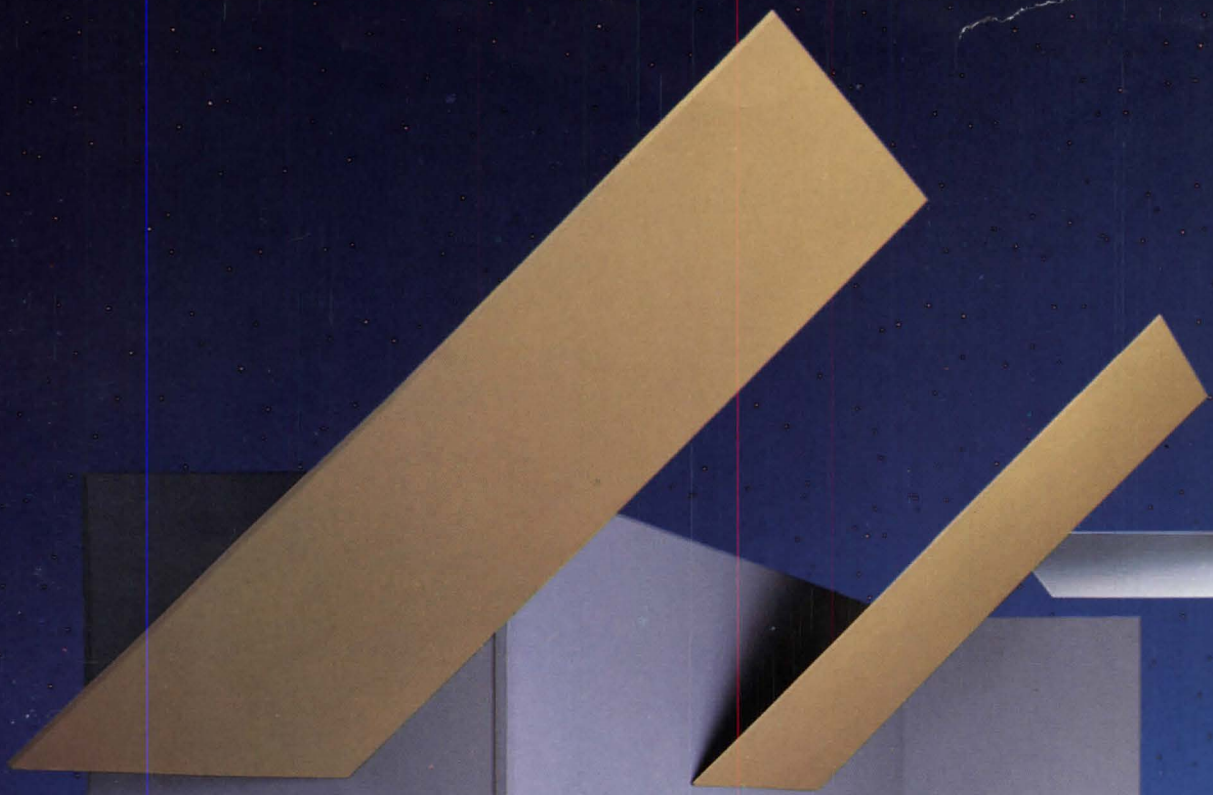


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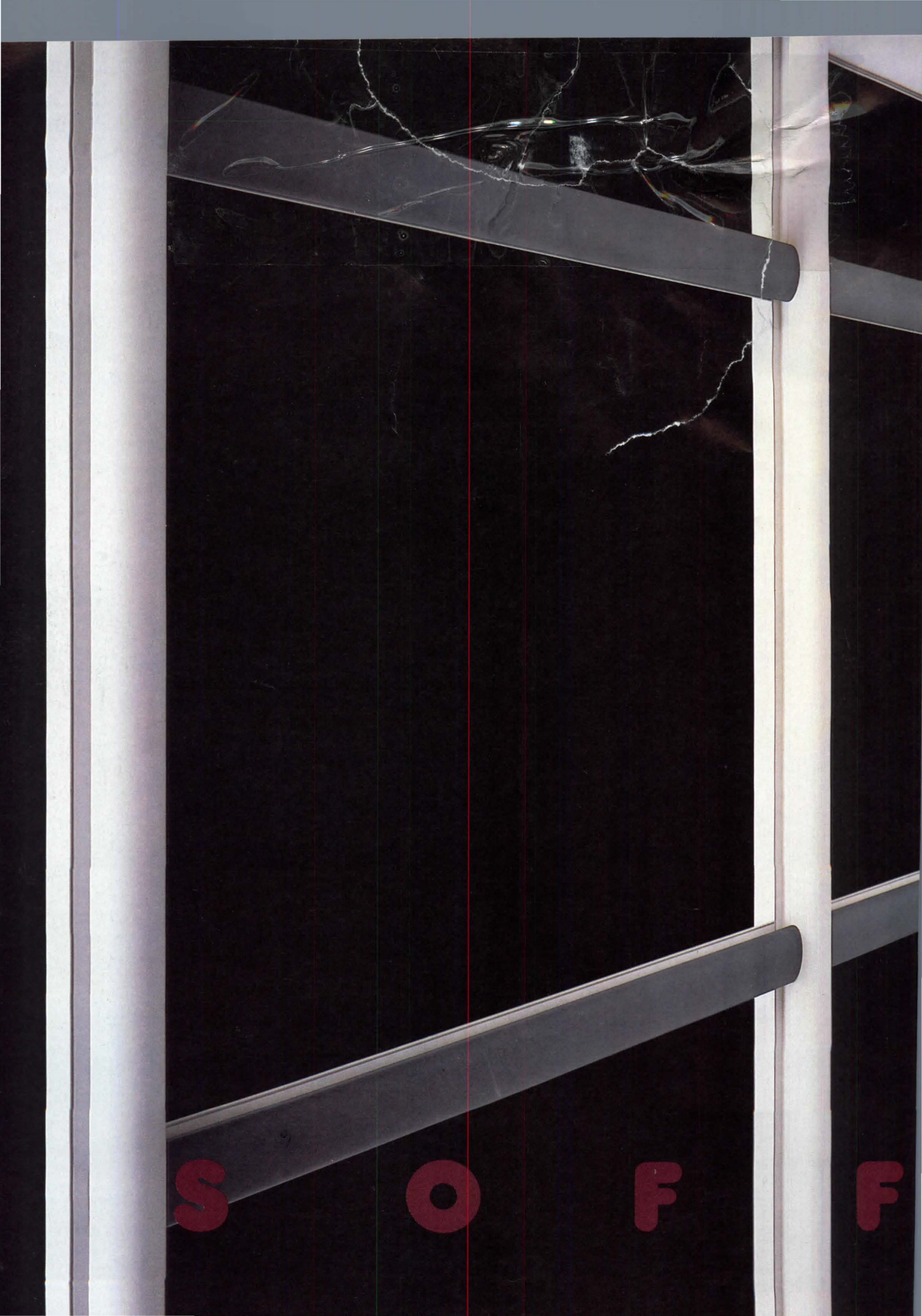
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Cover: Photograph ©George Heinrich of St. Paul's Winter Carnival Ice Palace by Ellerbe Associates (see page 14).

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ARCHITECTURE, publication number ISSN0746-0554, official magazine of The American Institute of Architects, is published monthly by the AIA Service Corporation at 1735 New York Ave. N.W., Washington, D.C. 20006. **Individual subscriptions:** U.S. and its possessions: \$30 for one year, \$48 for two years, \$65 for three years. Canada: \$36 for one year, \$56 for two years, \$75 for three years. Foreign: \$54 for one year, \$96 for two years, \$138 for three years. Single copies, \$5 each (except for May and September issues, which are \$10). Publisher reserves the right to refuse unqualified subscriptions. For subscriptions: write circulation department, ARCHITECTURE, 1735 New York Ave. N.W., Washington, D.C., 20006; allow eight weeks. Quotations on reprints of articles available. Microfilm copies available from University Microfilm, 300 N. Zeeb Road, Ann Arbor, Mich. 48106. Referenced in The Architectural Index, Architectural Periodicals Index, Art Index, Avery Index to Architectural Periodicals. Second class postage paid at Washington, D.C., and additional mailing offices. © 1985 by The American Institute of Architects. Opinions expressed by the editors and contributors are not necessarily those of AIA. vol. 75, no. 4.



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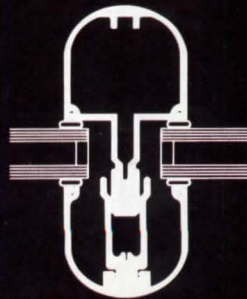
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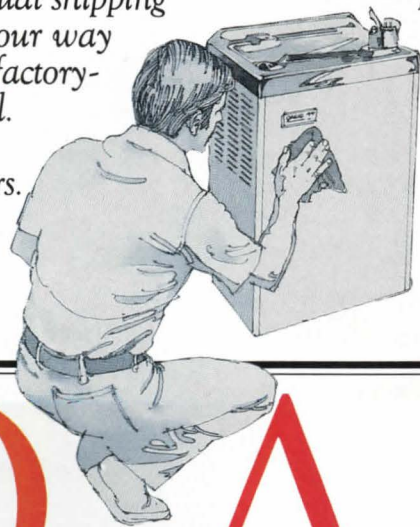
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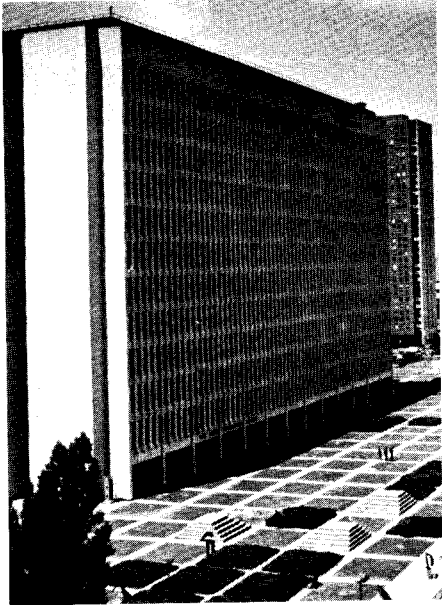


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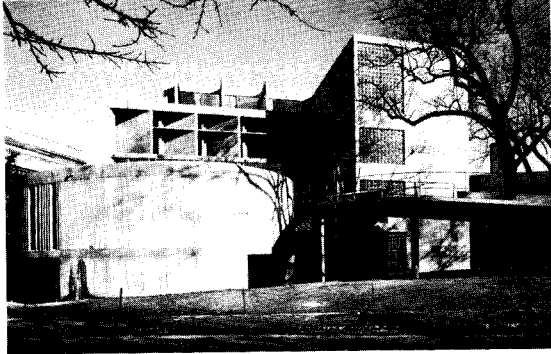
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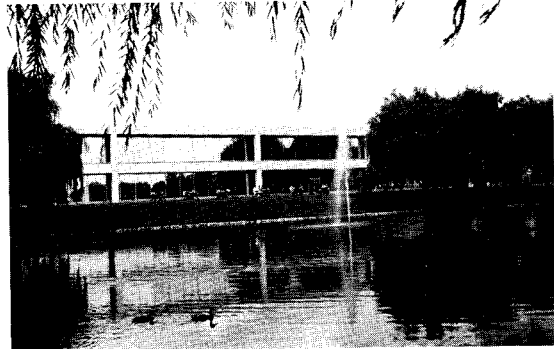
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EVENTS

May 1-2: Conference on Planning, Design, and Marketing of Commercial and Institutional Buildings, Chattanooga. Contact: John Lu, Tennessee Valley Authority, New Construction Section, 3S A Signal Place, 1101 Market St., Chattanooga, Tenn. 37402.

May 4-6: Pan Pacific Lighting Exposition and Conference, San Francisco. Contact: Robert Zinkhon, 2 Henry Adams St., San Francisco, Calif. 94103.

May 6-8: LOGISTEX 86—Physical Distribution Exposition and Forum, St. Louis. Contact: The Material Handling Institute, 940 Western Ave., Pittsburgh, Pa. 15233.

May 7-11: Scandinavian Furniture Fair, Copenhagen, Denmark. Contact: Judith B. Gura, 156 Fifth Ave., Room 634, New York, N.Y. 10010.

May 11-13: Lighting World IV, Los Angeles. Contact: Robbi Lycett, National Expositions Co., Inc., 49 W. 38th St., Suite 12A, New York, N.Y. 10018.

May 11-15: Computer Graphics '86—The Seventh Annual Conference and Exposition, Anaheim, Calif. Contact: The National Computer Graphics Association, 2722 Merrifield Drive, Suite 200, Fairfax, Va. 22031.

May 12-13: AIA Architects in Industry Meeting, Washington, D.C. Contact: Therese Ildefonso at Institute headquarters, (202) 626-7436.

May 12-16: International Teleconferencing Association Trade Show, Madison, Wis. Contact: Tom Giacomponello, ITCA, 1299 Woodside Drive, Suite 101, McLean Va. 22102.

May 15-16: Affordable Housing Workshop, Boston. Contact: Sheri L. Singer, AICP, 1776 Massachusetts Ave. N.W., Washington, D.C. 20036.

May 15-17: AIA Urban Planning and Design Meeting, Seattle. Contact: Bruce Kriviskey at Institute headquarters, (202) 626-7452.

May 19-21: Seminar on Long-Range Planning and Strategic Facility Management, Washington, D.C. Contact: Sue Sjogren, Facility Management Institute, 3971 S. Research Park Drive, Ann Arbor, Mich. 48104.

May 19-23: Course on the Application of Infra-Red Scanners to Detect Building Energy Losses and Roof Moisture, Burlington, Vt. Contact: The Infraspection Institute, Juniper Ridge, Box 2643, Shelburne, Vt. 05482.

May 21-22: Seminar on Single Ply Roofing, Hilton Head, S.C. Contact: The Roofing Industry Educational Institute, 6851 S. Holly Circle, Suite 100, Englewood, Colo. 80112.

May 21-23: AIA Roundtable Discussion on Justice Facilities, Washington, D.C. Contact: Mike Cohn at Institute headquarters, (202) 626-7366.

May 28-30: Workspace '86—Annual Exhi-

bition and Conference for the Office Environment, San Francisco. Contact: Charles Yourd, 665 Chestnut St., San Francisco, Calif. 94133.

May 28-31: AIA Meeting on Design Methodologies for Health Facilities, Monterey, Calif. Contact: Mike Cohn at Institute headquarters, (202) 626-7366.

June 8-11: AIA Annual Convention, San Antonio, Tex.

LETTERS

Underground Buildings: It is not very easy to judge an underground building in terms of architecture; there is not enough showing to establish any presence of a built edifice in conventional terms. It really comes down to that other major aspect in architecture, and that is space. In the case of our Uris Library at Cornell [Feb., page 50], very much interior space. Andrea Oppenheimer Dean's article captured the feeling and expressed it very nicely. Only the first paragraph made me a little sad. It sounded as if underground buildings, after making a short, justified appearance, have been phased out and become part of history. I hope that your readers don't construe both the Michigan Law Library and Uris Library as fad or nervous reply but instead recognize the real reason why they were put underground. I do hope to build many more buildings below the surface, if appropriately deserving to be there.

*Gunnar Birkerts, FAIA
Birmingham, Mich.*

Andrea Oppenheimer Dean responds: The building of underground structures has been one of the more sensitive, sensible, and self-effacing acts in recent architecture, the obverse to trendy, "look at me" responses.

Earth Bermed School: It is always gratifying to see publication within your pages of not only corporate headquarters or the palaces of high culture of our society, but also of schools and housing, the stuff of which so much of our physical environment is composed. Yet it is with sadness that we read of the Eugene Field Elementary School [Feb., page 44], a school with few if any windows, as an example of a quality environment. Where are the joys of witnessing the change of the seasons, the pattern of weather, the variety of light quality throughout the day? Where is the opportunity to see one's neighborhood at work: the movement of people, the firetrucks to the rescue, the society of one's peers in the playground? Surely these, too, are important parts of what our children should learn.

The effort to make the school compatible in scale with its neighborhood is certainly admirable and correct. If it was felt, however, that the design for a school

of this size could not be accommodated above ground without berming and the subsequent decision to eliminate windows then one would hope to question the issue of scale at a more basic level: Is the scale of the school building disproportionate to that of the neighborhood? Should encouragement be given to several small, decentralized buildings more compatible in scale with the separate neighborhood they serve?

Our role as architects must not be to blindly accept the dictates of our client but to explore ways of structuring a vision of what *can be*, so that as a society we can build a better future. A school without windows gets us off to a very poor start.

*Dieter Mru
Frederick Schneider, AIA
Charlottesville, Va.*

Subordination of 'Statement': The excellent choice of Esherick, Homsey, Dodge & Davis as firm of the year [Feb., page 28] reinforces a favorite concept of mine. The successful adaptation and reuse of the architecture of the past is a problem much more difficult than that of a totally new building on its own site. Respect for the existing building, careful attention to detail, and the apparent subordination of Esherick, Homsey, Dodge & Davis's need to "make a statement" to the existing form requires a special talent. This talent is obvious in the Cannery and the Monterey Bay Aquarium. I salute this firm's excellent work and applaud your selection in a good article.

*James T. Biehle, AIA
St. Louis*

(The AIA firm of the year is selected by the Institute honors jury.—Ed.)

American Architects Series: We are delighted with Professor Herbert Gottfried's informative review of *The Law Courts: The Architecture of George Edmund Street* by David Brownlee [Books, Feb., page 74]. However, I would like to point out that this book is not part of the Architectural History Foundation's "American Monograph Series." As the title implies the AMS is devoted to books about American architects.

*Victoria Newhouse
Architectural History Foundation, Inc.
New York City*

Corrections: In accordance with a landscape master plan by EDAW, replacement of trees on the Jeffersonian lawn of the University of Virginia will be confined to maples (see Dec. '85, page 63). Ash and locust are to remain.

In "Skyscrapers: Adventures in Form" (Jan., page 70), a building by Skidmore, Owings & Merrill/New York, the National Commercial Bank in Jeddah, Saudi Arabia was incorrectly identified as the Kuwait National Bank Building.

White Cement Imagination Architecture

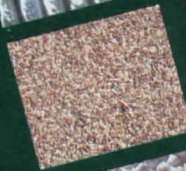
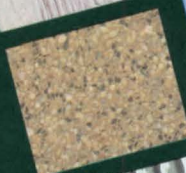
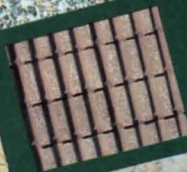
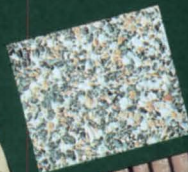
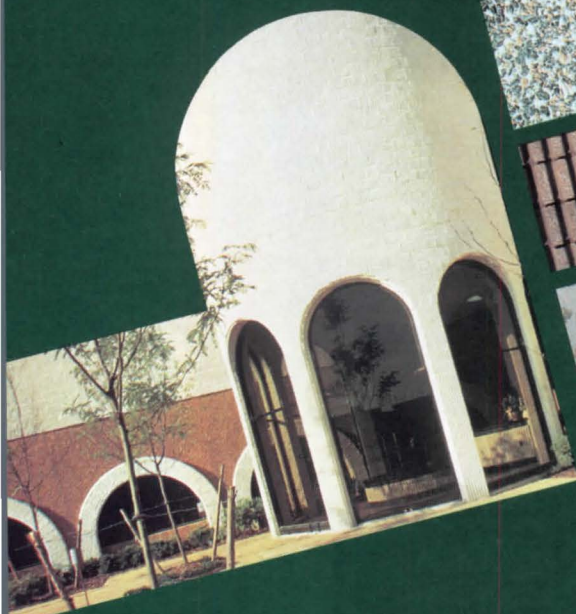
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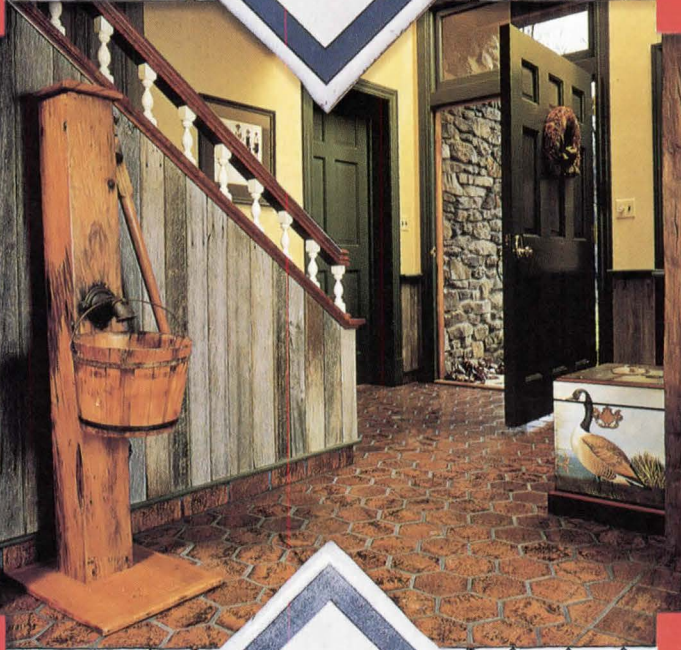
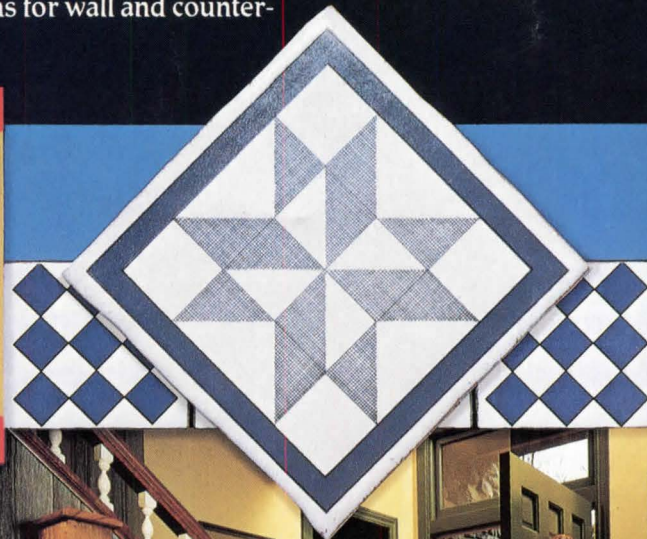
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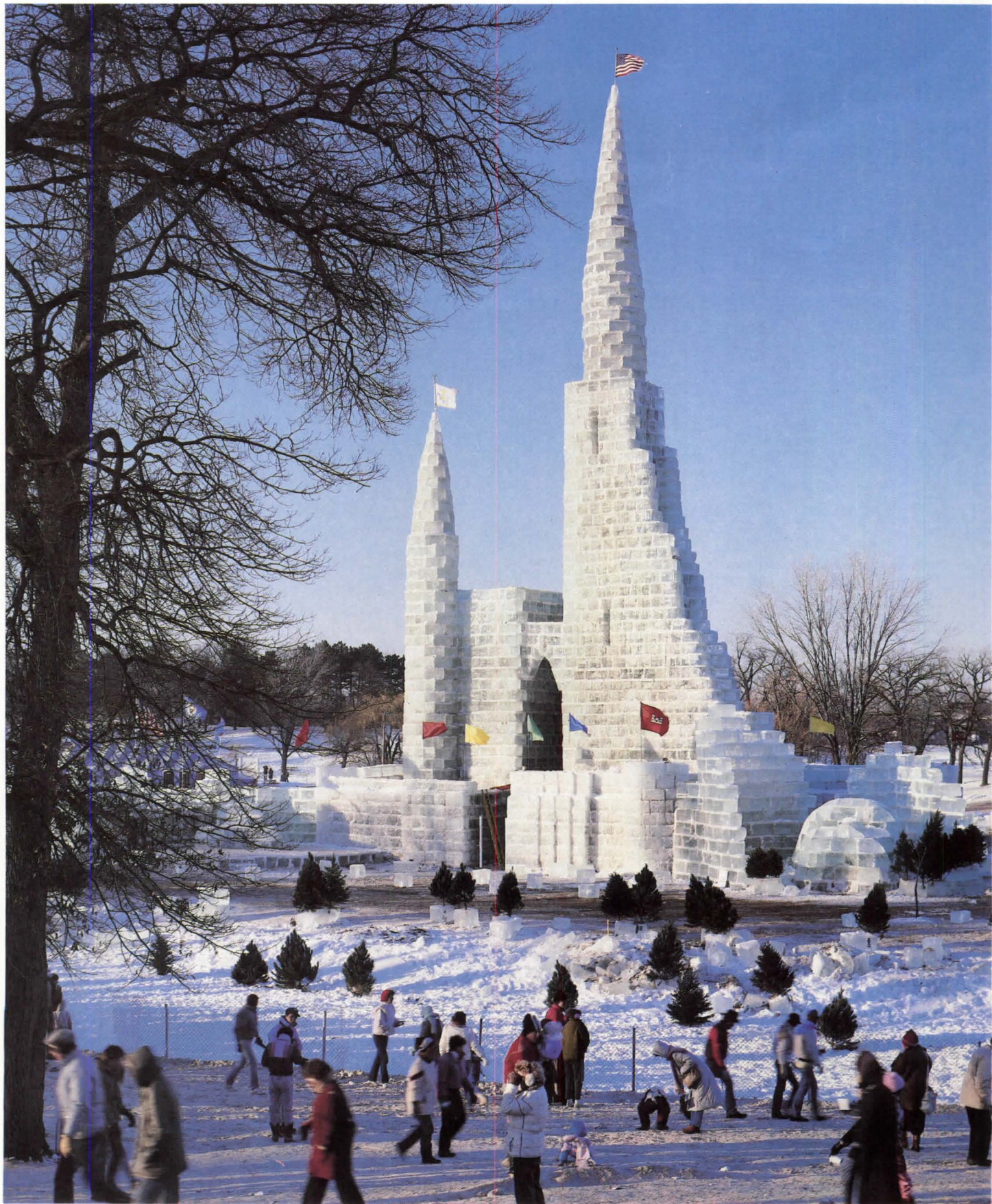
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Photographs © George Heinrich

Magical Ice Palace Celebrates St. Paul's 100th Winter Carnival

Minnesota . . . land of 10,000 lakes, most of them frozen too much of the year. The Twin Cities may be the only major metropolitan area where the wind-chill factor is more commonly quoted than stock market closings, where weather is a community obsession—everyone's least favorite and most practiced spectator sport.

Why take three months of chill on the chin? Why not have a carnival? Starting from ridicule in the Eastern states about its "Siberian" winters, St. Paul's civic boosters struck back 100 years ago by starting a Winter Carnival tradition. The modern-day version still features sled races, ice sculpting competitions, and the return of an age-old carnival tradition, the construction of an ice palace. The centerpiece of the first Winter Carnival, in 1886, was a giant medieval castle constructed entirely of ice, nearly 100,000 blocks of the stuff, with a central tower that rose 106 feet. This year, for the carnival's centennial celebration, the idea of the ice palace was revived after a 100-year hiatus. AIA's Minnesota chapter sponsored a statewide design competition, and the state's largest design firm, Ellerbe Associates, won over 12 other entries with a whimsical design inspired by the Winter Carnival's own mythology.

"With little programmatic baggage," said principal designer Karl Ermanis, "I could approach the project with a lightness of spirit. Generally buildings evolve from the needs and relationships of spaces within, but the ice palace is a case of inventing uses and inventing uses, based primarily on the mythology of the carnival." The design posed some real-world structural challenges for structural engineer Michael Shekner, who researched ice construction methods to establish design parameters and monitored the structure's strength and soundness during construction. His challenge: "to balance the masses fully, and to compensate for tension by keeping compression as low as possible." The palace was treated as if it were

a masonry structure, but with an eye toward the particular construction problems posed by ice.

Ellerbe's design differed strikingly from previous ice palace designs. "We didn't want to do Edinburgh," Ermanis said. "This is a palace of the imagination. Things in myth want to soar."

And soar it did. Above a concrete foundation and scores of wood pilings, the palace rose from an asymmetrical base to a height of just under 130 feet, making it the second tallest palace ever constructed for the Winter Carnival. Substantial buttresses and ramparts supported two tall towers topped by slender cones. The shimmering material belied the mass of the structure. Each of the 9,000 blocks of ice, 3.5x2x1.75 feet, weighed between 600 and 700 pounds. At night, with hundreds of red, blue, and green computer-controlled lights blinking in alternating patterns, the structure glowed like some kind of magical midwinter fantasy.

Making that magic wasn't easy. First came the difficulty of finding an insurer willing to provide a \$1 million errors and omissions liability policy. Even fantasies can have structural failures. Then came the task of efficiently harnessing the ener-

gies of 700 volunteer workers from local construction trade unions, who showed up whenever they could. Once trained, however, the workers were frequently replaced by greener recruits. The difficulties of working with ice proved a constant challenge to even experienced workers. "You could write a book about what we learned out there about ice," someone said.

Using a chain saw on the 21-inch-thick ice field, workers cut through the ice and guided the blocks from the frozen surface of Lake Phalen onto a conveyor belt for the trip to the palace. The walls of the palace rose slowly, and midway through construction were only about 20 feet high. The crews began to race the Winter Carnival's clock to complete the palace on time. But as the walls rose, so did January temperatures, turning mortar to mush and forcing the construction crews to reslush and patch, while laying plastic shields over completed palace walls to prevent melting.

By mid-January it was clear the original palace design had to be scaled back. The architects went back to the drawing board, and eliminated the 150-foot tower, leaving a smaller 120-foot tower as the palace centerpiece and reducing a second tower in height to 80 feet. The overall design was revised to preserve the form and scale of the original, but the construction team remained tense. "The weather was tormenting us. We were afraid that what was built wouldn't meet everyone's expectations. . . . When the odds became overwhelming, we were worried we couldn't deliver," recalled project manager Scott Thorpe, AIA.

But deliver they did. The ice palace captured public fancy the way few other events in the community's history have. For weeks after its completion, people streamed by to see it, with estimates of over 250,000 visitors, some of whom waited for two hours in the middle of the night just to drive by.

Even modern fairy tales end, and in late February, the ice palace was demolished. Its magic, however, still lingers . . . but then, so does the Minnesota winter.

JOANNA BAYMILLER

Ms. Baymiller is deputy director for planning and development at the Minnesota Museum of Art, St. Paul.

News continued on page 21



View and detail of the ice palace.



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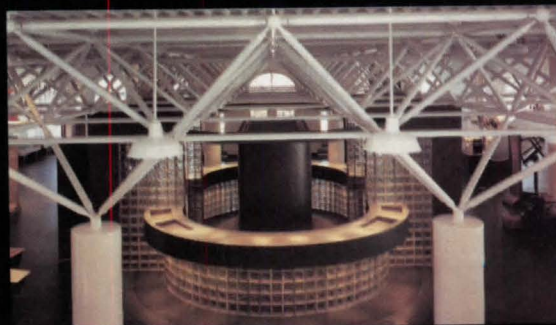
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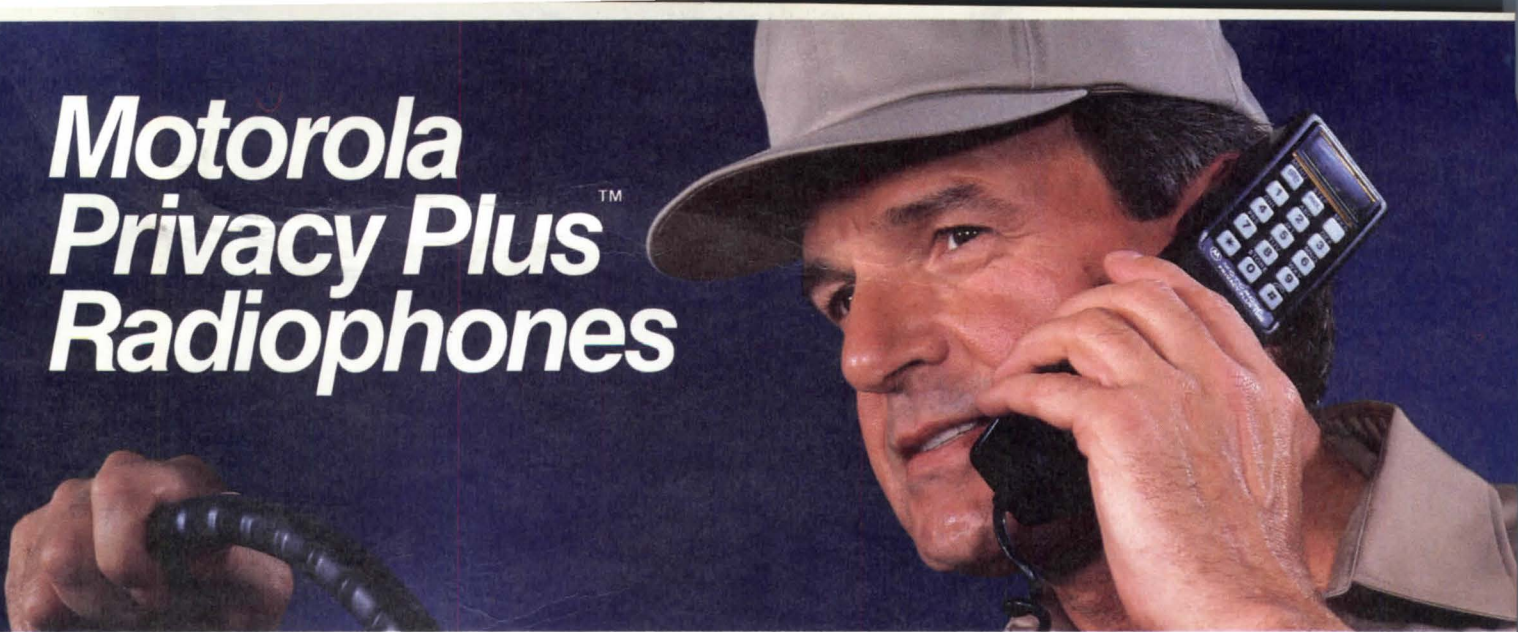


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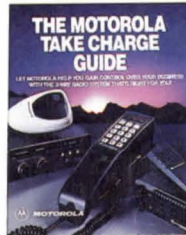
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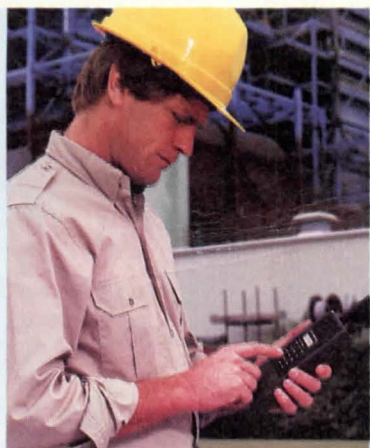


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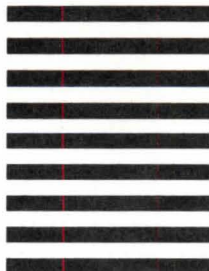
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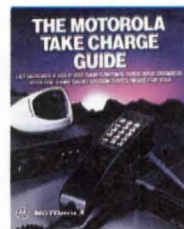
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 **FRY REGLET**

AIA Honors Nine for Distinguished Achievements'

A has announced nine winners of 1986 Institute honors recognizing "distinguished achievements that enhance or influence environment and the architectural profession." The honors will be conferred in June at AIA's annual convention in San Antonio.

Thomas R. Vreeland, FAIA, of Los Angeles chaired the jury. Other jurors include Edmund N. Bacon, FAIA, of Philadelphia; Lewis Davis, FAIA, of New York City; John L. Field, FAIA, of San Francisco; David Macaulay of Providence, R.I.; Charles Lord, AIA Associate, of Las Vegas; and Michael D. Prothe, a student at the University of Oregon.

The winners are: Antoinette Forrester Downing of Providence, preservation advocate at the neighborhood, city, state, and national level for more than 40 years, cited for her "significant work in the theory, philosophy, and technique of historic preservation, education, and conservation and for her unparalleled dedication to the preservation of our cultural inheritance for generations to come."

Downing was born in Illinois and reared in New Mexico. Downing graduated from the University of Chicago and later studied architectural history at Radcliffe College and the Rhode Island School of Design.

Downing has written books and numerous articles on regional architecture, starting in 1971 with *Early Homes of Rhode Island*. In 1972 she coauthored with Vincent Scully *Architectural Heritage of Newport*.

In 1956 Downing helped establish the Providence Preservation Society and later was named to chair the Rhode Island Historical Preservation Commission. She also worked as a researcher for the Cambridge (Mass.) Historic Districts Commission, as trustee of Colonial Williamsburg, as an adviser to the National Park Service, and as trustee of the National Trust for Historic Preservation.

New York City structural engineer Richard H. Geiger, recognized for his "ability to collaborate with architects in the most classical sense to produce structures of lasting worth and great beauty."

Geiger is president of Geiger Associates since 1973. He worked on many long-span buildings, such as the U.S. Pavilion at EXPO '70 in Osaka, Japan (designed by Davis Brody Bond Associates); Canada Place in Vancouver (Zeidler Roberts Partnership); and the buildings by CRS Sirrene—the University of Iowa Hawkeye arena, the University of Santa Clara (California) Thomas Schuchman activities center, and the Uni-

versity of Florida Stephen C. O'Connell Center.

