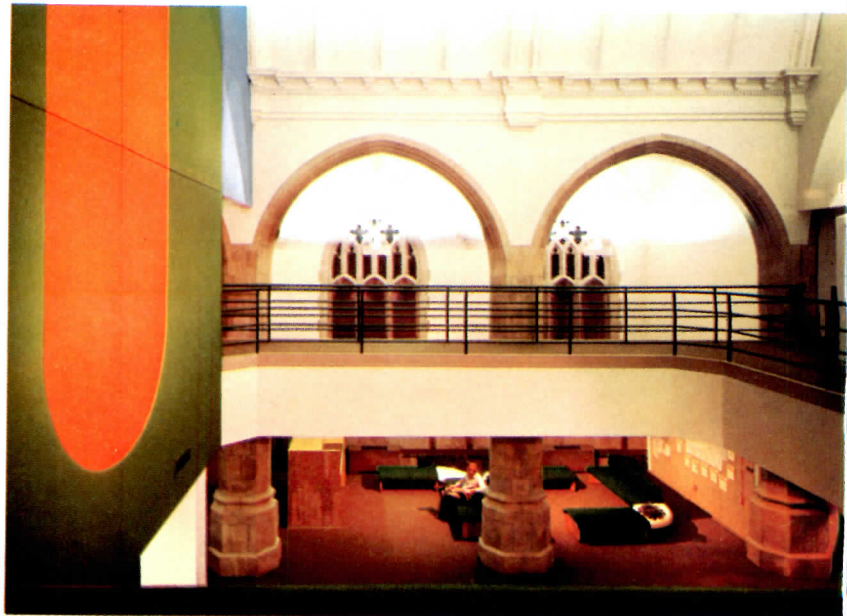
MAIN FLOOR

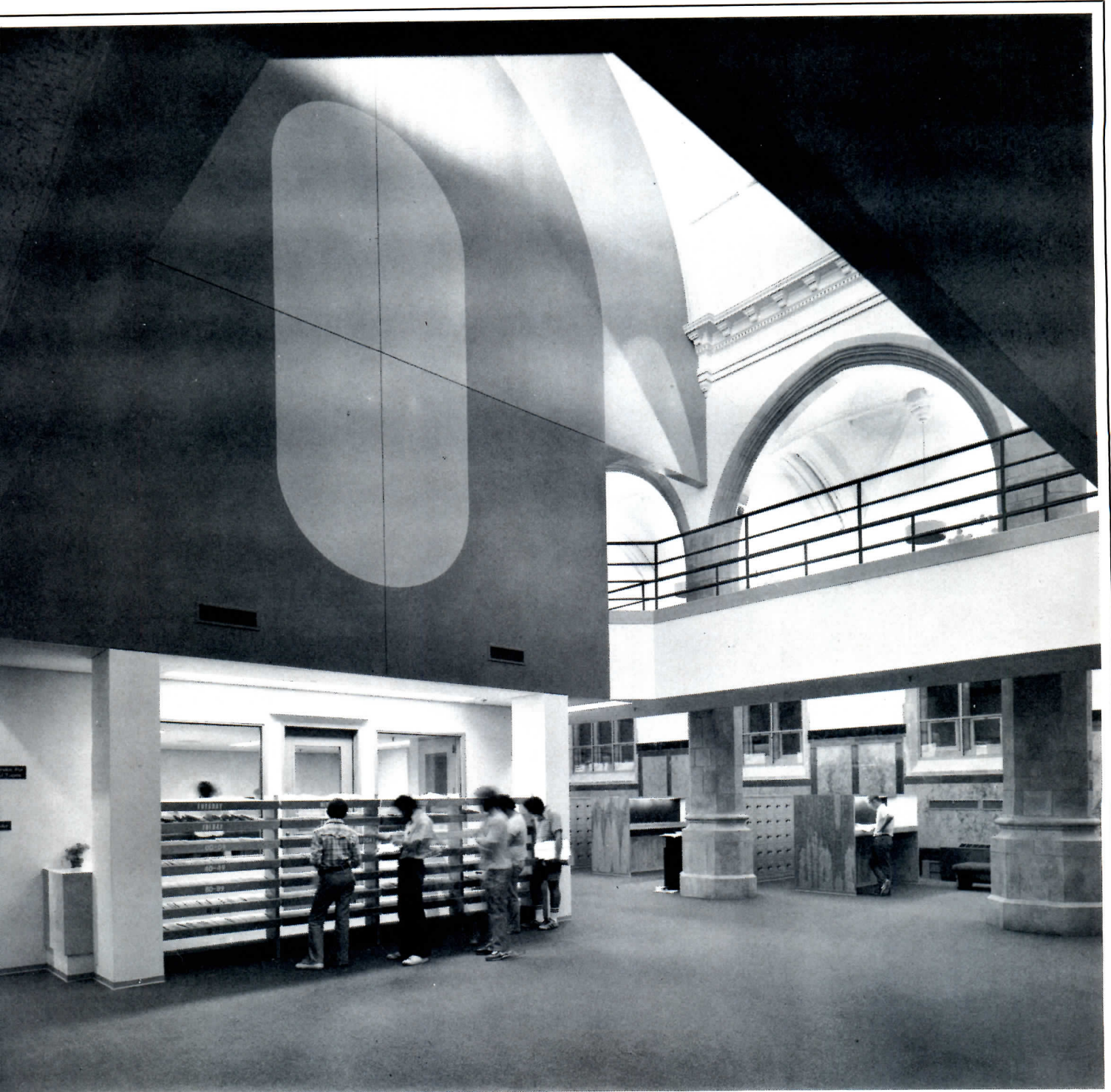


- 1 Input/output
- 2 Lockers
- 3 Computer
- 4 Corridor
- 5 Mechanical



As seen in the plans to the left, the architects filled most of the original nave, sanctuary and apse with small enclosed spaces on two levels, keeping the side aisles (photo above) in their original form. By this means, not only were some unusual original spaces rescued, but the large stained glass windows did not have to be disturbed. The reception area (photos below and opposite) is within the one portion of the nave that was not decked over, and which is shown in the section.

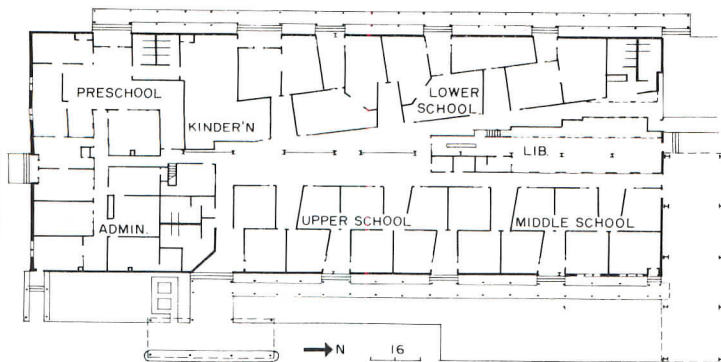
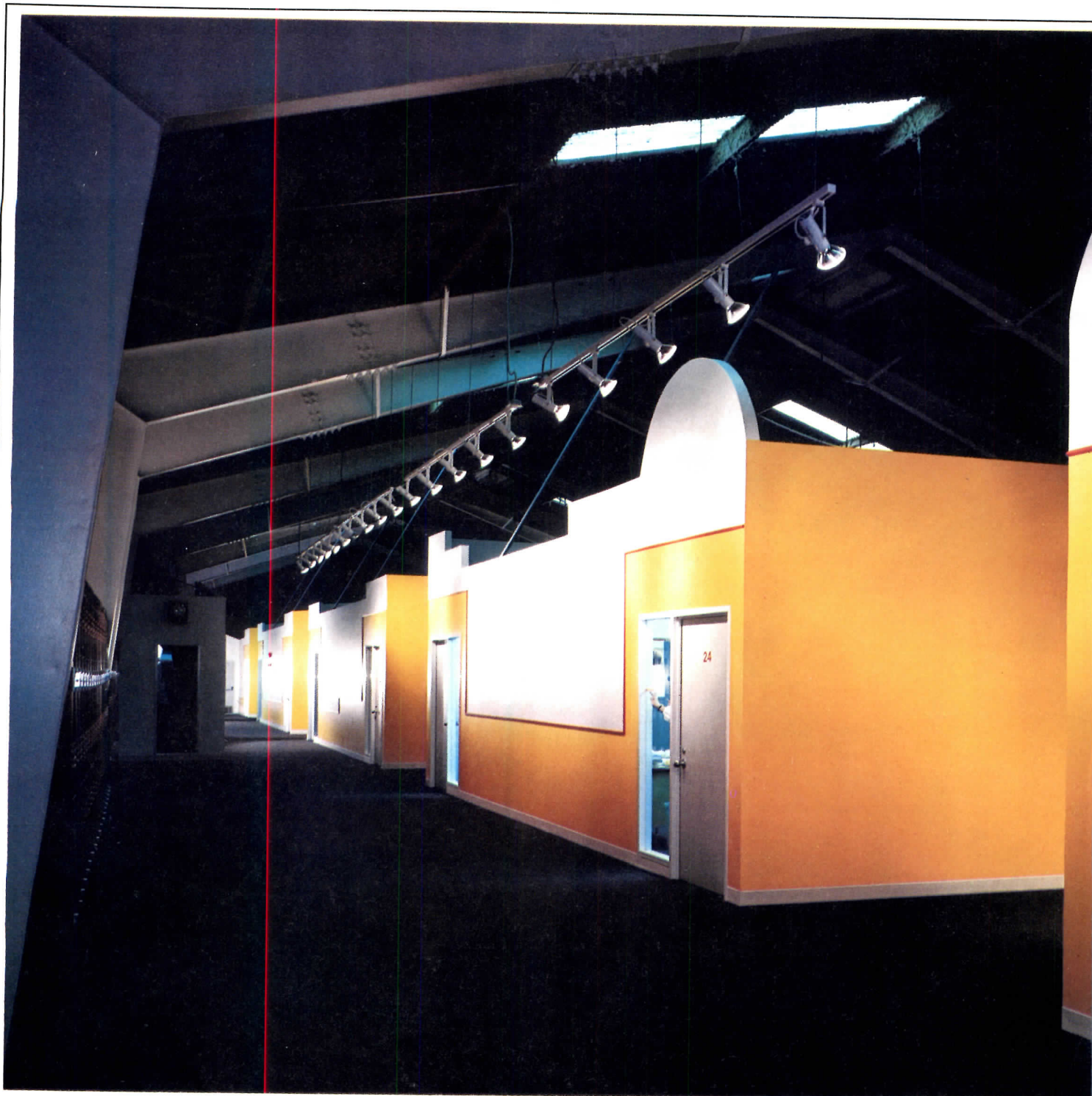




According to RPI's "in-house" architect in charge of physical facilities, Bill Winslow, "The costs compared to new construction were about equal—maybe a little more on long-term maintenance. The advantage was the high quality of the space." The costs were \$2.4 million or about \$63 per square foot for the basic construction plus carpeting. Of course part of this cost went to accommodate elements that are not immediately apparent, such as the sophisticated environment for the computer and the housing for its communications network. Another "unseen" cost was for new foundations and structure that not only support the new construction, but carry some of the weight from the massive existing columns. According to Winslow: "We couldn't figure out how the building had stood up all of these years." And where we might suspect that part of the projected additional long-term costs of a computer center with such generous volumes might lie in addition-

al heating demand, this is not necessarily so. The hvac system uses heat generated by the computer and associated machinery, and only a small amount of steam from the Institute's central plant is needed as a supplement for space heating. In a recent era, the re-use of a building with monumental interiors and weak foundations might have been termed "unfeasible," but RPI's proud new facility is a victory for architectural character and for a concept.

ALAN M. VOORHEES COMPUTING CENTER, Troy, New York. Clients: *Dormitory Authority of the State of New York and Rensselaer Polytechnic Institute*. Architects: *Wallace, Floyd, Ellenzweig, Moore, Inc.*—principal-in-charge: *Leslie Moore*; principal-in-charge of design: *Harry Ellenzweig*; project architect: *William Grover*. Engineers: *Le Messurier/SCI (structural)*, *R.G. Vanderweil Engineers, Inc. (mechanical)*. General contractor: *Sweet Associates, Inc.*



### A FACTORY BECOMES A SCHOOL

The trustees of the Awty elementary and high school in Houston did not have re-use in mind, when they began. They hoped to build all new facilities, but when it became apparent that the construction budget was not going to provide the sort of facility they desired, the architects and the clients together examined a 12.4-acre parcel with five existing metal industrial buildings that had been used to manufacture tools. Despite the fact that the complex was only five minutes from the downtown business district, it was purchased at an advantageous price. So far, only three of the existing buildings have been remodeled into the comprehensive academic facility shown here. On the exteriors of the existing buildings, the architects made only minor modifications, including "rustic" covered walks and a porte cochère. According to Aubry: "This not only saved discussions of what the architecture would be



Rick Gardner photos

like; it saved monies for the interiors." Under the exposed steel roof and among the steel columns of the "pre-engineered" academic building shown in the photographs, the architects have created an interior village complete with streets, a central square and distinguishing facades for each group of four classrooms. The profiles of the facades' rooflines are meant to be read as those of buildings, complete with bell towers and pediments.

Each group of four classrooms has a separate air handling system. Thus, by limiting the areas served, the architects could specify residential-type units, which are economical—and by coincidence, appropriate to the over-all ambience. The classroom groups are clustered around exterior porches that provide not only access, but satisfy the fire requirements for two doors in the unfireproofed building.

While the desired effect of a community of separate buildings

has been created, Aubry, project designer Pete Garrett and project architect Martha Seng, were able to build the new structures "much like a stage set"—out of gypsum board on metal studs with roofs of lay-in acoustic tile. There is lots of insulation packed on top and in both the exterior walls and those on the exterior streets. The streets are not air conditioned, and the large fans from the factory days ventilate them in warm weather. Most of the floors are carpeted, and the new walls have simply been painted with semi-gloss latex paint. The construction costs were \$23 per square foot, a little over one-third of that for a new building.

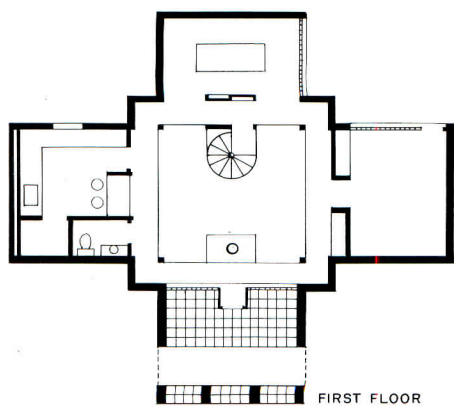
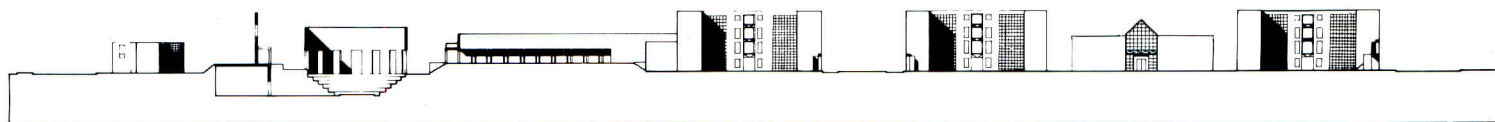
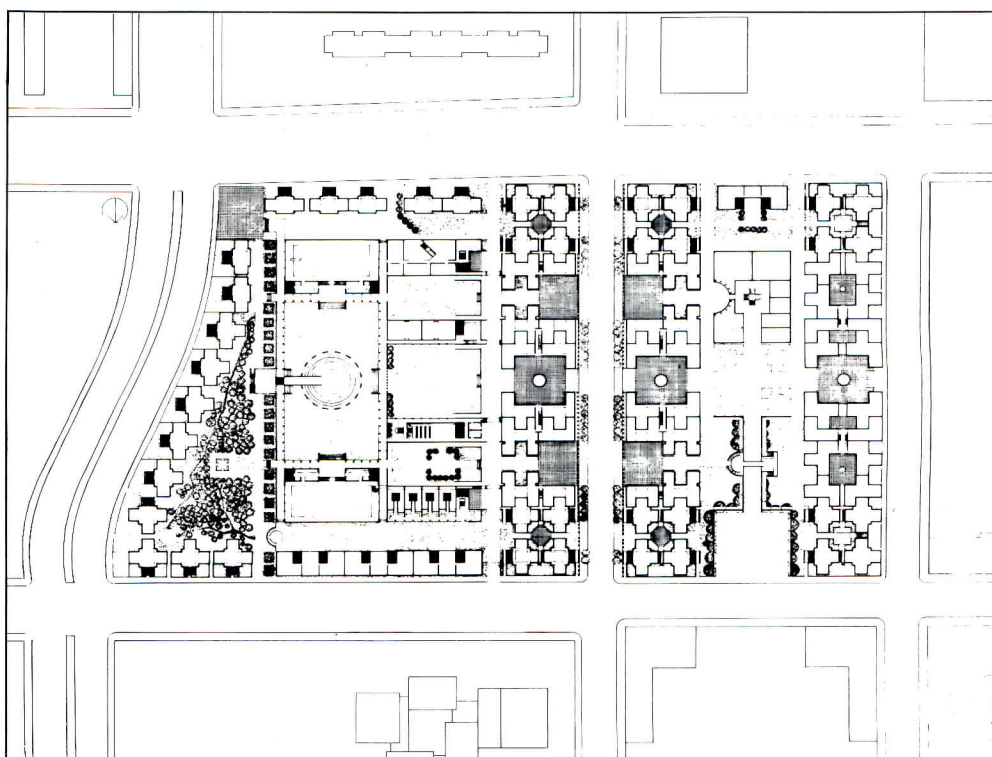
THE AWTY SCHOOL, Houston, Texas. Owners: *The Board of Trustees for the Awty School*. Architects and engineers: *S.I. Morris Associates—partner-in-charge: Eugene Aubry; project designer: Pete Garrett; project architect: Martha Seng*. General contractor: *E.G. Lowery Company, Inc.*

# Do new family concepts call for a new housing type?

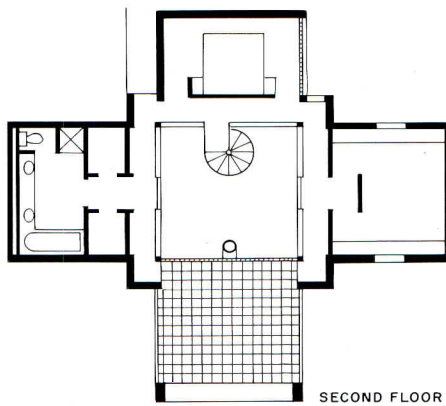
Yes, says architect Susana Torre, when discussing the overwhelming majority of current U.S. households that no longer consist of the traditional wage earning husband, the full-time homemaking wife, and two children ("Housing and community design for changing family needs," *RECORD*, October 1979, pages 97-104). She points out: "We may have not lost sight of the fact that new housing types to meet demographic changes are nothing new. It is just that this one is way overdue."

