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David Walker

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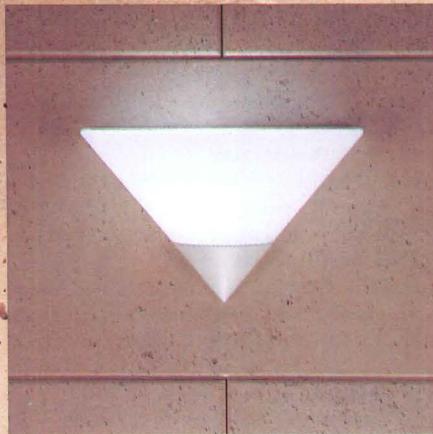
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 Landscape installation in Clark County, Virginia, by landscape architect Tori Thomas.  
 Photos: Jacques Dirrand

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# Black Architects, an Endangered Species

Architect Robert Traynham Coles, AIA, comments on the vulnerability of black architects in practice and the declining numbers of blacks in schools of architecture.

IN 1968, five years after I started my own architectural practice, I attended the national convention of the AIA in Portland, Oregon. I was one of less than a half dozen black architects out of almost 4000 persons attending. It was here that civil rights leader Whitney M. Young, Jr., embarrassed the nation's architects by saying: "... You are not a profession that has distinguished itself by your social and civic contributions to the cause of civil rights, and I am sure this does not come to you as any shock ... You are most distinguished by your thunderous silence and your complete irrelevance ... You are employers, you are key people in the planning of cities today. You share the responsibility for the mess we are in—in terms of the white noose around the central city. We didn't just suddenly get this situation. It was carefully planned." Only a month later, in June 1968, the Report of the Kerner Commission, which studied recent urban riots, reported that "... this nation is moving toward two societies—one black, one white, separate and unequal."

Last year, the nation celebrated the 20th anniversary of both of those events. The anniversary of the Kerner Report did not go unnoticed, and most reporting on the event indicated that it was a prophesy come true—that we had indeed moved toward two separate and unequal societies, in spite of all the civil rights legislation and rhetoric to the contrary.

In May of 1988, the AIA held its annual convention in New York, and this time almost 10,000 persons attended, but there was nary a word spoken about the 20th anniversary of the remarks by Whitney Young, Jr. And even though the event was held in the city with the largest black population in the country, and one of the largest groups of black architectural firms, no more than a score of black architects attended.

Between 1968 and 1974, spurred on by the words of Whitney Young, the AIA had mounted a major thrust to increase the number of blacks in the profession. Black architects were encouraged to join AIA and were elevated to major positions. Since 1968, four blacks have been elected AIA vice presidents. A minority architect scholarship program was established; educational programs were aimed at elementary and secondary schools to identify minority architectural students. Universities opened their doors to increasing numbers of black students and put in place support programs to ease their transition into integrated schools and an integrated profession.

Unfortunately, it all came to a screeching halt in the late 1970s, with the recession that swept the architecture profession. The pattern had been set in 1973 by President Nixon, who put a moratorium on low- and moderate-income housing, one of the mainstays of black firms.

Fortunately for black architects, Nixon's Secretary of Transportation was William Coleman, a black lawyer who initiated the most effective affirmative action program in public works by mandating that 15 percent of all funds for mass transit go to minority firms. As major new transit systems were built in several cities, black architects benefited. But President Reagan, elected in 1980, dismantled the remaining housing programs and drastically reduced federal funding for mass transit. This year, the U.S. Supreme Court set the future direction of affirmative action when it struck down a minority subcontracting program implemented by the city of Richmond, Virginia.

In the last two decades, the number of architects in the United States, according to Labor Department statistics, has roughly doubled. The number of female architects, less than 1500 in 1970, is approaching 5000. The number of black architects has grown from about 1000 to about 2000, remaining at about 2 percent of the total.

Minority enrollment in schools of architecture, which increased to almost 10 percent in the late 1970s, has fallen to less than 5 percent, while female enrollment has increased from 10 percent in 1970 to more than 25 percent. The decrease in black enrollment is in evidence everywhere.

Black architects are an endangered species because those who are practicing are cut off from the mainstream of the society that controls building resources, just as the black community is isolated from these resources. Those who are in practice focus on public works because of the lack of access to private resources. As public construction shrinks, as affirmative action programs are struck down, as black political power diminishes in our urban centers, black architects are increasingly threatened.

This crisis threatens the profession, which in order to survive must begin to look like the society it must serve—a society which is becoming increasingly minority. It threatens our nation as well, for we can ill afford not to maximize the human resources that we have. We need the best and brightest to compete, regardless of race. *Robert Traynham Coles*

What happens to a  
dream deferred—  
does it dry  
up and die, like a  
fish in the sun?  
—Langston Hughes

This Guest Editorial is condensed from a speech delivered in March at the University of Kansas, where Robert Traynham Coles was the 1989 Langston Hughes Distinguished Professor of Architecture in Urban Design. The original Langston Hughes lecture was published by the School of Architecture in Urban Design at the university. Coles is principal of his own firm in Buffalo, New York, and New York City. From 1974 to 1976, he was the AIA's Deputy Vice President for Minority Affairs, the highest staff position a black has held at AIA, one that was not refilled. The opinions expressed here are not necessarily those of P/A's editors or management.

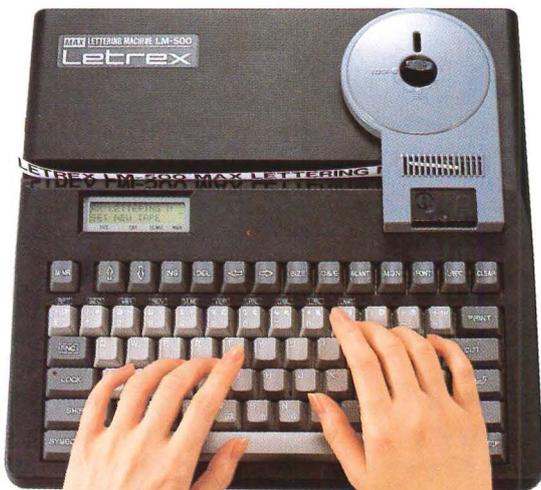
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## Architects' New Clothes

Our story in the May 1989 P/A News Report (p. 26) about architects posing for advertisers was thoroughly enjoyed and appreciated by three of us in Houston who had done just that last year (copy of ad above).

The architectural business hasn't been exactly robust here for a while so the opportunity to work in another creative field seemed too good to pass up. We also thought that it might be a lot of fun, which it was. (We are all close friends.) And we assumed that offers from other advertisers would pour in, which they haven't.

The three architectural virtuosos? Burdette Keeland is a professor of architecture at the University of Houston and chairman of the Houston City Planning Commission. Anderson Todd is also a professor of architecture but at Rice University. And I am a struggling practitioner who is only glad that Houston is on the way back. *Gruder Wingfield*  
*Wingfield Sears Group, Inc.*  
*Houston, Texas*

**Hynes Hall: A Citizen's View**  
Having lived in Boston's wonderful Back Bay, six blocks from the new convention center by Kallmann McKinnell & Wood, I read your recent revue (P/A, May 1989) with disbelief and perplexed consternation. After talking daily for more than 16 years among the urbanly disciplined, yet marvelously detailed row after row of splendid townhouses, this pretentious piece of collage (and, one wishes that it were true brick-colage) jars the harmony of this civilized ensemble by its precocious affectation of contrived erudition. Reading your review by John Morris in Boston, one wonders whether the

author is writing about Boston, the Back Bay, or merely transcribing the rationalizations made by Kallmann McKinnell & Wood.

To be specific. Boylston Street does not require "re-construction" as much as it requires disciplined integration and civic restraint. It already displays too many pretentious and discordant "statements" by ego-architects, famous and less famous, beginning with the dreadful Prudential Tower and the "new" Boston Library extension, and ending with a recent slew of "postmodern" office buildings, each and all with wordy pretensions of "referencing" this or that random feature of the Back

Bay. In a similar manner, the new Hynes Convention Center jars the harmony of the three-to-four-story brick environment like a brass band wishing to compete with a symphony orchestra. The notes may be the same, but the score is certainly different.

*Eric Dluhosch*  
*MIT Dept. of Architecture*  
*Cambridge, Massachusetts*

## Kit of Parts in Context

Good design must respond to those particular requirements of a building's "context"—those wonderfully complex and subtle diversities that an artist can capture and represent in his work. The standardized "Kit of Parts" approach now being utilized for

Federal Post Office Design (P/A, May 1989, p. 111) deals the design process a lethal blow and guarantees that repetitive, monotonous, and mundane government buildings will identify this period in our history, this threshold of computer-aided, high-tech design processes, as a dark age—a dark age for a society that regards itself as independent and free thinking.

Sorry, Santa Barbara, your new Post Office will look the same as the one in Dearborn, but it's for your own good. (We're from the government and we're here to help.)

*Mark C. Holley, AIA, Principal*  
*Architechnica*  
*Stockton, California*

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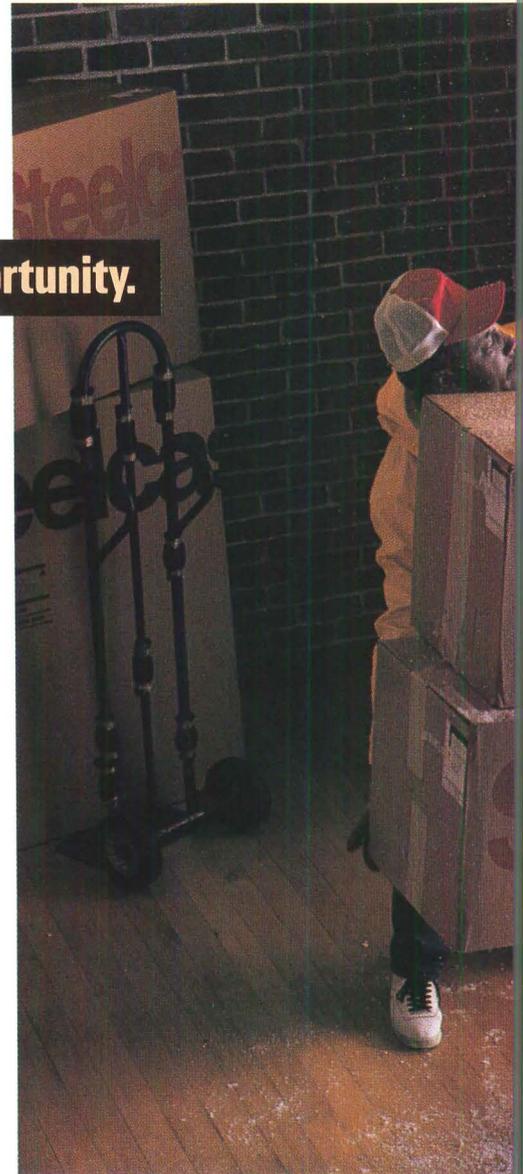
About three years ago, to preserve a local landmark, Eastman Kodak Company bought an empty, 107-year-old seminary, just a stone's throw from their largest manufacturing site in Rochester, New York.

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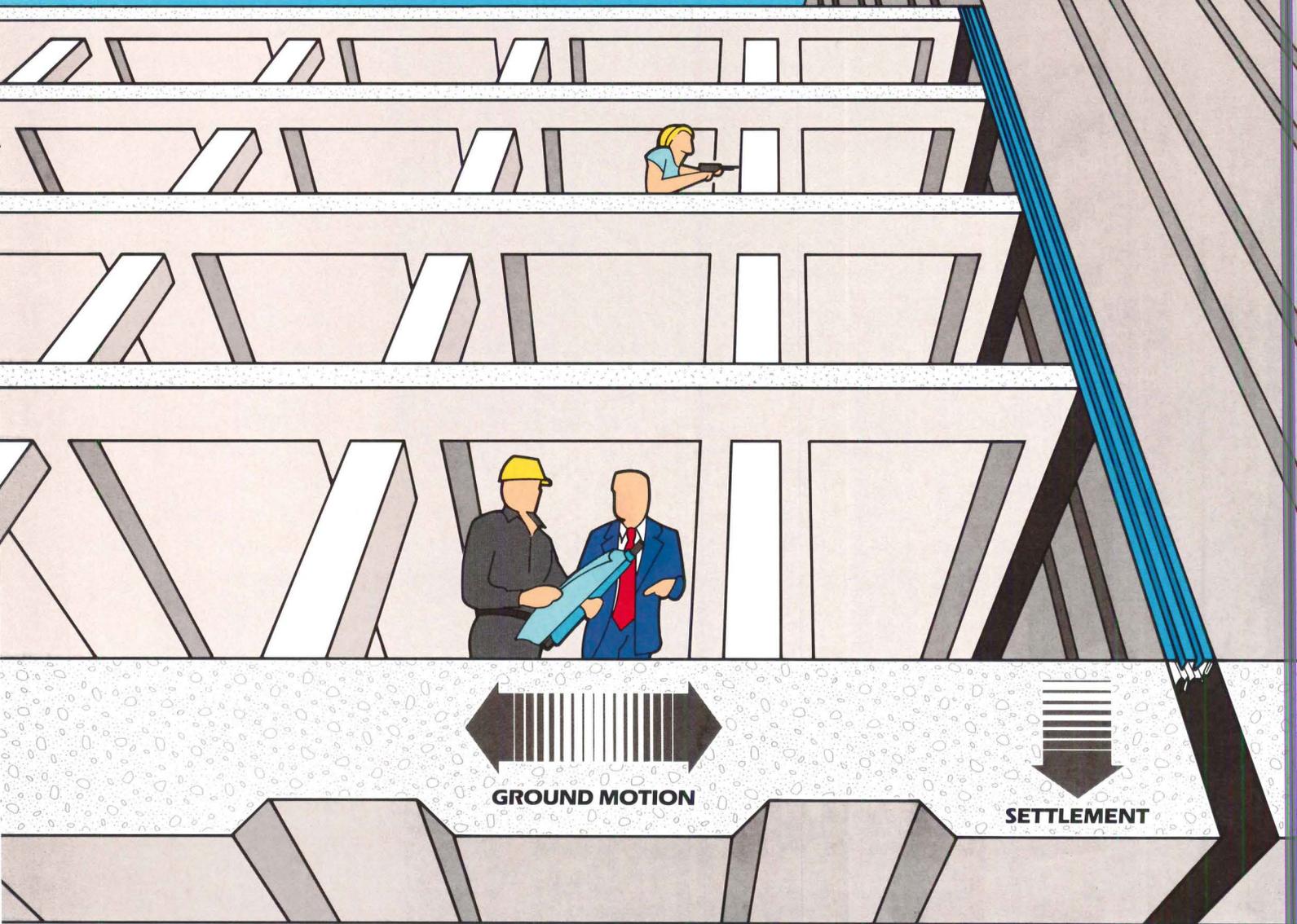
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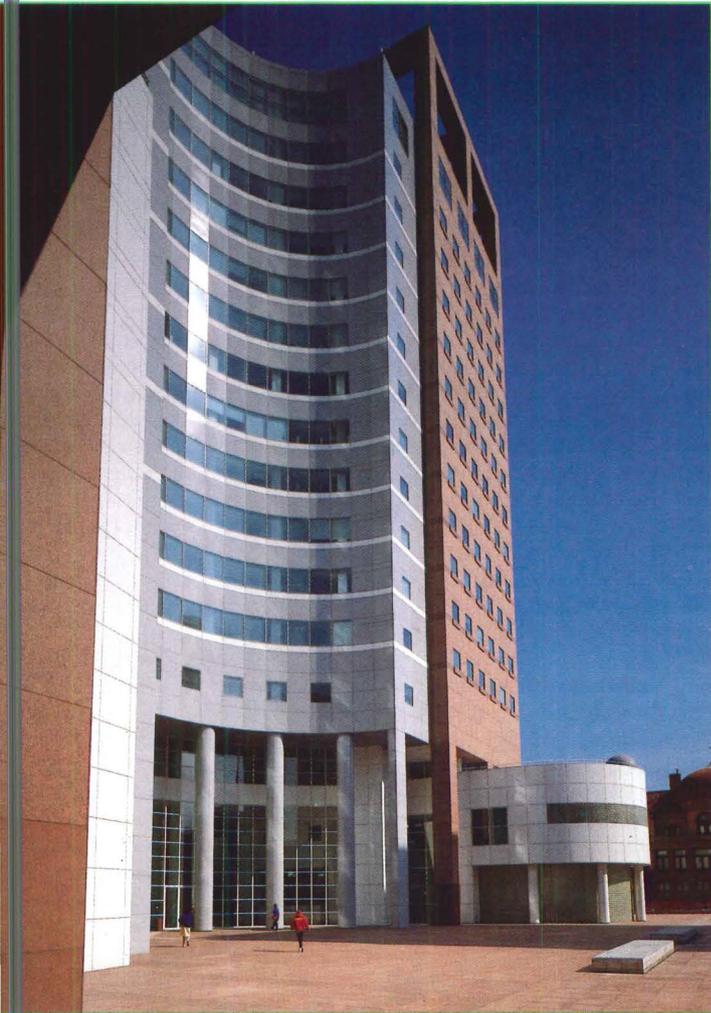
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Bridgeport Center and plaza, with Barnum Museum at far right.

## Meier's Bridgeport Center Opens

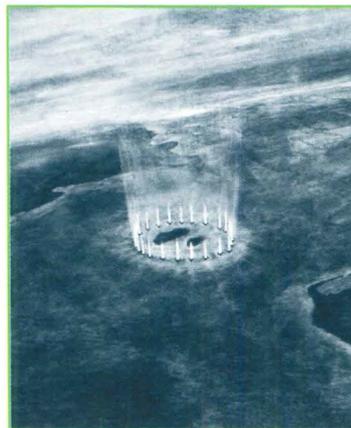
In recent years, proponents of Post-Modernism, by and large, have held little title to the sphere of contextualism, while the work of Modernists like Richard Meier has responded subtly—if at all—to its context. The dedication this spring of Meier's Bridgeport Center marked what could be a turning point in Meier's work and an essay in alternatives to the Post-Modern aesthetic for dealing with an urban context. The building, a 440,000-square-foot headquarters for People's Bank occupying a large block in downtown Bridgeport, Connecticut.

(continued on page 24)

**The latest crop of Chicago buildings is looking backward for inspiration. See Perspectives, p. 31.**



Morphosis installation at the Walker.



Schein and Hustvedt's "No-Time Zone" from Competition Diomede.

## Competition Links USA, USSR

Only 2.5 miles of the Bering Strait separate the two Diomede Islands physically, but an imaginary line between them forms a boundary between two superpowers and two days of the week. The sparsely populated islands comprise the farthest reaches of the Alaskan and Siberian frontiers, divided by the International Date Line and the U.S.–Soviet border. Over 1200 architects from 28 countries recently offered plans to bridge that divide—some metaphorically, some literally—in a spirited competition sponsored by the Union of Soviet Architects and New York's Institute for Contemporary Architecture.

(continued on page 29)

## Morphosis in 2nd of Walker Series

Part two of the Walker Art Center's "Architecture Tomorrow" series opened in Minneapolis May 14, with an installation by Morphosis of Santa Monica, California. The series, which features six young architectural firms in a three-year exhibition program, began last fall with the work of California architect Frank Israel.

Morphosis' installation moves the presentation of architecture in a museum setting another step forward. Like the 1986 Frank Gehry retrospective at the Walker, Israel's installation displayed models and drawings of his work in pavilions designed for the show. Thom Mayne and

(continued on page 26)

## Restoration of Taliesin East

Taliesin East, Frank Lloyd Wright's 600-acre, multi-building headquarters in Spring Green, Wis., will undergo a \$20 million-plus restoration, provided funds can be raised privately. A 28-member commission appointed by Wisconsin Governor Tommy G. Thompson has proposed comprehensive preservation and public access plans for the site, which includes Wright's twice-built residence.

(continued on page 24)

## Pencil Points

The Pan-Pacific Auditorium in Los Angeles (P/A, April, 1989, p. 24) was gutted late in May by a fire determined to be arson. The Art-Deco landmark's distinctive gateway can be saved; the auditorium/exhibition space behind will likely be demolished.

A Philip Johnson-designed Manhattan town house was auctioned for \$3.5 million by Sotheby's in May. The 1949 re-design of an 1860s carriage house once used as the Museum of Modern Art guest house, was sold to an unidentified foreign buyer.

C. James Lawler, AIA, of C.J. Lawler Associates, West Hartford, Conn., was elected first vice president/president-elect of the AIA for 1990 at the St. Louis convention. Current first vice president Sylvester Damianos, FAIA, becomes AIA president in December.

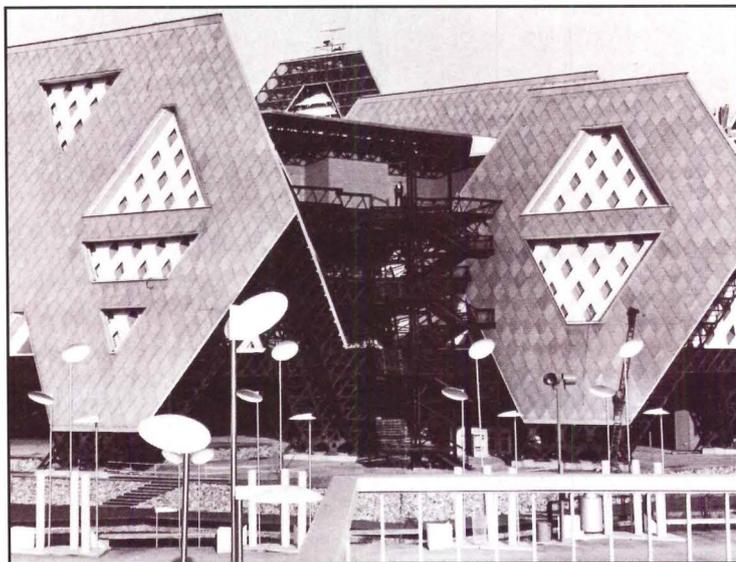
James Stirling's 1972 Southgate housing project in Runcorn, England, has been slated for demolition. The precast concrete and plastic structures, referred to by inhabitants as "Legoland," have been criticized for poor structural and social planning. Future plans for the site are unannounced.

British architect Richard Rogers was awarded the Arnold W. Brunner Memorial Prize in Architecture by the American Academy and Institute of Arts and Letters. The \$1000 award is given annually for contributions made to architecture as an art.

A school of architecture is to be established in the San Francisco Bay Area by the Guidelines Institute. Co-directors Fred Stitt and Louis Marines hope to devote equal attention to design, architectural technology, and design management. The school should open in the fall of 1990.

Gwathmey Siegel & Associates has won a commission to renovate and add to the Pratt Institute's School of Architecture building. Among the finalists were Morphosis, Eisenman Architects, Tod Williams, Billie Tsien & Associates, and Taft Architects.

Donald Deskey, a pioneer of American industrial design, died of pneumonia on April 31, in Vero Beach, Fla. Deskey was perhaps best known for his Art Deco interiors at Radio City Music Hall and for his enduring packaging designs, among them Crest toothpaste and Aqua Velva aftershave. He was 94.



One of Affleck's theme pavilions from Expo '67.

## Raymond Affleck 1922–1989

Raymond Affleck, one of Canada's leading architects of the last four decades, died in March after a lengthy illness at 66. Affleck, who will posthumously receive the Royal Architectural Institute of Canada's Gold Medal this year, practiced in association with a number of other architects in the firm known as Arcop Associates.

Affleck was best known internationally for his work on Montreal's interior pedestrian system, a system particularly suitable to his chosen city's cold climate. Though the pedestrian passages became known as the "Underground City," he himself disliked that term, as he believed in weaving indoor and outdoor systems together. His work on the interior pedestrian passageways in such Montreal buildings as Place Ville Marie in association with I.M. Pei (P/A, Oct. 1962, p. 69) and Place Bonaventure (P/A, July 1968, p. 112) bears witness to this aim. These interior streets frequently lead past landscaped courts and meet the street at grade wherever possible, although the competition with the adjacent street life is never totally resolved.

His well-known Place Bonaventure building proudly fills its huge block site; its bush-hammered exterior possesses the texture and force of an early industrial building. Its program successfully unites transportation center, retail levels, huge exhibition halls, showrooms, offices, and, at its roof, a landscaped hotel.

Although Affleck in principle suppressed the notion of building as object, he did design numerous "object" buildings, among them McGill University's

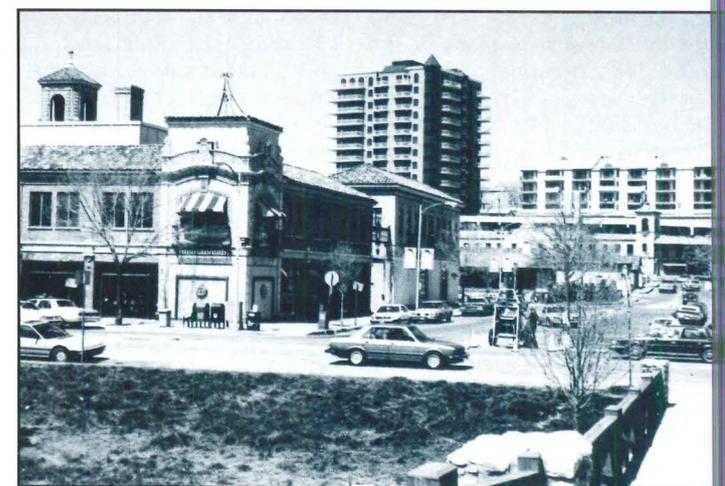
Stephen Leacock Building (1963), an unusually graceful and contextual precast concrete building, and Expo '67 theme buildings. Other notable early buildings by Affleck and his firm include the Place des Arts in Montreal (1963), the National Arts Centre in Ottawa (1967), and the Queen Elizabeth Theatre in Vancouver (1960).

In recent years, Affleck achieved wide recognition for his Maison Alcan (P/A, December 1981, p. 64), a complex in central Montreal combining a new building with an aluminum curtain wall and several renovated older buildings.

Affleck studied architecture at McGill University and did postgraduate work at the Federal Technical Institute (the ETH) in Zurich. He was the recipient of many awards in addition to his RAIC Gold Medal, including the coveted Massey award for several of his buildings in Canada and the Aga Khan Award for the Mughal Hotel in Agra, India.

*Susan Doubilet*

*The author, a former P/A Senior Editor, is a freelance architectural writer.*



Country Club Plaza with recent development in background.

## Plan Approved for KC's Plaza

Kansas City has moved to protect the future of one of the country's most successful urban design experiments, J.C. Nichols' Country Club Plaza, through the adoption of a plan designed to guide future development in the area. Spurred by a proliferation of new development on the Plaza, and a subsequent public outcry over the threat posed to the existing residential/commercial balance in the area, the Plaza Urban Design and Development Plan will allow the city to participate more actively in long-term planning for the Plaza, an area traditionally controlled by the Nichols Company.

The Plan, which was approved by the city council in early July, focuses on a 3.5-square-mile area containing the Country Club Plaza Shopping Center and its surrounding neighborhoods, which are mostly high-rise and single-family residential. Early in the decade, the city actively encouraged development in the area, primarily through a Missouri urban redevelopment law, Chapter 353, that allowed the city to grant the right of eminent domain and certain tax abatements to developers.

The strategy worked: Between 1982 and 1988, 3.5 million square feet of office space, 5 new hotels, 1373 new luxury residential units, and an additional 153,000 square feet of retail space were approved for an area that previously accommodated only 600,000 square feet of office space, 1.15 million square feet of retail space, 3 hotels, and 500 luxury residential units. The bulk of this development activity has been focused on an area covering approximately one square mile on properties immediately adjacent to the Plaza.

Of greatest concern to area residents was the proliferation

office space. While J.C. Nichols's original conception of the Plaza called for the creation of a "bowl" of high-rise housing to surround the shopping district, office development, high-rise or otherwise, had not figured prominently in his plans. And, although the Nichols Company has continued to exercise strict control over the quality of construction in the shopping district itself, the office buildings built in the area have been noticeably lacking in character and detail typical of the Plaza. The Plan, as a general guideline, will seek to encourage development in some areas while restricting it in others in an effort to preserve the existing residential neighborhoods while providing for future growth. In addition, since the provisions of Chapter 353 are granted by means of a contract between the city and a developer, the city intends to demand stricter design review authority as a means of assuring the continued quality of Plaza development.

**John J. Maib**

*The author is an architect in Kansas City and a freelance architectural writer.*

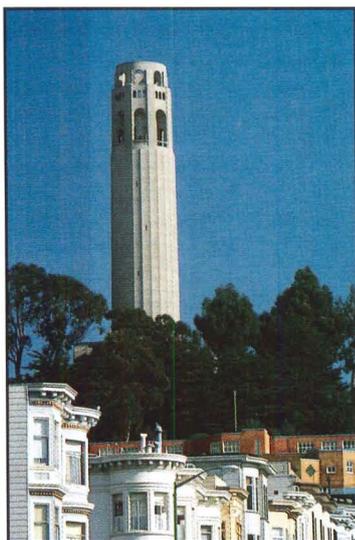
## Coit Tower Restored

Since 1933, Coit Tower's columnar form has marked San Francisco's Telegraph Hill as though it were extruded from it. Designed in the office of Bakewell & Brown, the monument exemplifies both the stripped classicism of 1930s Moderne architecture and, on the interior, offers a social portrait of the times in a series of WPA murals. Now, the recent renewal of the tower's plaster coating has restored its luster.

Over time the expansion and contraction of the reinforcing rods had allowed water to migrate into the walls and cause the masonry to spall badly. Water damage had begun to threaten the murals.

Since Coit Tower is part of the city-owned Pioneer Park that occupies the hilltop, its restoration was managed by the City Bureau of Architecture, which prepared all drawings and specifications under the direction of Richard Berry von Hungen Groth. Paul Weir and Dan Peterson of Interactive Resources, Inc., acted as architect/engineer and historic architecture consultant, respectively.

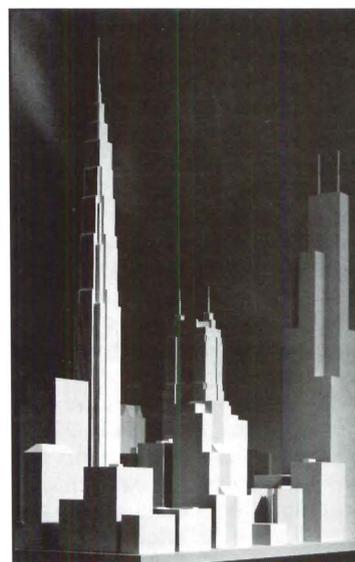
After two years of preparatory work and a year of site work cleaning the steel reinforcing



*Bakewell & Brown's Coit Tower, newly restored.*

ing rods, removing the spalled plaster coat, and applying a new parge, the exterior work was completed at a cost of \$1,500,000.

Although the tower is open, restoration of the murals continues. In 1988, the project won the California Preservation Foundation's Design Award and the Art Deco Society's Preservation Award. **Sally Woodbridge**



*Pelli Tower (left) and Sears (right).*

## Pelli Tower Would Top Sears

It's no longer enough for Chicagoans to have the tallest building in the world (Sears Tower, 1522 feet); a Chicago developer now wants to build a *better* tallest building in the world. "We're not going to accept the Sears Tower as the architectural representative of man's finest hour," said J. Paul Beitler of Miglin-Beitler, announcing plans to build a 1914-foot, 125-story tower by Cesar Pelli & Associates.

The announcement was immediately greeted with skepti-

cism on several fronts: Chicago's current abundance of office space, combined with the proposed tower's relatively small floor plates, make its economics questionable, while some doubt whether such a slender tower could be built without swaying. The killjoy *Chicago Sun-Times* even said in an editorial that the city should ask "What are we doing to the Loop?" before approving the project. Still, pending planning commission approval, they hope to begin construction in December.

## The City That Moses Built

In the twilight years of his one-man quest to build a bigger and better New York, public works czar Robert Moses commissioned the Panorama, a scale model of the city, for exhibition at the 1964 World's Fair held in Flushing Meadow Corona Park. Housed in what is now the Queens Museum, the model was billed as both a tribute to the city (then celebrating its 300th year) and a planning instrument for its future. Today, Moses' vision of a permanent monument lingers behind the times—it is a New York of the 1970s in need of renewal.

The Panorama was built at a scale of one inch to one hundred feet by model makers Lester Associates and contained every building, street, and park throughout the five boroughs. As an object of observation, the model has had a steady audience, attracting approximately 100,000 visitors annually. Its use as a planning tool, however, has been minimal. In the early 1980s, the civic group West Pride placed a model of Trump's proposed Television City on the Panorama to demonstrate its disproportionate scale.

When the Fair closed in 1965, financial support of the model fell to the Moses-controlled

Triborough Bridge and Tunnel Authority. And, until his retirement in 1972, the Panorama was updated as the city changed. In the years that followed, as the South Bronx fell and Midtown Manhattan rose, the Panorama received one city-funded refurbishment in 1974, and then sat, almost wholly ignored, until two recent exhibitions revived awareness of the model's existence.

As of its 25th anniversary in April, the Panorama was approximately 20,000 buildings behind, according to curator Marc Miller. A combination of public and private funding has been raised for an update and for an ascending walkway to be installed around the Panorama in an effort to make the model more accessible. Rafael Vinoly Architects have been commissioned for the redesign.

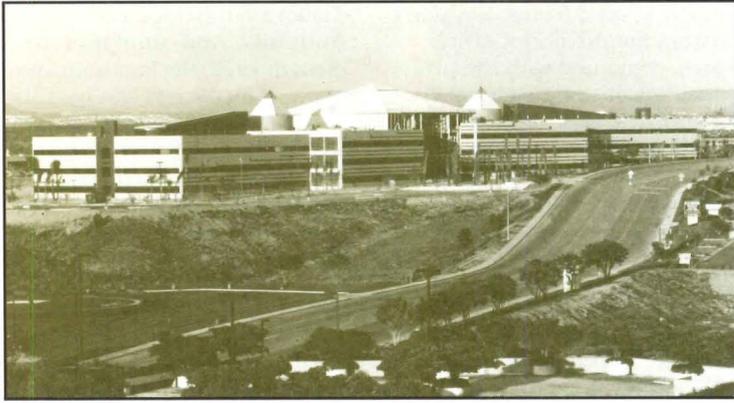
Ideally, as buildings are constructed, architects and developers would donate models to the museum. But with the price of their construction rising steadily, such contributions have been slow in coming. Some firms, often the ones with long histories in New York, have led the way: Skidmore, Owings & Merrill, Emery Roth Architects, and Fox & Fowle are among those who have obliged or have promised future projects to the museum.

As night falls on the model New York, as it does every three minutes, red, green, blue, yellow, and white lights appear, and the parks take on a pale green 1960s glow. Today, there is more a feeling of nostalgia than one of representation when viewing the Panorama from its glass enclosed balcony. Without the South Street Seaport or Battery Park City on Manhattan's Downtown edges, the city remains oddly suspended in time.

**Abby Bussel**



*The south end of Manhattan, minus Battery Park City, part of the scale model of New York at the Queens Museum.*



Michael Axelsen

San Diego Design Center.

## San Diego Design Center

San Diego, one of the fastest growing metropolitan areas in the United States, will expand its presence in the design community when the 342,000-square-foot San Diego Design Center opens later this summer. Sited on Sorrento Valley just north of downtown, the \$45-million facility is the first of its kind to boast a permanent outdoor landscape exhibition, a two-acre garden designed specifically for the display of outdoor products.

Chris McKellar, principal of McKellar Development, La Jolla, California, recruited Len Lemlein—former leasing director at New York's International Design Center—to lead the management team and work with Santa Monica architect Johannes Van Tilburg. (BSHA, San Diego, is coordinating showroom designs for individual tenants.) The result is a well organized, eye-catching building, both inside and out.

Two white pyramids rising from circular purple tile-clad bases flank a central green pyramid that marks the main entrance. A pair of "highway orange" ramps runs from the pyramids to the end of the building. A laser sculpture designed by Santa Monica artist Steve Corraai will send finger-like beams from the pyramid to the building's ends, making the building more visible at night.

The 800-foot-long structure has two wings which extend symmetrically from a central, 13,000-square-foot, "atrium," a four-story area that serves as a grand entrance and special events hall. Daylight is filtered in through geometrical skylights that crown mirror-image, ground-floor courtyards in each wing. A second floor rotunda will have a lounge area and restaurants.

Lemlein plans a November grand opening. In the meantime, a tenants' advisory board

will work with local government, museums, and businesses to plan a series of ongoing seminars, exhibitions, and special events. The Center's growth should be rapid and successful given the building's aesthetic appeal and the steady advance-leasing rate.

Jessica Elin

## Seattle Moves to Restrict Growth

The debate over "who owns our city" was answered resoundingly on May 16 when Seattle voters—reacting to a doubling in downtown office space in the past decade—approved an initiative to limit downtown growth.

Dubbed the Citizen's Alternative Plan (CAP), the initiative, which received 62 percent of the votes cast, limits development of downtown office space to 500,000 square feet a year through 1994, and 1,000,000 square feet a year from 1994 through 1999. Height restrictions are also included, with limits of 450 feet for new buildings in the downtown office core and only 85 to 150 feet for buildings in the retail area.

The vote makes Seattle the second city to impose an annual limit on downtown office construction. San Francisco passed a similar initiative in 1986.

Despite the new limits, Seattle residents can still expect to see changes in the rapidly growing skyline: 6.5 million square feet of new office space vested under permits issued before the initiative was filed is still on its way.

The war in Seattle appears far from being over. One land use attorney predicts the courts will strike down CAP within a year, as opponents to the initiative—primarily developers and pro-business groups—question its legality.

Critics claim that the initiative was not well thought out, and even supporters concede that it needs fine tuning. As written, the law requires developers to

apply on a first-come-first-served basis. Already under discussion is whether the city should adopt a design review board similar to San Francisco's. Under state law, the city council can change the CAP after two years. Nevertheless, the message has been sent loud and clear: City Hall needs to do a better job of managing growth. *Clayton Park*

The author is a freelance writer living in Seattle.

## Modest Visions from Chicagoans

The rash urban schemes of Le Corbusier, Frank Lloyd Wright, and Ludwig Hilberseimer may have discredited the idea of the visionary architect forever. That would partly explain the modest schemes produced by a group of Chicago architects under 35 for the "Alternative Visions: Chicago" exhibit sponsored by the Chicago Chapter AIA and on view at the Cultural Center this spring.

The architects, responding to a call for designs that "portray an anticipated or unforeseen change in Chicago's condition," offered schemes of varying seriousness. Some, like Gilbert Gorski and Timothy Jachna, commented humorously on what has gone wrong with the built world. Their beautifully drawn images of a hellish city and suburb depicted the consequences of overbuilding taken to its mad conclusions. Jachna borrowed figures from Michelangelo's "The Damned" and set them in suburban Schaumburg, while Gorski showed a city abandoned by all but the poor.

Daniel Griest took on Cabrini Green, Chicago's notorious low-income housing project. His site plans proposed razing Cabrini and replacing it with housing for the poor spread over a greater

area and broken with grand civic spaces. Elevations would have helped; site plans suggested the same sort of punishing coldness that created Cabrini.

The most energetic scheme was Richard Drinkwater's "Shikago (sic) National Library/Cultural Data Processing Center," a tower with a campy Futurist look that suggested Flash Gordon and Richard Rogers. The project seemed to make reference both to the recent public library competition and to the current controversy surrounding the quality of Chicago's schools. His explanatory text rephrased Modernist lyrics in a hymnal to technology, albeit with a slyly sarcastic tone: "Every library complex in the world is available on interactive television banks [enabling] the creation of Americans who will lead the U.S. to global, political, and social domination."

The most complete projects were those at the smallest scale. Rene Stratton exquisitely painted a stone tower she would place at the Dearborn Street Bridge where it spans the Chicago River at Wacker Drive, replacing the existing bunker-like structure there.

More than anything this show suggested that these young architects are as daunted as anybody by our formidable social and urban troubles. Aside from Griest's Cabrini plan there were no grandly scaled schemes in the group. Maybe this backhanded acknowledgement of the profession's limitations is healthy, but the absence of chutzpah—even arrogance—was somehow disappointing in people so young.

Cheryl Kent

The author, a freelance architectural writer, is a former associate editor of *Inland Architect*.

(News Report continued on page 24)



Daniel Griest's plan for Chicago's Cabrini Green: before (left) and after (right).

Long after everything else has gone to ruins,  
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a monumental impression.

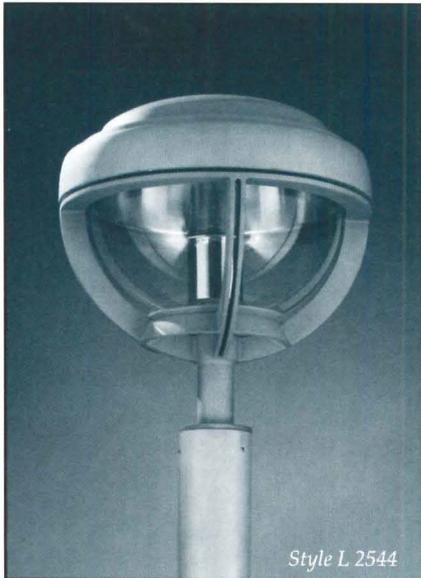


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**Taliesin** (continued from page 19) plus the Hillside Home School (1902; expanded 1935), where Wright had his practice and taught apprentices, and the Romeo and Juliet Windmill (1897). The commission included a bipartisan group of elected state officials, private citizens, and members of the Taliesin Fellowship (a group of architects who trained under Wright, continue his practice and school, and live communally at the site in summer).

Since Wright's death in 1959, Taliesin Fellows have donated roughly \$3 million in cash and an equivalent amount in professional services toward restoration of Taliesin East and Taliesin West in Scottsdale, Arizona. "A few years ago it became obvious that Taliesin East was deteriorating faster than we could repair it," said Charles Montooth, a senior Taliesin Fellow and commission member. "We sought help outside; the Governor responded generously."

Montooth explained that many Spring Green structures were built from inexpensive materials by unskilled apprentices. "Mr. Wright tried out ideas here. He never had enough money and often worked in haste. We never know what we will find when we open up a ceiling or wall."

Taliesin East will not be restored to a state of museum-like perfection. "This place was always a bit ramshackle, expressing Mr. Wright's informal spirit," Montooth stated. "We don't want to lose that feeling."

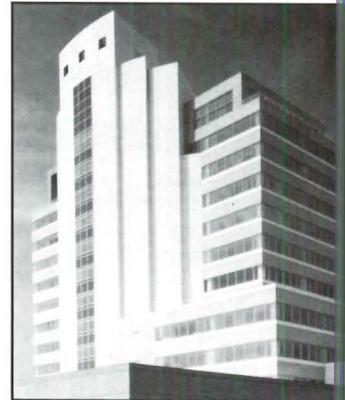
The State of Wisconsin hopes a restored Taliesin East will attract 200,000 tourists annually—roughly ten times current levels. To handle such crowds, the commission envisions a Visitor's Center with audio-visual displays and tram tours of the site.

Under a plan proposed by the commission, ownership of Taliesin East will pass from the Fellowship to a not-for-profit corporation, some of whose directors will be Fellowship-appointed. A lease will protect the Fellowship's right to continue living and working at the site.

Restoration of Taliesin East's buildings and grounds will cost an estimated \$14,696,000; the job should take about two years. Aside from a \$150,000 gift from the State of Wisconsin, the money will have to come from private sources.

**Victor M. Cassidy** ■

The author is a senior editor of *Modern Metals* magazine.



Bridgeport Center, as seen from highway

**Meier** (continued from page 19) icut, is Meier's first high-rise building, and his first extensive use of a traditional material such as granite. Most interestingly, though, the building represents a carefully measured response to context in which Meier has manipulated the building's massing and façade treatments—creating the appearance of an assemblage of parts—to respond to the varied site conditions, which include an elevated freeway on one side, a park at the heart of downtown on another, and the 19th-Century Romanesque Revival Barnum Museum in the middle.

The 16-story white and granite tower that is the heart of the composition presents a bowed formal face to the adjacent elevated interstate, but its symmetry is offset by a red granite tower on one side topped with a boxy open frame (a Modernist answer to the Post-Modern building top). At the highway level, a long, low sweeping parking garage echoes the curves of the highway. On the other side of the site, where the building faces the center of downtown Bridgeport, the tower has a concave façade that, with smaller granite wing and the Barnum Museum, forms a plaza.

Meier has caught criticism for not making a stronger, clearer statement in a building that, the client says, is intended to stand as a symbol for Bridgeport. While it is true that the building's form doesn't read as easily as, say, the Gateway Arch or Eiffel Tower, Meier seems to have a different kind of symbolism in mind—an expression of urban layering and assemblage that suggests a conceptual sympathy with Venturi or Koetter & Row (albeit within a Modernist aesthetic). Regardless of its success as a signboard, though, there is no denying the building's strength as an important new piece of a city whose urban fabric needed mending.

**Mark Alden Branch**

(News Report continued on page 26)

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Detail of Morphosis installation.

**Morphosis** (continued from page 19)  
Michael Rotondi of Morphosis included no drawings or models of their work, and instead chose to create a totally new piece that would be a "poetic transformation of their architectural ideas," according to Walker curator Mildred Friedman.

From their work Mayne and Rotondi selected three houses—the 6th Street Residence in Venice, California (P/A, Jan. 1988, p. 116), the Crawford Residence in Montecito, California (P/A, Sept. 1988, p. 44), and the Gonfiantini Residence in Reno, Nevada. Working closely with a team of firm members and students from

the Southern California Institute of Architecture, they abstracted an idea from each house and melded these into a metaphorical representation of their architecture.

The installation has both the powerful linear organization and the small-scale intricacy of Morphosis' architecture. The elongated cross axis of the Reno house becomes the basic organizational structure, or "text" of the piece, expressed in a 53-foot-long light wall of translucent panels set on stilt-like steel supports. More light walls create a box-like room based on the 6th Street house on one side of the long wall and a sequence of three overhead pieces based on the Crawford House on the other.

Literally under this "text" lies the "sub-text," an intricate and beautifully crafted steel and wood sculpture that might be a horizontal Louise Nevelson. Its plan, with its flattened curve, is that of the Crawford House. It also represents the metal desks of the Morphosis office, its surface inlaid with T-squares and etched with data from architectural drawings. The sculpture is cut out, filled in with wood, punctuated with square wood "colonnets" and steel fins. It is as complex and ordered as an

archeological dig, an analogy Mayne and Rotondi intended.

But architecture is to be experienced as much as observed, and the Morphosis installation shapes an architectural experience that is appropriately confrontational. The placement of the long light wall close to one side of the gallery almost forces the viewer to come in physical contact with the piece. While a generous "yard" on the other side allows one to step back and view the piece with some perspective, there is no place to stand and see the entire piece. "Our buildings do not have a fixed point to be viewed from," Rotondi said. "A gallery piece is most problematic in that sense."

At the Walker till July 23, the exhibit will travel to the San Francisco Museum of Modern Art and run from March 1 to April 29, 1990. The next "Architecture Tomorrow" exhibit at the Walker, to open in December, will feature Tod Williams and Billie Tsien, to be followed by Stanley Saitowitz, Elizabeth Diller and Ricardo Scofidio, and Steven Holl.

**Linda Mack**

*The author is the architecture critic for the Minneapolis Star Tribune.*

## Kenneth Labs Joins P/A

Kenneth Labs has been named Associate Editor of P/A, with responsibility for the Technic section. Possessing both B.A. and M.Arch. degrees from Washington University in St. Louis, Labs has worked for architectural firms in Connecticut, Pennsylvania, and Texas; has run his own consulting firm specializing in problems of climate, energy efficiency, and foundations; and has been a Lecturer in Environmental Technology at Yale's School of Architecture since 1983. He has published almost fifty articles or papers, has lectured widely on a number of climate and energy-related subjects, and has co-authored with Donald Watson the book *Climatic Design: Energy Efficient Building Principles and Practices*. Most recently, he contributed to the upcoming edition of *Architectural Graphics Standards* and co-edited the proceedings of an international technical conference on passive cooling. Throughout all of these efforts runs an interest in the communication of technical information—an interest from which readers should greatly benefit.