Geiger is also an adjunct professor at Columbia University and New York University.

• William H. Jordy, professor of art history at Brown University, cited by the jury for his "distinguished contributions to the body of architectural and historical literature."

His two-volume *American Buildings and Their Architects* addresses the development of modern architecture in the context of individual buildings, and his essay on Louis Sullivan's work is considered "the best discussion to date of the problematic relations of Sullivan's ornament to his architecture," according to the jury.

A native of Poughkeepsie, N.Y., Jordy graduated from Bard College in 1939 and later studied at New York University and Yale University. He taught art history at Yale from 1948-55, was a Guggenheim Fellow in 1952, and joined Brown's faculty in 1955.

• Adolf Kurt Placzek, librarian of Columbia University's Avery Library for 33 years and editor of the MacMillan Encyclopedia of Architects.

Born in Vienna in 1913, Placzek moved to the U.S. in 1940 and graduated with a degree in library science from Columbia. He joined the Avery Library staff in 1946 and was named Avery librarian in 1960. The jury said that during his tenure the library became "foremost in the field of architecture."

Placzek is active in the Society of Architectural Historians, serves on the New York City Landmarks Preservation Commission, and is an adviser to Columbia's Buell Center for the Study of American Architecture. *continued on page 22*

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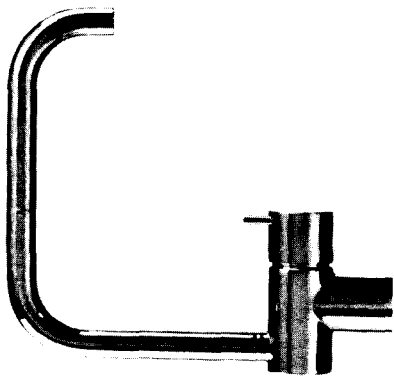
Unless otherwise indicated, the news is gathered and written by Allen Freeman, Nora Richter Greer, Michael J. Crosbie, and Lynn Nesmith.

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Institute from page 21
Cervin Robinson, New York City architectural photographer, historian, and critic, uses photographs "dramatize the commonplace . . . expose the special strengths, laws and weaknesses of even the most tired work."

Robinson became interested in photography as a young boy after receiving a camera and developing and printing kit from his architect father. After graduating from Harvard University in 1950 with a degree in English literature, he served in the U.S. Army and later worked as an assistant to photographer Walker Evans from 1953 until starting his work for the Historic American Building Survey (1957-63).

In 1971, Robinson received a Guggenheim Fellowship to photograph New York City's art deco architecture. His photographs have been featured in several major exhibitions, including "Architecture of Frank Furness" at the Philadelphia Museum of Art in 1973 and "Skyscraper Series: Art Deco New York" at the Brooklyn Museum in 1975. He is the author of *Architecture Transformed*, a history of architectural photography and teaches a summer course on architectural photography at Columbia University.

Rudolf Wittkower, art and architectural historian, philosopher, and author, honored posthumously for his "significant influence on generations of thoughtful architects."

Born and educated in Berlin, Wittkower taught at the University of London's Warburg Institute from 1934-56 and served as the chairman of the department of art history and archeology at Columbia University from 1956-69. He died in 1972 at the age of 71. His 1949 book, *Architectural Principles in the Age of Humanism*, was cited in his nomination for president "not only a new interpretation of the architecture of Renaissance Italy in relation to the history of ideas, but his discussion of systems of proportion had a profound influence of architectural thought."

The Cathedral Church of St. John the Divine in New York City, cited by the jury as "an extraordinary building undertaking" whose cornerstone was laid in 1892 and continuing to the present under the direction of the Very Rev. James Parks Morton.

The original architects, Heins & LaGrange, completed the apse, choir, and transept based on a competition-winning scheme before architect Ralph Adams Cross took over the design in 1916. Construction was stopped in 1941 because of World War II. In 1979, British master

... a photograph by Cervin Robinson, winner of an AIA honor, of the Cathedral of St. John the Divine, also a winner.

mason James R. Bainbridge was hired to oversee the construction, to create working drawings based on Cram's designs, and to develop a work program to teach poor neighborhood youths the art of stonecutting.

• Gladding, McBean & Co., of Lincoln, Calif., manufacturer of all types of clay products for architectural use, honored for its "concern, cooperation, and historical preservation work."

Founded in 1875 to make clay pipe for builders on the West Coast, Gladding, McBean & Co., now a division of Pacific Coast Building Products, has grown to 12 manufacturing plants that produce terra-cotta building facings and decorative facings for new construction and renovations. The jury said, "Without this firm's continued commitment to quality, the art of producing fine architectural terra-cotta work might have been lost."

• Master plan of the U.S. Capitol, a guideline for future development that respects the historic area and accommodates the functional requirements of Congress.

Unveiled in 1981 by Architect of the Capitol George M. White, FAIA, the plan "imaginatively extends the framework established by Pierre L'Enfant in 1792 and the McMillan Plan of 1902 to reinforce the symbolic and actual functions of U.S. government in the 21st century," in the words of the jury. Under the plan areas for development are defined, open spaces are improved, and future Senate and House office buildings are organized as "gateways to existing Capitol architecture."

AIA's Henry Bacon Award Honors Statue of Liberty

The Statue of Liberty, now undergoing extensive renovation for its 100th anniversary this year, has been selected to receive AIA's 1986 Henry Bacon medal for "excellence in memorial architecture" around the world. The award will be presented in June at the Institute's annual convention.

Conceived by the French in 1865 as a monument to commemorate the first centennial of America's independence, the Statue of Liberty came to stand as a symbol of freedom and hope to millions of immigrants.

The statue and its base resulted from a collaborative effort of sculpture, engineering, and architecture. The 151-foot statue by French sculptor Frederic Auguste Bartholdi was originally erected in Paris and disassembled and shipped to New York City. Its innovative structural system was designed by Alexandre-Gustave Eiffel, his only work in this country. The classical pedestal was designed by Richard Morris Hunt.

Six years ago the French-American



Recent photograph of the Statue of Liberty with its partially dismantled aluminum scaffolding system.

Committee for Restoration of the Statue of Liberty was formed, and the New York City firm Swanke Hayden Connell was commissioned to head a team of architects and engineers for the statue's restoration. The 300-ton aluminum scaffold that has encased the Statue of Liberty for more than two years is now coming down, and the comprehensive restoration to improve the statue's physical condition and enhance visitor access is scheduled to be completed by July 4 for its centennial celebration.

The awards jury praised the statue as a "most cherished tenet of our country, . . . a magnificent addition to the New York Harbor."

Federal Officials to Discuss A/E Procurement at Convention

Representatives from several government agencies will be presented at AIA's annual convention in San Antonio to discuss federal procurement of A/E services.

Officials from the General Services Administration, Environmental Protection Agency, Air Force, Army Corps of Engineers, Naval Facilities Engineering, and NASA will be available June 9-11 to meet on an individual basis with architects to provide information on procurement of A/E services. The program was devised to allow architects to establish contact with federal agencies and thus increase their access to government projects.

Appointments will be taken at the convention's registration area. For more information, contact Mark Chalpin at Institute headquarters. *continued on page 28*

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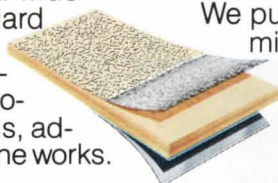
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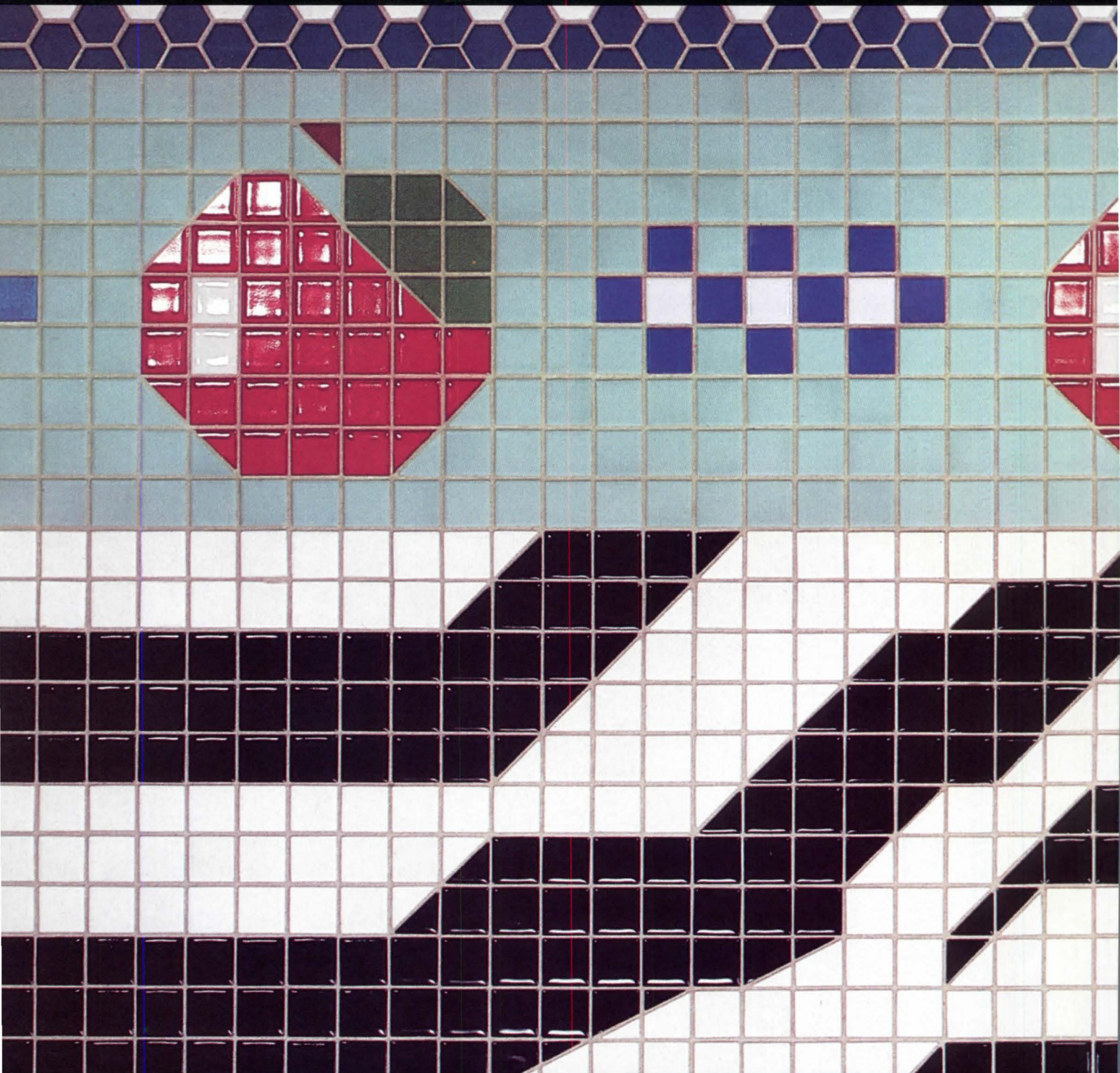
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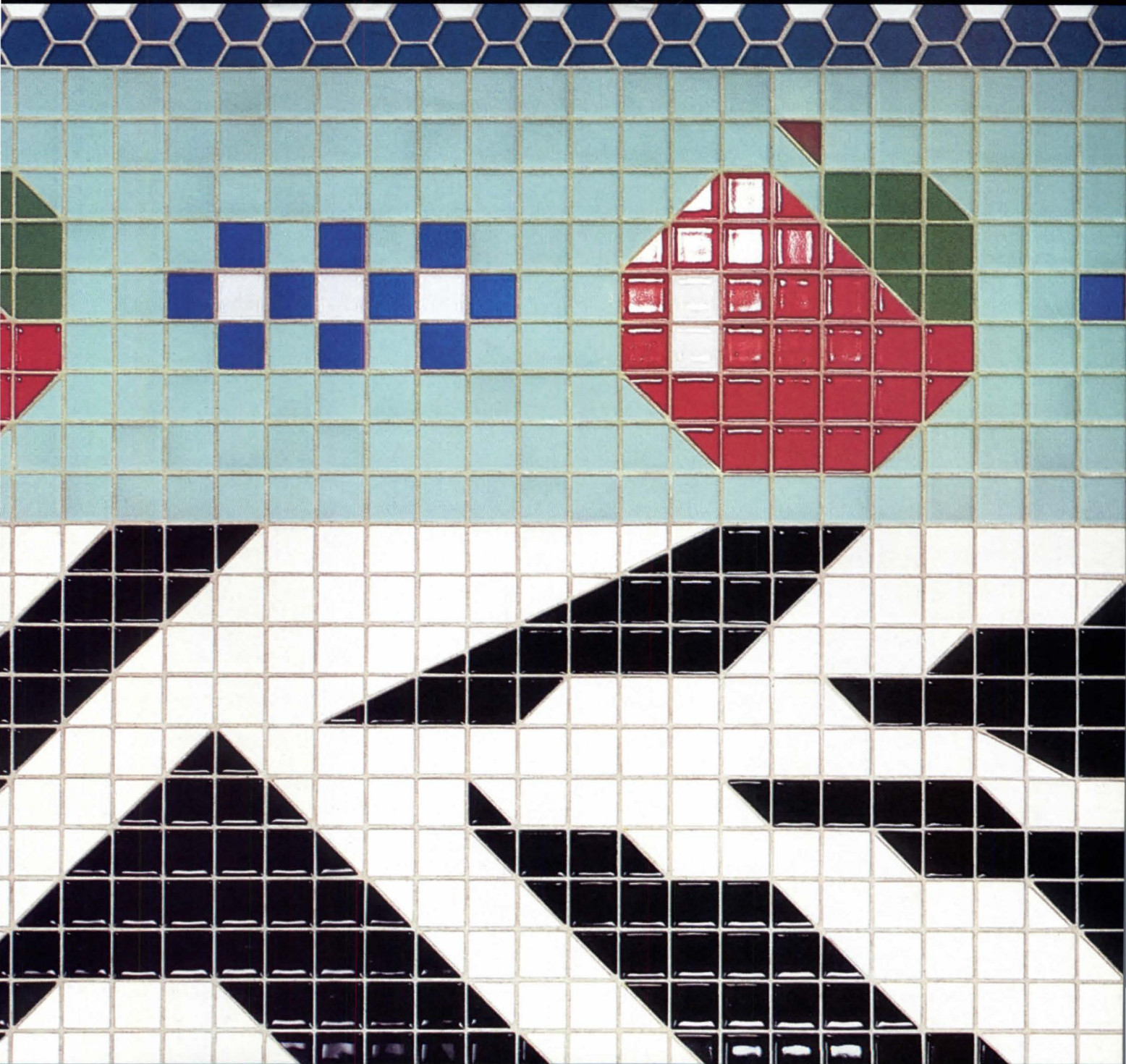
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Challenges

Pragmatic and Utopian Answers For Gorilla Care and Exhibition

The gorilla is a familiar presence in film and folklore but rarely turns up as the subject of a design charrette. In mid-February 60 architects, zoo directors, and field researchers gathered in Dallas for "Gorilla, Gorilla, Gorilla," an international symposium on the care, exhibition, and propagation of the captive lowland gorilla. The immediate objective of the event—cosponsored by the Dallas Zoological Society and the University of Texas at Arlington school of architecture, with funding from the National Endowment for the Arts—was generating design concepts for a \$3 million gorilla habitat at the Dallas Zoo. Like many zoological parks, Dallas still houses its gorillas in sterile steel and concrete cases, so throughout the three-day affair theoretical discussion was tempered by glimpses of harsh reality.

The symposium began with a sobering appraisal of current zoo architecture. David Hancocks, former director of the Woodland Park Zoo in Seattle and the author of *Animals and Architecture*, said, "Means and methods of enclosure have held all the attention, to the detriment of the space within the enclosure. Great care is paid to the possibility of physical escape, but little is usually done about helping the animals escape from human gaze if they want to, or escape from threats by each other, or escape from boredom. By and large, zoo design standards have been abysmal, from their graphic panels to their letterheads, from their landscaping to their blindness."

Hancocks said that while the situation has been improving of late—notably in the San Francisco, New Orleans, and Seattle zoos—some of the progress has been purely semantic. "People now talk of the 'habitat' instead of the 'cage,' even though the habitat consists entirely of concrete, plastic, and steel," he said. "Others build trees of glass fiber or put metal leaves on plastic shrubs, or paint desert scenes on the back walls, and then call their exhibits 'naturalistic.'"

Participants were divided into five teams, each of which answered 10 key questions concerning everything from barriers and sight lines to climate and disease controls and public education features. Given the size of the group and the diversity of perspectives represented, there was surprising unanimity about the basic ingredients of a good gorilla habitat.

"Choice" emerged as the key design

concept, giving gorillas the same kinds of options that humans enjoy. For instance, the habitat should be a natural outdoor environment, with trees and water and enough topographical changes to relieve boredom. And the habitat should contain enough secluded spaces for the gorillas to hide or mate, and be large enough to allow the troop to be moved from place to place on a regular basis. Gorillas, by nature, are not conservationists, and can quickly devastate a small habitat.

That man and animals should mingle in the same environment was taken as axiomatic. Participants disagreed mainly about how and to what extent this should take place. "The idea of man entering into the gorilla's environment is less important than creating a gorilla environment for gorillas," said Peter Chermayeff, AIA, of Cambridge Seven, architects of the New England Aquarium in Boston and the National Aquarium in Baltimore. "The visitor should be in the position of a privileged interloper."

Hancocks argued for more co-mingling, that the only way to learn reverence for the gorilla's environment is to experience it. "One reason that gorillas are in trouble is because of the images that zoos, circuses, and Hollywood perpetuate," he said. "How do you make people aware of this without immersing them in the environment?"

The specific design proposals ranged from the pragmatic to the utopian. One called for constructing a large glassed pavilion in the center of the habitat, with a secondary viewing trail circling the perimeter. Another involved cutting a deep pedestrian canyon, which would zig and zag its way through the middle of the habitat to simulate the visual experiences a visitor might have in the wild. In all schemes the gorillas are separated from viewers by an assortment of moats and berms, and always reside at or above eye level. Nobody likes being looked down upon.

All proposals will be studied by the Dallas Zoo staff, with the best ideas incorporated into a formal design program to be distributed later to interested architects and landscape architects. The zoo hopes to open the \$3 million facility in the spring of 1988.

Implicit in most of the discussions was a recognition that architecture and design can do only so much for the captive gorilla. Terry Maple, director of the

Atlanta zoo, reminded the participants that scientific research is even more important, and that advocates for good zoo design need to be equally adamant about supporting research facilities and international conservation efforts.

Ann Pierce, who worked with both primate expert Jane Goodall and the late Dian Fossey, went a step further by urging zoos to establish a kind of gorilla emigration policy, through which young captive gorillas could be moved from unsatisfactory environments to better zoos in order to learn basic social skills. "Too many zoos get hung up on the prestige of having a gorilla, even when the gorilla would clearly be better off elsewhere," she said. "The real issue is what is best for the gorilla and the species, not the institution." DAVID DILLON

St. Bart's Plans Lawsuit After Third Denial for Tower

The New York City Landmarks Preservation Commission has rejected a third proposal by St. Bartholomew's Church to raze its historic community house and part of its garden to build an office tower. Soon after the commission's 8-to-0 vote church leaders announced they would seek a court order to obtain permission to construct an office building on their landmark site on Park Avenue between 50th and 51st streets.

In this application, the church had argued that the denial of the proposal to build a 47-story office tower would cause "extreme economic hardship and other hardship." The two previously rejected applications were requested for "certificates of appropriateness" for specific design proposals, both by Edward Dure Stone Associates. (The first was a 59-story tower of reflective glass; the second was a similar 47-story building with a brick and limestone base.) The city's landmark law allows the owner to apply for a permit to alter, demolish, or build based on hardship if the owner's design proposal is rejected as inappropriate.

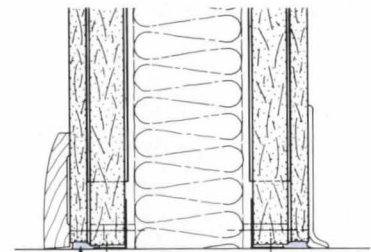
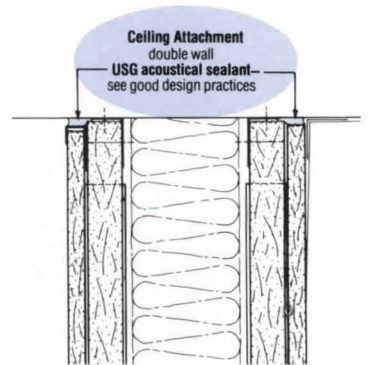
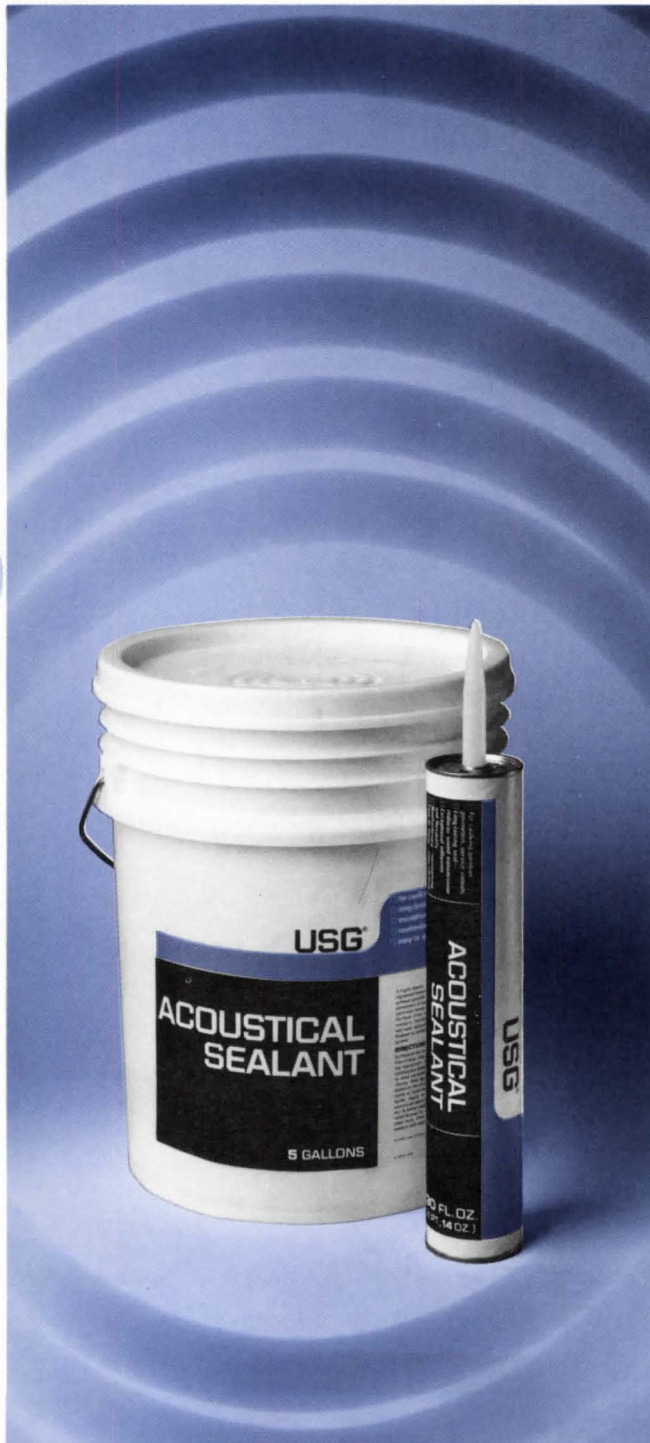
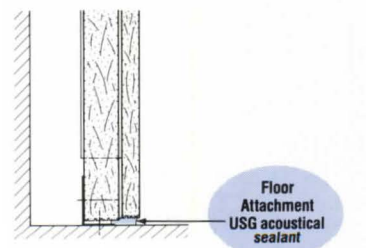
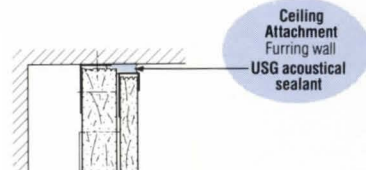
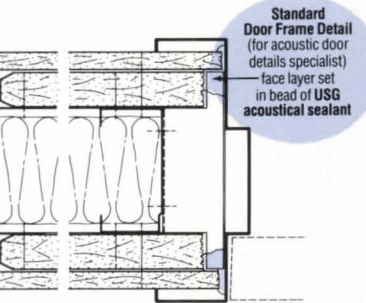
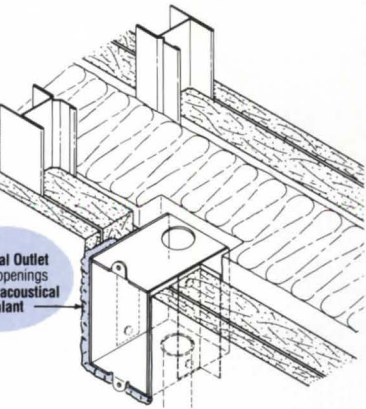
The battle over plans to build a tower has divided the congregation for seven years and cost the church approximately \$1.6 million in fees. Supporters of the development scheme argue that the church needs the estimated \$3 million rent the building would generate annually to provide revenue for social service programs and pay for repairs and maintenance of the building. The tower would also provide 60,000 square feet of administrative space for the church to carry out these social services.

The church's hardship application seeks repair and renovation costs at \$11 million over the next two years, while crit-

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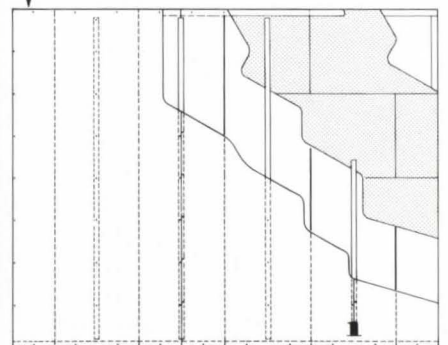
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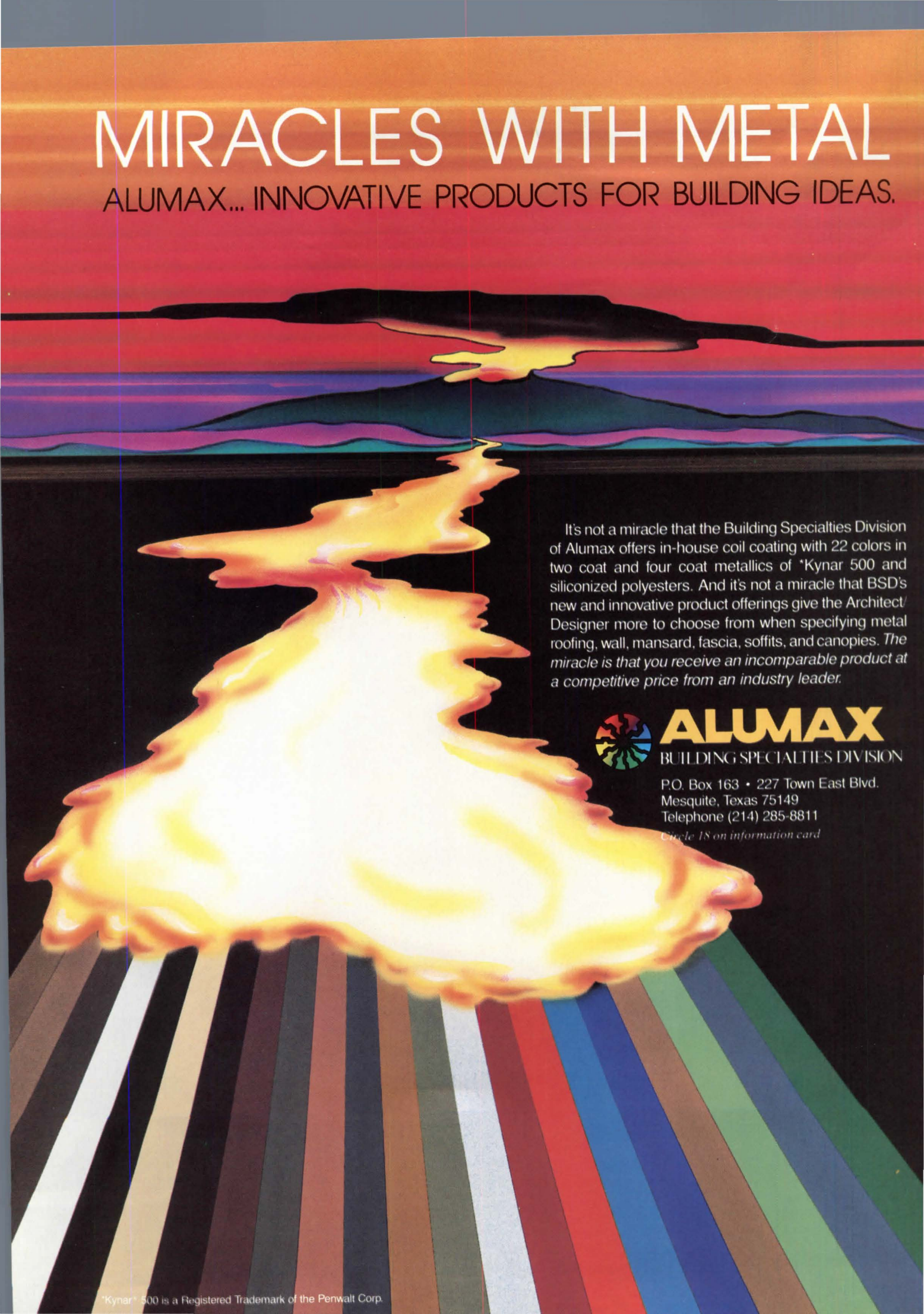
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Challenges from page 28

of the plan, including some parishioners, contend that the repairs and maintenance costs are inflated and unsubstantiated.

Ronald Alexander, a tax attorney who had served as chairman of the church's vestry building committee until he resigned last year over the tower proposal, commissioned a study that found the church actually had \$6.4 million in unrestricted funds that could be used for maintenance and repairs.

After the overwhelming rejection of the hardship case, the rector of the church, the Rev. Thomas Bowers, said that the court is the one place where their case will be heard and justice done. "We have come too far not to go on," he said.

The commission's denial of the proposal interferes with religious freedom and is a violation of the church's First and Fifth Amendment rights, according to Fletcher Hodges, chairman of St. Bart's real estate committee and a member of the vestry.

The neo-Byzantine church was designed by Bertram G. Goodhue and completed in 1918; the community house by Mayers, Murray & Phillip was completed 10 years later. In 1967 the complex was one of the first buildings designated a landmark under the city's preservation law. LYNN NESMITH

Architects Join Forces For Nuclear Disarmament

Architects, Designers, Planners for Social Responsibility has been continuing its efforts to raise the profession's consciousness on the threat of nuclear weapons and their proliferation. The group is a national organization, the result of the merger of the Architects for Social Responsibility founded in New York City in 1982 and ADPSR founded in 1981 in California. The two united efforts in 1984, now claim a membership of 2,000, and have chapters in Los Angeles, Northern California, Seattle, Phoenix, Tucson, Chicago, Washington, D.C., Philadelphia, New York City, and Boston.

According to Tician Papachristou, FAIA, ADPSR's national president, the group hopes to expand its membership and chapters by raising funds that would then be used for mailings and publicity. Last year the New York chapter raised \$75,000 from an auction of more than 200 drawings by architects such as Michael Graves, FAIA, Richard Meier, FAIA, Ricardo Bofill, and Robert Krier.

The group recently joined the Professionals' Coalition for Nuclear Arms Control, based in Washington, D.C., which includes the Physicians for Social Responsibility,

Lawyers Alliance for Nuclear Arms Control, and the Union of Concerned Scientists. "This group has close contact with Congress and passes information to congress people regarding nuclear arms control issues," explains Papachristou. "Through the coalition, ADPSR will be guided and given information on conducting local briefing programs with our own congress people," he adds.

ADPSR is also seeking to affiliate itself with other groups globally. In May, Papachristou and three other ADPSR members will travel to the Soviet Union at the invitation of the president of the Soviet Union of Architects. "We hope that it will maybe be the beginning of an exchange of exhibits and students, and even visits here by Soviet architects," Papachristou says. ADPSR has also been in contact with professional organizations in Great Britain, China, and West Germany, and is planning to be a part of the congress of the International Union of Architects, scheduled for July 1987 in Brighton, England. Papachristou says that a resolution on nuclear disarmament similar to the one AIA passed at its national convention in 1982 may be considered at the UIA congress. ADPSR programs for this year's AIA convention are still in the planning stage, reports Papachristou.

News continued on page 1



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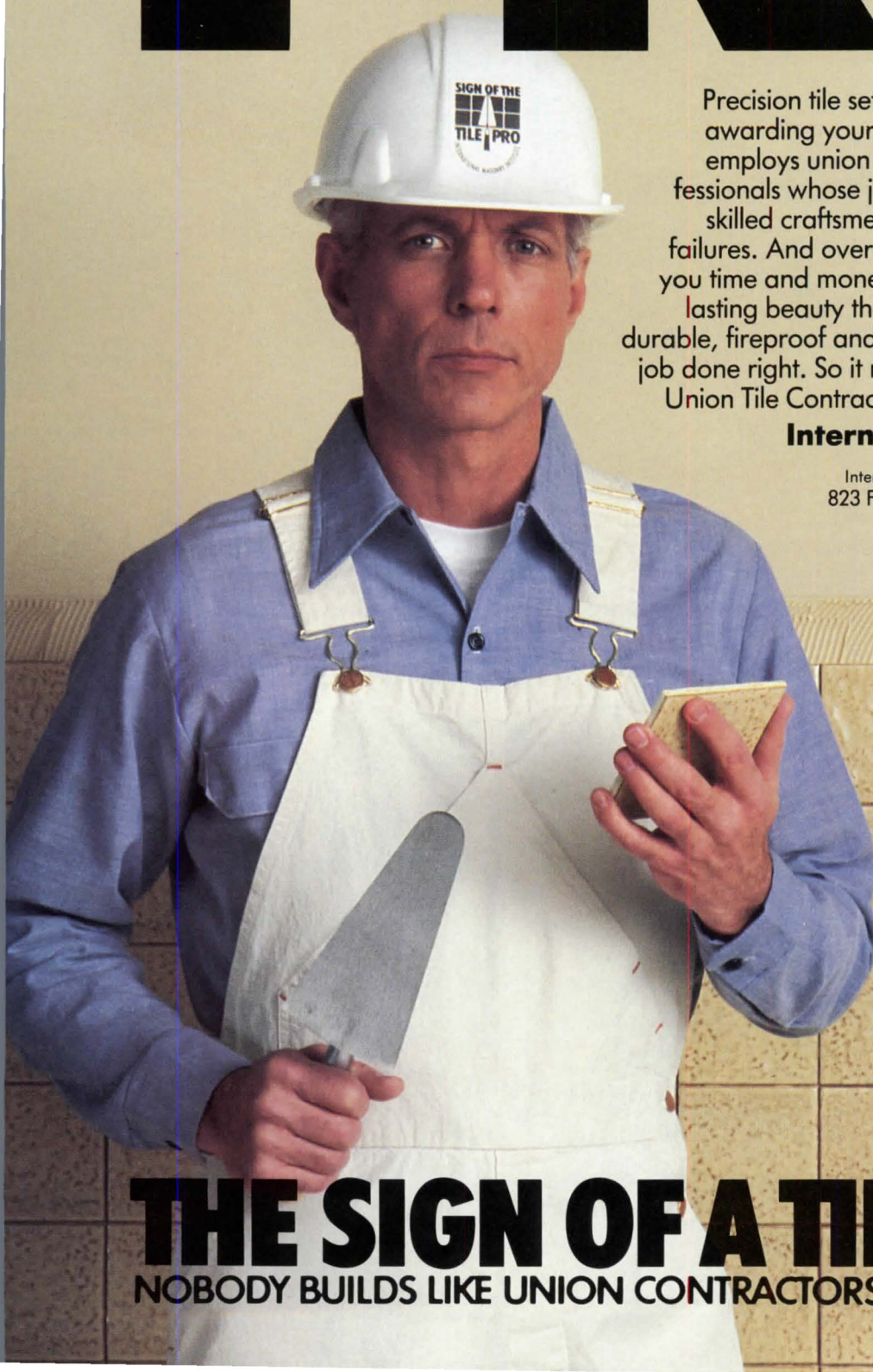
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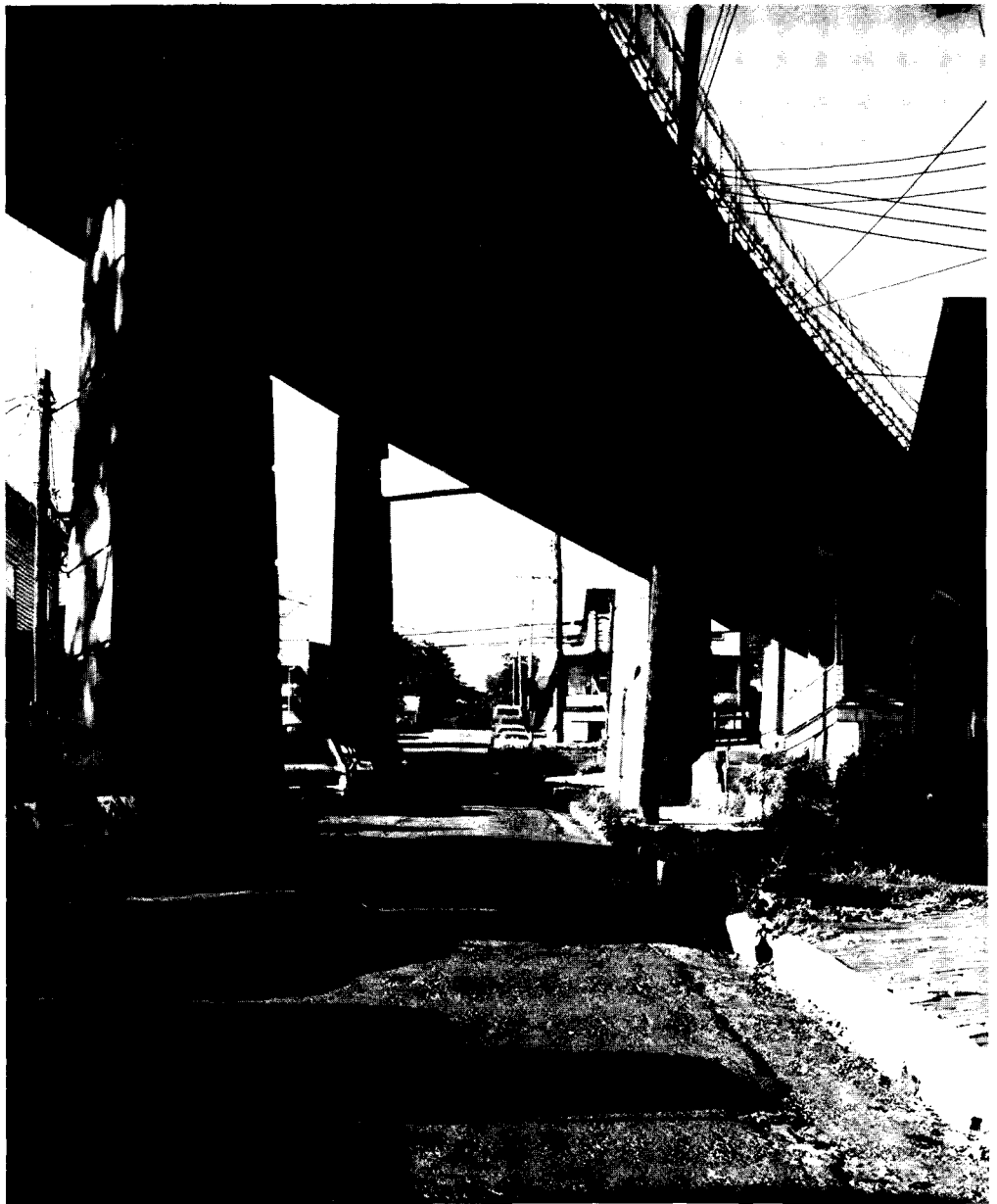


ascination with unlikely Things

arlinton National Cemetery, a
rted amphitheater, a vacant colon-
e. A prim, lace-edged, clapboard
rch crisply facing front in a newly
yn meadow. An eerie elevated, a
ed but shiny car, a ramshackle house,
shadows. Under the arch of an old
ntry bridge over Antietam Creek, a
mering. Such are among the subjects
captivate architectural photographer
ell Anson Kenyon. A resident of Mary-
he is also a teacher and has exhibited
ly during his 40-year career.