Citing a turn-of-the-century article in *RECORD* that predicted the acceptance of full-service apartment hotels, she notes: "The author asked, 'What ever are women going to do to keep busy?' It was the attitude of those times. And the attitude of these times seems to forget that the living room, for example, which assumes a homoge-

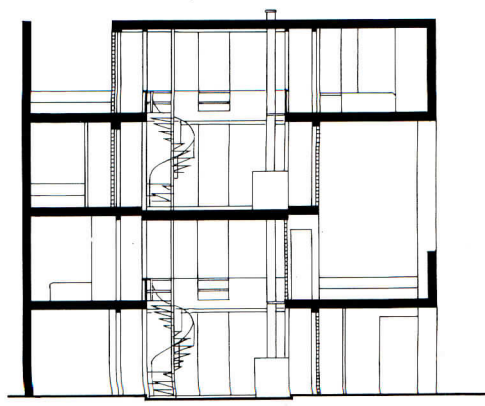
**1** Syracuse architectural students Tom Vail and Dan Whelan have loosely defined the perimeter of a two-block downtown site with the duplex house-like units shown in the plans below. These houses offer an attractive alternative to suburbia. Each duplex unit surrounds a two-story central space. A number of arrangements are possible from five- to six- bedroom units, to those which replace bedrooms with dining room, studies, offices, workshops and even a semi-private apartment. High-density rental apartments and commercial buildings are placed on the east-west axis and in other locations. Vail and Whelan got high praise from Torre for their response to urban context and for the interesting simultaneous grids they devised for the public and semi-private outdoor spaces. She thinks, however, that the students may have provided more public space than can be economically maintained.



FIRST FLOOR



SECOND FLOOR



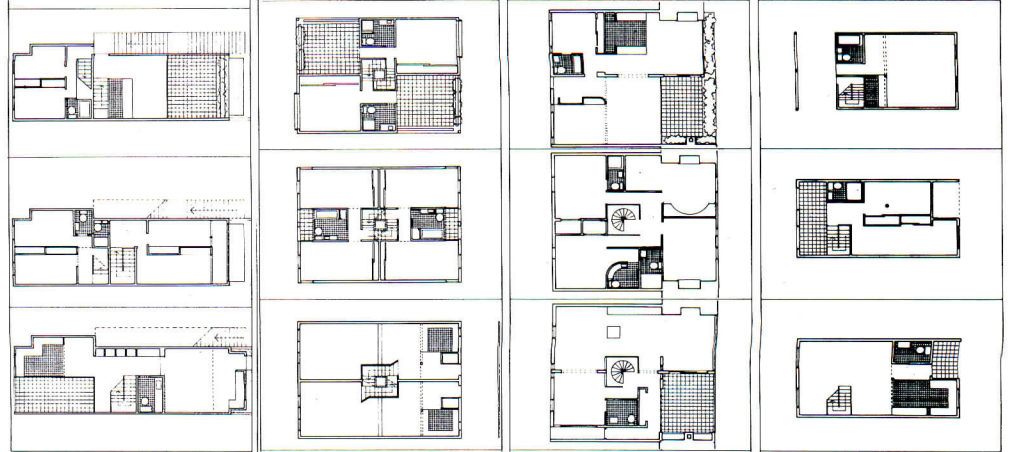
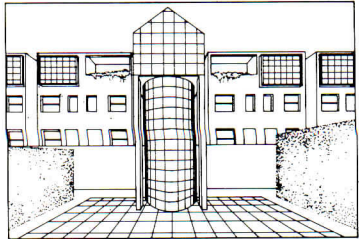
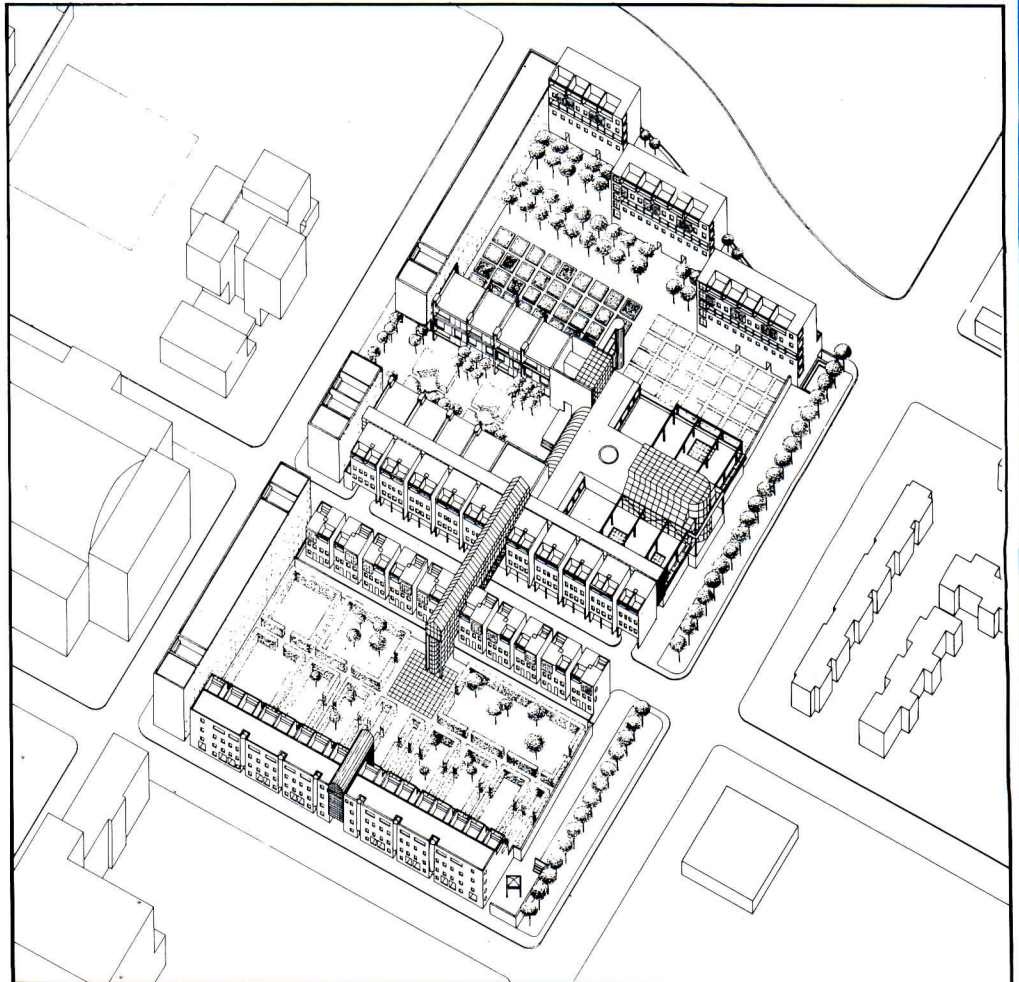
neous group of users doesn't necessarily work for a lot of people with alternate lifestyles—like busy single women, or women who have both careers and children, or singles who live together out of necessity, convenience or preference."

In order to explore what sort of housing could evolve to meet new needs, Torre conducted a one-semester studio last year at the Syracuse University School of Architecture. While the program that she gave seems quite visionary, she was very realistic in laying it out and establishing the requirements. Specifying two actual sites for potential development in Syracuse, Torre asked the students to design a complex for either one that would provide a comprehensive range of facilities for shopping and possibly even jobs. A basic requirement was the inclusion of rental office space in the complex—the principal

reason being to provide income to the complex that would contribute toward both ongoing maintenance and the over-all construction budget, calculated as a function of over-all income.

In the program, residents were designated as "families who can no longer rely on a full-time homemaker for many household chores, shopping and driving the young ones around." In order to achieve as much diversity as possible, Torre wanted two types of living accommodations: apartments and house-like units that "would appeal to two-income families, who would—under present market conditions—purchase homes in the suburbs or renovate townhouses in less desirable, urban areas." Unlike the programs given in many such studios, there was no stipulation of the kind of units that would be evolved. There was no limit as to whether there would be housing on

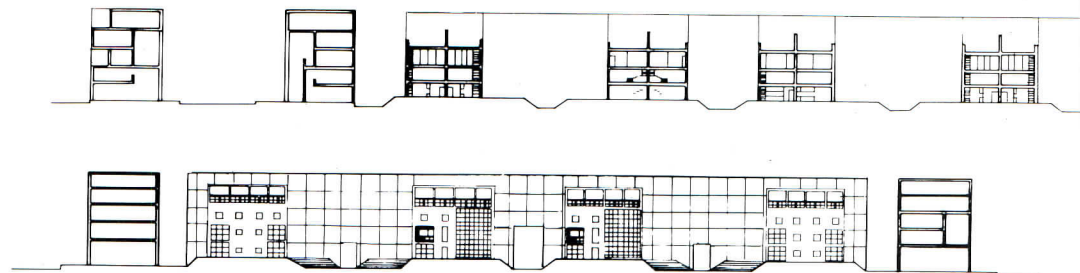
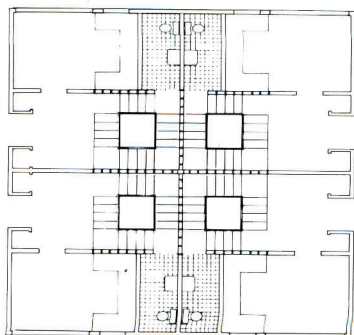
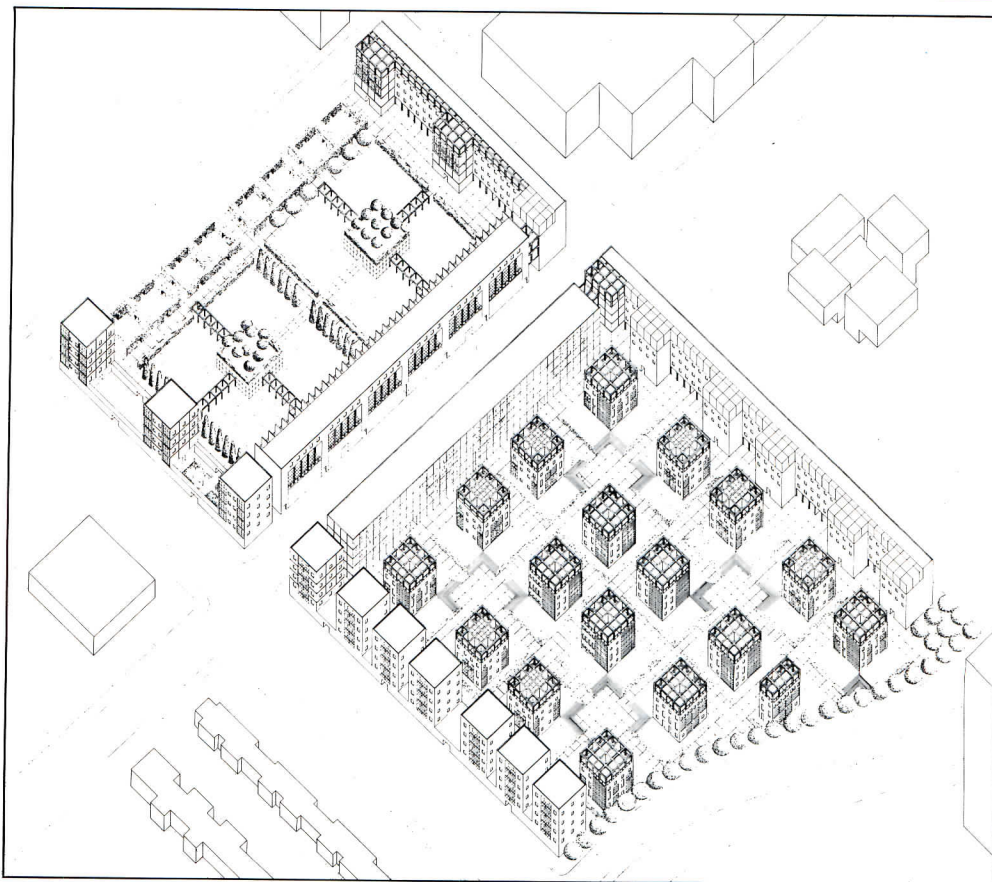
**2** Student Jeffrey Hill selected the same downtown site as Vail and Whelan but handled it very differently. He has designed a variety of townhouse types instead of the single, more flexible unit of the Vail and Whelan scheme. He has placed increments of three interlocking apartments in one linear terrace building along one end (bottom of isometric). Townhouses and a large physical-fitness facility with a glass roof are in the middle of the site, while three low-rise apartment buildings are stepped along the top. Most commercial facilities are located on the outer edge (left in isometric), allowing a high percentage of land for residential use. Accordingly, square parterres near the apartments can be used for individual vegetable gardens, and there are a variety of private and semi-private spaces. Parking is located under the townhouses along the central street. The one major inclusion of public space is a forecourt, which relates to the Everson Museum. While Hill got high praise from Torre for his use of the land, she questioned the inclusion of the pedestrian bridge (sketch below) linking the two sites. "Who would pay for it?" Similarly, the units—while often ingeniously worked out—are more traditional in their plan arrangements and might not allow for the kinds of changing domestic relationships that the program was to address.



the site perimeters, in central blocks or on mews. In fact, Torre was most interested in students' concepts of how the residents would live and how they would relate to each other and to the new environments. "One of the assumptions of the program was that it is possible and desirable to create housing alternatives within an urban context that would support the practical and spiritual needs of working women and their families—while maintaining the direct contact with nature and the sense of 'house' as a recognizable detached object, a concept deeply rooted in the expectations of Americans." Rather than housing for such disadvantaged groups as the poor, this housing was designed for those disadvantaged by preconceptions. And she points out that innovation has been traditionally developed in housing for the middle-class.

While readily admitting that some of the elements of the solutions shown here are not too practical, Torre defends the response to urban context that may puzzle some readers, and that are described in the captions for the individual projects. Most important, she emphasizes, are the physical responses to the social problems of non-standardized lifestyles. And all of the solutions shown exhibit some common elements that offer general solutions. First of all, the rooms have been designed to be used in flexible ways. Most of the solutions offer as many living-bedrooms as there are rooms, except, of course, for the kitchens and baths. Or there can be one living room and large, sometimes shared, bedrooms or retreats. Furniture can be arranged in many different ways, because all of the rooms are good sized and without explicit places that the furniture must go. Similarly

**3** William McDonald placed all of the offices and ground-floor commercial space in linear buildings along a street which faces the War Memorial, an important Syracuse landmark, and the Everson Museum on the adjoining block. This commercial strip is adjacent to the downtown business district. A continuous structure, comprising offices and stores, also follows the street, which bisects the site. Buildings for apartments are placed on the other long side of the site, leaving much of the site free for other uses, such as a public park containing two childcare centers in the smaller block. On the larger block, McDonald has placed a grid of walkways and earthmounds supporting four-family houses. Inherent in the planning of each house is the intention that all four families have apartments with a variety of orientations. To accomplish this, McDonald has faced each of the three floors of a family unit and their rooftop terraces to different points of the compass, interconnecting them with stairs. The rooms are regular in size, and changeable in use. The disadvantage of this particular solution, however, is found in the relatively large area taken up by the generous stairs, and the fact that stairs must be used to reach most rooms.





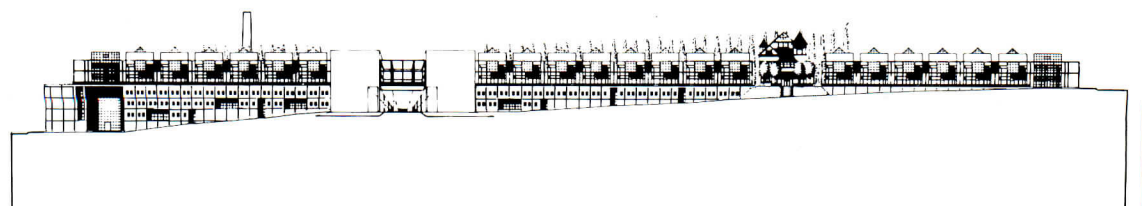
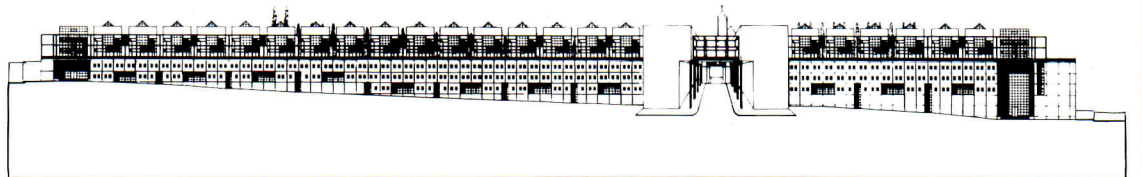
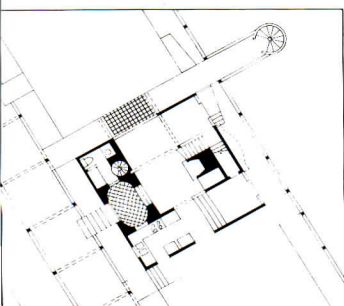
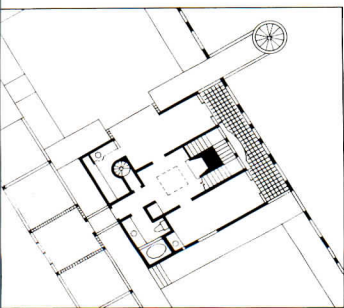
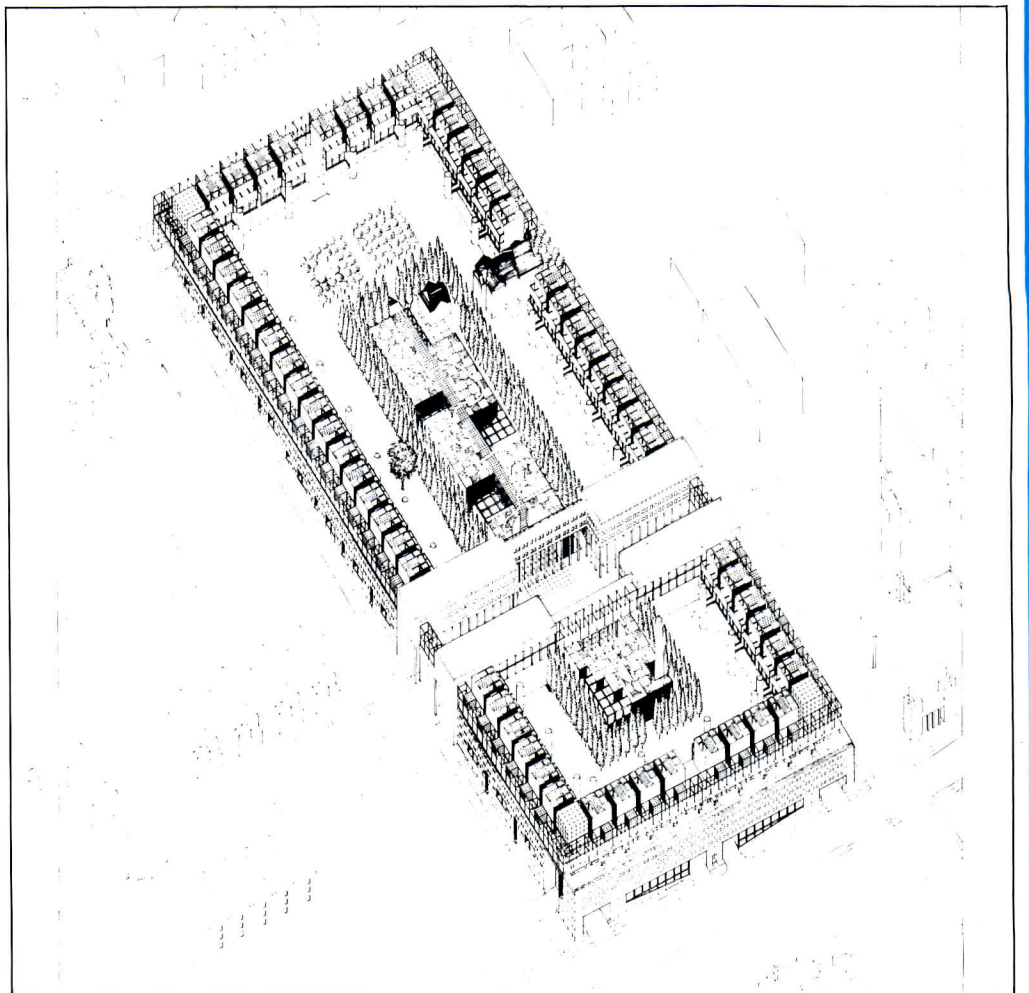
the relationship of the rooms is unspecific in describing use. "With some exceptions, rooms lend themselves equally well to being bedrooms, living rooms, workshops or offices, as opposed to the normal detached house that has clearly defined living and sleeping sections that will not convert easily."