*(News Report continued on page 29)*



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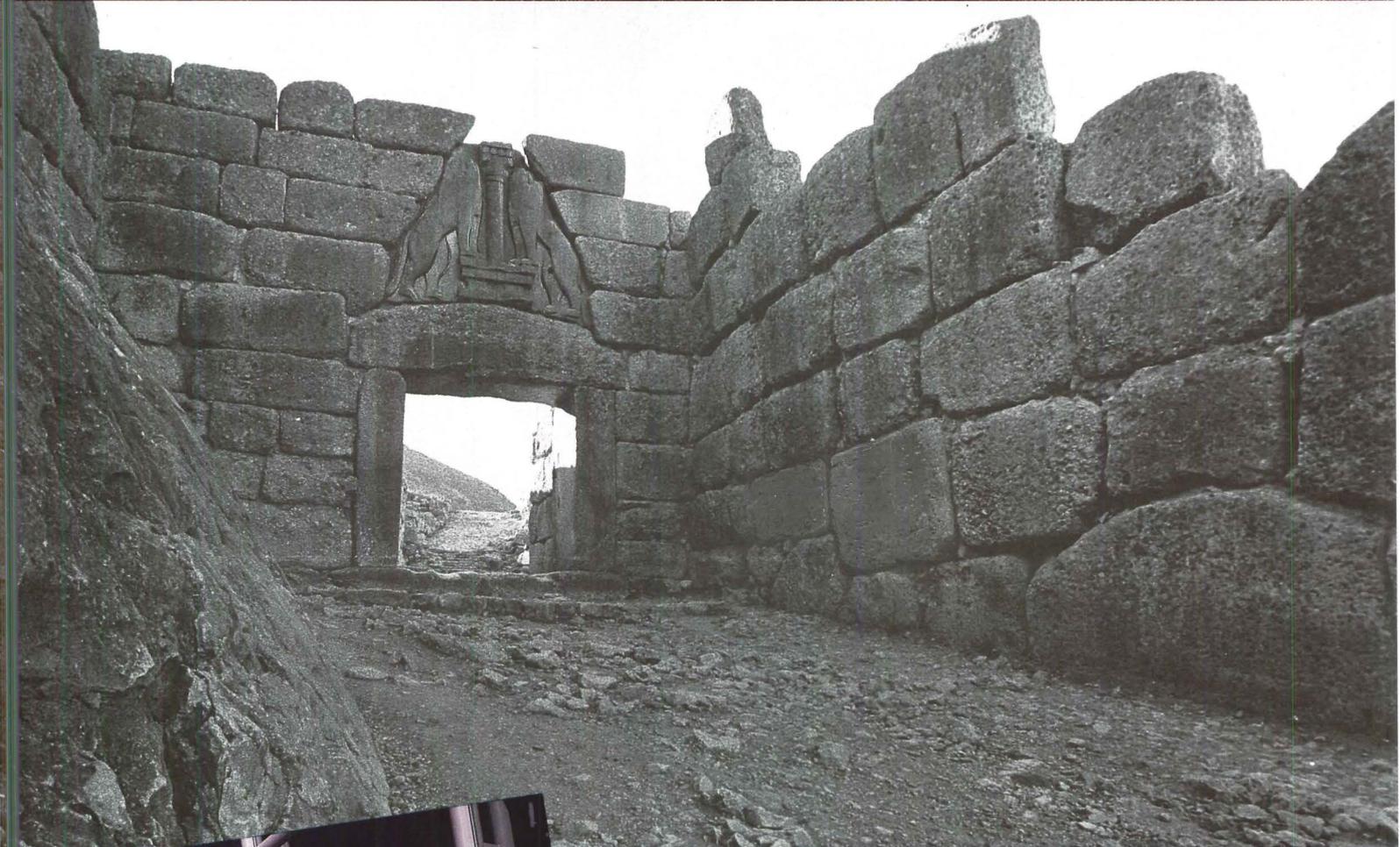
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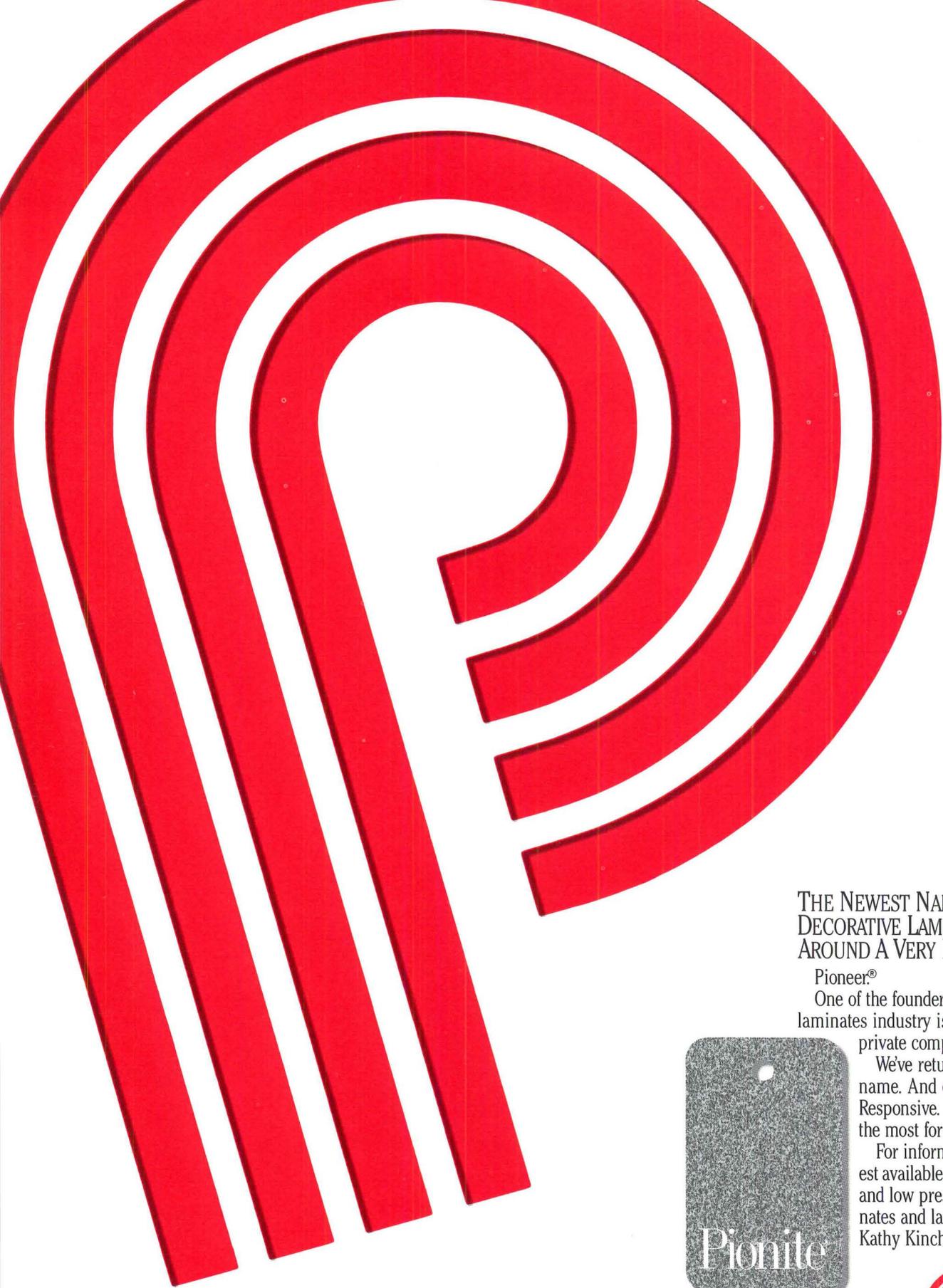
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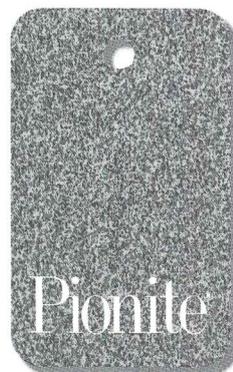
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**Competition** (continued from page 19)  
 by Art. The competition is the first to be sponsored by organizations in two countries. The entries, which were all displayed at New York's Clocktower Gallery last month, ranged from terse written suggestions to an object tossed from one country to another" said one in ( ) and one-liner cartoons to elaborate designs employing bridges, lasers, or beams of light. The entries also varied in their earnestness—some of the designers eschewed the international hand-holding implicit in a competition program and chose to express instead the irreconcilability of the nations' differences. Some of the most inspired entries involved creating a special border condition between or around the islands, like Françoise Schein and Ingrid Kostvedt's "No-Time Zone," where the Diomedes are encircled by beams of light that tell time without the use of time zones determined by political or economic factors. Another Tokyo architect Shiuchi Yamamura's proposed border sends the two countries' borders spiraling infinitely together around the Diomedes. One reason for the large turnout—and for the great variation in quality and seriousness among entries—was the liberal submission requirements. There was no entry fee, and, in an innovation the sponsors believe is a first, entries could be transmitted by FAX (about 15 percent were). Consequently, a look through the notebooks full of proposals for the exhibition was more like sitting in on a brainstorming session than viewing the results of a competition, especially since some of the entries were chosen as "winners." A jury of U.S. and Soviet architects and artists did select six groups of drawings representing recurring ideas for display at the exhibition. Competition organizers Glenn Weiss and Yuri Gnedovsky have signed an agreement to examine the feasibility of some of the proposals for implementation, including the issuance of a joint postage stamp, the establishment of a non-military zone around the islands, and the construction of a third island on the border to house a center for Arctic research. The exhibition will begin during this summer, first in the United States and then in the Soviet Union.

Mark Alden Branch ■



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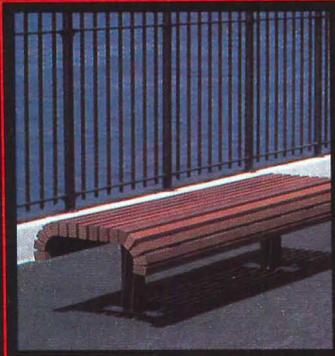
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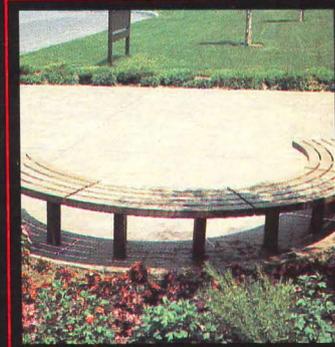
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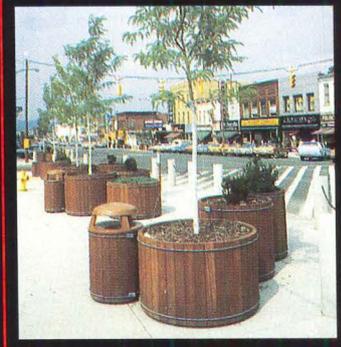
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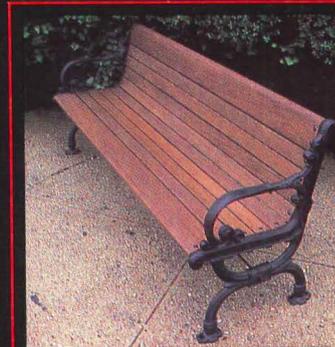
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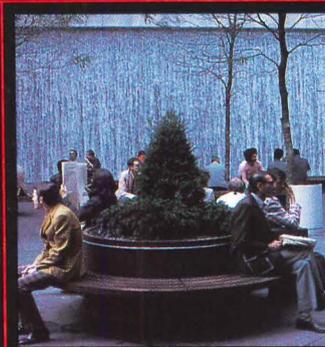
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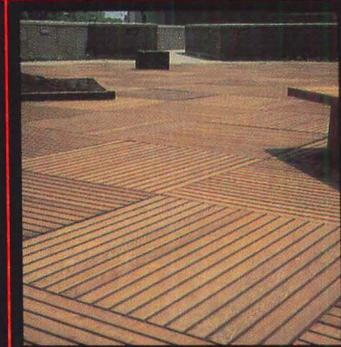
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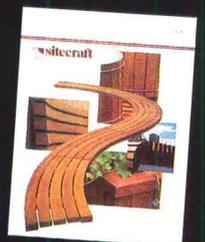
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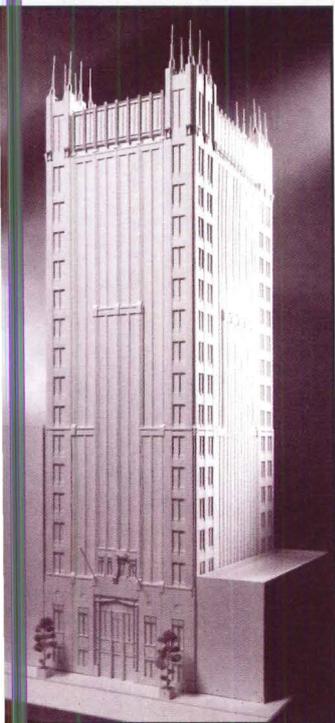
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Historicism reigns in new work in Chicago, in public buildings like the Library and in the many office towers underway.



Chicago Public Library.



Chicago Bar Association.



3 Murphy/Jahn's North Loop project.

## Chicago Looks Up and Back

Twice in its history Chicago has produced revolutionary architecture. There was the first Chicago School created by Louis Sullivan, John Root, and Daniel Burnham in the 1880s after the Great Fire of 1871; and later, after World War II, there was the second Chicago School of Modernism, ushered in by émigré Mies van der Rohe and nurtured by the likes of Skidmore, Owings & Merrill, C.F. Murphy & Associates, and Harry Weese & Associates.

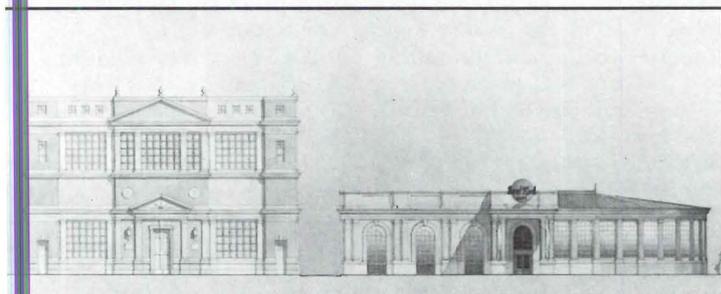
Chicago is not seized by a similarly monumental architectural vision at present. The large-scale work underway and recently completed reveals instead the same searching exploration of style and expression evident elsewhere in the country as a whole. Broadly speaking, Chicago's biggest and most important commercial and public buildings are historicist, with periods of choice ranging from the Classical to the Gothic, to Art Deco, on to Constructivist, and, for some architects, back to the First Chicago School.

The Chicago Public Library (1) (P/A, Jan. 1989, p. 103), designed by Hammond Beeby & Babka, now underway and scheduled for completion in 1991, calls on a number of his-

toricist sources. When finished, it will be ten stories high, with a rusticated pink granite base on three sides, a brick shaft with soaring arched windows, and a richly ornamented glass and metal top. The fourth and rear elevation will be a sheer glass curtain wall. The library will occupy a full city block immediately outside the Loop. To Thomas Beeby, a firm principal, the design incorporates important elements from all of Chicago's architectural history. The heavy stone base and massiveness of the building relate to Sullivan's Auditorium Theater (1889) one block east. On the other side of the Loop is another influence, John Root's Rookery (1886) whose alley-side curtain wall, coloring, and massing, he says, are reflected in the new library. Beeby even suggests a tie to the curtain wall cladding of Mies' Federal Center complex that lies one block north along Plymouth Court.

The firm Tigerman McCurry has two historicist exercises under construction. For a site on Plymouth Court between the library and the Federal Center, Stanley Tigerman has designed a small, 16-story Gothic-styled office building for the Chicago Bar Association (2). Scheduled for completion in the summer of 1990, the building may be as

(continued on page 32)



Tigerman's power station (left) and Hard Rock Café (right).



5 North Loop towers by KPF.

(continued from page 31)

interesting for its diminutive scale as for its style. It will be located inside the Loop, where skyscrapers generally reign.

Tigerman's project at the corner of Clark Street and Ontario Avenue (4) is Classical and, like most things Tigerman does, a complicated puzzle full of ironies and contradictions. The building, handsomely proportioned and beautifully detailed in brick and limestone, serves as a high-tech, computer-controlled power station, a function that belies its antique gentility. To make the building maintenance-free, as the client requested, Tigerman used enduring materials and time-honored construction techniques. The limestone entablature is constructed through the wall, and the brick was laid in a double thickness and then backed with concrete block to keep the walls stable against the vibration of heavy machinery.

Both Hammond Beeby & Babka and Tigerman McCurry say they are consciously dealing, as best they can, with contextual issues on sites that are at least partially resisting their efforts. The sites for both the substation and the library have noble structures in the neighborhood, and both are grazed by fast and heavily-traveled thoroughfares that lead from the city to the highway. Beeby's scheme suggests ways to patch, if not mend, the urban fabric. Tigerman turns the notion of contextualism inside out, saying he must "create a context" with his substation. Tigerman won this commission partly on

the strength of a nightclub he constructed next door. The club, in turn, was designed to fit a smaller 1924 substation by Holabird & Roche that stood where the new station stands now. In what is almost a parody of contextualism, Tigerman felt duty-bound to mimic the original station at a larger scale.

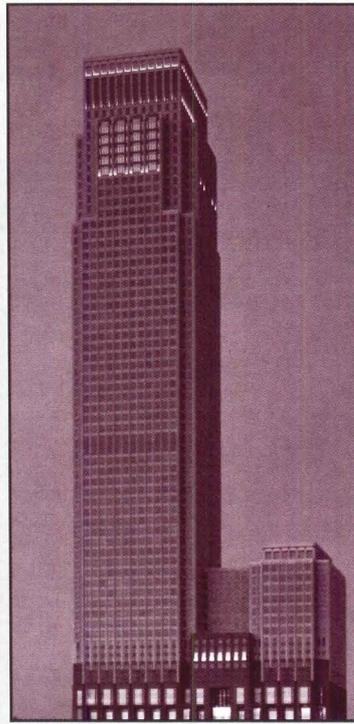
Contextualism was not an issue for either of Chicago's two major architectural schools: In the 1870s and 1880s, the landscape was in ashes; in the 1950s and 1960s Modernists were actively rejecting history as they tried to invent a new world. Modernist heroics made for some colossal mistakes, and it is partly in the hope of avoiding their repetition that architects in Chicago and elsewhere are looking past Modernism for clues to creating civil urban environments. Complicating the problem, however, are contemporary demands in the scale of commercial buildings. Chicago is erecting a crop of enormous towers (P/A, Jan. 1987, p. 46) that render the issue of context moot.

Still, architects for these projects are doing what they can to make their skyscrapers less than overpowering. Most often their solutions involve borrowing historical motifs and styles to give the buildings texture and to break their mass.

Two new skyscrapers proposed for sites in the North Loop (an area designated by the City Planning Department for redevelopment) are using similar massing devices to reduce their bulk. Murphy/Jahn's proposed full-block development on a site bounded by State, Randolph, Dearborn, and Washington Streets (3) features a pair of towers—one about 45 stories, the other roughly 36—joined by a 300,000-square-foot retail arcade. The enormous size of the complex—together the two towers will contain about 1.8 million square feet of office



6 225 W. Wacker.



7 SOM's Franklin Center.

space—will be broken into more digestible pieces by the intervening low-rise arcade and by the towers' projecting and receding planes, setbacks, and sculpted corners.

Less than a block from the Murphy/Jahn project, Kohn Pedersen Fox will employ a variation on the same technique for a 2.6-million-square-foot project composed of two 50-story towers joined by a 13-story base on a half-block site directly opposite Murphy/Jahn's State of Illinois Center (5). The KPF design has a Constructivist mien with strongly articulated vertical lines interrupted by floating planes.

A Skidmore, Owings & Merrill design from the Washington, D.C. studio of Craig Hartman modifies this massing for another purpose. Franklin Center (7) will be erected across from an earlier SOM building, the Sears Tower, and will have as its other boundaries Adams and Wells Streets and Quincy Court. Hartman's task was to reconcile the daunting scale of the world's tallest building with the more reasonably-sized and older buildings along South Franklin Street. To do so he took a full city block site, placing a 65-story office tower on the eastern half, away from Sears, and connecting to it with one unified base, a 17-story mid-rise on the western half.

Farther north on Franklin, another Kohn Pedersen Fox project (6) is ascending, with completion expected in September of this year. It stands shoulder to shoulder with KPF's first Chicago project—333 West

Wacker—the two creating a study in contrasts and testifying to the firm's design evolution. Where 333 is more Modern than Post-Modern, 225 promises to remind one more of the towers of the 1920s, and is more in keeping with the neighbors to the east, a row of stately stone-clad office buildings of about 10 stories.

Cesar Pelli is exercising his historical recall of another kind in his tower at 181 West Madison (8), which suggests Eliel Saarinen's second place design for the Chicago Tribune Competition of 1922. In adapting and using the tower, Pelli suggests an alternative course of history. The tower, which is now under construction and is expected to be finished in early 1990, sounds very seductive indeed with its white granite cladding, metal mullions, and nickel-plated finials. It is, unfortunately, a tight site, crowded to the west

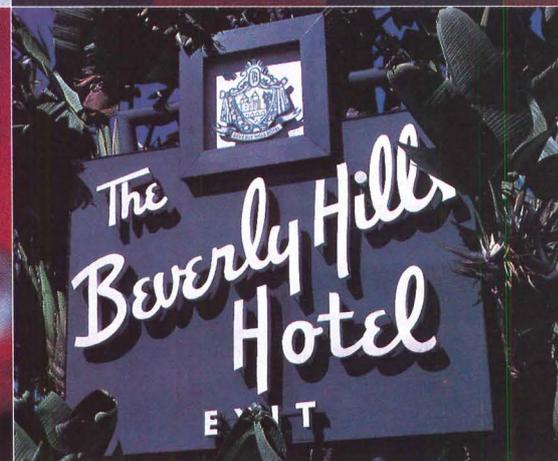
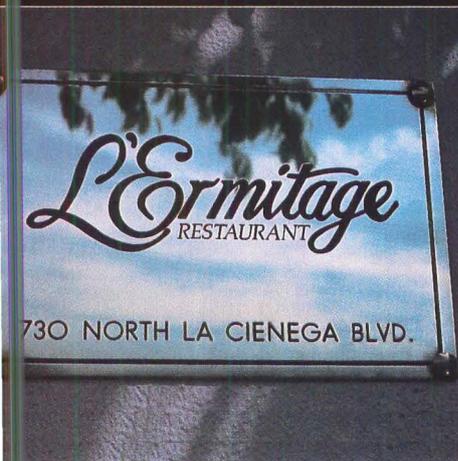
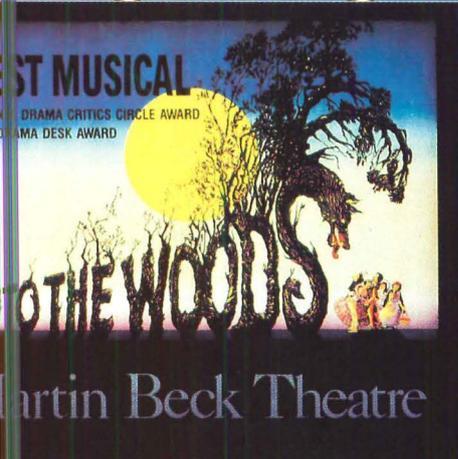
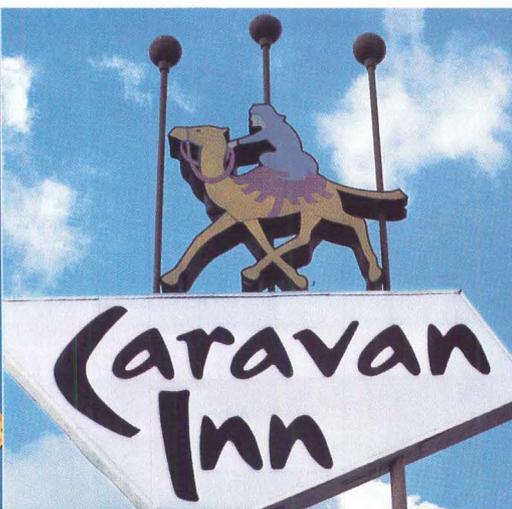
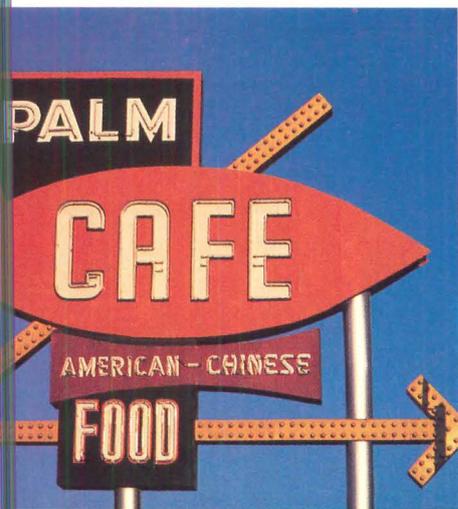


8 181 W. Madison.

the elevated train line running along Wells, while Saarinen's design stood in rather splendid isolation overlooking Michigan Avenue. Even though this is Saarinen's tower, one measures this one against its spiritual predecessor and longs for the same conditions.

One new Loop building stands to do it all. Kevin Roche John Dinkeloo Associates' tower at 333 West Wacker Drive (9) takes cues from its neighbors, adopts historical motifs, and still retains a contemporary air. The tower, which is 51 stories tall with just over one million rentable square feet, has a variously colored

(continued on page 34)



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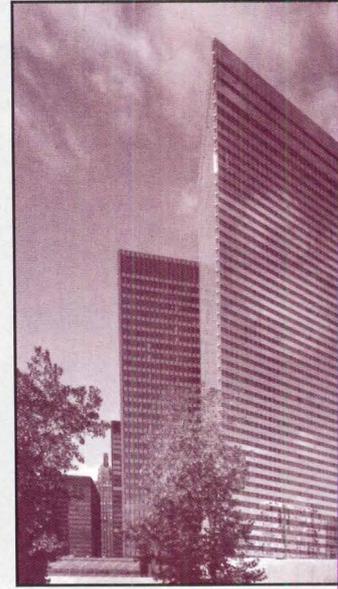
(continued from page 32)

granite cladding which rests lightly over the entire structure as if a stone grid has been pulled away from a simpler glass tower lying just below the surface.

Elsewhere in Chicago, a few remaining Modernists make no bones about their predilections and shun historicism. Harry Weese & Associates has recently completed the Swiss Grand Hotel (10), which stands, shimmering and light, in the otherwise dark and austere Illinois Center complex east of Michigan Avenue on Wacker Drive. The 48-story triangular tower is wrapped with a taut skin of silver and gray with rounded glass at each corner. A tight site and optimum views suggested Weese's forms.

Kenzo Tange, who has designed his first Chicago building for the American Medical Association headquarters, arrived at two trapezoidal forms that will fill a square-block site between Wabash and State and Grand and Illinois when both structures are built. The phase-one tower is now underway and will be finished in the summer of 1990. The building will have a prow-like projecting corner and, like Weese's, has an unapologetically Modern air. Above its granite base, the building's shaft will be clad in tinted glass with aluminum banding.

Perhaps most perplexing of this Modernist group is a 27-story office structure for the General Services Administration (11) by Fujikawa Johnson & Associates. It would be more fairly described as a Modernist-revisionist building, even though it was designed by one of the two offshoots of Mies' old firm. It emulates Mies' Federal Center complex buildings, to which it

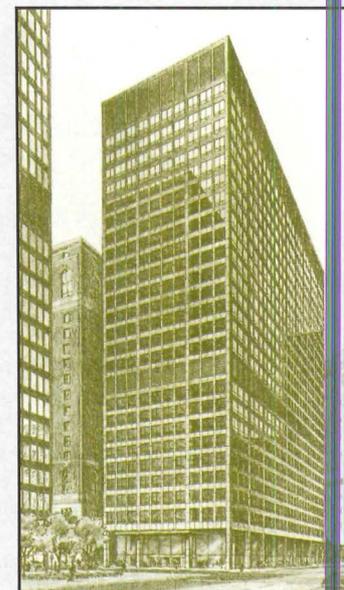


10 Swiss Grand Hotel.

will be adjacent, in form and modulation, but it will be clad in dark gray granite, and its window proportions are being fudged—artificially elongated with a fritted glass—to resemble the originals.

The real Chicago tradition has less to do with expressed frames and "Chicago windows" than it does with designing structures that take advantage of existing technology and derive an aesthetic appropriate and expressive of their time. What is interesting is that uncertain times such as these have been followed twice before in Chicago by monumentally clear, rational architectural movements. It is possible that the seed for a third such movement might lie in the work now going up in Chicago.

*Cheryl Kent*  
The author, a freelance writer, is a former associate editor of Inland Architect.



11 New Federal Building.

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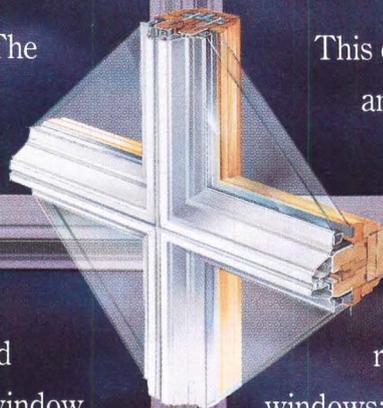
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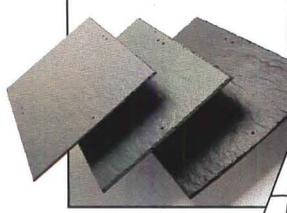
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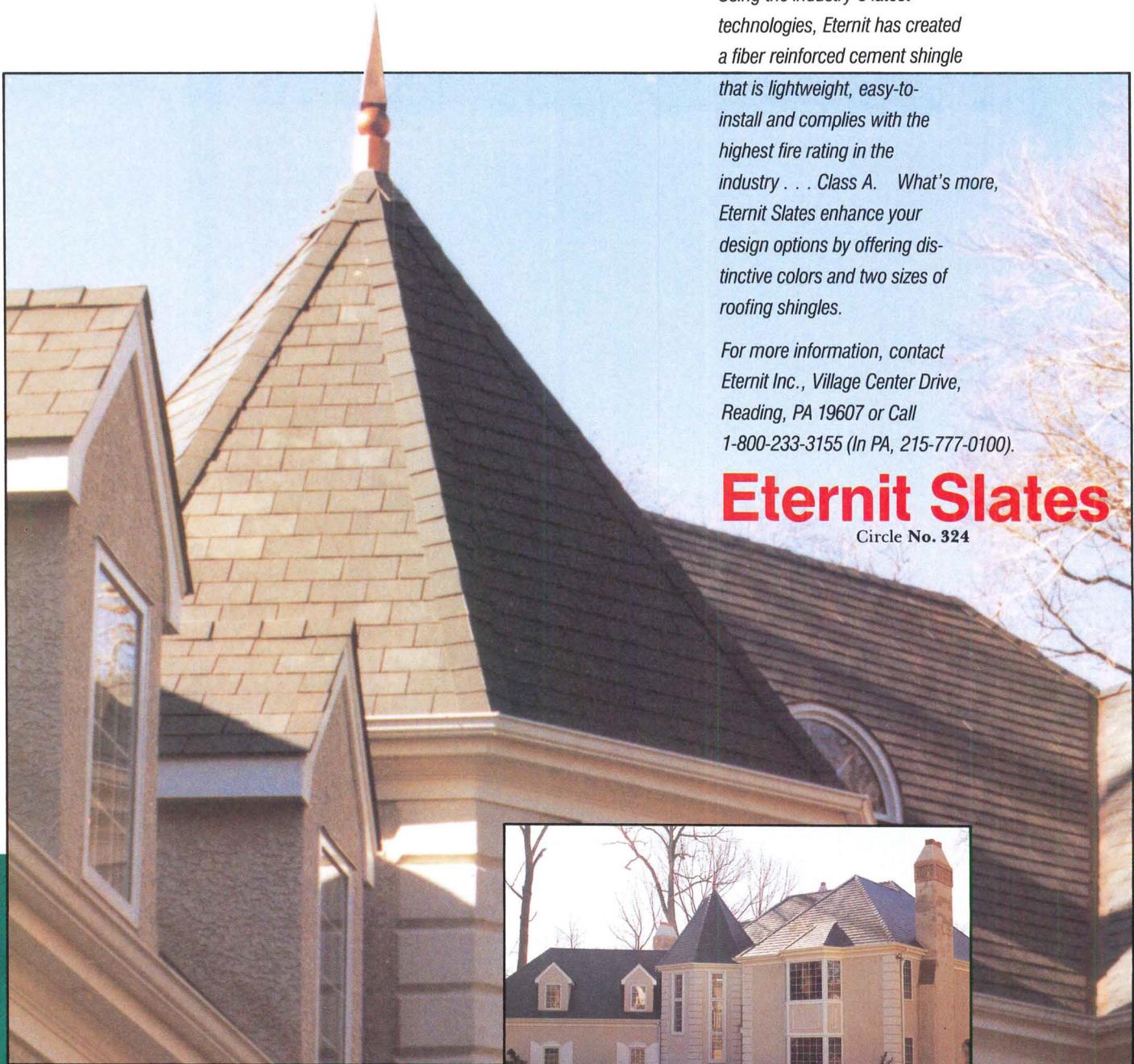
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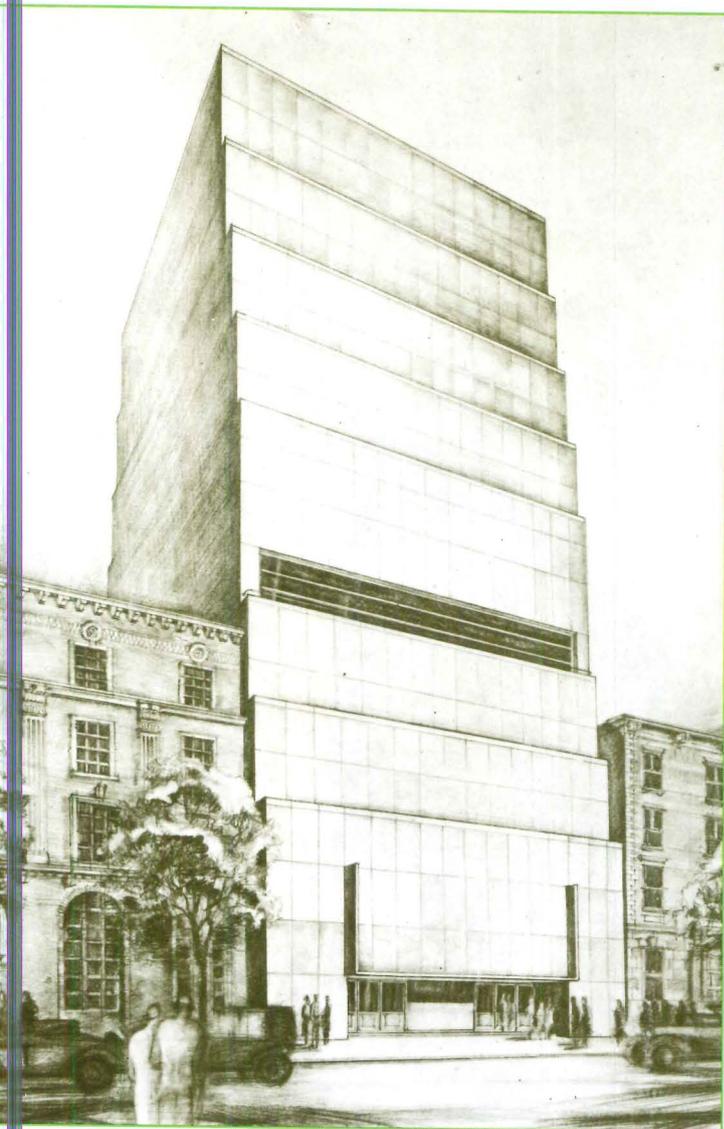
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Graham Design. Neuberger Museum, State University of New York at Purchase.

**Through July 16**  
Architecture Tomorrow: Morphosis. Walker Art Center, Minneapolis (see p. 19).

**Through July 19**  
Chair As Art. Gallery of Functional Art, Santa Monica, Calif.

**Through July 22**  
Ringo Jones: The Complete Architectural Drawings (P/A, June 1989, p. 23). Drawing Center, New York.

**Through July 28**  
That Exceptional One: Women in American Architecture, 1888–1988. Pacific Design Center, Los Angeles.

**Through August 2**  
Emilio Ambasz and Steven Holl. La Jolla, Calif., Museum of Contemporary Art (P/A, Mar. 1989, p. 33).

**Through August 13**  
Calvert Vaux, Architect and Planner. Museum of the City of New York.

**Through August 15**  
Projects: Elizabeth Diller/Ricardo Scofidio. Museum of Modern Art, New York.

**Through August 20**  
Revisiting the New York World's Fair of 1939. New-York Historical Society.

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A Modern Museum: The 1939 Goodwin/Stone Building. Museum of Modern Art, New York.

**Through August 31**  
In Search of An Urban Oasis: Exploring Midtown's Open Spaces. Municipal Art Society, New York.

**Through September 30**  
Parks and Gardens. Pompidou Center, Paris.

**July 14–September 18**  
French Avant-garde Architecture. Chicago Art Institute.

**August 3–26**  
Disrupting Domesticity. Contemporary Realist Gallery, San Francisco.

## Competitions

**July 30**  
Entry deadline, Home Renovation Awards. Contact National Trust for Historic Preservation, 1785 Massachusetts Avenue, NW, Washington, D.C. 20036.

**July 31**  
Preliminary entry deadline, Building and Social Housing Foundation Habitat Awards. Contact Diane Diacon, Building and Social Housing Foundation, Memorial Square, Coalville, Leicestershire, England LE6 4EU, UK (0530) 510444.

**July 31**  
Submission deadline, Precast/Prestressed Concrete Institute 1989 Design Awards Competition. Contact Brian D. Goodmiller, 175 West Jackson Blvd., Chicago, Ill. 60604.

**August 1**  
Submission deadline, The Visual Chronicle. Contact Metropolitan Arts Commission, 1120 SW 5th Avenue, Rm. 1023, Portland, Ore. 97204-1983.

**August 31**  
Entry deadline, A Moment in Building Photography Competition. Contact National Building Museum, Pension Building, Judiciary Square, N.W., Washington, D.C. 20001.

**September 20**  
Entry deadline, Shinkenchiku Residential Competition 1989. Contact Shinkenchiku-sha Co., Ltd., 2-31-2 Yushima, Bunkyo-ku, Tokyo 113, Japan.

## Conferences

**July 11–14**  
CADD Futures '89, Harvard Graduate School of Design and MIT School of Architecture. Contact Special Programs Office, Harvard University, GSD, 48 Quincy Street, Cambridge, Mass. 02138 (607) 495-4004.

**July 26–30**  
Assessing Wright's Legacy: The Myth and the Reality of Frank Lloyd Wright, Domino's Farms, Ann Arbor, Mich. Contact University of Mich. Conferences & Institutes, 200 Hill Street, Ann Arbor, Mich. 48104-3297 (313) 764-5305.

**July 27–29**  
Stanford Conference On Design, Stanford University. Contact Beverly Smith, Bowman Alumni House, Stanford, Calif. 94305-4005 (415) 723-2027.

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Siggraph '89, Conference on Computer Graphics and Interactive Techniques, Boston. Contact Smith, Bucklin and Associates, Inc., 111 East Wacker Drive, Suite 600, Chicago, Ill. 60601 (312) 644-6610.

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Industrial Designers Society of America convention: Designing the 90s, Marriott City Center, Minneapolis. Contact Celia Weinstein, IDSA, 1142-E Walker Road, Great Falls, Va. 22066 (703) 759-0100.

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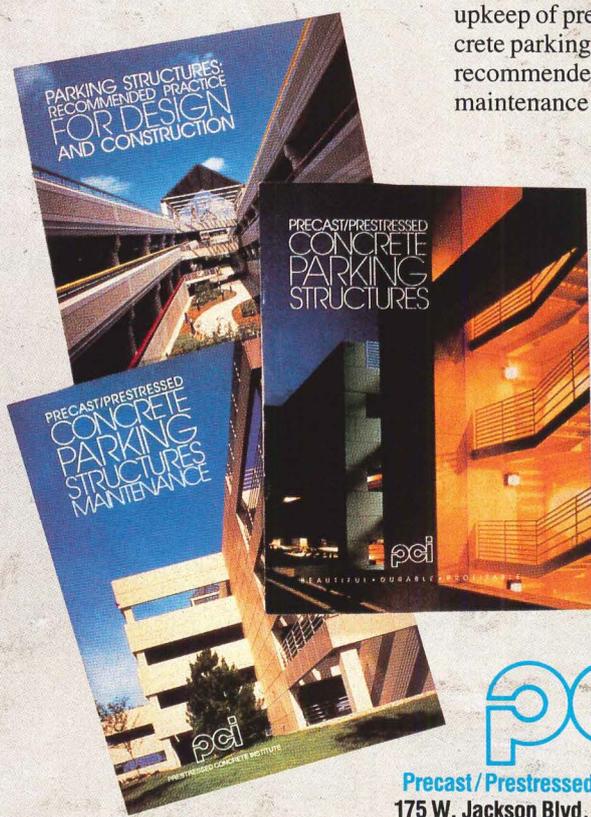
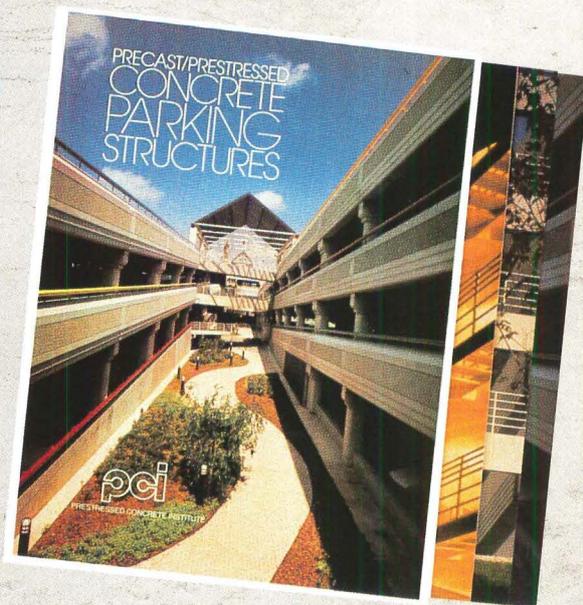
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**Specifications:** Walter Rosenfeld suggests ways of reducing the size of project manuals.

**Law:** Robert Greenstreet discusses the history and status of the code of ethics.

## Specifications: Thinking Thin

Everyone talks about how thick project manuals are getting to be these days but not many are taking steps to do anything about it. The old-timer's cynical remarks about bidders weighing the specifications when calculating the cost of construction may be an exaggeration, but an unnecessarily long document benefits no one (except perhaps the printer) and least of all the owner, who has to pay for it.

Many things can be done to slim down this megabook. Some are suggested below. Having them in mind when preparing contract documents is the first step in a needed diet program for overweight project manuals.

To begin with, don't do things in the specifications that should be done on the drawings (see CSI Manual of Practice chapter MP-II-3, "Coordination of Drawings and Project Manual"). Graphic methods are far better than words for describing construction details, sizing field-assembled components, indicating quantities, locating materials and showing their relationship, and providing schedules.

Also don't do things you don't have to do. Avoid frequent references to "the contractor" (or worse, "the sub-contractor") by using the imperative or command mode. Say "Paint all metal frames" rather than "The Contractor shall paint all metal frames." Use the name of the standard-setting organization once, in Part One of the section, and thereafter refer to it by its well-known initials or acronym (ASTM, ANSI, etc.). In reviewing supplementary general conditions, try to avoid quoting statutes extensively where they're not needed. Statutes are readily available, can be included by reference if necessary, and are generally familiar to prospective bidders on public work. And there is no need to repeat any items if the documents are well-organized. That alone saves space.

(continued on page 44)

## Law: Architectural Ethics

It is over ten years now since the much-publicized Mardirosian case brought about the demise of the AIA's Standards of Ethical Practice and raised issues that some believe went to the heart of professionalism in architectural practice. As we prepare to enter the 1990s, it may be useful to review recent developments in the profession's ethical standards to see how attitudes have changed in the face of pressures from both the judiciary and the membership itself.

### Codes of Conduct

A distinguishing feature of most professions is their voluntary adoption of codes of conduct. By providing specific guidelines for behavior, codes of conduct establish minimum standards of performance that determine the actions of individual professionals in relation to their clients, their colleagues, and ultimately the public they serve. Such codes are usually developed through consensus and are particularly important to a profession such as architecture, which is more susceptible to the pressures of commercialism than professions dealing with such intangibles as health and rights.

Codes of conduct are established at two levels—by individual states, each of which maintains a licensing statute, and by the American Institute of Architects. Although they cover some of the same areas, state requirements are specifically concerned with competence and the protection of public health, safety, and welfare, while the AIA Codes delve further into professional behavior (and are, of course, only applicable to architects who are AIA members). Thus, the early AIA codes generally covered issues usually found in state codes, such as competence, plan stamping, and unauthorized practice, but also provided, among other things, regulations dealing with competitiveness and client solicitation.

(continued on page 46)

## Practice Points

What does the construction industry have in common with the legal profession? Lawyers, according to a recent article in ENR. Over the last four years, membership in the American Bar Association's Forum Committee on the Construction Industry has nearly doubled and now exceeds 4000. Simultaneously, the American Arbitration Association reports ten percent increases over each of the last few years in the number of construction-related cases it handles. Design firms must now select the right lawyer for a job as well as the appropriate solution.

Shrinking labor pools may affect the building industry in three significant ways, predicts M. Leanne Lachman in *Urban Land*, the newsletter of the Urban Land Institute. "Wages for building construction and maintenance will rise; office demand will decline [as employees disappear from the work force]; and extensive amenities around the workplace—transportation, daycare, shopping, and recreational facilities—will be essential in retaining employees."

Construction safety legislation, aimed at creating an agency devoted solely to construction safety, stalemated when the labor-management consensus formed to support the bill fell apart as the final draft took shape, reports ENR. Opponents are skeptical that the bill, even with its goal to improve on-site enforcement, would effectively reduce construction fatalities. Supporters, on the other hand, agree that significant concessions have been made. Further action is expected this fall.

Kentucky, Nebraska, Mississippi, and Wisconsin top the list of states that are most restrictive toward foreign companies buying U.S. real estate, according to *High-Points*, a biannual newsletter. New York, Massachusetts, California, and Hawaii have the fewest, if any, regulations. The approximate amount of foreign investment in the U.S. is \$1.5 trillion.

**Specifications** (continued from page 43)

Setting up the Table of Contents also offers an opportunity to condense some parts of the book. There are no criminal penalties for being creative with the CSI Masterformat (the 1988 edition is the latest) even while adhering to its guidelines. It often makes sense to use a broadscope approach combining several smaller sections that have a few related materials in each (example: Built-up roofing and sheet metal flashing). This way you can eliminate repeating general information several times without limiting descriptions of materials or their installation.

While Masterformat does not

indicate them in every case, it is also possible to write omnibus sections like Site Improvements (02800) to specify limited amounts of paving and perhaps a bench or two; or Miscellaneous Specialties (10000) to describe a group of unrelated manufactured items the general contractor can purchase off the shelf. Carrying this thinking further, you might even include the one wood door on a small project in the Carpentry Section or the few pre-cast lintels in the Masonry Section to avoid slicing the work up too finely. Fewer sections mean fewer pages.

And while advising the designer or job captain, you might

remind them that the number of different materials and processes required for the work directly affects the size and complexity of the project manual. Fewer materials mean smaller manuals.

A really important step in the direction of size reduction is to think sequentially rather than hierarchically when preparing sections, so that space-wasting sub-indentations are reduced in number or eliminated entirely. It's not very difficult to break down major subjects into shorter paragraphs for equally important items. Typical paragraph headings for Part 2 of a Masonry Section should be "Brick," "Concrete Block," and "Reinforcing"

rather than the more global "Masonry Materials" which includes it all and requires indented sub-paragraphs.

Another area for physical economy is the page format itself. While it's desirable to identify the project on each page (in case you later find a page on the floor, you'll know where it belongs), you don't need to take two lines to do it. Nor do you necessarily need two lines at the bottom of the page to identify the section subject and page number. Two extra lines on each of 400 pages, assuming 60 lines per page, adds 13 non-essential pages to the book.

Try to use the whole page, leaving reasonable margins for binding and appearance. Don't be afraid of "widow lines" at the bottom of the page: They only indicate that there's more to come. And watch out for that "odd-numbered page with only 'End of Section' on it at the top." That's two essentially blank pages you've added. "End of Section" can even be omitted if your Table of Contents indicates the number of pages in each section, as it should.

Printing on both sides of the page, now quite routine with the sophisticated copiers currently available, is a major aspect of size reduction. Each section should begin on the right-hand (odd-numbered) page so that the book can be taken apart by the contractor and distributed to subcontractors or suppliers when necessary. (Addenda should only be printed on one side so they can be cut up and pasted in the appropriate places in the manual.) A further potential space-saver is to use 12 pitch type instead of the common (and more easily-read) 10 pitch. The difference is almost 20 percent of the whole.

Doing all these things will substantially reduce the size of the project manual. Any combination of them will still make a big dent in the bulk of it. But there is one more area where significant decreases can be achieved. If the specifier carries out all these suggestions but does not enforce them on the consultants, a large loophole will still exist. Consultants' specifications can be 40 percent or more of the book, and work needs to be done to reduce that bulk as well. Coordinating consultants' work is difficult enough in general. Coordinating their specifications has often required heroic effort by specifiers, given the time constraints usually present and the variety of participants.

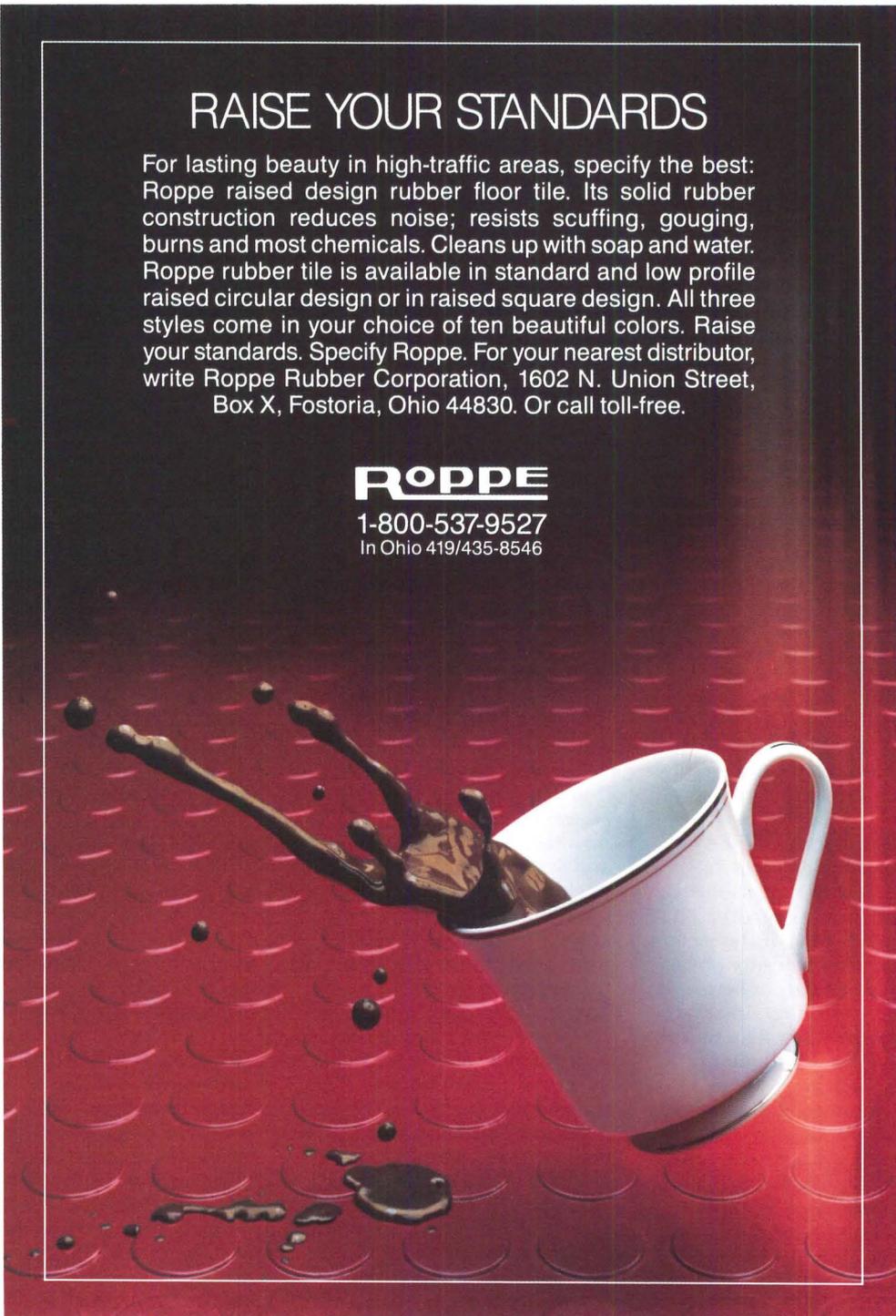
(continued on page 46)

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**Specifications** (continued from page 44)

It's clearly much more important to the project to have the specifications complete, accurate, and well-coordinated than to have them neat, attractive, short, or thin. Yet controlling production of the project manual as well as its contents is generally part of the specifier's job, and conciseness is a virtue not to be neglected in producing professional work. We know we can't control the weather we talk about, but we should be able to control the project manuals we produce. **Walter Rosenfeld**

*The author is an architect and specifications consultant in Newton, Mass.*

**Law** (continued from page 43)

**The AIA Codes**

Although the AIA itself was formed in 1857, it did not develop its first ethics codes until 1909 when it approved, after considerable discussion, the "Circular of Advice Relative to Principles of Professional Practice and the Canons of Ethics" at its annual convention that year. This document proclaimed that "Advertising tends to lower the dignity of the profession," although it was the ethics of competitions rather than advertising which held the profession's attention that year, self-promotion being considered more "an exhibition of bad taste rather than

bad morals." Interest grew rapidly though, and the codes were revised regularly, with the issue of advertising generating numerous and often violently conflicting discussions. In 1918, the canon preventing advertising was dropped after a particularly fierce debate but was successfully reinstated in 1927, when the Principles and Canons of former years were forged into "Principles of Professional Practice." By 1945, the rules stiffened considerably as high-minded proponents of advertising-free practice successfully persuaded their colleagues that restrictive codes were an essential component of a respectable profession. These

codes stated unequivocally that "An Architect will not indulge in false publicity," and formed the basis for requirements that remained in place until 1978. By that time, the codes were very explicit in outlining what an architect could or could not do, particularly with regard to advertising and work solicitation. Standards of Ethical Practice (J330) established a number of canons that set forth obligations to the public, to the client, and to the profession. They collectively codified a professional ethos that was intended to separate the architect from the more pragmatic attitudes and actions of the marketplace.