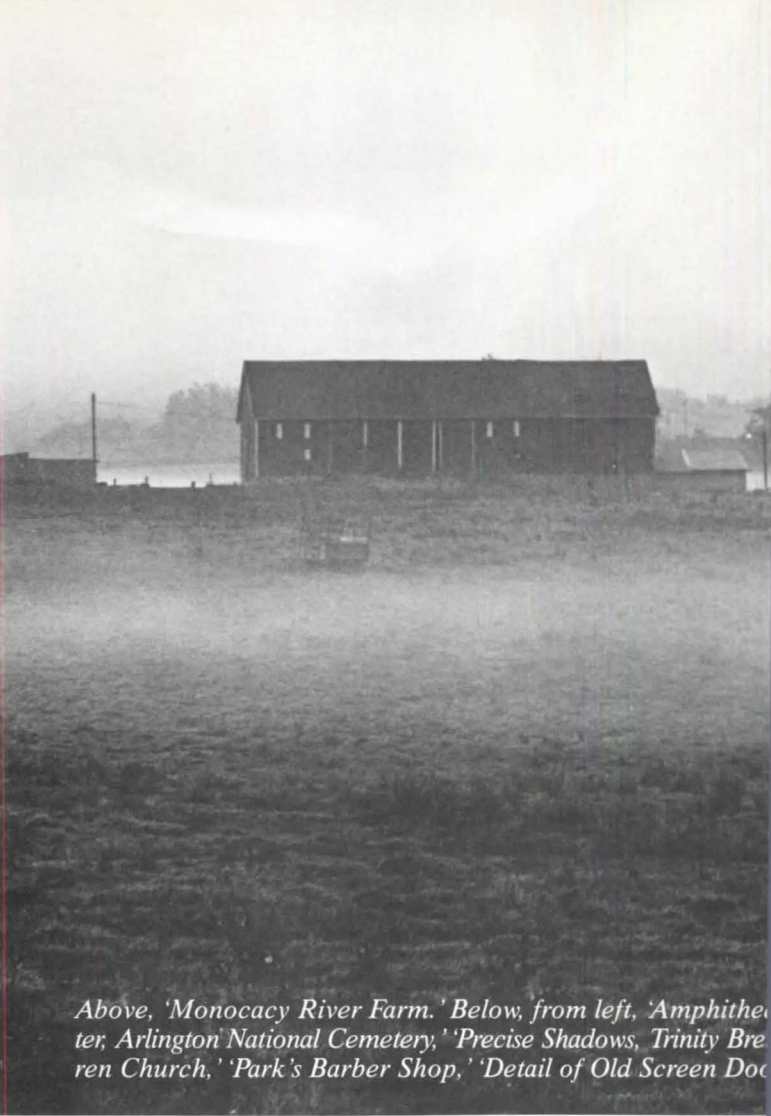
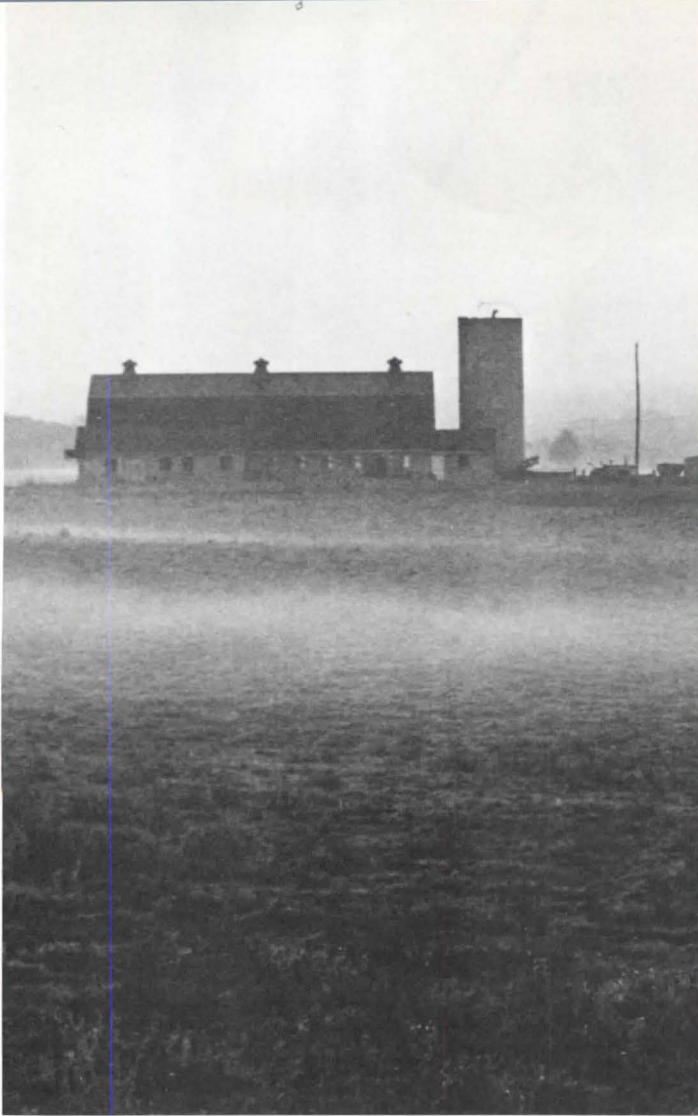
hat fascinate him, Kenyon says, "are
gs, especially as they meld with their
oundings, that people often can't imag-
exist at all. There's always a story
e." For example, he explains, when
ling we tend automatically to screen
or ignore the unexpected, the momen-
y unneeded or unwanted. Kenyon tends,
cially, to fasten on remnants of the
destined for the wrecker's ball, per-
in part because they go unnoticed,
seen at all, are viewed only partially
yopically. The close look is what
ell Anson Kenyon gives us.

REA OPPENHEIMER DEAN

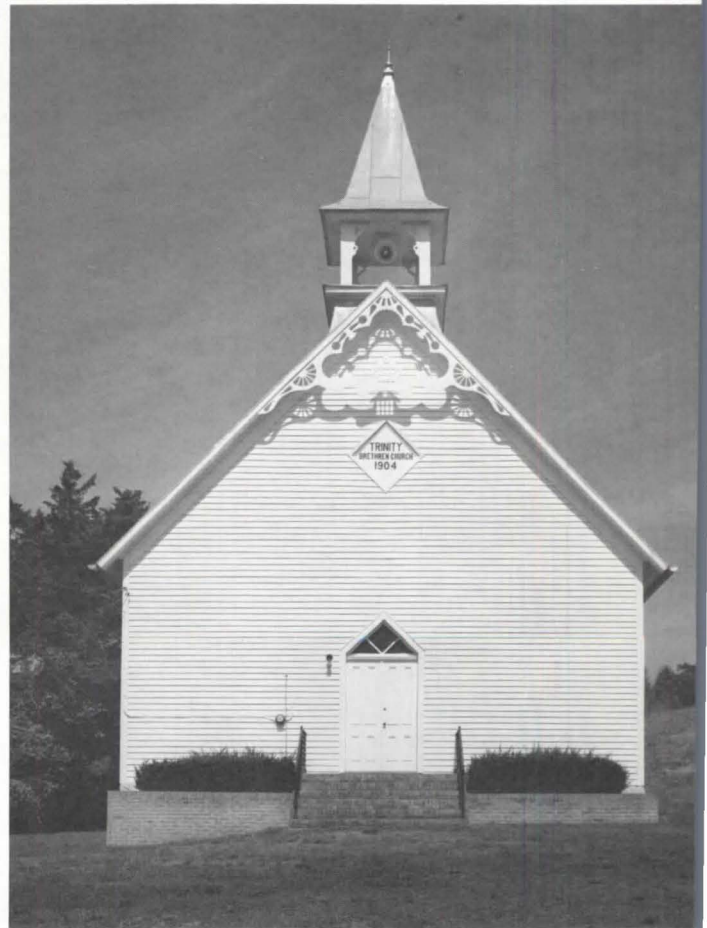


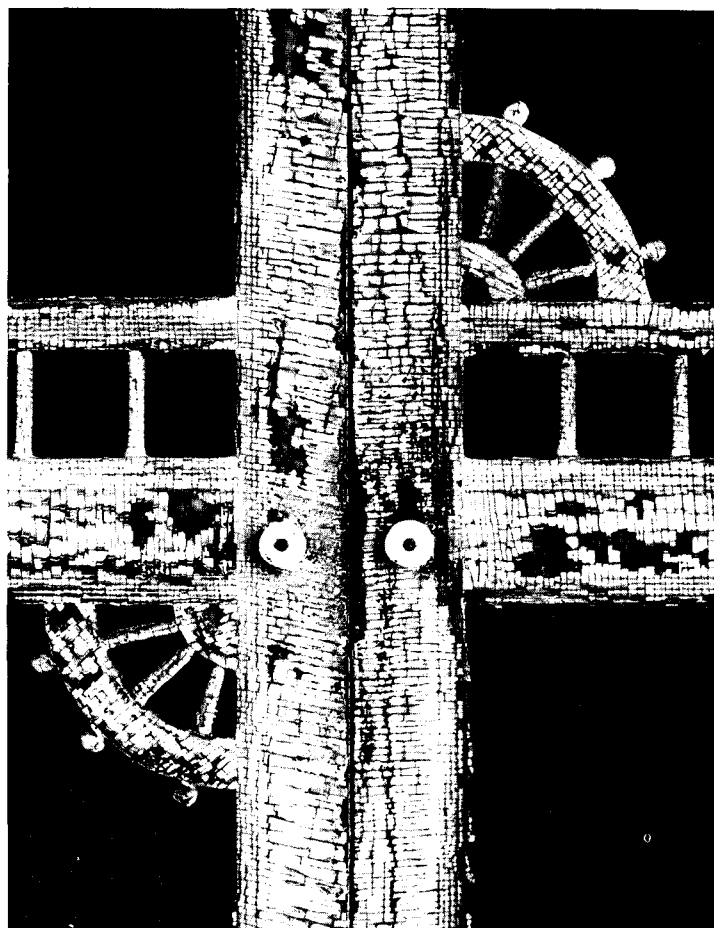
'Barn on a hillock'; above, 'Brunswick
pass'; right, 'Bridge over Antietam
k.' continued on page 38



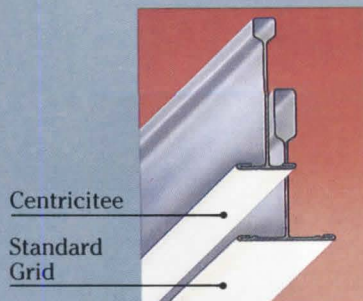


Above, 'Monocacy River Farm.' Below, from left, 'Amphitheater, Arlington National Cemetery,' 'Precise Shadows, Trinity Brethren Church,' 'Park's Barber Shop,' 'Detail of Old Screen Door'





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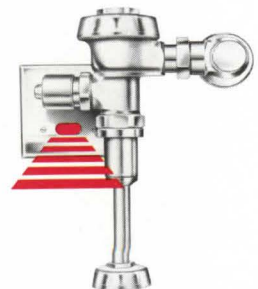
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Cove Lighting Reexamined

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A design plus: the unobtrusive fixture

Designers have always liked cove lighting because it takes the emphasis away from the fixture. But it's usually "mood light," relegated to department stores, restaurants and lobbies. Until now, indirect wall-mounted fixtures have been too inefficient for serious lighting tasks.

The fixtures over the pool are 6" x 6" Rounded Very Wide Spread Softshine Indirect by Peerless Lighting. Softshine Indirect fixtures give more good light per watt under ceilings 8'6" or higher than any other fixtures made. Furthermore, they incorporate a strip of visible lens that increases their perceived illumination by 10% to 25%. Both these claims are substantiated by Peerless research data, including independent studies by major universities. All data is available from Peerless on request.

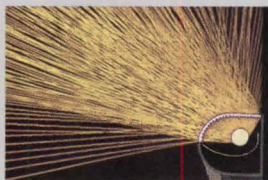
An obvious use: the featured space

These fixtures belong in important places: reception areas, corridors, dining facilities, examination rooms, conference rooms.



Nothing else gives the smooth illumination of a good ceiling wash. It's the best of all techniques when a room has reflective surfaces like polished tabletops or glass-covered artwork—or a swimming pool.

They offer cove lighting's chief virtue (they don't impose their personality on the space) and they give good light—enough for visually demanding tasks like research work on a lab bench or picking just the right piece of cake in the cafeteria.



The new cove light: great amounts of even, glare-free light, enhanced by the sparkle of a visible lens.

Research computers at Peerless generated this diagram to show how these Softshine Indirect fixtures work.

The fixture's lensed optics distribute the light facet by facet into precisely the right viewing areas. These remarkable fixtures can wash an entire ceiling when they're mounted only 30" below and as much as

24' apart, as the swimming pool picture proves.

A ceiling like this reflects as a soft, barely noticeable veil, as on the pool's surface. The same holds true for any other surface that reflects, such as the waxed floor in a hospital corridor or a glass-topped sales counter.

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ARCHITECTURE

This month interiors move up front, occupying our entire central editorial section. In addition to our newly inaugurated interiors section, we intend to continue devoting at least one issue a year to them.

In a sense, of course, every issue is an interiors issue. Virtually every building presentation that we do includes significant coverage of the building's interiors—just as nearly every presentation in this issue includes at least one exterior photo. For we believe that interiors are an integral part of architecture—indeed, the act of building is in essence the creation of interior space. And one measure of a work of architecture's success is the affinity between interior and exterior design.

In this as in past interiors issues we are concerned more with design than decoration. We are interested more in such architectural concerns as space, light, and figure than in appointments and adornments. And after a set of individual works we look at the relationship of interior design to two rather basic human functions: eating and healing. *D.C.*

Sculpture To Climb Through

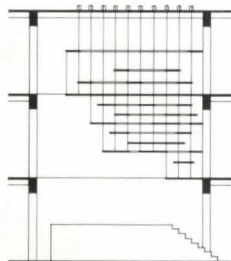
The Boston Children's Museum. Tom Luckey, architect/sculptor. By Michael J. Crosbie



Richard Howard



Ross Chapple



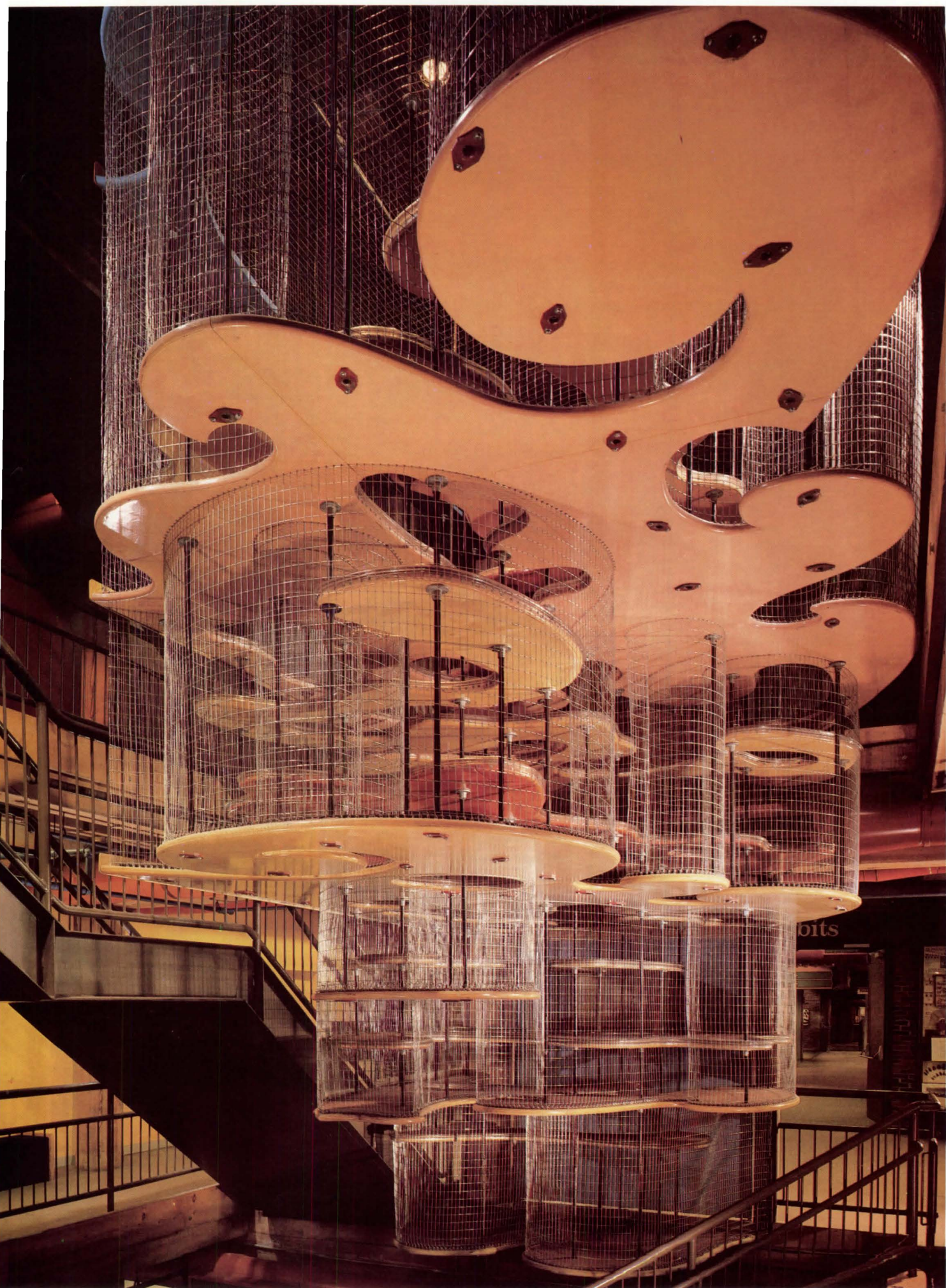
At first glance, it looks like a buoyant cloud of free-form sculpture, just floating there above your head as you ascend the main staircase in the Boston Children's Museum. But then you notice movement in this cloud of plywood and steel mesh, children bouncing inside it. The work of architect-sculptor Tom Luckey, this creation fully qualifies for one of the most elemental definitions of architecture: art that one can physically inhabit.

The Climbing Sculpture, as it is called, is intended for use by a special group of people, those under five feet tall. Its myriad wooden platforms, which take the form of colorfully stained swirl and curls, are suspended from a forest of steel pipe hung from the ceiling. The platforms, a dozen in all, grow up and out to fill the void of the staircase, the delicate mesh defining the perimeter shape. Visitors enter on the second floor of the museum, stepping out into the void, and then make their way up through the levels, some of which overlap each other sandwiching a little more than a foot of space. The top of the interior is defined by a horizontal layer of mesh. There seems to be an infinite variety of space: tight little corners to crawl into, larger expanses to swing through on poles. For safety's sake, it is impossible to fall more than three feet through the cracks, all the platforms are surfaced with low-pile carpet, interior platform edges are rounded and covered with vinyl.

Describing the intent of his creation, Luckey says that "it's all about the space between the platforms. I tried to make it something that you'd squirm into and out of and cruise around to slow the physical process down, but make it challenging." To design it, Luckey worked primarily in model form, cutting the squiggles from cardboard and pinning them together with wood dowels. He built the platforms in sections in his shop in Branford, Conn., carefully coded each of the 95 pieces, loaded them onto a truck, and took them to Boston. With the help of his wife, Ettie, and a small crew Luckey then assembled the sculpture. Fifty pieces of pipe, two feet on center, were bolted into 6x6 timbers resting on the museum's top floor. Working by the numbers, Luckey raised each platform into place, starting from the top and working down, and secured them with metal flanges. Then the platforms were enveloped in wire mesh. The result appears to be so delicate that it could sway, but it's actually quite rigid.

In use, the Climbing Sculpture has been a huge success. Kids pile in, wriggle around, jump, crawl, climb, and swing, usually with an accompaniment of screams of delight. As the kids work their way through (no two taking the same route) adults can follow their progress from the staircase. Occasionally this causes traffic on the stairs to stop dead, and there are signs posted to keep moving. At the top of the sculpture there is a small gallery for observation. The occupants bubble up through the interstices of the sculpture, "like it has liquid kids in it," says Luckey. "It's a way of combining sculpture with dance." □

Left, above and below, a variety of small and large spaces within the sculpture for hiding and climbing. Right, anchored to ceiling, sculpture looms from second floor into the staircase.



A Combination of Audacity and Skill

Northpark Mall, Ridgeland, Miss. RTKL Associates Inc. By Robert A. Ivy Jr., AIA

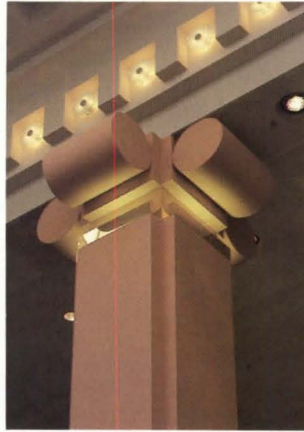
Malls are the basilicas of our time. In an age of heroic materialism, where consumerism is a "lifestyle," the agora (where we gather to meet, eat, and spend our resources) has evolved to epic proportions. Northpark Mall is a fascinating comment on our culture for its irreverence.

Northpark tickles. RTKL Associates, Inc. of Baltimore maintained a deft, light, but firmly controlled hand in the design of this 300,000-square-foot shopping mall near Jackson in Ridgeland, Miss. The designers organized the major spaces sequentially, considered man's route through the maze and what he sees, controlled the scale of the large building and its relationship to the shopper, all while maintaining a consistently happy, humorous tone in large and small details.

The operating style at Northpark is jolly postmodernism. The developer, Cadillac-Fairview (U.S.) Ltd., clearly allowed the architects a great deal of rein. The result is like the Moore/Turnbull Wonderwall tastefully cleaned up in a commercial setting.

Evocative, associative forms bring wit and joy to spaces that are dead serious in other hands. Babylonian Trump Tower, earnest in its splendor, is the antithesis of Northpark, whose lighthearted historicism offers different levels of appreciation—the back of an elevator can be viewed simply as wall, or as the clever evocation of a cornice profile blown up to gigantic proportions. Storeowners and shoppers take obvious delight in the design, while every architect within 150 miles has traveled for the fun of seeing Michael Graves' Portland building (the elevator) consumed within Philip Johnson's AT&T building.

For all its exuberance, Northpark is well designed. From the outside, the large building shell does not differ significantly from its contemporaries; four small scaled entry peristyles and porticoes give few hints of what lies within. Initial passage through portals and quick, low anterooms is not unlike entering scores



of other shopping malls. Excitement lies within.

The interior axes are carefully calculated and controlled. In one direction the main corridor, filled with trees and light, lifts up to a second level, topped by the barrel arch of a skylight. A full view to the anchor store at the end of the spine is interrupted by a built form in midstream. What lies on the other side? Smaller spaces open into larger ones, Italianate stairs alter the visitor's perception, turning and twisting upward, painted fresco bring the outdoors inside. Added to the sense of discovery are some of the qualities of the street where varied storefronts pop in and out, awning or three-dimensional signs intrude into the open corridor, and neon glows.

Color, from jade green through terra-cotta to hot pink, divides the larger whole into parts. Lighting emphasizes these colors while adding to the texture of the spaces, highlighting ficus trees set in terra-cotta pots or tree grates and casting shadows of park benches onto the pavement.

Despite the high level of design at Northpark, this shopping center shares the limitations of its building type . . . a mall is a mall. As such it cannot match the vitality of the simplest shopping street, where time, accretion, and anomaly have enriched the fabric. It is impossible in Northpark to experience the delight of catching the lilting aroma of steaming hot dogs; food is consigned to a charming food court safely tucked away on the second floor.

And for all its careful control of axes, the returning shopper may chafe at the lack of clarity, at having to bypass obstacles to reach a destination.

What the mall attempts, it succeeds at. Northpark Mall is colorful, lighthearted, and pleasant, welcoming, allusive, and funny. There is a twinkle in the eye of Northpark today, yet one wonders how long before the twinkle hardens into a glaze.

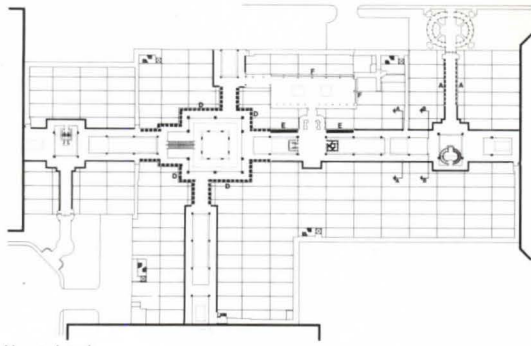
Mr. Ivy is a Mississippian who writes on regional design.

Below, arc de Northpark, Italianate stairs; right, elevator madness.

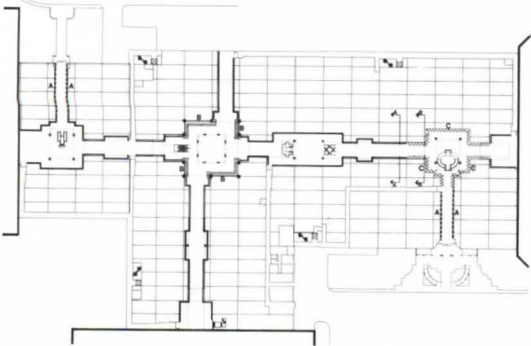




Photographs by Dave Whitcomb



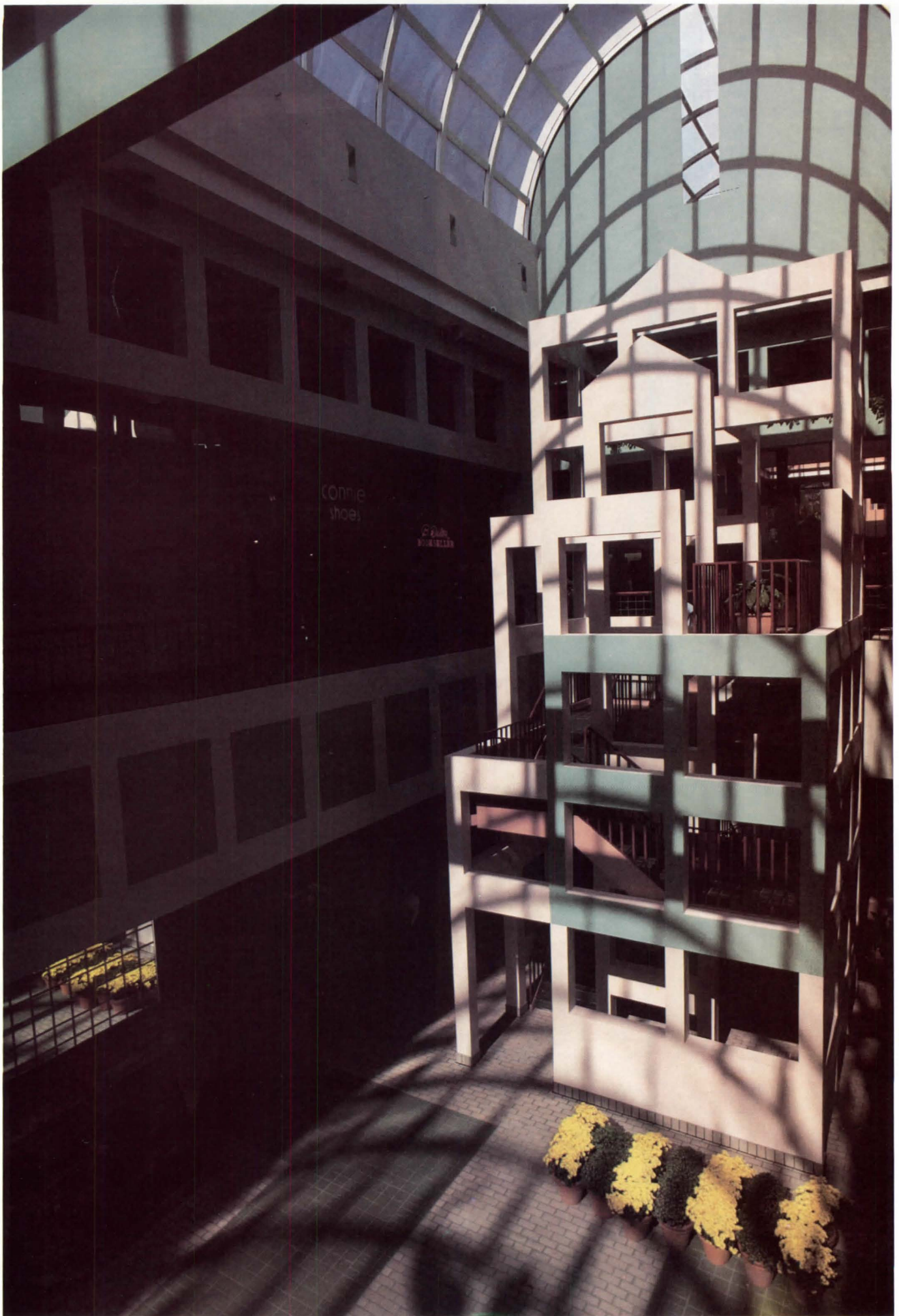
Upper level



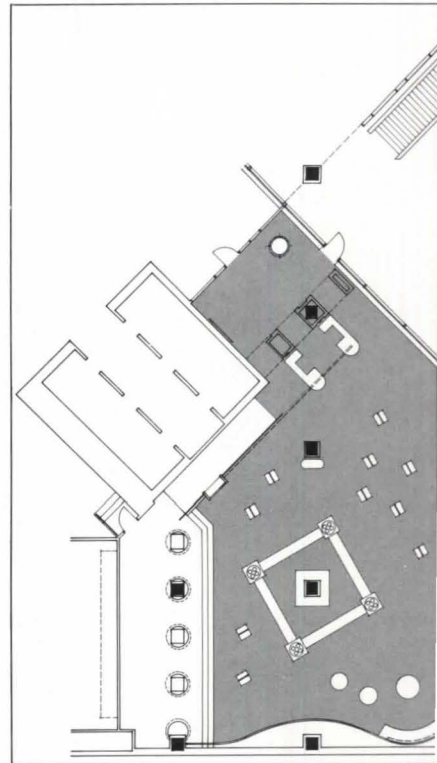
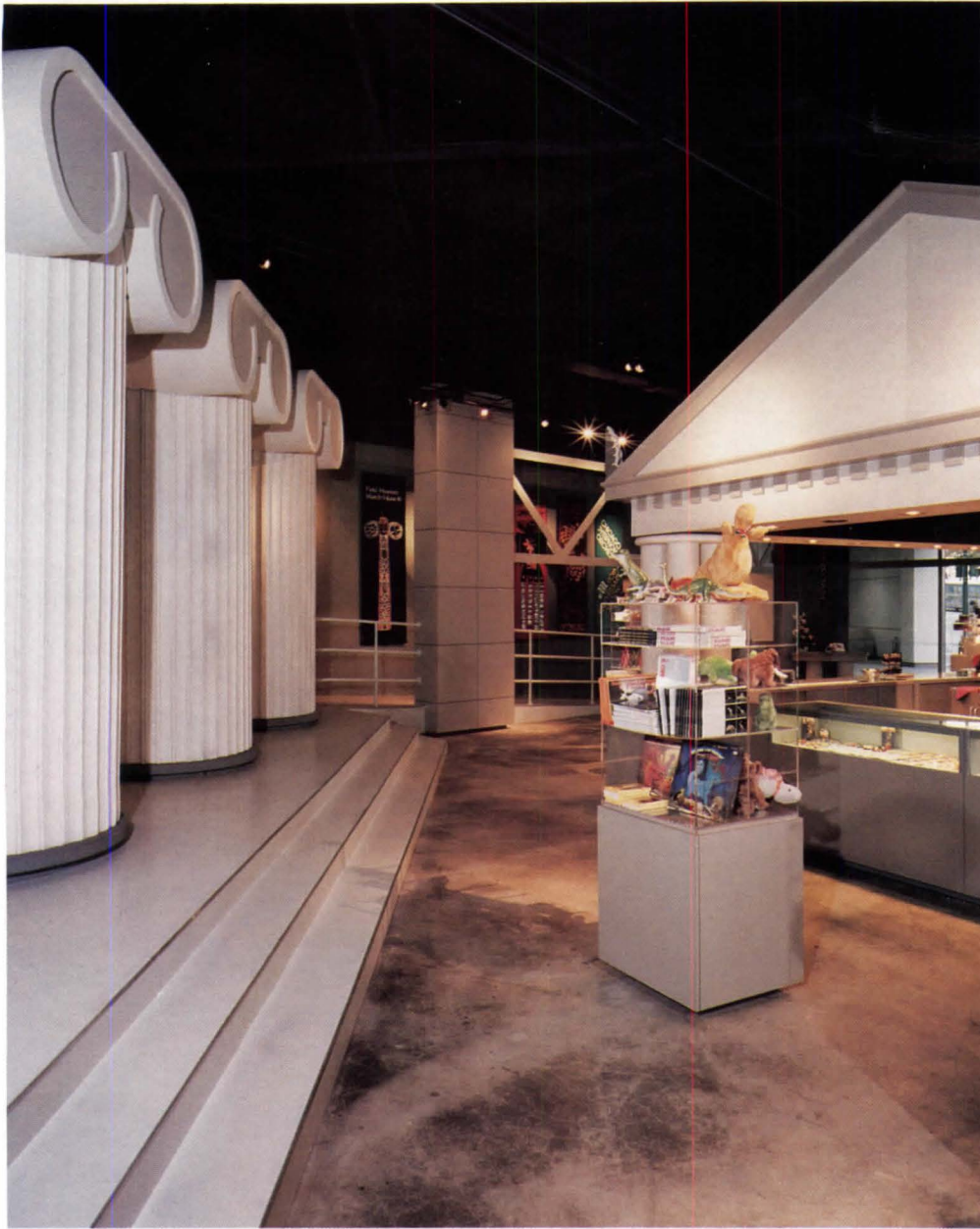
Lower level

Right, apparent complexity under a barrel vaulted skylight. Below, planters and stairs in one of four courts on upper level as a garden party setting. Below right, food court on upper level as a garden party setting. Here tree cutouts march the length of room, with real (ficus) trees clustered under cloud forms. One side of court has a reflective ceiling next to trellised arcade over the food stands. Facing page, an architectonic stair tower interrupts the flow through main corridor. □





Photographs by Dave Whitcomb



The Theme Is Architecture

Arts shops, Chicago. A. Epstein & Sons. By Nora Richter Greer

Chicago is a city that prides itself on its architecture. So, what better way to identify five of the city's cultural institutions than with fragments of the buildings they are housed in? This is exactly what Sheldon Schlegman of A. Epstein & Sons Inc. did when designing the Marketplace for the Arts.