The reasons for this flexibility are meant to answer these functional problems as well as what Torre sees as the primary problem with current housing types. "Today there are only the notions of complete privacy or complete togetherness. But the new families need to have such distinctions defined in more subtle ways, if they are to avoid frictions." Similarly, there was extensive study of the kind of kitchens that would work for several cooks at one time, and who might be guests or new additions to the family. "The old triangle

concept of refrigerator to sink to stove does not work. The best model is a restaurant kitchen, with open shelving so that everyone knows where everything is, and can reach it easily. Have you ever tried to work in someone else's kitchen, and been totally frustrated by not knowing what you are working with? There is a lot of development to come in this area."

And in fact, she realizes that there is a lot of development to be done before the new housing type emerges. "I am *not sure if the ideas shown here will really work*. We won't know until we have tried them, but they are a good start. In the final analysis, architecture can't save society, but it can certainly go a long way toward helping to do some of the things that we want to do." At the very least, Torre wants to get people talking about the problem. —*Charles Hoyt*

**4** Students Ray Beeler and David Leonard used a different two-block site in Syracuse. They have located almost all of the new construction along the perimeter, so that most of the land is left for outdoor use. Very elegantly designed penthouses offer another variant on the individual house theme. These crown the perimeter apartment buildings, and have an extremely flexible designation of rooms—including a loft on the top level that can be finished in any manner that pleases the occupant. Only two of the four ancillary spaces are definitely meant to be bedrooms. Access to the internal shared garden is by circular flights of stairs, serving paired penthouses. Commercial buildings are placed along the bisecting street. A large physical fitness center is located in the larger block, and a restaurant in the smaller. A Victorian house and stable upper right would be saved for community activities.

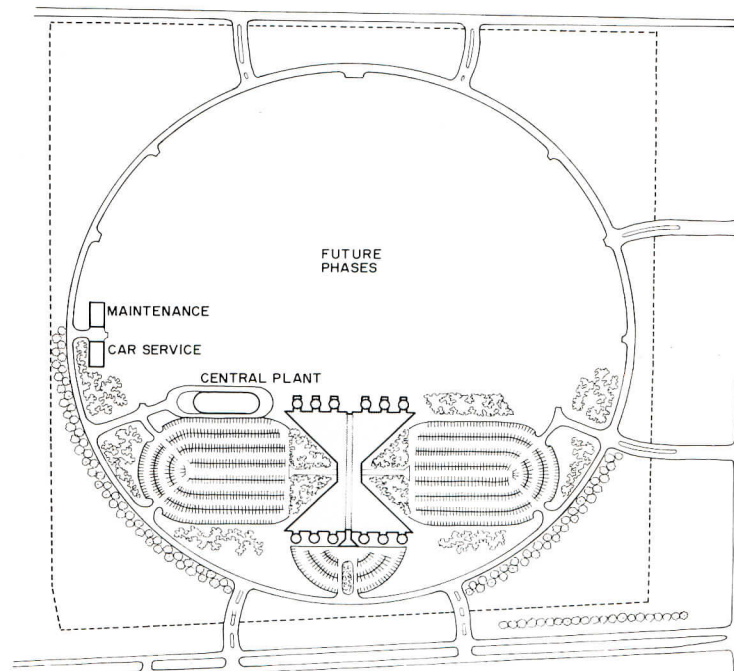


# LOW-RISE OFFICE BUILDINGS

Each of the three office buildings that follows was designed for an owner whose insistence on quality was adamant. There were good reasons for that insistence. For Brown & Root, for the Prudential Insurance Company of America, and for The Evans Partnership, design quality was an investment in employee comfort, dignity and productivity. But it was also, very clearly, intended as a clue to the quality of services that each company offers as well as an important tool for selling those services. For example, The Evans Partnership—a successful firm of New Jersey-based builder/developers—finds that their new headquarters is an astonishingly effective sales tool. “We don’t even need a brochure anymore” says Evan’s Michael Shure. “The building itself is our logo . . . we used to have to drive potential clients all over the place to show them what we were capable of producing. Now it’s all right here.” He goes on to add that space in the building—and others in the same office park by the same architect—almost rents itself, and that design quality has proved contagious in that it has forced rival firms to upgrade their product in order to stay competitive.

All three buildings meet, and in some cases exceed, the requirements identified in their programs—and with that sense of conviction and even inevitability that so often characterizes good design. —*Barclay Gordon*

**Morris\*Aubry  
and Brown & Root  
pool their talents  
to create new offices  
of low profile  
but high visibility**



At first glance, there is a fierce formality about this new headquarters for Brown & Root, a firm of engineers and builders home-based in Houston. The building designed for them by Morris\*Aubry Architects is actually Phase One of a three-phase complex in which the two identical increments to come will be aligned on the same axis to create a more or less complete north-south diameter within the circular ring road that encloses this 100-acre site west of downtown Houston.

What is built already, however, is sufficiently complete and self-contained to warrant examination. The "bow-tie" or double-deltoid shape of the plan is the result of a determined effort to give character to (and break down the scale of) floor areas of

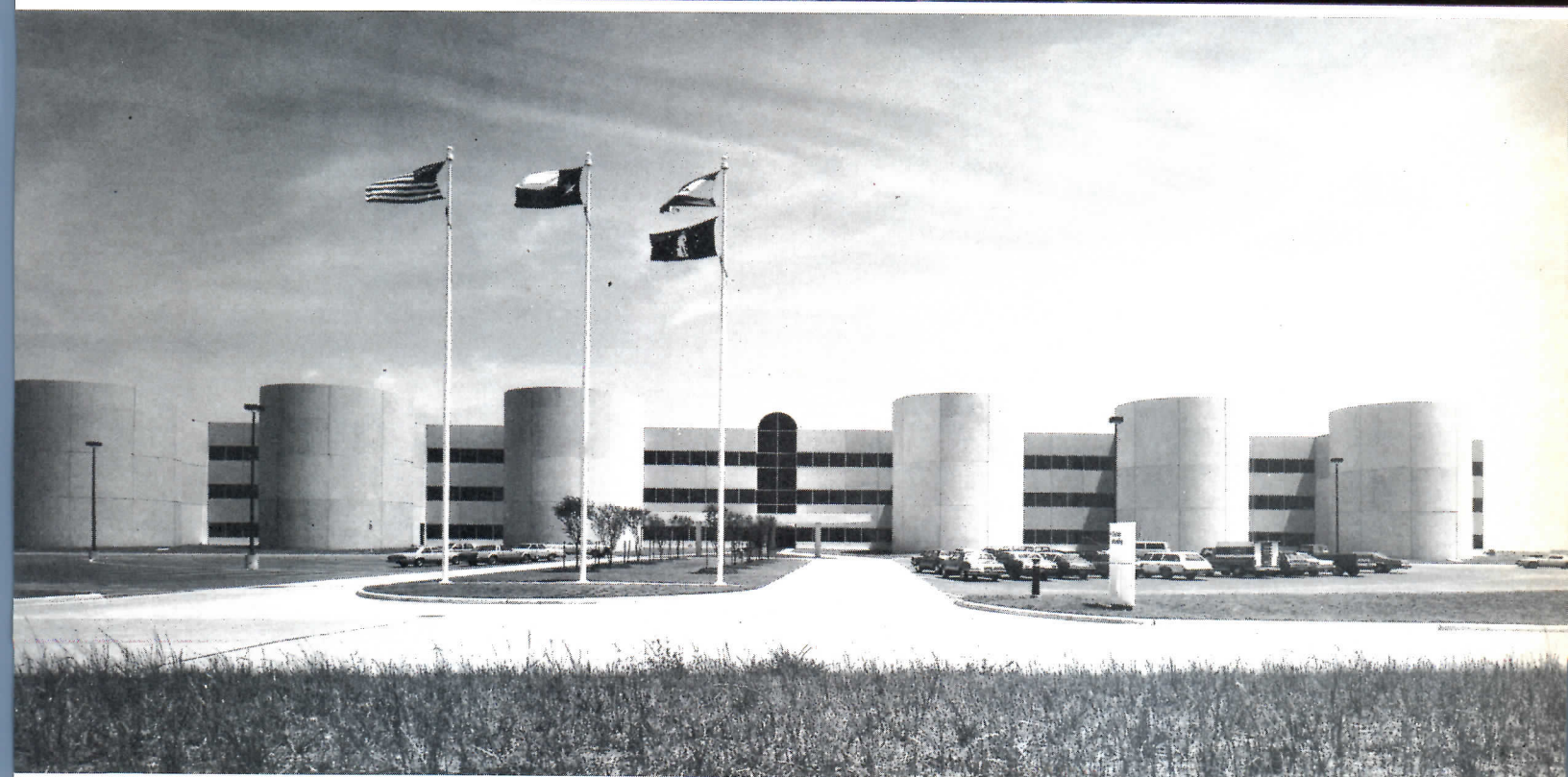
150,000 square feet that are otherwise undifferentiated. By pinching each floor area at its waist, so to speak, two sections of 75,000 square feet result. And by further sub-dividing each with an atrium that runs the full length of the building, each of the four resultant work areas was reduced to 37,500 square feet. How do you sell triangular work areas to engineers with square desks? It was a problem that worried designers needlessly. Brown & Root liked the idea immediately, seeing that it enhanced the volume's spatial interest and brought with it no penalty in lost square footage.

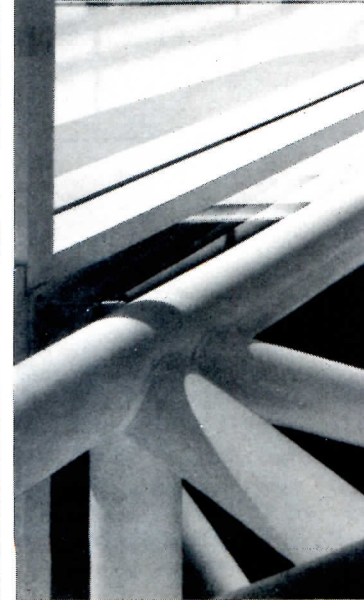
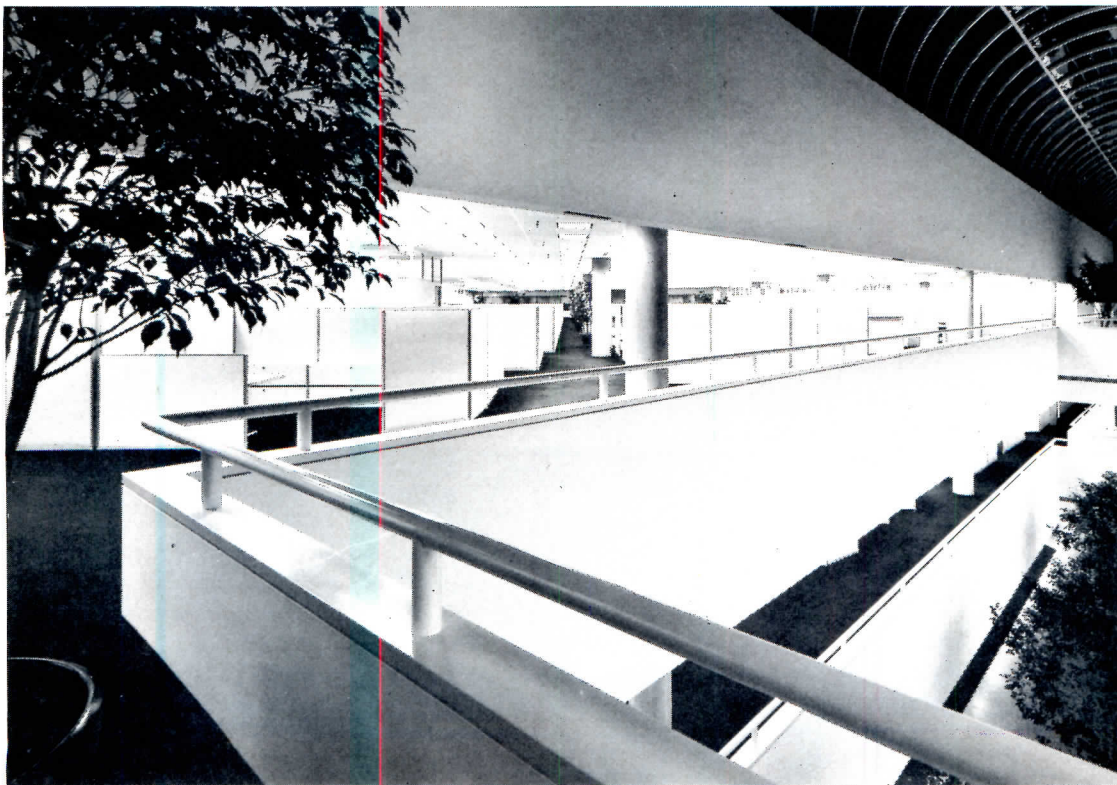
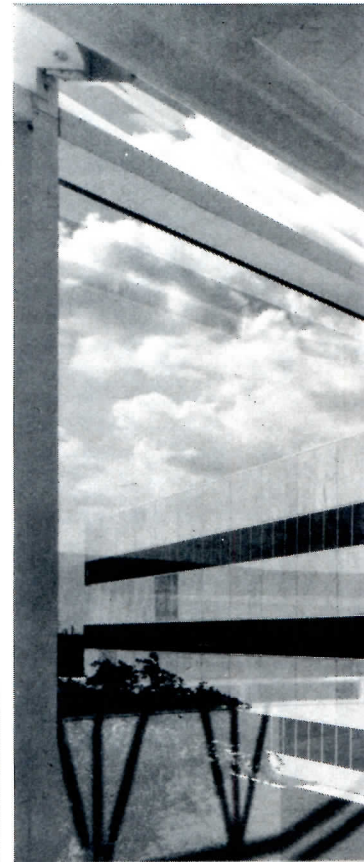
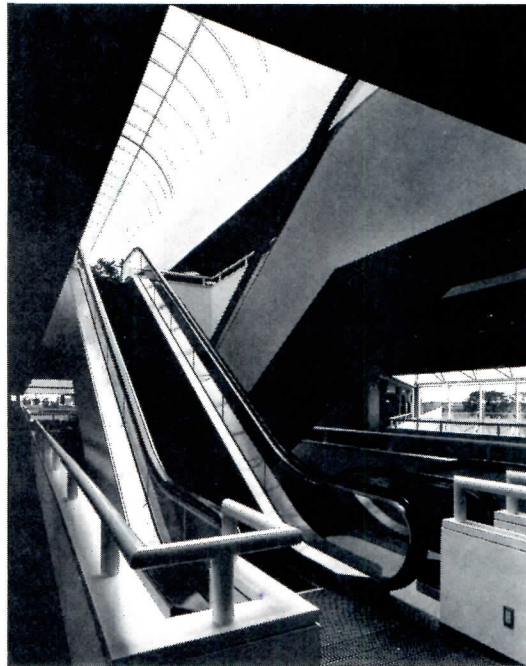
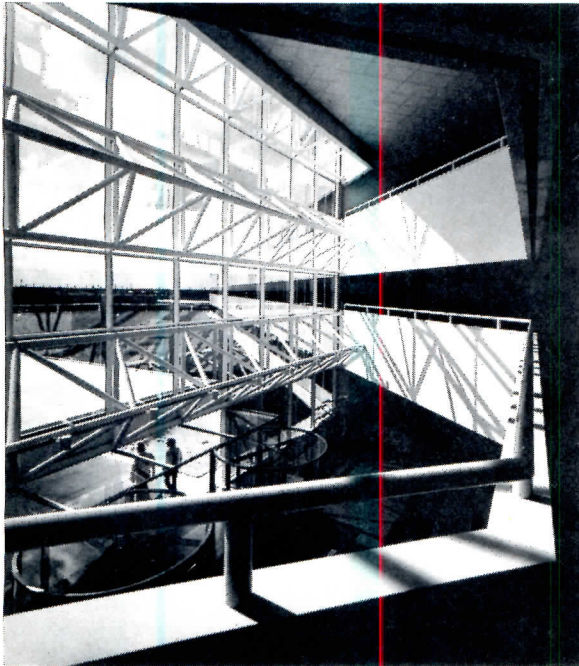
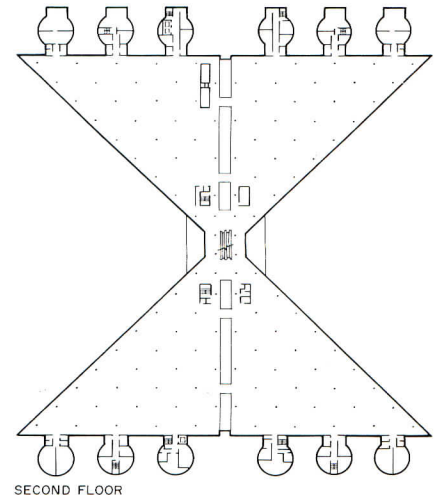
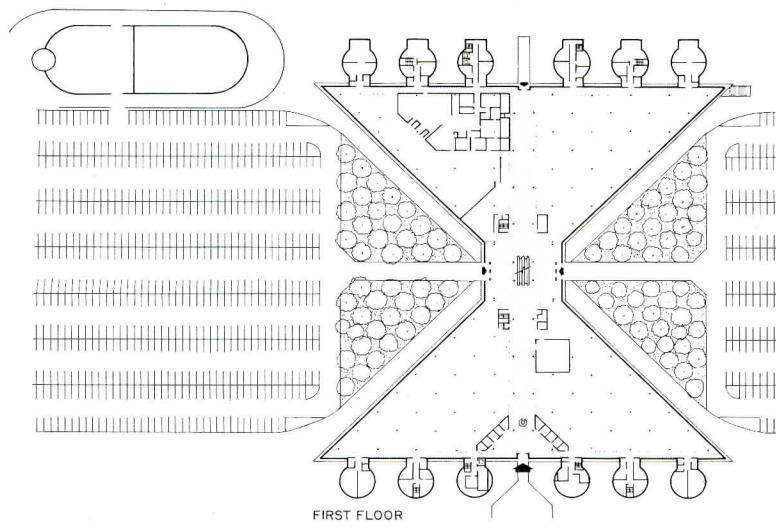
Movement within and between the workspaces was essential since project teams are constantly regrouped. For this reason the

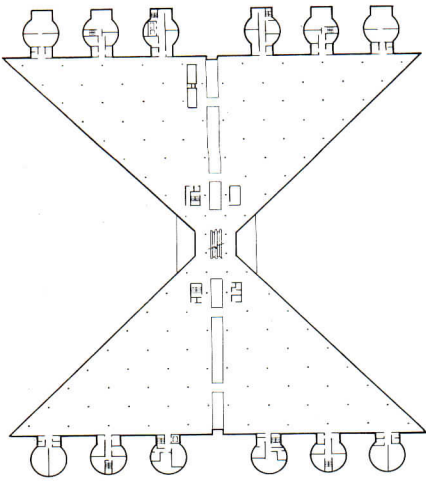
cores—housing washrooms, fire stairs and storage space—were drawn to the perimeter where they are expressed as drums, and the geometric center of each floor is reserved for an escalator. Around the escalator is an atrium that is capped by a continuous aluminum-and-acrylic barrel vault nearly 500 feet long.