Unfortunately, the codes were seen as an unlawful restraint of competition according to a 1975 consent decree signed by the U.S. Justice Department. This led to the Mardirosian case, where a Washington architect who had been suspended by the AIA successfully challenged the supplanting clause, claiming that it violated the Sherman Anti-Trust Act. The mandatory codes were promptly abandoned and were replaced in 1980 with a set of purely voluntary guidelines, "Ethical Principles" (6J400). Advertising was always the most common infraction of the old rules, so the lure of unrestricted opportunities led some firms to dabble in full-page ads and promotional exercises that drew reactions from their colleagues ranging from mild bemusement to high dudgeon.

**The New Code of Ethics**

The broad and rather vague contents of the Ethical Principles were felt by many not to give members adequate direction, so after three years of careful preparation, the AIA published a new document "Codes of Ethics and Professional Conduct" in 1987 that was intended to provide more specific guidelines without violating federal law. The document is divided into Canons—broad principles of conduct, Ethical Standards—specific goals towards which members should aspire, and mandatory Rules of Conduct, transgression of which can lead to disciplinary action by the AIA's National Judicial Council. This body interprets and enforces the code, although it does not become involved in fee disputes or cases of client dissatisfaction with a member. It has, however, issued two advisory opinions which have been nationally distributed to AIA Chapters to provide some guidance

(continued on page 48)

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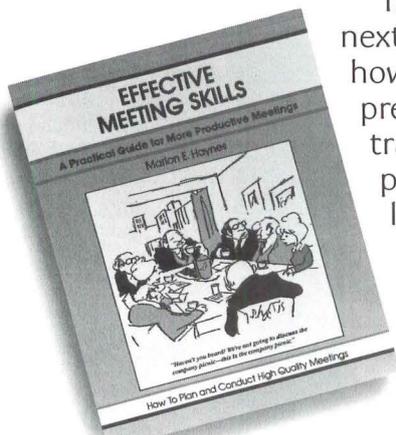
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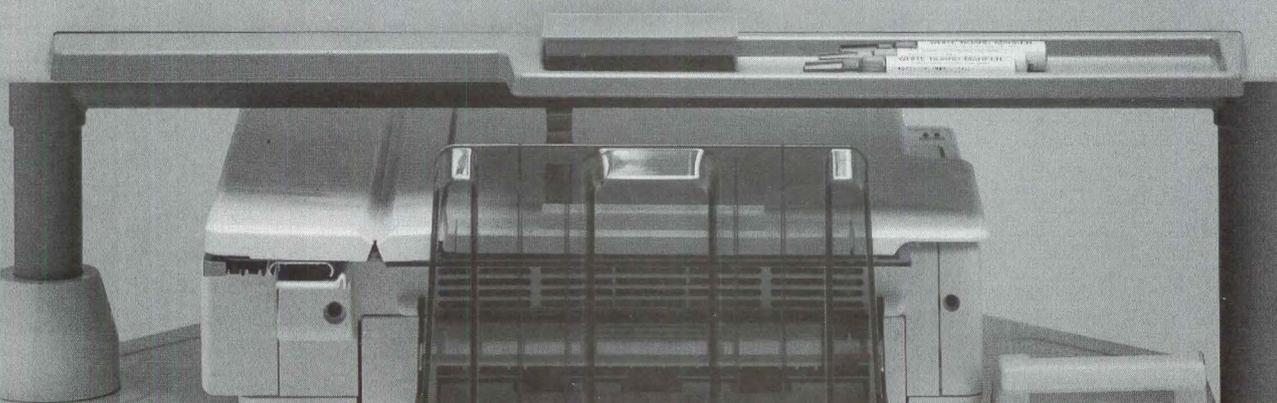
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**Law** (continued from page 46) on ethical issues. The AIA has also published a booklet that provides advice on anti-trust legislation. However, while establishing some much needed guidance, the code by necessity avoids any restrictions on practice behavior.

**Is There an Ethics Problem?** While the new code raises some problems with regard to its implications for competence and how that relates to liability, it still ensures that architects' attitudes towards advertising and job selection remain a personal matter. Given the pressures of commercialism, have members

stepped over the boundaries of behavior established in former codes and threatened the notion of professionalism?

Many members of the profession think so. The P/A Reader Poll on Ethics (Feb. 1988, pp. 15-19) indicated a general concern about abuses. However, no clear cut agreement on correct ethical behavior emerged, except in obvious areas like public safety, the unauthorized stamping of drawings, the embellishment of credentials, and the padding of bills—all of which are covered under the new code and suggest problems of enforcement, not omission. Interestingly, concerns expressed

by older architects diverged from those forwarded by younger members. The latter perceived a greater amount of unethical behavior and focused, not surprisingly, on low pay for recent graduates and false promises of advancement as areas of greatest concern. Older practitioners for their part felt that moonlighting was a problem, although the notion of accepting gifts from contractors—forbidden under the old rules—seemed to be relatively acceptable to both age groups.

The profession was split on the issues of advertising and solicitation of work from a client who has already agreed to work

with another architect. Younger practitioners distinguished themselves by, on the one hand, disapproving of advertising more than their older counterparts, but being more receptive to the idea of competition in client solicitations. In both instances, though, respondents did not collectively express strong objection to either area as a major breach of ethics.

This indicates a softening of professional attitudes, suggesting that the restrictions formerly maintained on advertising and client solicitation are outdated and inappropriate. Certainly, such arguments have been made since codes first appeared.

Alternatively, the codes may not have been really necessary. While the flurry of advertising which came out in the wake of the Mardirosian case caused a stir, it was a fairly shortlived phenomenon, and most ads seen these days are mild in content and limited in distribution. Many architects have become aware that "big bang" advertising is not the most cost effective way to secure commissions. There also have been few problems with supplanting in recent years. While some complaints have been made to the AIA, the considerable practical problems associated with taking over another architect's work—liability, copyright, the need for hold-harmless clauses, etc.—seem to have obviated the need for code restrictions.

Not that ethical problems do not exist or that the new 1987 code is perfect. Approximately 78 percent of the respondents to the P/A Reader Poll believe that the current code is still insufficient to maintain necessary standards of ethical behavior notwithstanding any substantial evidence of major problems in the profession. This may indicate a desire among architects for greater restrictions or clear-cut boundaries to professional behavior. Or it may reflect a fear of too much unrestrained competition or simply a desire to see high personal standards implemented throughout the profession. Whatever the reason, it is unlikely that debate over ethics has ended. Regardless of legal and economic pressures, the appropriate ethical behavior of architects has been a topic of lively discussion and will inevitably surface again.

**Robert Greenstreet**

*The author is an Associate Professor at the School of Architecture and Urban Planning at the University of Wisconsin-Milwaukee and Chair of the Department of Architecture.*

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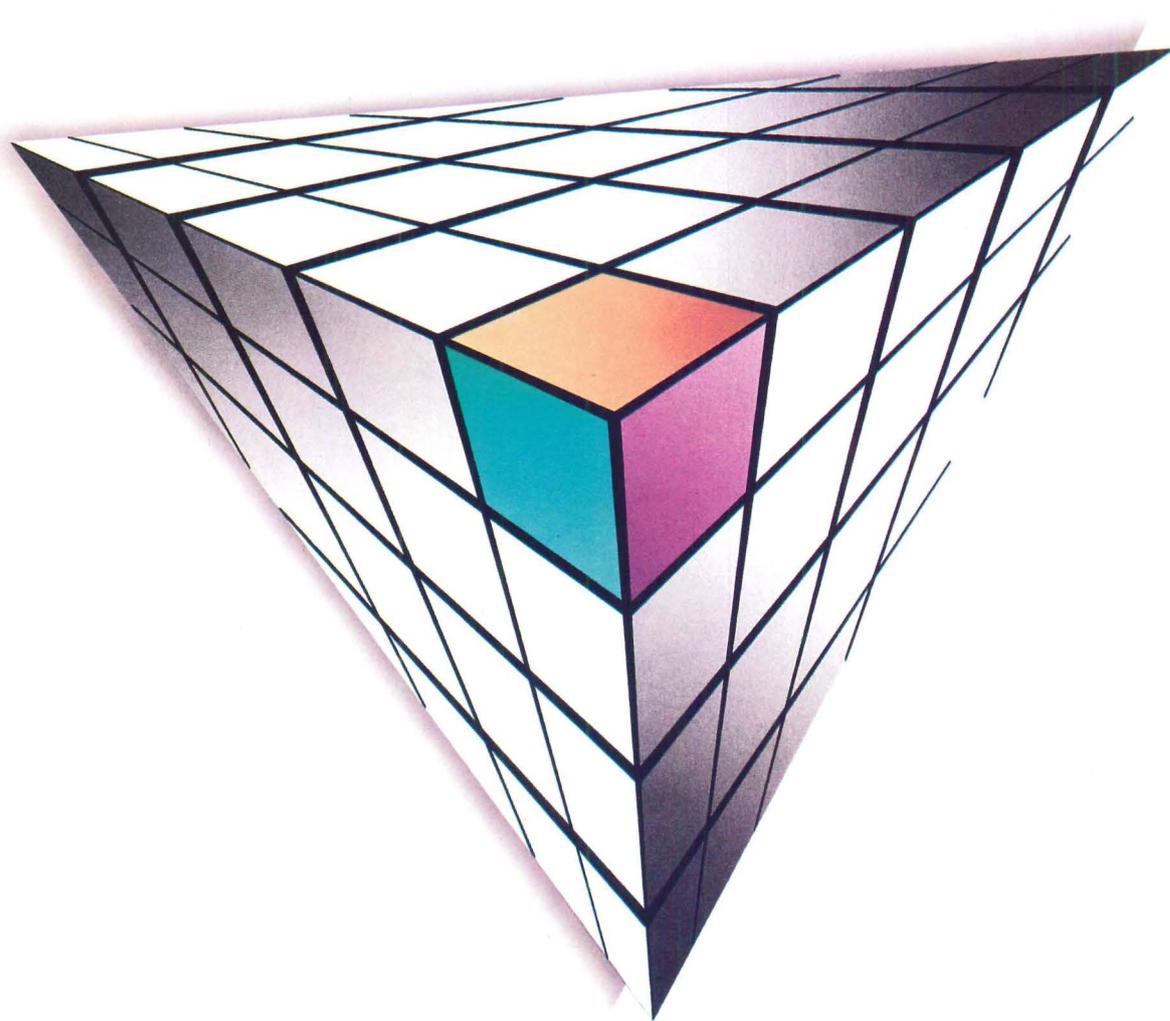


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ponents, with roots leading back  
nd man's recorded history,  
ugh numerous civilizations and  
res. Built on this ancient founda-  
tile has been in a state of con-  
evolution from those early years  
ugh today.



Detail of the pavement tiles (1524) from the church of Sant'Angelo at Deruta, later transferred to the church of San Francisco there.

far back as the ancient record can be ascertained, Oriental houses were  
vened aesthetically by glazed bricks or tiles. It is thought that the first colored  
zies were produced by the Egyptians and incorporated with various colors of  
yas inlays on the surface of clay bricks. This form is said to have been fully  
veloped by 1410 B.C. Glazed tile-relief panels in Babylon have been linked to  
scendants of the Babylonians and Assyrians, the Sumerians, who had  
nced into ceramics well ahead of 2000 B.C.

China, recognized as a major center of ceramics, saw the production of the  
st glazed stoneware during the Shang-Yin dynasty (1523–1028 B.C.).  
sian and Turkish tiles, influenced by the Orient, produced some spectacular  
hitectural effects, and throughout history, similar advances took place in  
land, France, Germany, the Netherlands, Switzerland, Spain, and Portugal.  
Italy, the art and the craft met and joined forces in the Middle Ages, linking

an age-old technology with the historic love Italians have for art and design.  
Italy's earliest tiles embodied the humanistic learning artisans sought to ex-  
press, and a proliferation of symbolic allusions in their work include a stunning  
array of mythical and lyrical references, expressions of love, and fanciful render-  
ings of thoughts of the eras. While the Italian tiles were often used as decorative  
accents, the most extensive use in early times was for paving. As craft guilds  
began to form, the ceramic painters maintained the equal footing with great  
artists in other fields that had been theirs from the beginning. Influence from  
closer trade ties to China and Spain, as well as artistic developments of the  
Renaissance, infused Italian tile with newly expanded inspiration. A heritage  
that already produced striking tiles was enriched further, multiplying the artisans'  
inspiration and aspirations. Italian tile as an art form was well on its way.

## A Tile Road



Tiles from the "Elegraph" collection by Rex Ceramiche, 17" x 17", designed by Nicola Trussardi, are available in Linen, Malaga, Ebony, and Dust colors.

Italian tilemakers have not lost their love for the art as the centuries have passed. The path from occasional ornamental use to paving, to whole walls, ceilings, and other surfaces has been a continuing adventure for them. From the grander applications in churches and palaces, tile gradually found its way into household use, beginning with, and still preeminent in, baths and kitchens. Many of the early home uses were utilitarian, and while beauty wasn't overlooked, it was often secondary in importance to function. But an evolving demand for greater and greater decorative appeal has kept the Italian love of, and sense for, the finest in design at the forefront of tile's stylistic advances worldwide.

Function, however, has not taken a back seat, even though tiles are now available in a staggering array of design choices. While tile has always been known for its abilities to repel moisture, sunlight, stains, and heat, the technology

of the tile industry has grown, improving both the physical characteristics of the tile itself and the methods available for its installation. Because different types of tile have varied capabilities, selection of the appropriate tile for each application is important. Designers need to take into account the temperature range in which each type of tile will be exposed, as well as the wear or surface requirements for each area involved.

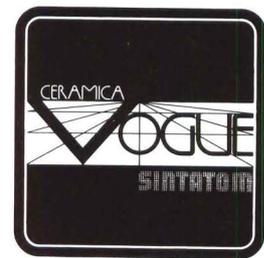
Abrasion resistance is an important factor in heavily-used floor areas, for instance, as is the need for a non-slip surface. Epoxy and silicone grouts in a range of colors can eliminate mildew and staining problems, and new methods are available to cut installation time appreciably. For architects or designers who select the appropriate tile for each application, therefore, it is essential that they match the characteristics of the product with the functional requirements of each installation.



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In the 1940s, -50s, and even -60s, America's primary location for ceramic tile was in the residential bathroom, followed at some distance by uses in the kitchen. Those areas are still appropriately strong; but along with the rest of the world, the U.S. is expanding its view of tile. Precisely because of its long-established list of lasting values and its continuing development into expressions and capabilities untapped before now, tile is catching the imagination of design professionals for uses far beyond the "wet" areas of the home. Specific strength and performance statistics appeal to the pragmatic technical mind, while the design opportunities challenge the design elements in architecture and design. It is hard to imagine any field that could give those professions a broader range of design and functional choices than ceramic tile. And the acknowledged leader on both of those fronts is Italy.

Despite their historically conservative ventures into some forms of expres-

sion, American designers have always had an admiration for the Italian sense of aesthetics, their free approach to the creative process in any form. Our reawakening of the acceptability of ornament in design, coupled with our developing awareness of life-cycle cost analysis, make the the range of tile products appealing in a whole new perspective; the material has long been known to add permanent value to any property, and now it is seen as a more active participant in the aesthetic of the project.

With an 18 percent rise in the use of tile in America since the last recession, our consumption has risen to 4 square feet per capita. Since ceramic tile continues to increase in competitive value as the cost of petroleum-based materials rises, America is seen by analysts as one of the largest untapped markets in the world. Bathroom spaces are still responding in tile, but with new vigor, and now whole building exteriors are finding their expression in ceramic tile.



Because of its well-known endurance capabilities, tile can be used in many diverse ways; as a design element, it can beautify alone, or function as a definition for distinct areas.

Italian tile producers, aware of the U.S. market and its needs, have geared to provide high level service, assure availability, and offer a wide choice of products to American architects and designers. It is obvious that a country that has a long history of tile usage, one that now applies more than 35 square feet per capita at home, will be more than capable of providing its knowledge and spirit to American designs. The manufacturers are informed about preferences unique to the U.S. design professions and are responding to tastes and requests from that community. They are using the talents of recognized designers—architects Ettore Sottsass and Ugo La Pietra, and fashion designers Franco Ferré, Laura Biagiotti, and Enrico Coveri—side by side with knowledgeable market analysts to assure that American interests, both aesthetic and functional, are kept in focus. The Italian Tile Center, a division of the Italian Trade Commission, notes a

trend, confirmed by an ASID member survey, toward more remodeling of existing homes, especially in kitchen and bath areas. Spurred by the ever-rising cost of housing, these renovations not only allow homeowners to upgrade their lifestyle without changing homes or the parts of them that they find comfortable. But with such jobs come numerous challenging custom conditions. With size options ranging from the large 24" squares to the small 1/2" squares, it has never been easier to work around columns and odd shapes.

So tile again stars in baths and kitchens. But, as noted, there is more to tile than its original domestic roles. Because it is adaptable to virtually any surface, tile is being selected for elegant floors—both public and private, for countertops, for wall surfaces in entire rooms, and for soffits and ceilings. These applications know no boundaries, appearing in commercial as well as residential projects. Ceramic tile continues to keep pace with civilization, as it has for centuries.



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## A Symbiotic Evolution



In its historic stronghold, the bath, tile has taken on a much stronger design role; this environment was designed by Ivan Dolin and Debbie Habicht.

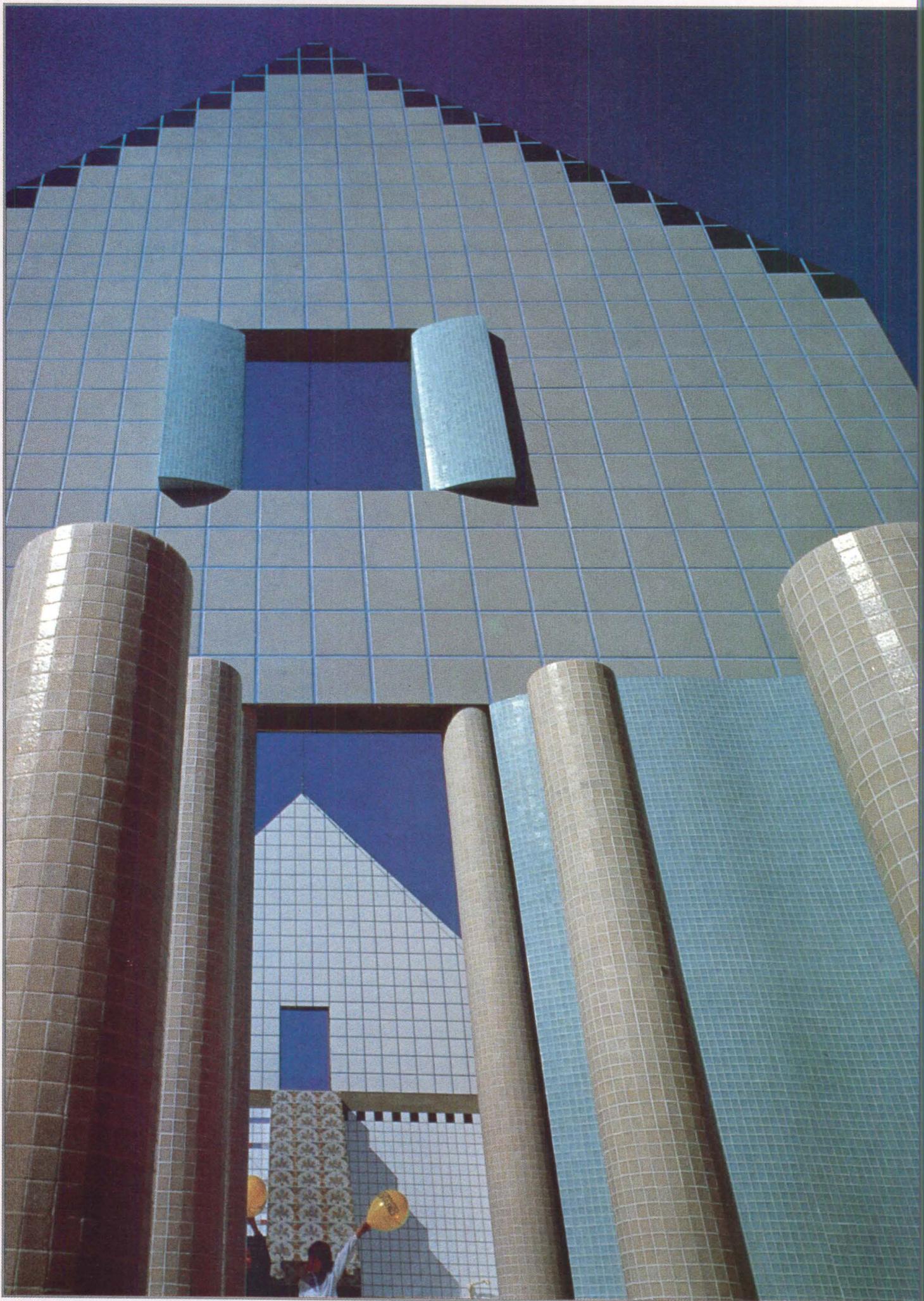
The old relationship between the art and the craft of tile has not been its market benefits. Italy today accounts for the production of approximately one third of the ceramic tile being made in the world, the product of some manufacturers. In 1988 alone, Italy produced over 4.30 billion square feet, exporting nearly 2.1 billion square feet. Germany and France absorbed 800 million square feet together, and the United States imported approximately 245.5 million—up some 148.5 million square feet from 1982. Over 50 percent of the tile entering the United States is from Italy.

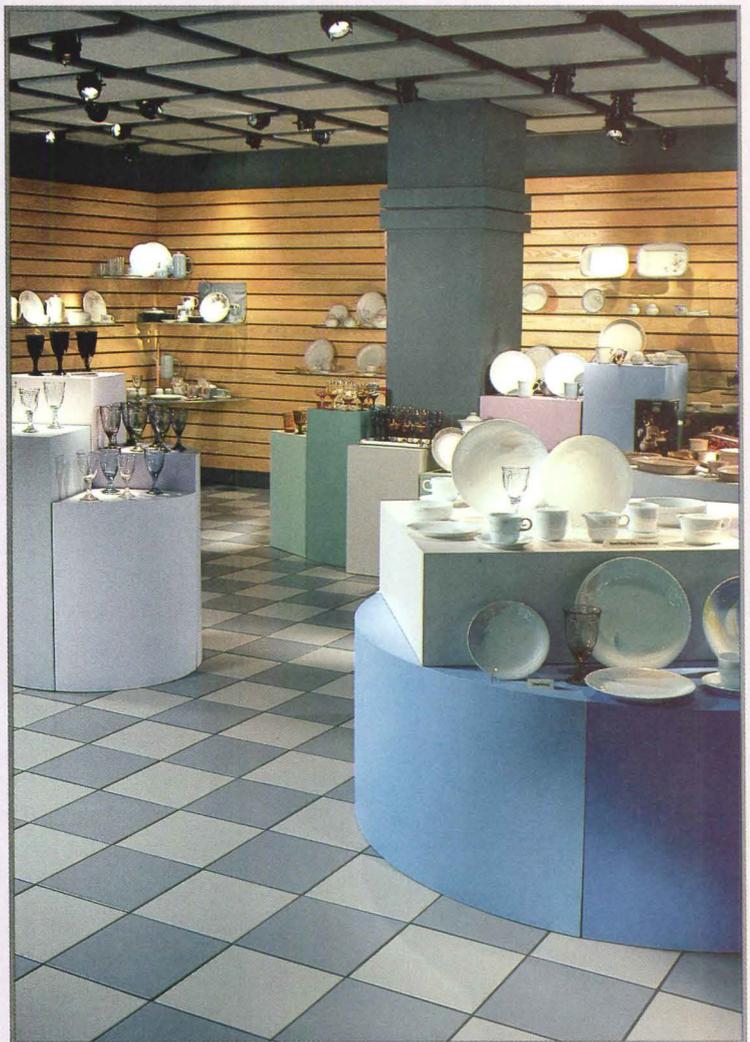
Recent events this year have been showcases for Italian tile. The Bologna Italian tile show, CERSAIE '88, and the recent 1989 World Tile Expo in Chicago gave architects and designers exciting views of the myriad new tile lines available. The Italian paving tile manufacturer, CerDomus, has integrated the warmth of handmade Mexican tile into their new line, "Baja," but has made a single-fired

machine-made product that is unscratchable, unchipable, and frostproof. A new line of Italian tile manufactured by CMC Monoceram, "Shop" combines certain crystalline components in its layer of glaze. This material gives the tile extreme hardness, high abrasion resistance, stain/acid resistance, and matte finish retention.

A broad range of tile sizes now makes possible custom design combinations that were never possible before. Virtually hundreds of shapes have shown up in tile showrooms. Curved corner pieces, corner-cut hexagonals and octagonals, and pencil-thin trim pieces have been added to increase the design options further.

The Italians typically have set the standards by which the industry worldwide has been measured, including the bold strokes that have been leading expressions in today's spaces. In the last year, Italy's ceramic tile producers have





"Raja" line by CerDomus (above, left) shows, tile is still welcome in the kitchen; but in the other examples above and at "Casa Aperta" (facing page), built for CERSAIE '88, it shows its versatility, both inside and out. "Casa Aperta" was sponsored jointly by Assopiastrelle (the Italian Association of Ceramic Tile Manufacturers) and the Mapei Foundation.

and the patterns and the colors, while offering a broader range of unusual variations. These options are geared around Classical allusion, an abundance of borders, tone-on-tone and three-dimensional statements, broader choices, and metallic and pearlized finishes.

reproductions are also popular. Italian tile manufacturer Rex Ceramiche is producing the "Le Materie" line, introducing a design reminiscent of veins of wood. Its "Materie Radiche" collection features 6" x 12" tiles in three colors, 2" listels in colors of hard stone with gold, silver, and copper finishes, and 1.5" mosaic "Tozzettini" on paper strips.

not as if bold geometrics and other options have disappeared from the scene, however. Manufacturers like Ceramografia Artigiana produces an extensive set of options in dots, edgings, strips, pencil edge trim, and insert windows, in a wide variety of colors and sizes (facing page, left). Manufacturer Ceramica

Vogue has produced a completely modular set of tile components that can be combined in an infinite variety of ways, without incurring extra custom costs. In their "Vogue 1927" collection, they offer a reflection of classic Greek and Roman elements, matched in colors by its "Interni" collection to invite further design exploration and solutions.

Of particular interest to design professionals was the more varied use of three-dimensional tiles, and the variety of gloss/matte tone-on-tone effects. The 3-D tiles offer high relief, with those incorporating deep folds in a gloss black or white finish eliciting the highest interest. Terra cotta, always a regarded floor material, was shown with new and cutout shapes and unusual border designs. Another new extremely durable floor tile line exhibits advanced technology that produces a glazed surface with pores, producing a tile that is as durable as polished granite. These tiles are also available in the new 24" x 24" size.

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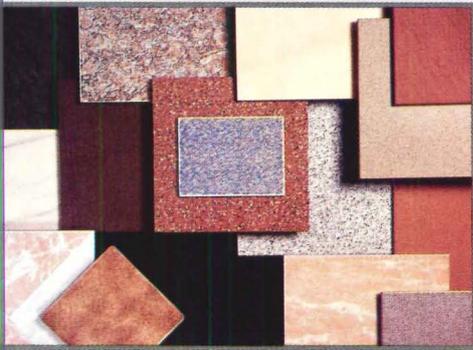


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## The Achiever



Each application of ceramic tile brings with it a unique set of functional requirements, it is important to note the guides available to the designer for the different kinds of tile. In Europe, tiles are divided into eight categories, according to their composition of raw materials. The European standards developed by the European Committee for Standardization, have been used as the working base for work being done on unifying world standards. A committee of the International Standards Organization (ISO), made up of the important tile-manufacturing countries including the U.S., Italy, Spain, France, and Germany, hopes to have their unified international standard ready in a few years.

Presently in the United States, the American National Standards Institute (ANSI) classifies tiles in three main groups based on their surface finish. ANSI tests glazed, unglazed, and special purpose tiles by the American Society for Testing and Materials (ASTM) test procedures, giving the designer realistic values for on-site performance comparisons. Numerous tests are performed to determine values to such characteristics as water absorption, freeze-thaw resistance, dimensional accuracy, strength, and many other qualities. Major Italian tile manufacturers marketing in the U.S. are in compliance with these standards. Ceramic tiles are manufactured in one of two ways—extrusion or dust pressing—and may be glazed or unglazed, double- or single-fired. Italian tiles are classified according to their composition and color characteristics; types that are unglazed include Cottoforte, Majolica, White-body Earthenware, and Monocottura, or single-fired. Cottoforte is most often used for decorated double-fired products, while in monocottura the glaze is applied before its only pass through the kilns. In the past 20 years, monocottura has been improved through the production of better and better glazes, and there are now “super-glazed” tiles with very hard surfaces, assuring superior glaze wear resistance. The firing process brings with it the obvious economy of requiring only one firing through the kiln.

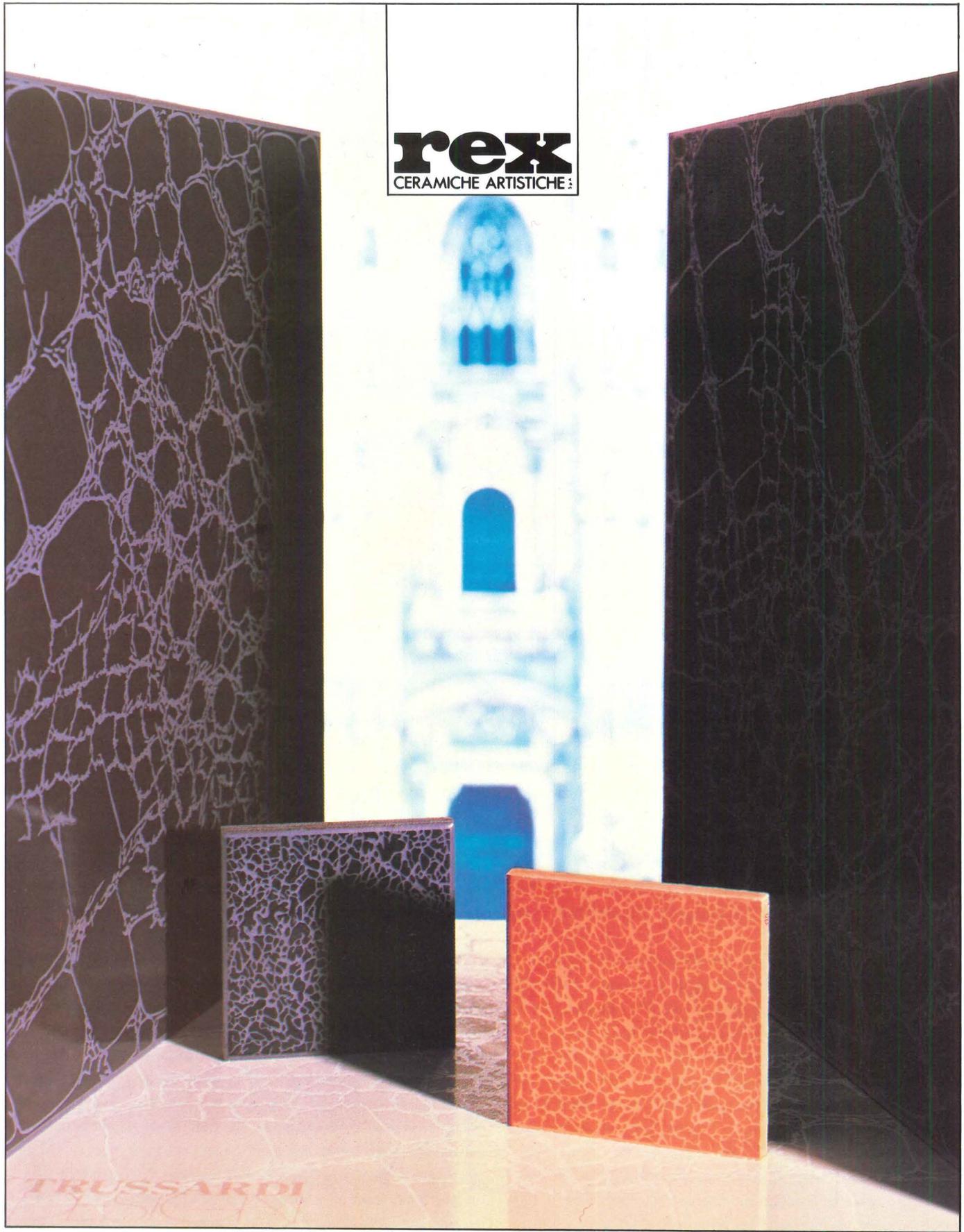
Types of tile that generally go unglazed include Clinker, Red Stoneware, the Terracotta, and Porcelain. Each type has its most common uses, and they can be colored by adding oxides to the bisque, or body material. Terracotta and porcelain are known since ancient times, and both can be produced

with a natural finish or highly polished. Porcelain can also be further treated by using oxides and by polishing the surface to bring out a deeper color. Porcelain tiles are composed of a non-porous bisque with high mechanical strength characteristics that can, for instance, be used for interior or exterior floors.

Tile installation has historically been by the thick-bed method ( $\frac{3}{4}$ " to  $1\frac{1}{4}$ " bed), to create a desired surface behind the tile. Now there are also medium-bed and thin-set ( $\frac{1}{32}$ " to  $\frac{1}{8}$ " bed) methods that progressively reduce weight, installation time and labor costs, resulting in greater economy. Each method requires its own application techniques and each has an appropriate role; the designer should be familiar with how, and when, each may be used.

Numerous mortars and bonding materials are available to suit functional requirements of each application. Portland cement is found in several types, including dry-set, latex-portland cement, and modified epoxy emulsion mortars. Still others do not use portland cement; these include epoxy mortar, epoxy adhesive, organic adhesive, and furan resin mortar. Chosen in conjunction with the choice of mortar, grout may also be either portland cement based or not. Those that are may require specific curing processes, but are less expensive. Non-portland cement based grouts, while sometimes higher in cost, may also have other qualities that allow them to resist stains, chemicals, mildews, or other agents. Most grouts are available in a wide range of colors.

Tile manufacturers have invested heavily in the development of their industry, and their expertise is available to all designers. For further information contact the Italian Tile Center, a division of the Italian Trade Commission, 499 Park Avenue, New York, NY 10022; Telephone: (212) 980-1500, Fax: (212) 758-1050.

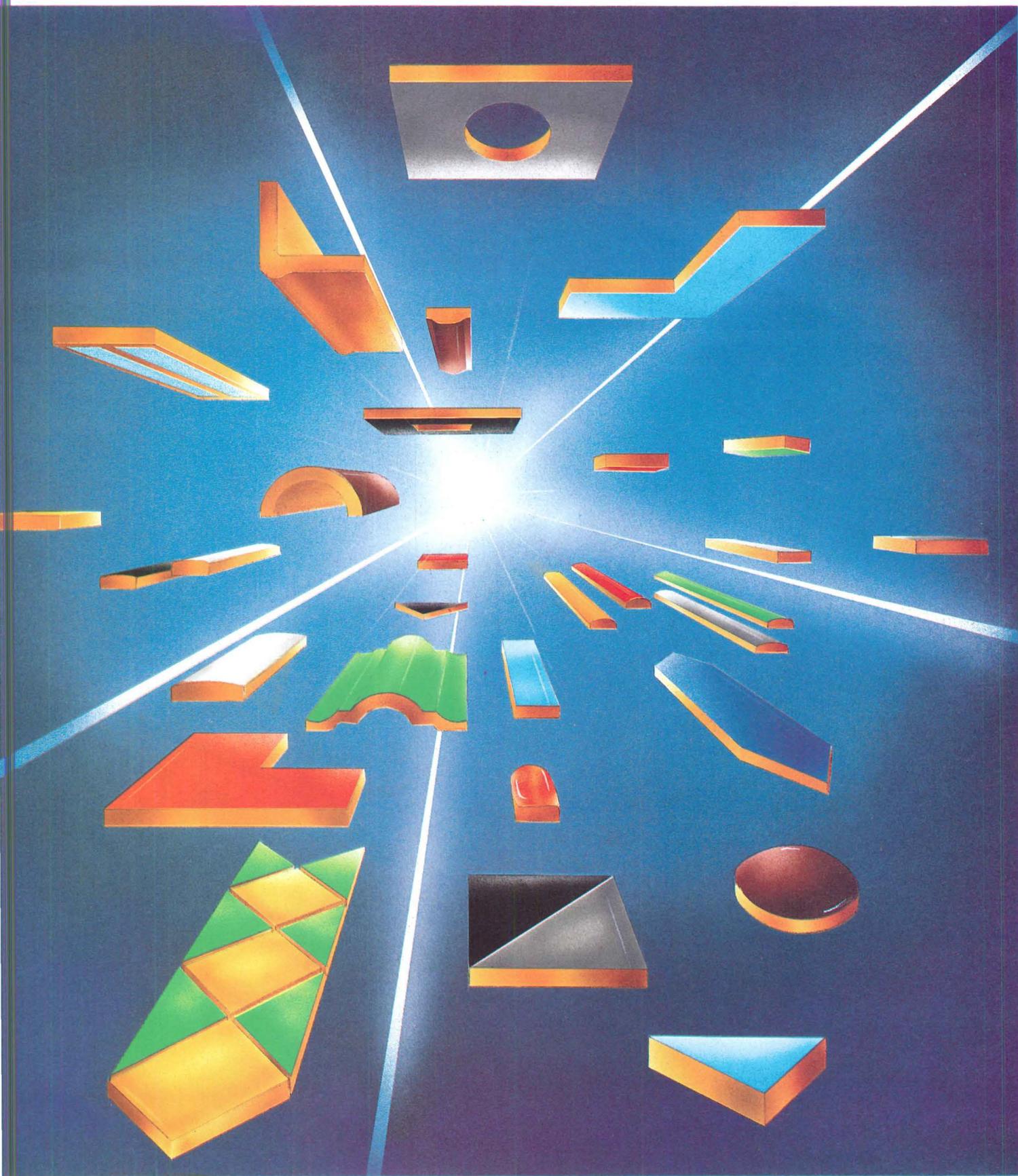


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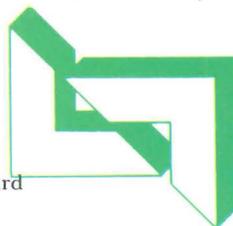
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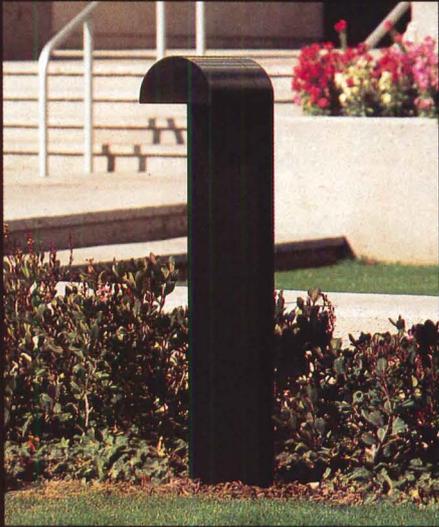
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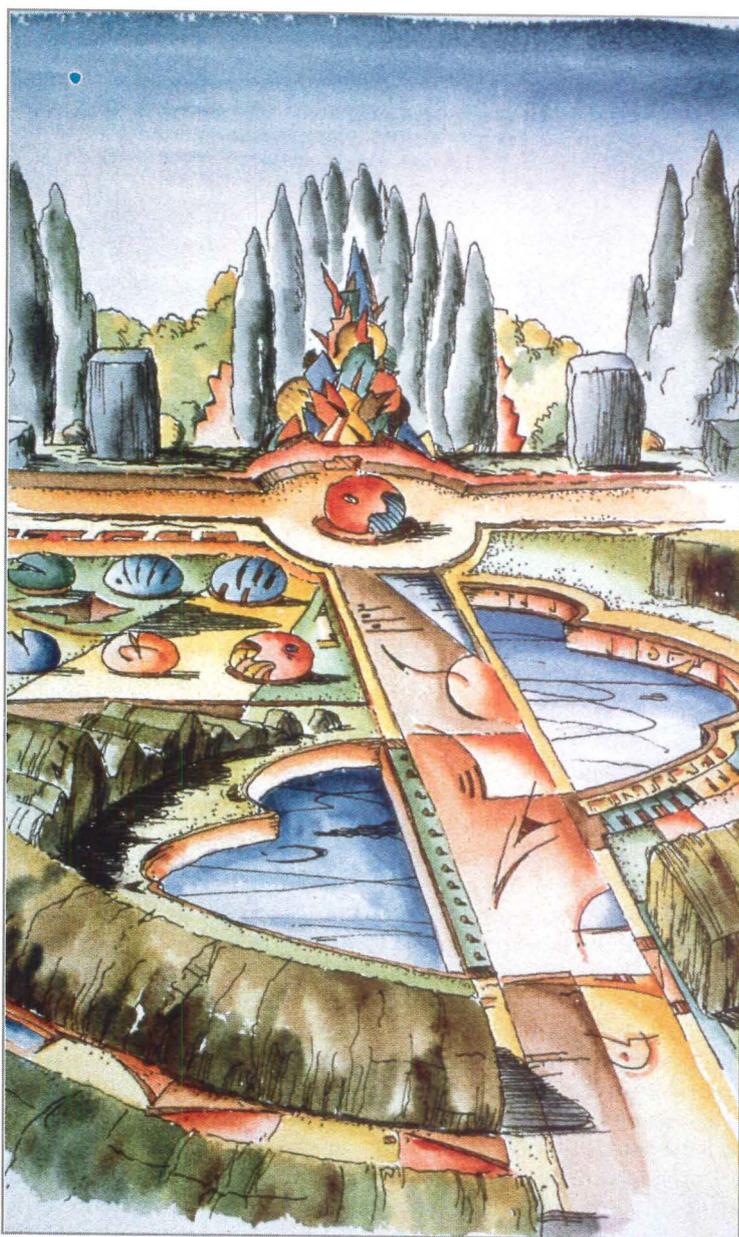
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# New American Landscape

**This special issue considers new directions in landscape architecture, from an environmental aesthetic evolving out of the ecology movement to a vision of landscape as art.**



**"The California landscape is so much like Italy," says landscape architect Chip Sullivan, whose watercolors of hypothetical "California Gardens" reflect French and Italian models. Sullivan also emulates the California gardens of Garrett Eckbo and Thomas Church, whose work in the 1940s incorporated Cubist ideas. "I get into arguments with Eckbo because I have axes in my gardens. They have a formal order to them, but it breaks apart," says Sullivan.**

Landscape architect Tori Thomas uses her farm in Clarke County, Virginia, as a laboratory for temporary landscape installations. When boxwoods in an existing allée developed a blight, Thomas spraypainted them prior to their removal, then added a “temple” constructed of leaves, wood, and chicken wire to terminate the axis. “People would ask, what is that plant? The design lets you get a fresh look at something very common and very old,” says Thomas.



Jacques Dirrand

THESE are heady times for landscape architecture. There is a sense of anticipation throughout that profession, in the schools and in the offices. It's not unlike the feeling that gripped architecture in the early days of Post-Modernism, before that movement even had its name. Change is afoot, and to the professionals caught up in that change, the possibilities seem endless.

“Landscape architecture as practiced in the United States in the late 20th Century can be defined in one's own terms,” proclaims Martha Schwartz of The Office of Peter Walker and Martha Schwartz in San Francisco, one of several landscape architecture firms profiled in this issue (page 56). “A lot of ground work has been laid in the last two decades in a number of areas—from environmental planning to computer graphics,” says Susan Frey, former editor of *Landscape Architecture* magazine and author of the profile on George Hargreaves in this issue. “These interests seemed at the time to fragment the field, widening the rift between the social and the artistic sides of landscape. But new work synthesizes these concerns,” she says.

This special issue of P/A, the first devoted entirely to landscape in nearly 15 years, seeks to document and explain new developments and to locate their origins. We do so not only in the desire to secure a better understanding of the internal dynamics of the field, but in the belief that the theoretical and aesthetic battles now being waged in landscape have dramatic relevance to architecture as well. As Diana Balmori, a landscape architect and partner in Cesar Pelli & Associates in New Haven, says, “Your ideas about architecture may be changed by your interaction with landscape architects.”

Just as Post-Modern architectural theory grew out of a critique of Modernism, so much current discussion in landscape centers on the past. Although this field never went through a Post-Modern revolution, Modernism comes in for heavy criticism. “I think landscape architecture had a hard time in the Modernist era,” says Michael

Van Valkenburgh whose firm, located in Cambridge, Massachusetts, is profiled in this issue (page 72). “The morphology and organicism of landscape architecture didn't fit comfortably with Modernism,” Peter Walker (page 56) agrees, writing “I feel that these gaps in landscape design can be explained by the failure of early European Modernism to maintain an on-going design effort in the landscape along with several other factors including “the tremendous market expansion that allowed the corporate offices to freeze their own stylistic efforts; and the environmental revolution's powerful preference for naturalistic imagery.” “The Bauhaus conspicuously left landscape architecture out altogether. They were clearly saying landscape is not an art,” says Balmori.

“But,” she goes on, “landscape did it to itself. Picturesque gardens were confused by the public at large with nature itself. The imitation of nature implied to the public that nature did it better.” It is, in fact, the picturesque style, imported to this country from England in the 19th Century, that forms this field's most troubling legacy. Landscape theorists are faced not only with the need to separate the “high art” of Frederick Law Olmsted from the suburban cul-de-sac and other debased imitations, but also with the need to clarify Olmsted's aesthetic as one that is in fact highly artificial, despite its naturalistic appearance. “Olmsted, himself an artist, used artifice as a major manipulation of the land to create his personal vision,” Schwartz told an audience at Rhode Island School of Design. “His landscapes were not natural, they were stylized and based upon the fantastic landscape of the English landscape painters. My guess is that he considered himself an artist and not a naturalist or environmentalist.” Try telling that, however, to a client who wants a “natural” landscape. “There's a gap now between what's being said and what's being done,” says Balmori. “In the minds of clients, the picturesque reigns. It will take time to produce an alternate image.”

**"We set to work with virtually no drawings," says Janis Hall of the landscape she designed for a 10-acre property in northwestern Connecticut that had been used as a gravel quarry. Hall, a New York architect and sculptor who often works in association with landscape architect A.E. Bye, spent seven weeks on site directing bulldozers in the shaping of gently undulating mounds that echo low mountains in the distance.**



The public preference for the picturesque is seen by Balmori, Schwartz, and others as something the profession brought upon itself; similarly the ecological movement and its detrimental consequences for design are also seen as a self-imposed problem. Proponents of an ecological theory of landscape architecture, such as Ian McHarg, author of the influential *Design with Nature*, and Ann Whiston Spirn, a McHarg student and author of *The Granite Garden*, crossed environmental science over aesthetics. Their preoccupation with the macrocosm, while admirable, made individual landscape commissions seem trivial and distracting. The theory of nature as process diminished the importance of product in landscape design. The so-called Penn School led by McHarg produced a generation of landscape graduates who did not build. "The profession got lost in the environmental movement and in trying to legitimize itself by trying to make it into science," Schwartz told RISD students. "They made the argument subliminally that ecology will give you the design," says Balmori. "But I don't believe that just because a landscape is ecologically sound, it is beautiful. They've done an enormous service but they've minimized design. Moreover, the ecological landscape is itself an aesthetic invention."

"They confused ecology with theology," says George Hargreaves, a landscape architect in San Francisco, whose work, however, comes closest to what might be termed an ecological or environmental aesthetic (page 68). As such, Hargreaves represents one of several new directions in the field of landscape architecture. "Rather than pretending nature and making things look like nature, the question is how do you make natural forces self-evident?" asks Hargreaves. Like many contemporary landscape designers, he acknowledges a debt to environmental artists such as Robert Smithson. "His work was more about nature than anything I'd seen in its expression of entropy, gravity, and erosion—all environmental processes," says Hargreaves

of Smithson. Hargreaves, too, seeks to exaggerate environmental effects, not in the pictorial sense of the picturesque but in a more immediate physical design that draws on all the senses. Thus, for example, the canal at Lakewood (page 70) "tells you about climate change through sound—when it rains, it's noisy; when it's dry, the lake is a mirror of the sky," says Hargreaves. Candlestick Park, a massive project for a former landfill site on San Francisco Bay designed by Hargreaves with artist Douglas Hollis and architect Mark Mack, is emphatically not an environmental park in the typical nature-trail mold "where you go from sign to sign reading, 'this is a bird; this is a tree,'" says Hargreaves. Instead, the design draws on the archaeology of the site, letting wind and water shape experience.