The Marketplace is a cooperative gift shop representing the Chicago Symphony Orchestra, the Lyric Opera of Chicago, the Museum of Contemporary Art, the Field Museum of Natural History, and the Chicago Historical Society. Located in the lobby of the Associates Center building (also designed by Schlegman) at the northwest corner of Michigan and Randolph, the 61,000-square-foot store was established for two purposes: to generate income for the five organizations and to "encourage public awareness of their cultural activities," in Schlegman's words. The store's design needed to conform to a specific future use: a Centennial Museum for Commonwealth Edison.

With the aid of Linda Levin, AIA, Schlegman first created a "stage." The concrete floors were left exposed, the walls were covered with only a brown coat of plaster, and the ceiling was





ted black. On this stage, in a witty, tongue-in-check gesture, Regman placed the architectural fragments. The entrance to the store is marked by the second story of the arched facade of Mestra Hall (photo left). Just beyond the arches and to the right is a ramp that is fronted with a column and truss, modeled after the entrance to the modern-era Museum of Contemporary Art. The ramp leads to the stage, where exaggerated Ionic columns recall the colonnades of both the Lyric Opera House and the Chicago Historical Society. Three steps down and in the center of the room is the store's most fanciful architectural caricature: the Palladian temple of the Field Museum, with its grand cornice dominating the center of the store. In this case, the cornice sits on half-size columns that rest on display cases filled with valuable artifacts and jewelry.

While obviously creating a whimsical mood in the shop, the architectural fragments also serve to break up an otherwise open space, conceal the structural columns, and display merchandise at a minimal cost. For example, three of the columns on the "stage" contain display cases that open to the rear wall, where merchandise is stored and displayed. And since the store is only a temporary one, the materials used are strong enough for this use yet inexpensive: particleboard with plastic laminate veneers, columns of Sonotube concrete forms, a curved wall of perforated metal on which are displayed T-shirts, hanging cards, clocks. Colors were kept neutral—grays and off-whites—to avoid competing with the merchandise. □



Pulling from Form That Have Worn Well

Design firm offices, Columbus, Ohio. Design Collective. By Andrea Oppenheimer Dean



Looking at the offices of an interior design firm is a little like reading a person's palm, since it reveals strengths and weaknesses, likes and dislikes. Judging from its own recently completed office, Design Collective of Columbus, Ohio, prefers solutions that have an elegant, seamless look enlivened by humor, while disdaining the pretentious, stuffy, or trendy. As Vice President David Cook corroborates, "We like to choose traditional architectural elements or representations of them, to pull from forms that are familiar and have worn well."

The plan of the 5,000-square-foot area is a simple rectangle with all spaces flowing from a central corridor. To one side of the corridor by the entry is a reception space, to the other a conference room; then comes the "resource center" facing three partners' offices; and leading off the end of the corridor is the design work room.

The little reception area immediately sets the overall tone and feel. Playing against light oak floor and neutral (but never white) walls is an archetypically modern, skewed red cube as a desk that coexists peaceably with a little antique table, white wicker chairs, and an Oriental scatter rug. The look is uncluttered.

Just one step up, on the other side of the corridor, is the conference room with sandblasted sliding glass doors trimmed in red. Walls and their trim are treated with sprayed laminate for an ultra smooth look. The room's only contents are four square tables trimmed (again) in red, plus a coven of elegant black chairs designed with turn-of-the-century architect and artist Josef Hoffmann in mind. Audiovisual equipment is concealed and operated from behind a wall.

The corridor itself is flanked by arched niches in which are posed easily movable giant pencils. The arch marking the entry to the design work spaces is, again, glazed with sandblasted glass trimmed in red, and in front of it rests another movable object this time an obelisk.

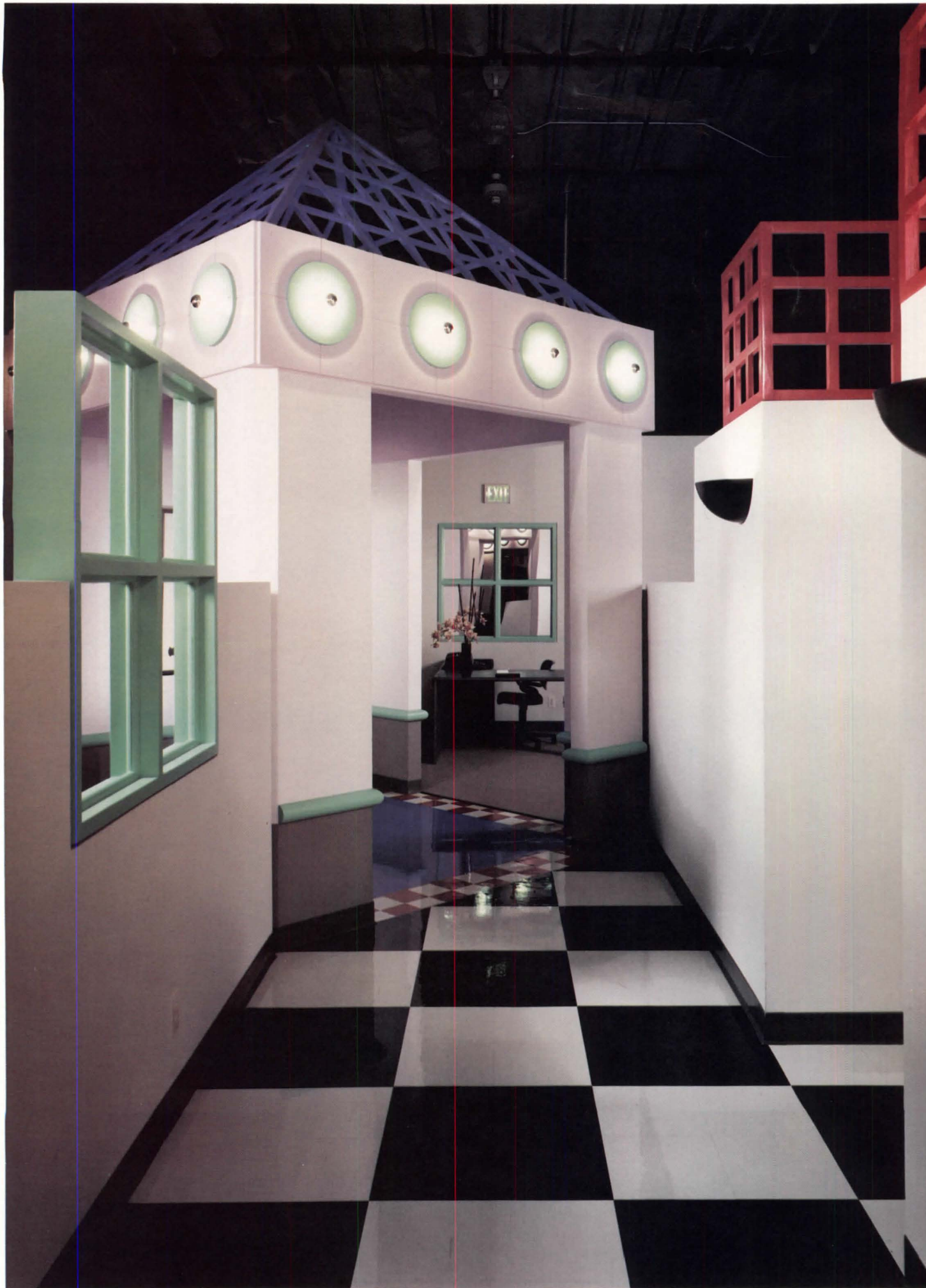
The working hub of Design Collaborative's offices is the designers' work area, which, with partitions of different heights, serves also as a design display space. At its center are a round table and chairs used for meetings, gab fests, lunch, and parties, and as a distinctive marker for each department is a giant umbrella.

Indications are that the designers of these spaces are endowed with abundant good taste and a sense of humor. □



Left: top, reception area, conference room; middle, 'resource center'; bottom, design workroom. Right, central corridor linking all spaces is flanked by giant pencils terminated by obelisks.





'Flexible Design with a Zippy Image'

Clothing company offices, Brisbane, Calif. Brown Matarazzi Associates. By A.O.D.

All the world's a stage, as we've been told, that corner of it occupied by the fashion industry is more worldly than most. What more appropriate design for the offices and design department of an importer and maker of young women's clothes in a trendy stage set? This is just what Brown Matarazzi Associates of San Francisco created for the Santa Cruz Co. of Brisbane, Calif.

The new digs are a confabulation of plasterboard and plywood partitions and adorned mostly with bright colored lattice, neon, and paint from the same palette Santa Cruz is using for boutiques in major department stores. To heighten associations with the theater, these spaces have been implanted in an old warehouse whose underbelly of original construction, overhead insulation, and mechanical equipment is left exposed. And though very "now," Santa Cruz' new habitat can be easily knocked down to become very "then" as soon as "then" rolls around.

Besides wanting a flexible design with a zippy image, Santa Cruz insisted on a tight budget. Hence the use of inexpensive materials and decorative touches. And they wanted spaces that would heighten employee interaction, meaning spaces good for shop talk at places where people would tend to bump into each other. This is why Brown Matarazzi decided to concentrate design effort and dollars at a few obvious gathering places. The first is the main corridor, which they covered in a harlequin tile and dubbed "the street." To underscore the village analogy, they varied the heights of walls lining it, topped them with red lattice marking entries to different departments, and

pierced them with brightly framed windows, giving people at work glimpses of action on "the street."

The designers further marked out three places on "the street" where people were most likely to congregate—outside the president's office, the employees' lounge, and the design department. They widened each, cocked its axis, and covered or marked out tops to create "pavilions." (The original scheme, rejected for budget reasons, made these larger and included seating.)

Spaces away from the main traffic are very workmanlike, though the employee lounge was given a likeness to sidewalk cafes. The design room, for instance, was left as loft space whose main embellishment consists of large, cross-patterned fluorescents suspended over each work table and funky colored window frames, the windows having been punched out through the concrete warehouse walls to bring in natural light.

Of the old warehouse's 65,000 feet of space, 48,000 are used for storage. Another 5,000 were converted by a previous tenant into offices with dropped ceilings and is now Santa Cruz' finance department. The rest retains the feel of the building's gritty beginnings, if one looks above the stage sets marking out offices, design department, marketing department, conference rooms, and the like.

One would expect the players on this set to be in costume. And they are, of course, fashion being the costume of the day.

Facing page, 'pavilion' outside employee lounge. Below left, president's office, with staggered wall heights, bright colors. Below, design department.

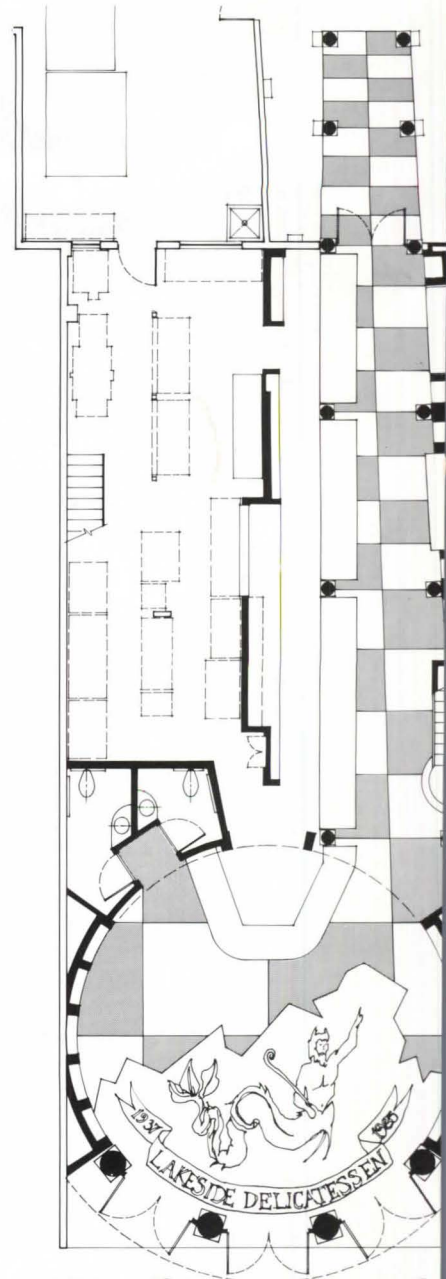




Design effort was concentrated on corridor, dubbed 'the street,' and on three pavilions at strategic points along the route. One pavilion is seen from inside president's office reception space, left, and from outside it, right. The intention was to encourage informal meetings and create a 'look' through use of red lattice, bright colors, bold tile, and varying partition heights. Below left, a neutral-walled conference room with lattice and a touch of neon. □

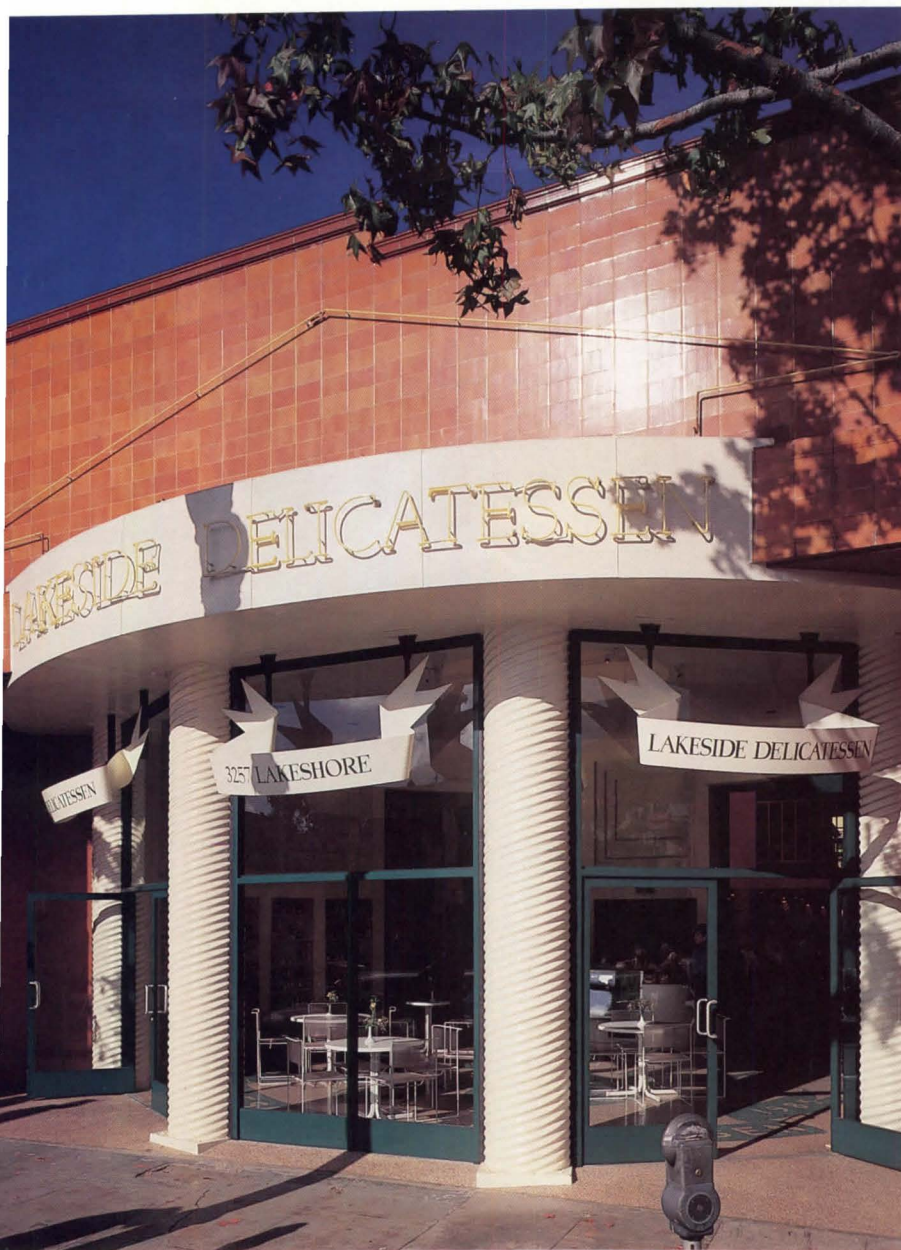






Italian Del 'Uncovers Relics'

*Lakeside Delicatessen,
Oakland, Calif. Ace
Architects. By M.J.C.*



s renovation of the Lakeside Delicatessen in Oakland, Calif., Ace Architects' David Weingarten and Lucia Howard of Oakland, reveals their special talent for historic fabrication. They designed that as the interior of the 1930s Italian deli was dismantled, an amazing archeological discovery was made. Buried deep within the structure were found the remnants of a rotunda. One of its walls bore a faintly painted bust of Bacchus, leading the architects to surmise that this rotunda, similar in its details to Rome's great Pantheon, was dedicated to the deification of food. At its apex, covered with framing and plaster, was a circular opening that covered an oculus. Further excavation of the floor revealed the figure of the Roman god Triton, son of Neptune and Salacia, leading to a hallway beyond the rotunda. Weingarten conjectured that this passage, also depicted in the rotunda's mural and considered as a forced perspective, at one time served as a marketplace that extended beyond the building's rear wall. Based on these artifacts the architects' charge became clear: restore the rotunda and marketplace as an appropriate setting for the deli. Patrons now enter directly into the rotunda, which serves as a dining area with typically Italian counter service. In the rotunda, new niches are shelves displaying Italian delicacies, illuminated by a sweep of sunlight from the oculus. On a wall framing the restroom entrances is the mural as painted by the architects, by Choi, and Joseph Ruffatto. The colorfully decorated terrace floor bears the image of Triton, who directs us to the arcade, lined with shelves and refrigerators displaying more

goodies, and a counter for placing orders. The skylit arcade, its walls decorated with leafy boughs, can also be viewed from a loft with secluded seating.

The arcade continues out into a back garden, suitable for lunching al fresco. Here stand four spiral metal columns, supporting a lattice that sports the simulacrum of the painted boughs inside, but rendered in green steel mesh. Spiral columns are also found in the arcade and at the entrance to the rotunda, and their presence in the garden seems a stylized version of the columns of Bernini's baldacchino in St. Peter's. It is said that the bronze for Bernini's baldacchino was looted from the Pantheon, so these columns are right at home.

The garden culminates in a fountain populated by Neptune and his son. They are meant to represent the deli's owner, Edward Curotto, who recently assumed the business from his father. Curotto's family is from Genoa, the Italian fishing port, and so Neptune and Triton are familiar faces. Curotto says that his patrons think the new deli is "super" and faithfully ethnic. "A couple of people have said that they just got back from Italy," Curotto reports, "and the deli makes them feel like they're back there." □

Across page, above and below, interior of deli's oculied rotunda, with display shelves, counter service, and decorative mural. Above, clockwise from left, entrance to deli; arcade with view towards rotunda; back garden with arcade and fountain.



Varied Environs, New and Renewed

*William Pitt Union, University of Pittsburgh.
Williams Trebilcock Whitehead.
Allen Freeman*

Schenley was *the* grand hotel of Pittsburgh for about 50 years from the day it opened in 1898. Presidents from Theodore Roosevelt to Eisenhower stayed there, Lillian Russell lived on the fourth floor and married a millionaire in the Louis XV ballroom, and another actress, Eleanor Duse, died in Suite 524. The grand, 10-story presence designed by the New York City architect of Rutland & Russell in Pittsburgh's Oakland section, the hotel gradually became surrounded by the University of Pittsburgh, which had moved to Oakland in 1906. In the mid-'50s, the university bought and converted the old Schenley into a dormitory, then a student activities center, which it rechristened the William Pitt Union. Actually, it was more like an occupant. Orate public rooms were painted gray-green, an institutional service wing was appended to the backside, and guest floors were turned into office warrens. But now the university has gone back and done it right in an \$11 million adaptive use/restoration by the Pittsburgh firm of Williams Trebilcock Whitehead. Except for three rooms with exceptional finishes, WTW gutted the first seven of nine guest floors down to the floor slabs and installed a combination of open landscape and closed offices

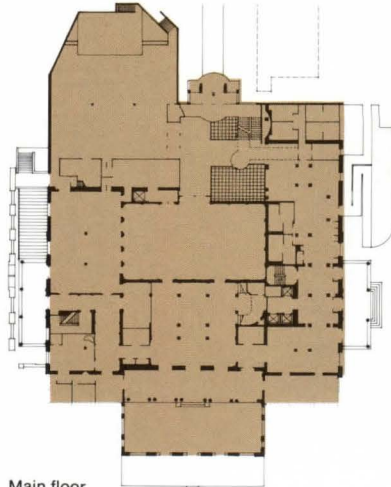
for the student government, the campus newspaper and radio station, placement and counseling centers, and the like. (A penthouse from the early 1900s was removed, and the top two original floors remain unrehabilitated.) Space efficiencies on the converted floors netted 35 percent additional usable square footage, reports John Dencler, AIA, who headed a WTW team that designed the renovation in a field office in the building.

The interiors shown on these pages reveal WTW's variety of approaches in renovating the first and basement levels. The large broken pediment on the facing page occurs in the former snack bar, part of the '50s addition, which the architects have turned into a three-level circulation node under a new pyramidal skylight. This is a bright, overscaled space whose sole purpose is to hold platforms, stairs, and bridges that fit like a puzzle.

If students were polled, their favorite place in the renovated union would likely be the all-new basement recreation center, whose pool room (bottom left) is in almost constant use. Here the walls are hotel room doors stripped to their natural finish, lending a woody, clublike atmosphere; shallow arches suggest a vault in an effective minimal ordering of the low-ceilinged room.

The terrace room (below right) was originally the main entrance portico made into a lounge in the early 1900s when hotel circulation was reoriented toward Fifth Avenue. WTW here restored delicate moldings on the walls and ceiling and colored them cream, creamy yellow, and pale blue. When the university isn't holding receptions here, students seek it out as a quiet place.

Three other large, ornate rooms—each of different character—have been restored, most impressively the grand ballroom, whose Louis XV mirrored walls are punctuated by columns decorated with bas-relief 18th century musical instruments. WTW filled in a couple of bays that had been open to an adjoining room, which required fabrication of new columns. You can tell the 1980s columns from those of the 1890s if you know what to look for: instead of flutes, lutes, and lyres—gold leaf electric guitars. □

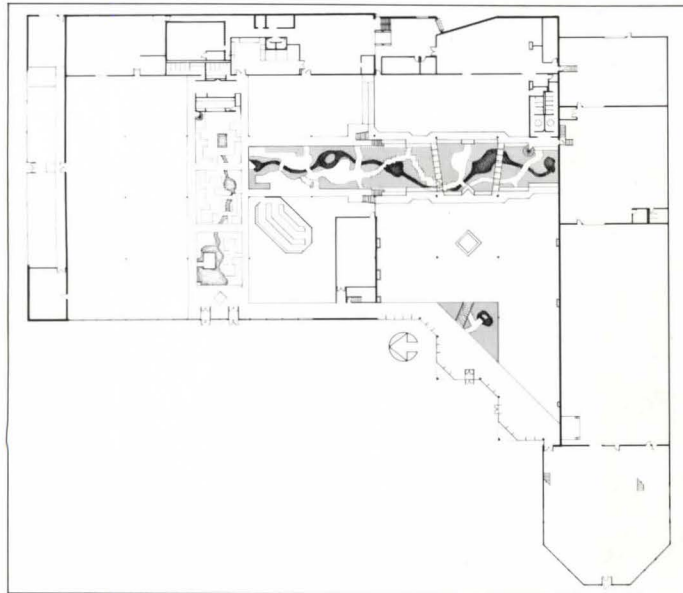
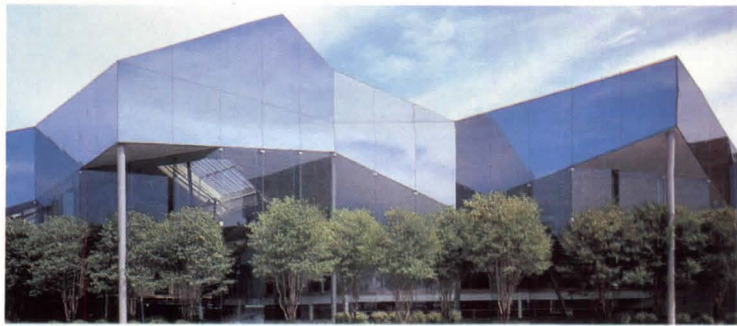


The broken pediment in the atrium, facing page, is repeated in the new entrance colonnade on the southeast facade, above left. Above, the terrace room. Below left, the recreation center with walls of six-panel doors recycled from hotel rooms.

Main floor

Offices, Gardens Roofed by Tents

Bradford Exchange, Chicago.
Weese Hickey Weese. By N.R.G.

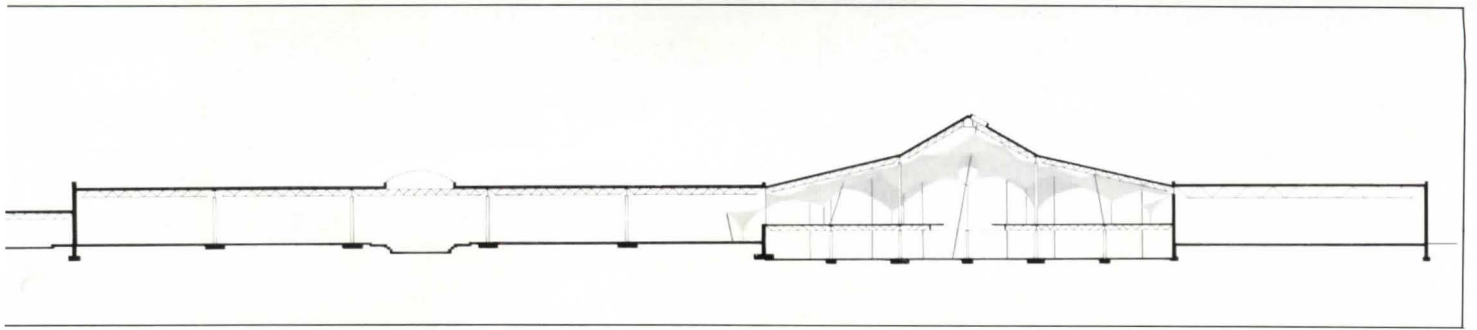


From the exterior, the Bradford Exchange looks like any of the other one-story, nondescript rows of chain-store outlets, car dealerships, and warehouses on Waukegan Road in the Chicago suburb of Niles. However, walk inside and a fantasy unfolds in front of your eyes. Designed by Thomas Hickey, AIA, of the Chicago firm of Weese Hickey Weese, the interiors have been transformed into an exotic mixture of tropical gardens, shimmering tents, plate museum, and corporate headquarters of the world's largest exchange of collector plates.

The biggest surprise is the series of translucent, silicone-coated, glass fiber tents that reach as high as 38 feet at the peak and as low as six feet at the edges. During the day, the tents appear translucent, being top lit by fluorescent tubes. At night, they take on a yellow glow, being lit by spotlights set on the poles, a mirage-like image when seen through the glass facade. The poles are not placed in a uniform pattern; some are tilted to allow for the grid of office partitions below. A mirror covering the entire rear wall is disorienting at first, but then works to visually enlarge the space.

The tents are actually a clever way to conceal the connection between what was once a discount store/warehouse to the south and a former car dealership to the north (which is owned by the Bradford exchange but is not yet renovated). Weese Hickey Weese renovated the discount store in 1977; now, the two-level, 55,000-square-foot addition of office space underneath the tents and between the two buildings has allowed for an expansion of the museum in the southern building, where collector plates rest on plastic boards hung from the ceiling.

In addition, running west to east in the southern building is a multilevel, 30x113-foot garden, complete with a flowing brook. To complement this, a second, multilevel garden runs north to south into and underneath the tents. The new 30x200-square-foot garden has a small stone amphitheater, two frosted glass bridges overhead, and a waterfall. In total, there are 30 varieties of tropical plants. This tropical theme is repeated in a small garden near the entrance. □



© Howard N. Kaplan



Emergency Unit Puts a Welcoming Face on a Hospital

*Baptist Hospital emergency unit, Miami.
The Ritchie Organization. By A.O.D.*

Hospitals have become highly competitive businesses, and the use of stricter federal and private health insurance reimbursement requirements, many, including the Baptist Hospital in Miami, have experienced a drop in inpatient admissions and the number of days patients stay per admission. Emergency departments are, in the words of Baptist's administrator, John Keelay, "in a unique and strategic position to support the hospital's corporate objectives" by attracting patients. One-quarter of emergency visits already result in an inpatient admission. And, increasingly, people are using emergency rooms for problems they previously took to their private doctor, since emergency rooms, unlike doctors' offices, are always open, require no appointments, and provide immediate access to specialists and high-tech equipment.

Among the happy consequences of Baptist Hospital's attempt to attract patients and gain the allegiance of people visiting its emergency care department is that they are treated like family, or at least like hotel guests. Staff members are put through a "guest relations" program emphasizing courtesy, friendliness, and the like. Each patient is seen by a physician or nurse within five minutes of arrival, parents are allowed to stay with their children while they are being treated, and there is a volunteer

to act as liaison with the treatment area to obviate long waits without news by relatives.

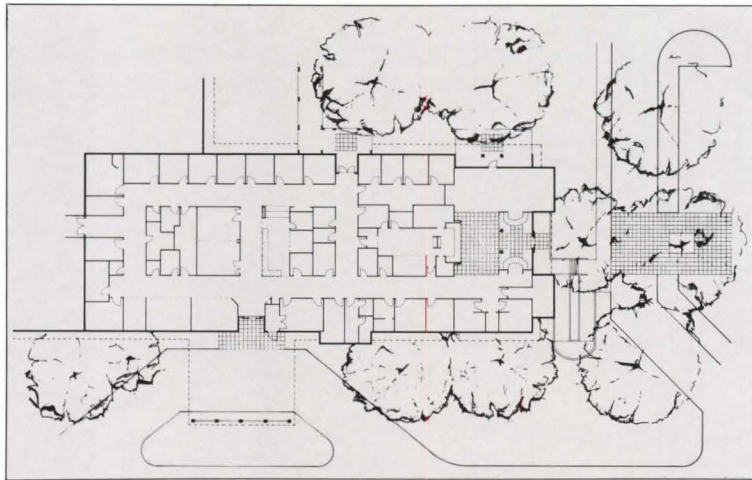
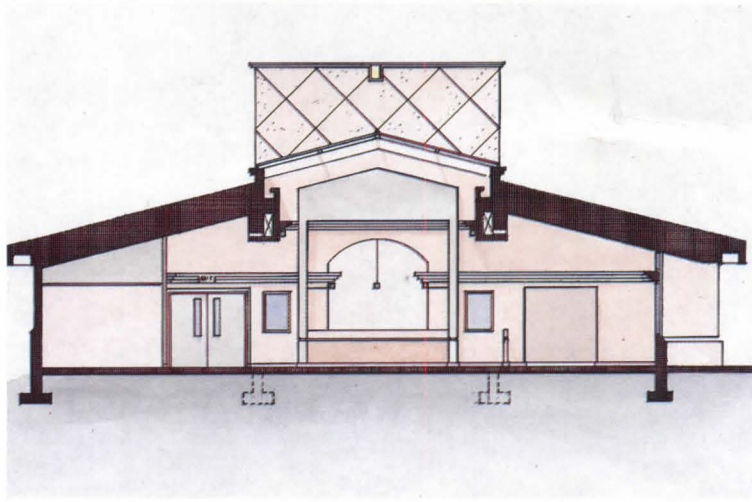
Baptist's administration also saw design of its new, 14,000-square-foot emergency care department as an important tool for selling patients on the hospital.

Architects TRO/The Ritchie Organization of Chestnut Hill, Mass., attempted to create the calming feeling of an interior courtyard that continues the Renaissance motifs of the exterior (below), with brick vaulted ceilings, tile pavers, columns, arches, soft pinks, yellows, and greens. The plan splits into two areas, the one for walk-in patients and a business office, the other for an ambulance entrance and clinical services.

The lobby (left) for the walk-in clinic is marked by a large skylight with an overarching oak tree whose leaves act as light filters. There is also a skylight over the nurses' station in the clinical portion of the facility to the rear. Artificial light is, for the most part, incorporated into architectural details such as cornice lines. Hard and cold-looking high-tech machines tend to be concealed behind built-ins or camouflaged by soft fabrics.

All in all, this is the least institutional of emergency departments and looks far more enticing than most examples of the building type it emulates, the American hotel.





Left, the nurses' station overlooking a more institutional-looking corridor; the treatment area is a reminder that this is, after all, a hospital. Right, administrative counter in the patient walkway area. □



Redesigning Health Care

An effort to humanize the hospital environment through both physical and institutional change. By N.R.G.

In a small section of a moderately sized hospital in San Francisco, a quiet revolution is taking place. Gone is the typical sanitized hospital decor—cold aluminum and stainless steel, stained linoleum, fluorescent lights, and hard, painted surfaces. Instead, the design esthetic is comfort and hominess: wood, carpeting, incandescent lights.

Gone, too, is care that often can be best characterized as dehumanizing, depersonalizing, frightening. In its place is a friendly congeniality and highly personalized attention.

The hospital is the Pacific Presbyterian Medical Center in San Francisco. There in June 1985 the first medical-surgical hospital unit of its type in this country opened its doors—the 13-bed Planetree project's unit. So far, it has been a resounding success, one in which the physical environment and the patient care work in tandem to create a non-institutional ambiance.

The seed for Planetree was planted 10 years ago when Angella Theiriote, environmentalist and health-care advocate, was hospitalized with a mysterious, life-threatening virus. "That was like a nightmare," she recalls. "I was shocked by the bungling and constantly changing staff. At one point, I was left slumped over in a wheelchair outside X-ray for 45 minutes with a fever of 107 degrees. Later I thought to myself, 'I'm basically young and strong. What happens to people who are less sturdy, less capable of making demands?'" Theiriote's experience and others by family members lead to her realization that "things had to be done differently," she says. "Many of the most important moments of people's lives are spent in hospitals. Yet, for the most part they are the coldest and ugliest places on the earth."

Meanwhile, Roslyn Lindheim, an architect and professor at the college of environmental design, University of California Berkeley, was thinking along similar lines. Lindheim found this in area hospitals where she was consulting, as well as in other "something desperate had to be done," in her words, to improve the quality of the environment.

Determining ways hospitals could more humanely fulfill patients' needs was precisely what Theiriote wished to address. She found a nonprofit group named Planetree and invited Lindheim and prominent Bay Area physicians, health-care professionals, civic business, and cultural leaders to work with her to develop an alternative to traditional hospital care, one that would emphasize maximum participation by patients in all aspects of treatment.

"We researched everything," Theiriote says, "from the environment, to nursing care, to food and the role of arts in healing. . . . Most modern health professionals will readily admit that the patient's state of mind is a major factor in the success of the treatment, yet nothing in the design and operation of the modern hospital reflects this knowledge." The Planetree group determined that the most crucial social, emotional, and esthetic needs denied routinely to hospitalized persons were "supportive human relationships, physical comfort, independence, as much pleasure as is possible under the specific circumstances of a hospital stay, and a sense of autonomy and dignity," according to Theiriote.

By early '84 Planetree was ready to test its findings in a hospital setting. After long negotiations, the group finally reached an agreement with Pacific Presbyterian Medical Center to renovate one of its 18 units into the 13-bed model unit, which would house patients with a broad spectrum of illnesses such as stroke, cancer, AIDS, and kidney failure. The transformation of the unit was neither complicated nor exorbitant, with the renov-

...t, the traditional nurses' station has been replaced by a more
 ...mal oak work counter. The windows beyond look into the
 ...ent's lounge. Basically, the unit's central area was recon-
 ...ed to allow for a patient lounge and kitchen, which bring
 ...ing of hominess to the unit.