Window-to-solid-wall ratios are in the range of 1 to 3, typical for new buildings of this type in Houston. Since there is no great saving in energy that comes out of this ratio, Brown & Root have sought it elsewhere. They have instituted a "van pool" in which the company furnishes vans to employees who bring their fellow employees to work and drop them home in the evening. The

*Rick Gardner photos*







THIRD FLOOR

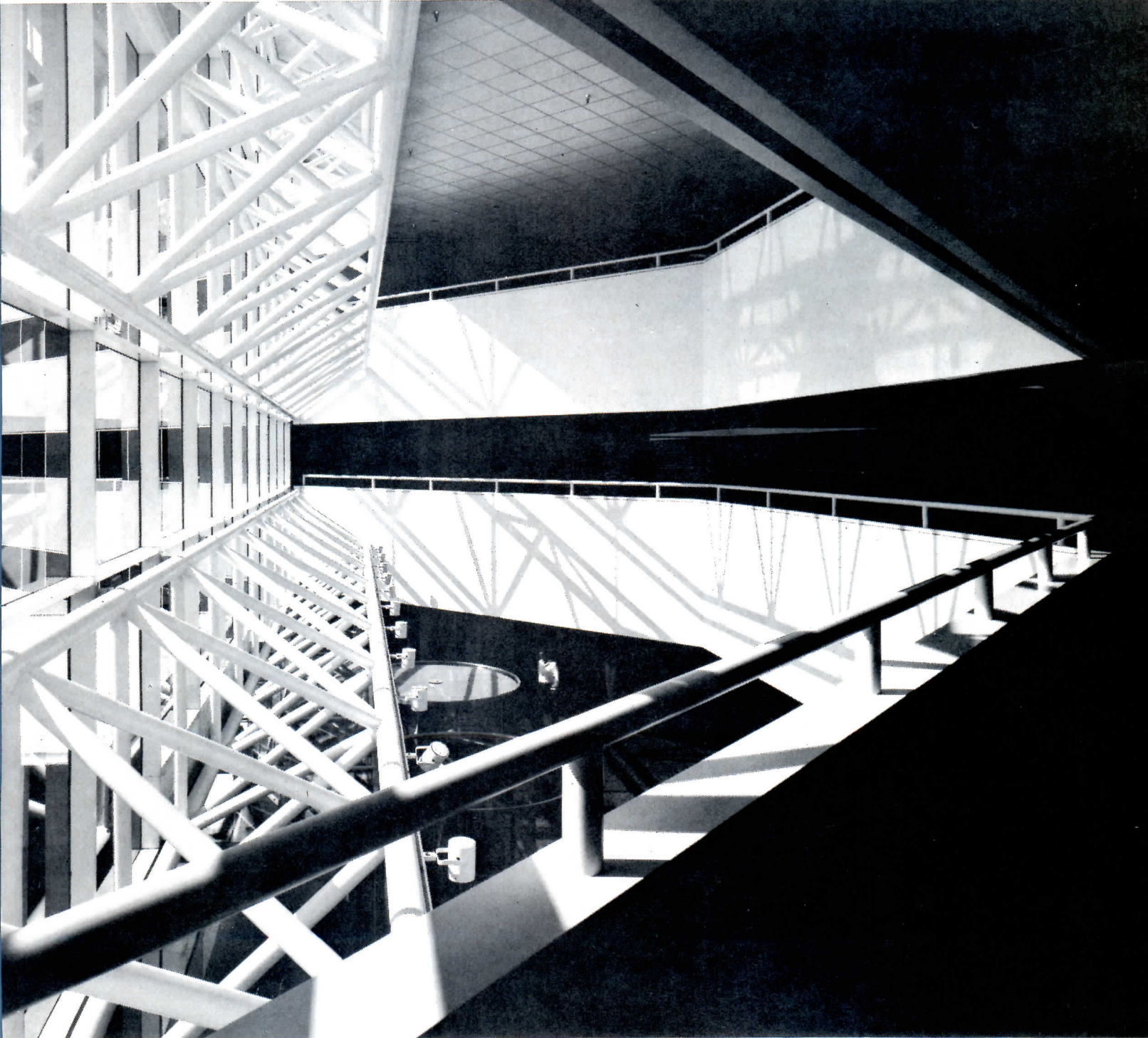
large parking lots, therefore, are seldom full.

The building's structure is straightforward: poured-in-place columns on 30-foot centers, exposed aggregate spandrels and drums precast on the site. The only structural element that is unexpected is the system of three-dimensional trusses (large photo below) that substitute for massive mullions in stiffening the three-story-high walls of reflective glass at the building's entrances. These trusses, more than 100-feet-long and visually compelling, are carefully placed so as not to interfere with views from any level.

What the architects have accomplished is considerable. They have provided a vast area of highly functional workspace in a container of lively architectural form. And they

provided a surprisingly high numbers of amenities—all at a budget that was far from extravagant.

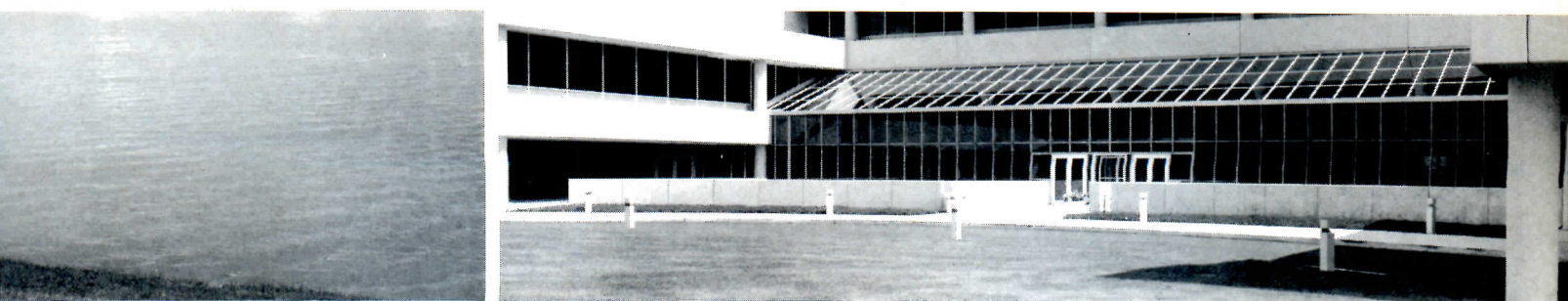
SOUTHWEST HOUSTON OFFICE FACILITY FOR BROWN & ROOT, Houston, Texas. Architects: *Morris \*Aubry, Architects—Eugene Aubry (partner-in-charge (design); Roderick Jones, Michael Shepard (project managing partners); Carl Aeschbacher (project architect)*. Engineers: *Walter P. Moore & Associates (structural); I.A. Naman & Associates (mechanical)*. Interiors: *Morris \*Aubry*. Graphics: *Hauser Associates*. Landscape architects: *Charles Tapley Associates*. Planning and traffic consultants: *Williams and Crawford*. Construction manager: *Brown & Root*.





The cafeteria, designed for a capacity of 500, is broken down into a series of sub-spaces. Separate food service areas are linked with various menu categories. Seating areas are fully carpeted. The photos at right, taken at mid-height in the atrium, shows the breakdown of work areas and the termination of the 500-foot skylight.





# For owners, for architects Holabird & Root and interior architects Powell/Kleinschmidt, the design of Prudential's new offices in Indiana

HOLABIRD & ROOT ARCHITECTS

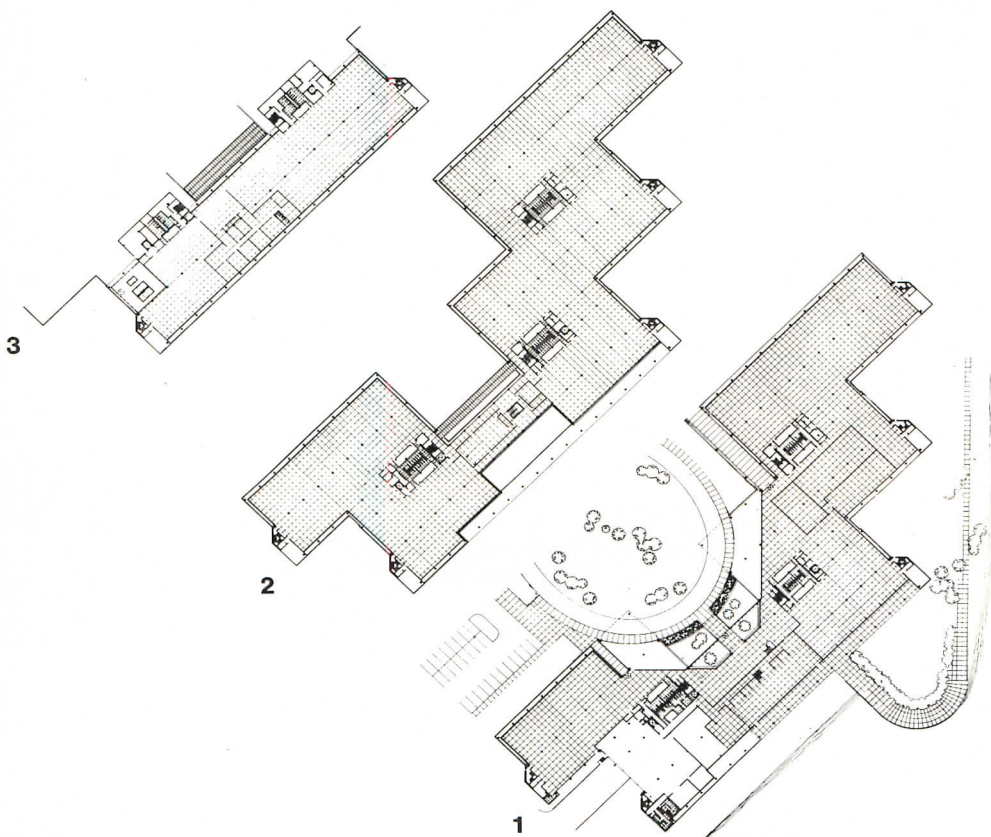
perimeter, to space that in more typical installations is reserved for management.

The building's public spaces have been shaped and furnished with the same concern for the comfort and dignity of employees. The entrance lobby (photo below right) is traversed overhead by a bridge that links the upper level work spaces and serves as a magnet for employees who linger and socialize at lunchtime. The cafeteria (photo next page) is high-ceilinged, comfortably appointed, and blessed with enchanting panoramic views of the park and lake.

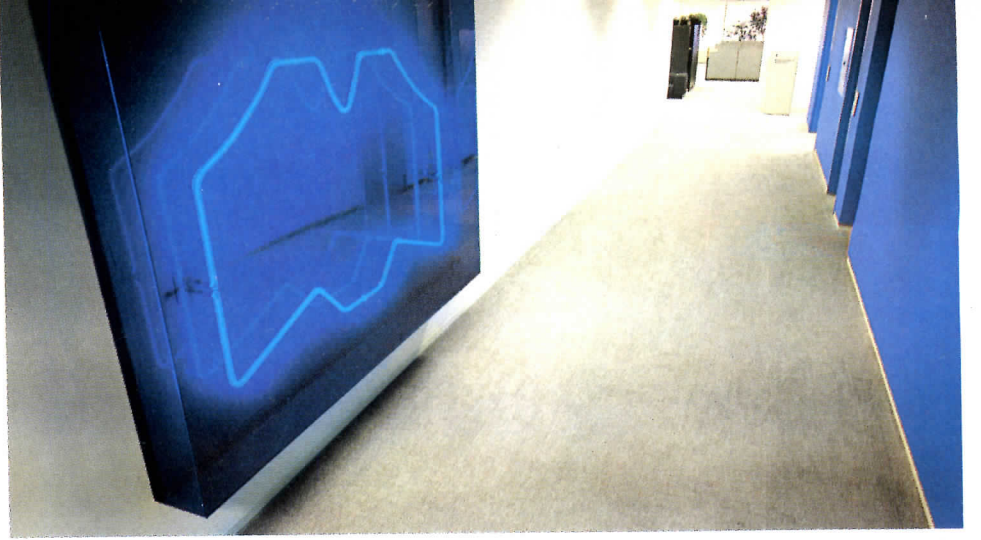
Hierarchical values are spelled out in detail through the selection of finishes, furnishings and accessories—and just as clearly as in any organizational chart, but a deter-

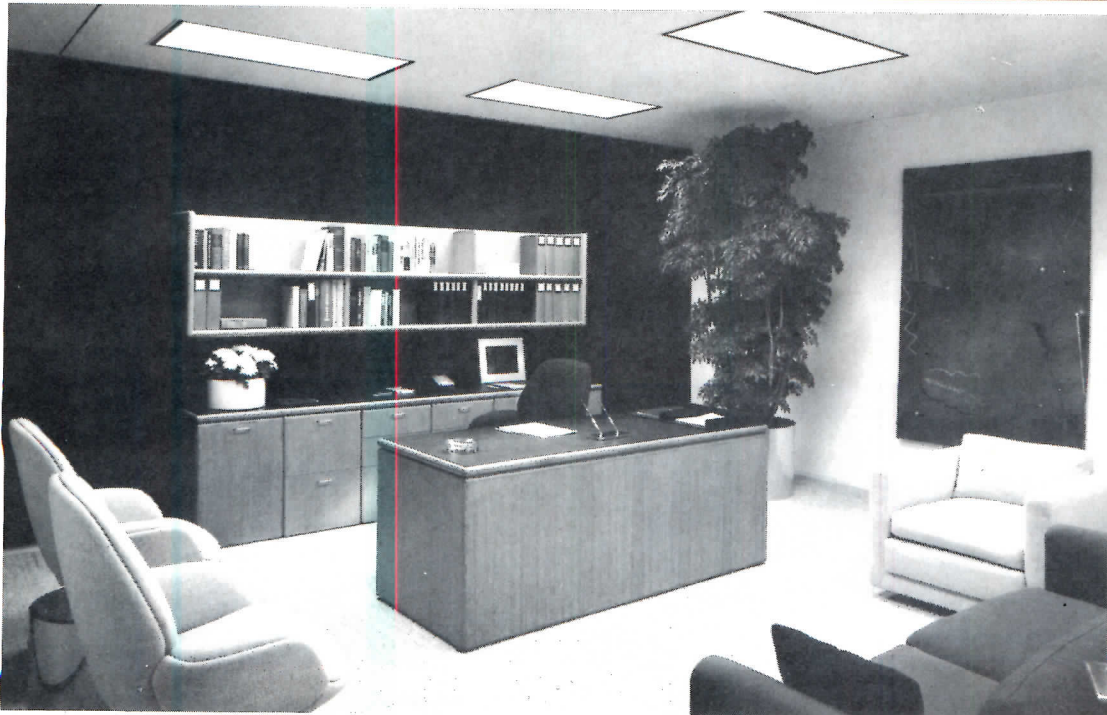
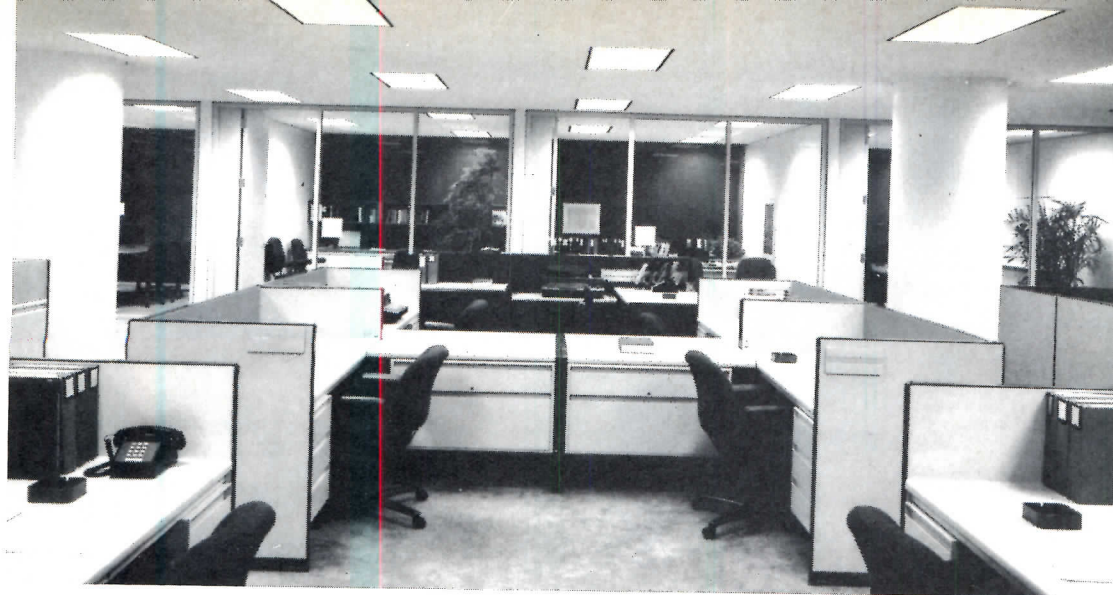
mined and successful effort has been made by clients and architects together to make all these spaces comfortable, efficient, dignified and visually enriching.