Although the work of Hargreaves is most visibly connected to environmentalism, the ecological movement has had a lasting impact on all landscape architects, even those whose work seems far removed. An awareness of the fragility of the environment animates much new work, not only in landscape architecture but in the related work of landscape painters. In the catalog of a small spring show at the Walker Art Center that considered the recent revival of romantic landscape painting, Peter Boswell wrote, "Historically, landscape has been viewed as a divine surrogate, an emblem either of the cosmic order we are part of or a mysterious and overwhelming force against which humanity is fundamentally helpless. In this view nature represents the eternal, that which will continue to exist long after the works of man have disappeared. In these paintings, however, there is an unsettling disjunction between man and nature; the latter often seems fragile and ephemeral rather than timeless."

This ephemeral reality is reflected in built landscape as well. The work of Michael Van Valkenburgh, for example, plays against seasonality. "The cycle of life can be emphasized in how we make gardens," says Van Valkenburgh. "Landscape design must accept

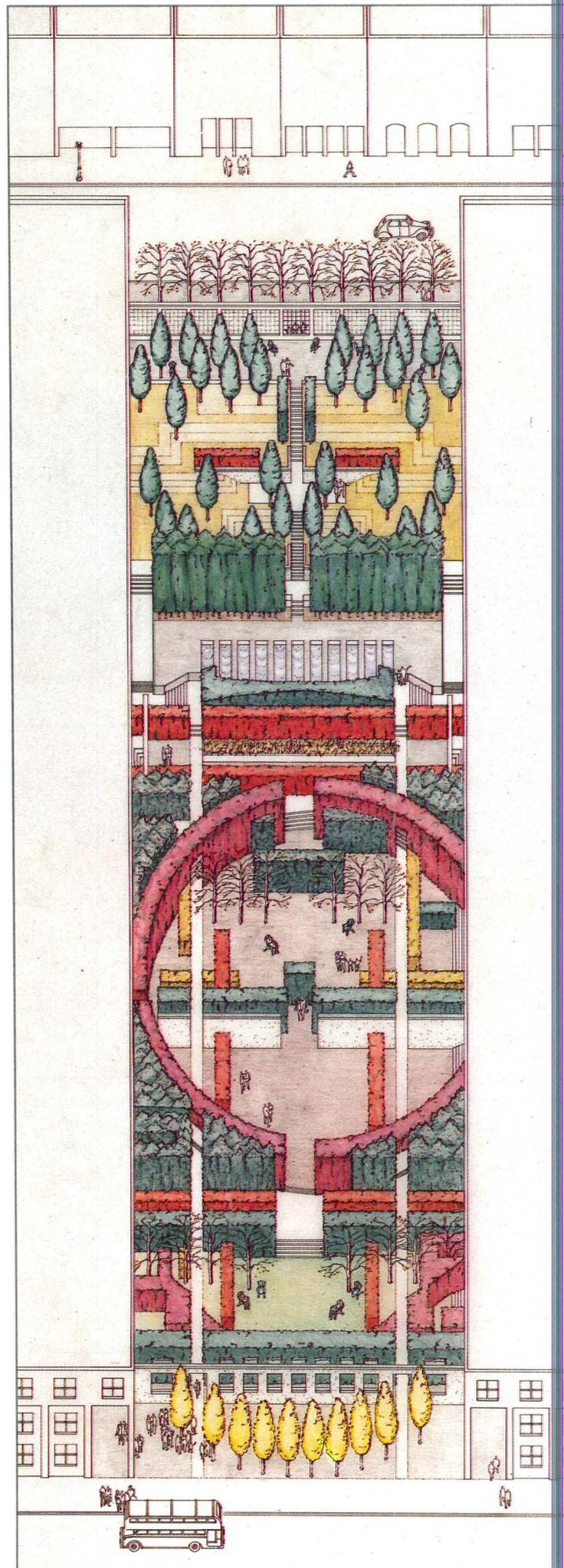
In *Eudoxia*, a hypothetical vestpocket park, landscape architect Michael Van Valkenburgh imagined a through-block site bounded by two three-story buildings, then designed a garden that clearly relates to contemporary models such as Paley Park in New York but incorporates more traditional garden elements, such as raised planting beds and hedges, the latter made possible through the use of growth retardants that reduce the normally high maintenance requirements of clipped shrubs.

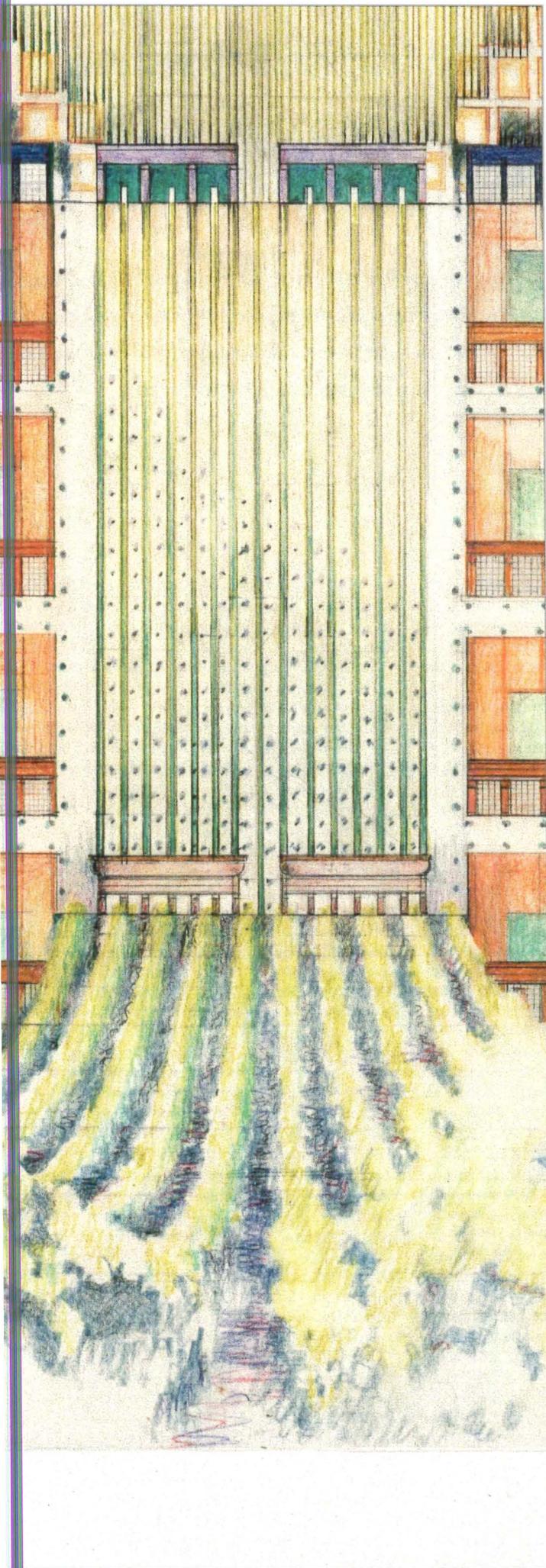
changes,” says Balmori. “Plants die. There will be holes. How will you fill them? It’s a matter of design over time.”

The very fact that landscapes take time had made the dissemination of new ideas in the field a slow process. The notion of “design over time” runs counter to the way we live in the late 20th Century. “My mother worked the same piece of ground for 25 years,” says Walker. “How can you make a garden for someone who’s going to move in three years?” The growing demand for low-maintenance (and often low-budget) “instant” gardens has led some landscape architects to use synthetic materials. Van Valkenburgh, for example, invented a new kind of high-tech topiary (*P/A*, March 1989, p. 123) that takes weeks, not years, to grow in. Schwartz, perhaps more than any other landscape architect, has investigated the potential for building synthetic landscapes. “I’m interested in gardens,” says Schwartz. “But there are situations where real gardens are impossible. At Whitehead (page 62), for example, there was no water access, no caretaker. So how do you convey a sense of garden?”

The very use of the word “garden” is itself likely to make some landscape architects uneasy. “There is an attitude among more righteous landscape architects, a piousness concerning what work is acceptable. To them, gardens just aren’t done,” says Van Valkenburgh. “If landscape architecture connects back to the history of gardens, it’s one of the richest of the arts. But the discipline has kept gardens at arm’s length,” says Balmori. “As a young man, I felt that the issue of functional use, the setting of architecture, and the transition and sensitivity to the general landscape were the key issues of our profession,” Walker has written. “Without denying the social utility of the above, over the last 15 years, I have come to feel that the garden as a work of art with its iconic and metaphoric possibilities is of paramount importance.”

It is the word “art,” even more than garden, that signifies the sea change in landscape architecture. “I’m seen as radical because I think landscape can be practiced as an art,” says Schwartz, who has articulated this art agenda in lectures, writings, and, perhaps most importantly, built work. “I’m not interested in setting buildings in a passive rural English landscape,” she states flatly. “My goal is to make the landscape visual.” Tori Thomas, a landscape architect who has transformed her farm into a laboratory of art-landscape installations (page 52), believes that landscape, even more than architecture, can draw from all the arts. “We have a very special opportunity, because of the flexibility of our materials, that we very seldom use. More than architecture, we have the possibility of relating to dance and theater. We can use wind and water,” says Thomas. Chip Sullivan and Barbara Stauffacher Solomon, the former a practicing landscape archi-





In her 1988 book *Green Architecture and the Agrarian Garden*, Barbara Stauffacher Solomon studies three types of landscape—formal, picturesque, and agrarian—through photographs, writings, and evocative colored pencil drawings. This illustration combines formal and agrarian models. “There is a familiar resemblance between the patterns of cultivation and urban plans,” Solomon writes. “This view proudly admits that landscapes, like buildings, are made by men.”

tect (page 51) and the latter an architectural designer (page 55), use art to promote separate theses about landscape drawn not from the picturesque tradition but from the rich history of French and Italian gardens—designs which, not coincidentally, are more overtly architectural in character.

Solomon’s collaboration with Van Valkenburgh for the conservatory at the Walker Art Center’s new sculpture garden (*P/A*, November 1988, pp. 102–107) exemplifies yet another significant trend in the field, that of collaboration between architects, landscape architects, and artists. “Landscape architecture is being seen as a vital component. It’s not just a case of ‘shrub it up,’” says Pamela Burton of Burton & Spitz, Santa Monica. Burton has collaborated with a number of architects, working for example with Morphosis on the Crawford residence (*P/A*, January 1989, p. 84). “We don’t really see there is a boundary between landscape architecture and architecture,” she says of her approach. “Where does a building become a landscape and vice versa?”

While some observers might attribute this new relationship between architects and landscape architects to the increasing professionalism of landscape architects, the architects who have worked in such project-based partnerships speak first of design. “We got together to check each other out and showed each other slides of architecture, art and landscapes we liked,” says architect Mark Mack of his first meeting with Hargreaves and Hollis on Candlestick Park. The team then built a big sandbox, the ultimate equalizer, where all worked together to produce a site strategy. Many of the landscape architects profiled in this issue have established ongoing relationships with certain architects, to the point where one will bring the other in on any appropriate project.

That kind of close collaboration implies an intellectual exchange as well, one for which landscape architects are eager. Their profession is paradoxically as old as gardens, and as young as the American Society of Landscape Architects, which will not celebrate its centenary until 1999; thus, like architecture itself, landscape has the strength of the old and the enthusiasm of the new. The profession has emerged from the confusion of the past two decades with a renewed sense of purpose. “I would like to restate some universal things which I think are important, about children, about families, about neighborhoods, about cities, about community, about commemoration,” Walker has said. “I want to restate the fact that parks and gardens are places that you make in order to have and revive joy. And I would like those things which have always been true, to be expressed in our time too. I want our gardens to be part of the art of our time.”

Daralice D. Boles



David Walker

Peter Walker and Martha Schwartz

## P/A Profile Peter Walker and Martha Schwartz

Arguing that landscape architecture is as much art as it is science or service, Peter Walker and Martha Schwartz of San Francisco believe that the experimental work of small ateliers like their own can pave the way for larger, corporate firms.

“MAYDAY! Neccos in the Garden!” read the headline in *Landscape Architecture* magazine. The pun referred to the May 1 opening of a temporary installation at MIT, designed by landscape architects Martha Schwartz and Peter Walker and constructed of candy Necco wafers and painted tires. It also captured some of the shock and surprise engendered by the piece among landscape professionals. Schwartz later told an audience at The Rhode Island School of Design, “My point was that we, as landscape architects, were limited in our sights as to what landscape architecture could be, and that our own lack of imagination and courage had deadened the profession.”

Schwartz, who trained as an artist before gravitating to landscape, is accustomed to shocking her professional colleagues. Indeed, her 1986 design for the Whitehead Institute, an installation of Astroturf hedges and raked green sand (page 62), has become an icon of “New Wave” American landscape. Since establishing a partnership in San Francisco with her husband Peter Walker in 1983, Schwartz has built a portfolio of projects skewed to the art end of the art/science spectrum. She has also established herself as a vocal critic in a profession that is still seeking to define itself. “There is still an ongoing debate as to whether landscape architecture is an art or a science,” she said at RISD. “What happens in landscape ultimately has more impact on our impression of a place than architecture, yet as a group we are visually illiterate and untrained. One of the reasons why architecture is so far ahead of landscape architecture is that they do not waste time trying to figure out whether they are or are not an art-based profession. One must be trained to see and to think visually—and to know whether something looks good or not, and why.”

Although she claims as mentors environmental artists such as Robert Smithson and Michael Heizer, Schwartz’s work is more urban and decidedly more amusing. Operating within the difficult parameters of low-budget/no-maintenance programs on sites where no self-respecting plant would grow, she plays against expectations, building, for example, a formal garden of concrete and crushed tile at the King County Jail in Seattle (page 62). Schwartz also draws freely from the vast, tacky realm of popular landscape and its synthetic accessories. “Visual interest on the cheap,” she calls

this approach, which has entailed gilding fountains with frogs for a shopping center in Atlanta (page 60) or suspending a faux topiary from the wall at the Whitehead.

Schwartz’s pop sensibility and her art orientation have made her a lightning rod for landscape controversy. Yet her partner Peter Walker’s criticism of his profession may be ultimately more disquieting to his colleagues. Walker, a founding partner of Sasaki, Walker Associates, precursor firm to the SWA Group (page 78), was personally responsible for several of that firm’s classic designs, including the award-winning Foothills College campus (page 61), the 1958 and the 1961 Upjohn headquarters in Kalamazoo. Yet in 1983, Walker resigned from the firm. Reviewing that decision now, he says, “I couldn’t quite reconcile my art interests with the kind of work we were doing. Landscape and architecture have to go beyond merely providing a service. Being appropriate or pleasant is not sufficient to sustain interest. I see my work as visual research as opposed to becoming program-dominated.”

Yet, paradoxically, Walker’s chief clients remain institutions and corporations, including IBM, for whom he has worked continuously for 25 years (pages 60–61). These clients provide the stability needed to do a garden. “How can you build a garden for someone who is going to move in three years?” Walker asks. “Institutional clients are patient.” They also provide the large-scale site Walker covets. He seeks a kind of “dimensional extension” in landscape akin to that pursued by environmental artists. “I want to do things on a large scale,” says Walker. “I’m competing with the likes of Notre.” Not only competing, but coopting, for Notre’s gardens at Versailles have served as a model for several projects from Burnett Park in Fort Worth (page 57) to Solana (page 60).

If Walker is conscious of the influence of environmental art on his work, he also acknowledges a debt to minimalism, as represented by artists Donald Judd and Sol LeWit whose works he started collecting in the 1970s. (Walker and Schwartz maintain a New York office expressly for the purpose of staying in touch with the art world.) Yet although he identifies with Modern art, Walker sees a real danger in the application of Modernist principles to landscape architecture. “People are

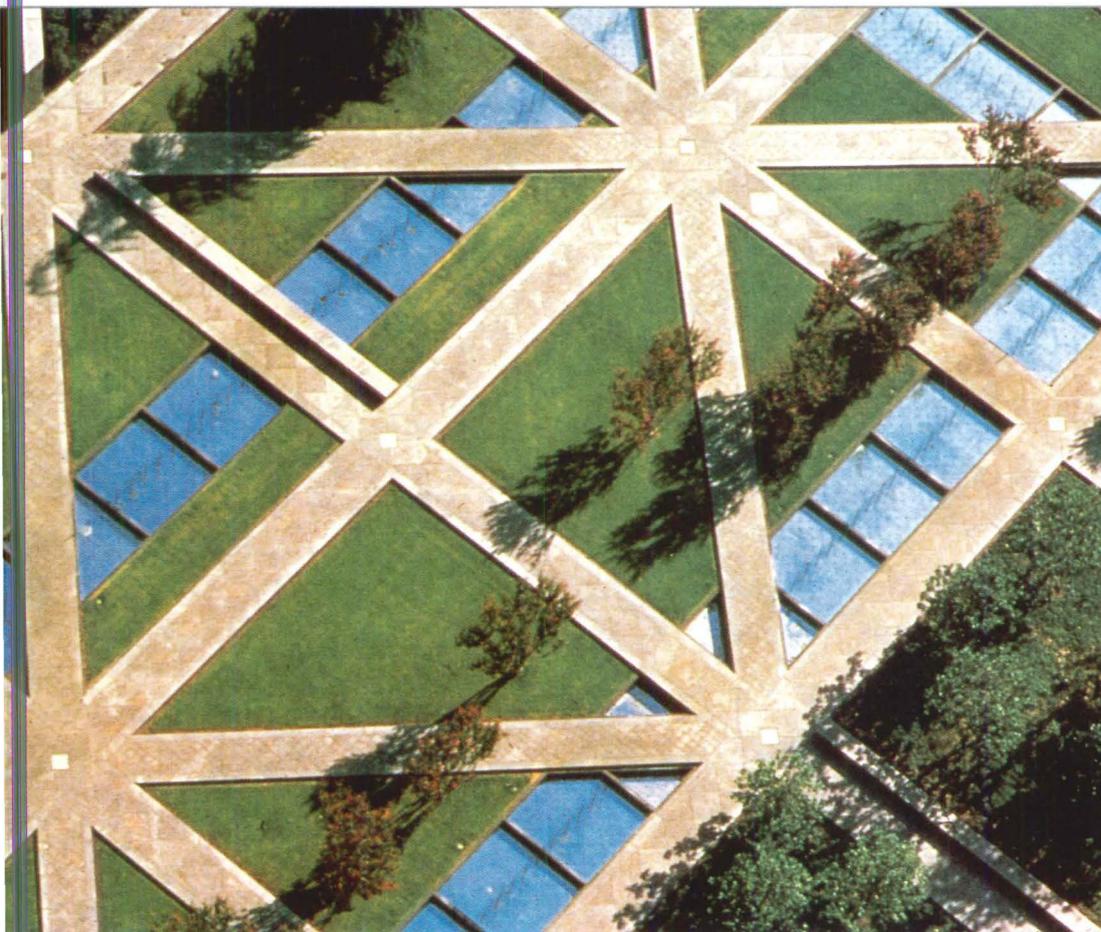
(continued on page 61)



**Tanner Fountain**  
Cambridge, Massachusetts

The influence of Minimalist art on Peter Walker is perhaps best illustrated by his 1983 design for the Tanner Fountain at Harvard University. "People think it's Carl Andre or Richard Long," says Walker. His composition of 159 stones set in a 60-foot diameter circle "isn't at all what a water fountain is supposed to be," says the designer. An ethereal mist that hovers over the stones is generated by five concentric rings of water jets set flush with the asphalt-covered ground plane. In winter, the same effect is achieved through steam.

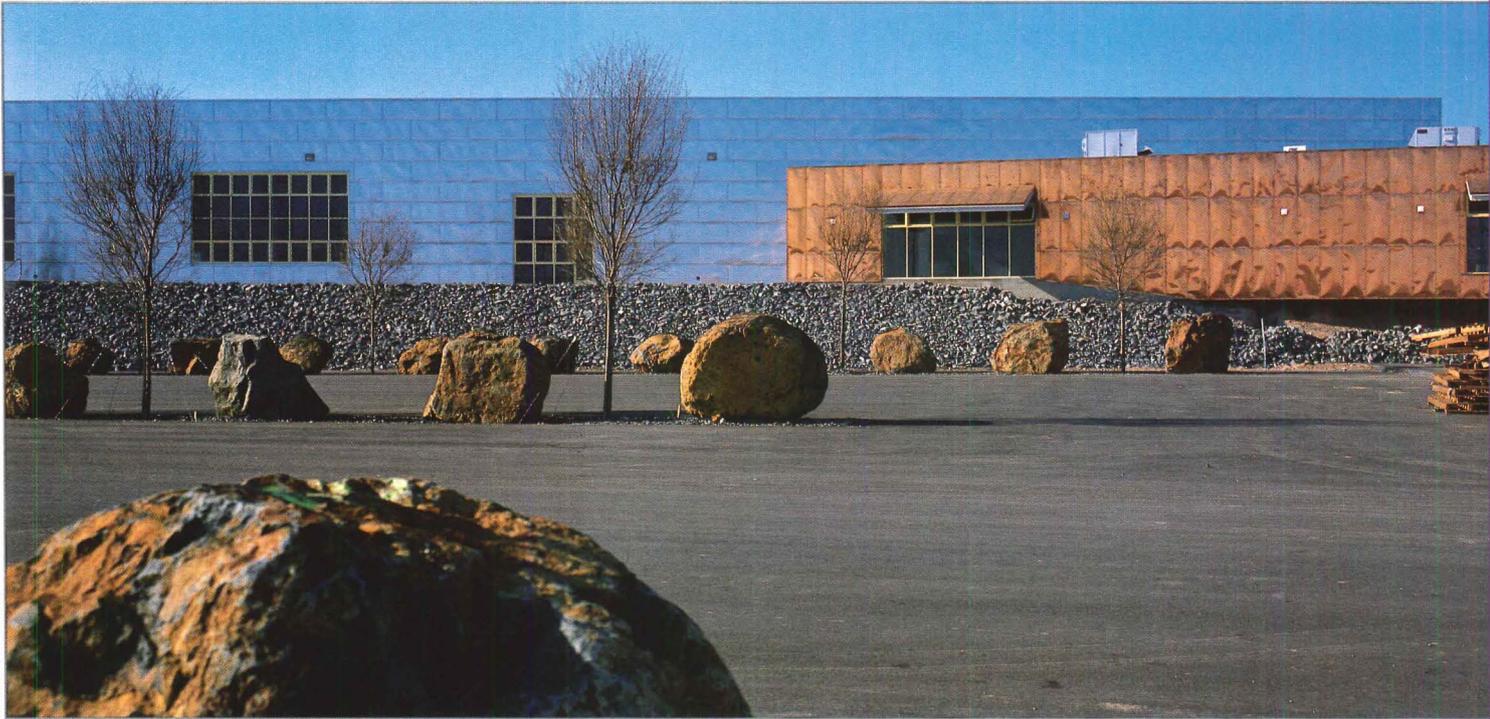
Landscape designer: *Peter Walker*. Landscape architects: *The SWA Group (Lisa Roth, Duncan Alford, Ian King)*. Client: *Harvard University*. Consultant: *CMS Collaborative, fountain*. Sculptor: *Joan Brigham*. Contractor: *Marty Joyce, Bond Brothers, Inc.* (See *Building Materials*, p. 120, for all projects.)



**Burnett Park**  
Fort Worth, Texas

The \$6.8 million Burnett Park, completed in 1983, plays upon the rigid geometry of French formal gardens. The space is defined as an outdoor room by lines of trees. Diagonal paths laid atop an orthogonal grid of paths, pools, and lawn imply a freedom of movement that is at times denied.

Landscape designer: *Peter Walker*. Landscape architects: *The SWA Group (Lisa Roth, Duncan Alford, Arthur Bartenstein, Michael Sardina, Kevin Shanley)*. Client: *Anne Burnett, Charles Tandy Foundation*. Consultant: *CMS Collaborative, fountain*. Construction managers: *Carter & Burgess*. Contractor: *Thos. S. Bryne, Inc.*

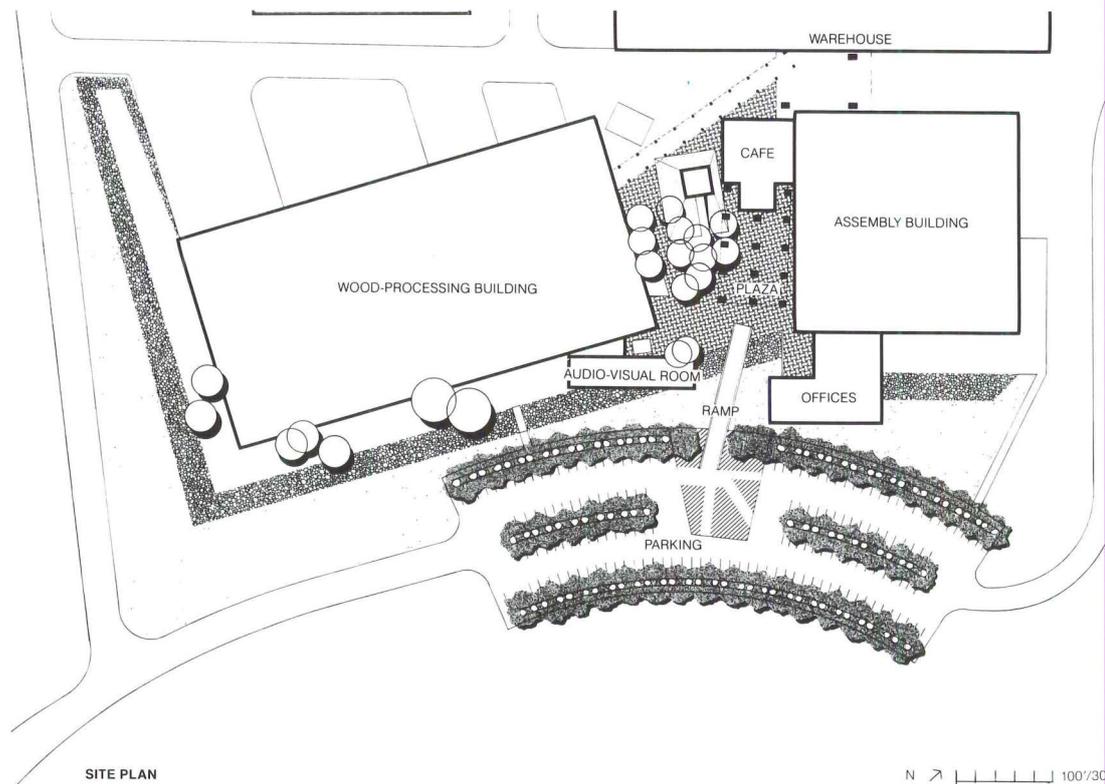


Photos: David Walker

### Herman Miller Western Regional Facility, Rockland, California

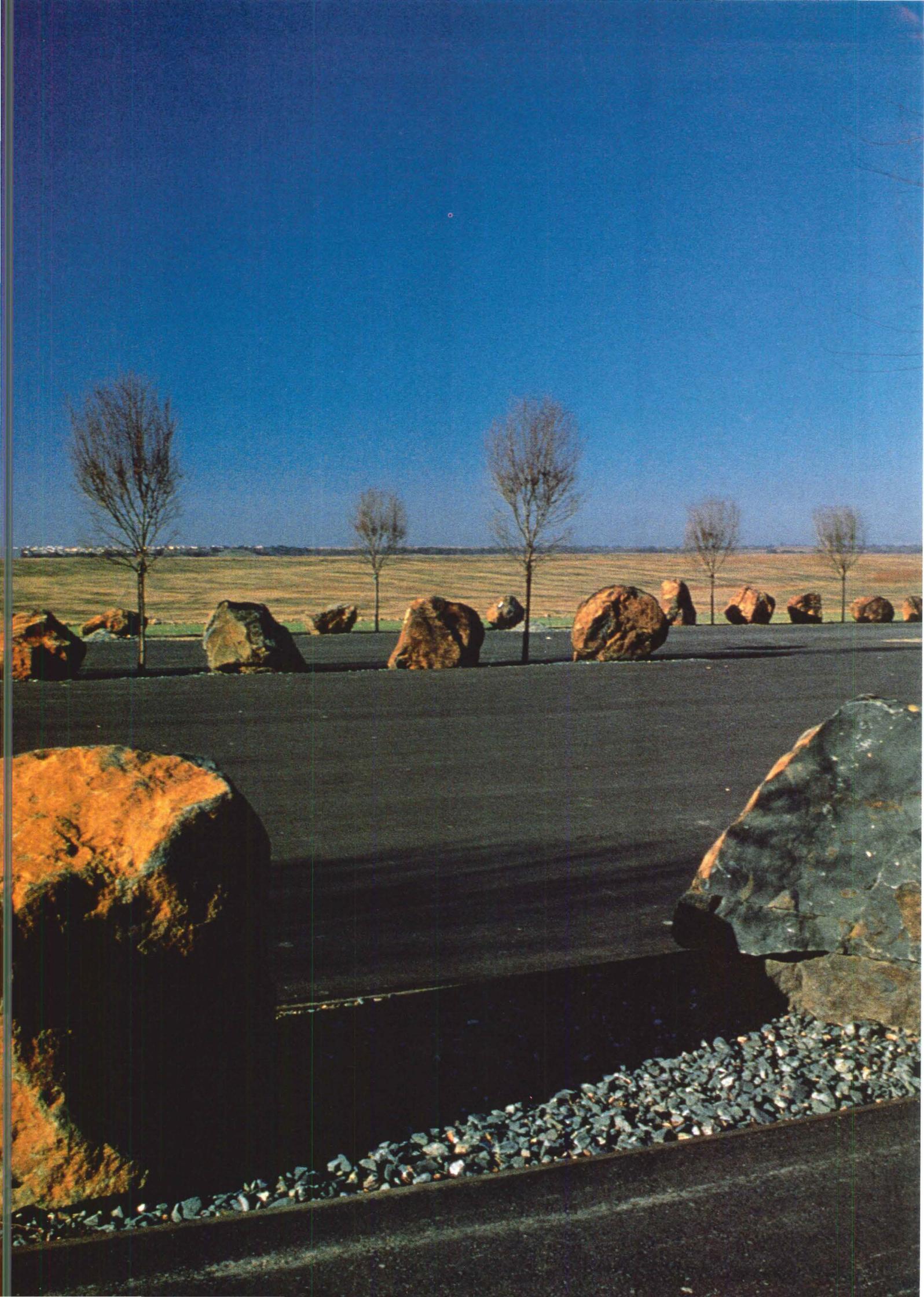
Walker likens Herman Miller's newest manufacturing facility in Northern California to a "stony Acropolis." The simple metal-clad buildings designed by Frank Gehry are set on a rock ledge covered with rip-rap (top), a material which Walker describes as "metaphorically the same as the buildings but also the same as the site." Long lines of native boulders "set down as if rolled there" and rows of Chinese elms define the precinct (middle right), while the absence of fencing or other barriers preserves long views that extend to the mountains (facing page). The buildings are sited to shape a protected square shaded by an arbor (site plan, bottom). Beyond the parking and plinth, the landscape architects planted grasses and wildflowers, which blend with the sparse natural vegetation growing between boulders in the thin topsoil (middle left). This type of landscape, "which looks cheap and simple on the surface, is the hardest to build," says Walker.

Landscape architects: *The Office of Peter Walker and Martha Schwartz* (Peter Walker, Doug Findlay, David Meyer, Tom Leater, Lisa Roth, Tony Sinkosky, David Walker, Rob Rombold). Design architects: *Frank O. Gehry & Associates, Los Angeles*. Architects of record: *Dreyford, Blackford & Engler, Sacramento*. Client: *Herman Miller*. Civil engineer: *Nolte Associates*. Contractor: *Valley Hi Nursery & Landscaping*. Cost: \$500,000.



SITE PLAN

N 100'/30'



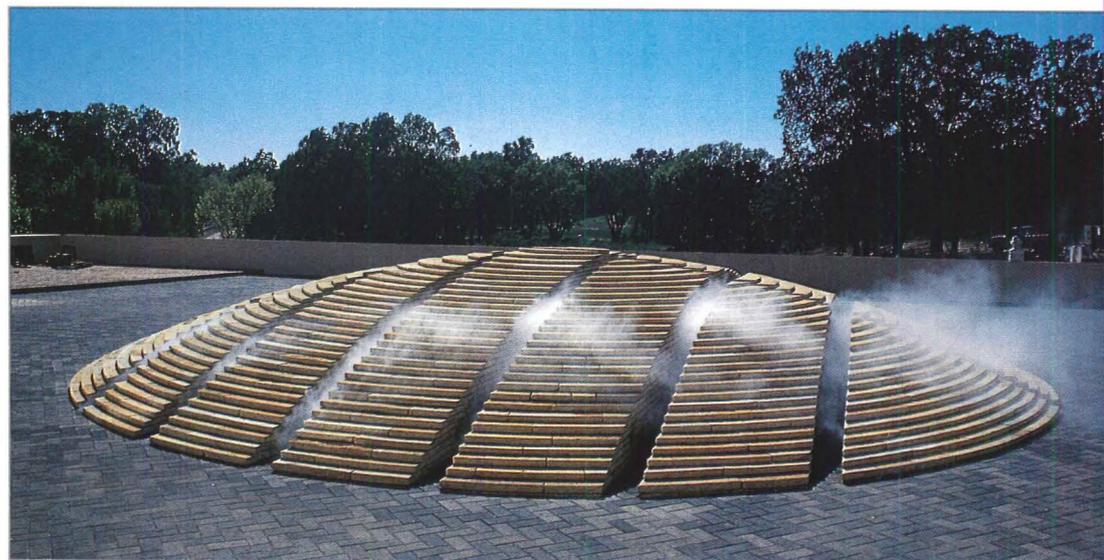
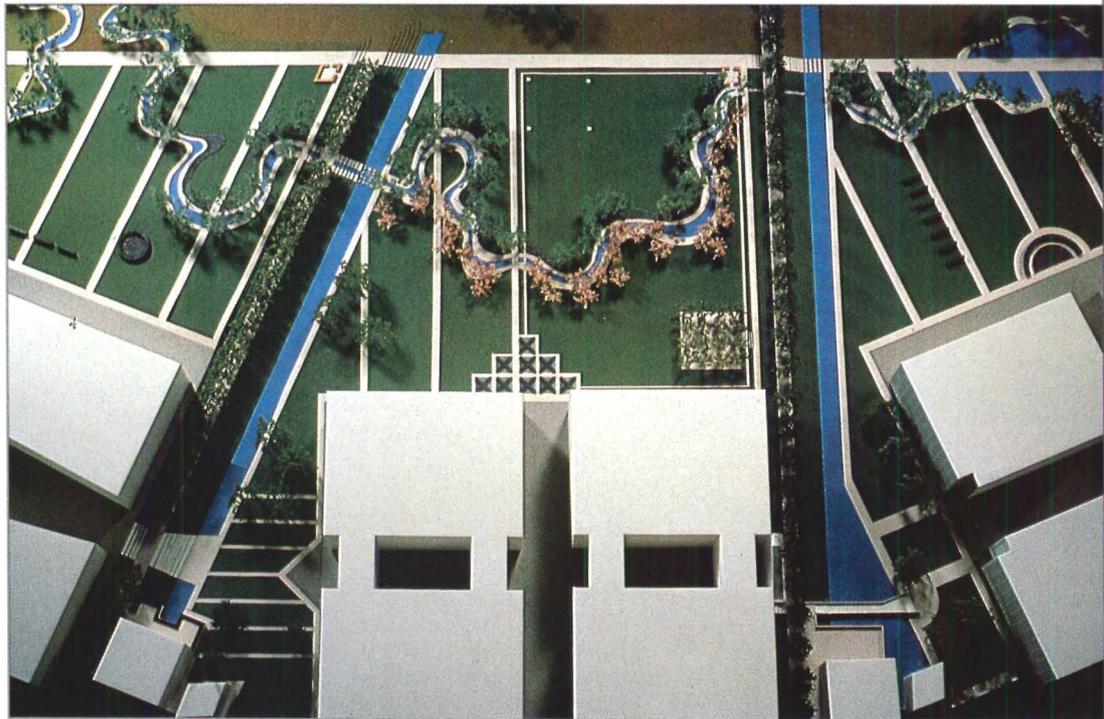


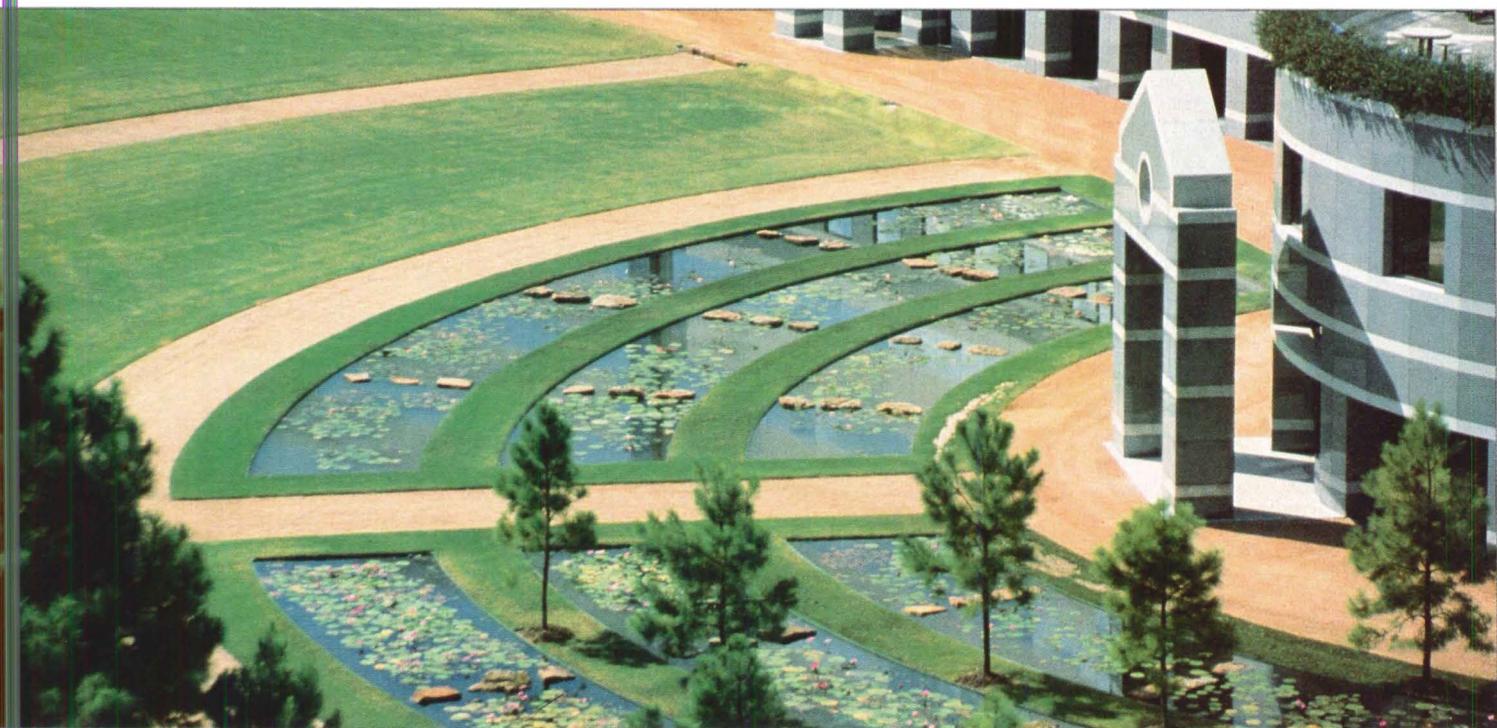
Photos: David Walker

### Solana Westlake/Southlake, Texas

"It all comes back to IBM," says Peter Walker who has worked for the computer company for 25 years. His two most recent IBM projects are shown at right and on the facing page. Walker's notion for Solana (this page, see also P/A, April 1989, pp. 65-74) was to preserve the contrast inherent in the existing Texas landscape by siting the office compounds at the edge of a large, open pasture against a wooded ridge. Elm hedgerows, announcing the entry to each building cluster, lead to paved forecourts, which are shaped by clipped trees and cooled by mist fountains (bottom right). A series of lawn terraces and what the designer calls "surprise gardens" surrounds the buildings (top, middle right). Hedgerows extending out into the landscape some 700 feet establish a larger, geometric order. The design also embraces an agrarian tradition in its flowering orchards and wildflower meadows. The 850-acre site will be built out at a total cost of \$6,000,000 for site work and landscaping.

Landscape architects: *The Office of Peter Walker and Martha Schwartz* (Peter Walker, Doug Findlay, Tony Sinkosky, Lisa Roth, Tom Leader, David Meyer, David Walker, Rob Rombold). Architects: *Mitchell/Giurgola Architects*, New York; *Ricardo Legorreta Arquitectos*, Mexico City. Client: *IBM Corporation and Maguire Thomas Partners*. Water feature: *Howard Fields & Associates*; *J. Harlan Glenn & Associates*. Irrigation: *Olson & Associates*; *Irrigation Designs*. Meadow planting: *Wildseed, Inc.*, Eagle Lake, Texas. Civil engineer: *Carter & Burgess*. Contractors: *HCB Contractors*; *Hall Sprinkler*, irrigation; *Rock & Waterscapes*, water feature; *Chief Benson*, stonework.





Photos: David Walker

Walker/Schwartz (continued from page 56)  
 landscape for granted. You may make it functional and people will use it, but they won't see it. One of the key issues, then, is to make the landscape visible," he says in an interview in *Process*. "For instance: Let's say we put some large stones in the landscape. Now, if those stones are placed beautifully, to look at the stones might be very interesting. But if you also placed the stones the right height, position, and if you distanced the stones so that a child could jump from one to the other, then the stones would not only be seen, but also be used in several ways. They would interact sculpturally. That's the difference between functional space, which is used, and sculpture, which is seen. Landscape is both."  
 "Martha and I have different ambitions," says Walker of their partnership. "She works up from the tree to the leaf. I work from the broad to the particular." The two collaborate from time to time in competition entries like their winning design

for Marina Linear Park (page 65), but they otherwise pursue, in effect, parallel practices. "Pete typically has clients that are more corporate, with bigger budgets," says Schwartz. "His problem is to get projects with an idea that shows. My problem is that I've had smaller projects with no money."  
 Walker maintains that the office will continue to turn away "ordinary" commissions. He also believes that there can be a strong, symbiotic relationship between larger, production-oriented firms and smaller, experimental ones. The same relationship pertains within The Office of Peter Walker and Martha Schwartz, where art projects inform more conventional, corporate commissions. This second symbiosis plays project against project, partner against partner in a complex marriage of avant-garde and establishment that mirrors the profession as a whole.  
**Daralice D. Boles**

**IBM Federal Systems Division  
 Clearlake, Texas**

Walker's design for IBM's NASA services division responds both to the facility's crescent-shaped Post-Modern manor house, and to its site on a floodplain in East Texas. The building's curve is continued in the parterre garden's concentric circles (top). Alternating bands of lawn and waterlily ponds are crossed by radiating paths of stepping stones (above).  
 Landscape architects: *The Office of Peter Walker and Martha Schwartz* (Peter Walker, Doug Findlay, Tony Sinkosky, Lisa Roth, Tom Leader, David Walker). Architects: *CRSS Architects, Houston*. Client: *IBM Corporation and Cadillac Fairview*. Cost: \$950,000.



Alan Ward

### Whitehead Institute Cambridge, Massachusetts

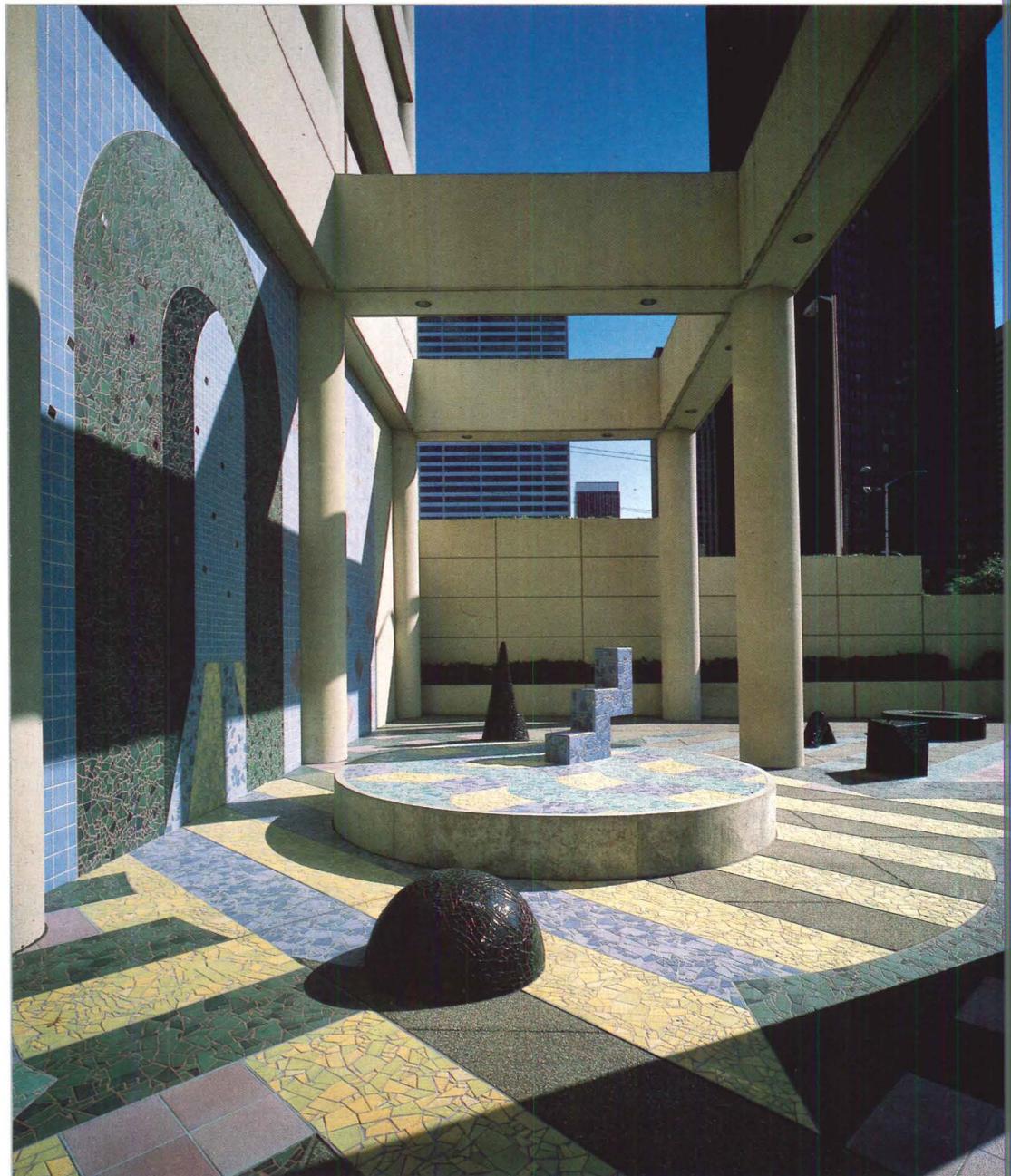
Commissioned as part of the Institute's extensive art collection, the rooftop "Splice Garden" is a collection of visual puns that comment on the Institute's business—genetic research—and on the impossibility of building a low-budget/no-maintenance garden. "There are all sorts of messages that say it's a garden. The thing is incessantly green, for one," says Martha Schwartz of her courtyard, which splices together classical Japanese and formal French designs (above). "It's plastic used in ultraplastic ways," says Schwartz, who exaggerates that artificiality, suspending one topiary from the wall (facing page).

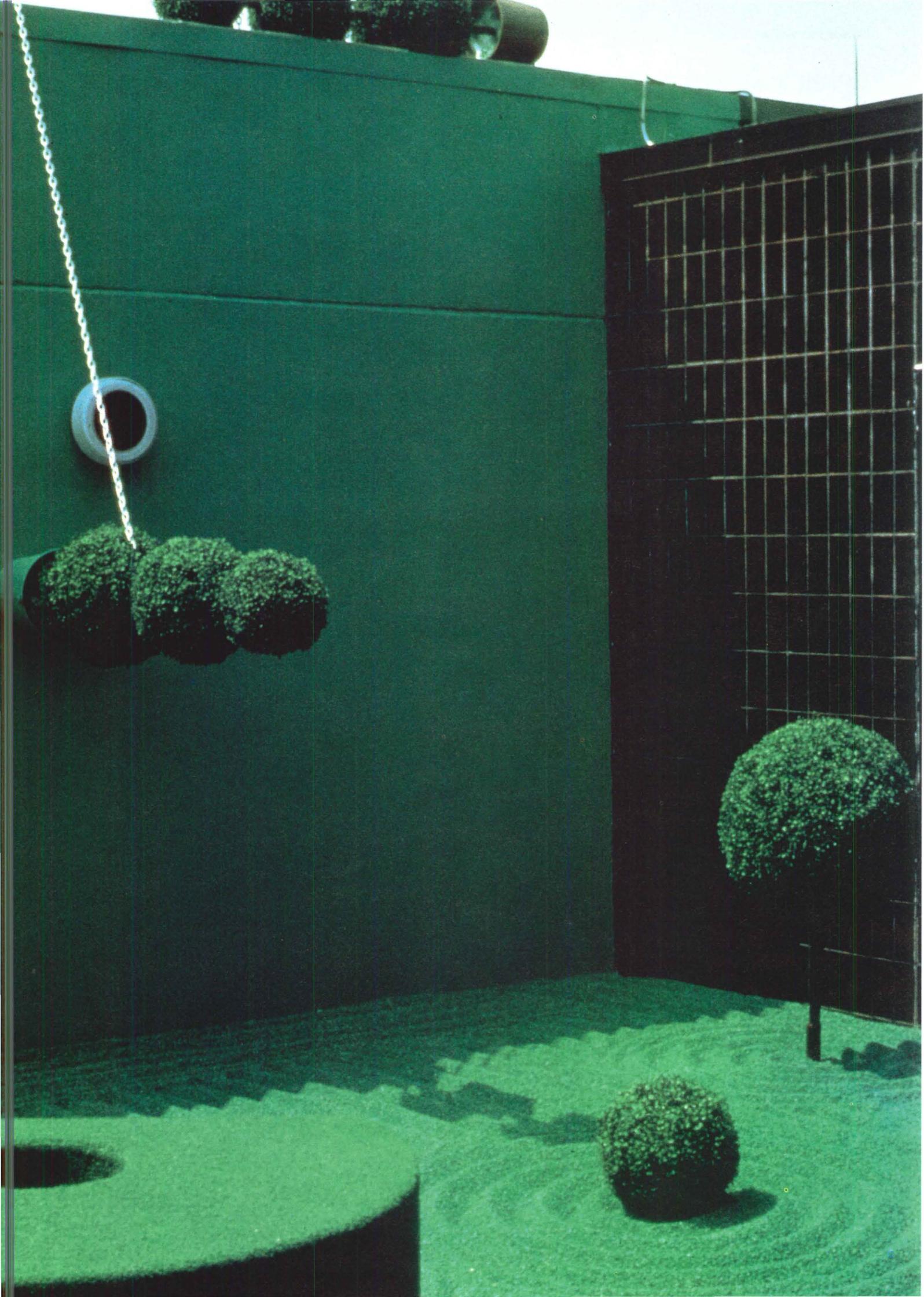
Landscape architects: *The Office of Peter Walker and Martha Schwartz* (Martha Schwartz, Bradley Burke, Aptekar Fine Arts Management). Client: *Whitehead Institute for Biomedical Research*. Contractor: *Terry Lee Dill and Robert Scheffman*. Cost: \$15,000.