...of the 2,000-square-foot unit costing \$175,000.
 ...oon opening June 15, 12 doctors had agreed to refer patients
 ...e unit; now 62 do. According to Robin Orr, the Planetree
 ...ect director, the cost of hospitalization is the same as in
 ...r identically sized, although unrenovated, units.
 ...e patient rooms in Planetree are set in a squared-off horse-
 ...around a central work space, with a hallway separating
 ...patient rooms from the work space, a layout similar to the
 ...r medical-surgical units in the hospital. However, the
 ...etree unit's central area has been completely reconfigured;
 ...s where the philosophy of Planetree is most visibly evident.
 ...rather than orienting that space to the needs of the nursing
 ...it is designed to be used indiscriminately by nurses, doc-
 ...and visitors.

...ccording to Lindheim, the transformation progressed as fol-
 ... First, the shower room for disabled persons was moved
 ...ss the hall. The former shower room was then converted
 ...e utility space. By reconfiguring the freed utility space and
 ...former nurses' lounge, Lindheim was able to provide a
 ...ngular-shaped kitchen, complete with refrigerator, stove
 ...electric burners, microwave oven, sink, and storage cabi-
 ... It opens onto a small, cozy lounge, a place that feels most
 ...somebody's living room, and perhaps more importantly, a
 ...fortable area where a patient can escape from the drudg-
 ...of spending hours upon hours in a hospital room.
 ...he most revolutionary change, though, was eliminating the
 ...tional nurses' station, where typically a counter separates
 ...from patient. In its place, an oak work counter has been
 ...ed up against the kitchen wall. At one end, the counter
 ...out about three and a half feet and becomes a small work/
 ...erence table; at the other end, the counter follows the con-
 ...of the lounge enclosure. By this stroke, Lindheim has sym-
 ...ally transformed what has been a "we/they relationship to
 ...s," as she says.

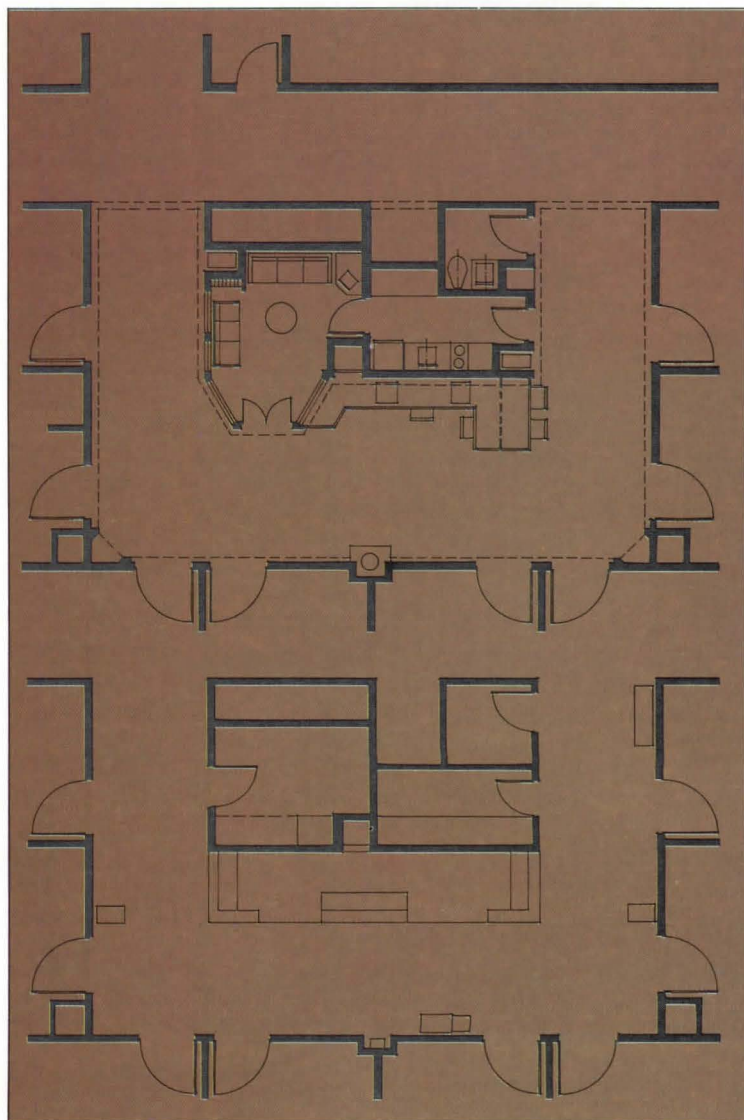
...the patients' rooms, budgetary constraints allowed for only
 ...or, but significant changes (under the direction of Lindheim
 ...interior designer Victoria Fae). Instead of the usual white
 ...in around each hospital bed, the curtains at Planetree com-
 ...a veritable pastel rainbow, with each room taking on a dif-
 ...t hue. In addition, soft floral sheets were introduced, as
 ...13 different bedspreads. Plants and nature-themed paint-
 ...were added in each room, as were bookshelves and bulle-
 ...boards where patients are encouraged to store or hang per-
 ...l items.

...ow, parts of the rooms that were untouched seem almost
 ...parably institutional: the television poised high over head
 ...metallic stand that is attached to the wall by a metallic arm;
 ...hospital bed so bulky that if a patient is sitting up he/she
 ...quite reach the phone on the hospital-vintage bedside table.
 ...his takes place underneath glaring lights that now seem
 ...more unpleasant compared to the soft incandescent light-
 ...n the unit's central space. (Only the lights around the nurs-
 ...station are fluorescents.)

...ndheim admits dissatisfaction with only being able to go



© William Heisel



so far with the patients' room. She had wanted to make the rooms more comfortable by redesigning the furniture, changing the lighting, introducing new floor and wall treatments, among other changes. To Lindheim, the ideal ward would also have a solarium or outdoor terrace, the lounge and kitchen would be larger, the room sizes would vary, and there would be additional space for families to stay overnight and nonbedside places for patients to have medical and other services.

Throughout Planetree, Lindheim sought an uncluttered environment, one that shows "respect for space and a sense of order." For example, in other units, medical carts, linen bins, and other hospital paraphernalia are scattered around the hallways and nurses' stations. In Planetree, such equipment and supplies are housed in oak paneled corner or side cabinets, or neatly tucked in closets. Even the necessary movable carts are oak and can be slipped into one of the "garage" cabinets. Other finishing touches are floral-bordered ceramic tiles that identify the rooms by number, operable windows, acoustical treatment on the core area's walls that along with the carpeted floor significantly lower the noise level. And, too, in an attempt to "get out of the square," in Lindheim's words, she changed two of the lounge's corners into diagonal walls with slotted windows. From inside, one can see out, yet there is still a sense of privacy.

While these design changes are crucial to the success of Planetree, Lindheim is quick to acknowledge that the changes in the physical environment would not have the same overall effect without like changes in the hospital services. One major move was to primary nursing; each patient now has one nurse who is responsible for coordinating his or her care throughout that patient's stay. The benefits of this type of care are explained by Maggie Phillips, Planetree's nursing coordinator: "As a result of hospitalization, patients frequently feel stripped of their power and individuality, which can be very frightening. These feelings are then exacerbated by constantly rotating care givers. In many hospital situations, it's not uncommon for a patient never to see the same nurse twice. But the loss of identity that so many people experience is mitigated significantly by primary nursing."

Each patient is encouraged to participate in medical discussions with doctors and nurses. To facilitate this Planetree supplies detailed information on specific diseases, as well as diagnostic tests and medications. Additional information can be obtained from Planetree's Resource Center, a 2,000-volume resource library that opened in July 1981. "Patients who are well informed about their conditions and who take part in medical decisions will become well sooner than others," Theriot says, and adds, "One of the main functions of a hospital should be to teach people how to stay out of hospitals in the future."

Even care that is normally highly routinized has been personalized. For example, patients can participate in a self-medication program. And, whenever possible individual sleep schedules are not interrupted by meals, tests, or the administration of drugs. Great emphasis is also placed on family involvement. Visitation privileges are extended to 24 hours a day, and family members are encouraged to stay overnight, sleeping in the lounge if necessary. Planetree also recognizes the "importance of proper nutrition, especially when a person is ill." The small kitchen often becomes the laboratory for the patients and staff nutritionist.

Overall, Planetree has adopted the healing philosophy of ancient cultures, particularly that of the ancient Greeks, where

Right, the patient lounge and the nurses' work table exemplify the architect's 'respect for space and a sense of order.' The small, rectangular kitchen, below left, and the patients' lounge, below right, are used by patients and staff, rooms that feel like someone's home rather than a hospital.

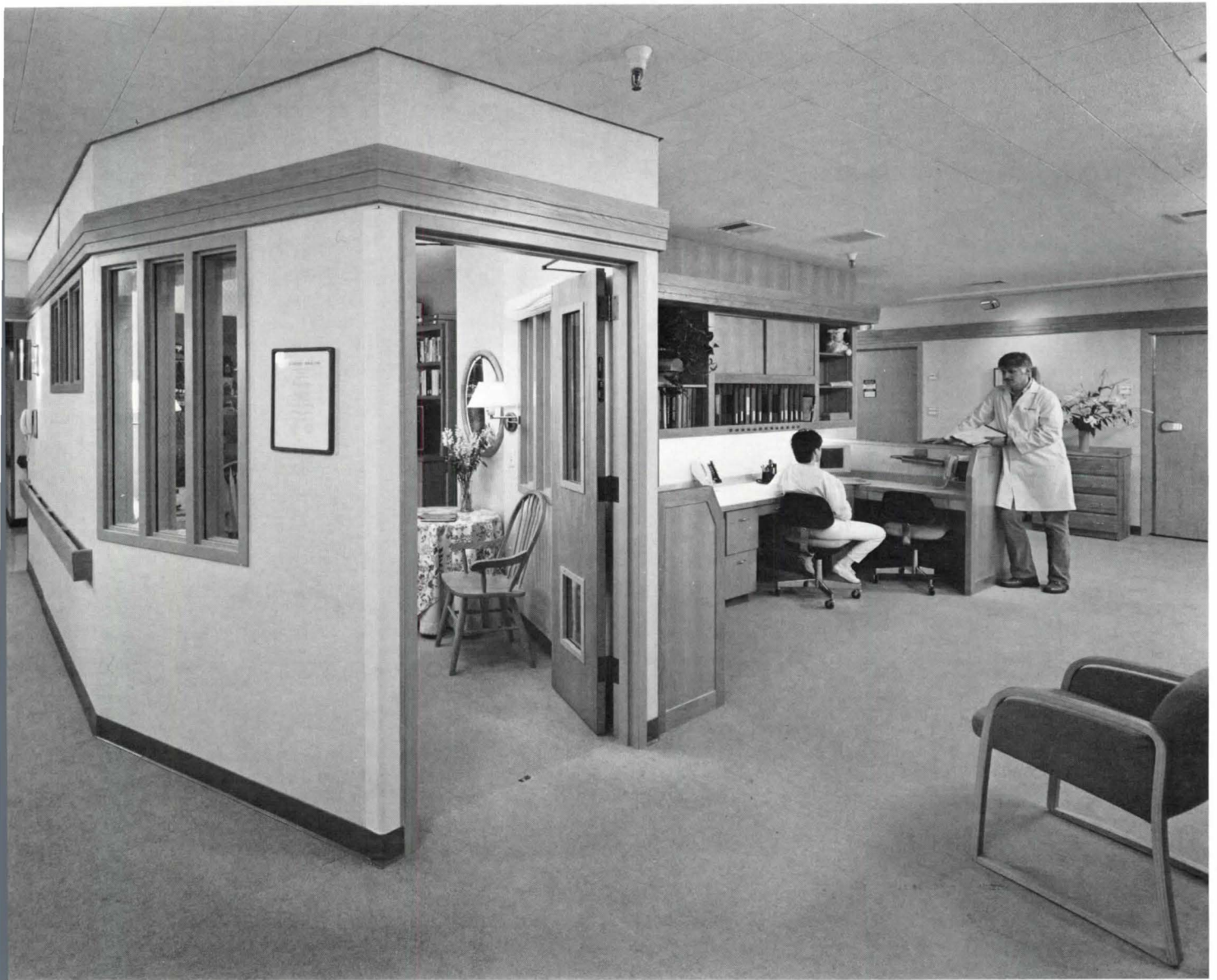
nature and the arts were seen as an integral part of patient care. Planetree's reasoning is as follows: "The Greeks of Epidaurus combined the most advanced medical techniques of their time with a healing environment that was designed to stimulate the patients' love of life and his will to recover." And like the Greek Planetree "is striving to create an optimal environment for healing by combining the arts with the latest scientific technology." At Planetree, art and music have taken such forms as Sony Walkmans and tape cassettes of classical music to jazz to environmental sounds. A VCR in the lounge offers a wide range of movies. There are books of poetry, fiction, photography, etc.

Highly influential in the development of the Planetree philosophy was the consumer movement of the last two decades, particularly medical self-help concepts such as alternative birthing centers and hospices. "The alternative birth center represents an attempt to duplicate the amenities of a home within the technological environment of the hospital," Lindheim maintains.

Lindheim traces the beginnings of what she calls "disturbing trends" in hospital design and services to the early 1960s. As she wrote in *CoEvolution Quarterly* (Winter 79/80): "In the early '60s, with the overriding emphasis on technology and efficiency, the most important concerns of personalized patient care were overlooked. As hospital facilities grew larger and postwar technology continued, the paramount architectural issue was not the most caring way to accommodate the needs of the sick but how to build flexible forms to house constantly changing technology." The '70s witnessed, Lindheim continued, "an architectural response to the increasing gigantism of the modern medical complex that has tended to be cosmetic and visionary, accommodating mechanical rather than human needs." Planetree is a direct reaction against this tendency.

While Planetree has already received praise for its quality care, it will be up to the University of Washington and the Rand Corporation to evaluate the whole program. The evaluators will compare the long- and short-term progress of Planetree patients with others in the more traditional wards in the hospital. Examined will be psychological well-being, health status, patient satisfaction, length of stay, incidence of rehospitalization, and overall cost. Also assessed will be the feasibility of other hospitals replicating the Planetree model.

In the end, Theriot hopes that Planetree "becomes a prototype that is adapted in hospitals across the nation." Even if that doesn't come to fruition, it seems clear that "the Planetree project, with its emphasis on the health and well-being of the whole person, is setting the stage for the future of hospital care," in the words of Dr. John Gamble, chief of medicine at Presbyterian Pacific Medical Center and a Planetree board member. "Our research and experience indicate that the incorporation of modern medicine and technology in a setting that upholds the full rights and dignity of the individual patient will add immeasurably to the healing," he adds. Lindheim believes that more people are beginning to ask: "How do we want to be cared for at birth, when sick, when old, and when dying?" Planetree's answer well could be the answer, she says. "I have a feeling Planetree is a better way to heal." □



Design and the Experience of Dining

Five Southern California restaurants that are adventurous in both architecture and cuisine. By George Rand

There was a time in the recent history of Los Angeles when an evening of fine dining meant driving out to the ocean for grilled mahi mahi and a salad bar. Oh sure, there were always the few traditional good European restaurants. Most of the regular haunts were more noted for their atmosphere and their celebrity clientele than their fine cuisine: Mateo's had creamy cannelloni and sexy red leather booths laying in wait for the rare appearance of Frank Sinatra. Paul's Duck Press with its cracked leather booths catered to the local pols with a gamey cuisine that included a gravy made of duck juice squeezed from the cooked bones using a device built like a huge thumbscrew with a spout.

In the late '70s Los Angeles had a developmental spurt, not only in population but in the depth of experience it began to support. A serious world class city emerged with genuine political movements, a surfeit of crime, runaway real estate prices, and a confluence of minority communities from Asia and Latin America that quickly swelled to become the population majority.

Almost suddenly, like spring plants breaking through the hard winter soil, a new breed of sophisticated restaurants began to appear on the new urban landscape. This article discusses five contemporary restaurants in which architects have played a vital role, sharing responsibility with the chefs for constructing exciting environments to house a host of new culinary experiences.

The transformation of Los Angeles from lotus land to serious metropolis has been a long time in coming. In a town like L.A. it does not pay to use models of urbanity borrowed from Europe or the East Coast. The spread-out, polycentric form of the city requires a sensibility that accepts its helter-skelter character. This is a town with unusual juxtapositions—a vacuum cleaner repair store next door to

Valentino's, a four star Italian restaurant. Mile after mile of these contradictions are seen in peripheral vision framed by an auto windshield. There is no gradient, no sense of hierarchy, no reason to hope it will all eventually make sense.

Frank Gehry, FAIA, and his younger colleagues have had a gripping impact on the form of the city. Gehry questioned the logic of the Southern California vernacular of pastel stucco and pan-tiles as a basis for urban form. In terms conditioned by the Vietnam war, risk of earthquakes, and nuclear madness, his esthetic choices came to represent a questioning of the idea of progress in architecture as based on new technologies.

The Los Angeles food revolution also has its complex sources. It stems from the efforts of mainstream figures like Bernard Jacoupy of the Biltmore who, along with his younger American colleagues trained in European schools, have sought to break the iron grip of tradition held by traditional French cuisiniers. Major talents like Michael McCarty (Michael's, Santa Monica), and Michael Roberts (Trumps, West Hollywood) set the tone for an elegant health minded cuisine focused on the freshness of the simple, undisguised elements. In their hands the gallery-like setting in which the food is served came to play an important role.

Increasingly, "avant-garde" restaurants represent a joint exploration by young chefs and architects. These new settings have emerged as key players in the battle for "public space." Until recently, radical Los Angeles architecture has been restricted to a series of private homes inaccessible to the public except on tours. Restaurants now provide the opportunity for visible experimentation by a new generation of architects whose concerns are in synchrony with a chefs for whom *beurre blanc sauce*, the symbol of French nouvelle cuisine, is ancient history. Their mutual concerns include a diverse mixture of art and ethnology, urban archeology and biology.

Seventy-two Market Street

was commissioned by actor/producer Tony Bill ("Come Blow Your Horn") and his friends Dudley Moore—who wanted a place to play a well tuned piano when he was in town—and designer/restorer Anthony Heinsbergen—among his credits, the State Capitol building, Biltmore Hotel, Wiltern and Fine Arts buildings, Los Angeles, and New York's Carnegie Hall—who wanted a comfortable place he could use as his informal headquarters.

Tony Bill is a natural congealer with yearning to create a feeling of community. When the Venice property, one-half block from the crowded ocean boardwalk became available he jumped at the opportunity to focus his producing talents on development of an unusual restaurant.

The package resulted from a confluence of talents, including a fourth partner, Julie Stone, who brought considerable restaurant know-how to the deal, and a chef named Leonard Schwartz. Tony Bill recalls that he used many lessons he had learned in dealing with film properties. Maxim number one: "Work with good people and let them do what they do best."

The program was kept relatively simple. They knew they wanted an oyster bar. All they wanted anything but a "large box with tables and chairs in it." In addition, they wanted great food—simple dishes done very well such as Cajun style meatloaf and Louisiana sausages—a piano for good live music (not "Strangers In The Night"). More than anything, they wanted the place to succeed or fail on its own merits rather than rely on a chic "club" image.

To "do what they do best" as architects, Tony Bill turned to Thom Mayne and Michael Rotondi who have operated for more than a decade as Morphosis ("development of form") in West Los Angeles.

Tony Bill spent time with Mayne and Rotondi to explain his desires, took them on a trip to New York City to show them what he liked, and then gave them the head. Mayne and Rotondi focused on the

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tion of the arcaded street to the entry, from the public exterior to the private interior, creating a dynamic sense of movement.

This is a picturesque, quietly pleasing place. It has a clarity of mood that is challenging while at the same time being relaxing and informal. It is also a disciplined, theoretically rich design that poses questions. How is the quality of light used to change the mood? How does the ordering system of axes, columns, planes, define a mental object that can be experienced like a musical composition ("spatial blues")?

The common materials used on the exterior (copper, a steel column, concrete, stone, and slate) are brought inside but framed in a way that allows them to reveal their natural elegance. There are combinations of blond wood panels separated by inlaid copper and concrete surfaces bisected with slate tiles. Each ordinary material is given an extra glow by energy that is created by their combination.

The space is given primary shape by the 10-foot-square glass planes (window, divider, and rear wall) that create an invisible hologram-like box that thrusts through the body of the space from front to rear. The rear glass panel that completes this form is a mirrored construc-



tion by artist DeWain Valentine.

This axial arrangement fights for dominance against another force, a small "building within the building" containing the liquor bar and oyster bar. It sits at an angle to the main geometry and has the effect of compressing the path of entry and shaping the pattern of circulation around its volume. It also creates a soaring verticality.

The existing building had to be reinforced to meet L.A.'s stringent earthquake standards. Morphosis tied the exterior walls to an interior tension ring braced by tie rods to an asymmetrically rotated

column that sits in the middle of the small internal building. The column is small and squat to contrast with the long thin steel column on the same axis that serves as one of the supports for the aging exterior arcade. The new column is sheathed with a copper piece etched with figures by sculptor Robert Graham.

Both food and building are founded on a fascination with the artistic transformation of the ordinary into the extraordinary. Just as there are no exotic materials, Leonard Schwartz's food is simple and straightforward. His culinary roots are in American cooking with touches of the French and Italian.

His dishes are not far removed from what people might prepare for themselves using family recipes with off-the-shelf ingredients. There is, for example, a meatloaf made with "a multiplicity of peppers" (green, yellow, and red bell peppers; jalapeno, cayenne, black, and white ground peppers). It contains a mixture of beef and pork and is served with mashed potatoes fluffed with heavy cream and a flourless gravy made with wine and fresh herbs.

In all, the restaurant is a personal statement on the part of owners, architects, and chef—but made *without* the customers feeling an alien will is being imposed on them.

Angeli

(the name comes from "city of angels") is a tiny but distinctive cafe/pizzeria designed by Morphosis and project architect Michele Saie. The idea is the product of the vigorous minds of chef-entrepreneur Evan Kleiman and co-owner John Strobel. Kleiman is an engaging and energetic woman who studied Italian literature and film while "catering her way through college." After working in the "designer food" business for some time she wanted an unpretentious cafe without expensive truffles and radiccios where people could be happily fed with exceptional food for

under \$10, a place informal enough to "hang out" in ("the pizza cooks bring their baby every day" Kleiman says).

The cuisine is "rustic Italian home cooking" from Rome and the south of Italy "with a touch of Tuscany," and, "not a translated food." There is no "nouvelle presentation" (garnishing the plate with small pieces of the herbs used in preparing the sauces). Kleiman says "there is nothing on the plate you don't eat." Obviously, this is not average pizza or they would not have up to 400 people per day paying up to \$8 for an eight-incher. Big sellers are the Pizza Margherita (tomato-basil sauce, mozzarella, fresh basil, par-

mesan) and Calzone al Forno (stuffed with mozzarella, ricotta, spinach, mushroom, black olives, parmesan).

The two-room restaurant is located on the eastern end of Melrose Boulevard, a spontaneously evolved retail district in a deteriorating area that came into being as a result of the mutual stimulation of young retailers with a penchant for strong, shoutingly artistic merchandising strategies.

In this city with no past, new layers are stuck on top of the old without effort to disguise the discontinuity. The fragmented Angeli facade is suspended over the old storefront. The Cor-ten-steel broken pediment is made to look like a ruin and is now covered with what owner Kleiman fondly refers to as "velvet rust."

The restaurant evolved in two phases. The original 36-seat, postage stamp-size store was to resemble a "church with niches and candelabras," says Kleiman, and a second that was added only four months later, more than doubling its size. The first half was functionally constrained but the second gave Morphosis the freedom to improvise. Here the wine rack is tilted 15 or 20 degrees implying that the bottles of expensive nectar are rolling out of some cosmic Coke machine. Partial beams are thrust gleefully around at similar angles, creating a drama overhead that is quite pleasing. They rest gingerly on one another like oversized pizza cutters, looming like elements of the environment in Disney's "Fantasia."

To enter the main original room you walk under a sexually aggressive projecting wood beam that spears through and out of the facade announcing the main axis of the simulated central aisle of the church-like interior. In proper liturgical fashion to get into the building you have to move off-axis (to the left) and through a door that calls to mind the crowded opening of European cathedrals. Once inside, the gravity defying wood beam hangs precariously in space and is matched by its opposite member, a similarly shaped HVAC duct, which completes the main axis ending at the bar counter (simulated "altar and pizza oven" ("apse"). The side aisles are graced with wall niches filled with bread sculpture figures and lit with specially designed "dynamite pack cluster" candelabras that hang above them.

From the day the doors opened, Angeli has had tons of loyal customers, regulars from the neighborhood who come for coffee in sweatpants and others from diverse parts of Los Angeles who dress up for a night out at a really hip night spot. When asked how she evaluates the result, Evan Kleiman waxes about how they got real solid architecture for their limited funds. She pauses and breaks into a broad, uncharacteristic smile and says, "We have a really hip space . . . a really hip space



© Tim Street-Porter



© Tim Street-Porter



Border Grill

is a small Mexican-inspired restaurant designed by Josh Schweitzer and David Kellen. The owners, Mary Sue Millikin and Susan Feniger, had met in Paris as apprentice chefs and had subsequently founded the successful City Cafe. City Cafe moved to larger quarters, and the original became the Border Grill.

Platters are served on oversized, heavy oval dishes with an inch-plus border to frame the food. At one end they have three vegetables, all absolutely fresh: "rajas," strips of roasted Poblano chiles and peppers swirled with cream and Monterey Jack cheese; "chilaquiles," fried tortillas with red salsa and range cheese baked together; and corn. At the other end is the "entree." They feature rib-eye steak with roasted garlic, tongue stew with oregano, and 10 other dishes.

The partners serve what they have come to like in their travels. They particularly enjoy the assertiveness of the food and hope others will respond to its clarity. "Sometimes in French food things get lost, covered up," says Milliken, "they are too diluted and transformed." People have responded in droves.

Schweitzer-Kellen was given a free hand to provide an environment to match

boldness of the cuisine. Simple shapes pop out from the wall plane, providing in relief the feelings of abstract plateaus of the Mexican desert landscape. Daylight from above gives the lightly colored surfaces a sun-faded patina.

The color palette itself (light green and lavender accents for the walls and the reddish-orange bar) was selected to recall the boldness of colors used in street architecture in Mexico, and at the same time to reflect the harmonic use of these colors by Luis Barragán. The black, polished-granite tabletops provide an elegant counterpoint to these light traces of color, as do the precise lines of the Ron Rezek lamps. These themes are reinforced by such subthemes as oversized lapels on waiters' white jackets, thin leather ties and black tux pants with Stan Smith Addidas white running shoes. The colors have a stark, absorptive quality, are not easy to adapt to. When the food and beer arrive the colors come to life. The food colors gain added strength and clarity from the surroundings.

Clearly, the architects appreciate food as an art form and have created a gallery for its consumption. But Mary Sue Milliken warns us *not to take it too seriously*. "It's just food," she says. "Remember, you just have to eat again tomorrow!"



Chaya Brasserie

belongs to the Tsunoda family which has been in the restaurant business in Japan for 300 years. When it wanted to open some restaurants in Los Angeles it sent Yuji Tsunoda to buy three sites. He then set about to transform European cuisine through Japanese use of fresh, barely cooked ingredients, and startling presentation. Japanese influence had been felt in the formulation of the lighter "new cuisine," but the results were still within the constraints of what is acceptable to French xenophobia.

Prior to opening the first of the three restaurants, La Petite Chaya (Chaya means "tea house"), chefs were dispatched to study in France for several years. The restaurant opened on a remote street in an eastern part of Los Angeles advertising itself as "a nouvelle cuisine Franco-Japonaise restaurant and bar." It immediately caused a stir. Now the second restaurant, Chaya Brasserie, has opened and this time a contingent of chefs was sent from Japan to Los Angeles by way of Italy.

Grinstein/Daniels, Inc. is the architect that transformed what was a Packard showroom in the decorator district of Los Angeles into Chaya Brasserie. Elyse Grinstein is an art collector. She and part-

ner Jeff Daniels just completed a house for artist David Hockney. It fell upon them to express, in architectural terms, this hybrid and sophisticated combination of Japanese teahouse and European brasserie along the lines of La Coupole.

One way to have approached the task would have been to collect a series of contrasting images from Europe and Japan and then to juxtapose them. Instead, Grinstein/Daniels started with the experience of convivial dining and focused on how the elements of the environment help to support that experience. They began to introduce elements that recall Japan (blond wood, joinery) and Europe (wainscoat, tilted mirrors).

The bowstring trusses of the old warehouse building were retained and cut through by the large new central atrium that provides natural light (the Los Angeles ingredient) focused on a Japanese bamboo garden ("the bamboo grew like hell," says Grinstein). The four octagonally shaped pine columns, expressive of Japanese joinery, were fabricated and then chamfered at top and bottom to express the meaning of capital and base. This same detail is picked up at the entrance in a totally different material, two octagonal steel columns. The entire facade is steel.

The pine-framed, overscaled tilted mirrors seem vaguely Viennese and make

you feel as if you have been captured by a George Gross painting. While they break the linearity of the walls, they also have interesting perceptual effects. The mirrors reflect sound toward the floor, giving the place a friendly din, but modifying (according to their acoustical consultants) and make it possible to hear the clatter of glasses without being bombarded by undesirable buzz. The other effect is to reflect images of people around the room, making diners feel part of a friendly crowd rather than isolated in a formal room.

Incandescent lamps are recessed in dark-wood, four-foot-high wainscoating that wraps the room, and in the delicate inverted umbrella-shaped hanging lamps that were fabricated in Japan after Italian (Fortuni) originals.

The bar top is made of cast concrete with a delicate, smooth skin-like finish that contrasts with its massive dimensions. The floors are also concrete, integrally colored with a black pigment.

As to the food, Chef Tachibe keeps the menu rich in inventive offerings. "Carpaccio a la Chaya" is made with extra thin ($\frac{1}{8}$ inch) slices of beef marinated in herb Barolo wine, served with olive oil and parmesan, and garnished with Japanese horseradish. The culinary innovations here are also neither showy nor conceptual but tend toward subtle combinations and beautiful presentation.

Seventh Street Bistr

resulted from the efforts of Wayne Ratkovich of Ratkovich, Bowers, Perez. It falls into the category of buildings by lightened developers who have, like James Rouse, turned the redevelopment of "prime" urban areas into social and financial windfalls. When they took on the decaying art deco James Oviatt Building in downtown Los Angeles by architect Walker & Eisen, their efforts to rehabilitate it were met with skepticism. Investors were especially wary of plans to include Rex II Ristorante on the first floor, an expensive dining room run by Mauro Vicente. Ratkovich's instincts proved correct. There was positive response to the meticulous preservation work, and the office leasing program was successful. The restaurant quickly exposed a larger than expected demand for high quality food and service. The existing mythology about Los Angeles as a casual unsophisticated town had failed to recognize this latent need.

The success of this combination of elements gave developer Ratkovich confidence to try it again when the 12-story Fine Arts Building became available a few years later on a nearby site. The Romanesque building by the same architect as the Oviatt was carefully restored by Brenda Levin of Levin & Associates

cluding the construction of another first restaurant, this time in association with Joachim Splichal, an eminent French chef who has since left and turned over the reins to Laurent Quenioux. Unlike the formal restaurant in the Oviatt, the Seventh Street Bistro has the informality of an ordinary French cafe and the high-quality food one would expect to find in a society that deems itself to have a significant "food culture." For Quenioux, the combination of informality and quality presages a trend that will spread throughout the entire region.

When they took over the building the space contained the Cap 'n' Quill restaurant, with red acoustic tile ceilings, red-walled wallpaper, and built-in Naugahyde booths. As they removed these effects they discovered beneath the turmoil a series of barrel vaults, molded plaster columns, and corbels, much of which had been riddled with holes by previous generations of ducts and wiring.

The presence of daylight—a Los Angeles first—is made possible through large arched windows that were uncovered by restoration efforts.

The architects had to focus on subtle background effects, an architecture of passive pleasure, rather than creating an "object environment" to stimulate or tantalize the mind. The basic elements are a series of stepped walls that link the front and rear of this awkwardly narrow space in a sequence of subtle arch forms that allude to the Romanesque background elements without mimicking them. The palette—shades of cool grays for the walls, sage-grays for the stepped forms, and pinkish grays for the arches and original corbels—was selected to create a flowing, lyrical setting. The design neither features nor overwhelms the preserved elements of the building; it allows them to remain as background.

This design philosophy seems to work in response to the food, which is so subtle in taste and visual presentation that



any major visual distraction would inure the senses to its magic. In the past, a "grill" might have had pictures of wild boar adorning the walls to stimulate the appetite. In contemporary cuisine the food takes responsibility for stimulating the mind by virtue of its own internal "construction." For example, venison is thinly sliced, sauteed, placed in a fan pattern on a large white platter, served with a slash of green peppercorn sauce along one edge, and garnished with a delicate fan of sliced yellow papaya. Squab is served baked, boned-breasted on a squab shaped puff pastry shell with black peppercorn sauce, and also as a "pizza" with wild mushrooms and rosemary sauce. The menu is changed daily and tests the versatility of the chef since it is dependent upon the availability of ingredients that

may be imported from as far away as New Zealand.

Desserts have a particular architectural flair. The gratin of oranges is a crisply baked, wafer-shaped mouse containing orange sections that sit on a lake of light orange sauce dotted with small curls of freshly toasted basil. The petite flan is served with poached pear and is garnished with a little pouch made of a crepe filled with chocolate sabayon and held together with a string-tie of orange rind.

Perhaps the exploration of this combination of food and environment will offer insight into an architecture, without polemic, that challenges the mind while accepting people as they are, including their "dark side," and makes them feel once again their presence is desired in environments designed for their use. □



Heritage



Tower-Topped Complex Presides Over a Historic District

Spokane is a robust city in the interior of Washington State near the point where the Rockies begin to flatten into plains. It is a modern city, but it retains remnants of the past and a frontier quality reminiscent of another time.

Thus, when Review Tower, proudest landmark of its historic district, reopened last year after remodeling and additions, a commemorative book of essays was issued by Cowles Publishing Co., its owner and principal occupant.

"When C.B. Seaton designed the Review Building, he worked under a mandate that it be the most conspicuous building in Spokane," one essay read. "He achieved that goal through the unique shape of the building and the unusual height of the tower. His design isolated the tower in such a way that no competing structure could ever block the clear view of the sky achieved at its apex. Unlike the skyscrapers of a later period, the tower cannot be diminished, but it is rather enhanced by the presence of adjacent structures."

The 1891 tower rises on a tapered corner from a brick building described as Victorian Romanesque by the architects of the

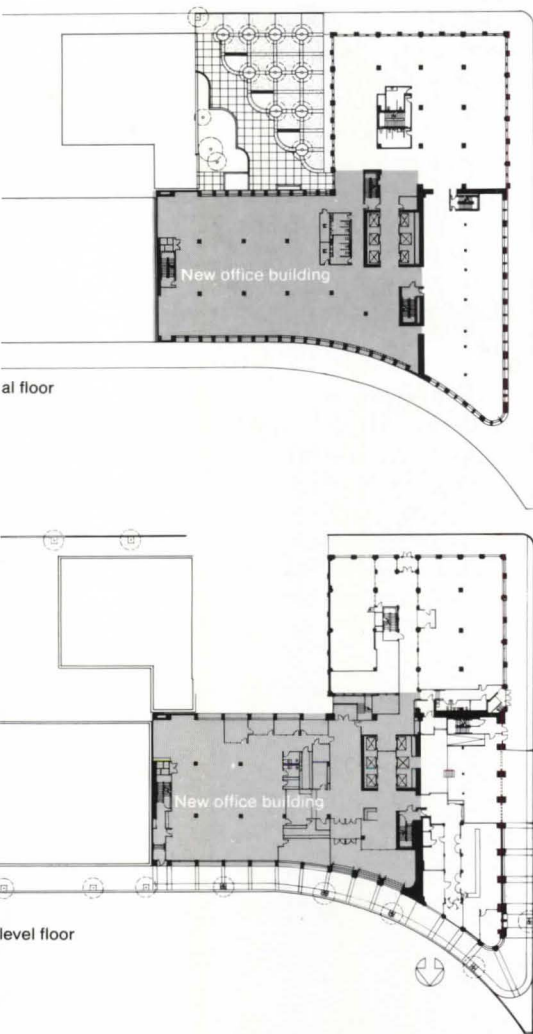
recent work, Adkison Leigh Sims Cuppage of Spokane. The firm task was to remodel the Review Building and its 1929 neo-Gothic neighbor and insert an addition larger than either behind the older building. The addition, also of brick, follows the curve of the street, gracefully swooping up to the tower.

The addition stands quietly in the shadow of its venerable neighbor with intentional humility. It is devoid of ornament, but its deep arched and vertical openings have an affinity to the original building.

In the course of the project the architects created two pleasant new open spaces: one a roof terrace on the addition, the other a ground level courtyard at the juncture of the addition and the 1929 neo-Gothic building.

Inside, the program was very direct: to whatever extent possible in three very different buildings from three widely separated periods, make the spaces seem part of a single structure. The unification was pursued by standardizing detailing, components and systems on upper floors.

The ground floor of the original Review Building was preserved as built. Details and materials from it were used elsewhere in the building "to continue a thread of historical significance," say the architects. In all, the project is a skillful blending of periods. DONALD CANTY, HON. AIA



Review Tower in its remodeled majesty. Below, more view. Right, courtyard behind addition and landscaped terrace on its roof.