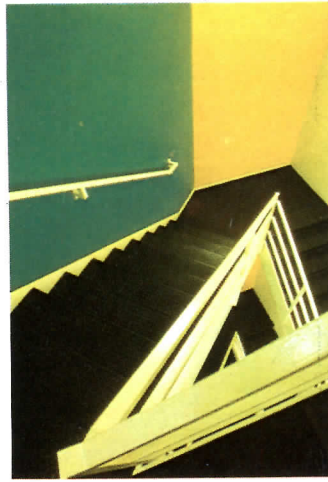
PRUDENTIAL INSURANCE COMPANY OF AMERICA, Merrillville, Indiana. For Prudential: *Arthur Geary, project director; Bruce Dold, director of architecture; Lois Dickson, director of interior design.* Architects: *Holabird and Root—Roy Solfisburg, partner and principal designer; Kalija Hashmy, senior designer; William Rumsey, job captain; James Denkman, mechanical engineer; Nick Bilandic, structural engineer; Richard Briggs, electrical engineer.* Interior designer: *Powell/Kleinschmidt.* Landscape architects: *Novak, Carlson & Associates.* General contractor: *Huber, Hunt & Nichols.*







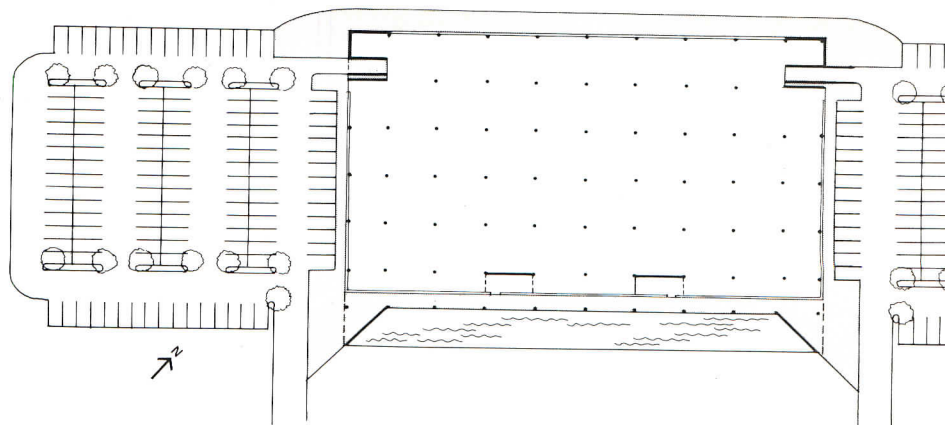




All the spaces (even the stairwell) have been suffused with color to create lively, stimulating work environments. Prudential's art budget was sufficient to provide a variety of expressive works of art in several media. The sculpture in the reception area (photo below) is a "Triple P" by Fletcher Benton from his Alphabet Series. The neon light boxes (photo previous spread) are by Chryssa and the large painting in the main reception area (previous spread) is by American artist Al Held.



**Success in the marketplace was not the only objective in Gwathmey-Siegel's design for a New Jersey builder's new suburban offices, part of a small office park where rival lessors compete to rent their spaces**



To the planning of this headquarters for a New Jersey firm of builders and real estate developers, Gwathmey-Siegel brought the most careful and thorough-going analysis. Questions of automobile access and parking, of pedestrian approach and entry were as fully explored as the larger questions of function, energy efficiency and orientation. The result is, in many ways, a conscious summary of Gwathmey-Siegel's work to date. The building's form is elegant and refined, the detailing meticulous, the choice of finish materials consistent with the image that both architect and owner wanted to project.

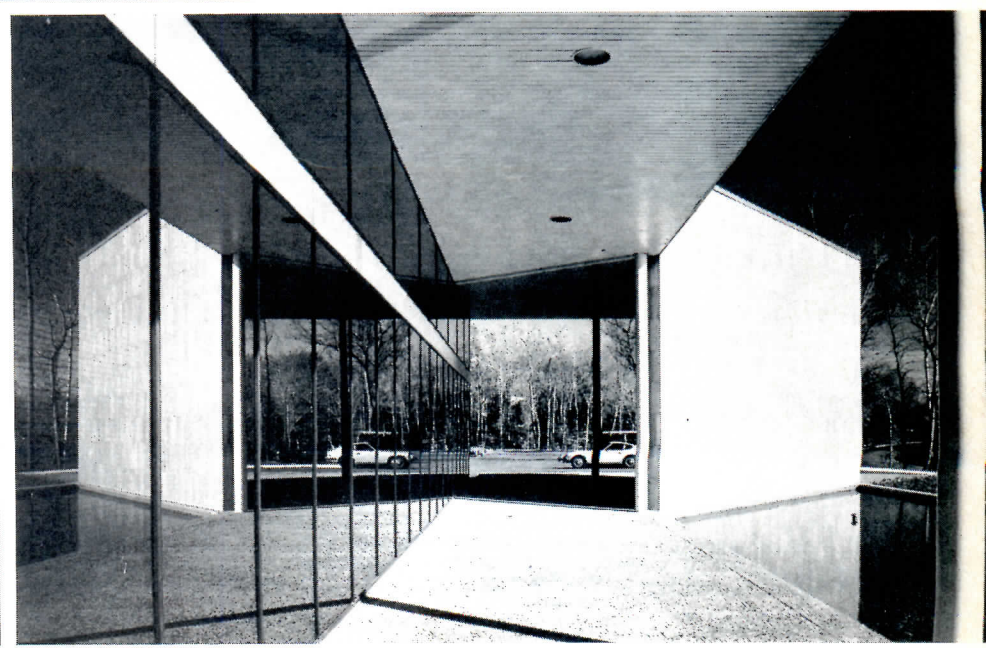
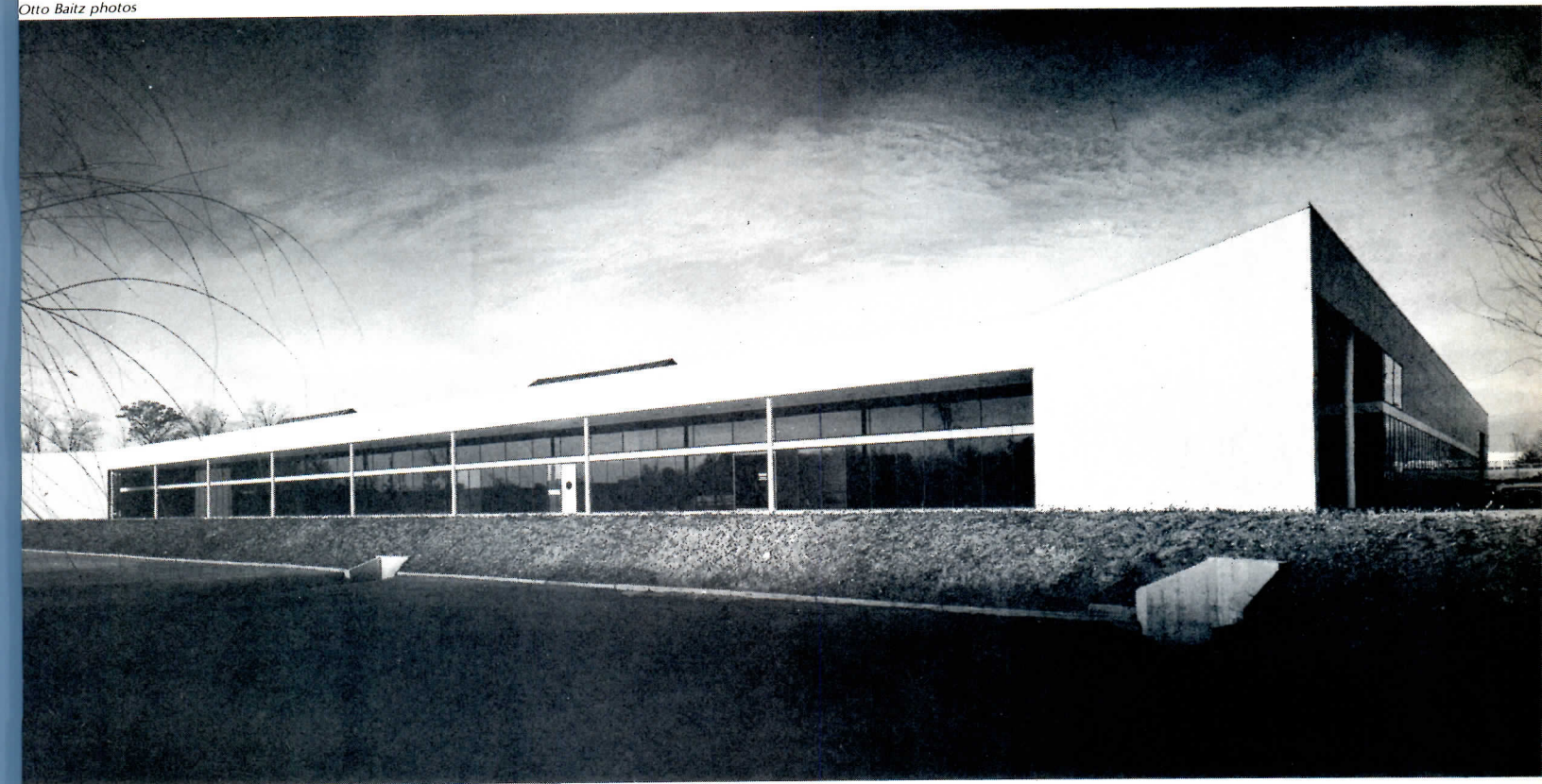
The exterior facing material, for instance, is marble but it is not expressed in marble's traditionally soft, heavy aspect but as an

appliqué, a light skin of thin tiles bonded instead of bolted to a supporting structure. Steel pipe columns, exposed and painted white, give evidence of that supporting structure at the same time as they establish the delicate but insistent rhythm of the bays. Protecting the building's south-facing glass wall is a wide overhang that produces on the elevation a powerful horizontal in the form of a deep fascia. A second horizontal—a mullion detailed flush so that it seems no more than a simple stripe—brings the window wall back to scale, for it marks at a height of nine feet the lowest ceiling level within.

Inside, where the owners occupy only 5000 square feet, the system of point supports is translated into wood frames, and a

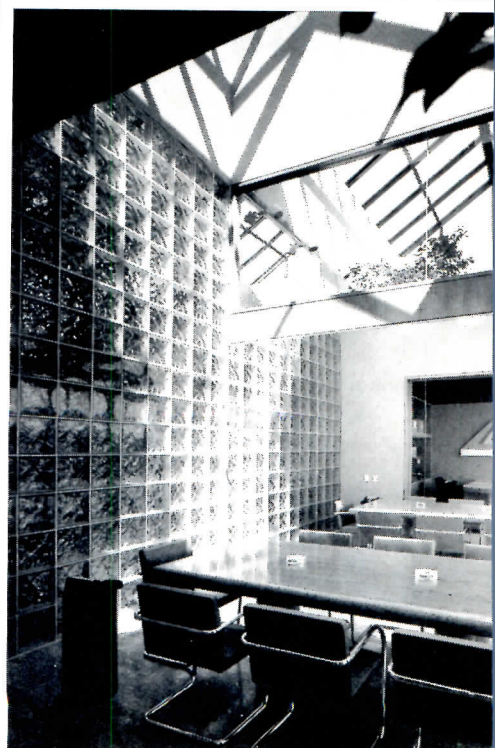
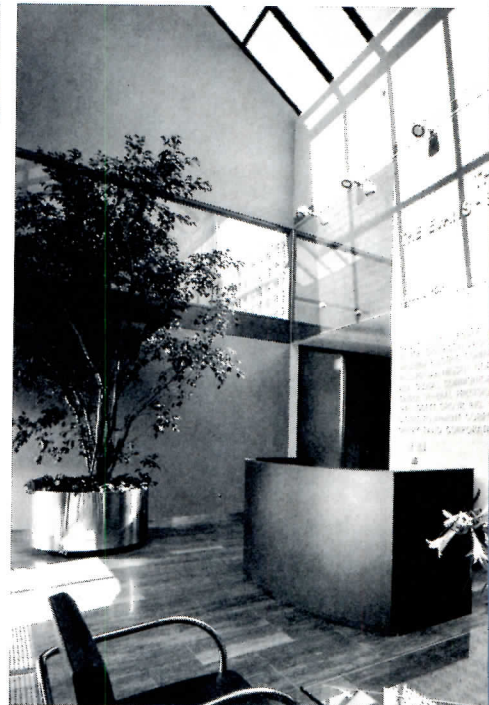
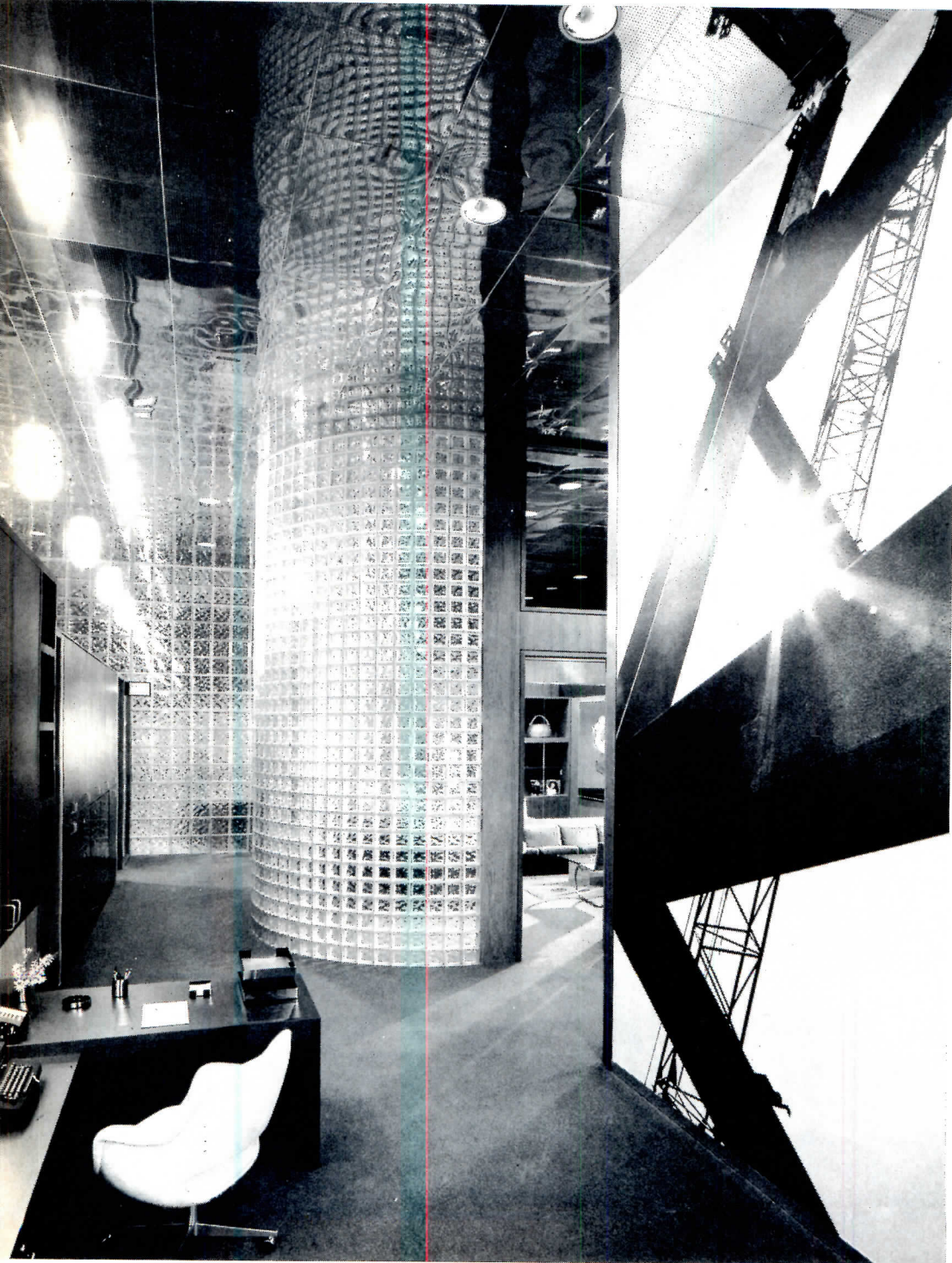
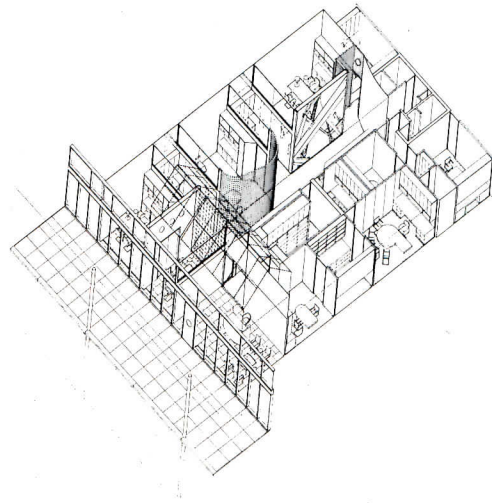
horizontal continuity is at least implied in the full-height spaces by the use of dropped beams at the nine-foot level. The highly polished ceiling, the lively use of skylights, the glass block partitions and the outsized photo mural—this one an abstract of construction activity—are all Gwathmey-Siegel signatures. But they have been employed with such conviction, and occasionally with such cunning, that they do not lose any interest through familiarity. One perspective-shattering device, perhaps in the cunning category, is the use of glass block of two different sizes. When, as in the photo below, the 6-inch block is closer to the viewer than the 12-inch block, a visual distortion results that the eye works hard to absorb and understand.

Otto Baitz photos

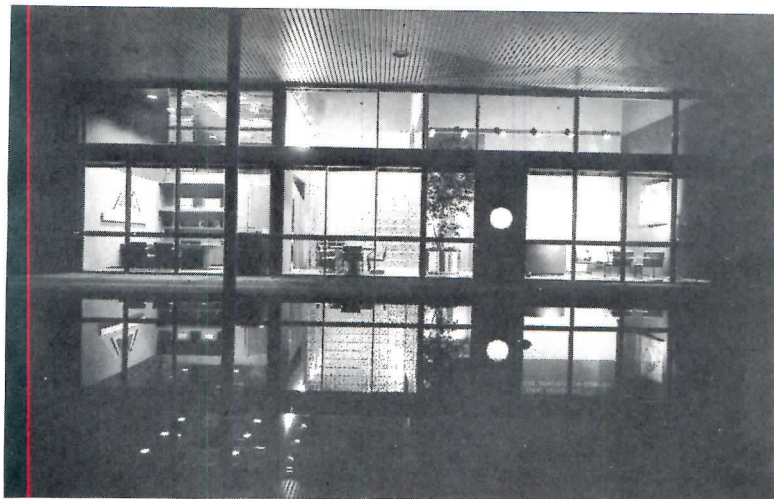


All of this would mean little if the design in all its important particulars did not meet the owner's needs and expectations. Fortunately that is not the case. The new building, in fact, exceeds the owner's expectations in its ability to draw prospective tenants. But it is more than just a success in the marketplace. As office space for The Evans Partnership, it is comfortable and visually stimulating. It is an *effective tool* for use in business development, as well as a construction office.

THE EVANS PARTNERSHIP BUILDING AND OFFICES, Parsippany, New Jersey. Architects: *Gwathmey-Siegel & Associates—Richard Gould*, project architect. Engineers: *Rotwin & Blake* (structural); *Atmos Engineering* (mechanical). Contractor: *Evans-Shure*.