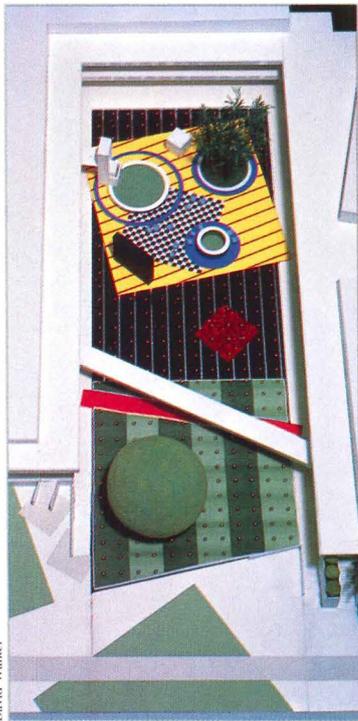
### King County Plaza Seattle, Washington

Completed under the One Percent for Art program, Schwartz's "Jailhouse Garden" (right) is another high-traffic, low-maintenance garden composed of precast concrete and ceramic tile topiaries and fountain. "The building is so brutal that the plaza uses a Japanese technique of getting you to look at the ground," says Schwartz.

Landscape architects: *The Office of Peter Walker and Martha Schwartz* (Martha Schwartz, Ken Smith, Martin Poirier, David Meyer). Architects: *NBBJ, Seattle*. Client: *King County Arts Commission*. Contractor: *Fabrication Specialities; Seattle Ceramic Tile*.





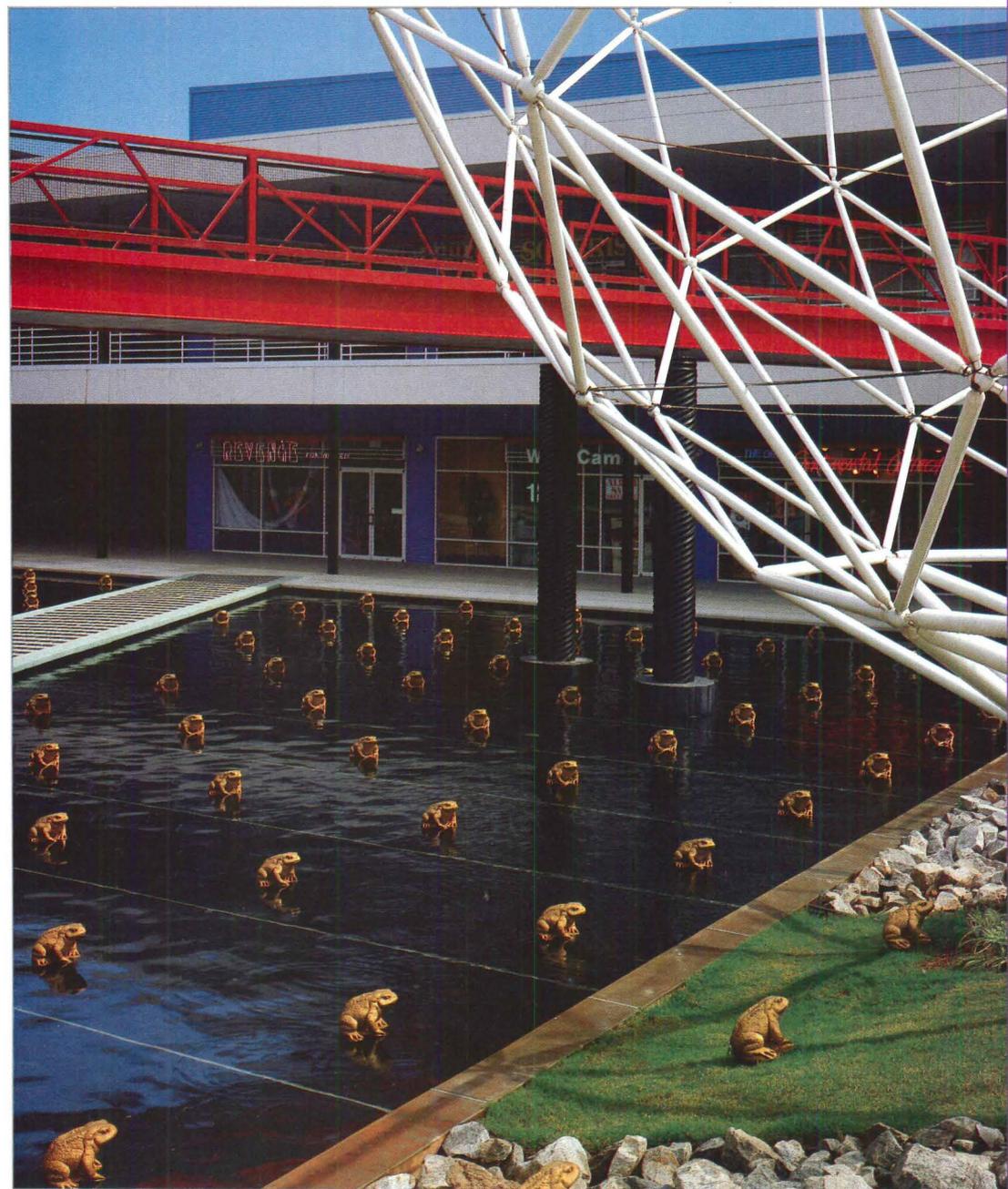


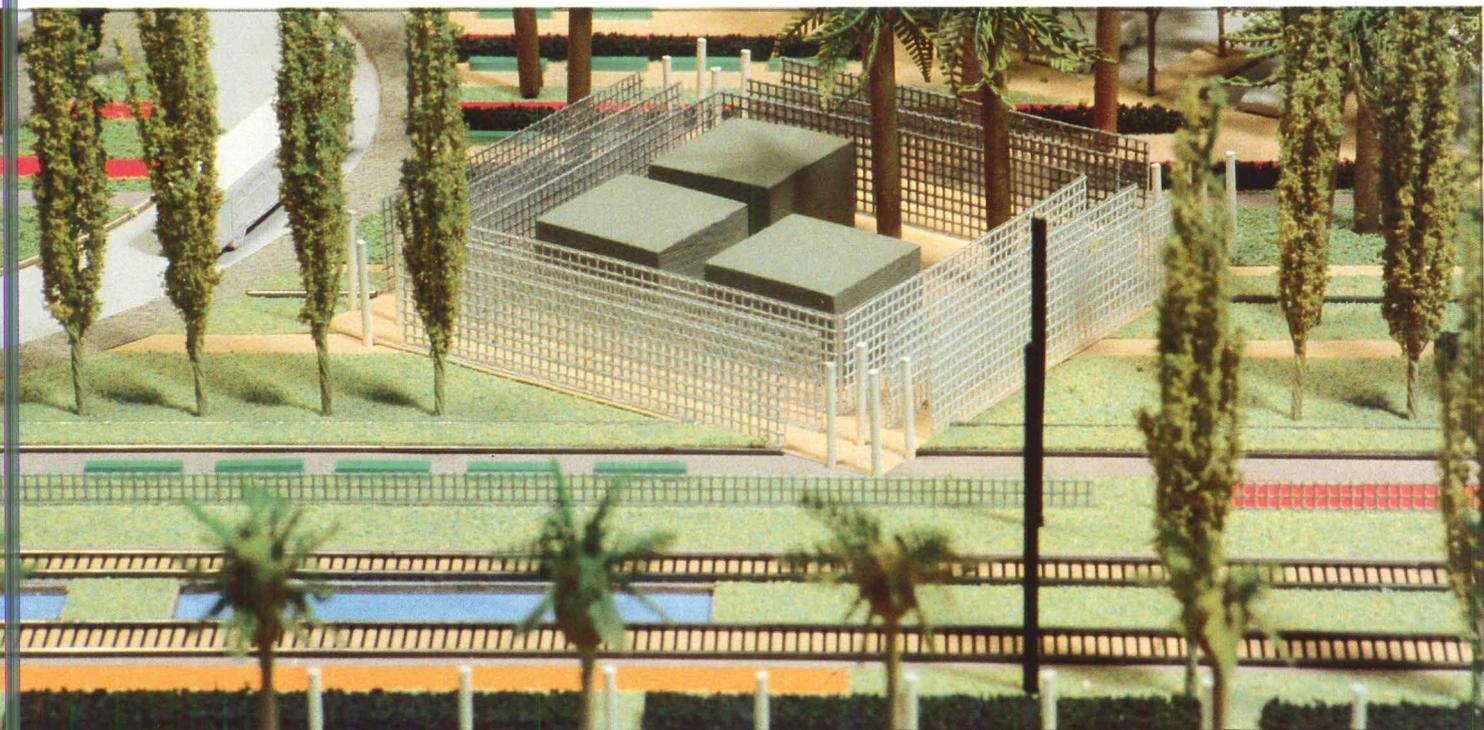
David Walker

### Rio Shopping Center Atlanta, Georgia

Designed by Martha Schwartz in collaboration with architect Bernardo Fort-Brescia of Arquitectonica and completed two months ago, Rio has to hold its own against the cluttered context of a busy intersection in a transitional neighborhood. The great globe is designed “to visually compete with all the junk around and create a landmark,” says Schwartz. Poised as if about to roll down the hill into the courtyard, the globe marks the 10-foot transition from street to mall (top right). Scores of plaster frogs of the variety typically found in suburban ponds have been gilded and lined up as if in worship before the sphere (bottom right), which houses a mist fountain and eventually will be covered in green vines. Lines in the landscape, composed of alternating bands of painted rip rap and ferns, continue across the black pool in bands of fiber optics that glow at night. At the closed and covered end of the court, a circular bar, a grove of 50-foot bamboo which penetrates the roof, and a video wall display by artist Darra Birnbaum fill a square plaza floating in the pool (above). “It’s a big, bright, pop festival type of place,” says Schwartz.

Landscape architects: *The Office of Peter Walker and Martha Schwartz* (Martha Schwartz, Ken Smith, Doug Findlay, David Meyer, David Walker, Martin Poirier). Architects: *Arquitectonica, Coral Gables*. Production architects: *Milton Pate & Associates, Atlanta*. Client: *Ackerman & Company*. Contractor: *McDevitt & Street*. Cost: \$750,000.



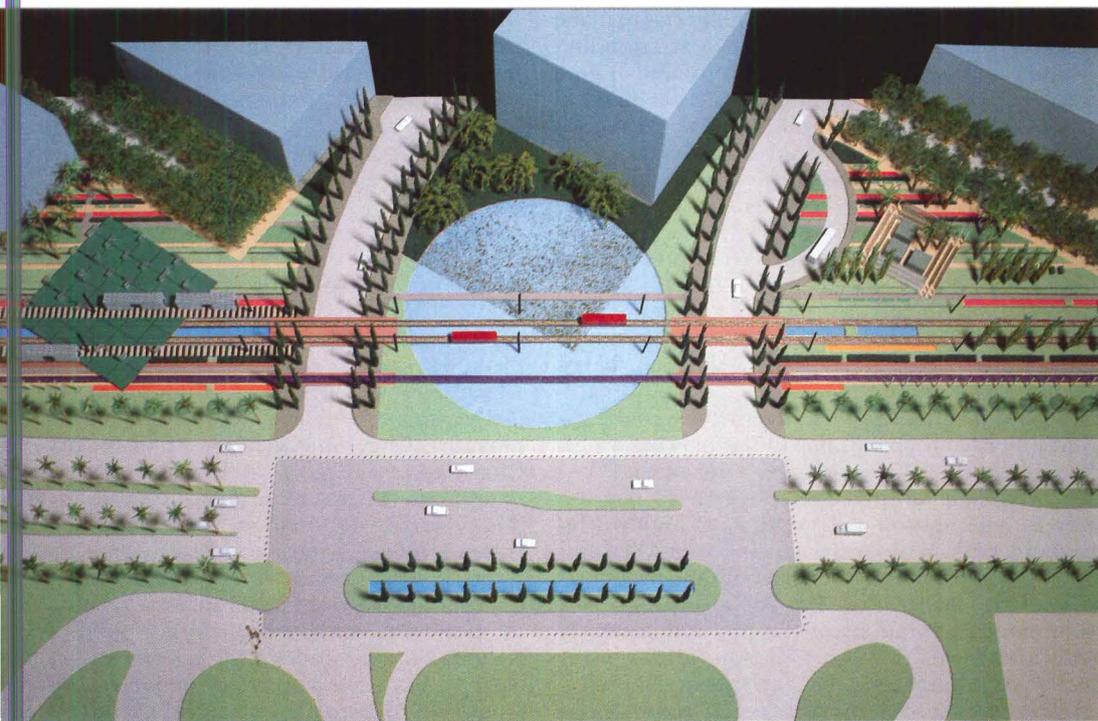


Photos: David Walker

### Marina Linear Park San Diego, California

This winning entry in an international design competition is the collaborative work of Walker and Schwartz. The design seeks to integrate the existing city grid with the flat linear pattern of the rail lines, which is magnified in a kind of “serape” or weaving of horizontal bands of flowers, formal allées, gravel paths, pools between the tracks and other linear elements which run the length of the park (left). The site’s rail history is recalled explicitly in boxcar hedges and metal concession stands, and existing elements such as utility stations are treated like follies in the garden (above).

Landscape architects: *The Office of Peter Walker and Martha Schwartz (Martha Schwartz, Peter Walker, Tom Leader, Cathy Deino Blake, David Walker, Ken Smith, David Meyer, Sarah Fairchild).*



### Swimming Hall of Fame Fort Lauderdale, Florida

“The issue for landscape is the organization of a flat surface so that it has imageability and creates space above it,” says Schwartz. “An insistent patterning or mat is one solution.” That device appears in the Swimming Hall of Fame, whose geometry is generated by the pool’s racing lanes. Designed in collaboration with Fort-Brescia, the 10-acre site is given a strong visual axis connecting from the sloping grandstand to the beach and marina.

Landscape architects: *The Office of Peter Walker and Martha Schwartz (Martha Schwartz, Ken Smith, Doug Findlay, David Meyer).* Architects: *Arquitectonica, Coral Gables, Florida.*





Glenn Allen

George Hargreaves

## P/A Profile Hargreaves Associates

**Combining the influence of environmental art with a Post-Modern interest in narrative content, George Hargreaves of San Francisco seeks to tell the story of a site in geological, cultural and phenomenological terms.**

THEIR subject is the "real." Their object is to make people think about the ground they are standing on and connect it to the larger environment of time and place. Since the founding of their partnership in 1983, Hargreaves Associates of San Francisco have been making provocative landscapes that tirelessly question the status quo. These landscape architects ask, "How do you develop an idea that doesn't look like everything done in the past?"

The answer isn't invention. "You don't walk in and say, 'This is my idea,' because if that's all it is, it's not a very good project," says George Hargreaves. "Landscape architecture expresses how our culture meets nature. It's not about art ideas. It's not about architectural ideas. It's about landscape and people. In the landscape, the context is everything from the cosmos to the parking lot, so the real issue is: What idea arises out of that?"

In a decade of practice, Hargreaves has answered that question with an array of highly original built work. With co-principals Glenn Allen and Mary Margaret Jones, and collaborating architects and artists, Hargreaves has steadily progressed from early explorations of the physical aspect of landscapes—earth, water, and sky—to the introduction of cultural narrative, to a mixture of both.

Hargreaves questions two typical assumptions vis-à-vis architecture, refusing to design landscapes that are either picturesque contrasts to or extensions of buildings. At the same time, he disparages the use of pattern as a generator of space. "Pattern is not a subject," he says. "It gets old the second or third time you see it. The combination of patterning and contrived informality is what registers as a good landscape nationally. I don't think those landscapes have a tremendous amount of meaning. They solve a problem and perhaps provide a nice place to eat lunch." Instead, says Hargreaves, "The truths that are uncovered in the analysis of environmental phenomena should be the fodder—the subject—of design."

Robert Smithson's earth art and essays first inspired Hargreaves to develop forms that frame or magnify the larger environment. In early work from 1980 to 1985, Hargreaves focused on the simple expression of physicality and connections to the larger environment. Lakewood Hills (page 69) and Fiddler's Green Amphitheater (page 67) dealt with earth, water, and sky as the raw material

of the landscape. Both used extensive grading to echo the surrounding topography of foothills and mesas and to create acoustical enclosures. These strong landforms help people to recognize that they are in a special place and to contemplate what connections might be there.

Ironically, Hargreaves' best-known project from this period was one which lacked an immediate environmental context. His photogenic Harlequin Plaza propelled Hargreaves to national attention as a Post-Modern landscape architect. For Hargreaves, however, the significance of Harlequin was the introduction of narrative content through elements such as a "tablecloth" paving pattern which expressed the plaza's festival function.

Two subsequent projects are still more overtly narrative. Chevron Plaza Tower One (page 67) and Charleston Place (page 68) both use water features to tell about what is going on underneath the earth. The Chevron fountain is, on a physical level, a fulcrum between park and plaza. On a narrative level, the fountain expresses the release of kinetic energy that is stored in oil shale, a process which the geologists working in the office building know well. At Charleston Place, a mysterious crack in the earth introduces a system completely different from the efficient modular grid of this research and development complex. The design acknowledges that the place is built on San Francisco Bay mud, which forms fissures when it dries. An aquifer deep underground is recalled by the rising water within the cracks, which attracts curious visitors to the edge. Both the Chevron fountain, which seems to be falling, and the Charleston Place fissure, which reveals what cannot be seen on the surface, demonstrate the power of open-ended composition. This approach gives people something to think about without giving them answers.

This thinking surfaces at 20-acre scale in a pivotal design for Candlestick Point Cultural Park on San Francisco Bay (page 71). Instead of attempting to conquer the site's strong wind, the collaborative team of Hargreaves, architect Mary Mack, and artist Douglas Hollis chose to draw out, along with the water, so that visitors would connect with the elements without the need for signs telling them, "this is an environmental park." Among its aspects are a windgate that sounds

(continued on page 70)



### Plaza Tower One Englewood, Colorado

Slicing through the pedestrian plaza of a 22-story office tower, this fountain fuses the physical and narrative aspects of place. It has streetside presence, invites exploration, and bisects the space into a paved plaza for restaurant use and a grassy park with mountain view and water sounds. The fountain is also a geothermal abstraction that tells about the oil shale research Chevron conducts here: Riven granite layered like the earth's substrata is cracked to emit torrents of water in allusion to the release of stored energy.

Landscape architects: *Hargreaves Associates* (George Hargreaves, John Loomis, Mary Margaret Jones, Glenn Allen, Brian Costello). Client: *Chevron Land and Development*. Consultants: *Fountain Tech*. Contractors: *B.L. Cohen; Yerkey Landscape; PCL Construction, fountain*. (See *Building Materials*, p. 120, for all projects.)



### Harlequin Plaza Englewood, Colorado

A short walk from Plaza Tower One are its predecessors, the jangling Harlequin Plaza and the serene Fiddler's Green Amphitheater (bottom), both prominent early calling cards for Hargreaves. Located in an extensive mixed-use development, these projects show the diversity of his site-specific design. Harlequin's intransigent non-site on the roof of a parking building prompted the use of narrative devices in making a festival space that gestures to the Rocky Mountains. Dizzying pattern, colors, and forms generate activity and humor.

Landscape architects: *The SWA Group, San Francisco* (George Hargreaves, Glenn Allen, Danny Powell, Mike Sardina, Tom Adams, Jean Schaffeld, Antonio Tellex, William Callaway). Architect: *Genster & Associates, Denver*. Client: *John Madden Company*. Contractor: *Centric Construction*.

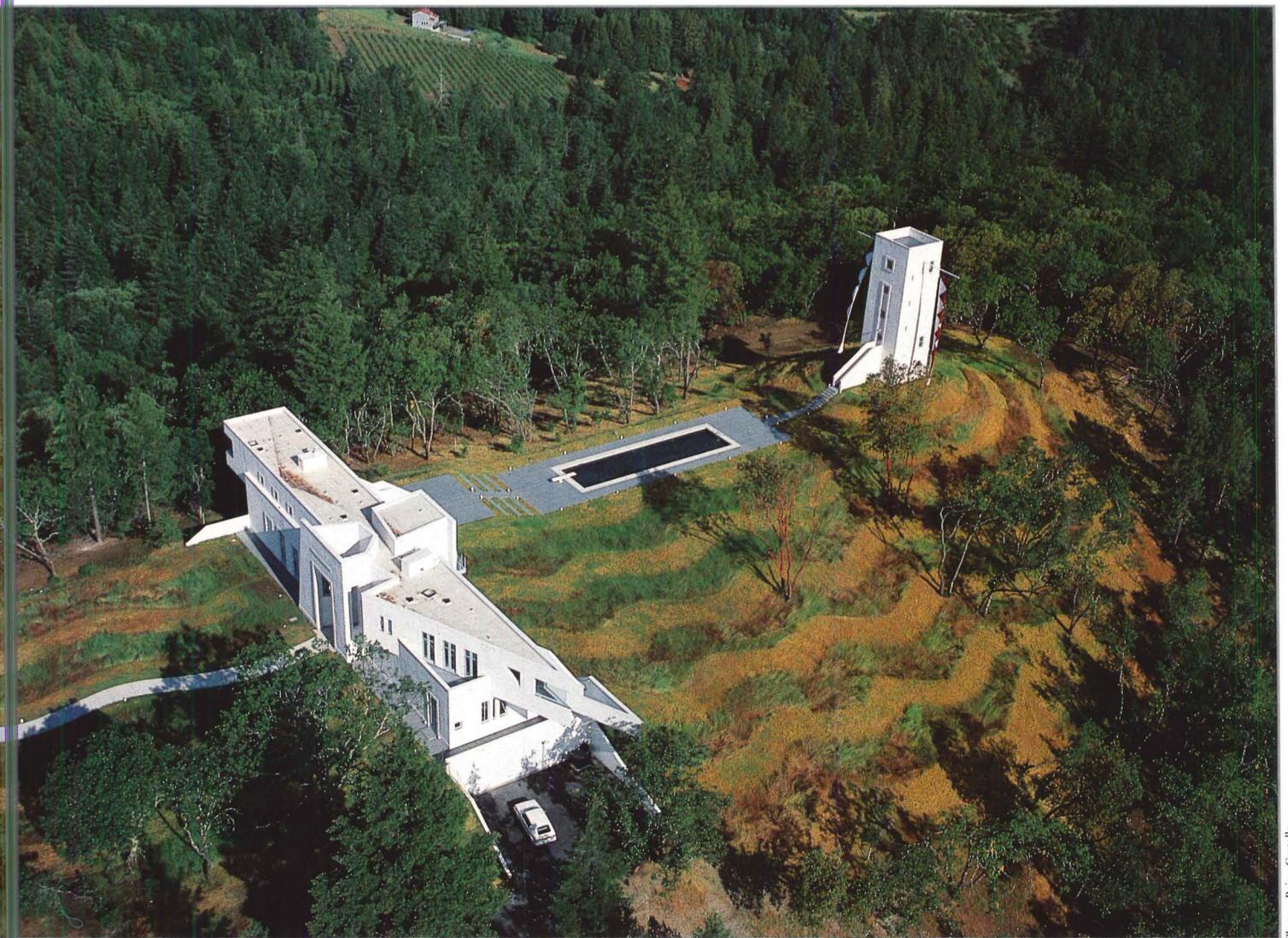


### Fiddler's Green Amphitheater Englewood, Colorado

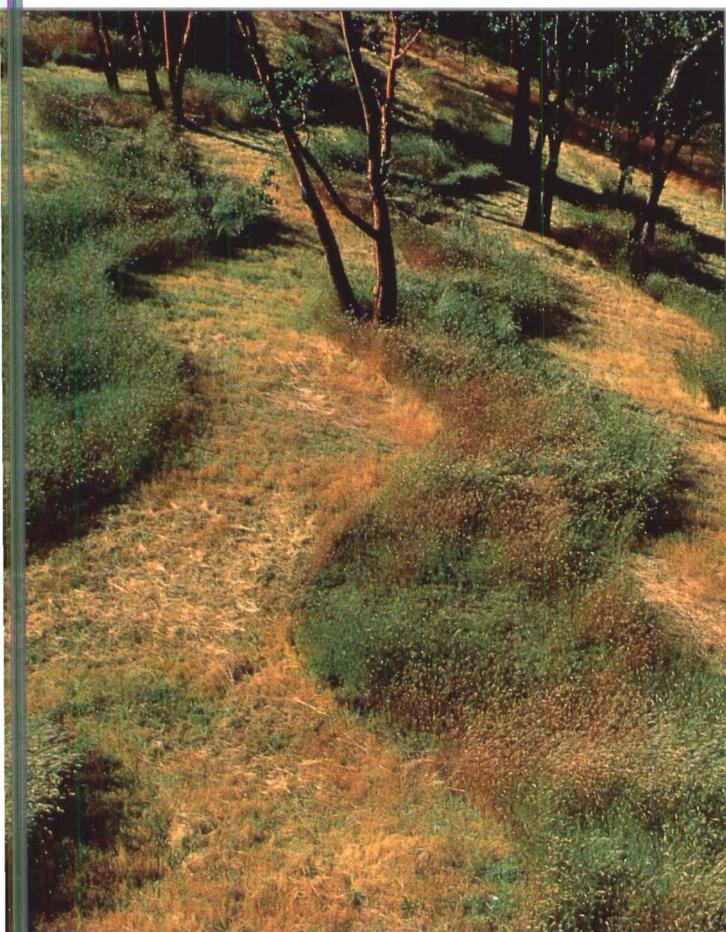
Here, where the subject is earth and sky, strong, simple forms prevail. This multipurpose amphitheater handles events for 15,000 people, sculpture shows, and picnics. Its other purposes may be said to oscillate between sound and sky, between the distant mesas and its own echoing contours. Sadly, Fiddler's Green has recently been commercialized with permanent fixtures.

Landscape architect: *Hargreaves Associates, San Francisco* (George Hargreaves, Glenn Allen, John Loomis, Tony Sinkosky, Mary Margaret Jones, David Meyer). Client: *John Madden Company*. Contractor: *John Madden Company; Yerkey Landscape*.





Photos: Brian Costello



### Lakewood Hills Windsor, California

This working drainage system registers the changeable climate at the heart of a residential development in the Sonoma Valley (facing page, top). A 700-foot-long canal that connects two lakes is usually a still line reflecting the sky; during heavy rains, however, two-foot waterfalls cascade over three weirs, resonating in the earthen bowl through which the canal runs. Forced perspective and open composition seem to bring the foothills to the site.

Landscape architect: *Hargreaves Associates, San Francisco, phases two and three; The SWA Group, San Francisco, phase one (George Hargreaves, John Loomis, Tony Sinkosky, Jean Schaf-feld, Glenn Allen, Danny Powell, Mike Sardina)*. Client: *Sonoma Financial Corporation*. Contractor: *Piombo Construction; Terraforma Landscape*.

### Charleston Place Mountain View, California

Another route to open-ended composition employed by Hargreaves pushes landscape beyond the picturesque to the prenatural. Charleston Place (facing page, bottom) literally parts the earth to reveal natural systems beneath the

architectural grid imposed on the site. Just a few feet deep and filled with mist machines, the fissure represents both cracked mud and the aquifer deep underground.

Landscape architects: *Hargreaves Associates, San Francisco (George Hargreaves, Glenn Allen, Brian Costello, David Meyer)*. Architects: *Gensler Associates, San Francisco*. Client: *Mozart Development*. Contractors: *Baycor Construction; B.L. Cohen, landscape; Pacific Water Art, fountain*.

### Villa Zapu Napa, California

This aggressive attempt to root a “foreign object” in the Napa Valley finds its form in the optical illusion of vineyards curving up and down the valley hillsides (above and left). Villa Zapu adopts and exaggerates that effect with swaths of two drought-resistant native grasses that spiral from the guest tower cone and unfurl across the site beneath the building.

Landscape architects: *Hargreaves Associates (George Hargreaves, Glenn Allen, Brian Costello, Mary Margaret Jones)*. Architects: *Powell-Tuck, Connor & Orefelt, London*. Client: *Thomas and Anna Lundstrom*. Contractors: *Kilkenny Construction; Adan Landscaping*.



Photos: Glenn Allen



**Plaza Park  
San Jose, California**

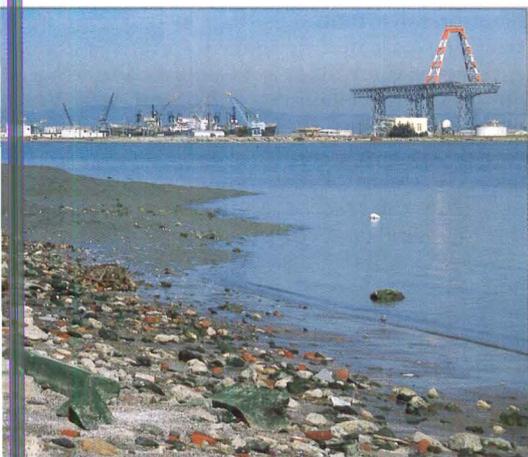
As the city's focal image, this 3.5-acre park accommodates festivals and everyday use. Design clues came in equal doses from its changing physical environment and cultural history as San Jose's oldest open space, dating from pueblo days. Walkways link the newly expanded art museum, new Fairmont Hotel, and new convention center along straightforward "desire lines." The popular fountain is inspired by artesian wells, discovered near the site in the 1800s. It cycles from fog to jets (top) until night, when an underlying glass block grid lights up through the fog, suggesting the present high-tech takeover by Silicon Valley. With drainage along the grid, the fountain has no standing water, making it a popular playground. Landscape architects: *Hargreaves Associates (George Hargreaves, Mary Margaret Jones, Peter Geraghty, Dennis Taniguchi, Glenn Allen)*. Client: *San Jose Redevelopment Agency*. Consultants: *Structural Design Engineers; Fountain Tech; MTH Engineers, electrical*. Contractors: *Collishaw Construction, landscape; Pacific Water Art, fountain; Torres Concrete*.

**Hargreaves** (continued from page 66) cording to the intensity and direction of the wind, a tilted plane that magnifies the water's presence through forced perspective, channels planted with grass species to indicate various sea levels, and seating and tables constructed of site rubble. Candlestick also exemplifies the potential of collaboration, as opposed to cooperation. Drawing the distinction, Hargreaves says, "If it's a true collaboration, you're going to see a fusion of individual designers and the birth of something that none would do by themselves." Like Candlestick, Plaza Park in redeveloping San Jose looks simple in plan but is very complex experientially (page 70). The design elicits the site's rich 300-year history. Physically, it connects "desire lines" between new adjacent buildings and reinforces an existing collapsed perspective of California trees. Culturally, the park is a kind of timeline. A flowering orchard makes romantic reference to the fertile Santa Clara Valley of the 1920s and 1930s, while at the open middle of the park, a fountain projects a double metaphor. During the day, the fountain is programmed to cycle from fog to artesian jets, standing for the water history of San Jose. At night, an underlying glass block grid lights up to represent the high-tech present of Silicon Valley. Just blocks away runs the Guadalupe River, which is presenting Hargreaves Associates with the opportunity to redefine what a riverfront can be. Typically, riverparks take the forms of concrete steps or natural banks. Hargreaves' proposal for the Guadalupe River Park, now in design development, accepts neither standard definition but takes

fluid dynamics as its subject and solution to flood control. It meets the U.S. Army Corps of Engineers' hydraulic criteria from an entirely new direction, replacing the usual trapezoidal banks and concrete channels with a design that magnifies the river's presence. To Hargreaves, the design represents the next step beyond picturesque landscape architecture in its expression of natural processes without mimicry. Such work can make recognizing environmental processes part of the everyday fabric of life, which it typically is not. As Hargreaves suggests, his projects are a kind of bridge that people can take toward global ecological concerns. "Landscape architects have a bad habit of confusing values and aesthetics," he says. "Too often we rely on sophisticated value judgments: Are people comfortable? Are they happy? Is it a natural system? We find it easier to deal with these checkpoints than with an environmental aesthetic that makes you think." Hargreaves has also been an outspoken critic of a profession that lacks a critical tradition. He worries that landscape architecture is a service industry, solving problems instead of producing provocative landscapes that connect people to the larger environment. A telling scenario frequently occurs after his popular lectures. As he relates, "A practitioner will come up and say, 'Boy, I wish I had this project.' And I say, 'You do.' And he says, 'Well, I don't have those kinds of clients.' And I say, 'You do.'" *Susan Rademacher Frey*  
*The author, who lectures on landscape architecture at the University of Pennsylvania, is the former editor of Landscape Architecture. She is currently collaborating with Wolfgang Oehme and James Van Sweden on a book about their work.*



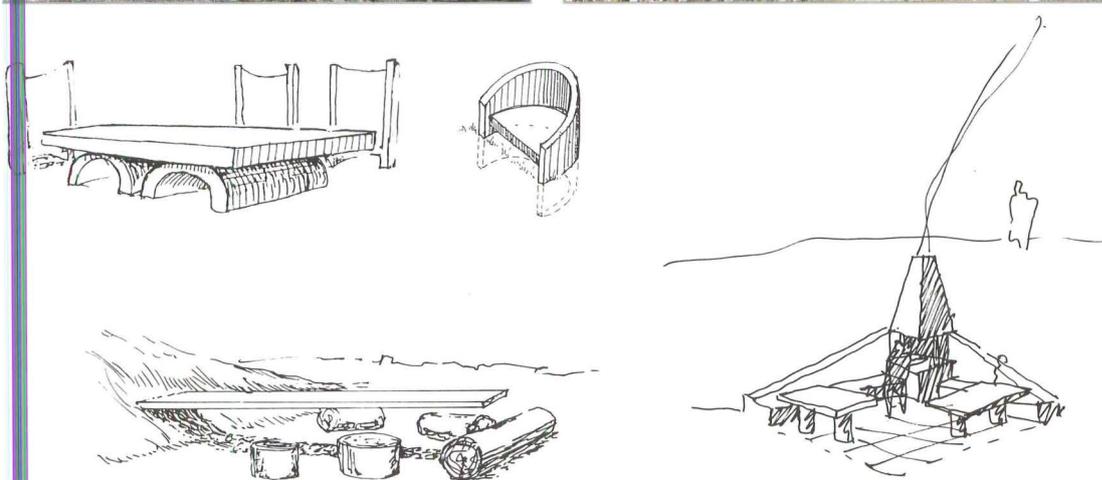
Photos: Glenn Allen

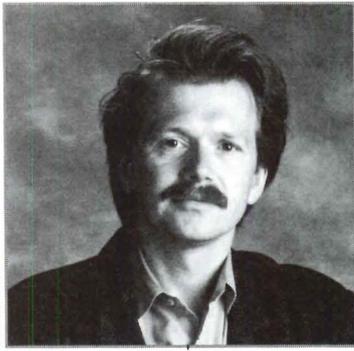


### Candlestick Point Cultural Park San Francisco

Hargreaves Associates' first large-scale public work defines what an environmental park can be. It reclaims San Francisco Bay landfill (middle left) with devices such as a wind gate, dunes, theater building, and a tilted field that amplifies the dramatic experiences of wind, water, exploration, and festival (model, top). The rubble exhumed from the site, which was used as a dump for construction debris, will be recycled to furnish tables, chairs, and barbecue pits (middle right and bottom). This project was Hargreaves' first complete collaboration with an artist and architect, and the result is one complex piece designed by three people. The Cultural Park is a satisfactory answer to Hargreaves' own charge to landscape architects, "There's a real perception that landscape architects aren't addressing possible meanings and that artists are."

Collaborative design team: MACK, architect; Douglas Hollis, artist; Hargreaves Associates, landscape architect, San Francisco (George Hargreaves, Glenn Allen, Laurie Romano, Brian Costello, Hiroki Hasegawa, Kurt Lango, Mary Margaret Jones). Client: California State Dept. of Parks and Recreation.





Charles Mayer

Michael Van Valkenburgh

## P/A Profile Michael Van Valkenburgh

**In his teaching, research, and practice, Michael Van Valkenburgh of Cambridge emphasizes the importance of historic precedents, bringing a new line of scholarly inquiry to his profession.**

MICHAEL Van Valkenburgh tells his students at Harvard University's Graduate School of Design, "The wonderful thing about designing with plants is that they grow, change color, and eventually die. The most frustrating thing about designing with plants is that they grow, change color, and eventually die."

Van Valkenburgh has responded to that conundrum by marshaling the resources of libraries, historic landscapes, and computer centers for private garden commissions, speculative projects, and competitions designed with the aid of a small staff that includes graduate students. Since receiving his Masters of Landscape Architecture from the University of Illinois in 1977, he has carefully nurtured his ideas, giving his built projects a certain dignity and restraint.

Van Valkenburgh's current inquiries involve seasonality and what he terms "notations of nature's process." While these interests are most clearly reflected in the private gardens for which Van Valkenburgh is best known, his concern for the role of landscape as a civic element is clear in new public commissions. These designs attempt to embrace natural processes, as well as formal urban traditions.

Plants, of course, are the traditional embodiment of seasonality, but Van Valkenburgh's conceptual framework includes raw materials such as granite and ice. He first became interested in ice, now something of a signature element, while working on a streetscape design for Burlington, Vermont in 1981, when he found himself frustrated by a lack of data on the control of freeze/thaw cycles. Later, funded by a National Endowment for Arts grant, he built a laboratory for the study of ice walls, where water flow, ice accumulation, the control of wind-blown water, and the effect of different surfaces on ice accretion were all monitored.

Concurrently, ice walls were incorporated into a competition entry for the St. Paul cityscape, which won an honorable mention, and were featured in "Eudoxia" (page 54), a hypothetical design for an exhibition entitled *Transforming the American Garden* which Van Valkenburgh curated at Harvard University in 1986. In February 1989, as part of a temporary public art project in the Radcliffe Quadrangle, he constructed three curved seven-foot-high ice walls, whose spatial constrictions recalled

Richard Serra's steel pieces. This summer, he completed a permanent ice/vine garden for a summer residence on Martha's Vineyard (page 76). The dogged determination to peel every layer of a problem that is demonstrated by these serial undertakings is characteristic of this designer's search for "the essential minimal form, the edge where minimal things are beautiful."

Van Valkenburgh has also written several scholarly texts including *Built Landscapes*, a catalog documenting the work of five 20th-Century landscape designers, and *Gertrude Jekyll: A Vision of Wood & Garden* with Judith Tankard (see Books, page 103). However, he is less interested in the accumulation of impressive footnotes than in engaging figures from the past in a designer-to-designer dialogue. An issue of the Walker Art Center's *Design Quarterly* on Jekyll, for example, ends with Van Valkenburgh's discussion of his own and other contemporary projects that amplify Jekyll's theory and practice. The thrust of his scholarship thus grows not only from the craft of landscape but from the desire to assimilate its historical precedents.

Van Valkenburgh occasionally betrays his erudition with overly conspicuous historical references or in an earnestness that sometimes pervades his designs. At the same time, this focus is the strength of his design process. He favors a nurturing continuity with the past over sudden, facile ruptures and inventions. His collaboration with Barbara Stauffacher Solomon at the Coyles Conservatory of the Walker Art Center Sculpture Garden is an example of a transformation of traditional garden typology into a contemporary expression. Four foot-high green arches are arranged enfilade, one wing of the conservatory and are echoed by corresponding "vine scrims" in the other wing. While the forms are traditional, the use of true evergreen topiary shrubs proved impractical. Using a steel infrastructure, drip irrigation, and vines, Van Valkenburgh executed an instant "high-tech topiary" (P/A, March 1989, p. 123). This installation looks like an extremely high maintenance garden, but its technically sophisticated structure coupled with the use of organic growth retardants make it easily managed.

Van Valkenburgh's designs are all marked by this kind of strong geometrical and spatial definition. He shuns replications of natural plant com-



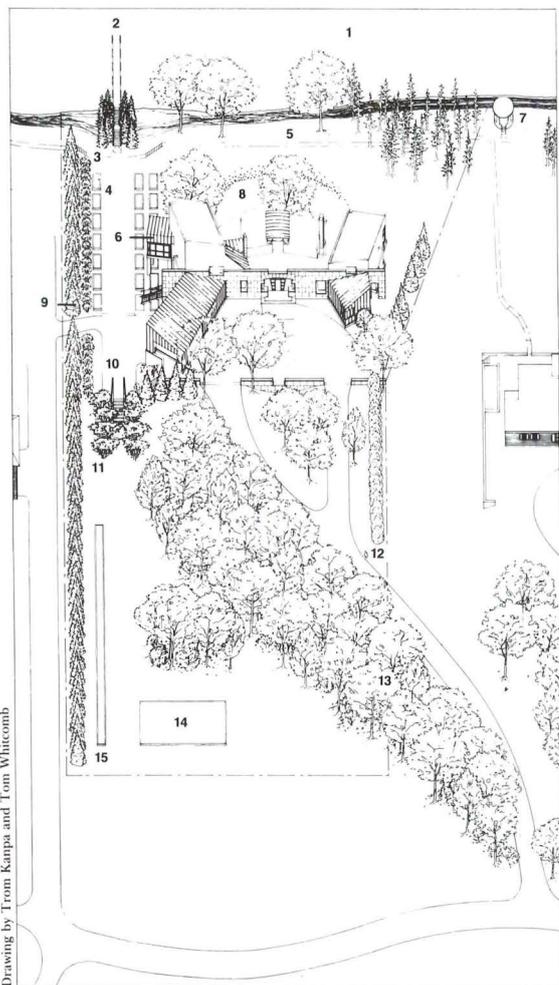
Scott Kuckler

### Black Granite Garden Southern California

Commissioned to design a water feature, Van Valkenburgh eventually redesigned the entire narrow, 2500-square-foot residential garden in which the water element was to be sited, providing as well for future sculpture (model, above). The garden connects to an existing lawn to the north and a driveway to the south, neither of which were redesigned. The long edge of the garden is defined by a skewed line of large-leaf Ficus trees (*Ficus nitida*) planted four feet on center. Behind their trunks runs a tapestry of different vines on a galvanized metal trellis. Dark manganese bricks are used on the long paths, which cross the black granite patio and lead to sculpture sites (left bottom).

Van Valkenburgh began designing the garden after he had won the Rome Prize in landscape and departed for Italy. The influence of Italian landscapes is readily apparent in the cypress allées, plantings, and materials. The cool mystery of the water column and channel (left top) and the rows of cypresses provide relief from the western sun, while focusing on long views. The roughness of the water column is played against the precision of the water trough. This theme is continued in black granite paving stones, which were broken before installation so that their irregular pattern would contrast with the rectangular edge. Like the mythological giant Antaeus, the Black Granite Garden gains strength from the ground, whether in the dark tones of the paving, in the luminous water trough that is lit by fiber optic cables, or in the tangled tapestry of the vine scrim behind the solid rhythm of tree trunks. Landscape architects: Michael Van Valkenburgh Associates (Michael Van Valkenburgh, Julie Bargmann). Consultants: LeMessurier Associates, structural. Yerigan Construction, masonry. Contractor: Broderick Landscape. Cost: \$150,000. (See *Building Materials*, p. 120, for all projects.)





AXONOMETRIC

N ↑ 100'/30m

- |   |  |
|---|--|
| 1 LAKE MINNETONKA                         | 9 BLACK SPRUCE ROW                             |
| 2 BOAT DOCK                               | 10 SPLIT GRANITE PIERS                         |
| 3 RED STEM DOGWOOD                        | 11 LILAC BOSQUE                                |
| 4 RAISED GRANITE FRENCH BEDS WITH FLOWERS | 12 ARBORVITAE HEDGE                            |
| 5 BRICK STROLL PATH                       | 13 SUGAR MAPLE GROVE                           |
| 6 SCREEN PORCH                            | 14 VEGETABLE GARDEN                            |
| 7 WOODEN GAZEBO                           | 15 CUTTING BORDER ARRANGED FROM SPRING TO FALL |
| 8 CROCUS ARC                              |  |



munities, charging that a “skimpy version of a New England woodland fails in scale and detail.” More importantly, his strong geometry downplays romantic notions of nature. He claims that geometry “highlights the investigation of the abstract space that is qualified by the seasonal qualities of the plant palette.”

While working on larger, public landscapes, Van Valkenburgh has also pursued his design agenda through garden design. His own projects and historical research have been instrumental in the revival of the flower garden as a legitimate design problem. He has found that “Gardens can be laboratories or opportunities for trying ideas as a series of investigations.” Yet, whatever his ulterior motives, Van Valkenburgh’s private gardens are hospitable, if also poetic.

His insistence on the primacy of concepts and ideas over problem-solving has led occasionally to non-site specific landscape designs. The ice/vine maze for Martha’s Vineyard, or Van Valken-

burgh’s U. C. Davis garden proposal (page 77), are autonomous designs. In this regard they are conceptually analogous to sculpture, in that they could be sited in almost any clearing. Unlike the tradition of the walled garden which creates its own context, these designs have an objective presence that transforms their site. Yet their palette and precedents are drawn from landscape, not from sculpture or architecture. This concept of objective, non-site specific landscape design grows out of Van Valkenburgh’s interest in speculative design as a testing ground for ideas. For the exhibition *Transforming the American Garden*, he asked 12 “mid-career” landscape architects to design an ideal garden. While such speculative engagements are common in architecture, the show marked one of the few times landscape architects have been asked to develop a design concept and formal realization, without reliance on site, client, or program.

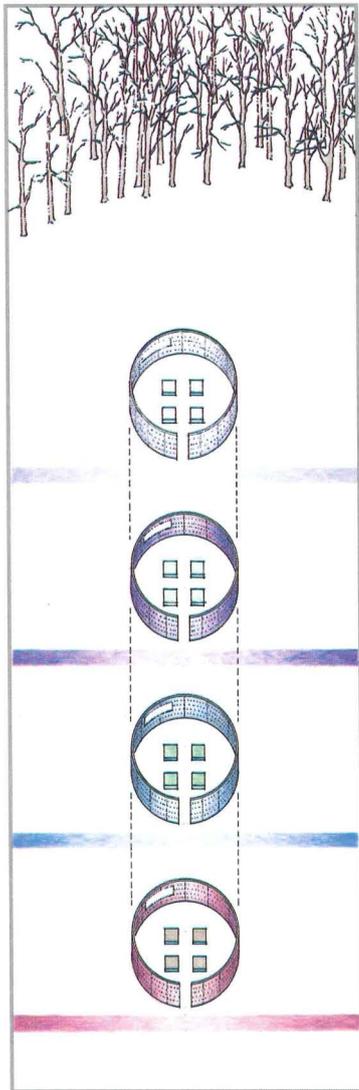
One of the exercises Van Valkenburgh gives his students at Harvard, where he is a tenured profes-

### Garden on Lake Minnetonka Wayzata, Minnesota

While he did not choose the individual plants, Van Valkenburgh “programmed” raised beds (above) so that blooms would progress towards the house throughout the summer, with fall plants announcing autumn. Upright stones marking the entrance to a lower garden (facing page) are made from a single piece of granite, split and sawn but not polished.

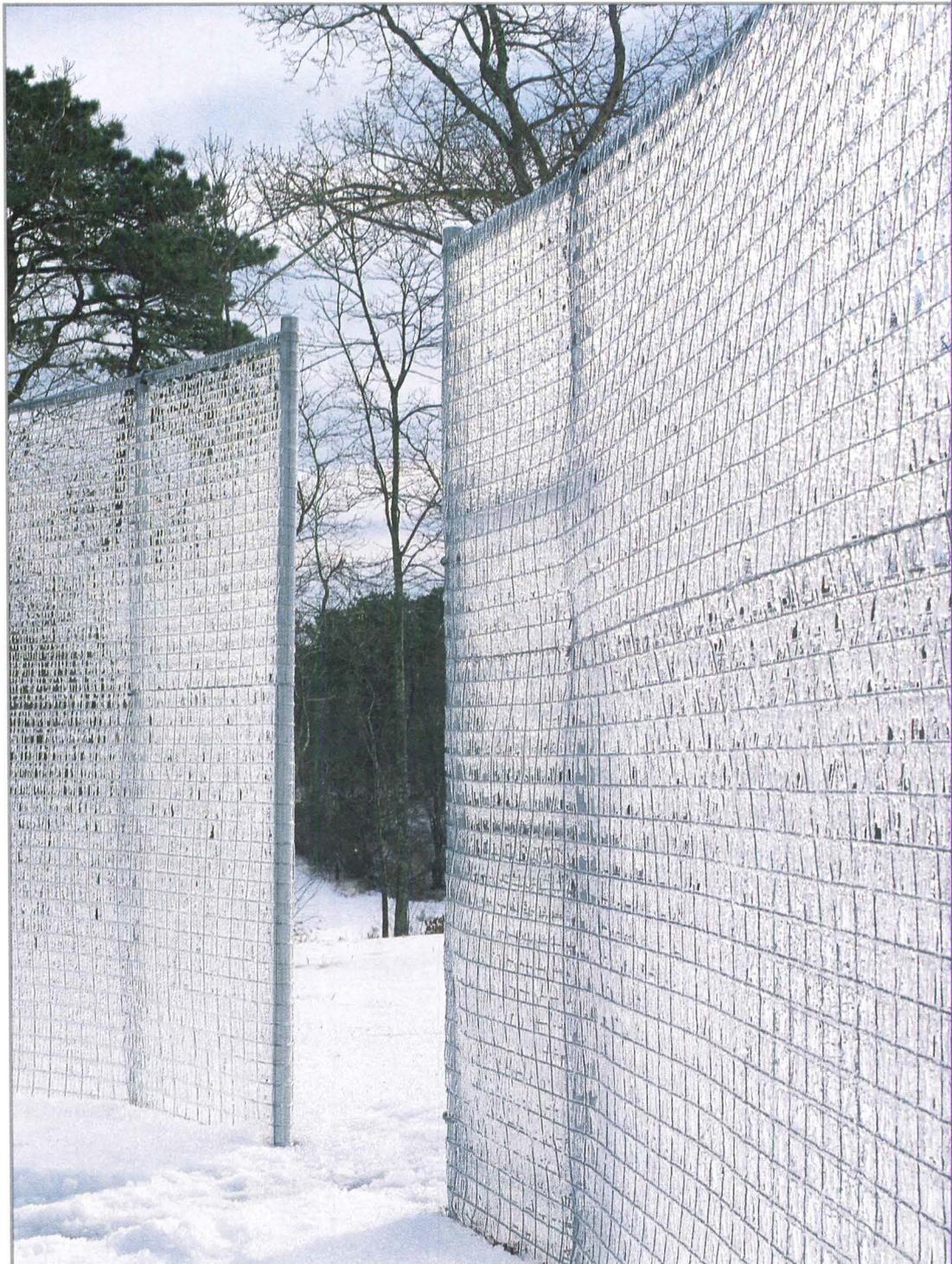
Landscape architect: Michael Van Valkenburgh Associates (Michael Van Valkenburgh, Tim Barner, Karen Kays design team). Architect: Harrison Fraker Architects, Minneapolis. Contractors: Yerigan Construction, Ostro Tree, Bachman’s.