Photography Unlimited



Photography Unlimited

Bringing Color and Light to 'A Rich Background Building'

Architect Atlee B. Ayres' buildings amply flavor downtown San Antonio, notably the twin-towered Municipal Auditorium of 1923, a Spanish-eclectic feast suggestive of Bertram Goodhue, and the 1929 Tower Life Building, a deco wedding cake that is easily the city's best skyscraper.

Ayres' enduring contribution was the forging of regionalist themes. His buildings today seem fresh, simple, clear; they belong to this place.

Very early in his long career (he died in 1969 at age 96), Ayres designed what is now 110 Broadway, a five-story, U-shaped office building that handsomely turns the corner at Broadway and Houston just a block from the Alamo. The materials are Spanish yellow brick with cornices and medallions of red and cream terracotta. In 1907, 110 Broadway gained an Ayres-designed sixth story and six-floor addition that extended the building by four bays to the east and turned the U-plan into an O around an odd-shaped, quadrilateral light well.

A circa 1910 photograph shows the building as fashionable and thriving; its windows are shaded by striped fabric awnings and a bank occupies the corner storefront. But by the early '80s, when a Tulsa developer acquired 110 Broadway, a tattoo parlor and a pornographic book store were installed at street level; only pigeons inhabited the floors above. The light well—a jungle of air handlers, ductwork, and fire escapes—was ankle-deep in debris floating in water from a stopped-up artesian well. The roof leaked, windows were broken out, and brick surfaces were covered in grimy, cracked, white paint.

Along Houston and Broadway, the original linear awnings over the sidewalk were long gone, while only fragments of the cast iron storefronts remained. In designing replacements, the reno-

vation architects, the Urban Design Group of Tulsa, walked the familiar line between the needs of budget and requirements of the diligent San Antonio Conservation Society and demanding Texas state office of historic preservation, with mixed results. The new metal awning seems lifeless and a shade too dark. But the storefronts, with a delicate ellipse silkscreened on the inside of each transom light, are beauties.

It was a natural to enclose the light well as an atrium, but execution proved structurally challenging, says partner Jack V. McSorley, AIA, principal in charge of the renovation. Absent original working drawings, test borings revealed the 1904 main section's floor slabs as cinder concrete (with the consistency of mud, quips McSorley), most likely supported by a mesh laid out a series of flat bar straps slung as catenaries between interior steel beams and eyehooks in load-bearing walls. The atrium renovation required the precarious feat of closing some masonry openings and enlarging others at ground level without compromising structural integrity.

The light well had always opened to the basement level, and the owners insisted that street level circulation pass through the high space, so the architects bridged the atrium at that level, positioning an oversized knuckle exactly under a circular skylight of like circumference. They studded the surface of the bridge with glass block pavers, lit from underneath, and placed a mosaic on the basement floor alluding to the course of the San Antonio River through the city core.

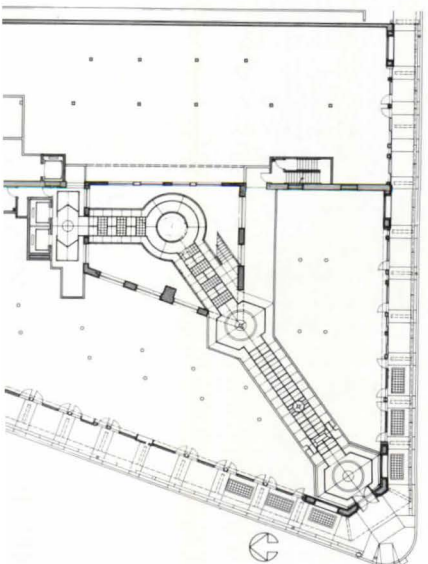
Painted a creamy white, the small atrium is more a quiet court than a dramatic space. And that seems appropriate to Atlee Ayres' 110 Broadway, which is more a rich background building than a stellar landmark. A.F.

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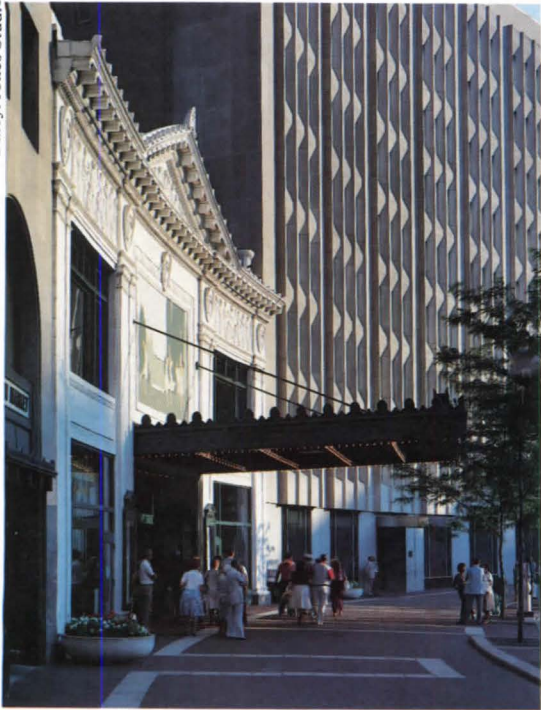
Left, the renovated facades at the intersection of Broadway and Houston. Cor- between the fourth and fifth and fifth six stories are terra-cotta; the top one essed metal painted to match. Near renovated storefronts and a 'before' . Above, round holes under top floor late atrium. Right, glass pavers in e leading from entrance to elevators t from below.



Chuck Williams, Williams/Piak

Indianapolis Gets a Movie Palace Made Symphony Hall

Darryl Jones Studio



Darryl Jones Studio



The Circle Theater, a neoclassical revival style vaudeville and movie house designed by Rubush & Hunter, opened in 1916 in a prominent location on Monument Circle, the symbolic center of Indianapolis. Considered for years the city's grandest movie palace, the theater had fallen on hard times by the 1970s and was closed in 1982.

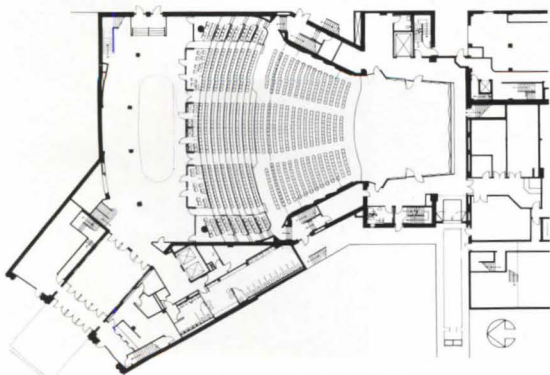
The Cleveland firm of van Dijk Johnson & Partners and the local firm of Archonics Design Partners were commissioned to convert the theater into a performing hall for the Indianapolis Symphony Orchestra. Although the theater had undergone "modernizations" in the '40s and again in the '60s, the interior had retained much of its original character.

Conversion called for two major space alterations—a larger stage and a larger lobby. The architects extended the stage back 14 feet into an alley and added a shell with splayed maple walls and seating for chorus or concertgoers. Several rows of seats at the rear of the theater were eliminated, and a solid wall closer to the stage was added to make the lobby incorporate the existing oval opening to the mezzanine above.

The original proscenium arch would have hidden 20 percent of the musicians and would have trapped sound behind the opening. The architects removed the inner portal to create a new proscenium 50 feet wide and 33.5 feet high and duplicated the original relief detailing on the inner surface of the new opening.

Interior restoration also included repair of the original bas-relief detailing, replication of box seat balconies, and repair of elaborate mirror panels. The color scheme of grays, rose, and ivory was drawn from newspaper accounts that described the theater during its opening, said architect Peter van Dijk.

The original decorative white terra-cotta on the facade was repaired, while the thinner profile of the restored 1916 marquee allows for the re-creation of an original painting on the front facade. LYNN NESMITH



Clockwise from above, restored mezzanine lobby and new entrance lobby below; lavish performance hall with enlarged proscenium, new box seats, and restored dome and chandelier; marquee before; restored marquee with friezes and row lights.



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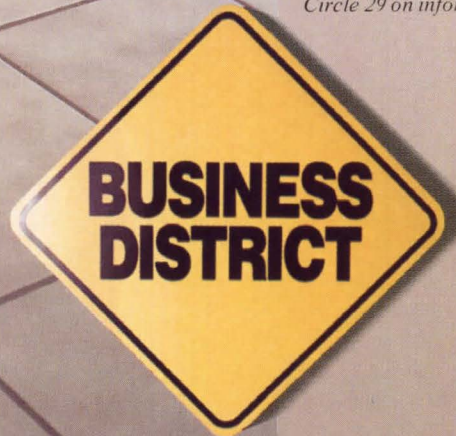
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Urban History for Enthusiastic Amateurs'

Places and People: A Social and Architectural History. Mark Girouard. (Yale University Press, \$29.95.)

If books on cities there is no end—and good reasons. Cities are, were, and will be where the people who create, live, and die; where the best things are made, shown, or hoarded. So I suppose books on cities will continue to be written since there is no end to the things that can be said about them.

This book is pleasantly different from most. As the dust jacket says, it is "lively and sumptuously illustrated," so sumptuous that it can easily be taken for a coffee-table book where the gray stuff in between pictures is disregarded. But Mark Girouard's gray stuff is not stuffing. It is easy-going prose filled with facts, apt quotations, telling examples—an anti-theoretical doctrinaire. Right off, he announces he had "no particular theory or message in mind" when writing this book. I'd agree there is little theory, but I'd like a message: Money is the fuel that drives the complicated engine called the city. This is not exactly original, but a keen wit and sharp eye take the book years away from the customary dull facts and pedantic jargon endemic to architectural books.

This is a book for enthusiastic amateurs, casting a net that attempts to cover centuries and cities everywhere. It is a grab-bag, a browsing sort of book, written by a genial, extraordinarily well-informed cicerone not in a hurry who often supplies a seemingly small fact that tells of the culture of a time and place. For instance, in 1423 Venice had a population of 120,000, and out of this number 100,000 serviced the fleet and were housed in a single work force building. Suddenly we see the power of this great trading city that flourished for 700 years—we know how it maintained and defended itself and where the riches came from. Girouard tells us that the Piazza San Marco was named the Piazza del Broglio (intrigue) because that was where the deals were done. He tells of the money-changing shops at the foot of the Campanile, of salami shops opposite the

Doge's Palace. He also tells us that the Piazzetta was used for public executions and of prisoners in cages hanging from the Campanile. It seems a far cry from the pigeons and gondolas known by modern tourists.

Or consider Amsterdam in the 17th century. "What impressed everybody . . . was a city entirely dedicated to making money. It seemed to visitors that every available piece of space and all available man power were made to pay their way . . . even the cats were organized." (They were kept to hunt for rats and mice in the public storehouses.) Even the cats were organized! In a few words how the thrift of the Dutch is epitomized.

Girouard writes of rivers—rivers as a means of transport, as source for drinking water, power supply, or sewer, but not something to be enjoyed. He then points out that 14th century Florence was the first place where a river, the Arno, was recognized as an agreeable object. It was not until the 16th century that Paris, with the opening of the Pont Neuf, first saw the esthetic value of the Seine: "The best houses on the Ile St. Louis all face the river rather than the square. . . ."

There is no way in a short review to even hint at the variety of things mentioned or commented upon in this book. The variety is the fun and the problem.

continued on page 86



... houses built next to the 'street,' 'Rauerstrasse Canal in Hamburg, 1909, a watercolor by E.A. Buehne.

Books from page 85

Girouard takes a subject and, if it pleases him, digs into it and sometimes tells us more than we want to know. Then the opposite. For instance in the chapter "America and the Birth of the Skyscraper," we are told that American hotels began to lead the world around 1830 in size and appointments. "... One curious reason for their size was that from early on a large number of people, including entire families, lived all year round in them." But we are not told why. The why in this case explains a great deal about early life in the U.S. First, there was the mobility of the general population, extraordinary in all but nomadic societies, and, second, there was a scarcity of domestic servants in the North that led people, especially the younger ones, to the boarding house and the hotel. And, I don't doubt, to the rapid development of labor-saving domestic appliances from central heating to dishwashers.

Girouard has a last chapter on "Babylon or Jerusalem" in which he sneaks in everything he didn't say about the city, the suburb, and the garden city movement, but ending, of all things unexpected, with a 14-page essay on California. The main emphasis is on Los Angeles, which he, like most Britons I've known, finds fascinating in a morbid sort of way as being filled with "surf boards and sunsets, palm trees and Coca-Cola, Philip Marlow and Charlie Chaplin, of Mickey Mouse and Frank Lloyd Wright, of weirdos, professors, gangsters, gurus, millionaires, nice ordinary people, a failed Jerusalem, a low density Babylon."

Part of the charm of this book is its randomness—one minute we are speeding over the centuries in our time warp machine, the next we are strolling down a Paris street windowshopping in the *belle époque*, but best of all we can imagine sitting in Mark Girouard's second floor living room, "where within 10 minutes walking distance are four good restaurants" (in London?!) listening to him talk while we look at the pictures.

PERCIVAL GOODMAN, FAIA

*Mr. Goodman himself has added to the piles of books on cities, having written *Communitas* and *The Double E*, both on community planning. He is professor emeritus, school of architecture and planning, Columbia University.*

Architecture in the Real World: The Work of HOK.

Walter McQuade. (Abrams, \$40.)
The first 50 pages of this chatty book are devoted to a general discussion of the architectural firm of Hellmuth, Obata & Kassabaum, while the remainder of the 231 pages is given over to photographs and comments on the firm's projects. Architect/journalist Walter McQuade says

that the firm's workload substantially comes from three specialties: health care facilities, correctional institutions, and transportation projects, including airports and subway stations, but the firm, headquartered in St. Louis, with 12 offices around the U.S., has designed virtually every building type, from chapels to computer centers.

McQuade says that what he wanted to do in this book was "to go past the facade into the business" of a firm. The principals are said to have wielded no editorial blue pencils—small wonder since the book heaps praise upon the firm for its design talents as well as its business policies. McQuade is an entertaining writer (he received AIA's medal for architectural criticism), and he makes the characters in this book come alive.

He describes, for example, Gyo Obata's clothing ("pale Italian tweed jacket, unbuttoned, over a black knit polo shirt, tieless"); his working days, arising at 6 A.M. for a competitive game of tennis before going to the office where he's in charge of design; jetting all over the world to job sites; expressing thoughts on design (architecture, he says, "must be like Ella Fitzgerald's singing—really smooth and supple").

George F. Hellmuth is described as the salesman par excellence and is quoted as saying, "What I love is making the kill, packing it in, and throwing it on the floor." He's the firm's member who "stalks business." His "aura," according to McQuade, "is very down-home, and the older and more successful he has grown, the more he has come to resemble an Ozark possum in manner." One of his greatest challenges came when he heard there was a chance to build a university in Saudi Arabia. He caught a plane at once to Beirut, hired a Lebanese lawyer as an adviser, then flew on to Riyadh where he started making friends. After many a cup of tea with university officials, he got the commission to build the university on a 2,400-acre site on the outskirts of the Saudi capital, obtaining a \$3.5 billion commission under a 10-year contract. Meanwhile, on the other side of town, HOK is building a huge airport.

McQuade also writes about the late George E. Kassabaum, AIA's president in 1968-69, who died in 1982. At the time of his death, he was working on a book on Marcus Aurelius. McQuade sees Kassabaum's "steady hand" still visible "in the firm's smooth operation." As the firm's chief administrative officer, he had responsibilities that required great skill. Since his unexpected death, things have changed, of course, and proven architects have moved up. Jobs are now more of a team effort, with a project manager responsible for the total endeavor, working closely with a project designer, under Obata, and a project architect.

To read this book is rather like listening in at, say, a dinner attended by AIA fellows who are swapping anecdotes. For example, one learns of how the HOK proposal documents for the Riyadh University were presented in magnificent folders made of Morocco leather dyed in royal green of the Saudi monarchy; how Hellmuth hopes to raise ginseng (which grows wild in the Ozarks where he has a farm) commercially, hoping it will bring a fancy price in China where it is considered an aphrodisiac; how Hellmuth does like to use slides in a presentation to a client, preferring to fan out magazine tearsheets of published jobs; how the principals in HOK made \$215,000 each in salary, plus bonuses, in 1981; how the firm plans to go on even beyond its founding principals, having granted stock options to some 80 employees.

McQuade ends his comments in the first section with a quote from George Kassabaum, who a few weeks before his death said: "There's a tremendous personal satisfaction that comes from looking back at a building you were part of 25 years ago. It has influenced people—people who enjoyed it, lived in it, worked in it, may have gotten well in it. And there it stands. It's one thing that architects have, that no one else can do."

MARY E. OSMAN, HON. AIA

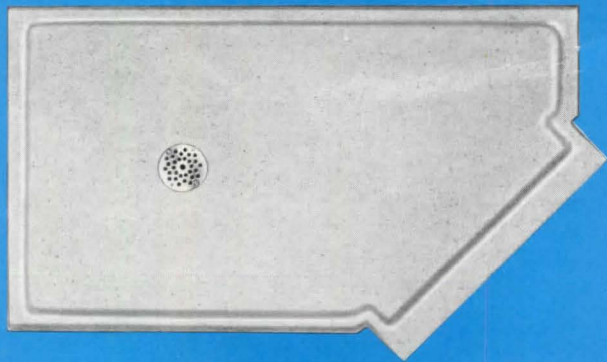
Computer-Aided Design for Construction

Stanley Port. (Wiley, \$32.95.)
Stanley Port is a British consulting and structural engineer who was formerly head of research and development in a London engineering firm and more recently has had construction management experience in the Middle East. He has been in practice as a consulting engineer since 1980. His book is a thorough, in fact, very thorough, introduction to the hardware, software, and techniques of computer-aided design and drafting. Except for minor digressions into such related areas as highway design, ground modeling, and concrete detailing, the text deals largely with architectural applications.

The chapters at the end entitled "Is There a Need for CAD?" "The Options" and "Assessment and Selection of Turnkey Systems" are worth the price of admission. Port carefully outlines a detailed process for answering an architect or firm's key questions: "Do I really need CAD?" and "How do I get it?" Wisely, he does not answer these questions but rather provides checklists of the issues.

One word of caution: Most of the references are to British manufacturers, organizations, procedures, systems, and vocabulary. PETER PIVEN, FAIA □

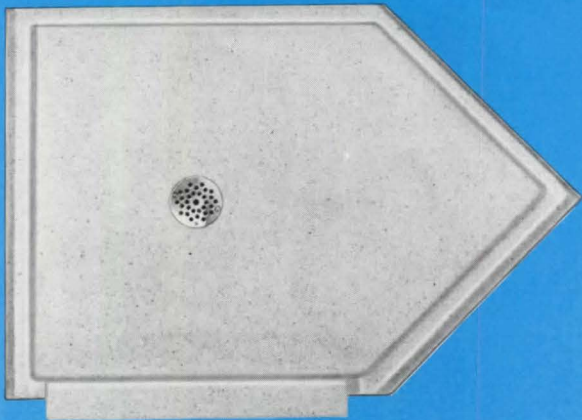
Mr. Piven is a partner in the Philadelphia firm of Geddes Brecher Qual Cunningham.



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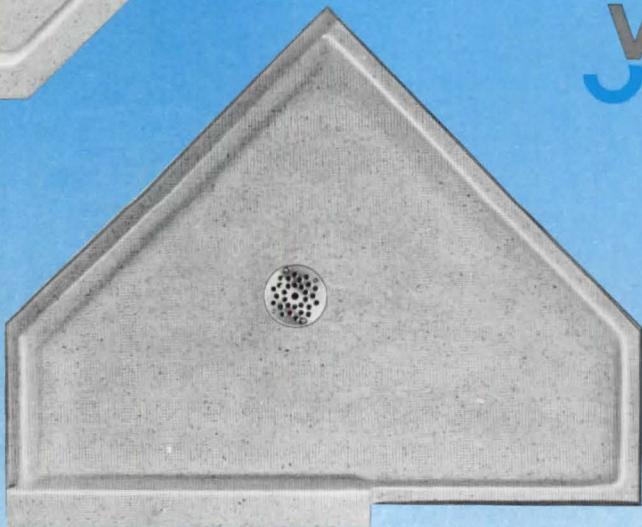


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A Second Opinion on the Lessons of Riis Plaza's Fate

By Simon Breines, FAIA

Although Allen Freeman's observations of Riis Housing Plaza's current condition are accurate enough ("Evaluation: Neglected Relic of the '60s," Dec. '85, page 48), his conclusion about what went wrong are wide of the mark. In misunderstanding the economic and social forces operating against good urban planning and the effect of this process on the design professions, Mr. Freeman moved me to offer some opposing comments. (Incidentally, he also misspelled Pomerance & Breines.)

The article makes the point that Riis Plaza was taken over by drug users, vandals, and graffiti artists because it is not on the street where it would have been visible to passers-by. Freeman concludes with "Riis Plaza was a Band-Aid that would not hold. Fortunately, the lessons of Riis, both project and plaza, have been learned and absorbed." By "lessons" he indicates he means Jane Jacobs' and Oscar Newman's theories about the role of street life in big cities.

But Freeman's own report refutes his argument. For several years Riis Plaza worked as designed. The amphitheater, seating 1,000 and modeled on Shakespeare's Globe Theater, accommodated theatrical, music, and dance productions by local amateurs and occasional professional groups. Funds and direction were available, and project management, actively involved at that time, provided dressing rooms and toilets in an adjacent basement. In those days, the extensive play facilities were crowded with kids and their parents, and the quiet areas were used for chess games and teenage bull sessions.

In my opinion, Riis Plaza eventually failed not for architectural or landscape design reasons but because of political, social, and cultural problems. Government funding for supervision and security were withdrawn. Without these supports, a public space, no matter how designed or located, cannot survive.

What about the role of street life in the viability of open space? As a result of the original success of playgrounds at Carver House and Riis Houses in New York City, the sponsors (Brooke Astor, Mary Lasker, and Lady Bird Johnson) commissioned the same design team to do a similar playground in a one-acre sand lot adjacent to the Buchanan School in Southeast Washington, D.C. The facilities were almost identical with Riis Plaza, viz: amphitheater for entertainment and

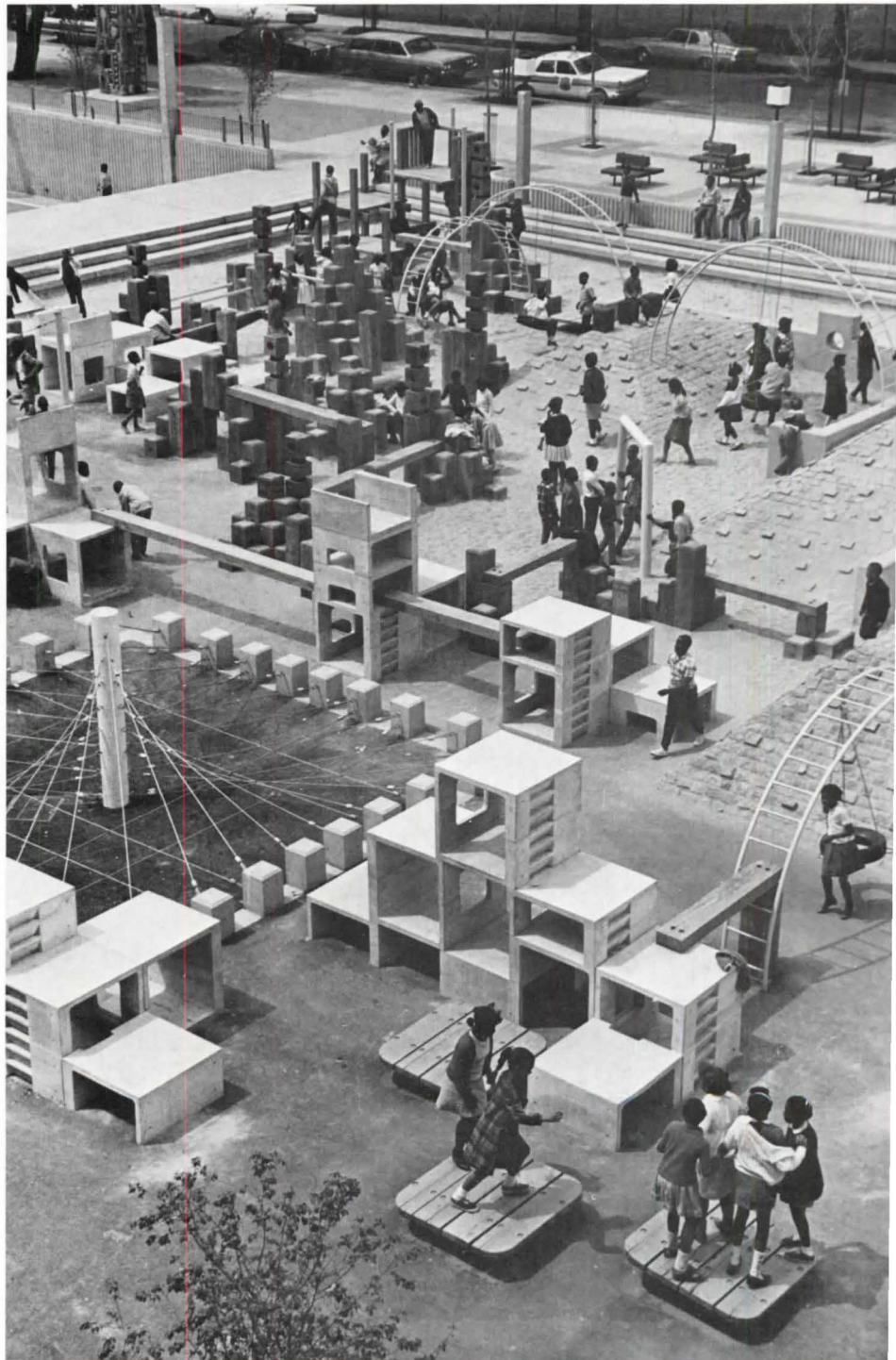
basketball, equipment for children and adults with the addition of a sturdy masonry pavilion with supervisor's office, snackbar, and toilets.

This time the space for the project was not in an interior courtyard; it was right on the street. In fact, it was a corner site with two streets. If Jane Jacobs and Oscar Newman are right, Buchanan School Plaza had the design qualifications for success. But it happened that Buchanan was completed in the period of the Watts riots, and the troubled District of Columbia was seething with unrest. Buchanan lacked the

social and organizational resources to withstand this reality and, in a short time, was literally destroyed right there on its two streets. Was design at fault or the real world of politics and culture?

On the other hand we can record a small but significant success. At the time we were involved with Riis and Buchanan, Pomerance & Breines with Zion & Breines as landscape architects was designing a highrise public housing project for the

Below, Buchanan School Plaza, Washington, D.C., soon after it opened.



Mr. Breines is a principal with Pomerance & Breines, New York City, architect of Riis Plaza with M. Paul Friedberg.

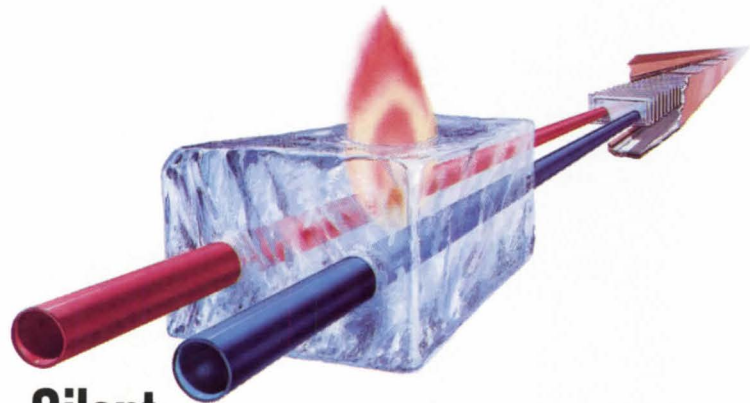
ressed Ocean-Hill Brownsville area of Brooklyn named Glenmore Plaza. Instead of orienting the towers to the surrounding streets, we created a large, inner-block space for the recreational use of the tenants and from which the buildings could be entered. In most other respects, Glenmore Plaza was similar to Riis Plaza with water-sprinklered, sunken space suitable for music and theater and with quiet areas for children and elderly. To achieve the open space we proposed closing the intersecting streets that ran through the area to vehicular traffic. We reasoned that tenants going to and from the building entrances would always be in view of those using the plaza; being more involved with each other would make them feel more secure. All this was accomplished in 1967 with extra funds for this purpose from HUD. According to Freeman-Jacobson, Glenmore Plaza, being away from the streets and in a high crime area, could have been a stage set for disaster. Since completion, however, we have often heard word from the housing authority, from project management, and from social workers that Glenmore Plaza is one of the bright examples among the city's public housing projects with respect to tenants' morale, use of the open space, and the total absence of graffiti, vandalism, and crime. These cheering reports were confirmed by my own occasional visits to the project. When I read Freeman's criticism of Riis Plaza my confidence in Glenmore Plaza was shaken for the first time. I put in a call to Ethel Boulden, the current manager of Glenmore Plaza, expecting to learn the worst. Instead, she was able to assure me that the public spaces were in good shape and intensively used.

"Water sprays are in action all summer so that the kids feel they are at the beach," she said, and she told me that sitting areas for the elderly, the checker game and picnic tables, and the children's space were all being used and appreciated. She volunteered that the two towers that enter from the plaza are easier to keep free of graffiti than the fourth, which is related to the street. She thereupon summarized the Freeman article to her and the reason for my call. How did she account for the success of Glenmore Plaza and the failure of Riis in view of the fact that the designs, the uses, and neighborhoods were so similar? She didn't know about Riis, but this is how she explained Glenmore Plaza: From the day of its opening, in the spring of '68, the occupants of the 440 apartments developed a strong group feeling. They could see each other moving through the traffic-free central plaza and they organized entertainment and other group activities. That first summer, youngsters from all four towers played in

the water-spray pool. The tenants soon realized that they could not depend on the housing authority for the daily supervision and security that such a facility required. The local police would not come in except in cases of major crime. If they were to preserve their nice housing project they had to do it on their own, and they did.

"Organized volunteers patrol the open space, the entrances, lobbies, stairs, elevators, and corridors on a regular basis. For identification and esprit de corps, they have 'Glenmore' jackets and T-shirts with logo and rank. Frequent tenant meetings determine policy and responsibilities, and, nobody should be surprised, it works!"

What can be learned from this? To begin with, theories about the role of streets in urban design have to be looked at more closely. Jane Jacobs has contributed to the thinking and understanding about public space in large cities. But there is more to streets, parks, and plazas than their physical space. How used, how maintained and policed, traffic congestion, air and light pollution, and the frustration and alienation of large numbers of residents—these also are factors in how streets affect people. And, in turn, how people in urban cultures affect streets and other public space. It is not so much a matter of "defensible space" as "defensible people." □



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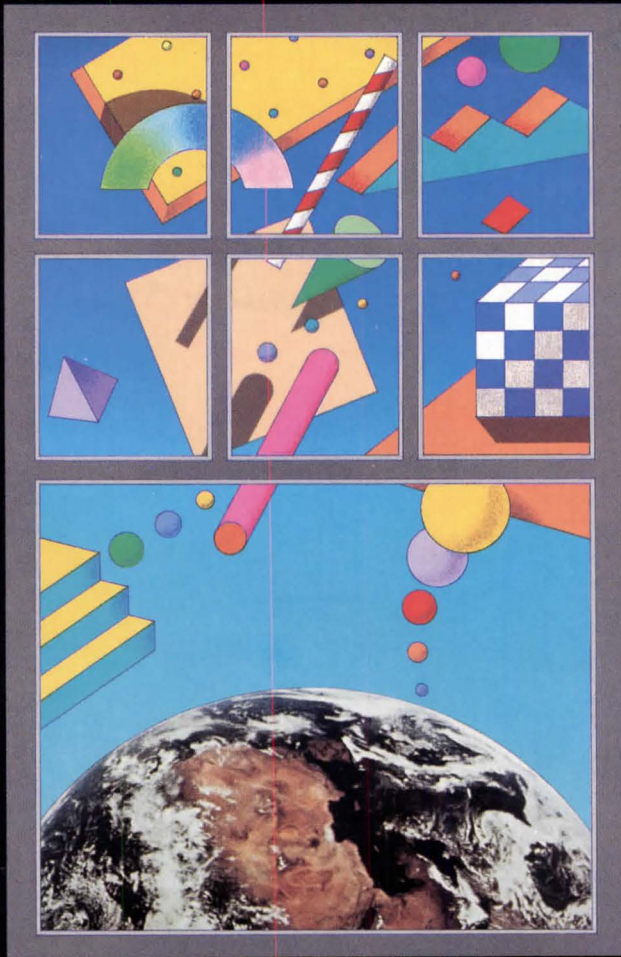
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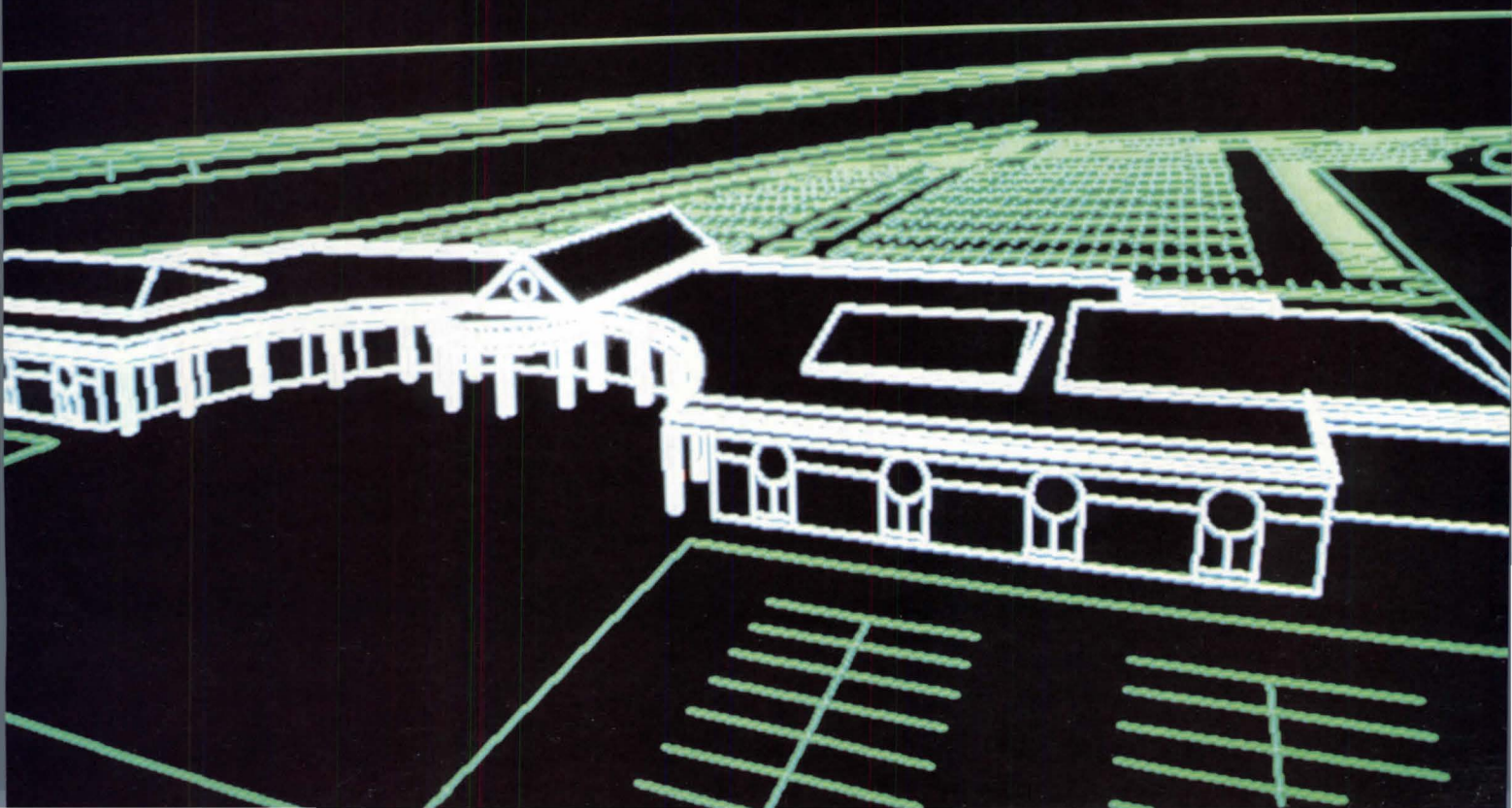
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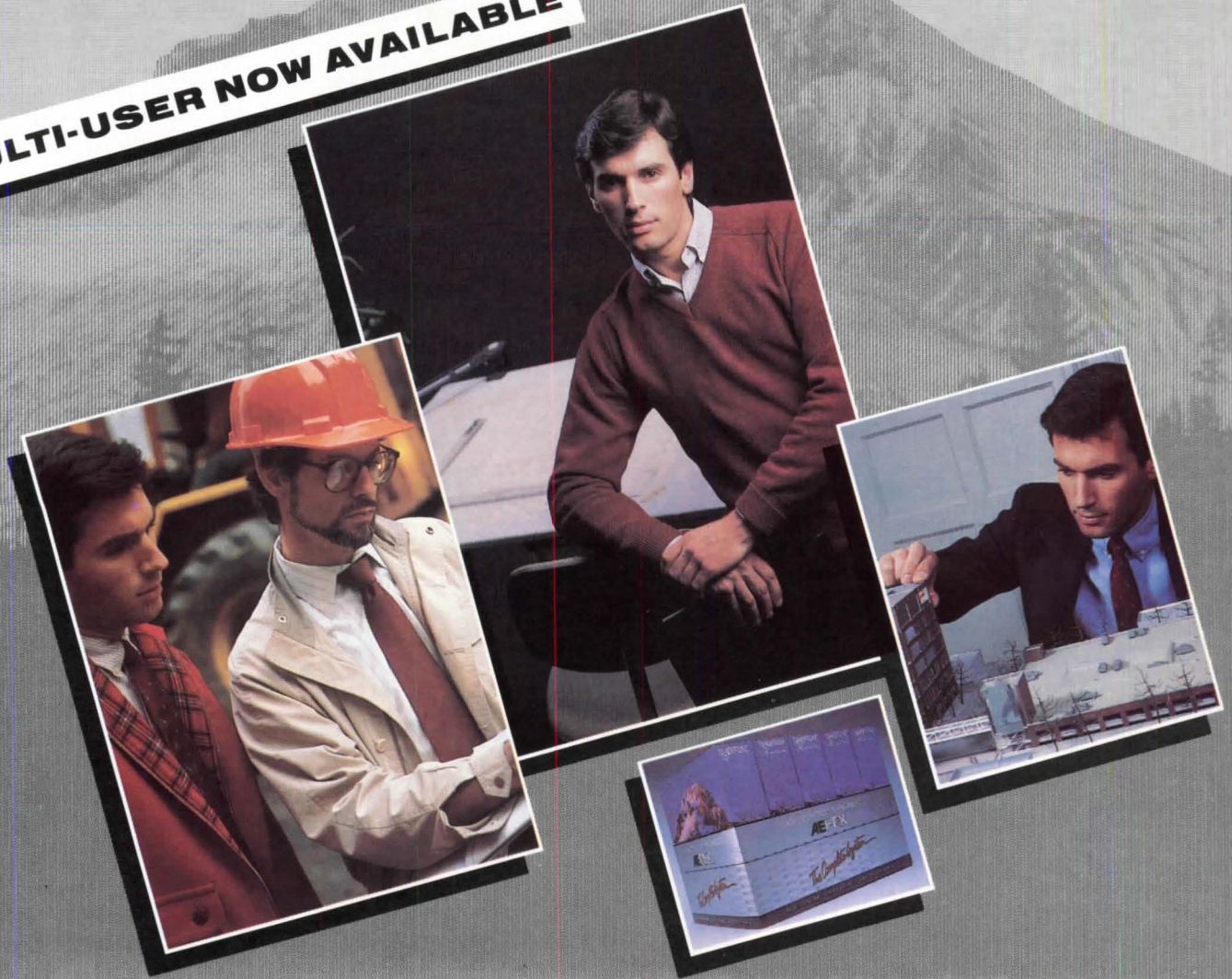


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CHOOSING A SOLUTION

BY ROLAND LOUIS

Who's buying computers? Your competitors, that's who. And they're using their computers to work faster and smarter, offering clients better service as well as lower fees. That's the positive side.