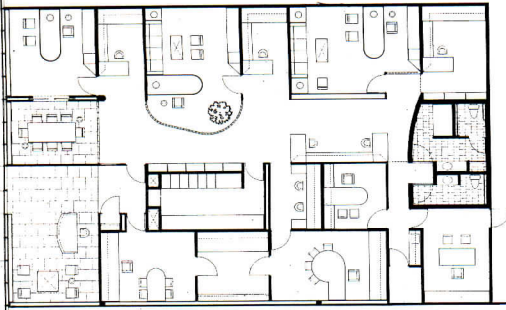




As evening gathers (photo at left), the interior spaces begin to sparkle and produce a glittering, enchanting mosaic of light that is faithfully cast back from the surface of the reflecting pool at the building's perimeter. Highly polished mirrors lining one wall of the executive office and reflective ceilings overhead (photos below) also alter and amplify the sense of space within. It is a play of visual "electricity" that is not without purpose in a space with no outside exposure and with substantial acoustical isolation.







**CUSTOM SIGNAGE** / "Performance Specifications" brochure discusses the functional, structural and electrical requirements for custom sign faces made with *Plexiglas acrylic*, *Plexiglas DR impact modified acrylic*, and *Tuffak polycarbonate plastic*. Guidelines are suggested for sign readability, surface brightness and lamp spacing, and wind load stresses. ■ Rohm and Haas, Philadelphia.

circle 400 on inquiry card

**THERMAL ENTRANCES** / Entrance systems with tested thermal values are available with *Insulclad 260* insulated aluminum glass doors. A product brochure describes the entrances, available with closers, locks, hinges, push-pulls and other hardware to meet a variety of applications. ■ Kawneer Architectural Products, Niles, Mich.

circle 401 on inquiry card

**BOOKKEEPING SYSTEMS** / Practical record and bookkeeping systems for the smaller professional office or business are explained in an *Ideal* product catalog. Over 200 different systems are offered, each designed for specific spending and earning patterns. ■ Esselte Pendaflex Corp., Garden City, N.Y.

circle 402 on inquiry card

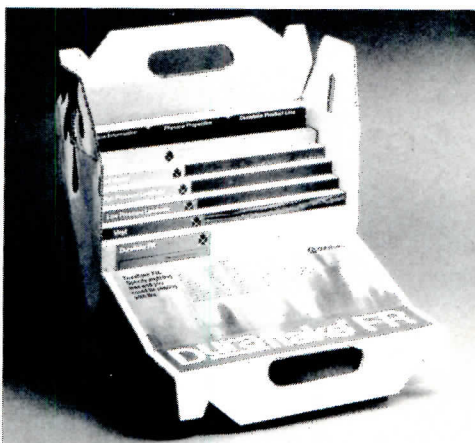
**EMERGENCY EXIT LIGHT** / Data sheet itemizes the characteristics and functional details on *Sign-Lensafe*, a two-ft long automatic fluorescent emergency light for corridors, stairwells and exits in industrial and commercial areas. Photometric test results and options are listed. ■ Holophane Div., Johns-Manville Sales Corp., Denver.

circle 403 on inquiry card



**JOIST DESIGN** / A technical design manual for architects, engineers and specifiers contains *Trus Joist* product descriptions, available profiles, detail concepts, roof and floor span and load tables, sound control systems and building code acceptance information. Copies of the 96-page manual are available to professionals from the manufacturer's field technical representatives. ■ Trus Joist Corp., Boise, Idaho.

circle 404 on inquiry card



**FIRE RATED PARTICLEBOARD** / *Duraflake FR* demonstration kit contains actual product samples, application information and physical property data on this line of Class I fire rated particleboard. *Duraflake FR* exceeds UBC requirements, and can be used extensively as a wall system substrate in all types of public buildings. ■ Willamette Industries, Portland, Ore.

circle 405 on inquiry card

**METALS PROTECTION** / A 24-page brochure describes the *Versacor* multi-layer finish system, designed to protect architectural metal building components from corrosive attack by "acid rain," ultraviolet radiation, thermal shock and atmospheric pollutants. Developed and tested in Scandinavia, *Versacor*-coated buildings have weathered more than a decade with excellent resistance to corrosion, color change and chalking. ■ H. H. Robertson Co., U.S. Building Products Div., Pittsburgh.

circle 406 on inquiry card

**WIRING DESIGN AID** / Developed by NASA, a circular, slide-rule-type calculator assists engineers in wiring system design. Capabilities include rapid selection of wire gage when given wire length, current, voltage drop and temperature. Brochure describes the wiring calculator and other NASA manufacturing technology. ■ IIT Research Institute, Chicago.

circle 407 on inquiry card

**SEISMIC TESTING** / Capabilities brochure describes seismic testing services, listing the location, size, frequency range, and input techniques of each of seven seismic simulators. Testing methods for nuclear structures and equipment are discussed. ■ Wyle Laboratories, El Segundo, Calif.

circle 408 on inquiry card

**OVERLAY DRAFTING** / Pin registered overlay drafting techniques are explained in a 28-page booklet. Case histories represent projects from different types and sizes of architectural firms that have successfully used the *miniMax* drafting system set up by this photo reproduction service firm. ■ Reprorate Corp., New York City.

circle 409 on inquiry card

**COMPUTER PLANNING** / "Power Planning Checklist for Data Processing Managers" is a pocket-sized booklet intended to aid data processing management personnel in planning the electrical power aspects of a computer installation. Topics covered include the problems of high-frequency electrical disturbances (transients and "spikes"); what constitutes good grounding; local and Federal safety codes; maximizing power efficiency; and the flexibility provided by movable power systems. ■ Data Processing Power, Los Angeles, Calif.

circle 410 on inquiry card

**MEETING ROOM EQUIPMENT** / Over 150 *Oravisaual* products for meetings, displays, training and visual communications are presented in a full-line catalog. Included are easels, speakers lecterns, chart holders, etc., for hotels, hospitals, offices, schools and institutions. ■ Oravisaual Co., Inc., St. Petersburg, Fla.

circle 411 on inquiry card

**OPEN OFFICE HISTORIES** / Color photos show *ASD* open office systems in place in an Illinois vocational high school and a Canadian heavy equipment dealer, in case history brochures available from the Architectural Systems Division of *Westinghouse*. ■ Westinghouse, Grand Rapids.

circle 412 on inquiry card

**CONSTRAINED LAYER DAMPING** / Brochure explains new techniques, products and applications in constrained layer damping, said to be a cost-effective technique for reducing noise and vibration problems in resonating structures. Applications for layer damping range from industrial saw blades to preventing the damaging effects of flexing in skyscrapers caused by high winds. Detail drawings and performance curves are included. ■ 3M Co., St. Paul, Minn.

circle 413 on inquiry card

**CONCRETE FORMING** / "Form Tying Devices for Heavy Concrete Construction" details products used in power plants, dams, locks and tunnels. The 24-page brochure includes graphs, charts and cut-away diagrams to aid in form design. ■ Richmond Screw Anchor Co., Inc., Fort Worth, Texas.

circle 414 on inquiry card

**STEAM BATHS** / The luxury and benefits of residential steam baths, hydro-massage, whirlpool bathtub or spas are illustrated in a 12-page catalog. Literature discusses economic and therapeutic advantages and shows styles, sizes and colors for indoor and outdoor residential application. ■ ThermaSol, Leonia, N.J.

circle 415 on inquiry card

**LABORATORY FURNITURE** / Catalog sheet shows how the *Multiflex* laboratory furniture system can be custom designed for maximum efficiency, and can then be adapted to changing procedures and future work flow patterns. ■ American Hamilton, Two Rivers, Wisc.

circle 416 on inquiry card

For more information, circle item numbers on Reader Service Inquiry Card, pages 181-182

## New furniture designs unveiled by Knoll

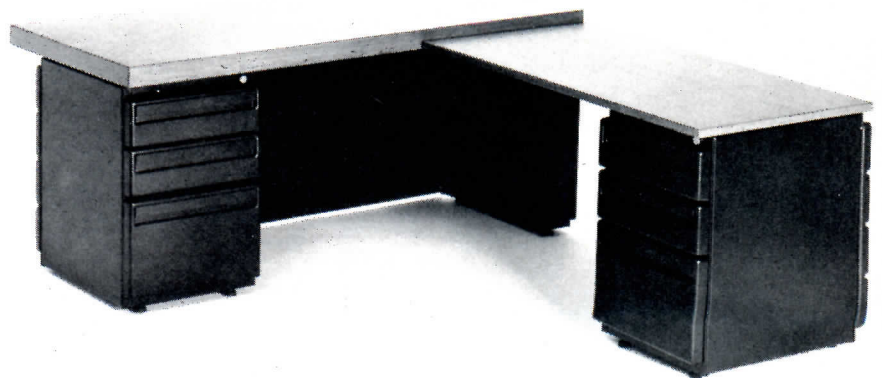
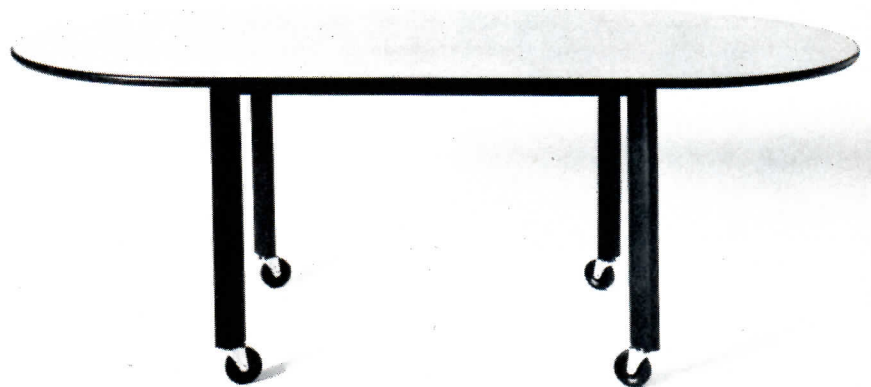
The most recent furniture collections offered by Knoll International are designed by Joseph D'Urso, Bruce Hannah and Niels Diffrient.

D'Urso's collection includes high and low tables, and sofas. The high table (center right) is cleanly and simply designed and is available in three shapes, eight sizes, 11 veneers and laminates, three kinds of stone and four finishes to provide the greatest opportunity for individual and corporate expression. They are equipped with either glides or casters for mobility. D'Urso's low tables (top right), available in three sizes, two heights and a choice of mirror-polished stainless steel or printed finishes, provide space for open storage and display beneath either wire-top, black-top, or frosted-top surfaces. A third part of his collection, the sofa (top right) was designed to provide as long as eight continuous feet of seating. The seat, set back from the side arms, is continuous, eliminating the usual separate cushions. The sofa comes in both rounded or square-cornered models with elegant textures—fabrics, leathers and suedes.

Also new from Knoll is the complete line of Niels Diffrient office seating. The executive "Articulated Chair" (below) incorporates a patented support system. This chair is specially balanced to prohibit tipping—it pivots in two places as the sitter leans back (just below the shoulders and below the knees). Fingertip-control pneumatic air cylinders are included for height adjustment. This chair has urethane foam armrests on tubular steel arms, a painted five-star base, and twin-wheel casters, and it comes in either fabric, vinyl or leather.

A third collection is the Bruce Hannah-designed desk (bottom right). Steel-framed desk units are clad with soft plastic side panels, and the hard top is offered in Tech-grain veneer and plastic laminate. Pedestals are available in black, red and brown in desk, cabinet and credenza components. Current options include secretarial and executive returns, kneehole panels, a variety of top sizes and a wide range of desk accessories. ■ Knoll International, New York City.

circle 300 on inquiry card  
more products on page 127



# COLUMNS: A new twist on an old idea



**S**quare and rectangular structural columns have many advantages over wide flange sections in typical building applications, and we invite you to examine their possibilities and special features for your projects.

They have good appearance, excellent strength and about 30% more resistance to bending and 200 to 400 times to twisting forces than equivalent wide flange columns.

You get more flexibility in design, for instance, and increased area utilization with aesthetically pleasing spaces that are required in many industrial and commercial buildings today.

Structural tubing is available in a wide variety of dimensions up to 12" square and with a plate thickness of up to 0.5". The consistent high quality and ready availability of this new product is gaining it wide popularity all over the world.

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# Stop fires in seconds...safely. With DuPont Halon 1301.

**ONE-PIECE TUB** / The design of the "Aurora" molded marble tub stresses human engineering and safety features. A built-in lumbar support cradles the bather's back for comfort; integrated handles with both vertical and horizontal members provide assistance in getting in and out of the tub. Interior sides are gently curved, and the bottom has molded-in non-slip ribbing. Deep enough for soaking, the tub can be ordered with its own self-contained whirlpool system. The "Aurora" is available in five- and six-ft lengths, and a choice of 16 colors. ■ Molded Marble Bathroom Fixtures, Div. Lippert Corp., Menomonee Falls, Wisc.

circle 301 on inquiry card

**FIRE ALARM SYSTEM** / Built with a microprocessor "brain" and modular design, the KDR-1000 fire alarm system may be adapted to almost any requirement. It can incorporate a wide range of optional input and output devices, including smoke, flame, heat and flow detectors, plus bell, horn and light alarms. It can activate remote annunciators, suppression systems, evacuation programs, door closing devices and fan shutdown switches. It can interface with other KDS systems, and meets UL Standard 864 and NFPA requirements. With a choice of different size cabinets, interconnections, function panels and circuit modules, the system can be tailored to provide up to 128 zones of protection. ■ Douglas Randall Div. of Kidde, Inc., Pawcatuck, Conn.

circle 302 on inquiry card

**COMPACT ALARM SYSTEM** / The KDR-400 system is said to provide total fire alarm protection for smaller commercial applications, with a comprehensive range of options and complete signaling functions for one to four zones. The compact, self-contained fire control panel has a LED display providing general alarm and trouble information. Standby batteries with a built-in charger provide power for the system should commercial power be interrupted. ■ Douglas Randall Div., Kidde, Inc., Pawcatuck, Conn.

circle 303 on inquiry card

**MOVABLE PARTITIONS** / The Modernfold movable partition system is available in three designs: floor-to-ceiling, partial height and open base. The flexible space dividers qualify for the 10-per cent investment tax credit, and may be depreciated over five to 10 years. The walls use fine line panel joints in place of exposed metal frames, and are non-progressive. The Modernfold system contains an average of 45 per cent fewer components, as compared to other partitions. ■ Modernfold, Inc., New Castle, Ind.

circle 304 on inquiry card

more products on page 129



1. Flammable liquid ignited. Halon 1301 cylinders discharged.



2. Fire totally extinguished in four seconds.

The fire protection system you specify in critical areas of buildings must react instantly to save lives and property. And no gaseous fire extinguishant works faster and more safely than Halon 1301. For example, in the demonstration above, Halon 1301 extinguished a flammable liquid (n-heptane) fire in just 4 seconds.

Du Pont Halon 1301, at levels recommended for extinguishing most fires, won't harm people. It's safe to breathe at recommended extinguishing concentrations. When mixed with air (generally 5-7%), Halon 1301 renders the protected area fire-free.

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## Halon 1301 fire extinguishant

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Circle 58 on inquiry card

**UNBACKED VINYL FLOORING** / "Contempora" sheet vinyl is said to offer builders substantial savings in installation labor and subfloor preparation. The dimensionally stable, permanent unbacked vinyl floor covering can be installed easily without adhesives, staples or fasteners of any kind over virtually any structurally sound sub-floor, including particleboard, concrete and plywood. Flooring's construction prevents cracks and ridges from showing through the vinyl. No-wax vinyl has a high-gloss wear surface, and is available in "Branham Crest," a tone-on-tone geometric, pictured, and "Emerald Glen," a natural random tone effect. ■ Congoleum Corp., Kearney, N.J.

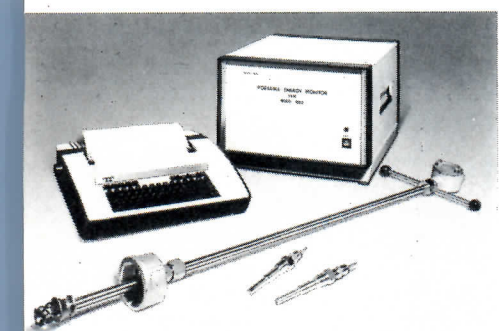
circle 305 on inquiry card

**DECORATIVE FABRICS** / Screen printed in England on 56-in.-wide vat dyed cotton, the "Bouquet of Stitchery" collection of decorative fabrics for the contract market uses needlecraft patterns as a design base. Shown here is "Sophia," a large-scale flower pattern with a delicate serpentine floral border. Based on Indian hand embroidery, the pattern is available in four three-toned colorways. ■ Greeff Fabrics, Inc., Port Chester, N.Y.

circle 306 on inquiry card

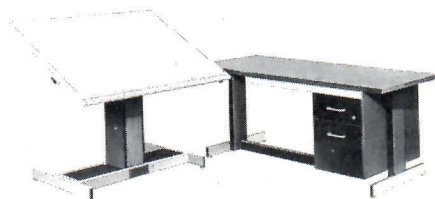
**TABLE LAMP** / An architectural shape of four separate chrome-finished triangles, the "Elegance" table lamp measures 33-in. high, including the sloped shade of natural linen. The lamp takes a three-way bulb to 250 Watts; drum, square, pleated, or polished metal shades are also available. ■ Brayton Accessories Collection, High Point, N.C.

circle 307 on inquiry card



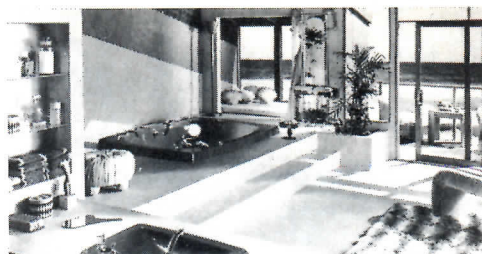
**ENERGY MONITOR** / The PEM (Portable Energy Monitoring—an easy to carry four-unit system—consists of a microprocessor, keyboard and printer, portable sensor probes, and sensor wiring. It monitors and records the amounts of energy used in any process: heat treating, chilling, hvac equipment, etc. PEM puts out two reports, a demand log and a trend log, that gives energy use rates and hourly and daily energy use totals. Signals from the various sensors are translated into temperatures, flow rates, Btus and kW's, all of which are printed or plotted at time intervals chosen by the user. ■ Foxboro/Adec, Inc. Santa Ana, Calif.

circle 308 on inquiry card



**DRAFTING FURNITURE** / Modular "VR 20" drafting tables and desks permit a number of space-saving and efficient furniture arrangements. The desk is available in a number of configurations, including a bookcase and custom drawers sized for drawing storage. Desk and table are finished in brushed chrome and coordinated colors. ■ Hamilton Industries, Two Rivers, Wisc.

circle 309 on inquiry card



**TEXTURED CERAMIC TILE** / Shown here in a bath setting with Kohler fixtures, Siena floor and wall tile has a slip-resistant eggshell-textured surface. Sizes include 4 1/4- and 6-in. squares, and a 4 1/4-in. octagon with dot. Eight natural colors are offered in the Siena line, with coordinating grouts and bathroom accessories. ■ American Olean Tile Co., Lansdale, Pennsylvania.

circle 310 on inquiry card  
more products on page 130



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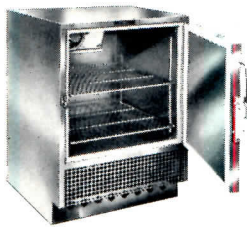
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See Sweet's 8.14/Ka, 7.8/KaL, 13.11a/Ka, 13.2c/Stu.