SEASONAL ELEMENTS TOP TO BOTTOM

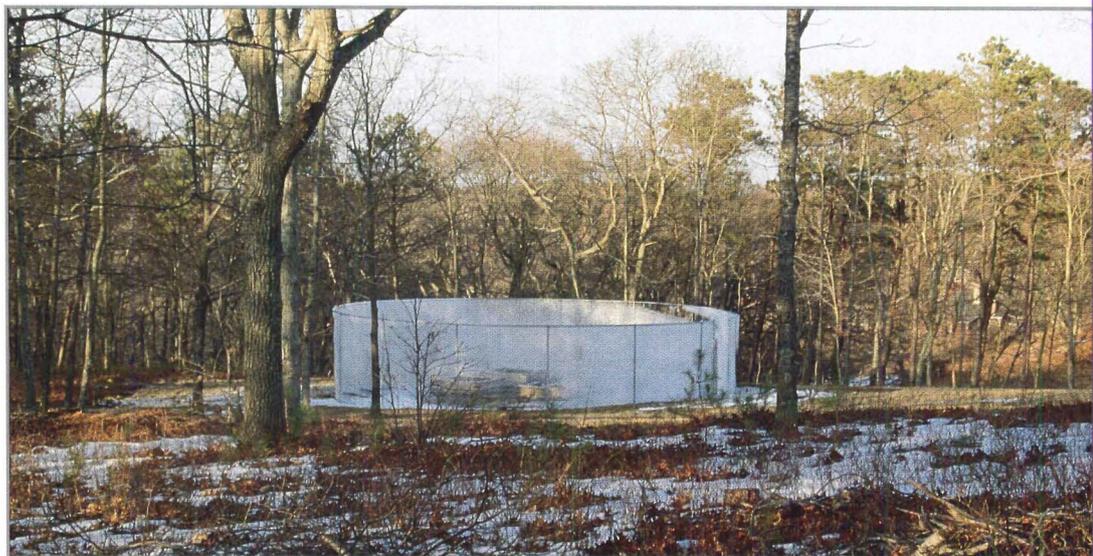
- |        |                    |
|--------|--------------------|
| WINTER | ICE                |
| SPRING | PURPLE CLEMATIS    |
| SUMMER | BLUE MORNING GLORY |
| FALL   | BOSTON IVY         |

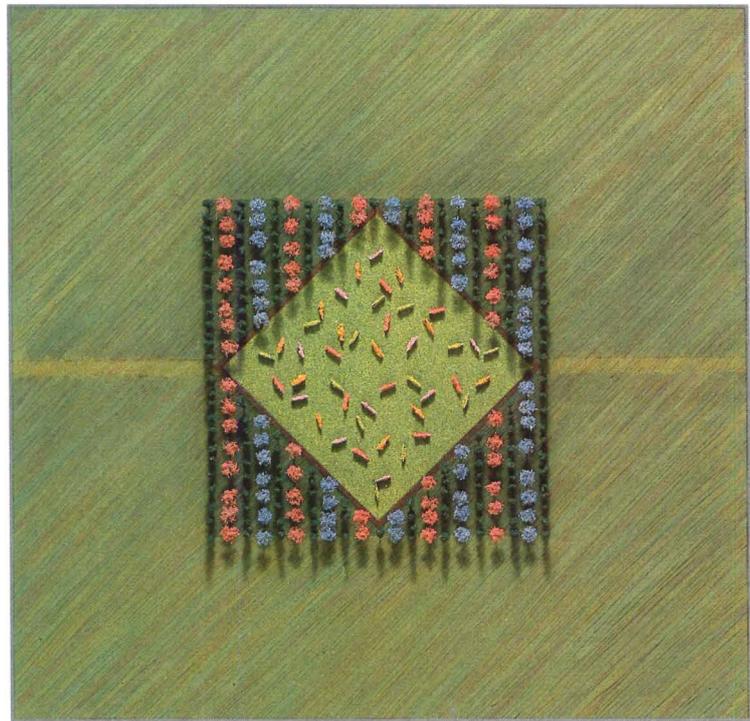
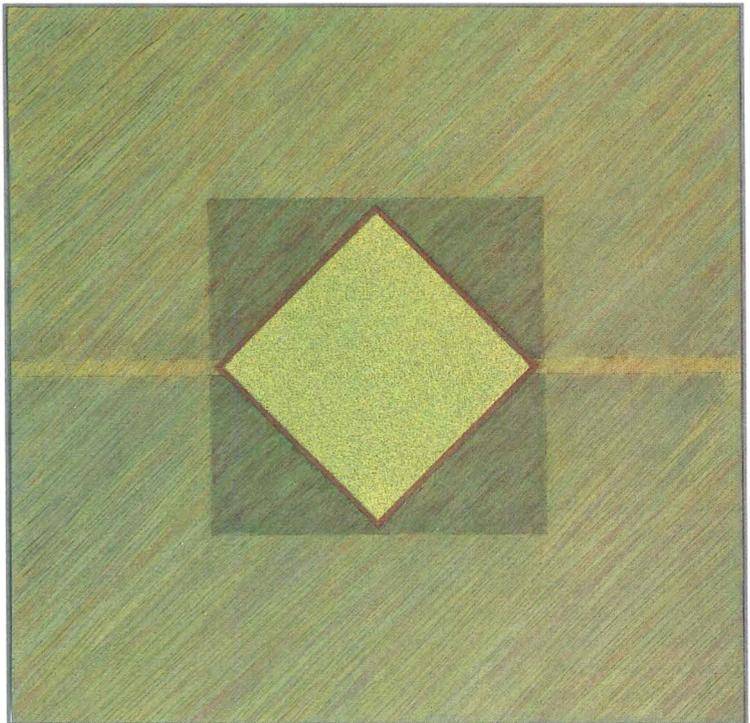
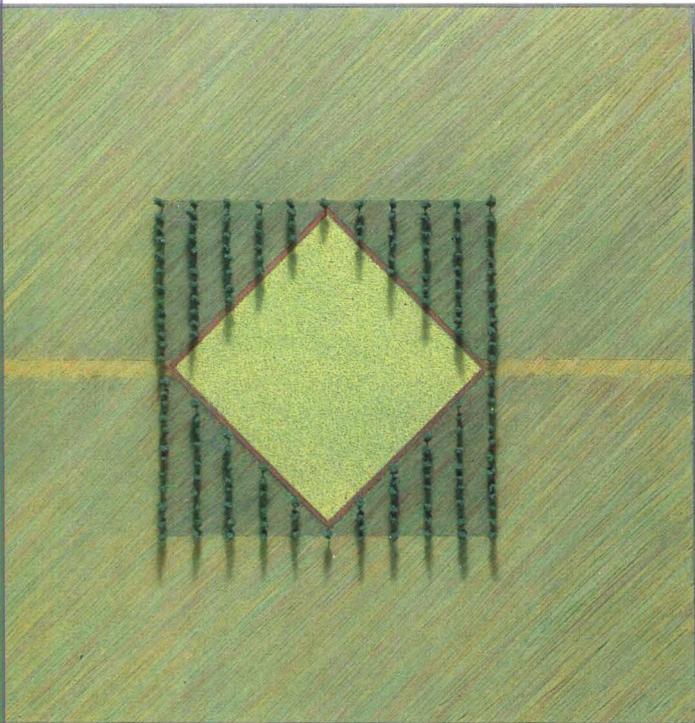


**Ice-Vine Garden**  
Martha's Vineyard, Massachusetts

This private retreat for a summer home is constructed of a galvanized steel mesh enclosure 38 feet in diameter that stands in the open and is covered with a variety of flowering vines in spring, summer, and fall. In winter months, the mesh is iced by a drip irrigation system to produce an instant ice sculpture for occasional winter visits. Inside the circle, raised aromatic herb beds and simple seating provide an intimate space.

Landscape architects: *Michael Van Valkenburgh Associates (Michael Van Valkenburgh, Richard Johnson, Ethan Carr)*. Client: *Barbara Krakow*. Cost: \$3500.





Charles Mayer, Hansen/Mayer

is to site a bosque in an open field and to end the choice of tree species, size, and spacing. Ask them to consider the phenomenological experience and the cultural meanings of such forms. A strict grid of trees of irregular size or uniform trees in a random grove. It is the physical and motive aspects that interest me," says Van Valkenburgh. Students consider the historical implications of their designs, informed by Van Valkenburgh's research project on the typology of planted groves. This study, funded by the Graham Foundation, departs from traditional garden histories in its study of underlying structure.

Van Valkenburgh is currently involved with a number of big-scale projects, including the West Hollywood Civic Center (P/A, January 1989, pp. 101-109), the Master Plan for the 700-acre Minnesota Landscape Arboretum, a plaza for the Pacific Atlas Center in Los Angeles with SOM, architect L. Wemple & Associates, and artist Douglas Olden, and Mill Race Park, a 70-acre riverfront

park in Columbus, Indiana. These larger projects pursue themes first revealed in private gardens. Mill Race, for example, is subject to serious seasonal flooding, and Van Valkenburgh hopes to inscribe that process in his design.

Although these civic projects will test his ideas, Van Valkenburgh has already achieved an impressive synthesis of scholarship, research, and design. He recognizes that no matter what technical advances or design inventions he achieves, mastery of seasonality and natural processes is a quixotic quest. Commenting on a review of Anselm Kiefer's work that detailed the difficulty of conserving straw and dried ferns in his paintings, Van Valkenburgh remarks, "He should try to conserve a garden."

**Jory Johnson**

*The author, who teaches at University of North Carolina, Charlotte, is a contributing editor of Landscape Architecture. He is now collaborating with photographer Felice Frankel on a book on modern landscape design.*

**Vine Maze Garden**  
University of California, Davis

**This garden design, which placed third in a competition won by Land Studio (page 80), will eventually be built in the University's Arboretum. Its inner square, which consists of 42 12' x 12' vine scrims of galvanized pipe and wire mesh, allows for the exigencies of horticultural research. The scrims' structure is dematerialized by the vines.**

Landscape architects: *Michael Van Valkenburgh Associates, Cambridge (Michael Van Valkenburgh, designer).* Consultant: *Dr. Richard Johnson, vines.* Client: *U.C. Davis Arboretum.* Model: *Julie Bargmann.*

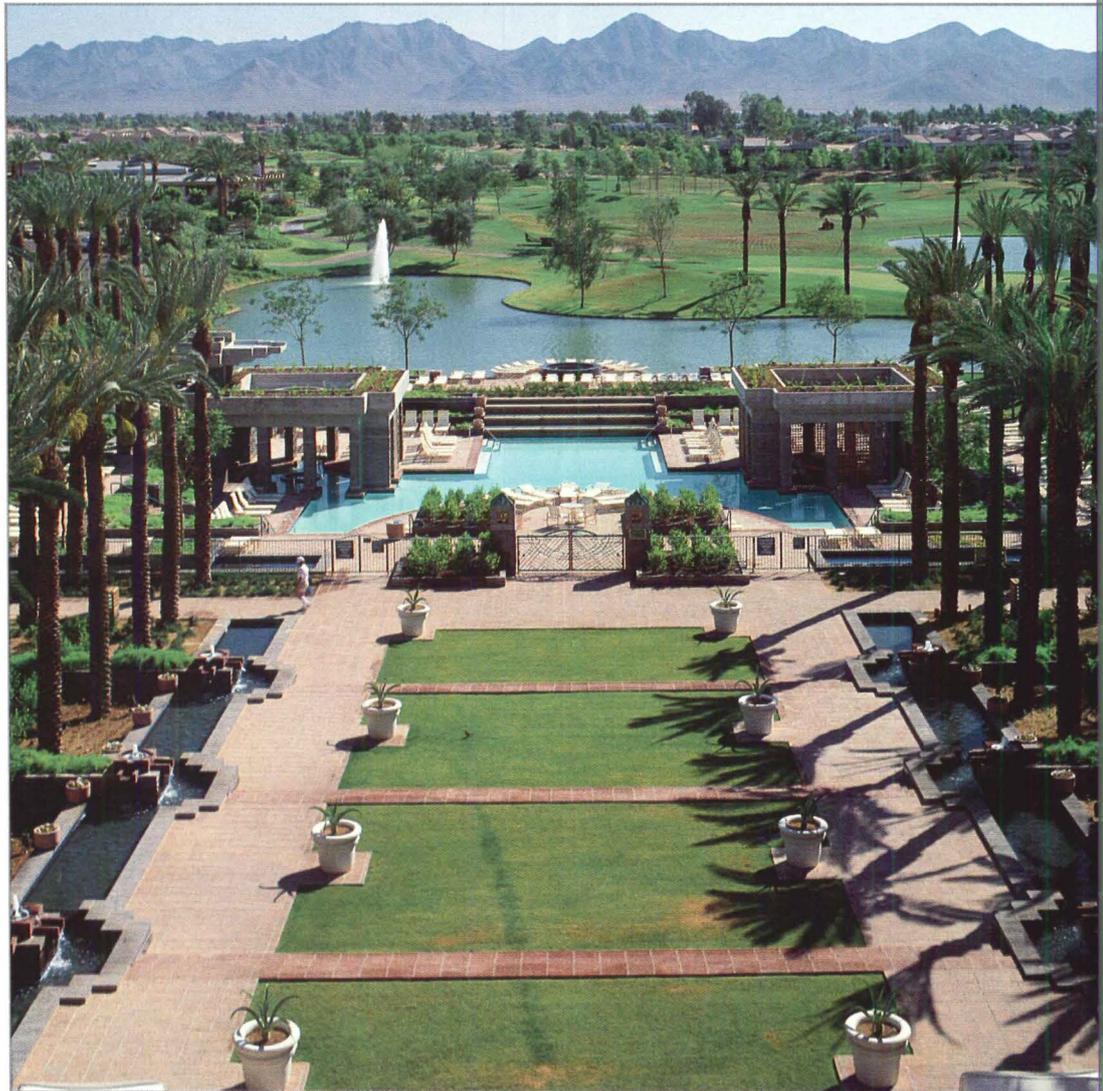
# P/A Portfolio Three Firms

Projects by three landscape architecture firms—including an unusual series of three collaborations between a landscape architect and architect in Southern California—prove the breadth and depth of work underway.

## THE SWA GROUP

“It’s the old oasis trick,” says William Callaway of the water gardens at Hyatt’s first full-fledged resort hotel in Scottsdale, which is surrounded not by desert but by Gainey Ranch, a new office/condominium complex. “It makes you feel like you’re farther away from civilization than you actually are,” says Callaway, who directed the landscape design for the SWA Group in collaboration with architect Mark Hornberger of Hornberger Worstel & Associates, San Francisco. To the rear of the hotel, three of six garden courts defined by the hotel’s triple H plan (bottom right) open onto a water playground composed of 20,000 square feet of swimming pools, 28 fountains, 47 waterfalls, a water slide housed in a clocktower, and an elevated walkway (facing page, bottom) whose hard edge plays against the softer line of the surrounding lake. Grass lawn is held to a minimum, and planting departs from local clichés of desert rocks and cacti in a lush collection of Southwestern jacarandas, California pepper trees, and rosemary hedges. “The architect wanted a formality in the landscape plan that would relate to the building,” says Callaway. Nowhere is this formality more evident than in the date palm court (right) whose regal trees frame views of the distant mountains. Palms, which also line the approach road, “give an immediate scale and sense of a mature landscape from the start,” says Callaway. The garden’s most spectacular feature, a beach that merges seamlessly with a pool (facing page, top), was made possible by the use of heavy density sand which sinks into a trench at the beach edge. **Daralice D. Boles**

Project: *The Hyatt Regency at Gainey Ranch, Scottsdale, Ariz.* Landscape architects: *The SWA Group, Sausalito, Calif.* (William Callaway, Cliff Lowe, Justiniano Mendoza, John Loomis, Michael Driscoll, Maureen Simmons). Architects: *Hornberger Worstel & Associates, San Francisco.* Client: *Hyatt Development Corporation.* Water features: *Howard Fields & Associates.* Landscape contractor: *AAA Landscape.* Irrigation: *Aqueduct Design.* (See *Building Materials*, p. 120, for all projects.)





## LAND STUDIO

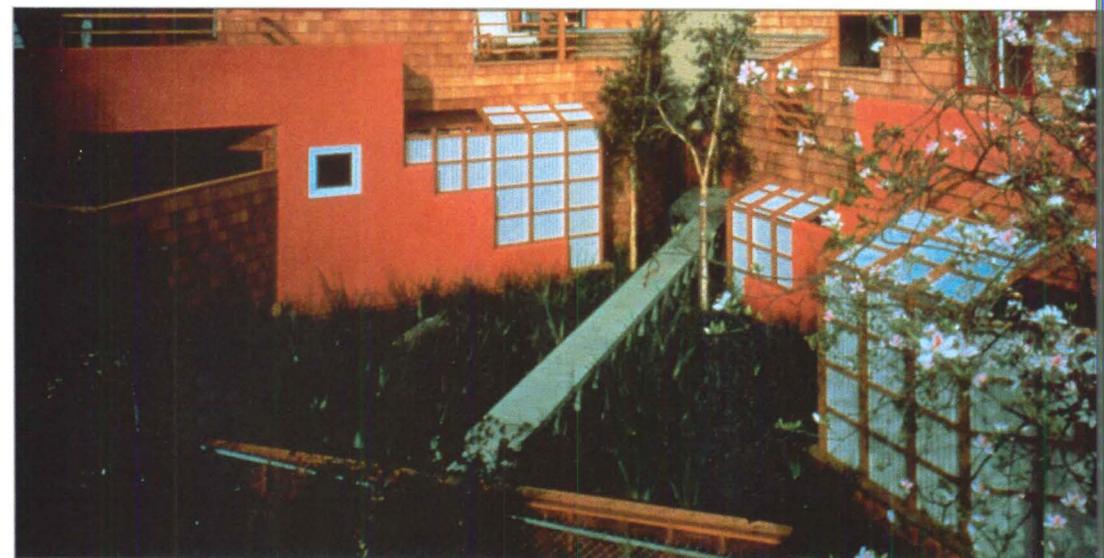
The experience of landscape is often expressed in words that suggest physical change; we say that we were moved, elevated, transported into another world. Ron Wigginton of Land Studio, San Diego, seeks to objectify this experience. "I build platforms and bridges, places to sit and stand in order to intensify these moods," says Wigginton, who wants his landscapes to take hold of people and convert observers into participants. "I would never use a classical arch or any symbolic form that refers to some other time and place. I think people who have grown up in California, as I did, share a collective memory of its landscape. I want them to tap into that memory," he explains.

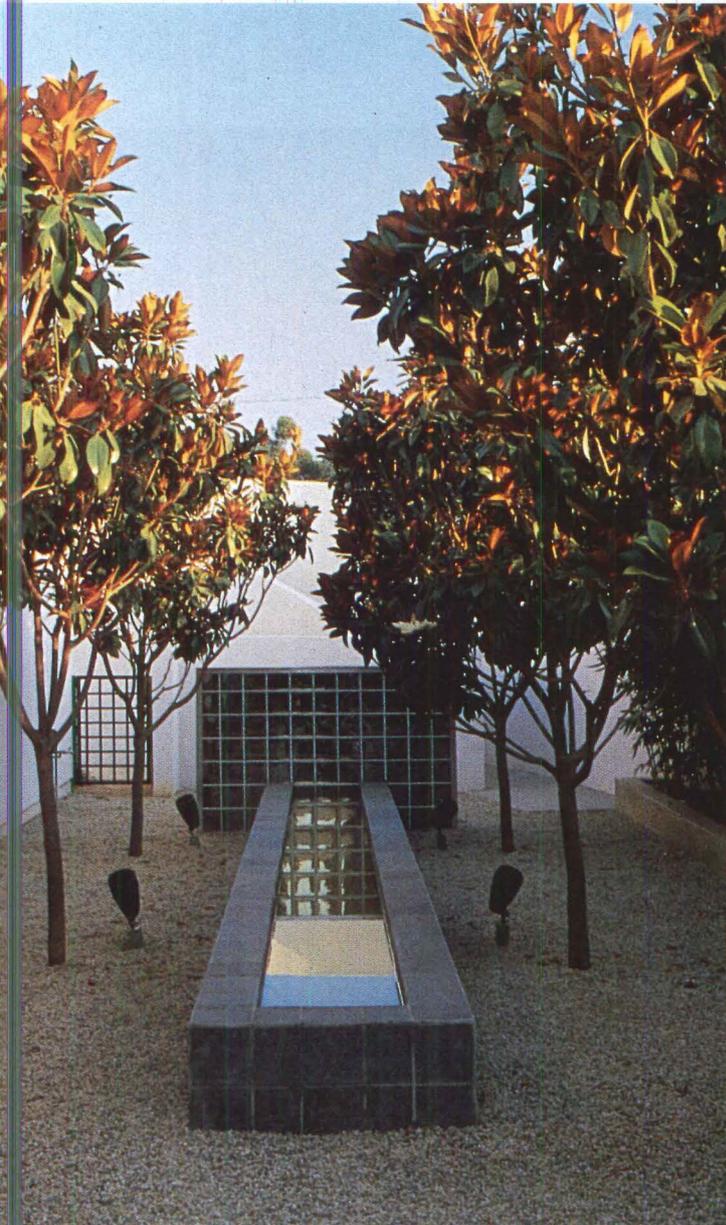
This concern for site-specificity is evident in the landscape for a house called Miraflores (top and middle right), which, says Wigginton, "represents a geographical description of San Diego from the palms along the beach to the lawns of the houses and finally to the mountain forests." This scenario follows the actual man-made landscape, not an idealization of the natural or primordial landscape.

In another vein, six gardens for the Escondido Surgery Center (facing page) echo the surgical procedure from the reception area to the place of separation from friends and family, through anesthesia, to reawakening, recovery, and reunion. Walls of mirrored glass block in galvanized steel frames represent the precision of surgery, while handmade elements in natural materials convey human contact.

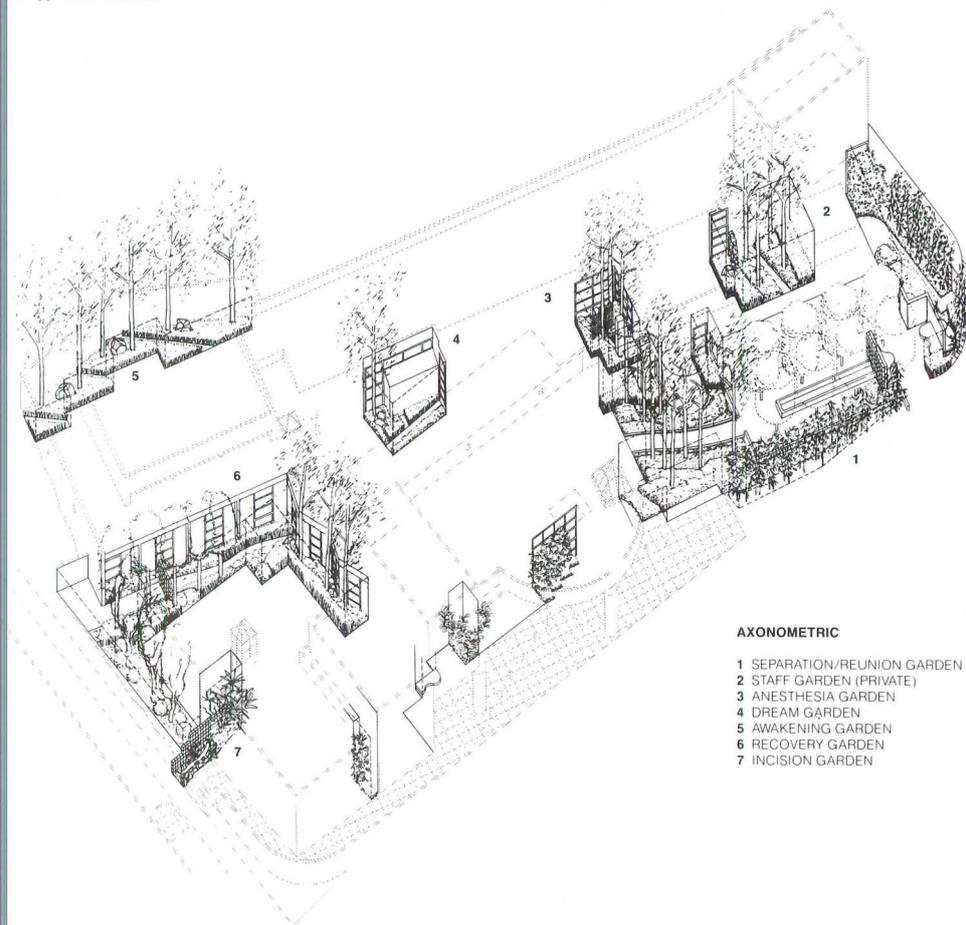
Early in his career, Wigginton was fortunate to find an ideal collaborator in architect Rob Quigley, with whom he designed these two projects in addition to the earlier "Starwalk," a multi-family housing block (bottom right). In the latter project, a common courtyard was planted in grasses and bisected by an elevated redwood deck, cut and lit from below at night to form a star pattern.

"Rob's reaction to my ideas was unhesitatingly positive, perhaps because we are both interested in choreographing movement through space. At Miraflores, I even took a crack at designing the house, and although the final design looks nothing like mine, they kept the siting, and I used the house colors in the landscape, says Wigginton." Although Land Studio also designs large-scale landscapes for office parks, resorts, and institutions, Wigginton feels that "the work I have done with Rob has what I think of as true landscape scale, and that makes it particularly rewarding." *Sally Woodbridge* ■





Philipp Scholz Ritterman



AXONOMETRIC

- 1 SEPARATION/REUNION GARDEN
- 2 STAFF GARDEN (PRIVATE)
- 3 ANESTHESIA GARDEN
- 4 DREAM GARDEN
- 5 AWAKENING GARDEN
- 6 RECOVERY GARDEN
- 7 INCISION GARDEN

Project: *Miraflores Residence, Fairbanks Ranch, Calif.* Landscape architects: *Land Studio (Ron Wigginton; Karen Scarborough, project manager).* Architect: *Rob Wellington Quigley.* Client: *Mr. Mehrad Nazari, Iven Partnership.* Landscape contractor: *Earth Sculpture.*

Project: *Star Walk, Pacific Beach, Calif.* Landscape architects: *Land Studio (Ron Wigginton).* Architects: *Rob Wellington Quigley.* Client: *Holm Wodehouse Company.* Contractor: *Wodehouse & Associates.* Cost: *\$15,000.*

Project: *Escondido Surgery Center, Escondido, Calif.* Landscape architects: *Land Studio, San Diego (Ron Wigginton, principal; Karen Scarborough, project manager).* Architect: *Rob Wellington Quigley, San Diego.* Client: *Escondido Surgery Center Doctors (Dr. Wayne Miller).* Landscape contractor: *Ponderosa Landscape.*

**MORGAN WHELOCK  
RICHARD FLEISCHNER**

Becton Dickinson began their consideration of their corporate headquarters in suburban New Jersey by hiring landscape architect Morgan Wheelock of Boston. Wheelock developed the basic site concept for the 14-acre property, proposing to open the buildings to the wooded site (plan, bottom right). Following their selection as architects, Kallmann, McKinnell & Woods helped refine the site plan so that the Phase One complex defines a “great lawn” on the east side, across which Phase Two is now under construction. Becton Dickinson also engaged artists Michael Singer and Richard Fleischner to work on portions of the landscape.

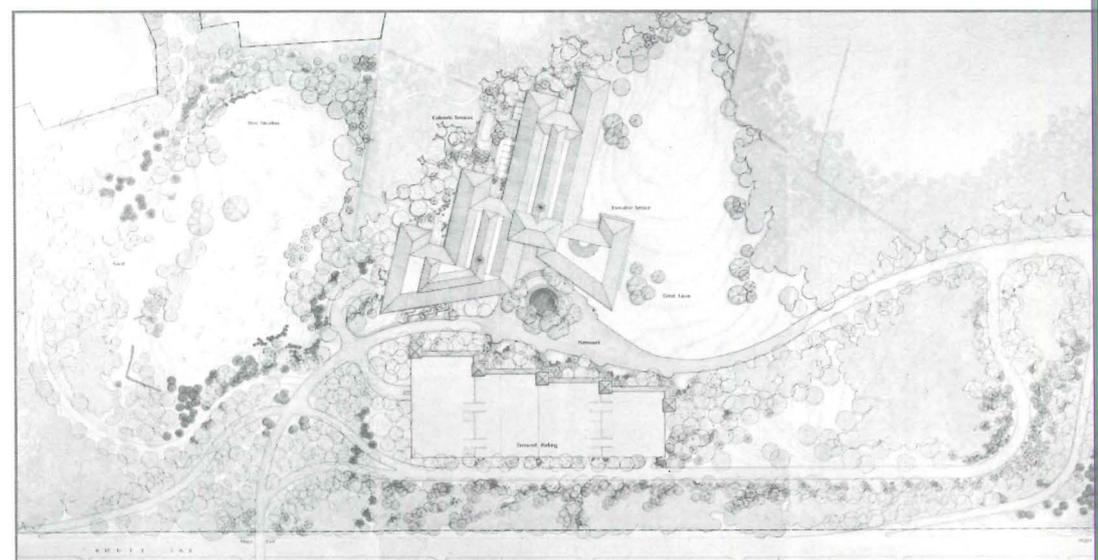
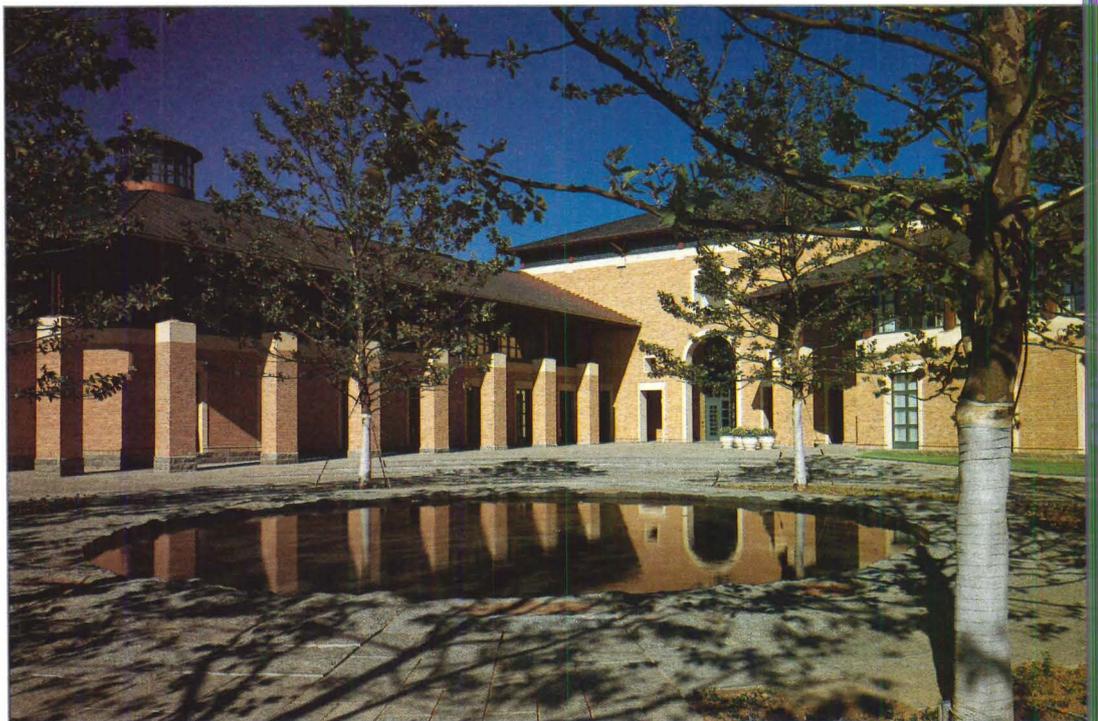
Wheelock designed the pool at the entrance (top and middle right), which captures the romantic sensibility of McKinnell’s architecture and that architect’s interest in Arcadian themes, particularly “the order and optimism of the Classical spirit and the romantic, tragic reminder of the ultimate fate of our work [which is] implicit in even the most pleasing decay . . .” The pool’s perfect circle is placed off axis from the asymmetrical entrance. The bottom is covered in undulating dark granite, suggesting a ruin of previous habitation, while the surrounding paving metamorphoses from rough to smooth.

Fleischner defined the terrace (facing page, bottom) with robust perennial plantings, paving patterns, and benches. A sunken *tapis vert* in the middle of a wildflower meadow (facing page, top) relates to the building’s semi-circular stairwell.

There are no great gathering places at Becton Dickinson. No benches invite social intercourse at the entrance pool, and seating is used more for spatial distinction than gathering. Instead, the architecture and the landscape evoke a New England spirit that does not seek a crowd. Raw stones and native landscape define what is essential.

**Jory Johnson**

Project: *Becton Dickinson Headquarters, Franklin Lakes, N.Y.* Landscape architects: *Morgan Wheelock, Boston (Morgan Wheelock, principal-in-charge; Andrew Leonard, project manager; Carol Tanski, Trudie Miller LaVigne, project landscape architects; John Amodeo, Edward Marshall, design team); Richard Fleischner, Providence.* Architect: *Kallmann, McKinnell & Wood, Boston.* Client: *Becton Dickinson & Company.* Consultants: *Andrew Marshall, civil engineer; Zaldastani Associates, structural engineers; CMS Collaborative, fountain; White Engineering, irrigation; Cosentini Associates, m/e, plumbing; Jules Fisher & Paul Marantz, lighting; Wolf & Company, cost.* Contractors: *Henderson Corporation, site work; Rockledge Garden Center, landscaping.*





## P/A Technics Staying on Top of Tile

**Keen competition among foreign and domestic manufacturers has raised the quality of ceramic tile products, increased their variety, and offered designers more possible applications.**



EONS ago Paleolithic man—in part through his discovery of fire and its potential to convert raw clay into ceramic vessels—shed his beastlike image and acquired a Neolithic cachet. From that point on, the history of ceramics has been long and often illustrious, reaching high points in the refined tilework and pottery of China, the Middle East, Spain, and Italy. Yet, despite its venerable status in the building trade, the ceramic tile industry is still maturing. Even today, this ancient craft continues to find new expression and expanded potential through modern technology.

### The Market Grows

The vast potential of ceramic tile isn't lost on American designers and consumers, who are asking for it in record numbers. According to the Tile Council of America, ceramic tile consumption in the U.S. totaled more than 975 million square feet in 1987, an increase of about 90 percent from just five years before. Of the 1987 amount, nearly 770 million square feet consisted of glazed wall tile and roughly 100 million square feet each of ceramic mosaic and quarry tile.

Significant strides have taken place in all aspects of ceramic tile manufacturing. "The technology that has come about in the tile industry in the past five years has been equal to what occurred in the previous 100," says Joe Tarver, executive director of the National Tile Contractors Association. Manufacturers, for example, continue to experiment with the ideal combination of raw materials to form durable and attractive tiles. The methods used to form tiles have abandoned tradition too. Extrusion, once the backbone of tile mass production, is increasingly uncommon among large producers and is used primarily to make quarry and clinker tiles. Most tiles today are formed by a dust pressing process in which the raw material is ground, mixed, moistened, and partially dried before being pressed into shape in a friction or hydraulic press. This method produces tile that is consistent in color and dimension and allows close control of the tile surface. "The end result is a much denser and harder product," says Barrie Neubacher, national accounts manager for Fiandre. It also yields a less porous tile that reduces maintenance and doesn't require sealants.

The shift from tunnel kilns to roller hearth kilns,

led by Italian manufacturers, allows for fast firing and is used extensively in the making of porcelain pavers. Along with this change came the appearance of 8" x 8" units, which have since been followed by 12" x 12" and 24" x 24". "One of the problems with large tile has been warping," says architect Jess McIlvain, a tile installation consultant. New clay blends are used to make porcelain that resists the tendency to curl.

### The Glazing Craze

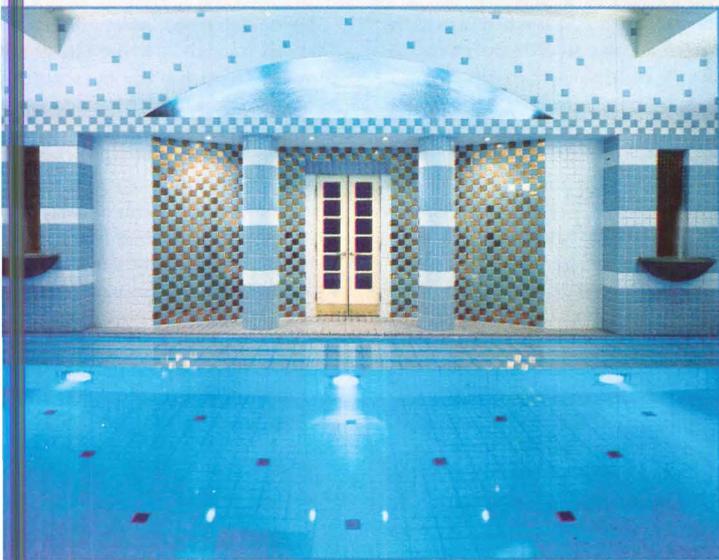
Time was, the only tile one expected to see on a floor installation was an unglazed, earth-tone color, says Robert J. Kleinhans, executive director of the Tile Council of America. New glazing technology makes a wide range of colors available. Not only are glazes more colorful, they are hard enough to withstand the heavy traffic of commercial settings without showing wear in only a few months. "Five years ago, the hardest glaze was about as hard as steel, which meant it could be scratched. Now tiles are available as hard as silica. You can't scratch them," says McIlvain. Glazes used in previous decades contained high amounts of lead and were relatively soft, says Jim Fox, a ceramic engineer at Florida Tile. Now leadless glazes, which melt at higher temperatures and produce tougher finishes, are coming the rule for floor tiles. Glazed tiles are particularly useful in areas where low maintenance is desired. With an absorption rating of near zero, they are virtually impossible to stain.

In recent years, much effort has been channeled into the development of slip-resistant glazes for floor tiles appropriate for interior and exterior use. In some cases, says Stephen McIntire of Dalton Tile, manufacturers will enhance slip-resistance by creating an irregular walking surface or by making indentations, ridges, or protrusions into the tile. Others use treads or a diamond pattern. Still others apply an abrasive to the tile face before firing or include the abrasive in the glaze itself.

While such methods have produced tiles that offer improved footing in applications such as restaurant kitchens, many industry experts offer caution about their maintenance. Use of the specialized chemicals and equipment needed to maintain particularly the grittier tiles may require more care and skill than can be reasonably expected.

(continued on p. 92)

**Bright-colored tiles were used to give a sense of electricity to the central plaza at Rio (above right), a retail and entertainment center in Atlanta designed by Arquitectonica International and landscape architects Peter Walker and Martha Schwartz (see Profile, p. 56). The tile's dynamic patterning was intended to complement the architectural expression of the building's rotated volumes, says project architect Martin Wander. "It really makes a direct connection between the kineticism of the building and of the landscape."**



In designing interior spaces for the Shiseido Health Club in Tokyo, architect Michael Graves saw the selection of tile as a material in the pool area as virtually a given. But it was not a hindrance. Graves seized the opportunity to be playful with water themes in the tilework, allowing the rigid check-board band along the walls to disintegrate into a bubblelike scattering of tiles (left). Small fountains were used to add an element of sound in the live acoustical environment. And highly reflective tiles used around the entry throw reflections about the room once the splashing begins. "That's the one thing about tile," says Graves. "It fairly dances." Shiseido was indirectly influ-

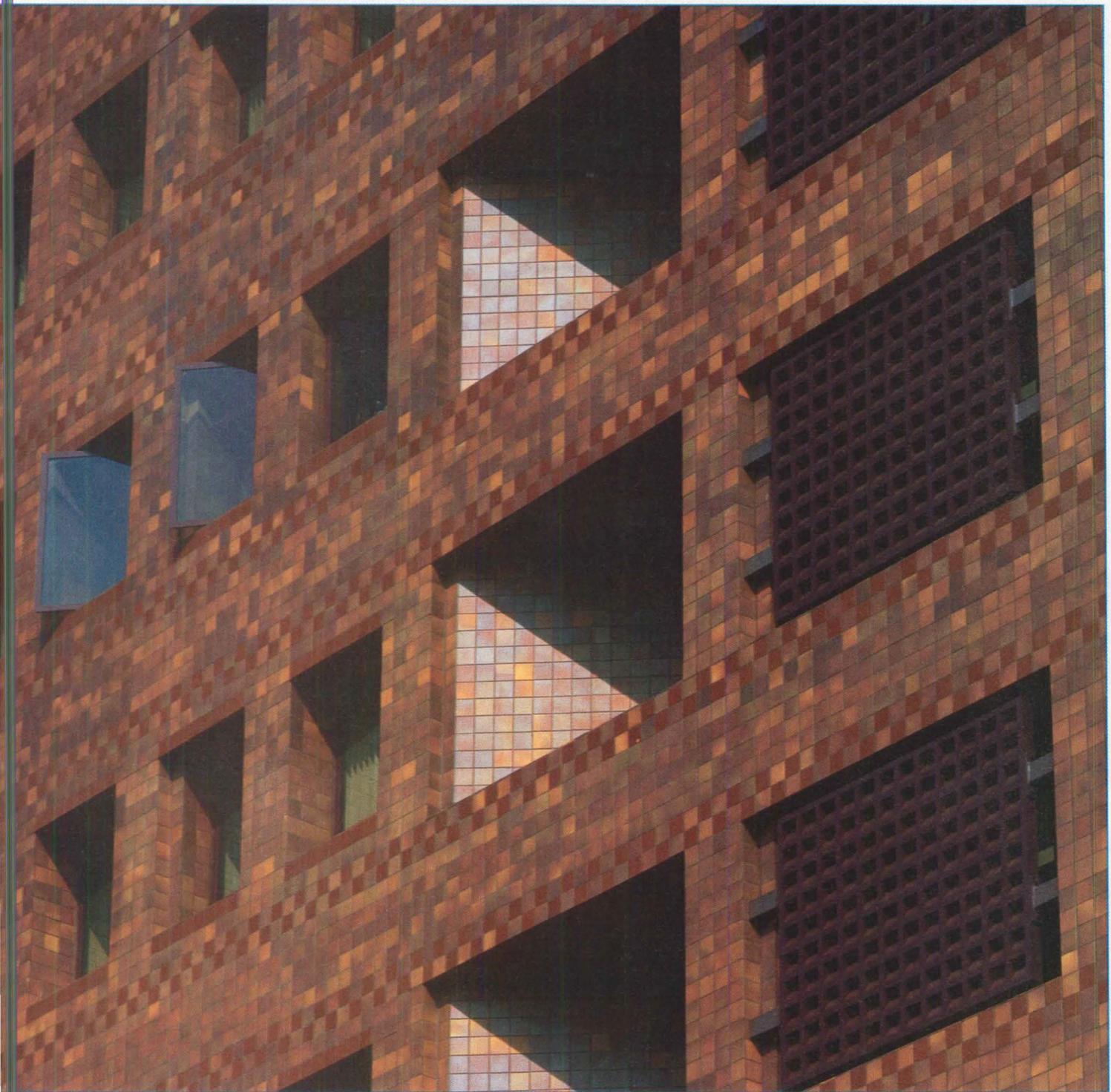
enced by a London residence with a poolhouse by architect Halsey Ricardo, a project that conveys "the intriguing sense that tile in its patterns can become spatial," says Graves. He pursued that notion in the detailing of a passageway that passes by the pool (above). The vaulted ceiling is accented with double bands of metallic gold tile, used with restraint to produce an effect that is rich, not gaudy. Four-inch or smaller tiles were used on curved surfaces throughout to keep the radius smooth.



Photos: Steven Rosenthal

Because it has a hard, washable surface and can withstand considerable abuse, glazed tile was a natural choice for the renovation of Central Square transit station (above) in Cambridge, Massachusetts, by Ellenzweig Associates of Cambridge. The goal was to take the formerly dark, dingy station and make it radically different, says project architect Gary Gwon. A range of bright colors and light were introduced with tile, and entry/exit points were emphasized by shifting to a deep blue. As an alternative to the spray-painted yellow stripe on the platform, the architects called for a quarry tile product with round depressions that they filled with a grid of yellow ceramic dots.

Three artists collaborated on the interior tilework. Artist Elizabeth Mapelli executed the mosaic murals, whose colors or patterns relate to the traditions of various ethnic groups living in the area of the station. She selected glass-body tile, rather than ceramic, because of its rich luminescence. Artists Anne Storrs and Dennis Cunningham designed and fabricated 100 white bas relief tiles that are installed above the station columns. Each 12" x 12" tile was cast in an individual plaster mold and then glazed.



Seismic concerns played a major part in the decision to use ceramic tile on the exterior of the California Medical Center (left) in Los Angeles, designed by Kaplan McLaughlin Diaz, of San Francisco. "Tile doesn't get you into weight problems" as precast concrete or brick will, says James Diaz. This nine-story, 227,000-square-foot addition is located in a semi-industrial redevelopment area containing many old red-brick buildings. Selecting a reddish tile helps the large-scale addition fit its surroundings. Aesthetically, says Diaz, tile offered the freedom to develop patterns that shift the scale of the building. What at first appears to be a random selection of tiles can, on closer inspection,

be seen to incorporate subtle patterns and stripes. From a pragmatic point of view, tile is very cost-effective over the life of the building, though it is more expensive than many materials at initial construction, says Diaz. The installation is quarry tile applied in a thick mortar bed over exterior gypsum board, building paper, and metal lath. Particular care was taken with design details at ledges and other horizontal surfaces, says Diaz, in order to keep the wall waterproofed (above).

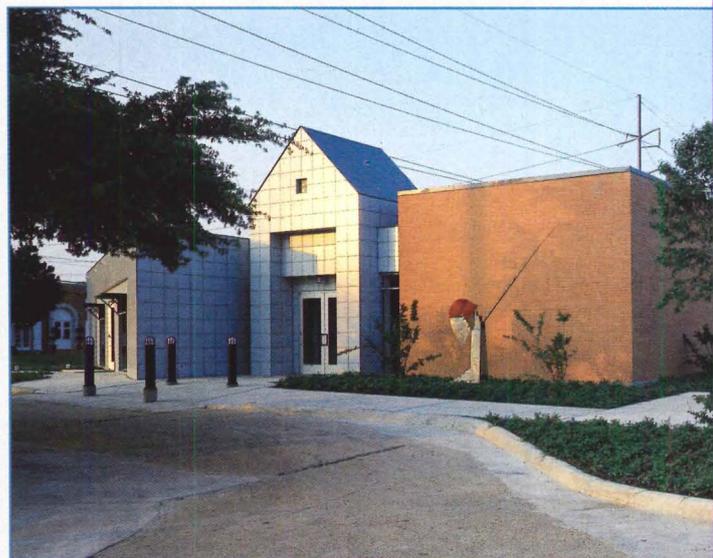


Tommy Thompson

Achieving a quality look within a limited budget was the paramount concern in selecting the exterior cladding of two recently completed buildings designed by Sullivan, Key, Merrill, of Dallas. At the OakLawn Fairmount (above), "we wanted to create a big building image for a very small structure," says architect Rick Merrill. While the architects wanted to use stone, the budget prohibited it. "But tile gave us the feel and elegance of stone," Merrill says, especially due to their selection of an Italian ceramic tile containing granite chips. The 12" x 12" module of the tile governed the design, and was adhered to so strictly that the only cut tile occurs on the slope at the top of the building. A prefabri-

ated panel system on metal studs kept the construction light and sped completion. With the individual tile units installed in the factory, quality control of adhesives and sealants was better.

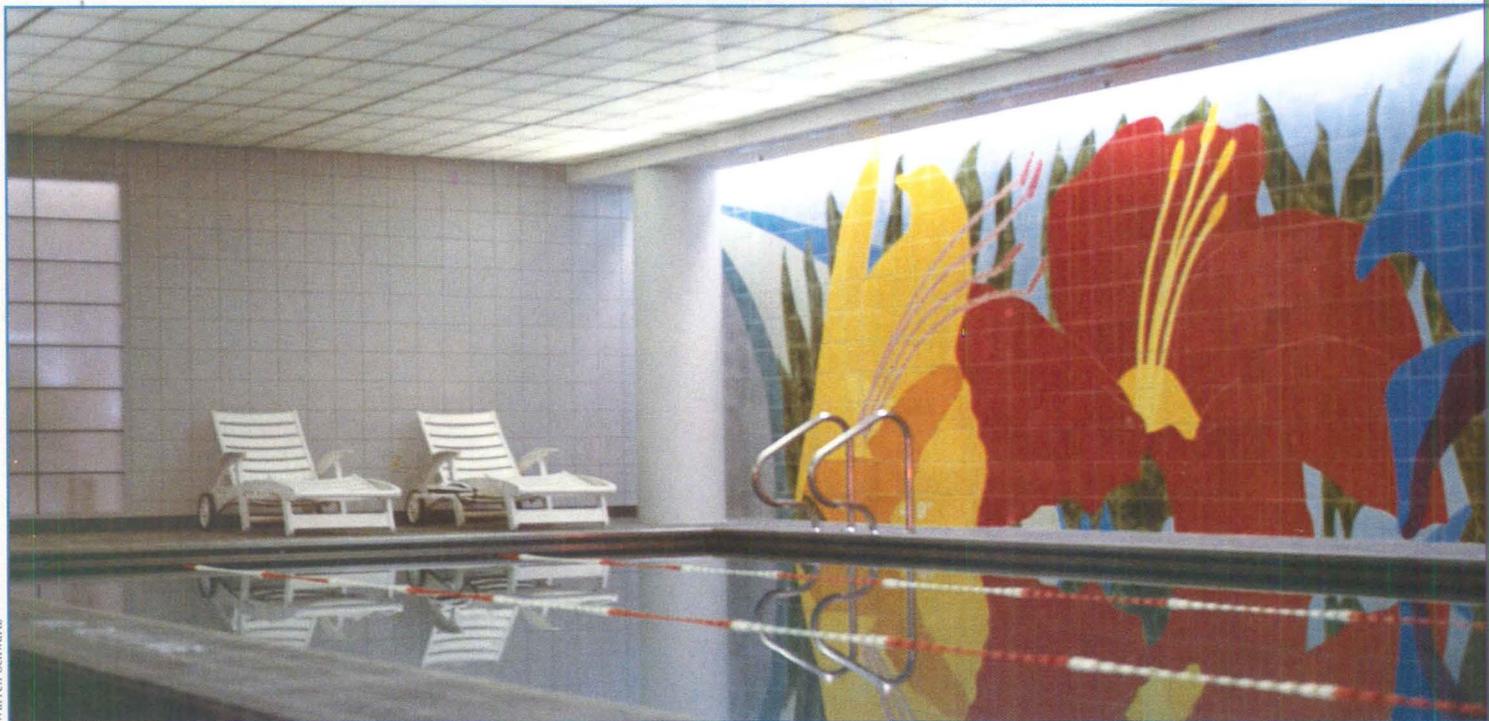
The smaller size and complexity of the addition to an existing brick structure at 1621 OakLawn (right) argued in favor of field installation of the tile. Again, the architects used the module of the tile to dimension the building, which was converted into a showroom, although different sizes (8" and 16" squares) were used on different planes of the building to emphasize their distance from the viewer.