Here's the negative: By 1990, practicing architecture without a computer is

group. Conclusions are based on a 40% response to a survey of the 4,500 firms using the Sweet's catalog. Mileaf said follow-up studies to validate the results of the research shows that non-respondents show about the same pattern as respondents.

Mileaf predicts that 94% of all architectural firms will be using computers by 1989.



CAD systems by McDonnell Douglas (foreground) and Autodesk (rear) work well together in the office of Jones Mah Gaskill Rhodes, Memphis.

likely to become difficult, if not impossible, because vendors and clients will start to assume that the architect not only has a computer but knows how to use it effectively.

This supplement will explore applications by beginners and experienced computer users to improve their service, productivity and profitability, and will offer a glimpse of what the future may hold during the next 12 to 18 months.

Although architects as a group have been slow to automate, there is no longer any question that the so-called "critical mass" has been reached. Computers have crossed the boundary between fad and necessity in the architectural office.

McGraw Hill, which has been surveying computer penetration in construction so it can plan its delivery of product information, reports that the number of architectural firms using computers has grown from 28% in 1981 to 60% last year.

The research was conducted by Harry Mileaf, vice president of planning for the firm's construction information

currently has 87 members.

The surveys show that computerization of member firms has grown to 53% from 33%. And the number of applications used by the firms has grown from three—word processing, accounting and engineering—to nine. Of the firms not now using computers, 21% say they plan to buy.

The most popular computer applications that northeastern Illinois architects say they are planning to buy are, in order: spreadsheet, graphics, CAD and database management.

For a copy of the survey report, write the chapter's president-elect, Charles Grant Pedersen, AIA, Suite 322, 4515 Harrison St., Hillside, Ill. 60162.

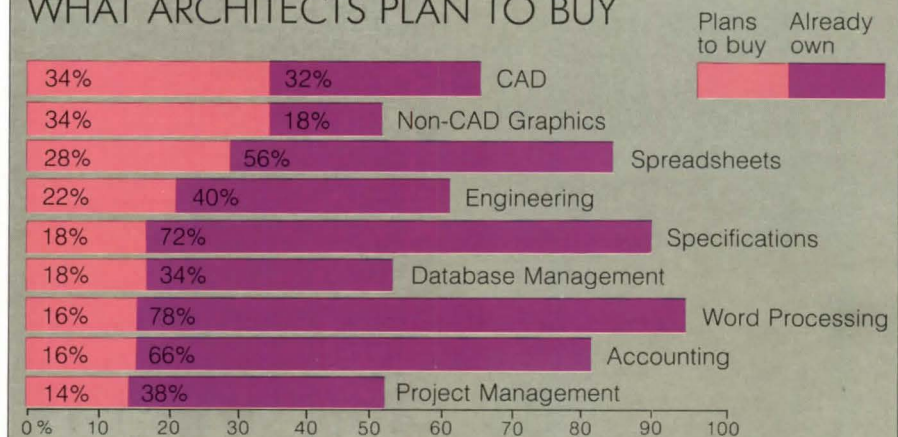
Regardless of which survey is used, it is clear that (1) architects have been slow to automate and (2) they are starting to catch up. Vendors now recognize that architects represent a tremendous marketing opportunity, not only for their sheer numbers but also for their leadership.

The latest surveys show 55,000 to 60,000 practicing architects and about 14,500 architecture or A/E firms. Although large, sophisticated owners often dictate the choice of computer and program, most other owners and a host of specialists take their cue from the architect who retains them or directs their work. Equipment choices made by an architect are likely to influence the buying decisions of 10 to 15 other design consultants.

All this spells good news for the architect because it signals the emergence of a significant market for software applications specifically designed for use in architecture.

One of the few comprehensive computer surveys of architects in an area is conducted by the Northeastern Illinois Chapter of AIA. The chapter surveyed all of its members in February 1984 and again in February 1986. Most members practice in suburban Chicago. The largest firm has 35 employees. The chapter

WHAT ARCHITECTS PLAN TO BUY



WHICH SYSTEM IS BEST?

Some questions generate more opinion than fact, in part because definitive answers cannot be found. Although firms might come to different conclusions, experienced managers agree that it is important to consider these issues carefully before taking the plunge into computers. Here is a selection of 10 great issues in computerization:

1. Which system is best? That's like asking which restaurant is best. There's no substitute for reaching your own conclusions for your own reasons.
2. Should we proceed on our own or get a consultant? Again, the decision is yours, but don't get a consultant to avoid becoming involved in planning.
3. Is it better to buy from a discounter or a local dealer? This one comes down to the question of which is more important: your money or your time. The discounter probably has the better price and the dealer probably offers better service.
4. How much should we spend? The price of a professional level system starts at \$5,000 for the most basic applications, everything included. You ought to spend more. For CAD, equipment that can do serious work starts at \$13,000 (list price) plus plotter. Spending more would be worthwhile.
5. Is it better to buy more but less powerful computers or fewer but more powerful computers? The experts disagree.
6. How should computers be introduced into our office? There is no formula. Even asking for volunteers does not guarantee that employees will not change their minds. The best advice is simply to consider the question and involve the office in discussions.
7. On what basis should we charge for computer time and how much? No standards have settled out so you're free to innovate. Rates generally range from \$5 to \$50 an hour, plus operator time.
8. Should we buy only the top sellers in each field or should we consider other alternatives? The top seller got to be No. 1 by being a good value, and it probably has set the standard for third-party support. But newer products might offer lower cost or higher performance or both. If you had bought the industry

standards four years ago you might still be running VisiCalc on an Apple II.
9. Where can we turn for help? The

options are your dealer, the manufacturer, a consultant, a user group and your colleagues.

10. Is it better to lease or buy? Bigger systems are more likely to be leased, but firms make different decisions at both extremes. Leases usually run from three to five years. Leases are hard to arrange for the purchase of small, single-computer systems.

THE ARCHITECT'S COMPUTER: POSITIONED FOR GROWTH

A productive computer for an architect assumes a graphic capability. The equipment shown here is the minimum generally recommended, with prices quoted at list. Upgrades in each area should be considered. Budget also for software, cables, installation, training and furniture with storage for manuals.



\$6,200

Computer. The magic words in micros are "IBM or compatible" and technology based on the 80286 processing chip. Include at least 640K RAM and a 20 megabyte fixed disk, a floppy disk drive, two serial ports (for input device and plotter) and a parallel port (for printer). If you're planning to run CAD, consider whether a microcomputer will suffice for you.



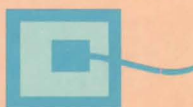
\$1,600

Graphics card and monitor. Buy them only as a matched set to avoid flicker. Get at least 16 colors and a resolution of 640 by 350 pixels. The Hercules card is a best buy if you can manage without color. For renderings, 256 colors is the minimum.



\$375

Math coprocessor. This chip sits inside the computer and improves the speed of the computer. It handles the mathematics necessary to display geometric figures on the screen. It also improves the performance of some spreadsheets and other programs.



\$600

Input device. Your choices are a digitizer and a mouse. The latter is less expensive (\$175) and satisfactory for many CAD programs, but it can't make use of the templates some programs require. Digitizers come with a puck or a stylus. The choice is a matter of personal preference.



\$800

Printer. Most architects will prefer a printer with a 24-pin printhead and the capability for Near Letter-Quality output and graphics. A wide carriage is handy for some financial reports but not necessary. A laser printer offers greater speed, higher quality output and quiet operation at two to four times the price.



\$3,300
and up

Plotter. Most CAD programs require a device that draws rather than prints for output. Sheet size options for CAD are 24 by 36 and 36 by 48 inches. Most architects will prefer more pens, more speed and greater resolution than \$3,000 will buy. The best pen plotters cost up to \$15,000. Architects with heavy production needs are starting to look at electrostatic plotters. They start at \$30,000.

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in every detail

Accurate to 14 significant places. You depend on it...without a doubt. Dimensioning is automatic. It all comes up...the first time.

in every background

Accurate in automatic generation of selected ceilings, electrical, mechanical and other backgrounds from the base drawing.

in every revision

Consistently accurate as revisions to the base plan create new backgrounds. Later, you can visually check the impact of your revisions on each drawing.

in every schedule

Accurate for schedules since each schedule is generated directly from specifications embedded within the drawings themselves.

in every choice

Accurate in the representation of line

weights, tic marks, text styles, doors, windows and other shapes. Choose from those supplied or create your own, and generate prints at different scales automatically.

in one place!

Accurate because all information about a drawing is stored on that drawing. Just zoom in to the drawing to see more details, imbedded specifications and even notes for revisions.

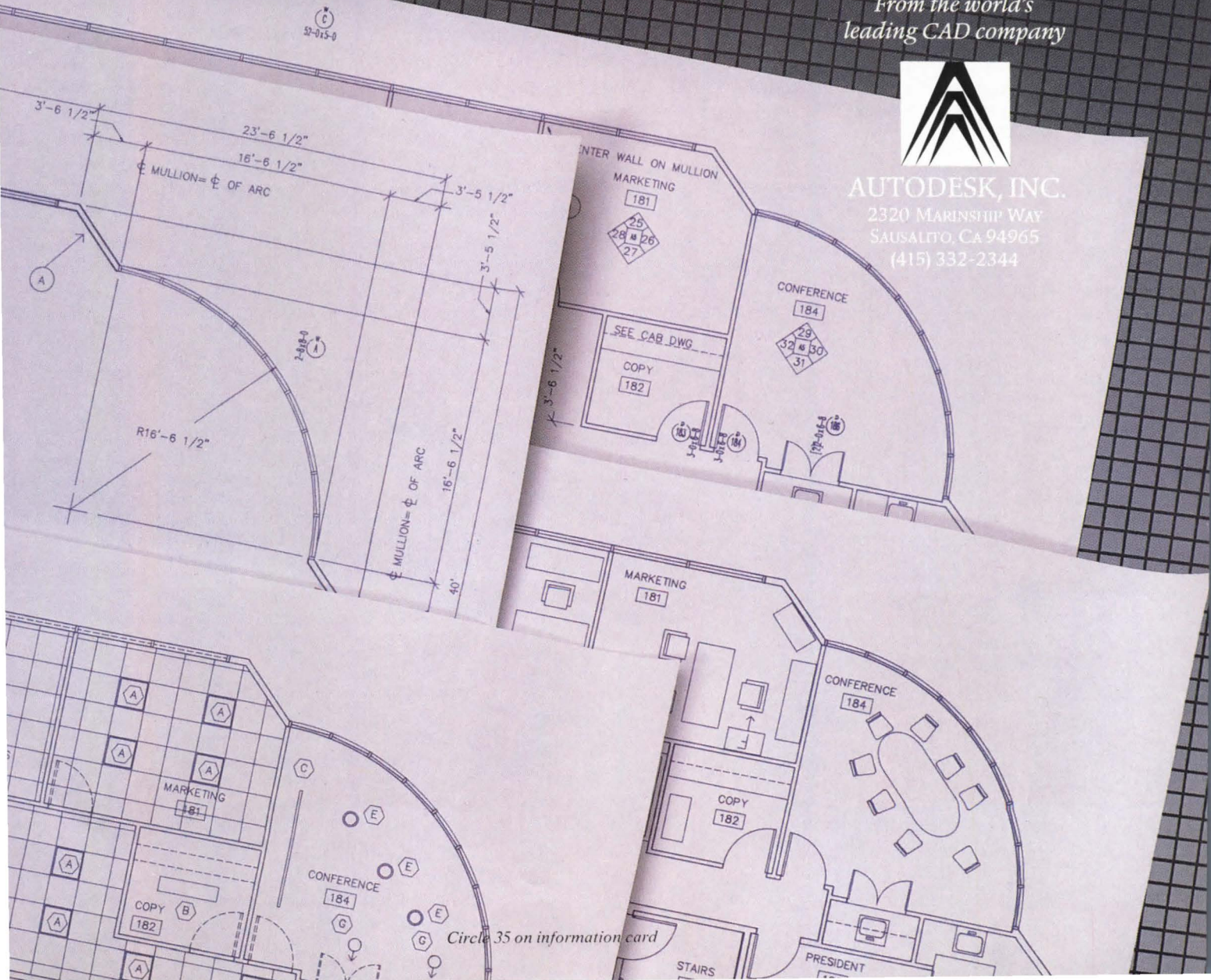
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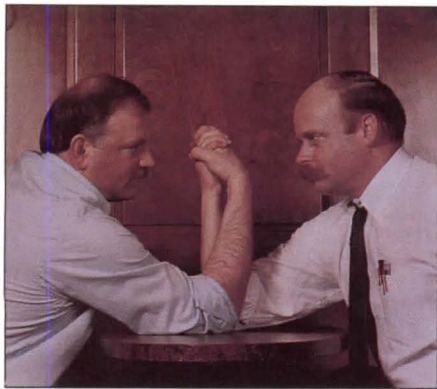
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Circle 35 on information card

TIPS FROM THE TOP

JUST GETTING STARTED IN COMPUTERS? INTERESTING IN GETTING MORE FROM YOUR SYSTEM? HERE'S THE LOW-DOWN FROM 12 TOP EXECUTIVES



CHUCK NEWMAN, AIA, AND JOHN VOOSSEN, AIA

Newman and Voosen seem to generate more controversy than usual between architects. Voosen practices in downtown Chicago; Newman prefers the suburbs. Voosen likes Compaq computers; Newman sticks with IBM. Voosen picked Autocad; Newman's choice is Versacad. They meet, but so far neither has gotten the upper hand.

Like the other people quoted in the interviews that follow, they disagree on details but see eye-to-eye on one basic principle: The computer can help make an architect's practice more successful. Naturally, they define successful in different ways. Newman is adding volume, whereas Voosen is getting pickier about the jobs he takes.

Both suggest that their fellow chief executives analyze the purchase of a computer and its applications on the basis of profitability. This comes primarily, they say, from the reuse of data, faster completion times and the higher quality of documentation.

Newman, who has analyzed his applications, says the most profitable are, in order, word processing (including specifications), spreadsheet, accounting and CAD.

In selecting hardware, they urge buyers to stay with equipment that can be updated as technology changes. Neither considers it a good idea for a small firm to dedicate any computer to a single function.

Newman currently has eight well-digested programs in his office. Voosen has 11 programs and utilities.



INTERGRAPH MANAGER TOM FEAZEL, AIA

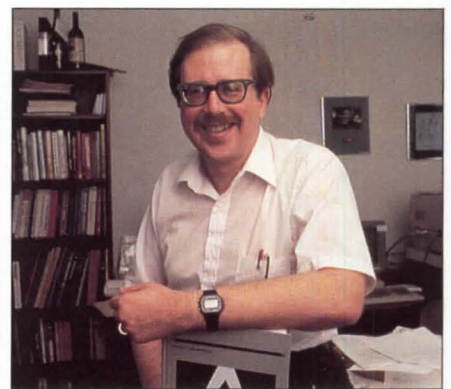
The wave of the future is full integration of CAD, specifications and cost estimating.

Architects are finding themselves the owners of vast amount of information, permitting them to expand their services and to develop continuing relationships with clients.

Systems that don't create a readily accessible database from this information will become less useful and thus less competitive. If the computer can handle the volume of data necessary to develop good planning models and to play "what if" games, the architect will have available to him a degree of analysis unheard of in the past.

Small firms should start to think of big systems, now that the total price has dropped below \$100,000. A sole practitioner with an intergraph is a money-making machine. The major bottleneck in CAD speed is the decision-making capability of the operator. If the architect-in-charge is operating the system, his productivity would boggle the mind.

One week of training will make an operator as productive on an Intergraph



AUTOCAD PRESIDENT JOHN WALKER

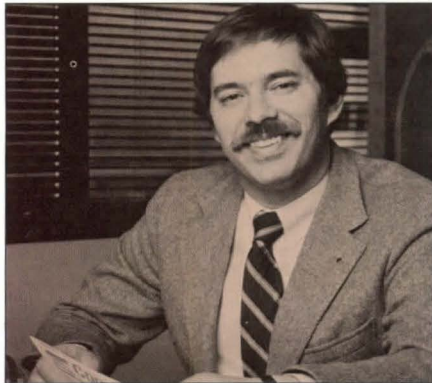
The competition in CAD is between general purpose design tools, like Autocad, and packages addressed to a specific market, like architecture. I believe the first will succeed because it's easier to address the whole building process than to build specific tools for each profession and have them work well together. A specific program may be 5% or 10% more efficient, but does it make sense if a contractor or facilities planner down the line must re-draw or re-enter information? You're going to see a major effort to provide CAD that thinks the way a designer works.

The era of CAD being synonymous with lines and arcs has ended. The central issue in CAD currently is the capture of information into a database. Today you can pull a door schedule off a drawing, but you can't change all 6 foot doors to 7 foot doors by another manufacturer, highlight recent changes and find conflicts.

Designers work on projects, not drawings. The drawing is just one part of a database that represents a project. The next leap will be to the project level. Buyers should give some thought to how they will interface drafting, database, scheduling and estimating.

A major effort is going into making CAD easier for the first-time user. "Powerful" and "easy" need not be mutually exclusive.

Within 12 months, Autocad will make use of RAM above one megabyte in machine addressable space for program memory.



**MICRORIM CHAIRMAN
WAYNE ERICKSON**

The cry of beginners and experienced computer-users alike is the same with database programs: Help me get started! Of all the common computer applications, database management has been the slowest to catch on because you had to be a programmer to use the early versions.

Then came the second generation, easy enough to use but not good for much more than maintaining a mail list—a function now being taken over by the new word processing programs.

Current database managers, like R:Base 5000, offer ease of use, power, speed and the ability to make changes. Finally, it's OK to start looking at their ability to maintain and analyze some of the vast amount of extremely valuable information that an architectural office assembles.

Start by asking yourself what information you want to track, what information worth keeping and how you want to retrieve it. Utilities in the new programs will help you organize the data and enable you to type questions in English to get at it. If the program doesn't recognize a word, it will ask you to explain and then remember the next time you ask.



**TIMBERLINE PRESIDENT
JOHN GORMAN**

Computerized bookkeeping is essential to be competitive in business today. But don't let anyone tell you it's going to be easy or fast. Once your files and procedures are set up, though, the pay-off will be dramatic.

My advice to chief executives of architectural firms is to manage the system. If you don't, it will fall apart like any other aspect of a business that isn't actively managed.

Accounting should be your first computer application because everything else flows to it. And, because bookkeeping is no labor intensive, no other application will pay for itself so quickly.

Good accounting software should include an architect-specific module as good as our AEPEX for project management and for time and billing. The rest of the modules can be generic, but they should be integrated so data must be entered only once and all modules that use that information, such as payroll, will be updated automatically. The software also should be simple to use and provide management with accessible, timely and pertinent summaries.

Install the General Ledger module first. It will give you a financial picture of where you are.

If your present system is pinching you, don't delay conversion.

Perhaps the most important consideration in choosing software is support. Good support can cover up a bad package but even a good package needs some support.



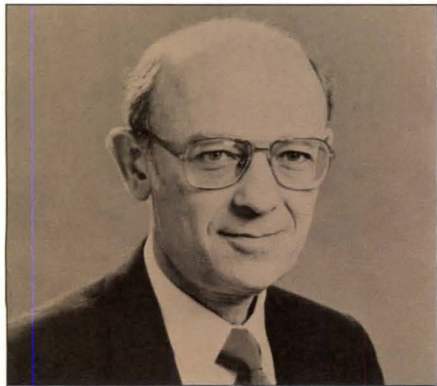
**SYSTEMS INTEGRATOR
BRUCE FORBES**

The architect of the future is going to be a data merchant . . . the keeper of the system . . . the one with access to the marketplace. Computers offer a way for the architect to rebuild his role. It's a mistake to assume that contractors know the market better; they go to manufacturers they're familiar with.

But the trouble with computer technology is that it's hard to assimilate right away. Even those who know the computer and the programs still must learn how to apply them to the architect's special needs.

The best solution may be Archibus, a drop-in crib course in computers for architects. It offers (1) tutorials in word processing, database, CAD, spreadsheet and the transfer of files between those applications, and (2) help in integrating them into an architect's office. The three volume set costs \$2,000, including nine diskettes with architect-specific examples.

TIPS FROM THE TOP



**ENTREPRENEUR PRESIDENT
BERT HELFIN**

The difference between success and failure in computers often is the dealer.

My advice to first time computer users is to find a store you trust to help you identify the right hardware and software, to install the system smoothly, to help in training and finally to provide after-sale support.

Prioritize your needs. Set realistic goals. Make sure your own employees are receptive. Early productivity requires an investment in planning time and learning time.

Pick a dealer that is dedicated to CAD and authorized by manufacturers to inventory and support the necessary equipment.

Afraid you're too small for a computer? Challenge a dealer to show you if the computer will pay for itself.

Worried by the rapid pace of change? Challenge the dealer to show you a respectable return on your investment.

My advice to experienced computer users is not to look at features—only at a straight forward capital equipment investment analysis on improved productivity. Consider networks and a better plotter.

For the future, I see a personal computer in every workstation. The power already available for only a few thousand dollars is mind-boggling.



**TEXAS INSTRUMENTS'
JOHN MANDELL**

A beginning computer user today can't go too far wrong by buying a quality product with a reputation for good support.

Once you've gotten familiar with word processing and accounting, it's time to step into CAD. New technology is having a greater impact on CAD than on business functions.

Since TI makes both micro and mini computers, people often ask us what we recommend. For business applications, the decision can be based on the number of users. With fewer than 15 users, a micro is sufficient. With CAD, it's more a function of the applications a firm needs and its growth plans. If the firm needs that last 5% of possible features and full 3-D, a mini computer is worth the cost. Otherwise, we suggest starting with micros and after 8 or 10 link them to a compatible mini.



**ARCHITECT
BRYCE HASTINGS, AIA**

Hastings & Chivetta, a 35 person architectural firm in St. Louis, started with word processing on a Wang in 1982, moved into CAD with Cadplan on two IBM XT's in 1984 and moved up to HOK Draw on two DEC Microvax II workstations last November.

When our clients started getting CAD and more design capability than we had—and we were professing to be the experts—we decided it was time to launch. We're still using our microcomputer but it lacks a 3-D capability and we found that it doesn't take a very large building to reach its capacity.

We wanted to get our designers working earlier on the computer. We were attracted initially to HOK Draw by the price, but we were hooked by its performance. We have been able to manipulate shapes, play with things and look at options—all in 3-D. Drawings for a gym, for example, always show a basketball court and track; there's no point sketching them every time.

Two workstations, including software and training, cost us \$82,000 plus plotter. A third terminal is on order. Although we'd like to put a computer on everyone's desk, we must be careful not to go overboard. Any equipment we buy must be used 100%.

We're still using our three XT's for Cadplan, Harper and Shuman's financial management program, the Society for Marketing Professional Services' AMS-1 for lead tracking and F. W. Dodge's Design Estimator. The Wang runs word processing and MasterSpec.



What makes an architect a good financial manager?

The secret of a successful architectural practice is combining good design with good financial management. Unfortunately, many design firm principals find themselves stretched thin trying to do both—and not doing their best at either.

Harper and Shuman, Inc. can help—with CFMS, the most comprehensive, fully integrated computer-based financial management system for architectural firms. CFMS was created by, and specifically for, design professionals, and is sponsored by the American Institute of Architects.

*CFMS is a Registered Trademark jointly owned by Harper and Shuman, Inc. and the American Institute of Architects Service Corporation.

Harper and Shuman, Inc. has over 10 years of experience working with more than 400 design firms throughout the United States and Canada. The CFMS package has been designed as an inte-

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grated system that will provide for all the financial management needs of design firm practice—in project cost control as well as general accounting.

CFMS is supported through comprehensive documentation, systems design and custom programming. On-site consultation, in-house seminars, classroom training sessions and phone-in consultation are available from Harper and Shuman's staff of skilled financial management specialists.

Whether your firm is large or small, Harper and Shuman has the right product and service options to meet your needs—from MICRO/CFMS software for operating on in-house microcomputers like the IBM PC or DEC Rainbow, to CFMS software for DEC VAX or Prime. Or, use our low cost timesharing services as an easy way to get started.

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MOVING UP IN APPLICATIONS

Computers once were criticized for being a solution in search of a problem. Remember when it seemed that their primary application was sorting punched cards for television game shows?

Perhaps all the whizzing and whirling captured the popular imagination because the blinking machine with the room full of tubes was then embraced as the solution to all our problems. "Hal," who was smarter than we were, would lead us to the new Promised Land.

Today, both extremes seem naive, although some people seem to remain fixed at one or the other of those stages of development. Young architects now accept the computer as simply a helpful tool.

The available help is becoming progressively better, as represented in both the number of applications and the number of competing software products for each application.

WORD PROCESSING

Of all applications, word processing is the cheapest, quickest and easiest to computerize. Another friendly aspect is that it enables the small office to produce professional-looking correspondence, proposals and specifications without a secretary.

Typical architectural applications are correspondence, proposals and specifications. MasterSpec, for exam-

ple, has 4,000 subscribers; about 40% also receive the text on disk and the percentage is growing.

A word processor drastically reduces the volume of typing. All programs have a "boilerplate" function so that an architect preparing a proposal, for example, can use stock paragraphs and formats, adding only that text that applies to the current prospect.

The program everyone knows is WordStar (\$495) by MicroPro. It is widely supported by related programs and can do almost anything anyone can ask of a word processor. It is criticized for being difficult to learn and use.

Lately it has been replaced on the Best Seller lists by Word Perfect (equal or greater power), pfs:File (simpler) and Microsoft Word (adapted to the new laser printers). Dozens of other programs have their champions.

ACCOUNTING

Computers have revolutionized bookkeeping. The process now can be totally integrated, automatic, simple, accessible, accurate, fast and current. Timely access to information enables a manager to act while it's still possible to influence the outcome.

Automated bookkeeping offers architects the fastest return on their computer investment. Maintaining ledgers is labor-intensive and prone to expensive errors. Perhaps most important, the

computer will help get out the bills on time.

The functions architects need most are job costing, time management and accounts receivable. All three should be integrated (so re-entry of data is not necessary) and should follow the AIA accounting guide. They, in turn, should feed a general ledger program.

All but the smallest firms should consider buying payroll and accounts payable modules.

Five firms dominate the architectural market. They are Timberline, Portland, Oregon; Data Basics, Cleveland; Harper & Shuman, Cambridge, Mass.; and ACCI, Houston, and Micro-Mode, San Antonio, which offer the same program. With all modules, their software costs between \$5,300 and \$6,300.

ELECTRONIC SPREADSHEET

Number-crunching operations are what spreadsheets do best. Once a series of assumptions are entered, including formulas for how some result should be calculated, the architect can sit back and play "what if" games and the program will make the calculations.

Architects use spreadsheets to budget, to analyze the probable profitability of a project, to schedule staff needs, for basic engineering calculations.

Spreadsheet templates, or overlays, usually are exchanged between friends like freeware at a computer club, but occasionally the templates are good enough to acquire commercial value. An example is Enercalc Engineering Software by Michael Brooks. Enercalc, priced at \$795, is a library of structural design and analysis routines for timber, steel, concrete and masonry. It comes with detailed, well written instructions.

For years, the best selling computer program of any kind has been a spreadsheet—currently Lotus 1-2-3, at \$495. Whether it is the best is another subject. Various shoot-outs have rated Framework II and SuperCalc 3 higher. Multiplan, another winner, is priced at only \$195. The Smart spreadsheet is faster and has better graphics. All perform essentially the same functions.

COMPUTER-AIDED DESIGN

Affordable systems now are available to draw plans, elevations, renderings and models faster and, some say, better than by hand. The drawings generate a database that can



This 3-D model is one of several studies for a hospital renovation in Memphis by Jones Mah Gaskill Rhodes on a McDonnell Douglas CAD system.

How does the Hartsfield Atlanta International Airport manage 45 football fields of facilities? With CADVANCE. The PC-based professional architectural Computer-Aided Design system.

DMA Architects Inc. maintains the entire airport design on CADVANCE—including more than 130 gates at 5 concourses, 4 runways, and an underground transit system. And that lets DMA's 5-person firm operate at a 25-person level.

DMA uses each of CADVANCE's 127 layers to define one aspect of the drawing. From walls to plumbing. From landscaping to aircraft configurations. So it's easy to consider proposed modifications. Recently, for example, four alternative International Concourse gate

configurations were developed in 20 minutes.

Hartsfield has been called the airport of the future. And CADVANCE helped make it happen. CADVANCE is the latest in a continuum of CalComp design products from PC-based software to large systems. No wonder CalComp has the most CAD products installed among architects and facilities planners. Call (800) CALCOMP for the name of your nearest CADVANCE dealer. Or write: CalComp, 200 Hacienda Drive, Campbell, CA 95008 (TELEX 188746).

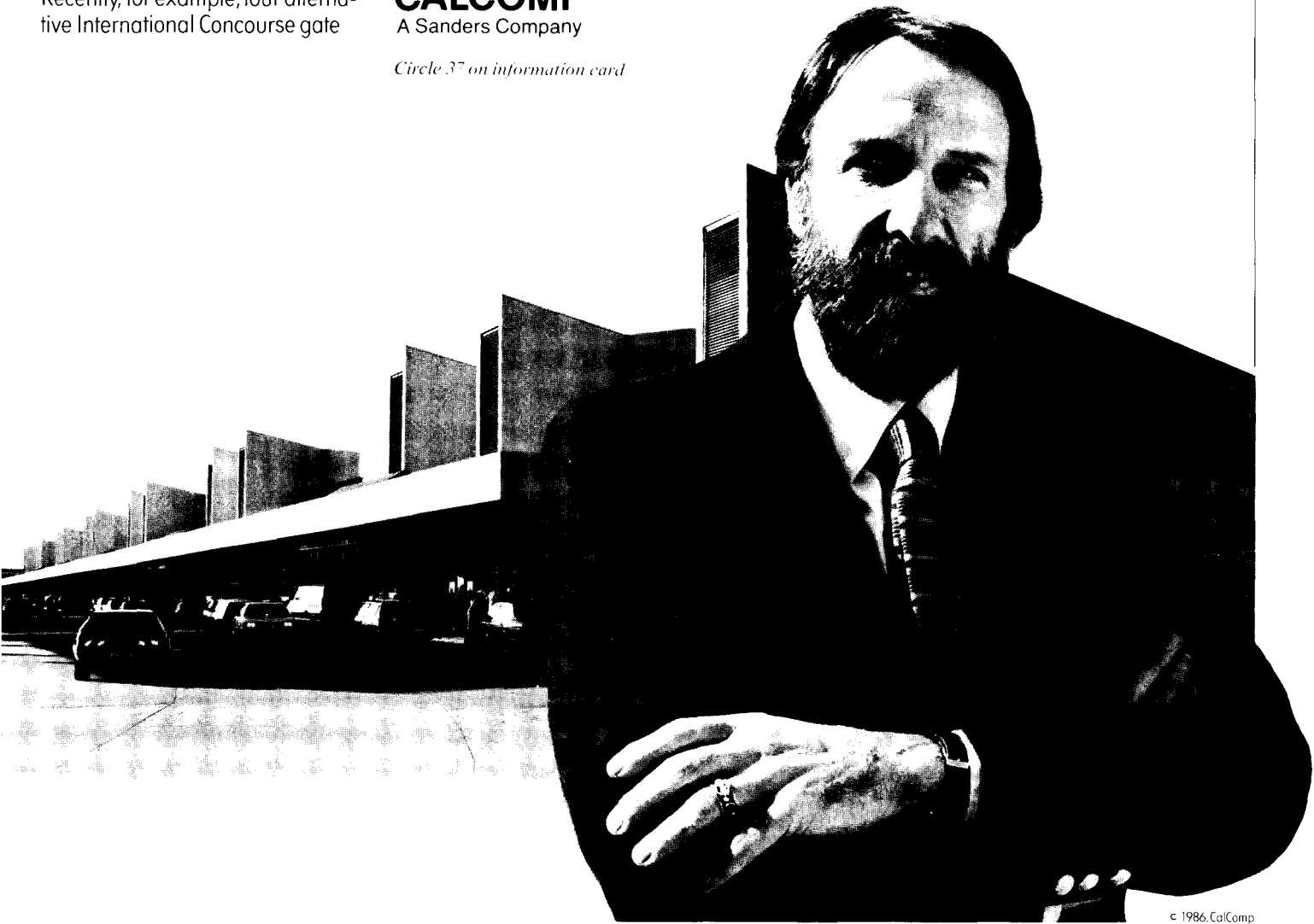
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c 1986, CalComp

C A D V A N C E

THE ARCHITECTURAL CAD SYSTEM.

MOVING UP IN APPLICATIONS



Corporate logos are easy to integrate into presentations with Diagraph, a business graphics program by Computer Support Corp., Carrollton, Texas. Samples shown here were drawn with a Hewlett Packard 7550 plotter.

be used repeatedly and in new ways to achieve impressive gains in productivity and accuracy.

The last of the fears that CAD might prove to be an unsuitable tool for serious architects faded last year when CAD systems were purchased by two of the world's best known design firms, I.M. Pei & Partners and John Burgee Architects With Philip Johnson. They chose the Graphics Design System by McDonnell Douglas.

The run-away best seller is Autocad, a 2-D program by Autodesk. It costs \$3,500. But a panel of 24 architects preferred Datacad by Microecture. They also gave high marks to Cadvance by Calcomp and Versacad by T & W Systems. An impressive bargain, they said, was Drafix by Foresight Resources. It costs \$300. For a 3-D program, the panel favored Mega Cadd and Point Line.

Leaders among the more powerful systems include Intergraph, Sigma Design, Calcomp, Skok, Prime, Computer-vision, HOK/CSC, Holguin and Arrigoni Technology. They sell turnkey CAD at prices that start above \$25,000.

NON-CAD GRAPHICS

The two main divisions of this application are analytical graphics and presentation graphics. Analytical graphics are for internal study; presentation graphics are intended to persuade.