Circle 59 on inquiry card

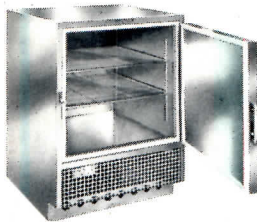
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## STAINLESS STEEL UNDER COUNTER LAB REFRIGERATORS AND FREEZERS



**UC-5-BC** refrigerator has a blower coil cooling system with automatic off-cycle defrosting and condensate evaporator in condensing unit compartment. Two adjustable stainless steel shelves are provided.

**UC-5-F-BC** freezer is equipped with automatic timer electric defrost. Capacity—5.4 cu. ft. (155 ltr.)

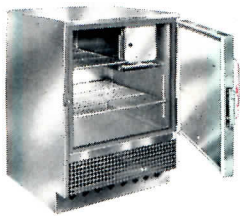


**UC-5-CW\*** refrigerator with cold wall cooling system is equipped with push-button defrost, automatic reset and condensate evaporator. Capacity—5.4 cu. ft. (155 ltr.)

**UC-5-F-CW\*** freezer is equipped with manual hot gas defrost. Capacity—4.6 cu. ft. (130 ltr.)

**UC-5-CW-E** refrigerator has the same interior features as the UC-5-CW but modified to make it *totally explosion-proof*. Capacity—4.9 cu. ft. (140 ltr.)

\*With explosion proof interior only.



**UC-5** features a two-tray ice cube cooling system with manual defrost and stainless steel defrost water tray. The cooler section has two adjustable stainless steel shelves. The entire UC-5 series features polyurethane insulated thin wall construction and air-tight neoprene thermo-break door seals. Capacity—5.4 cu. ft. (155 ltr.)

Jewett also manufactures a complete line of blood bank, biological, and pharmaceutical refrigerators and freezers as well as morgue refrigerators and autopsy equipment for world wide distribution through its sales and service organizations in over 100 countries.



Refer to Sweet's Catalog 11.20/Jewett for quick reference.

Circle 60 on inquiry card



**LANDSCAPE EDGING** / Made of weather-resistant woven nylon, lawn and landscape edging measures seven-in. wide. Typical uses include temporary or permanent retention of terraces and raised planting areas; setting off brick, tan bark and gravel walks; edging hot top driveways, etc. The resin-treated flexible material minimizes the chance of damage to lawnmower blades. ■ Louis A. Green & Co., Inc., Chelsea, Mass.

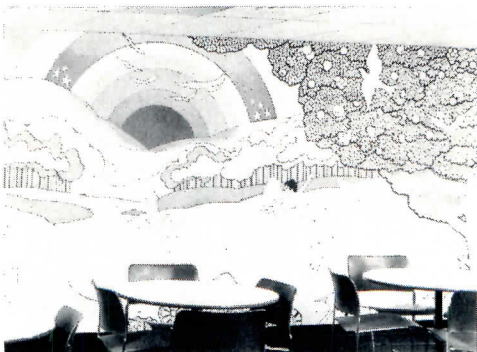
circle 311 on inquiry card

**WICKER-LOOK TILES** / Two lines of ceramic wall and floor tiles are patterned in a wicker weaver, one with a rather heavy texture, the other resembles more closely woven wicker. Tiles are 3¾-in.-square, back-mounted on 11½ inches by 15½-in. sheets; a range of wicker-finished trim pieces is available to match. Tiles and trim are offered in antique white, straw, natural brown and champagne colors. ■ Latco Products, Los Angeles.

circle 312 on inquiry card

**LIGHT TABLE** / The "deluxe" model of the Huey light table adjusts through 180 deg to any angle desired. All tables in the line use an energy-saving light source that maintains a true continuous light at all points of the table. The new light also keeps the table surface cool at all times, and avoids damage to film or transparencies while reducing fatigue from long-term viewing. ■ The Huey Co., Franklin Park, Ill.

circle 313 on inquiry card



**WALL MURAL** / "Rising Sun" is a colorful, whimsical design said to be suitable for cafeterias, restaurants, and window displays. It is one of a series of vinyl-coated, strippable wall graphics, available in eight- and 12-panel versions. The largest size measures 8-ft 6-in. by 19-ft. ■ Environmental Graphics, Inc., Minnetonka, Minn.

circle 314 on inquiry card

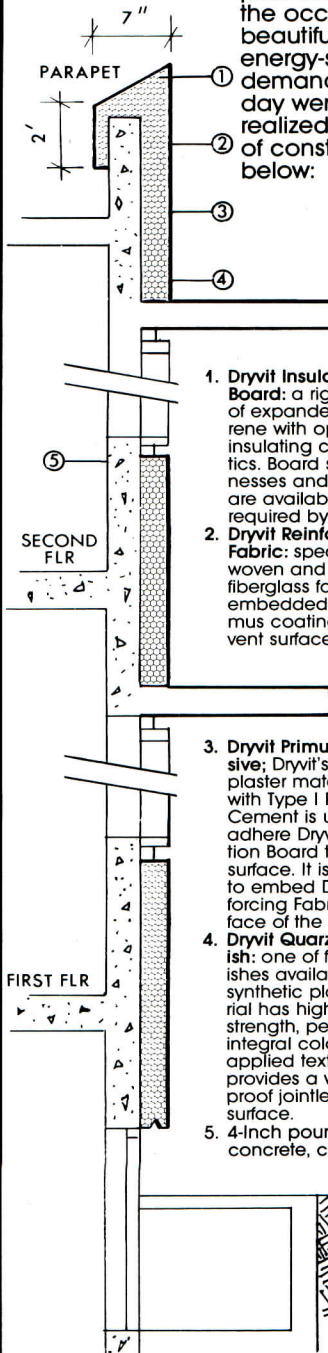
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# dryvit<sup>®</sup> System Inc. OUTSULATION™

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This California retrofit (facing page) had to meet the challenge of poured-in-place concrete walls erected some forty years ago.

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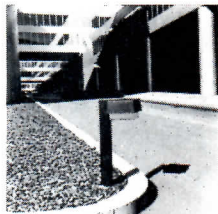
**SECURITY LIGHT** / Both permanent mount and portable versions of this six-Watt fluorescent lamp illuminate up to 800 sq. ft. Optional photocell feature switches light on automatically, eliminating the need for a wiring



switch leg: unit is wired to the nearest convenience outlet circuit. Housing is die-formed 20 ga. steel, with an extruded white-opal acrylic lens. Portable version comes with a six-ft cord and plug, hanger bracket, and non-skid pads for table-top locations. ■ Great Lakes Lighting, Inc., Birmingham, Ohio.

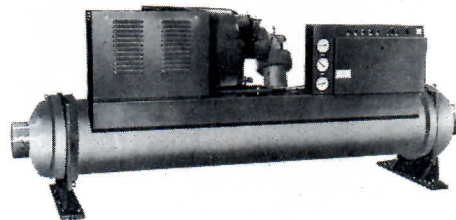
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**WALKWAY LIGHTING** / Supplied with poles in heights of 36- and 42-in. above grade, the *Trail-blazer* luminaire provides vandal-resistant, low-mount lighting for outdoor walkways and lawns. Impact-resistant refractor has a smooth exterior surface for ease



of cleaning; internal prisms deliver low brightness, widespread illumination. All exposed surfaces of the aluminum housing and pole assembly are finished in black or bronze polyester paint. ■ Johns-Manville Sales Corp., Holophone Div., Denver.

circle 316 on inquiry card



**CENTRIFUGAL CHILLER** / The “PE-L” centrifugal compressor and chiller unit, available in capacities of 60- to 250-tons, provides the advantages of both air cooled and centrifugal compressor chiller water cooling. This split-system chiller provides stepless capacity reduction from 100 to 10 per cent to match building cooling requirements. A liquid refrigerant motor cooling system ensures lower operating temperatures and extends motor life. ■ Westinghouse Commercial/Industrial Air Conditioning, Staunton, Va.

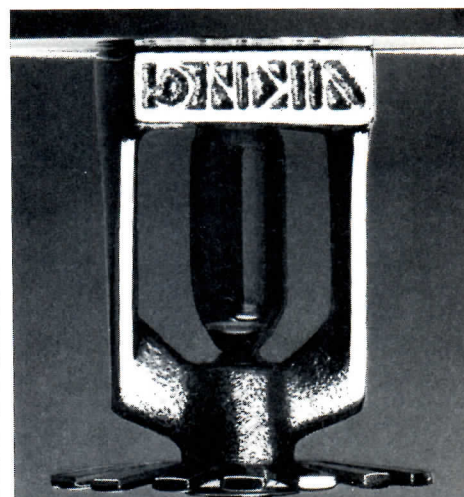
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**PICTORIAL SIGNS** / Useful to all, including the blind or sighted handicapped, these 6- by 7¼-in. signs offer engraved symbols and raised letters in English or almost any foreign language, and Braille. Standard colors are white and black or beige and dark brown; red is also used when the international symbol dictates. ■ Best Mfg. Co., Kansas City, Mo.



international symbol dictates. ■ Best Mfg. Co., Kansas City, Mo.

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## THE SPRINKLER YOU CAN LOOK UP TO

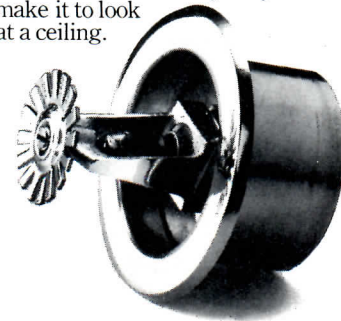
Most fire protection sprinklers aren’t built with architects in mind, so they don’t add much beauty to a ceiling.

That’s why we’ve engineered our Decor<sup>®</sup> sprinkler line to be visually subtle, yet offer an attractive alternative to bulky solder-link or costly concealed sprinklers.

Decor<sup>®</sup> sprinklers are miniature sized and cleanly styled in satin or polished chrome; natural or polished brass. The glass bulbs are color coded for six temperature ratings.

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Send for more detailed information on Decor<sup>®</sup> sprinklers and discover how easy they make it to look at a ceiling.

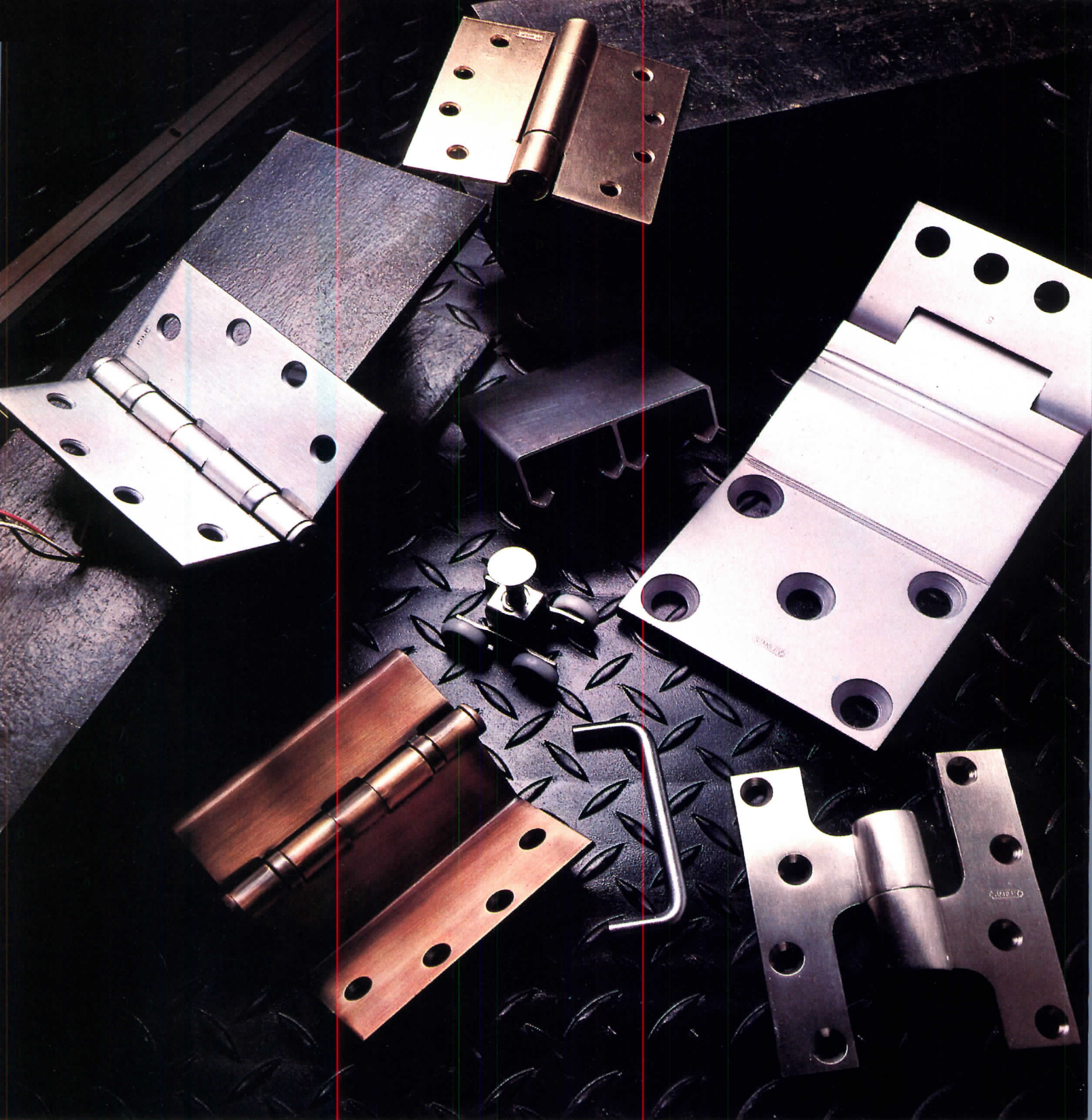


‘see us in Sweet’s ‘E’ file’



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**Firm changes**

Hoad Engineers, Incorporated, announce the appointment of Maxwell G. Sweet as controller.

Victor Huff & Associates, Inc., architectural and interior design firm, announces the appointment of Donald Nelson as vice president and general counsel.

IVM an engineering organization, announced that John E. Gibbs has joined the firm as vice president of North American operations. IVM also announces the opening of offices in London, England.

William Kessler and Associates, Inc., announces the appointment of Michael J. Washo as the firm's director of marketing.

McClellan Cruz Gaylord and Associates have announced the promotion of nine staff members to associate. New associates are: Gordon B. Siechert, director of design; E. Steve Powers, director of planning; William G. Beavers, director of specifications; James P. Walker, director of field administration and Roy W. Kee, director of production.

William L. Pereira Associates has promoted Leonard Jones to controller of the firm.

Donald J. Richards has been named a senior vice president of Perkins & Will.

Rasmussen Ingle Anderson (RIA), an architectural and engineering firm, have announced that Harmon Fong, Janet Klein, and Chris Manuel have become associates of the firm.

Joseph A. Crestuk, has joined Stanley Consultants, Inc. (SCI), as a senior architect in the architectural group, central division.

The Hillier Group announces that Robert Baze-wicz has joined the firm as a planner.

David B. Campbell joined The Spink Corporation as structural engineer.

3D/International announces the appointment of J. Russell Laird, Jr., P.E. to the position of director of the engineering division.

The SWA Group announce that John Weed has been elected as principal of the firm and that Susan Whitin and Bob Jacob have been elected associates.

Emilio Arechaederra has been named executive vice president of John Carl Warnecke & Associates. Roger Hong, Howard Kurushima, Roy Stue-binger and Craig Townsend have been named associates. John Carl Warnecke & Associates have acquired the architectural firm of Desmond & Lord in Boston, Massachusetts.

**New addresses**

Jodoin Lamarre Pratte & Associates have moved to offices at 3200 Rachel Street East, Montreal, Quebec, Canada.

Gruzen and Partners, Architects and Planners, have announced that the New York office will be relocating to larger quarters at 11 West 42nd Street, New York, New York.

Justin Architects announce the moving of their offices to 60 Madison Avenue, New York, New York.

Langdon & Wilson Architects have recently moved into their new Orange County offices in Koll Center Newport, Newport Beach, California.

Leblang Associates, Inc. have moved to 1031 South Charles Street, Baltimore, Maryland.

David J. Reeves & Associates, AIA announce the relocation of their offices to 835 Fifth Avenue, San Diego, California.

The Spink Corporation, has moved to new offices located at 1965 Market Street, San Francisco, California.

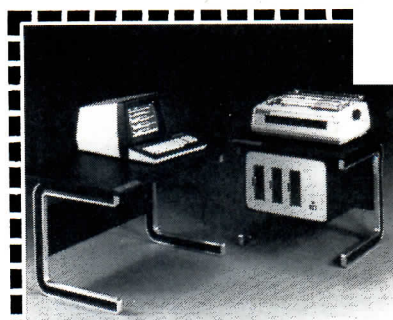


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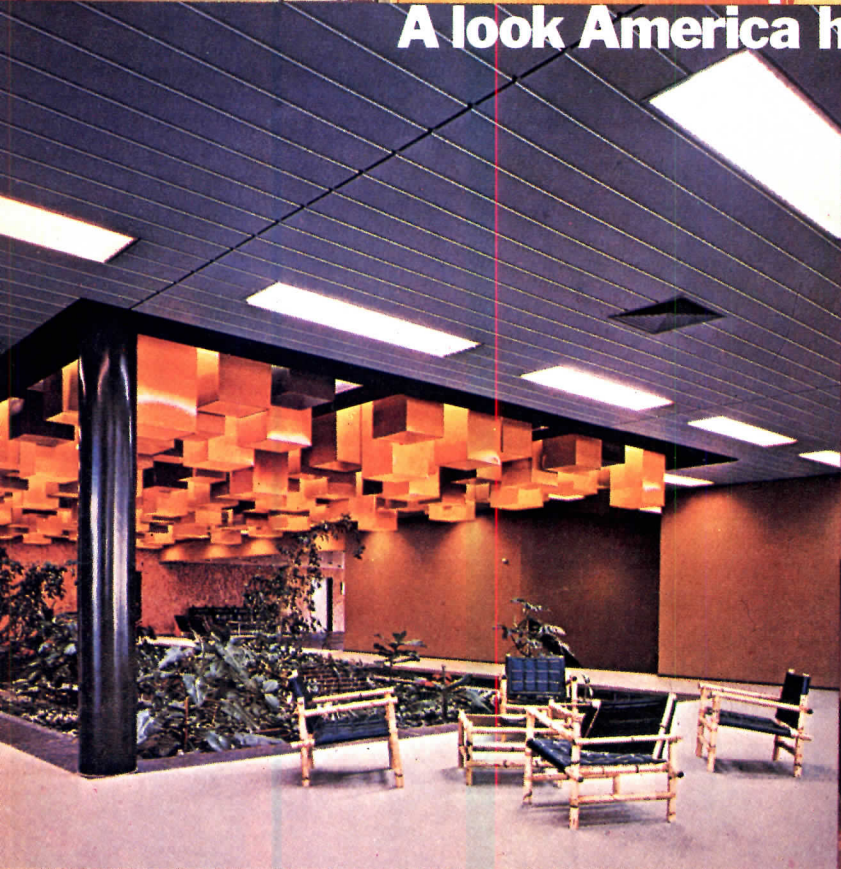
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The preferred starting date is July 1, 1981. The deadline for nominations or self-nominations is October 15, 1980, and completed applications must be in by November 15, 1980. Both should be sent to: Professor Christopher Theis, Chairman, Dean Search Committee, Office of Academic Affairs, 127 Strong Hall, University of Kansas,

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lates to "capitulation to greed." Efforts to convince departing members to stay in the AIA ("You have to fight from within," etc., etc.) failed.