The one- and two-story buildings that make up the Medical Exhibition and Marketing Center (above) in Hanover, Germany, surround a large plaza covered entirely in "antislip" and frostproof glazed ceramic pavers. An 11.5-cm-square unit was selected for safety reasons to increase the proportion of joints (thus decreasing the area of uninterrupted tile). The expanse of plaza, which covers an underground parking garage, is divided into larger bays defined by a grid of extruded ceramic tiles in a darker blue-green shade. The architects for the complex, Klaus Schuwirth and Erol Erman of Hanover, selected ceramic tile over natural stone or clinker tile in order to achieve a color similar to

the green mirror glass used on the building façades. Various color experiments were conducted by the manufacturer to achieve a shade that met the architects' demands without conveying a sense of sterility. Custom shapes were fabricated, as well, for use in the decorative pool in the plaza and the rectangular planters (left) that run along the building fronts. The loadbearing columns are wrapped in a matching ceramic tile, easing the transition from horizontal to vertical elements.



Warren Schwartz



Stephen Knapp

Custom-glazed murals by artists such as Stephen Knapp of Worcester, Massachusetts, are becoming more familiar in commercial and office environments. In collaboration with Schwartz/Silver Architects of Boston, Knapp designed a bright floral pattern to give life to the subdued below-ground swimming pool area at The Spa at The Heritage (top). Artisans at Bennington Pottery in Bennington, Vermont, produced glaze samples based on Knapp's drawings, and the colors were fine-tuned before the entire piece was executed. The glaze was applied to off-the-shelf tiles to hold down costs.

Nothing of the sort was the case when Knapp went to Japan to supervise production of three

photoceramic murals at the Otsuka Ohmi Ceramic Company. The budget was bountiful. "And in Japan, there is a reverence for ceramics that is beyond comprehension in this country," Knapp says. The Otsuka factory was chosen for its capability to form flat, high-fired ceramic tiles and panels up to 12 feet long. Working from large film negatives, images of real flowers were transferred to bisque panels; glazes were brushed or airbrushed on. Knapp risked an eight-hour refiring of the panels in order to make adjustments to the glazes. Today the murals—one (above) shown at the factory and the other (right) installed—are displayed at the USAA Federal Savings Bank.





Farley Tobin

During her initial meeting with the art selection committee for the Detroit People Mover transit system, ceramic artist Farley Tobin says the ground rules quickly became clear: "The committee wanted bright color. The rest was up to me." Her first step in the commission for the Fort/Cass Station was to abandon the recommended location for her work and propose instead a different, much larger installation. The outcome was two expanses of tile—"as much space as was possible within the allotted budget"—that offered one experience to passengers on trains passing through the station and quite another to passengers waiting on the platform. A bold red "X" repeats regularly across

the walls (above and detail, far left), giving the momentary viewer the sense of a systematic pattern. Yet for people walking through the station more slowly, the shifts in color give a richness and variety of pattern that changes with each new perspective. Nearly 15,000 individual pieces of tile, each made by Tobin in her studio, compose the walls. Tobin, who is based in New York, used a similar technique but different geometry for an apartment floor in New York (near left).

While there are a considerable number of reliable sources for information on ceramic tile manufacture and installation, a random survey of *Progressive Architecture* readers found that a large percentage of architects are either uncertain where to get information on tile or are unaware of many industry organizations that have tile-related publications. The accompanying list offers a good place to start.

**American National Standards Institute**

ANSI coordinates voluntary tile standards in its publications on tile (A137.1, \$6) and its installation (A108.1, A108.4-10, A118.1-6, A118.8, A136.1, \$7). Contact (212) 642-4800.

**Tile Council of America**

Compiled by representatives of professional and regional associations, the Handbook for Ceramic Tile Installation (\$1) shows details of pools, steam rooms, and more. Contact the Tile Council at (609) 921-7050.

**Italian Tile Center**

This industry information source publishes *The Designer's Guide to Italian Ceramic Tiles and Their Installation* (free), an illustrated overview with interior and exterior applications. Contact the Tile Center at (212) 980-1500.

**Ceramic Tile Institute of America**

CTI is a liaison between the ceramic tile and the building industries. The *Ceramic Tile Manual* (\$39) encompasses history, standards, installation, and a glossary. Contact 700 No. Virgil Ave., Los Angeles, Calif. 90029.

**Materials and Methods Standards Association**

Industry standards for materials used in the ceramic tile trade are set by manufacturers and dealers in *MMSA Bulletins* (free), which are revised periodically. Contact P.O. Box 332, Grand Haven, Mich. 49417.

**American Institute of Architects**

*Masterspec*, featuring a tile section, includes product characteristics, lists of reference materials and manufacturers, and text sheets which may be edited for each project, and can be ordered at (800) 424-5080.

**American Society for Testing and Materials**

The *Annual Book of ASTM Standards* contains Volume 15.02, on ceramics (\$46). Testing methods for technical properties, such as the electrical and shock resistance of tile are outlined. Contact (215) 299-5400.

(continued from p. 84)

from a minimum-wage employee, so they should be specified with care. Currently there is no national standard for slip-resistance of tile, though some food-service companies with large construction programs demand tiles with a coefficient of friction of 0.5 in their kitchens.

**Setting Standards**

Though it has yet to reach a consensus on an acceptable minimum for slip-resistance, the ceramic tile industry encourages high quality. Rigorous standards for both fabricating and installing ceramic tile are published by the American National Standards Institute. And because tile is uniformly tested with methods prescribed by the American Society for Testing and Materials, one can easily make comparisons between products and determine their suitability for a given project. The tests of greatest interest to architects address porosity (which affects water absorption, frost resistance, and chemical resistance), dimensional accuracy (which encompasses thickness uniformity, facial dimensions, warpage, and wedging), and wear resistance (with tests on abrasive wear and resistance to scratching). Further performance tests for tile gauge breaking strength, bonding strength, and skid-resistance. European standards also exist for most of the ASTM categories, though there are some mutually exclusive tests.

Most architects express a great deal of confusion about the types of applications where tile is appropriate. In addition to predictable reports of use on bathroom and kitchen walls and floors, designers also cite frequent use of tile in high traffic areas, sun spaces, greenhouses, swimming pools, and areas subject to lots of moisture. Other recommended applications include commercial lobbies, new apartment buildings, remodeled older commercial and residential buildings (which often were designed for heavy loads), and operating rooms.

But perhaps the most visible place where ceramic tile is used is on building exteriors. "It's an unlimited market that hasn't begun to be touched," says McIlvain. In such applications, architects should take pains to design expansion joints in strict accordance with ANSI specifications, cautions tile consultant Robert T. Young. "When you don't, there are lots and lots of problems and almost

guaranteed failure," Young says, adding that joints require periodic maintenance, as well. When large areas of building exteriors are being covered in tile, many architects have selected prefabricated panel systems. Not only do panel systems reduce labor costs, but prefabrication affords greater quality control, tighter construction scheduling, faster shipping, and easier installation.

**Advances in Installation**

The basic reference source for any technical library on tile is the Tile Council of America's "Handbook for Ceramic Tile Installation." The 36-page volume, updated biannually, describes installation and grouting methods, and includes tables to simplify the selection of mortars and grouts. Illustrated details specify not only the installation of ceramic tile in a variety of floor and wall locations but also specialized applications such as shower receptors, fountains, countertops, swimming pools and steam rooms. Methods of installing tile on top of a variety of substrates also are illustrated.

Kleinhaus estimates that up to 90 percent of all U.S. tile installations use thin-set methods. Neither the thin-set nor traditional thick-bed techniques, however, have been the right answer when installing the large format tiles that are becoming more popular, says Nancy Davis, marketing and technical coordinator for Mapei. New "medium bed" mortars with an adjusted sand-to-cement ratio have been developed specifically for laying these tiles. McIlvain also stresses that specs should indicate minimum area of mortar coverage when using 8" x 8" and larger tiles (95 percent minimum coverage for exterior use, 80 percent for interior use). Some bonding materials now on the market are new that they are not addressed in the TCA Handbook. "New urethane adhesives, for example, are flexible enough to accommodate the deflection of above-grade slabs when laying tile in high-rise buildings," says consultant Young, but these adhesives have yet to make it into the literature.

Having the manufacturers one step ahead of the standards seems a natural sequence of events, however, when product development is at issue. It also points to the continued evolution of the ceramic industry, in which subtle change has been touchstone for thousands of years. *Vernon Mays*

*P/A would like to thank the following people who contributed to this article: David Gil, Bennington Pottery; Stephen Knapp; Paula Gaskins, Ceramic Tile Distributors Association; Martin J. Wander, Arquitectonica International; Michael Graves, Alan Prusis, Michael Graves Architect; Barrie Neubacher, Liliana McGuire, Trans Ceramica Ltd.; Marc Sullivan, Frank Key, Rick Merrill, Sullivan, Key Merrill; Farley Tobin; Bill Haslett, International Ceramics; Gary Gwon, Ellenzweig Associates; Jimmy Lowe, Crossville Ceramics; Mike Jones, Roger Sherman Associates; Anne Storrs; Elizabeth Mapelli; Joe Tarver, National Tile Contractors Association; Robert J. Kleinhaus, Tile Council of America; George Lavenberg, Ceramic Tile Institute of America; Robert T. Young; William Amick, Stephen McEntire, Dal-Tile; James Diaz, Kaplan McLaughlin Diaz; John Catlin, JCA/Architects; Damon Pride, Schwartz/Silver Architects; Jess McIlvain; Jim Fox, Florida Tile; Donato Grosser; Nancy Davis, Mapei.*



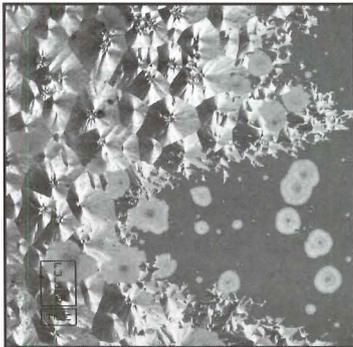
Ceramic mosaic tile can be used to convey traditional meanings or deny them. At Trapper's Alley, a Detroit retail mall (far left), architects Roger Sherman Associates played up the traditional character of the setting with borders and patterns of 1" x 1" tiles reminiscent of eras past. Counter to that is a "loud, boisterous, fun space with a Mediterranean flair," as John Catlin of JCA/Architects describes The Daily Catch restaurant (near left) in Cambridge, Massachusetts, where 1" x 1" and 2" x 2" ceramic mosaic tile was installed in a pattern that ran up the wall and countered the room's geometry. Tile's ease of maintenance encouraged its use in both the restaurant and food service floor of the mall.

This guide was developed from recommendations in the *Tile Council of America's Handbook* and the *Italian Tile Center's Designer's Guide*.

#### MORTAR AND GROUT GUIDE

CEMENTITIOUS MATERIALS	ADVANTAGES	LIMITATIONS
Commercial Portland Cement Grout	Low Cost Resists prolonged wetting Interior or exterior use Good colorability	Poor crack resistance Poor stain resistance
Fast-Setting Portland Cement Mortar and Grout	Same characteristics as above except it has only fair colorability Used with thick set installations	Minimal stain and crack resistance (Mortar and Grout)
Pre-mixed Set Mortar and Grout	Water retentive Eliminates soaking of tiles Resists frost damage Good colorability (Grout) Undamaged by prolonged wetting	Poor crack resistance (Grout) Poor stain resistance (Grout) This mortar, and all of the following thin sets, require an even substrate
Fast-Setting Portland Cement Mortar and Grout	Insures complete hydration Good adhesion Resists frost damage Good impact strength Good colorability and stain resistance (Grout) Undamaged by prolonged wetting	Requires special cleaning procedures (Grout) Not recommended over plywood subfloors
Modified Epoxy Emulsion Mortar and Grout	Greater adhesion and chemical resistance than the above Less expensive than epoxy Good colorability and stain resistance (Grout) Resistant to moderately high temperatures (up to 140°F.) Resistant to prolonged wetting	Requires special cleaning procedures Modest crack resistance
NON-CEMENTITIOUS MATERIALS		
Epoxy Mortar and Grout	Chemical resistant Can resist temperatures up to 350°F. Excellent stain resistance and good colorability (Grout) Good crack and wetting resistance Excellent adhesion Excellent impact resistance	Expensive Limited pot life once mixed Requires special installation skills
Epoxy Mortar and Grout	Excellent chemical and temperature resistance (up to 350°F.) Excellent stain resistance (Grout) Moderate crack resistance Resistant to prolonged wetting	Expensive Black in color Used mainly in industrial applications with quarry, paver or packing house tile
Organic Adhesives	Requires no mixing Somewhat flexible Relatively inexpensive Good bond strength Eliminates soaking of tile	Some have irritating solvents Poor resistance to prolonged wetting Some adhesives are flammable Poor for use where temperatures exceed 140 degrees
Silicone Grout	Excellent stain resistance Resists prolonged wetting Excellent adhesion	Limited colors Not resistant to heavy traffic Not used on kitchen countertops

# Technics-Related Products



A variety of Spanish tiles are described in this brochure. Company descriptions and contacts are also included. The Tile of Spain.

Circle 209 on reader service card

A fiber cement backerboard is specified for use under ceramic tile floors and in all wet areas. James Hardie Building Products.

Circle 131 on reader service card

Ceramic art tiles made with traditional crystalline, mirror, and matte glazes are shown in this brochure. Fulper.

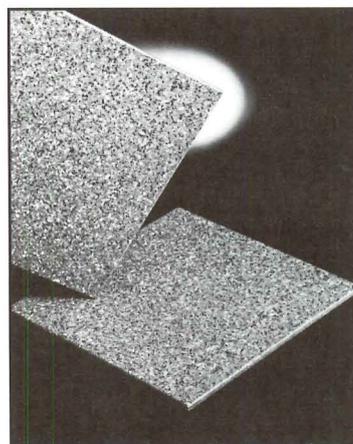
Circle 205 on reader service card

A guide to setting and grouting materials features a matrix which cross references tile and substrate. C-Cure.

Circle 206 on reader service card

New colors and formats have been added to the Pro Architectura line, a styling system of vitreous tiles. Villeroy & Boch.

Circle 207 on reader service card

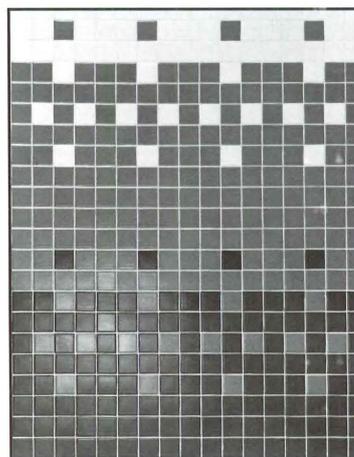


A large-granule, porcelain ceramic tile resembles granite. Two finishes—textured or polished—are available in ten colors. Fiandre.

Circle 130 on reader service card

An organic adhesive for various uses of ceramic tile, including tub and shower enclosures, is described in manufacturer's literature. L&M.

Circle 208 on reader service card



A new 2" x 2" tile is available in 32 colors. It is approved for exterior use. American Olean.

Circle 132 on reader service card

Ceramic feature strips are shown in this brochure. Five collections—solid color, marbled, crystal, pearl, and Venetian glass—are included. Atlantic Trading.

Circle 210 on reader service card



Ceramic tiles are made by sprinkling colored sand into wet clay. The glaze-protected tiles are available in eight colors and a variety of sizes. Epro.

Circle 133 on reader service card



A computerized design method called Digitile converts original drawings or patterns into a colored matrix that is then hand-set with mosaic tile.

Classic Tile Design.

Circle 134 on reader service card

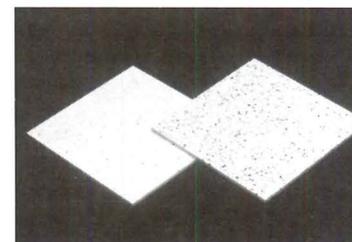
A line of installation products, including grouts, caulks, membranes, and mortars, is described in manufacturer's literature.

Bostik Construction Products.

Circle 211 on reader service card

Polished porcelain ceramic tile is available in two sizes and 22 colors. Crossville Ceramics.

Circle 135 on reader service card



Two new colors, Aqua Stone and Pink Granite, have been developed by colorist Barbara Schirmeister. Polished and honed finishes are available in both cast marble floor tiles and wall panels.

Circle 136 on reader service card

Hand-glazed ceramic tiles feature trompe l'oeil motifs. Individual elements in the custom line may be used together.

Christine Belfour Design Co.

Circle 137 on reader service card

A medium bed, dry-set mortar can be used to install tile, stone, and pavers over numerous surfaces, including exterior grade plywood. Mapei.

Circle 138 on reader service card

An interior ceramic tile called Balcones is offered in four panels with floral corners.

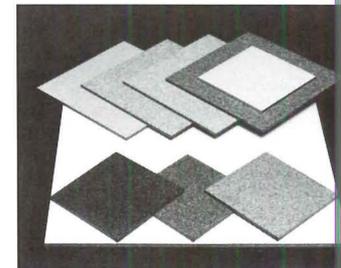
Monarch Tile Manufacturing.

Circle 139 on reader service card

All-weather ceramic tile features low moisture absorption and abrasion- and slip-resistance. Four sizes are available.

Metropolitan Ceramics.

Circle 140 on reader service card



A dry-glaze, granite-look tile is frost-proof and impact-resistant. Compatible trim is offered.

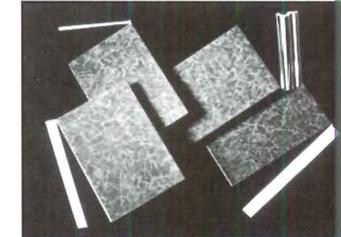
American Marazzi.

Circle 141 on reader service card

A ribbed relief tile is offered in two sizes and either unglazed or in a variety of terra cotta glazes.

Terra Designs.

Circle 142 on reader service card



A mottled tile was inspired by Venetian painting style which used marble dust. The 8- by 12-inch tiles come in six colors.

Hastings Tile and Il Bagno.

Circle 143 on reader service card

(See Technics, Uses of Ceramic Tile, p. 84)

# American Olean's Design Contest Winners

American Olean, the brightest choice in ceramic style, salutes the five winners of our 1988 Flooring Design Contest whose innovative use of ceramic tile has set a new standard for design.

Grand Prize Winner John Catlin, AIA, from JCA Architects, Boston, Mass., (*top l.*) "splashed" ceramic mosaics into a geometric field and border to complete a southern mediterranean setting in the Daily Catch Restaurant, Cambridge, Mass.

Robert Lidsky, The Hammer and Nail Inc., Wyckoff, N.J., (*center l.*) used a checkerboard of glazed Primitive® Encore® with a quarry tile inset to create a "rug" surrounding this New Jersey residential kitchen island.

Eric Rosenberg, AIA, Eric Rosenberg Architect, P.C., New York, N.Y., (*bottom l.*)

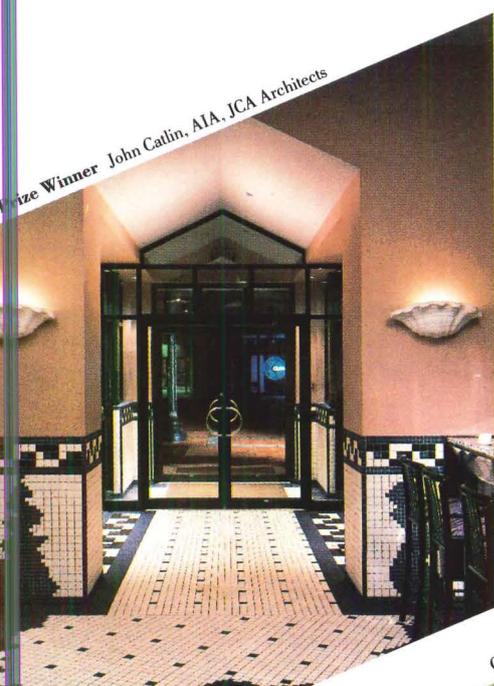
used American Olean's design service to pre-set his 1" hexagon ceramic mosaics design to retrofit an 1850's townhouse in Manhattan's Chelsea district.

Charles Morris Mount, Charles Morris Mount, Inc., New York, N.Y., (*top r.*) brought a southwestern theme to the 42 Food Court in New York using brilliant Radiance® ceramic mosaics juxtaposed against soothing stone-like Terra Paver®.

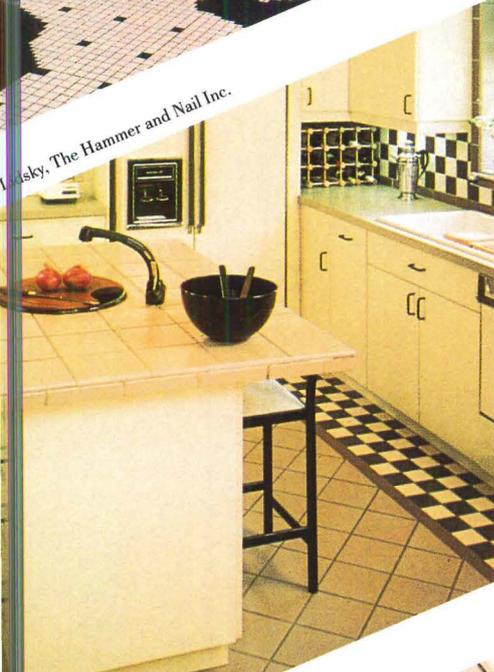
John Mann, AIA, Smallwood, Reynolds, Stewart, Stewart Interiors in Atlanta, Ga., (*bottom r.*) reinforced architectural lines using four colors of 8" x 8" Terra Paver to define circulation patterns on the floor of The Mall at Shelter Cove, Hilton Head, S.C.

Enter your project in the 1989 American Olean Design Contest, "The Brightest Choice in Ceramic Style."™

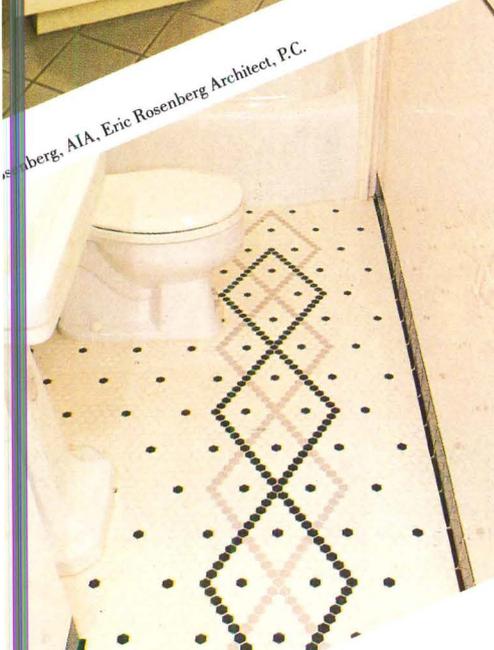
For contest details and literature, write: 3521 Cannon Avenue, Lansdale, PA 19446.



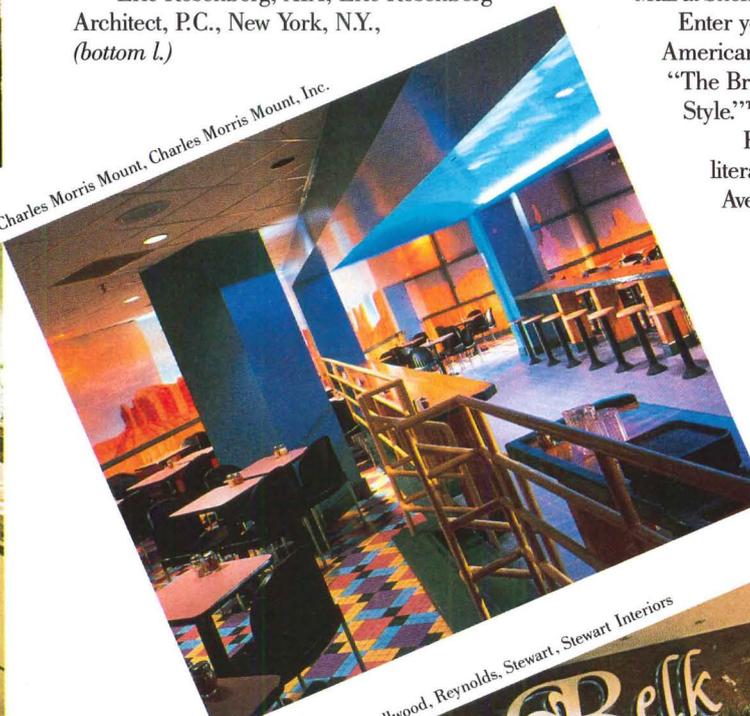
Grand Prize Winner John Catlin, AIA, JCA Architects



Robert Lidsky, The Hammer and Nail Inc.

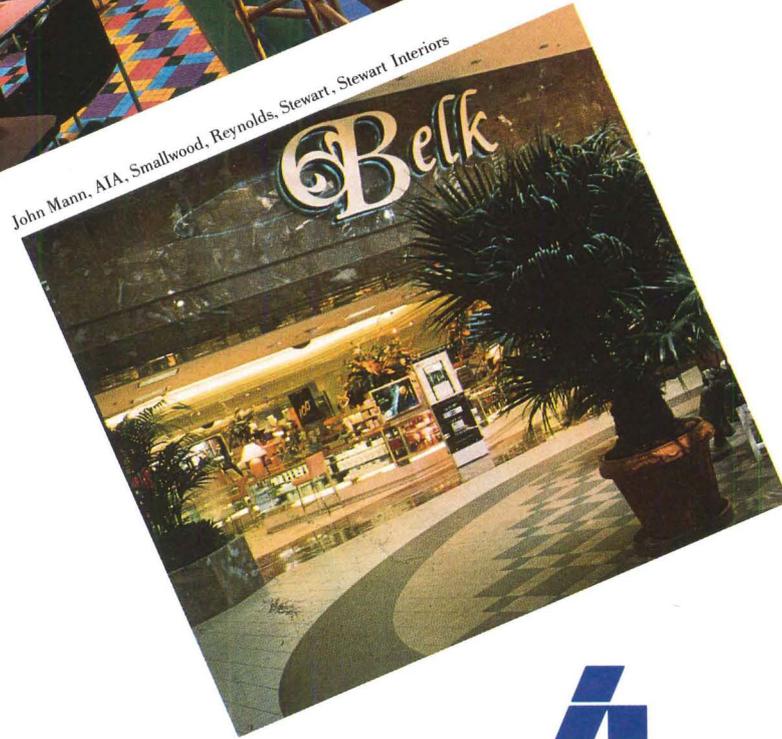


Eric Rosenberg, AIA, Eric Rosenberg Architect, P.C.



Charles Morris Mount, Charles Morris Mount, Inc.

John Mann, AIA, Smallwood, Reynolds, Stewart, Stewart Interiors



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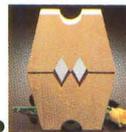
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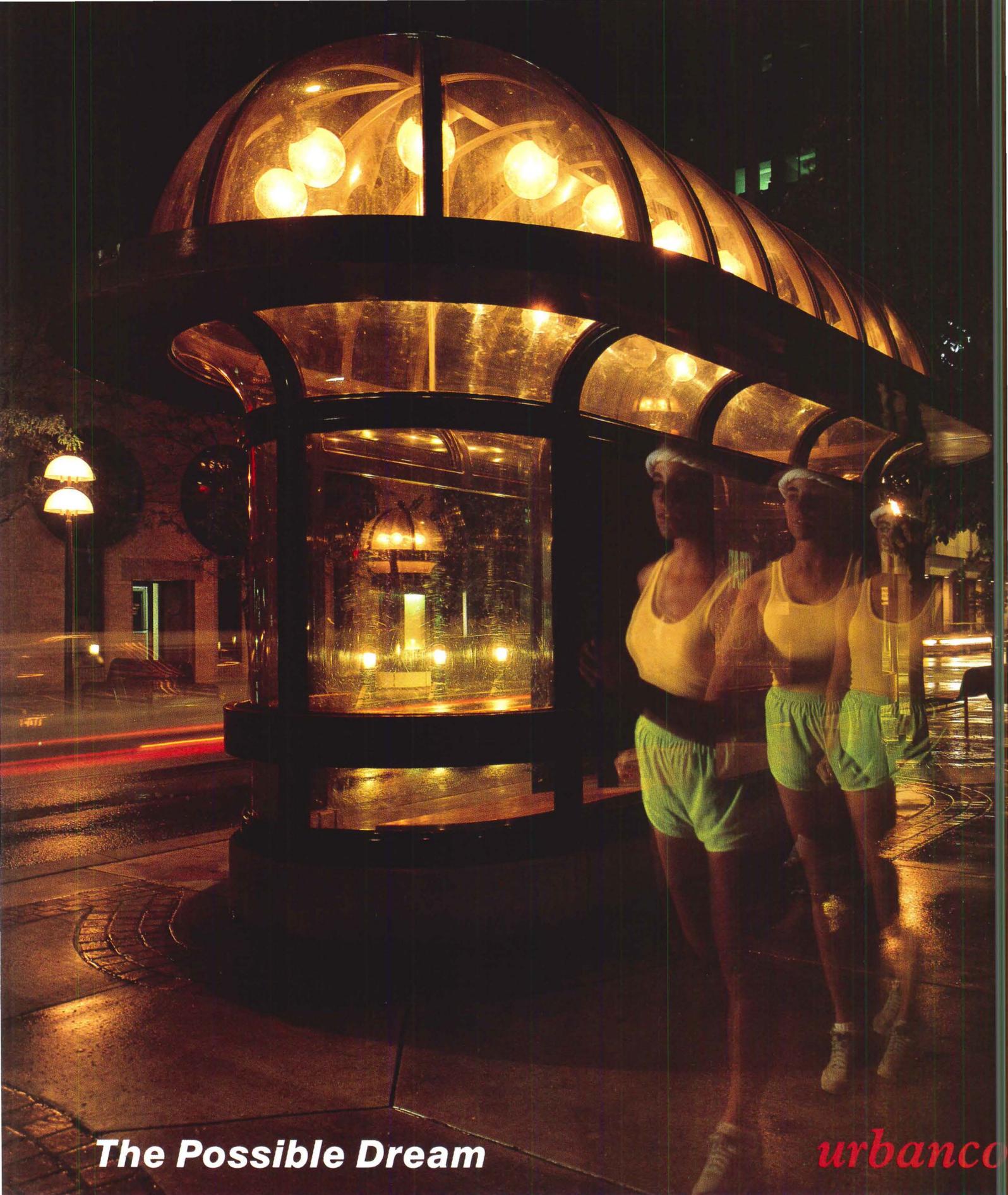
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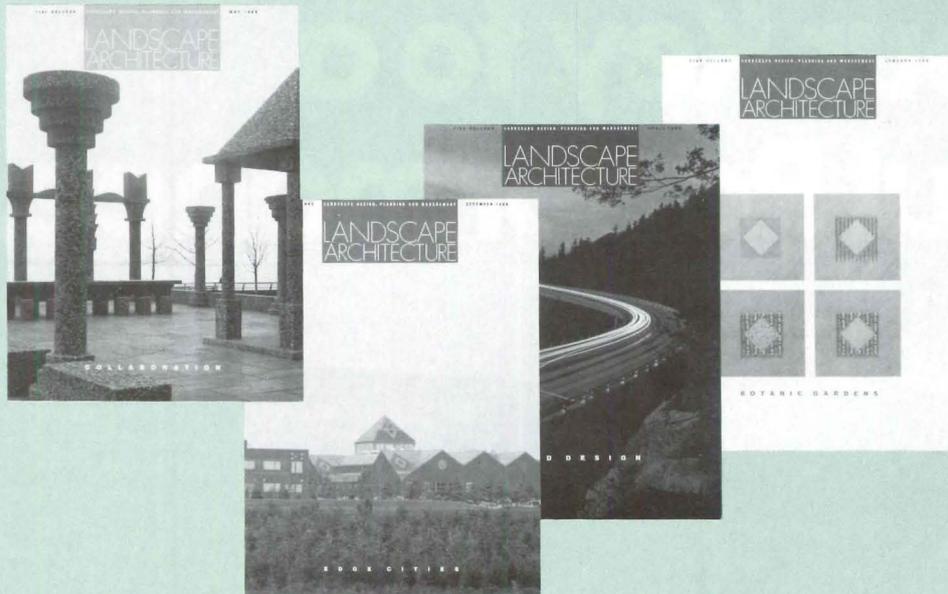


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# Landscape Books



## Covering the Ground

The recently redesigned *Landscape Architecture* magazine attempts to reflect the increasing interest in and growth of its field. The highlight of each issue is its cover subject which is treated in several articles, including a roundtable. Topics to date have ranged from edge cities to ecology. Viewpoints often vary between the article authors and forum participants, all of whom bring cogent ideas and critiques. The rigidity of the five feature sections can get a bit tedious, and the new design is sometimes puzzling. Overall, however, the journal reflects the expanding reach of landscape and its professions. Call ASLA at (202) 686-2752 for subscription information. ■

## The Ghost of Gardens Past

*Gertrude Jekyll: A Vision of Garden and Wood*, a volume of black-and-white photographs by the turn-of-the-century garden designer herself, might seem anachronistic, with little application to contemporary landscape architecture. Yet, as positioned by landscape architect Michael Van Valkenburgh (see Profile, p. 72), the study represents part of an attempt to revive the flower garden and restore it to its pre-Modern prestige.

Jekyll, a frequent collaborator of Sir Edwin Lutyens, spent 50 years creating several gardens on her own property, Munstead Wood, during a period when English gardening was at its peak. Original, intensely per-

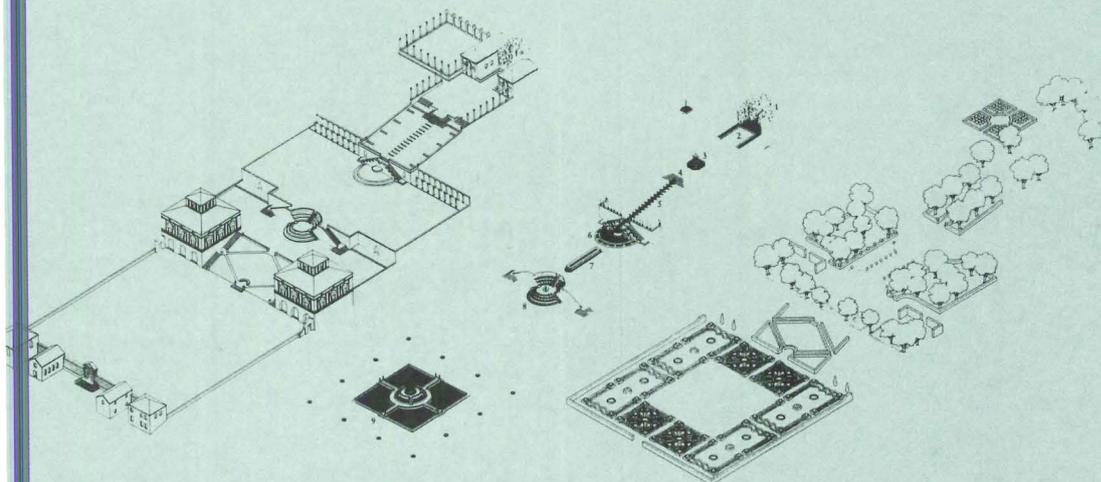
(continued on page 105)

## Elements of Gardens

Landscape architecture and gardens are not immune to Post-Modern theories currently defining much architecture. With *The Poetics of Gardens*, three architect-authors, two of whom previously collaborated on *The Place of Houses*, propose that history and site should be the determinants of garden creation. The examples presented, however, are anything but Post-Modern.

Four distinct types are delineated: settings, collections, pilgrimages, and patterns. Examples are drawn from across the centuries and around the world, consistently showing the fragile balance of architecture and landscape. The designer's place, say the authors, is to adjust

(continued on page 105)



*The Poetics of Gardens* analyzes garden elements, as in the Villa Lante's buildings, water, and plantings.

*Landscape Architecture. American Society of Landscape Architects, \$34/year.*

*Gertrude Jekyll: A Vision of Garden and Wood* by Judith B. Tankard and Michael R. Van Valkenburgh. New York, Harry N. Abrams, Inc./Sagapress, Inc., 1989, \$35.

*The Poetics of Gardens* by Charles W. Moore, William J. Mitchell, and William Turnbull, Jr. Cambridge, Mass., MIT Press, 1989, \$35.

*American Landscape Architecture: Designers and Places* edited by William H. Tishler. Washington, D.C., The Preservation Press, 1989, \$10.95.

While the dictionary format means that the essays on practitioners and periods often overlap, the history of landscape architecture in the United States is very fully documented in this slender guide.

*The Genius of the Place: The English Landscape Garden 1620-1820* edited by John Dixon Hunt and Peter Willis. Cambridge, Mass., MIT Press, 1988, \$30.

Complementing an essay on the formation and rise of the English garden are excerpts from the writings of period authors that place the garden in its intellectual and literary context.

*Beatrix Farrand's American Landscapes: Her Gardens & Campuses* by Diana Balmori, Diane Kostial McGuire, and Eleanor M. McPeck. Sagaponack, N.Y., Sagapress, 1985, \$24.95.

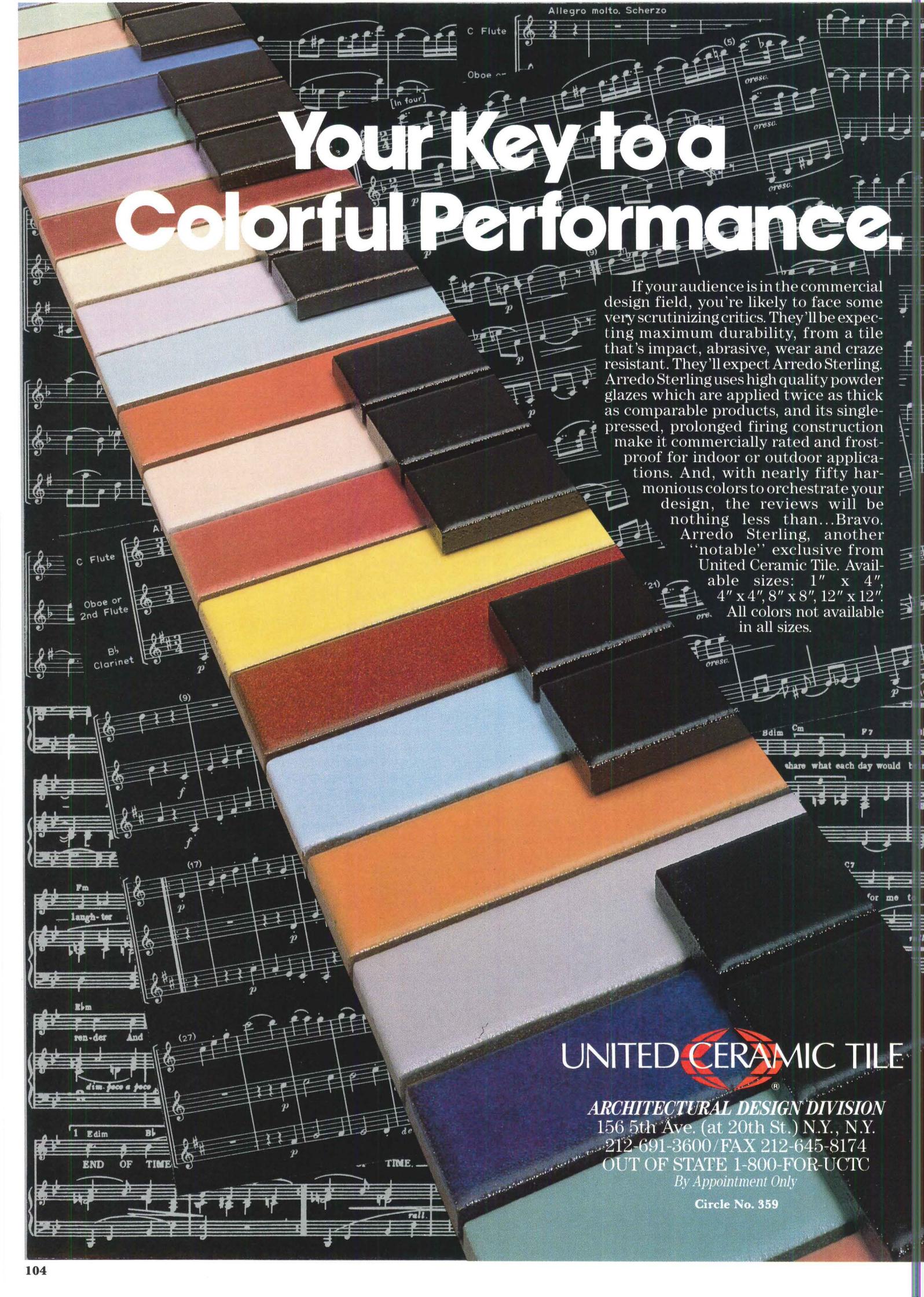
*Landscaping the American Dream: The Gardens and Film Sets of Florence Yoch 1890-1972* by James J. Yoch. New York, Harry N. Abram, Inc./Sagapress, Inc., \$39.95.

The tradition of woman landscape designers in the United States is documented in two monographs: Yoch's film-set work includes *Gone With the Wind's* Tara, and Farrand landscaped much of Princeton and Yale.

*Site + Sculpture: The Collaborative Design Process* by Kay Wagenknecht-Harte. New York, Van Nostrand Reinhold, 1989, \$27.95.

The author hammers home the necessity of a collaboration between artists, architect, and landscape architects to produce the best public sculpture.

*Site Details* by Gregory W. Jameson and Michael A. Verson. New York, Van Nostrand Reinhold, 1989. 394 pp., illus., \$44.95. This catalog of computer-generated illustrations is meant to facilitate the production of working drawings.



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A new print of the September Garden was made from Jekyll's original.

### Jekyll (continued from page 103)

sonal photographs document her evolving ideas about landscape work, as well as her craft and portrait abilities. Accompanying essays discuss Jekyll's garden-making skills in a broad historical context.

Judith Tankard serves primarily to annotate the included photographs with some added history and biography. Her discussion of Munstead Wood shows its transformation season by season. Van Valkenburgh, however, attempts to define Jekyll's applicability to the profession today. He presents the historical use of flowers, from pre-Jekyll to the early 20th Century. During the Modern movement, Jekyll's flower gardens fell out of favor. Now, argues Van Valkenburgh, her "substantial contributions," including her trademark herbaceous borders and color experiments, are an important resource for landscape architects. "What is needed now," he says, "is neither a revival of the Jekyll flower garden nor a continuation of Modernism per se, but a continued search to make expressive and meaningful landscapes that either fit or challenge the diverse needs of a rapidly changing populace around the globe."

Andrea E. Monfried

### Poetics (continued from page 103)

that natural balance to create meaning. The gardens analyzed all show the proper manipulation, from molding earth, to enclosing a landscape, to naming and inhabiting a garden. Contemporary gardens, while retaining the essential elements, are described as a valid critique of our current values: the collections are costlier, the pilgrimages swifter, the patterns bigger.

The multiplicity of historical perspectives is taken a bit far in the final section which takes the form of an imaginary colloquium careening through garden history and featuring personalities from the Emperor Babur and Prince Toshihito to Vita Sackville-West and Walt Disney. These protagonists apply historical examples to the design problems presented by the ever smaller and more regular front-and-backyards of the present.

Although the final section does propose some solutions for today's gardeners, it belies the elegance that otherwise typifies the authors' treatment of landscape. The rituals that give gardens meaning, say the authors, are a result of site, history, and a necessary intervention.

Andrea E. Monfried

(Advertisement)

## Small Firm's New Solid-State Golf Ball Over-Drives Green On Par-Four's; Courses May Bar It

400-Yard Shots Stun Officials

One Championship Course Says "No"

By Mike Kennedy

MERIDEN, CT. — A small company in Connecticut has created a new solid-state golf ball that flies *too* far. A pro who tested the ball hit it *over the green* on all but the longest par-four's. Test officials were stunned and one championship course has asked that the ball not be used. Others may follow. I asked a company spokesman why their ball went so far.

"Three reasons," he said. "First, the ball is solid-state. There is no core to go soft, no rubber bands to break, no separate cover to jar loose. Because it's one, solid piece we can charge it with a compression no Titleist or TopFlite could hold without hitting like a rock. The ball's like a tight spring ready to go off. We have also injected an additive into the ball's natural rubber to increase its coefficient of restitution (rebound power), and then there are those wonderful lift dimples that keep the ball sailing like a glider. Those three changes make it impossible for an ordinary ball to match its power. It would be like racing a '50 Chevy against an '88 Ferarri."

"But it looks like the ball flies *too* far," I said. "What will happen to courses — not to mention scores — if pros start hitting over the green on par-four's?"

"I doubt if courses will let pros use the ball. But we didn't make it for pros. We made it for the 95-golfer

who wants to shoot 85 and the 85-golfer who wants to break into the 70's. And they will, instantly. Not only will these people add mind-boggling distance to their game, they will eliminate hooks and slices that aren't their fault. That's because balls made from parts — and that's every major brand — are badly out of balance *new*, and that causes a golfer to hook or slice no matter how well he strokes. This ball has no parts. It's perfectly balanced. If a 95-golfer doesn't cut 10 strokes with it, he can send his purchase back *used* for a prompt refund. How's that for certainty?"

The company asked me to refer to the ball by its R&D name, Code Name "S". "Only buyers know the ball's real name, and we'd like to keep it that way. After all, sometimes there's more to golf than low scores," said the company spokesman.

Most weekend golfers will probably not drive the ball over the green on a 400-yard hole, but there's no doubt they will be substantially closer to the pin on their second shot than ever before. Whether serious golf courses bar the ball to pros remains to be seen.

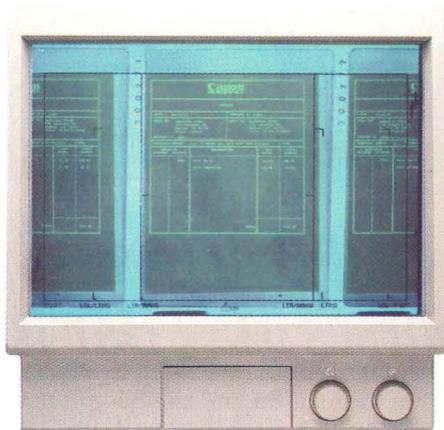
The "S" ball isn't in stores yet and may never be in pro shops, but if you want to try it, you can send a check (or your cc number and exp. date) to the National Golf Center, (Dept. H-1205), 500 S. Broad St., Meriden, CT 06450. You can also call 203-238-2712 (8-8 Eastern Time). One dozen costs \$21.95 (plus \$2.50 shipping & handling), two to five dozen cost \$19.50 each, six dozen cost \$99.00, for a savings of \$47.70. Shipping is free on two or more dozen. No PO boxes, all deliveries are UPS. You can order white or yellow.