Presentation graphics include still applications (for slides, transparencies, charts) and motion (for display on computer or television screens). The best program aimed at still presentations generally cost \$400 to \$500; those intended for motion start at that level.

Top-rated presentation graphics programs include ChartStar by Micro-Pro, Overhead and 35mm Express by Business & Professional Software, Energraphics by Enertronics, Graphwriter by Graphic Communications, Sound Presentations by Communication Dynamics and Diagraph/Picture Perfect by Computer Support Corp.

Most of them have drivers for the Polaroid Palette, which makes prints or slides directly from the computer.

Although programs that include motion tend to be expensive, IBM makes one of the best and most affordable: PC Storyboard.

DATABASE

Two capabilities are expected of a good database program: information management and information analysis. The less expensive programs are easy-to-use list managers. More money buys the opportunity to analyze the information, change the data base and generate specialized reports.

Architectural uses include change orders, certificates for payment, transmittals and the like. The architect enters the project number and the computer pulls the rest of the information from a file and fills out the form. Specialized databases can produce a bill of materials from a CAD drawing.

The most popular database program is dBase III, which lists at \$695. R:Base 5000 by Microrim is at least as powerful as dBase but faster and easier to use. It costs the same.

Other well regarded database programs include Power Base and Cornerstone. Paradox, Q&A, Nutshell, Reflex and V-P Planner are good new pro-

grams unencumbered by the programming complexities of dBase.

INTEGRATED COMBINATIONS

This category normally combines spreadsheet, word processor, database and communication applications in a single, integrated family of programs designed to exchange data easily. For example, part of a spreadsheet could be inserted in a letter without jumping through the hoops necessary with unrelated programs.

Early combinations sold poorly, three of the programs or even all four often were mediocre or worse.

The survivors are starting to do well. Most are marketing their modules separately to gain recognition for them. And ability to exchange data files readily is important in networks.

The leader is Lotus's Symphony at \$695, but reviewers generally credit its sales to a strong spreadsheet. The PFS family might be generating more sales, but Software Publishing, the vendor, reports each module separately.

The Smart series by Innovative Software is more powerful than PFS and better balanced than Symphony. It costs \$895.

Other contenders are Enable and Framework II.

SOFTWARE UTILITIES

Utilities include keyboard macros, desk organizers, DOS file managers, report generators, multi-tasking environments, copy protection breakers, spelling checkers, thesaurus programs, text enhancers and many more. Several handy programs will take a spreadsheet that is too wide to fit on an 8½ by 11 sheet and rotate it 90 degrees.

The best selling utility vendor is Borland. Its products include Sidekick and Superkey. They become instant staples on the best-seller lists when they were introduced. Sidekick, a desk organizer, is a veritable magician's bag of tricks. Superkey generates macros (linked series of commands).

Norton Utilities is bag of different but equally indispensable tricks. The most useful will help recover a file inadvertently deleted.

1Dir (pronounced Wonder) by Bourbaki permits DOS commands to be executed simply by pointing to function names. It's salvation for all those users with less than perfect mastery of MS-DOS.

Most utilities are priced under \$100.

CHECK LIST.



 *draw*

3-D CADD with a relational DBMS

 *image*

Realistic image generation

 *duct*

HVAC layout and design

 *structure*

Structural analysis and design

 *space*

Space requirements analysis

 *inventory*


Space inventory analysis


 *allocate*

Occupancy scenario analysis

 *translate*

Data translation between systems



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EQUIPPING THE HIGH-TECH OFFICE

Decisions about hardware purchases are relatively easy, once the software has been selected and a budget established. The manual for most programs has an appendix that lists the equipment it supports. Trying to work the other way—finding out what software will run a specific piece of equipment—is more difficult.

Nevertheless, if you are aware of a superior new printer, for example, and your software does not support it, you might want to reconsider your choice. The program might lag in other respects, too.

COMPUTER

Equipping the high tech office starts with the computer.

The powerful CAD systems run on relatively few brands. One of the most prominent is Digital Equipment Corp. Its VAX line, including the popular MicroVAX II, is widely used.

McDonnell Douglas, for example, runs on Digital and Prime computers. Intergraph also uses Digital equipment but modifies it to the firm's own specifications. Sigma Design and Computervision support the Sun computer. Both Prime and Computervision also have versions that run on their own computers.

In the microcomputer arena, IBM has one-third of the market, the IBM

compatibles have a third and all others have a third.

The best of the IBM compatibles are made by such highly regarded companies as Compaq, Texas Instruments, Radio Shack, Hewlett Packard, Zenith, Wang and AT&T. There are many more. They compete by offering superior performance or lower price or both. One way the compatibles achieve superior performance is to run the computer faster—at 8 megahertz (mHz) compared to 6 mHz for the standard IBM AT.

Among the non-compatibles, Apple Macintosh cannot be overlooked, especially if the applications will include presentations or business graphics.

More speed is the major demand by architects who are upgrading or expanding their computers. They are tired of waiting while the computer redraws the CAD screen or recalculates a big spreadsheet.

How fast the machine runs depends primarily on seven parts that can be replaced or bypassed simply, either by pulling out the original part and plugging in a new part, or by installing a switch.

The IBM AT is blissfully open to such tinkering. In other IBM micros, resoldering would be necessary instead of just re-plugging.

Alterations described here will not cause the AT to blow up, although they could cause a program to crash and

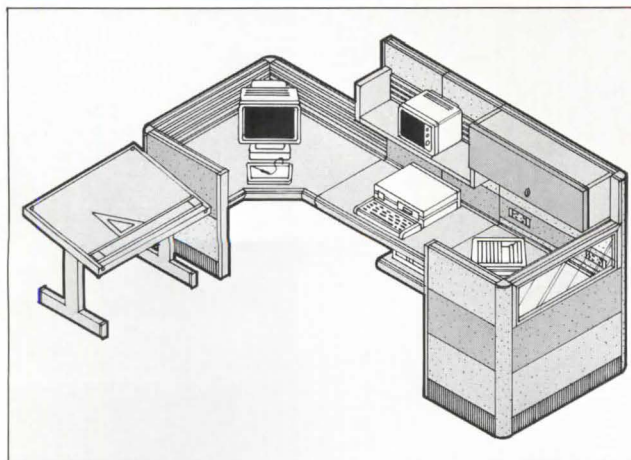
they could raise eyebrows in the service department if the AT needs repairs in the future. No guarantees can be made. Keep anything you remove. Save your data files frequently. If the tinkering works, great; if not, most firms supplying the replacement parts offer a money-back guarantee.

1. Replace the original 16 mHz timing crystal with a faster crystal built to military specifications. (The computer operates at one-half the rated crystal speed. This means that a 12 mHz crystal will run the computer at 6 mHz.) Ariel Corp., Flemington, N.J., studied how 500 otherwise unmodified IBM ATs reacted to a faster crystal and found that 99% accepted a 16 mHz crystal, 95% accepted 17 mHz, 87% accepted 18 mHz, 84% accepted 19 mHz and 68% accepted 20 mHz. Ariel sells the crystals for \$25.95, guaranteed to work. Brian Roemmele, the president, recommends buying 16 and 18 mHz crystals and returning one. If 18 mHz works, try a higher speed. If this sounds risky, Megahertz Corp., Salt Lake City, sells a device with 12 and 16 mHz crystals and a switch to choose between them. The price is \$69.95.

2. IBM, evidently distressed at the growing use of speed-up crystals, last October altered the AT's BIOS chip. If it finds a crystal operating faster than 6 mHz, the current version of the AT will not work. The peripheral industry took just four months to overcome this hurdle. Ariel and Megahertz now offer crystal devices that run initially at 6 mHz to satisfy the BIOS chip and then shift into overdrive—user-selectable up to 12.5 mHz. The price is \$89.95 from Ariel and \$99.95 from Megahertz. They also work on pre-October ATs.

3. If the computer won't run faster than 8 mHz, consider replacing the Intel 80286 microprocessor chip. At least two firms now build a faster version. The price from Ariel is \$299.95. With an improved 80286, the success rate of a 20 mHz crystal climbs to about 90%, Roemmele said, and he would recommend trying a 22 mHz crystal. Processor chips should be handled carefully according to directions to avoid damage from static electricity.

4. If a faster processor doesn't solve the problem, try replacing the RAM chips. Standard chips are rated at 150 or 200 nanoseconds. A better bet would be 120 or even 100 nanosecond chips. The price of 512K of memory in 120 nanosecond chips is \$153 from Ariel. The 100s cost \$250. RAM chips should be



An ideal computer workstation for an architect might look something like this, suggests office systems manufacturer Herman Miller, Zeeland, Mich. The product line shown here is Ethospace. Power is available at beltline or baseline. Key components are a 19-inch monitor with digitizer and, to the right, a data monitor and keyboard. On a shelf below the keyboard is a Bernoulli Box for data storage.

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handled carefully to avoid damaging their legs or driving them into an unwary thumb.

5. Memory boosting boards that take RAM above 512K currently present a bit of a speed limit. AST, a leading manufacturer of the boards, says its Advantage board is more likely to accept the higher speeds than the Rampage, forcing buyers to choose between expanded and extended memory.

6. The graphics card also must be capable of handling a higher speed. Vermont Micro Systems, for example, guarantees its card for 10 MHz.

7. Replace the original 80287 co-processor chip, which runs at an effective speed of 4 MHz, with one that runs at 8 MHz. Microway Corp., Kingston, Mass., sells an assembly that plugs into the original socket for \$395. The 80287 chip performs the mathematics required to display geometric figures on the monitor.

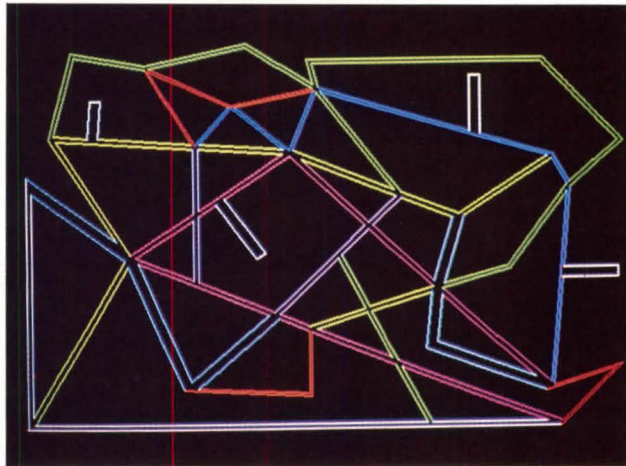
We tried running Datacad on a pre-October AT at the higher speeds. The Megahertz and Microway devices running at 8 MHz presented no problem. A 20 MHz crystal from Ariel caused Datacad to throw out stray vectors and eventually crash. We then replaced the 80286 processor and substituted 120 nanosecond RAM chips from Ariel. This enabled us to draw satisfactorily. A 22 MHz crystal would not run the IBM diagnostics program properly and the computer would not work at all with a 24 MHz chip.

But the speed of the AT operating at 10 MHz and refreshing the screen at 8 MHz was breathtaking. Crowds gathered to ooh and aah. Reporting the price to the kibitzers sent them scurrying for pencil and paper to write down phone numbers of the vendors.

PERMANENT STORAGE

The architect needs a hard disk. Relying solely on floppy disks is not recommended, even for the sole practitioner, in part because it is too slow. Hard disks of 10 megabyte and up are widely available, but they should be purchased with a back-up system, often tape.

Another option is a Bernoulli Box by Iomega Corp., Roy, Utah. It provides dual removable cartridges with 10 or 20 megabytes each and combines the advantage of floppy and the hard disk. The dual 10 megabyte system lists at \$3,700, or the dual 20 at \$4,700.



Smart Walls is one of the hottest architectural applications being developed at Sigma Design, Engelwood, Colo. Intersections of walls of different widths are trimmed and cleaned up automatically.

GRAPHICS DISPLAY

The monitor and its controller card should be purchased as a matched set to avoid flicker.

The IBM enhanced graphics display (EGA) with 16 colors and a resolution of 640 by 350 pixels lists at \$1,600 and is adequate for today's needs. The next step up, which offers 256 colors and slightly better resolution, positions the architect for the advent of solids modeling and rendering routines. The list price is about \$3,500. Don't buy a color screen without comparing the Autocad "Chroma" file in 16 and 256 colors.

Leading in professional-grade displays include Vermont Micro Systems, Winooski, Vt., and Verticom of Sunnyvale, Calif. CAD software programs like Personal Architect by Computervision also are starting to take advantage of VMI's build-in routines for 3-D modeling.

PLOTTER

Plotters also are a necessity for architects. Plotters have two uses: production drawings and presentation graphics. Printers are starting to erode the presentation graphics market and electrostatics are attracting interest on the upper end.

The market leaders in pen plotters are Hewlett Packard, Houston instruments and CalComp. IBM Instruments makes splendid small plotters for presentation graphics. Prices range start at several hundred dollars for small plotters to \$13,000 for a 36 by 48 inch model.

One of the newest entries in the field is a 36 by 48 inch plotter from Houston

Instrument for \$5,995. This single-pen plotter is called the DMP-56.

PRINTER

Every computer needs a printer. Early printers produced only text, much like the output of a typewriter. New printers do graphics or color or both.

Options today are laser, ink jet and dot matrix. Daisy wheel printers are becoming obsolete and thermal printers aren't far enough advanced to recommend.

For black and white output, the lasers may make everything else obsolete. The Hewlett Packard laser has about 70% of the laser market. Its Plus model lists at \$3,900. The Apple laser is superior in most respects but it also is more expensive.

The run-away best selling dot matrix printers are made by Epson. Other well regarded dot matrix printers are made by IBM, NEC, Brother and Toshiba. Leaders in ink jet technology are Diablo, Quadram, Xerox and IBM.

INPUT DEVICE

An additional input device is required for CAD. Architects must choose between a mouse and a digitizer.

Those who choose a mouse next must decide on the number of buttons and whether they want an optical or mechanical mouse. Two or three buttons are the usual options. In digitizers, the choice is between a stylus and a puck as pointing devices. And pucks come with 1 to 16 buttons.

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DEATHS

Minoru Yamasaki, FAIA: Best known for the twin towers of the World Trade Center, Yamasaki won five AIA honor awards and was featured on the cover of *Time* in 1963. Many of his early buildings were heralded as architectural triumphs, while his later work received mixed reactions. Born in Seattle of Japanese immigrants, he worked in New York City in the '30s and joined the Detroit firm of Smith Hinchman & Grylls in 1945 before forming his own firm in Troy, Mich. He died in early February at the age of 73.

William Benn, AIA, Santa Monica, Calif.
Carl W. Clark, FAIA, Syracuse, N.Y.
Chandler C. Cohagen, FAIA, Billings, Mt. John D'Orsi, AIA, Boston
Ronald G. Faleide, AIA, Blacksburg, Va.
H.G. Holderness, AIA, Texarkana, Tex.
A.D. Janssen, AIA, Carmel, Calif.
F.M. Labouisse Jr., AIA, New Orleans
Samuel B. Mayo, AIA, Nova Scotia, Canada

W. Platt, FAIA, New York City
Lutah M. Riggs, AIA, Santa Barbara, Calif.
Frederick J. Schweitzer, AIA, Phoenix
Howard C. Sherman, AIA, Shreveport, La.

James P. Skala, Cleveland
Robert Stanton, AIA, Carmel, Calif.
Charles M. Stotz, FAIA, Ft. Myers, Fla.
William F. Thomas, AIA, Salt Lake City
Alfred Visioni, AIA, Santa Barbara, Calif.
James E. Whiteaker, AIA, San Antonio
G.M. Williamson, AIA, Berea, Ohio
J.A. Wilson, AIA, Ann Arbor, Mich.

Correction: Mark F. Pfaller II, AIA, of Milwaukee was mistakenly listed as deceased in the February issue.

CREDITS

Northpark Mall, Ridgeland, Miss. (page 46). *Architect:* RTKL Associates, Baltimore. Ceiling surfacing system: U.S. Gypsum, Donn Flangeklamp, Simplex. Doors: PPG, Brookline, Ceco. Elevators: Montgomery. Environmental control systems: General Electric. Floor surfacing: Structural Stoneware, Dal-tile, American Olean, Taylor Clay Products. Roofing: Zonolite, Owens Corning. Waterproofing and sealants: Dow Corning. Plumbing: Sloan Royal. Toilet stalls: Sanymetal. Tubs and lavatories: Kohler. Washroom and bathroom accessories: Bobrick. Water closets: Kohler. Water fountains: SunRoc. Security and fire detection: Simplex. Overhead rolling door: Cornell Iron Works. Fiberglass reinforced plaster moldings: Plasterglass. Wood columns: Hartman-Saunders. Coated insulating panels: Dryvit. Wall surfacing: Grasselli Concrete Products, National Product. Skylights:

Pasleco. Hardware: Russwin, Soss, Von Duprin. Natural Guard, Trimco, Ives. Moving stairways: Montgomery. Paint: Sherwin Williams.

Marketplace for the Arts, Chicago (page 50). *Architect:* A. Epstein & Sons, Chicago. Principal: Sheldon A. Schlegman, AIA. Doors: Ellison. Environmental control systems: MCC Powers. Exterior floor surfacing: Armstrong. Interior lighting: Capri. Communication and intercom: Muzak. Signage: M.G. Display, Earl Mich. Stairs and treads: Armstrong. Exterior and interior wall surfacing: McNichols, U.S. Gypsum. Interior paint: Glidden.

Design Collective Incorporated Corporate Office, Columbus, Ohio (page 52). *Architect:* Design Collective Inc., Columbus. Project architect: Bruce D. Fithian, AIA. Cabinetry: Devoe, Wilsonart, Kellogg Co. Flooring: Stedman Floors. Paint and stain: Eggers. Hardware: Russwin, Stanley, Blum. Ceiling system: U.S. Gypsum, Auraton, Donn, Zolatone. Fabric wall covering: Fabritrak System. Carpet: Philadelphia Carpets, Interface 4000. Tables: Atelier International, Knoll, IIL. Chairs: Stendig, Harter, Herman Miller. Files: Meridian. HVAC system: Trane. Light fixtures: Boyd, Brayton, Halo.

Santa Cruz Imports, Brisbane, Calif. (page 54). *Architect:* Brown Matarazzi Associates, San Francisco. Paint: Dunn Edwards. Flooring: Azrock Vinyl Composition Tile. Carpet: Design Weave, Lees. Ceiling: Armstrong. Lighting: Nova, Holophone, Wellmade. Work Stations: Modern Mode, TLC. Seating: Krueger, Fortress, Brunati, Artemide. Files: Stor-wall. Tables: TLC, Artemide. Shelving, wood work, and cabinetmaking: William White. Windows: Levolor. Window frames: Prestige Glass. HVAC system: Carrier. Plumbing: Kohler. Hardware: Sargent. Signage: Signco. Building management system: Zoned Thermostats.

Lakeside Delicatessen, Oakland, Calif. (page 58). *Architect:* Ace Architects, Oakland, Calif. Interior designers: Lucia Howard and David Weingarten. Structural engineer: Steven Tipping & Assocs. Landscape architects: Meacham/O'Brien. Kitchen designers: Cunningham/Kamada. General contractor: Michael Muscardini/Creative Spaces. Ornamental ironwork: Two Jacks Metalworks. Terrazzo: All American Terrazzo. Neon: Rago Neon. Painting: Heritage Painting. Epoxy flooring: Stonehard Flooring. Countertops: Corian. Plastic laminate: Formica. Spiral steel columns: U.S. Steel. Lighting: Halo. Chairs: Flyline, Limn Contract. Tables: Emu. Figurative wall painting: Judy Choi, Lucia Howard, Joseph Ruffatto, David Weingarten.

William Pitt Union, University of Pittsburgh, Pittsburgh (page 60). *Architect:* Williams Trebilcock Whitehead, Pittsburgh. Entrance and interior doors: Watson Standard, Steelcraft, Weyerhaeuser. Elevators: Westinghouse. Environmental control systems: Carrier Corporation, Carn Honeywell, Trane. Handrails: Stlco. Roofing: Carlisle. Waterproofing and sealant: Sonneborn, Tremco. Exterior and interior wall surfacing: Gladding McBean & Co. Bybee Stone. Windows: Wausau Metal Skylights: Engineered Products. Hardware: Rixson-Firemark, L.C.N., Henry Soss Sargent, Von Duprin. Ornamental door pulls: Baldwin. Electric locks, strikes and switches: Brinks Security System, Folger Adams. Paint and stain: Chemprobe. Partitions: Hough, J.G. Wilson Corporation. Flush valves: Sloan Valve. Plumbing fittings and showerheads: Eljer, Leonard. Sprinklers: Gem. Toilet stalls: Mills, Lavatories: Eljer. Washroom and bathroom accessories: Accessory Specialties. Water closets: Fort Howard, Eljer. Water fountains: Haws. Public address: JBL, Yamaha, Honeywell, Simplex Time Recorder. Signage: Jas. H. Matthe. Exterior and interior lighting: Kim, Moldcast, Sternberg, Kampel, Wasle Lighting, Winona Studio, Widelite, Westinghouse, Mark, Prudential, Swivel. Abolite, Lightolier. Ceiling surfacing: Armstrong, Intalite, Conweb, CAFC International, Capaul. Suspension systems: Donn, Armstrong. Floor surfacing: Fritz Tile, Armstrong, Azrock Flexco, Musson, Roppe, American Olean, Kemos, Lees, Harbinger. Wall surfacing: L.E. Carpenter, Tectum, Genon. J.M. Lynne, Vicrtex, American Olean. Paint and stain: PPG, Devoe & Raynol. Glidden, Pratt & Lambert. Office furniture: Steelcase. System unit component: Herman Miller. Modular seating: Vecta Contract, August. Tables: Howe Furniture, Falcon Products. Chairs: Shaw-Walker, Shelby Williams Industrial, Thonet, Kroin, Blockhouse.

Bradford Exchange, Niles, Ill. (page 62). *Architect:* Weese Hickey Weese, Chicago. Ceiling surfacing system: O.D.C. Door: W&W Glass Products. Elevators: Pflor. Environmental control systems: Trane. Interior floors: Lee's. Handrails: Quality Ornamental Iron. Lighting: Artimed. Stonco. Roofing: Carlisle. Flush valve: Sloan. Sprinklers: Reliable. Toilet stalls and lavatories: Sanymetal Products, Elji. Washroom and bathroom accessory: Bobrick. Water closets: Kohler. Water fountains: Haws. Lockers: Penco Products. Stairs and treads: Duvinage. Exterior wall surfacing: W&W Products. Skylights: Plasteco. Door closers: Sarge Hardware: Stanley. Paint and stain: Benjamin Moore. Partitions: U.S. Gypsum Westinghouse.

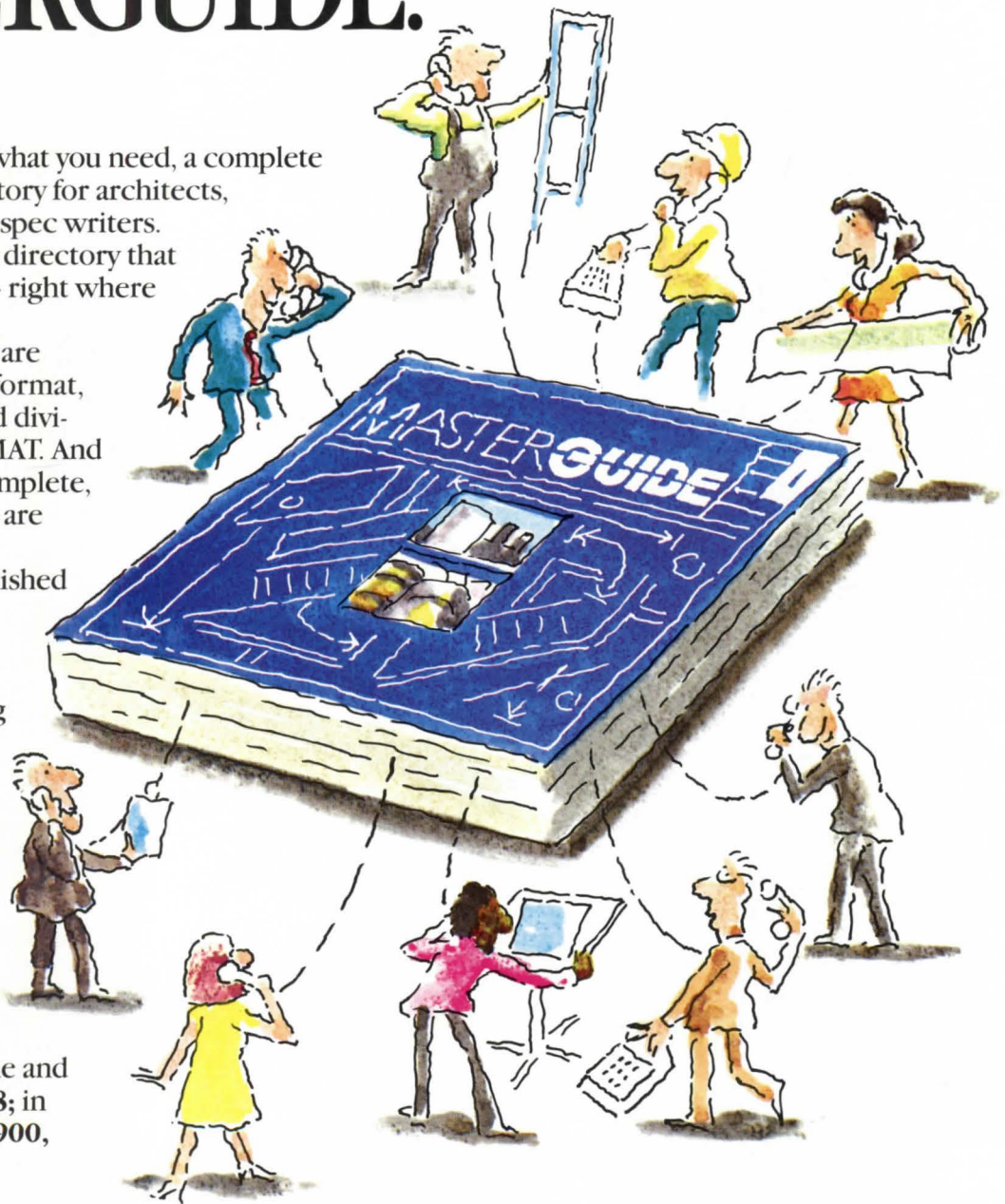
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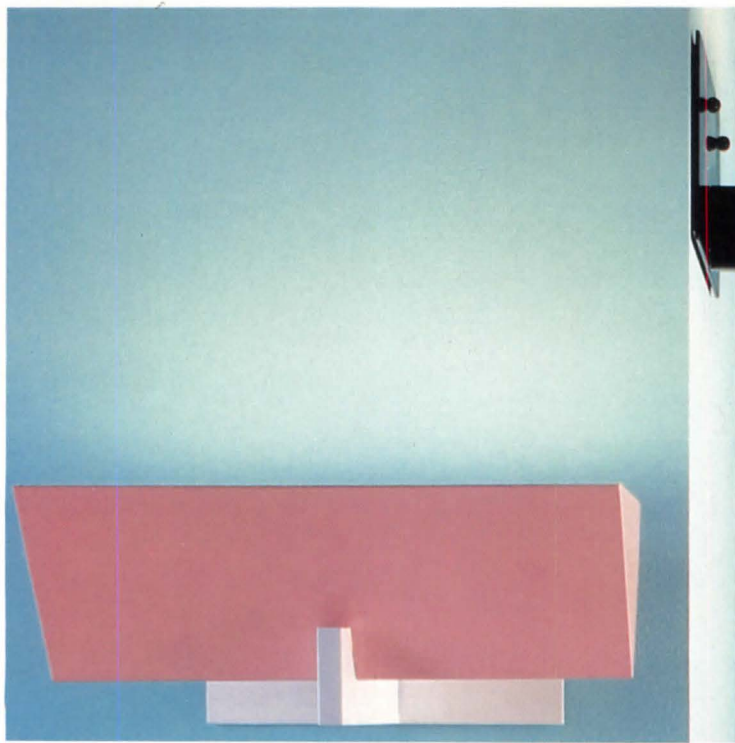


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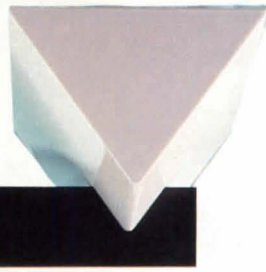
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1



Products



2



3

The Kavanaugh sconce (1) from Ron Rezek Lighting + Furniture has a support arm in white or black with a triangular shade in white or custom colors. The fixture, available in incandescent, fluorescent, or halogen lamping, measures five inches high, seven inches deep, and 12 inches wide. (Circle 201 on information card.)

The Colore collection of Italian bath and kitchen fittings by Watercolors (2) has a stain-resistant, baked enamel finish in three pastel colors—pink, light blue,

and gray. All faucets fit standard plumbing and can be installed without special tools. (Circle 202.)

Haworth's ES system of freestanding computer support furniture (3) has tables with either continuous or incremental height adjustments from 24 to 32 inches and eight work surface sizes in light or medium oak, mahogany, or high pressure laminates. Triangular, square, and curved transitional surfaces are used to connect tables to incorporate work stations with panel-mounted furniture systems. Draw-



ers can be hung from either side, and standard features include an integrated wire management system and adjustable leveling glides. (Circle 203.)

Jack Dollard/DuBose Associates chose custom steel windows by Hope Architectural Products for the Aetna Training Center in Hartford (4). The windows have intermediate, hot rolled section profiles, urethane and polyvinyl finishes, insulated glass, and integrated groove weatherstripping. (Circle 204.)

The QQ office chair (5), by Robert



Taylor Whalen for Corry Jamestown Corporation, has a contoured seat and back of molded polyurethane foam and a thermoplastic base with dual casters. Five seating models are available all with swivel/tilt or posture back options. (Circle 205.)

In the renovation of the 1895 Bourse building (6) in Philadelphia, architect H2L2 installed 23,000 square feet of American Olean Quarry Tile. Six-inch-square tiles in varied colors were used to create floor patterns. (Circle 206.) LYNN NESMITH

Products continued on page 112

Architectural Panels.

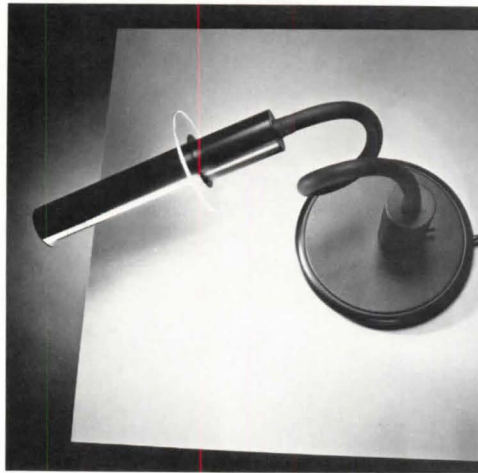
Custom-Form composite aluminum panels are designed for exterior and interior applications in industrial and commercial buildings. Panels are available in a variety of high-temperature baked enamel or anodized finishes. All finishes, which are applied after forming, fabricating, and welding, are completed to allow panels to be curbed, welded, and ground smooth. Built-in mounting clips are designed to provide easy installation. (Indasco, Inc., Santa Fe Springs, Calif. Circle 209 on information card.)

Bath Fixtures.

The Jakarta handcrafted teak lavatory has an intricate starburst pattern and a rich grain finish. The oval-shaped lavatory measures 23 by 19 inches and is treated with a patented protective coating designed to withstand temperatures up to 180 degrees. (Eljer Plumbingware, Pittsburgh. Circle 210 on information card.)

Restoration Materials.

Hand split shingles, beaded clapboard siding, hand wrought hinges and nails, window glass, doors, bricks, and oyster white mortar are recreated with the materials, designs, and methods used in colonial days. (Colonial Restoration Products, North Wales, Pa. Circle 211 on information card.)



Lighting Fixture.

Zero adjustable desk or wall lamp (above) has a flexible neck that can extend up to 21 inches from the base center and can bend as tightly as a one-inch radius. The cylindrical shade is a clear acrylic disk that rotates 360 degrees. The fixture uses a 5.5-inch-long, color-corrected fluorescent bulb. (Lumanetics, Emeryville, Calif. Circle 208 on information card.)

Skylights.

Horizonlite skylights have welded caps and frames, deep sloped condensation gutters, and specially designed extrusions. Designed to fit standard modular roof beam

spacing, skylights have either curb mount or self flashing. Units are available with glass or acrylic. (O'Keefe Inc., San Francisco, Calif. Circle 212 on information card.)

Kitchen System.

Residential kitchen fixtures have a mat finish, seamless doors, stainless steel cooktops and shelving, and chrome silver, tubular metal railings running along the worktops. The doors and drawers have softly rounded edges and are available with chrome bow handles or angled handles. For quiet and tight closures, doors and drawers close against cushioning dust seals. (SieMatic Corporation, Santa Monica, Calif. Circle 213 on information card.)

Flooring System.

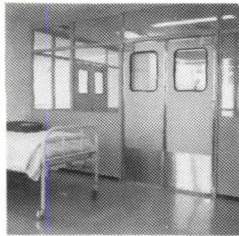
Noramant synthetic rubber flooring has a pattern of slightly raised pastilles grouped in one-inch-diameter circles. Designed for high-traffic institutional installations, the flooring resists chemicals, burns, scuffs, and stains. (Nora Flooring, Madison, Ind. Circle 225 on information card.)

Ceiling System.

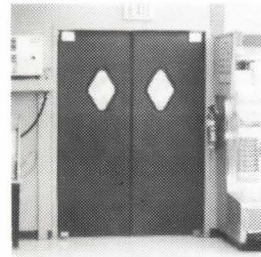
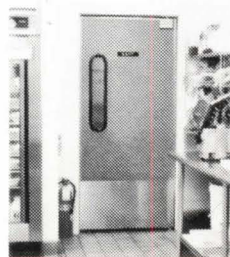
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of one-inch-thick acoustical and insulating material. Designed to fit into a stand-galvanized steel grid, the system is available for vertical or horizontal installation or as a wainscoting or soffit. (Wood Panel System, Marion, Iowa. Circle 215 on information card.)

Room Fixtures.

Houston lavatory set has a lift knob that lays flat within the spout for an uninterrupted line flow. The geometrical fixtures are available in polished brass with chrome, polished brass with satin gold, or all one finish. The set is adaptable for kitchen tubs, wall tubs, showers, or tub and shower combinations. (Paul Associates, Long Island City, N.Y. Circle 214 on information card.)

Window Film.

Lighttint Plus window film is designed to reduce heat gain by 60 percent and to reduce heat loss by 40 percent. The year-round film also provides improved shatter-resistance of the glass and obstructs 99 percent of ultraviolet light. (3M Corporation, St. Paul. Circle 226 on information card.)

Window System.

Therma-Shield circle top window unit, available in white or terratone, is designed to

be used with Andersen's casement, Narrow-line double hung, and awning windows. Units can be glazed with insulating glass, solar glass, or clear double pane insulating glass. Made of laminated white maple, windows have interior surface that can be stained or painted to match various wood surface treatments. (Andersen Corporation, Bayport, Minn. Circle 215 on information card.)

Building Board.

Durock tile backer board is a cement mortar panel reinforced with glass fiber mesh wrapped completely around the edge of the board to provide better nailing strength and to reduce edge damage. The backer board is designed to be used as an interior substrate for ceramic and quarry tile, lugged tile, gauged slate, thin marble, and thin brick. The board has five different one- and two-hour fire rated wall systems and is U.L.-listed for use as a floor protector and wall shield. (U.S.G. Industries, Inc., Chicago. Circle 221 on information card.)

Furniture System.

Delos furniture collection is comprised of four-leg and cantilevered sled base arm chairs, tilt-swivel desk chairs, and lounge chairs. They are made of polished chrome frames, black molded rubber arms, and

seats and backs upholstered in leather or fabric. (Fixtures, Kansas City, Mo. Circle 222 on information card.)

French Doors.

In-swing door in two heights and two panel widths are sized to replace metal sliding doors or to fit Pella sunrooms. Frames are made of wood, and head and jambs are clad with aluminum finished in white, dark brown, or custom baked enamel finishes. The extruded aluminum sill has a solid hardwood threshold, and double weatherstripping is designed to reduce air infiltration. The double glazing system has removable interior panels of clear, Solar-cool bronze, or type E high performance glass. (Pella Windows & Doors, Pella, Iowa. Circle 223 on information card.)

Building Blocks.

Olympia Bloc is a wall facing system designed with the appearance of stone. The aggregate is molded with transparent polymer with a smooth facing that is integrally bonded to a standard concrete masonry unit. Blocks are available in six standard stone facings as well as custom designs and may be scored either horizontally or vertically for a variety of scales and patterns. (United Glazed Products, Baltimore. Circle 224 on information card.) □

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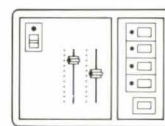
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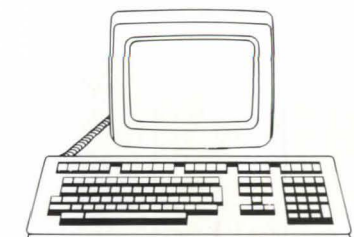
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