I sincerely and sorrowfully believe that unless the AIA provides strong leadership in demanding the highest professional standards, a splinter organization will be formed, eventually leaving the AIA to those who find ethics a bothersome inconvenience on the road to power and wealth. While such a move would be counterproductive in addressing the great needs of our profession, there would be at least one advantage. Given present trends, membership of such a group might be small enough to escape the attention and wrath of the Justice Department.

The action taken at the convention may make my pleas and arguments academic. I do support the resolution of the Buffalo/Western New York Chapter relating to ethics and the public interest, and hope that the AIA will find effective ways to implement the intent of that resolution.

Edward H. Street, AIA  
Nashville, Tennessee

Congratulations! Articles about Michael Graves and by Michael Graves in the same issue. Hot damn!

I think it's really nice of Sunar to build a showroom for Graves's work instead of for their furniture. You can see their furniture lots of places (we even have some in our office). But nobody sees much that Graves has built.

By the way, do you know what brand of colored pencils he uses? I'd like to get some, but I want to make sure I get the right kind. No cheap imitations for me!

Gary W. Johnson  
Johnson/Halverson/Anderson/Architects, P.A.  
Grand Forks, North Dakota

Mr. Graves primarily uses Prismacolor pencils, but sometimes he changes to Derwent.—Ed.

I want to congratulate you for publishing the fine piece on Michael Graves. I was moved by it and found it to be so nicely crafted that I called Charles Gandee, who wrote the piece, to tell him so.

It seems rare to me to find an article explaining clearly, without infatuation, what is a very difficult and complicated body of work, and I want to applaud all your efforts in that direction.

Mark Simon, AIA  
Moore Grover Harper  
Essex, Connecticut

In our opinion, your magazine has reached the forefront of architectural publications with its consistently high content, excellent production values, and an editorial wisdom that has the good sense to examine without instant embracement the slings and arrows of each new design trend. Within the context of your excellence, your cover photo is no small contribution to the monthly montage of images that flow across our desks.

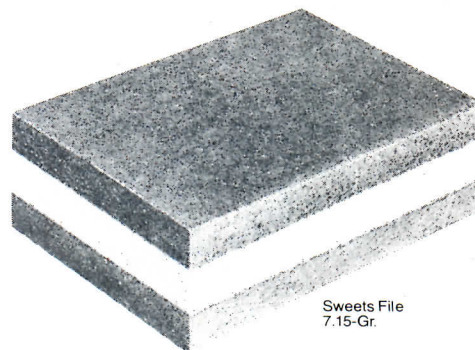
So, that all said, we strongly object to your minimalism when you put our address labels on the front cover of your magazine. Some may label this a small matter indeed. But really, ARCHITECTURAL RECORD, there are pressing matters for us to address without your gumming up our consciousness.

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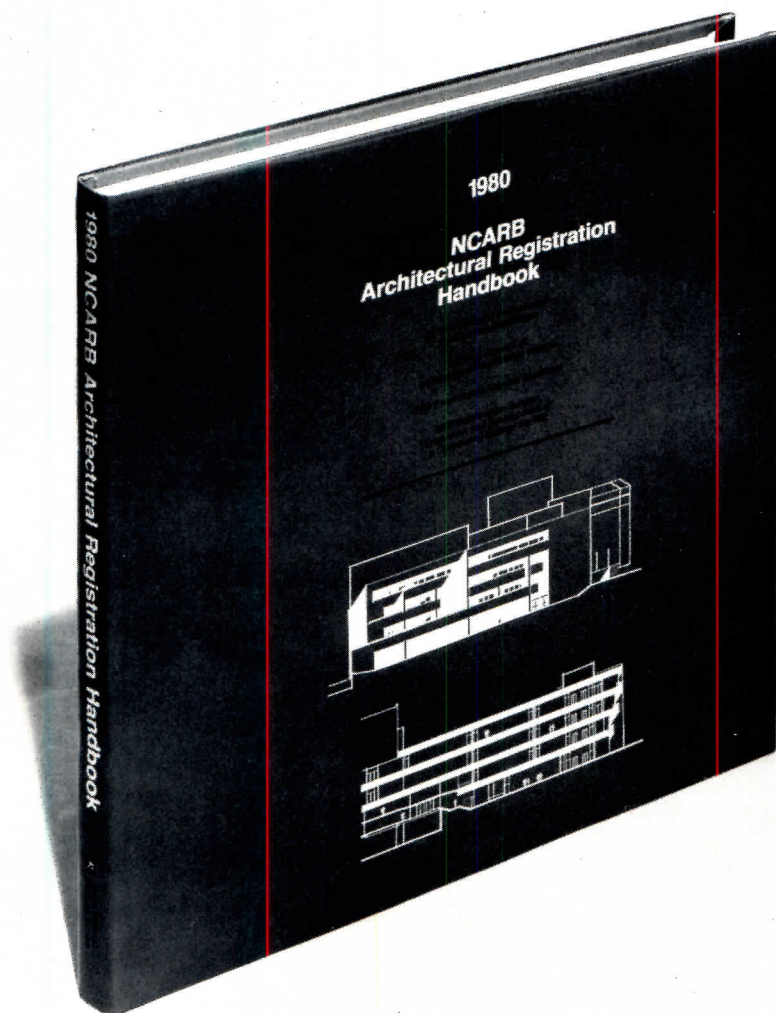
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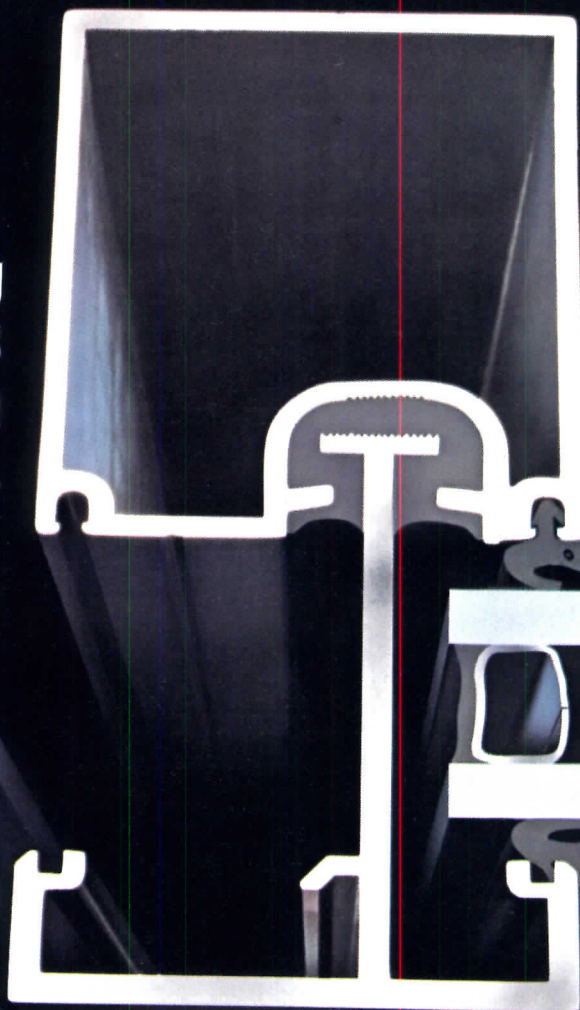
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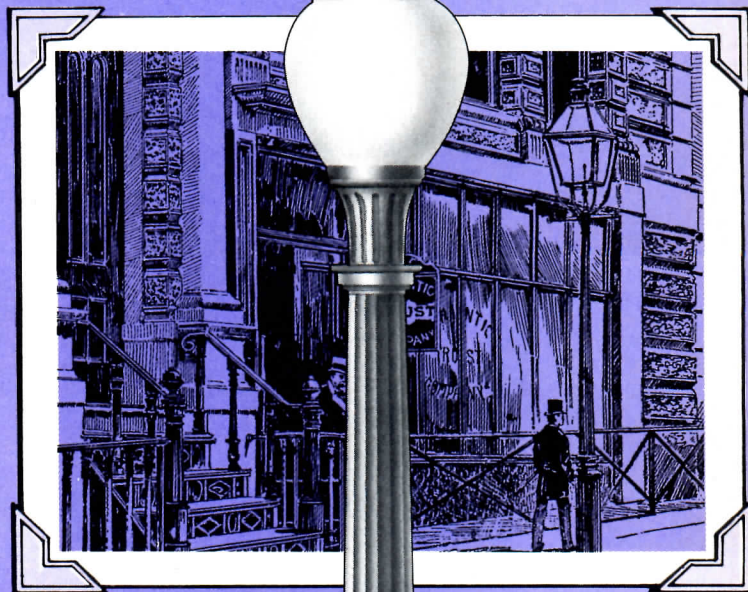
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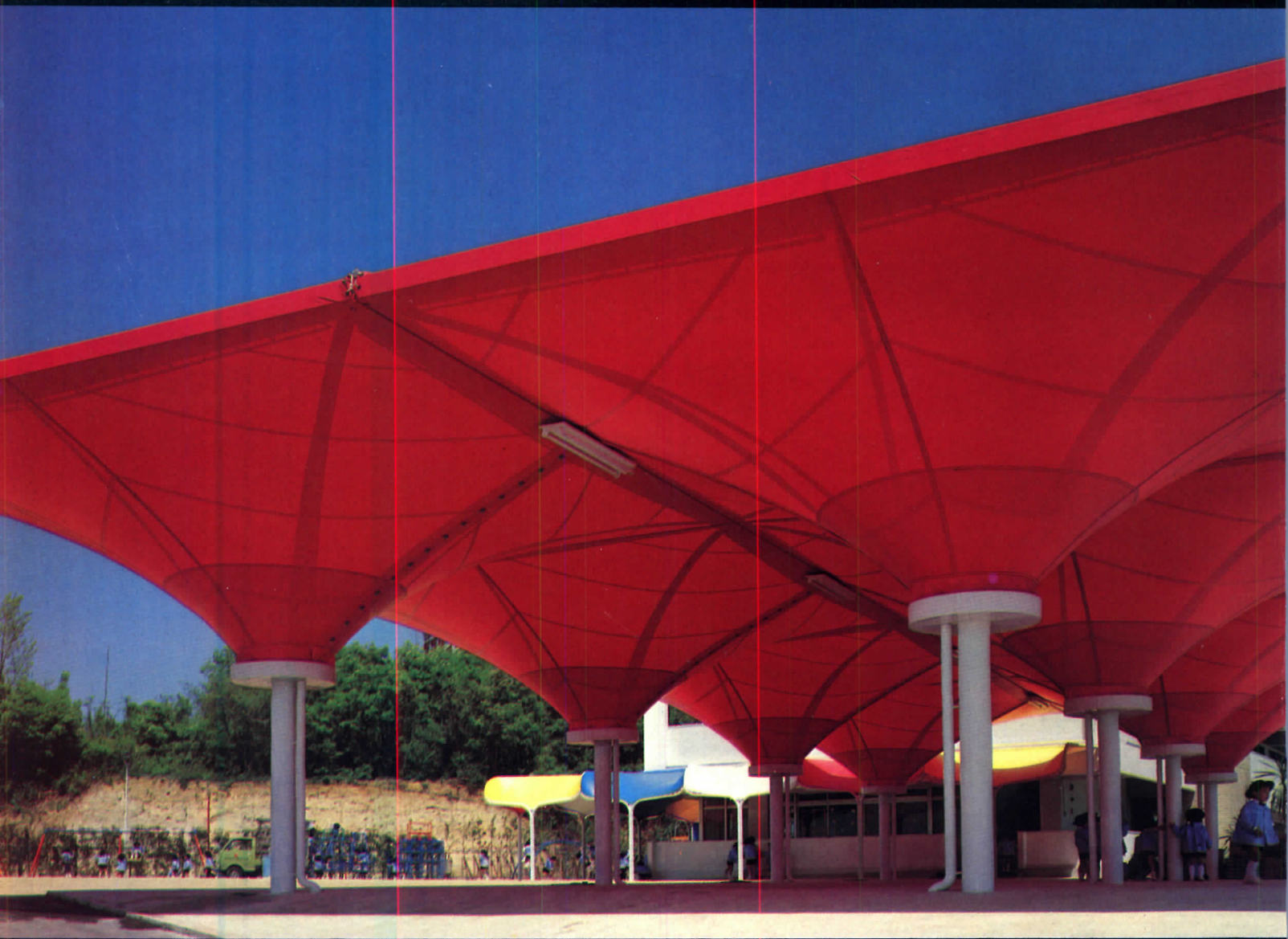
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# 'EDUCATIONAL



## A Spectacular Rain/Sun Shelter By Helios.

Conference Structure, Aspen, Colorado



The logic of this tensioned membrane structure is as exciting as its appearance. A canopy over a school yard play area, it provides shelter for outdoor activities in almost any weather. The attractive "upside-down" design allows rain water runoff through the support columns.

The shelter is fabricated of vinyl-coated polyester material held in tension on a steel framework. The result is a lightweight, rigid structure engineered to withstand heavy wind loading. Though it is in a higher priced class than a tent, a tensioned membrane structure offers far greater strength and durability. Compared to alternate structures of wood, steel or masonry, it typically results in important cost savings.

When your imagination calls up great roofed-over spaces or rhythmic curvilinear shapes, Helios Tension Products are the people to try your ideas on. We specialize in helping architects translate their innovative designs into practical reality. Our expertise includes design, engineering, fabrication and erection—a total comprehensive service unmatched in the U.S.

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# Laminated Architectural Glass.

## It brings nature in and keeps burglars out.



Designing a home for clients who want to be in touch with their natural surroundings calls for extensive use of glass. Unfortunately, most glazings also add a serious security risk, particularly in remote rural areas or in downtown urban renovation sites. In fact, twenty percent of all forced break-ins are the result of glass breakage.

With laminated architectural glass, there's a solution to the problem. Unlike ordinary glass, which shatters easily on impact, laminated glass is a formidable barrier. Even heavy attacks by brick, crowbar or pickax result in only localized fractures and limited penetration.

Of course, no construction of any kind will stop a sustained attack. But since most burglaries are

committed by non-professionals who don't persist for more than a few minutes, laminated glass will usually provide sufficient delay to successfully thwart the attempt.

Laminated glass is constructed of two or more sheets of glass permanently bonded together with a plastic interlayer.

Monsanto manufactures the Saflex® polyvinyl butyral plastic interlayers most often used by leading producers of laminated security glass.

To find out more about how laminated architectural glass can fit into your residential designs, write: Monsanto Plastics and Resins Company, Department 804, 800 North Lindbergh Boulevard, St. Louis, Missouri 63166.

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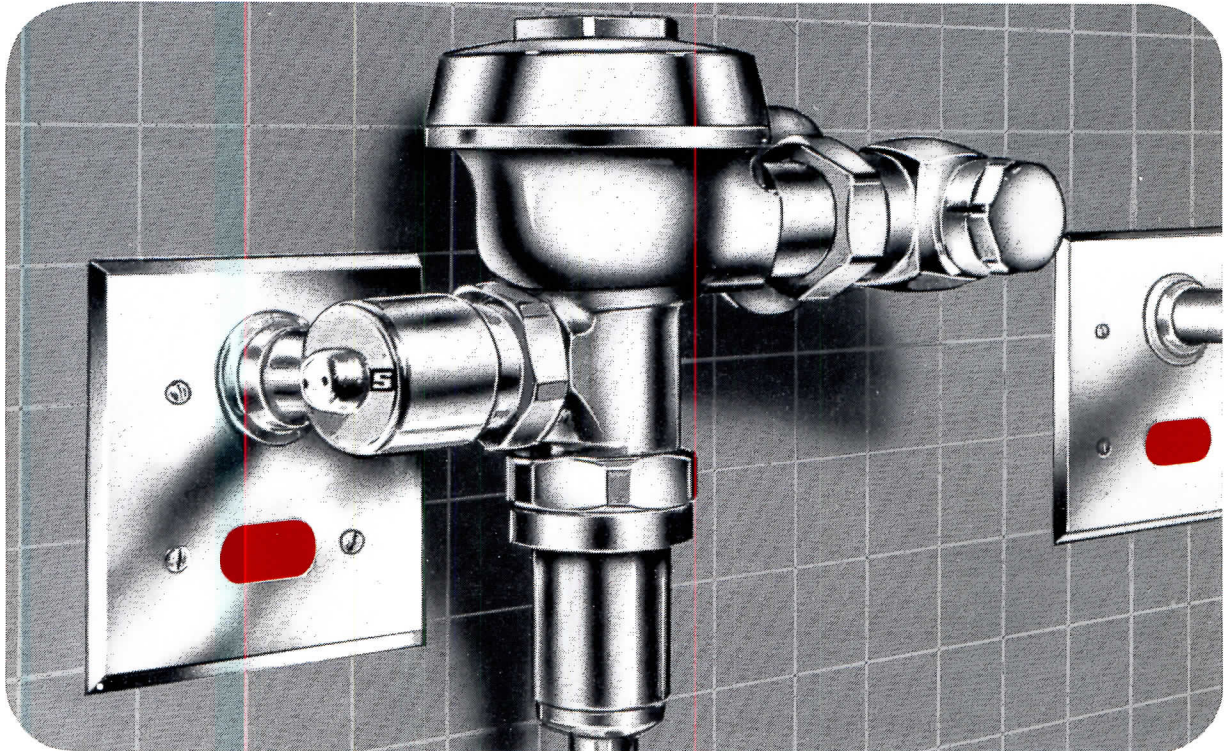
**SAFLEX**

PLASTIC INTERLAYER BY **Monsanto**

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Saflex® is a registered trademark of Monsanto Company

# It knows how to save water. Because it "sees" when to flush.



## The Sloan OPTIMA™ **sensor-operated** Automatic Flushing System. No handles. No timer. Flushed by an invisible beam of light.

It's Sloan's great idea for cutting water consumption, while increasing sanitary protection. And the key to it all is the Sloan OPTIMA Electronic Sensor.

It "sees" when to flush with an invisible, continuous light beam. When a user approaches the fixture, he reflects the beam back into the OPTIMA's scanner. The electronics take over and when the user steps away, the flush valve is tripped by a solenoid.

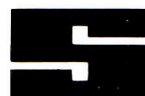
The OPTIMA offers the ultimate in sanitation because the user can't "forget" to flush. And since fixtures flush only when they

are used, precious water is conserved.

The OPTIMA is designed for easy, attractive installation. It works with the Sloan Solenoid-Operated Flush Valve that matches your application. This advanced Sloan OPTIMA System gives you a trouble-free, water-wise answer to high-volume flushing problems in hospitals, sport complexes, municipal and office buildings, and transportation terminals.

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**Sloan Flush Valves. Anything else is a waste of money.**



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