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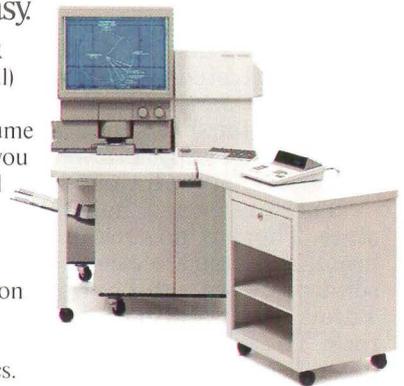
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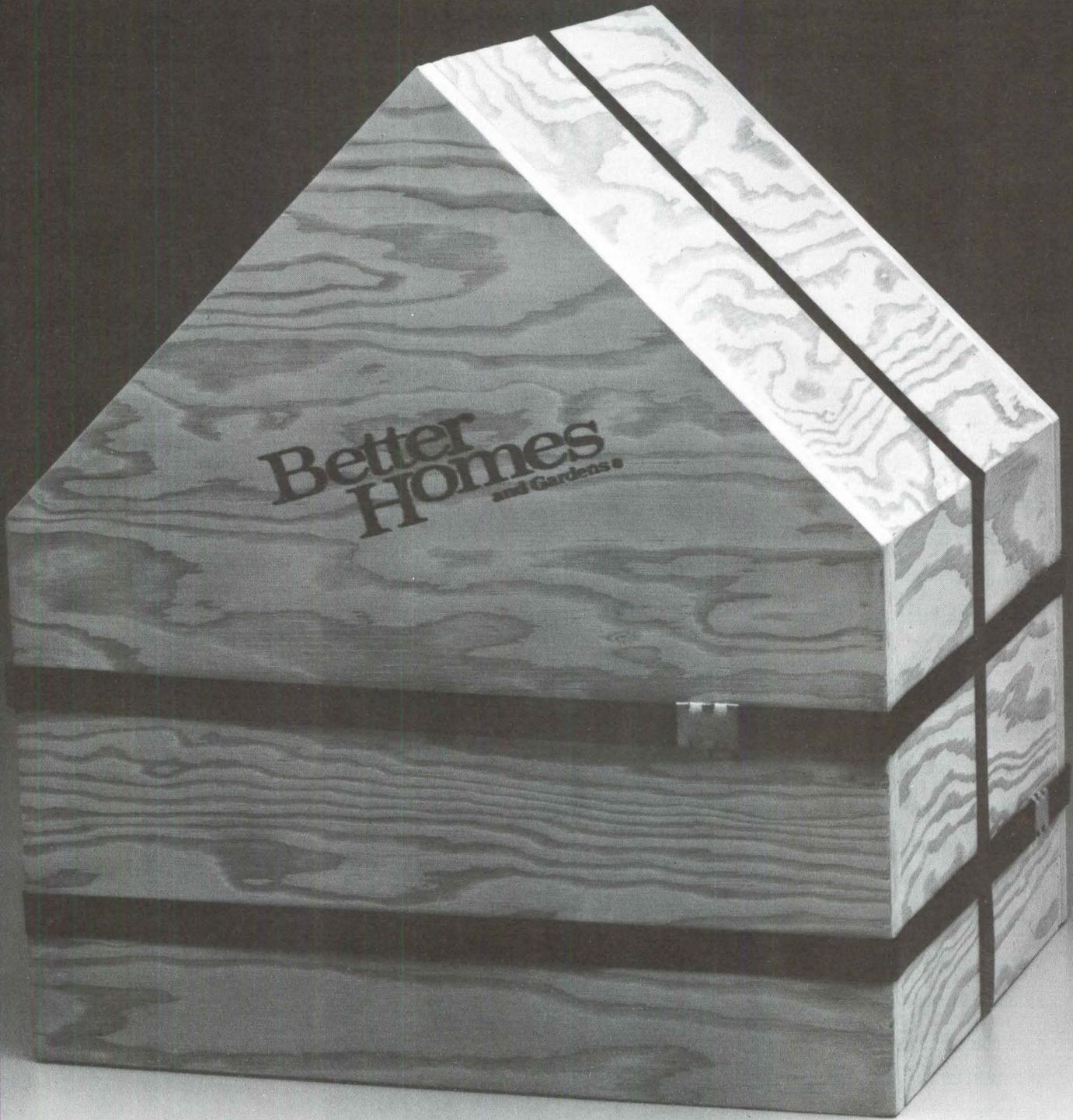
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**Floating aerators** from the Otterbine® product line help control algae naturally with their spray and wave-making action that circulates water. A new line of 1/8 HP aerator-fountains is now available for ornamental pools or small ponds. Barebo.  
*Circle 101 on reader service card*



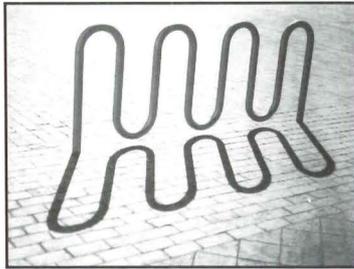
**Maintenance-free foliage** uses a patented systemic preserving process to retain the size, shape, texture, color, and even fragrance of the living species. The Euro Fan Palm can be specified in four- or six-foot specimens. Nature Preserved of America.  
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**Outdoor luminaires** from the Mandala Series feature aluminum or steel poles and measure 24 inches in diameter and 17 inches high. The optical systems consist of a round molded polycarbonate or acrylic refractor and a nickel or bronze plated cover. The hardware is corrosion resistant. Lumec.  
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**An outdoor bench** called Piazza joins the complete Garden and Park furniture collection. The 1 1/2-inch tubular steel bench, which can be specified with or without arms, can be finished in a choice of eight synthetic coatings. Kroin.  
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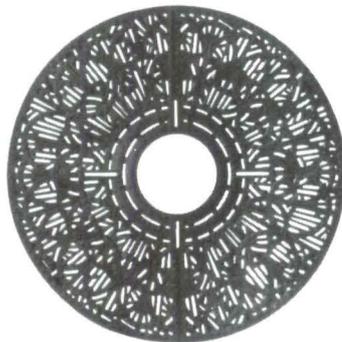


**A bicycle rack** called Ribbon Rack holds twice as many bikes or mopeds as conventional racks—one in each bend and one on each end. The rust-proof galvanized steel makes the rack weather-resistant and durable. Brandir.

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**Tree grates, drain covers, and trench grates** are the subject of an illustrated brochure that also contains specifications and information on other outdoor accessories. Urban Accessories.

Circle 201 on reader service card

**A new software program** called SITE operates within TerraCADD® and allows users to superimpose designs over three-dimensional models of property to define what a finished site would look like. Solid state analytic geometry produces precise volumes. Plus III Software.

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**Containers and bench groupings** are two of the products illustrated in a new color brochure of landscape furnishings and amenities. Wood, stone, and custom finishes are shown. Upbeat.

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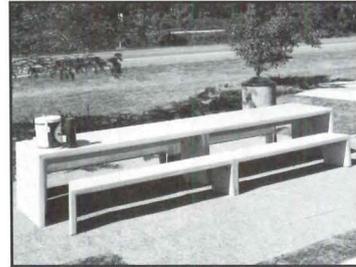
**A new trench drainage** system made from InnoPlast, a polyethylene-based recycled plastic material, is called Inno-

**Drain.** The neutral-sloped system features an interlocking design and modular ribbing in four-inch increments and is designed for high flow capacity. Innovative Plastics Products.

Circle 110 on reader service card

**A new lighting control system** called CR7075 consists of a two-stage lighting controller and a cadmium-sulfide photoelectric sensor. The outdoor lighting control system has two separate lighting control circuits, each with independent on/off features. Honeywell.

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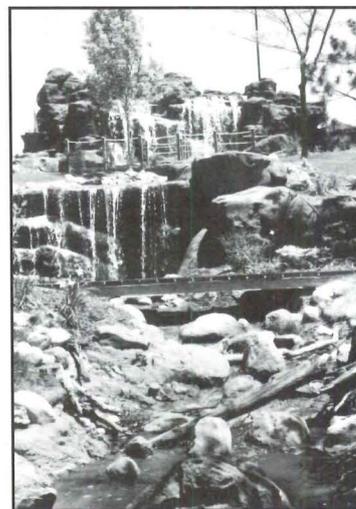


**A picnic table** called the Harvest Table measures 14' x 5' 2½" and weighs 4080 pounds. Options include an expanded center section and a bench that is specifically designed for wheelchair access. Wassau Tile.

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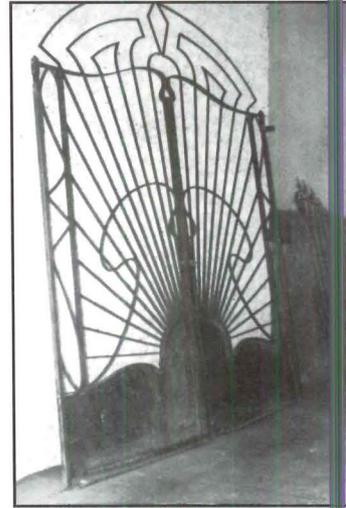
**A passive infrared device** called Eltec IR-EYE® 862 can detect people up to a distance of 500 feet. The device provides undetectable perimeter protection and surveillance for outdoor applications. Eltec Instruments.

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**Fabricated rocks, water, and vegetation** are combined in Enviro-Scape for use in indoor landscape applications such as hotels, condominiums, office complexes, and municipal structures. Cost of Wisconsin.

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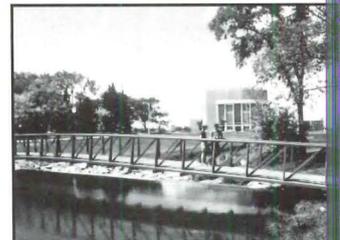


**Driveway gates** from the early 1900s stand 11' 9" high and measure 9' 9" wide. Four 9-foot long sections of Art Nouveau fencing are also available together with balconies, grilles, and garden statues. The Architectural Search and Rescue Mission.

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**Pressure-treated wood** for use in decks, steps, fences, parks, and marinas is described in a new four-color, fully illustrated brochure. Western Wood Preservers Institute.

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**Pedestrian bridges** are constructed of tubular, weathering steel, painted carbon steel, or highly corrosion-resistant aluminum. Custom designs can be fabricated for a variety of uses. Continental Custom Bridge.

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**Erosion control** and revegetation blankets that reduce rain impact and soil transportation are constructed of straw, coconut fiber, or a combination of the components and sewn together between polypropylene nets. North American Green.

Circle 117 on reader service card

**New ornamental stone** landscape furnishings include planters, trash receptacles, drinking fountains, and picnic tables. An illustrated brochure describes the line.

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(continued on page 114)



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**Bollards** and coordinating posts featuring authentic post-base design consist of Alzac reflectors, a fluted, 5-inch-diameter base, and inside anchor bolts. High pressure sodium or metal halide lamps can be used. Sternberg Lanterns.

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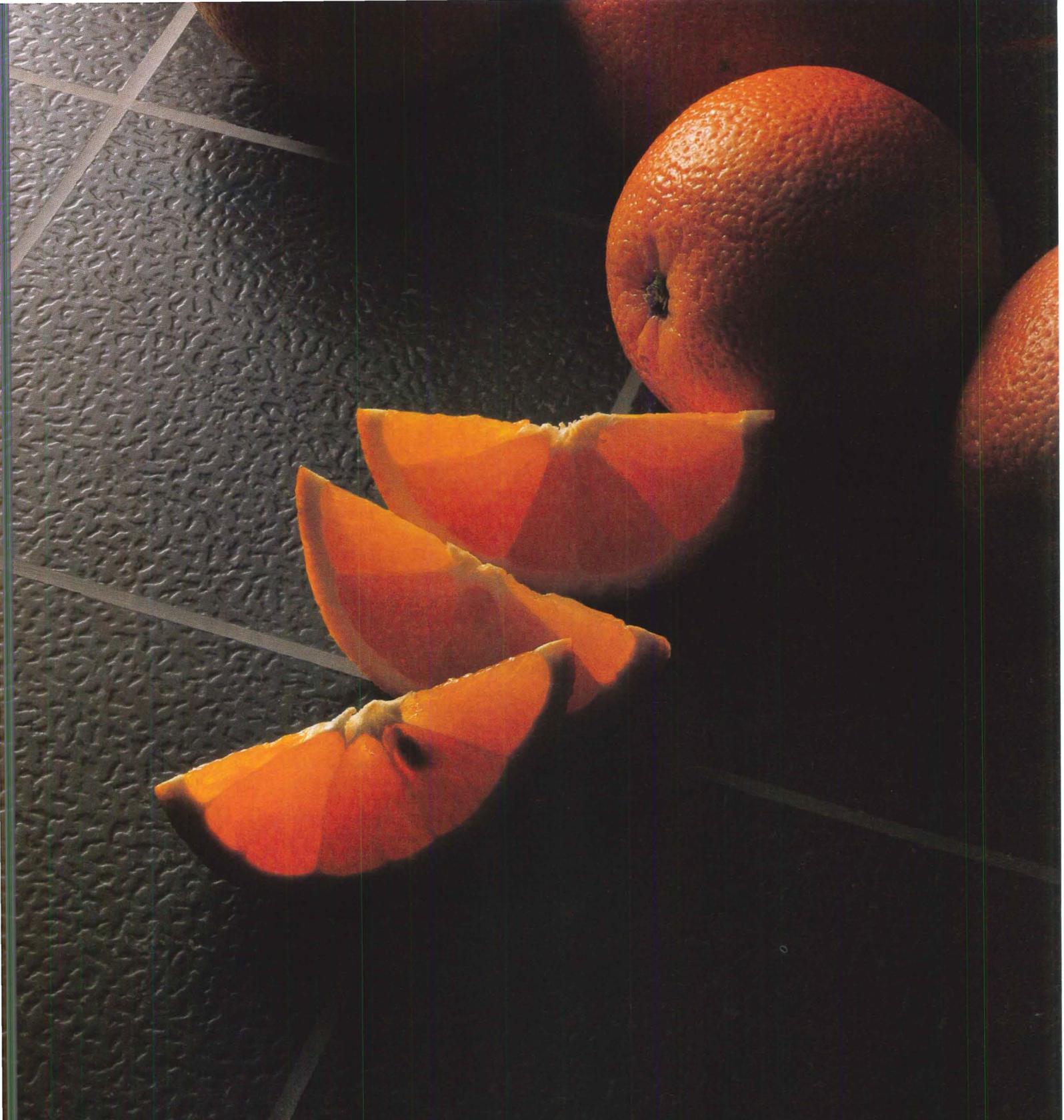
**White cement** is the subject of a new guide that details color and texture options, energy maintenance benefits, and reflective tolerances for the white limestone-based cement. Applications such as pools, pool decks, roof tiles, and landscaping are featured. Riverside Cement.

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**Concrete paving stones** are now offered in octagonal cobblestones in two thicknesses—2⅜ inch for pedestrian and light vehicular traffic and 3⅜ thickness for heavy vehicular loads. Color options include red, multi-color, brown, buff, and natural. Grinnell.

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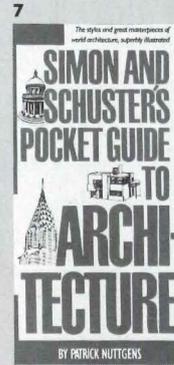
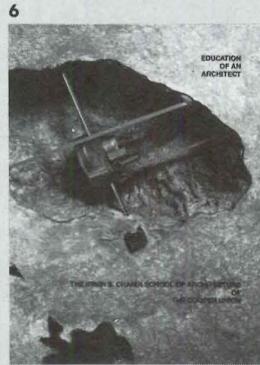
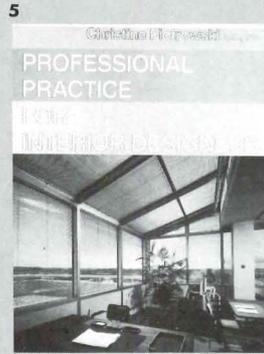
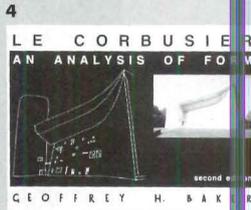
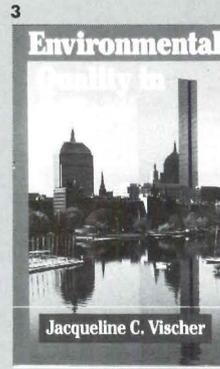
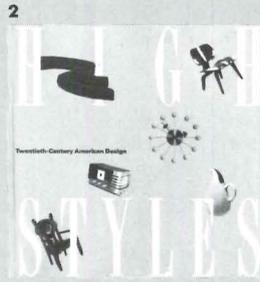
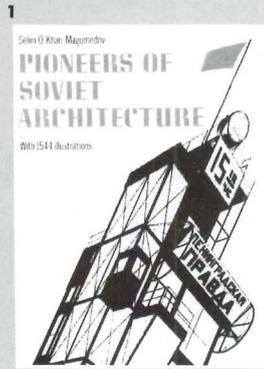
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# P/A

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### P/A Back Issues

A limited supply of the following issues is available at \$7.00 a copy. Check MUST accompany order! Send to the attention of Joanne M. Improta.

### June

Predock/Presentations/Historic Reroofing

### May

Kallmann, McKinnell & Wood/  
Suburbs/Moss/Intelligent Buildings

### April

Solana/Restoring Modernism/  
Calatrava

### March

Two by Pelli/Botta Library/Uses of  
Glass

### February

Wolf/Gehry/Convention Centers/  
Energy Conservation

### January

36th Annual P/A Awards

### 1 Pioneers of Soviet Architecture: The Search for New Solutions in the 1920s and 1930s

by Selim O. Khan Magomedov, 618pp., illus. (\$77.50)

An epic account of the era, this volume dissects the aesthetic and social concerns of Soviet architects and artists and documents the trends and trendsetters of the time.

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### 2 High Styles: Twentieth-Century American Design

introduction by Lisa Phillips, 212pp., illus. (\$38.50)

The typography and graphic design of the six essays in this book complement their documentation of the different periods in America's design history. Known and unknown examples of architectural, furniture, and product design are shown in period photographs.

Circle B602 under Books

### 3 Environmental Quality in Offices

by Jacqueline C. Vischer, 250pp., (\$35.95)

Largely devoted to the mechanics of environmental quality evaluating, this book defines and analyzes a method for studying a "building-in-use" and, in its last chapter, offers guidelines for office design and management improvements.

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### 4 Le Corbusier: An Analysis of Form

by Geoffrey H. Baker, 354pp., illus. (\$46.95)

Handwritten and illustrated, this study attempts to trace Corb's career from his early training to his final masterworks. A number of formal systems and forces are explicated and applied to his buildings, including Notre-Dame-du-Haut and the monastery at La Tourette.

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### 5 Professional Practice for Interior Designers

by Christine M. Piotrowski, ASID, IBD, 336pp., (\$37.95)

Acknowledging a need for more business-related training for interior design students and professionals, this text outlines and evaluates methods of establishing, managing, and promoting an interior design firm.

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### 6 Education of an Architect

edited by Elizabeth Diller, Diana Lewis, and Kim Shkapich, 352pp., illus. (\$52.50)

The Irwin S. Chanin School of Architecture at Cooper Union opens its doors with this extensive display of works done by students and faculty over the past decade.

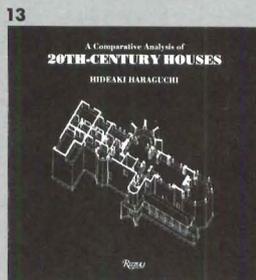
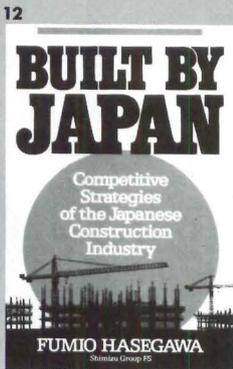
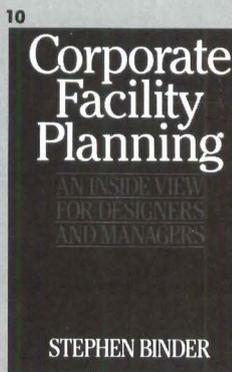
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### 7 Simon and Schuster's Pocket Guide to Architecture

by Patrick Nuttgens, 192pp., illus. (\$11.45)

Brief sketches of major architectural styles are followed by world-wide manifestations of each. Annotated drawings, a glossary, and a chronology complete the text.

Circle B607 under Books



**Antonio Sant'Elia: Complete Works**  
 Luciano Caramel and Alberto  
 Magatti, 312pp., illus. (\$67.50)  
 The architect's rich, industrial-  
 inspired designs, all 367 projects  
 realized, are reproduced with  
 detailed descriptions. An essay on  
 the life and translation of his  
 "Manifesto of Futurist  
 Architecture" are included.  
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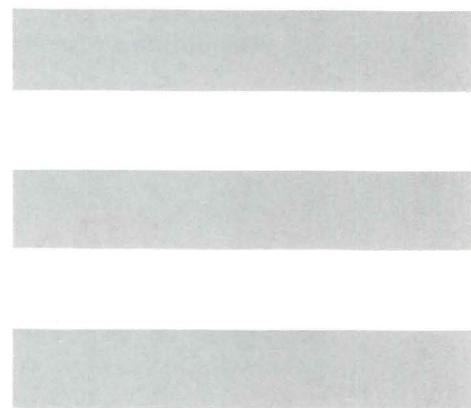
**Emerging European Architects**  
 Edited by Wilfried Wang, 96pp.,  
 illus. (\$22.50)  
 This exhibition-catalog-turned-  
 theoretical-text mixes the works  
 and words of 16 architects and  
 features in a study of the current  
 state of European architecture  
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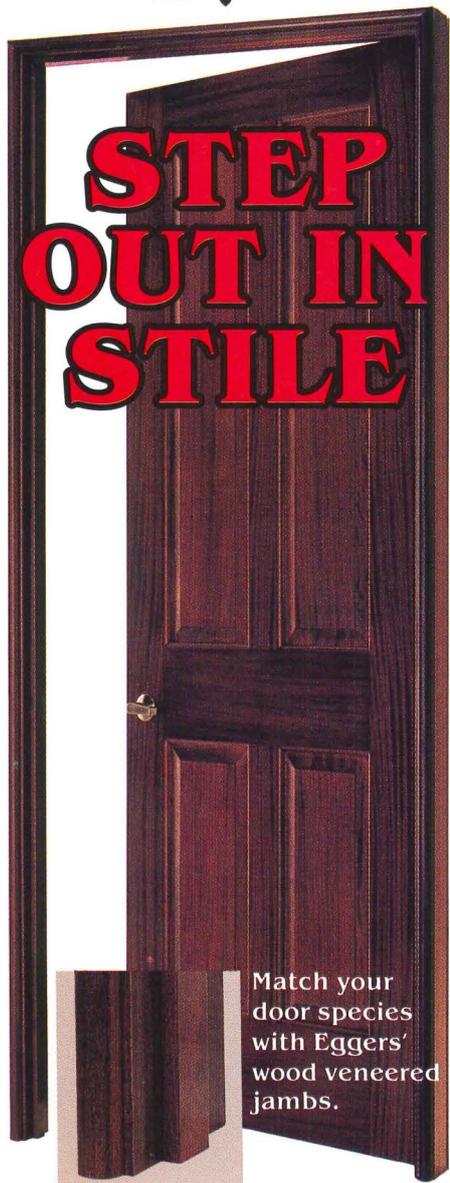
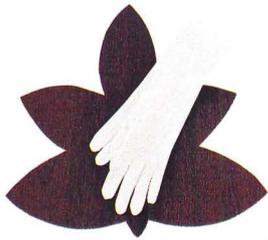
**Corporate Facility Planning: An Inside View for Designers and Managers**  
 Stephen Binder, 236pp.,  
 illus. (\$25.50)  
 This book analyzes issues of  
 facility management: allocating space,  
 siting and selling standards,  
 and commenting construction. Each  
 chapter ends with "The Words  
 of Others"—written by facility  
 management veterans in an  
 effort to give alternative  
 viewpoints.  
**Circle B610 under Books**

**11 Manhattan Architecture**  
 photographed by Richard Ber-  
 enholtz, 256pp., illus. (\$48.50)  
 Illustration after lavish illu-  
 stration depict Manhattan from its  
 tiniest details to its highest papa-  
 pets. Discussion of popular  
 and controversial structures  
 dominates the brief text.  
**Circle B611 under Books**

**12 Built By Japan: Competitive Strategies of the Japanese Construction Industry**  
 by Fumio Hasegawa and the  
 Shimizu Group FS, 206pp.,  
 illus. (\$27.70)  
 Originally published in Japan  
 for construction professionals,  
 this translated version of the  
 book offers a look at structural,  
 technological, and financial  
 practices within the Japanese  
 construction industry.  
**Circle B612 under Books**

**13 A Comparative Analysis of 20th Century Houses**  
 by Hideaki Haraguchi, 92pp.,  
 illus. (\$27.50)  
 Focusing on the spatial aspects  
 of architecture, this collection  
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(continued from page 110)



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**Carpet edge guards** designed for use with indoor/outdoor "grass" carpeting are now available. Two new vinyl mouldings control fraying and help to inhibit fading from sunlight. Johnsonite.

Circle 119 on reader service card

A **chair** designed for indoor or outdoor food courts is called the Traverse Chair. Available with or without armrests, the metal chair may also be specified with either a grid or a perforated metal seat panel. Landscape Forms.

Circle 120 on reader service card



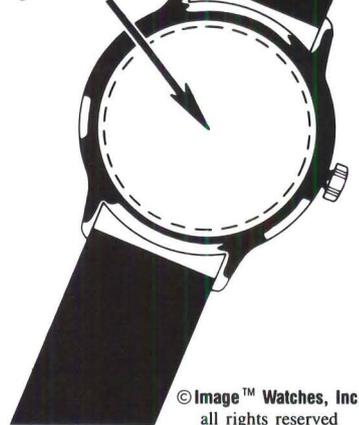
**Cast-iron lighting posts** are available in over 25 historically authentic, ornamental styles. Complementary bollards round out the lighting collection, which is suitable for parks, historic sites, campuses, and other outdoor applications. Spring City Electrical Manufacturing.

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A **landscape lighting** system called Night Magic allows designers to combine easy-to-install low- and line-voltage systems in

(continued on page 116)

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(continued from page 114)

the same style. Most fixtures in the system accommodate several types of lamps and have an adjustable beam spread from a narrow 6 degrees to 18 degrees. Lightolier.

Circle 122 on reader service card



**A stackable casual chair** designed by Warren Snodgrass features a perforated aluminum seat and back with an optional padded cushion. The aluminum powder-coated furniture from the Perception collection also includes a dining chair, tables and chaise longues. Tropitone.

Circle 123 on reader service card

**Computerized landscape design software** called Landware Designer features plant and landscape product databases and a range of symbols. The program runs under Pegasus Cadd software. Landware.

Circle 124 on reader service card



**Retaining walls** may be specified in three sizes, with different face patterns and angles, and in a variety of colors. Standard units weigh about 94 pounds. Keystone.

Circle 125 on reader service card

**A solar-powered outdoor light** called AreaLite® consists of a small solar array, a battery, solid state electronic controls, a lamp and a fixture. The prepackaged units can be installed without trenching or conduiting. Chronar.

Circle 126 on reader service card

(continued on page 118)



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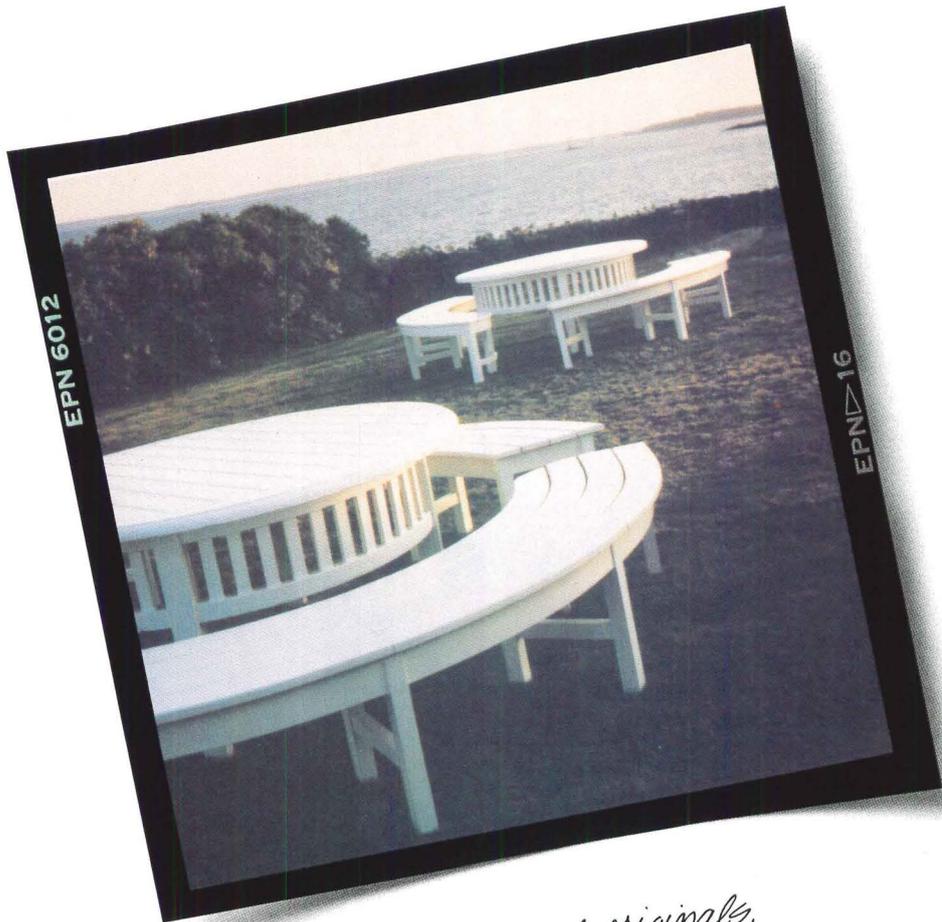
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(continued from page 116)

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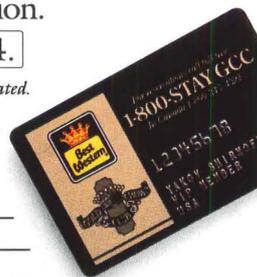
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**A new mini grade-mounted uplight** called GM-2000 measures 9" x 5 3/4" x 4" and uses several types of lamps, including halogen, incandescent, and metal halide. The textured top plate is offered in three finishes: Imperial Bronzelite.

Circle 127 on reader service card

**An erosion control mat** designed for use on severe slopes and waterways is called DE-KOWE. A brochure describes the mat, which is made from coconut fiber. Belton.

Circle 128 on reader service card

**A new slide chart** for designing and installing outdoor lighting provides users with data on back lighting, uplighting, downlighting, pathlighting, and underwater and specialty fixtures. Nightscaping by Loran.

Circle 129 on reader service card

**Building Materials**

*Major materials suppliers for buildings that are featured this month as they were furnished to P/A by the architects.*

**Herman Miller Western Regional Facility, Rocklin, Calif. (p. 58).** *Landscape architects: The Office of Peter Walker and Martha Schwartz, San Francisco.* Stone quarry: Joe Chevreaux. Asphalt: Trichert Construction.

**King County Jail, Seattle, Washington (p. 62).** *Landscape architects: The Office of Peter Walker and Martha Schwartz, San Francisco.* Broken tile surfacing: Heath Ceramics.

**Rio Shopping Center, Atlanta (p. 64).** *Landscape architects: The Office of Peter Walker and Martha Schwartz, San Francisco.* Custom green and charcoal concrete: Seefeld Integral Color. Exterior elevator: Otis. Fog machine: Mee Industries, manufacturer. Aqua Art, installation. Tile: Lincoln Tile Company, installation. Geosphere: Unistrut. Frogs, pool, and fiber optics: Aqua Art.

**Plaza Tower One, Englewood, Colorado (p. 67).** *Landscape architects: Hargreaves Associates, San Francisco.*

(continued on page 120)



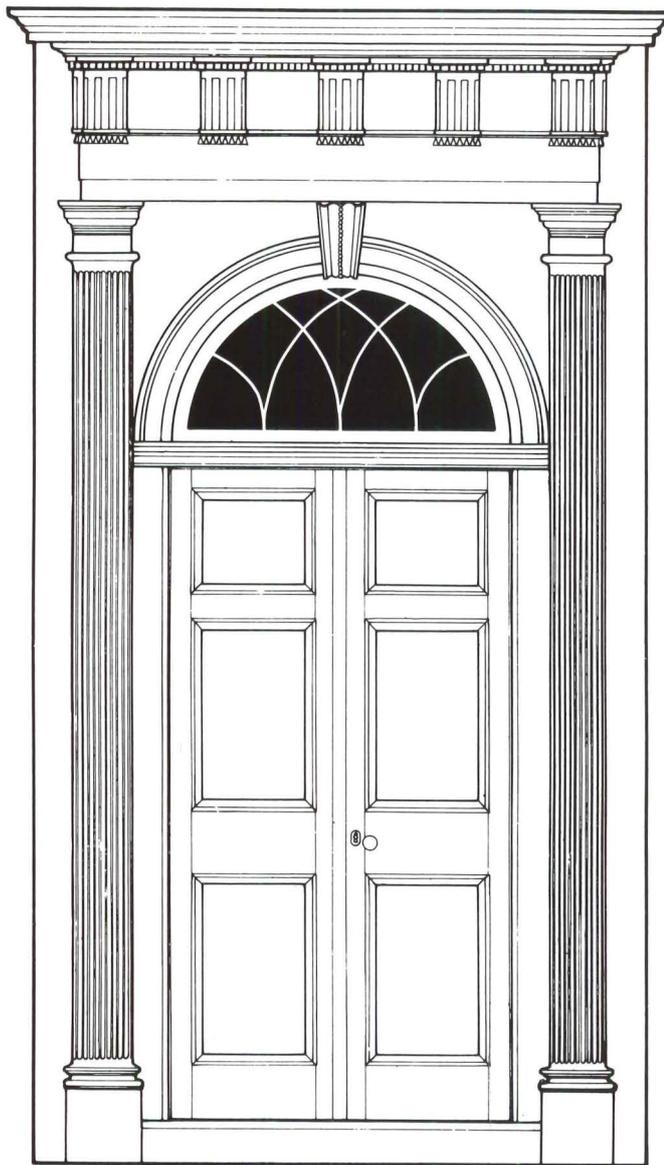
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(continued from page 118)

Francisco. Granite: Colorado Marble and Granite. Piping: Fountain Tech. Precast benches: Hargreaves Associates, design; Dura Art Stone, manufacture.

**Charleston Place, Mountain View, California (p. 68).** *Landscape architects: Hargreaves Associates, San Francisco.* Piping and jets: Pacific Water Art.

**Plaza Park, San Jose, California (p. 70).** *Landscape architects: Hargreaves Associates, San Francisco.* Granite: Cold Spring Granite Company. Fountain: Fountain Tech, engineering; Pacific Water Art, jets. Benches: Columbia Cascade Timber.

**Black Granite Garden, Southern California (p. 73).** *Landscape architects: Michael Van Valkenburgh Associates, Cambridge.* Exterior lighting: Nightscaping; Fiberstar. Black granite paving: Yerigan Granite. Black ironsp: brick: Endicott Brick.

**Garden by Lake Minnetonka, Minnesota (p. 74).** *Landscape architects: Michael Van Valkenburgh Associates, Cambridge.* Black granite paving and raised granite beds: Yerigan Granite. Planting: Bachman's; Ostvig Tree.

**Ice-Vine Garden, Martha's Vineyard (p. 76).** *Landscape architect: Michael Van Valkenburgh Associates, Cambridge.* Wire mesh and galvanized pipe frame: Walpole Fence.

**Hyatt Regency Scottsdale at Gainey Ranch, Scottsdale, Arizona (p. 78).** *Landscape architects: The SWA Group, Sausalito.* Glassblock: Pittsburgh Corning Corporation. Custom planter pots: SWA Group, design; Ornamental Art Stone, manufacture. Decomposed granite mulch: Red Mountain Mining Company. Accent tile on planters, fountains, and pools: Heath Ceramics.

**Becton Dickinson & Company Corporate Headquarters, Franklin Lakes, N.J. (p. 82).** *Landscape architects: Morgan Wheelock, Boston.* Architects: Kallmann, McKinnell & Wood, Boston. Granite paving: Lake Placid Granite. Bluestone: Johnston & Rhodes. Joint sealants: Sika Corporation. Custom mercury-vapor lighting fixture of copper and aluminum: Quality Lighting. Irrigation: Toro Company. Specimen trees: Halka Nurseries. General planting material: Horticultural Materials/Systems.

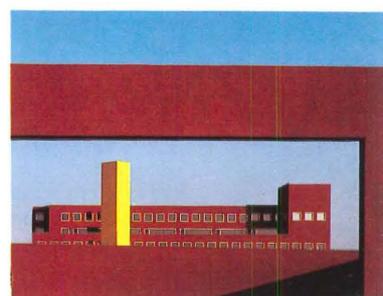
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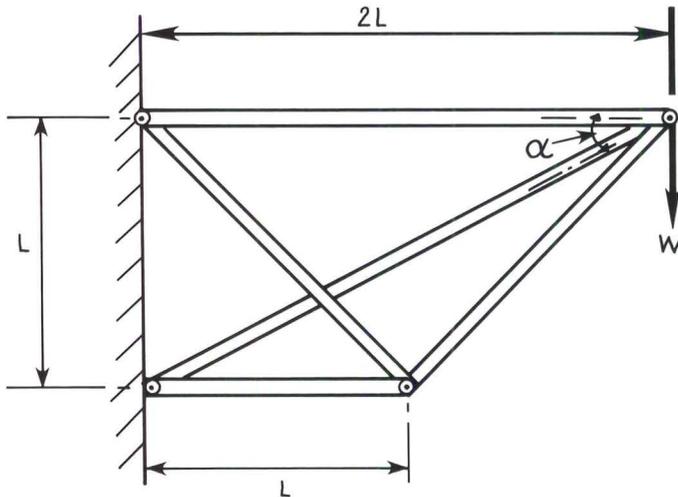
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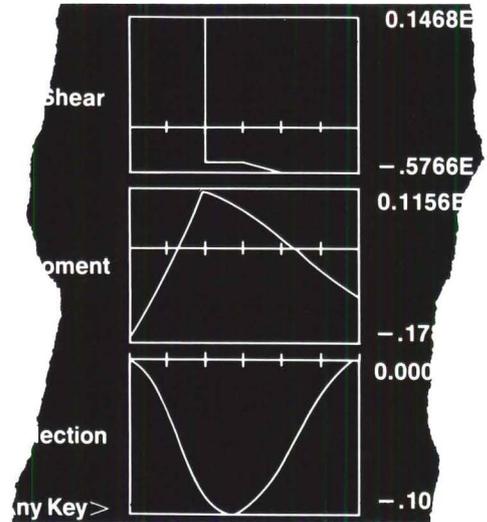
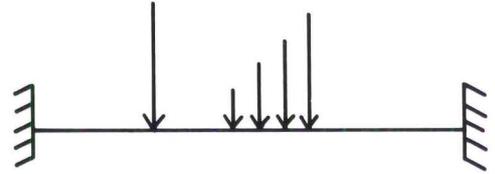
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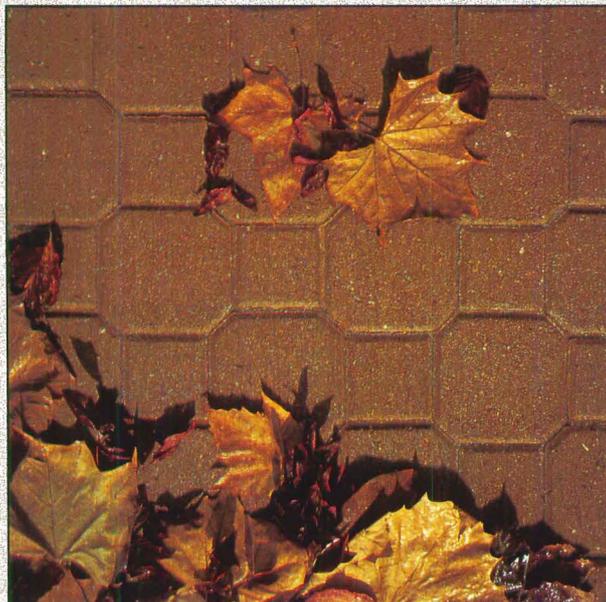
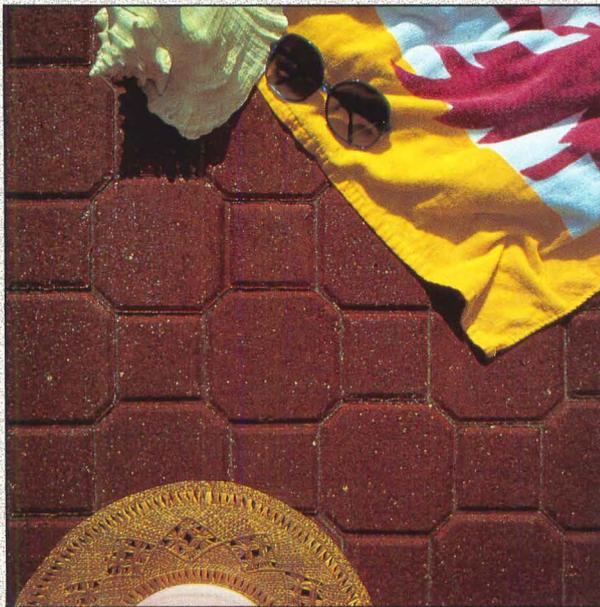
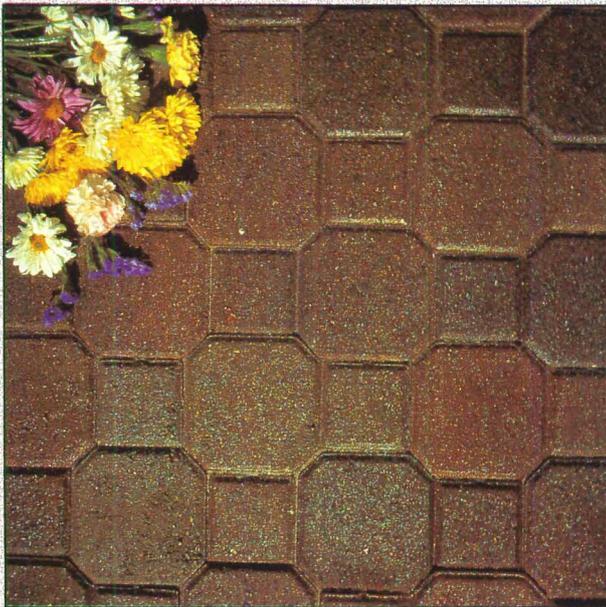
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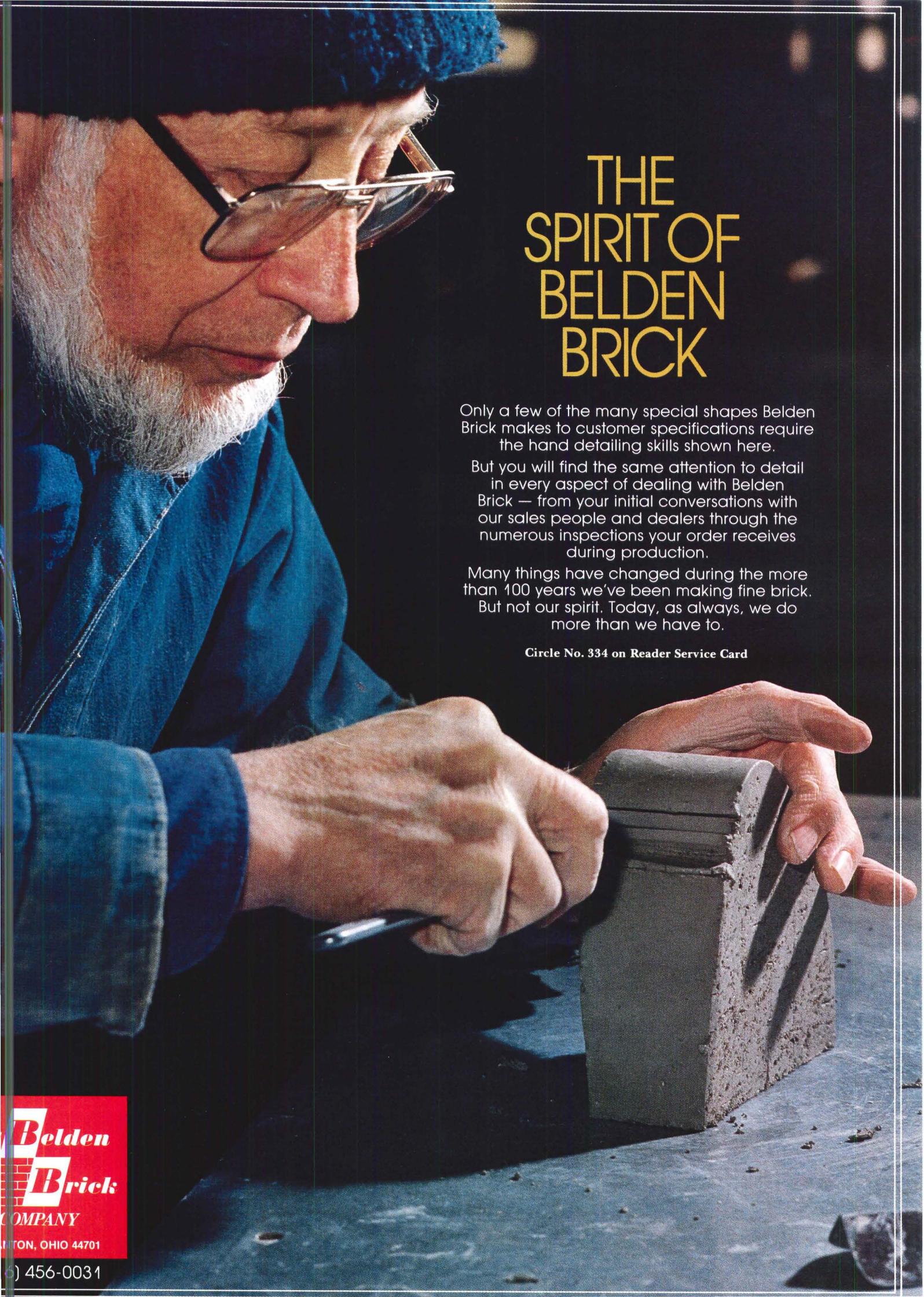
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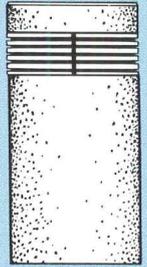
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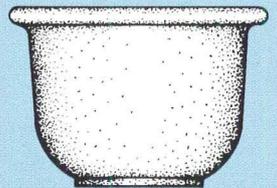
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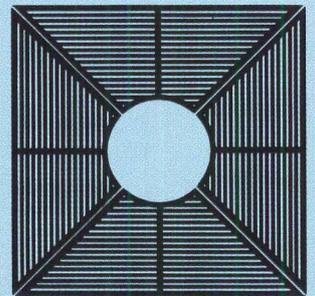
**Four Face Tower Clock** — 10' diameter, backlit dials; Westminster chime; measures 14' to outside of bezel ring. Pre-fabricated resinous concrete bezel ring and arch.  
Architect: Jerde Partnership Photography: Ferguson Kirschner



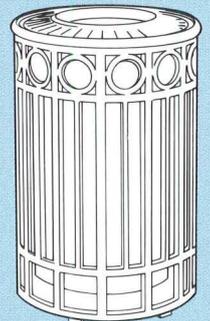
300 Bollard, internal lighting



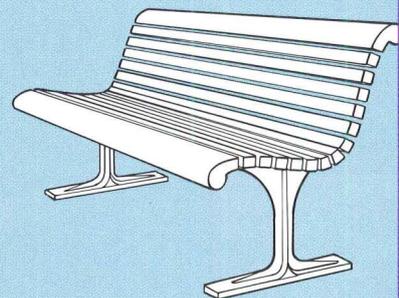
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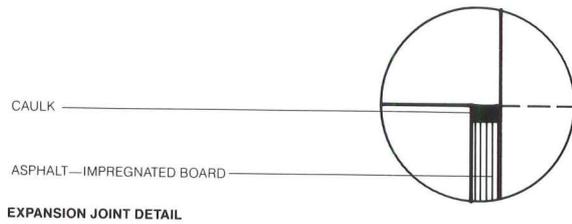
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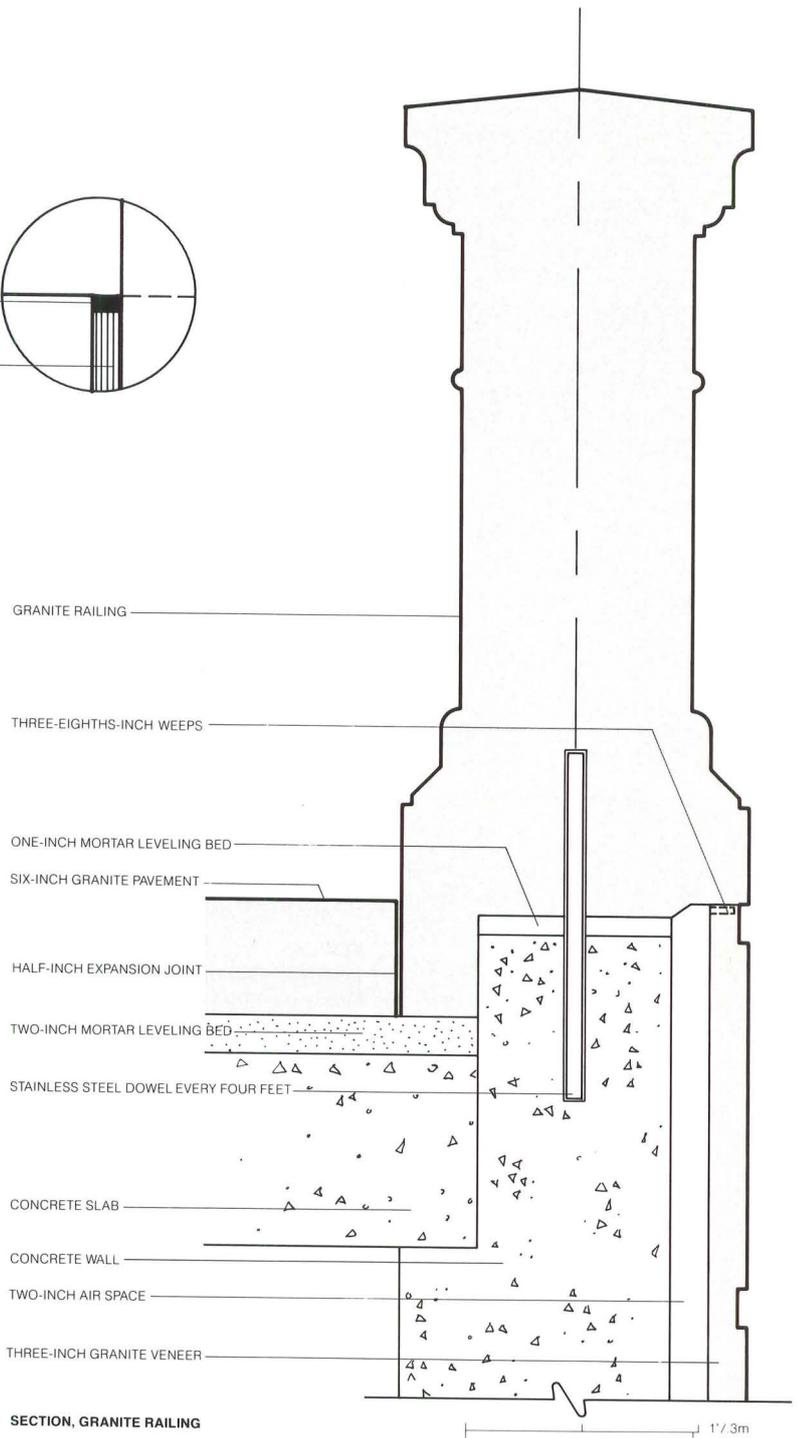
502-3 bench

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# Selected Details



Detail of stair railing and exterior fixtures.



## Grand Staircase Kennedy Plaza Providence, R.I.

This granite outdoor stair, designed by Albert Veri & Associates, represents the historicist side of current landscape architecture. The stair is part of Kennedy Plaza, a transit mall and pedestrian area, that Veri designed to link downtown Providence to the city's former railroad station. A drop in grade of over 14 feet necessitated the stair, whose Classical detail picks up that of the station's façade and of nearby government buildings. The cascading stair rises in three sections, splitting in opposite directions at the final

leg. Supported by a poured concrete structure, the stair is clad in a three inch granite veneer and has six-inch-thick granite treads set in a leveling mortar bed, and molded granite rails one foot thick. The steps and rails are attached to the structure with stainless steel dowels set in an epoxy resin compound. The granite rails break out at approximately 11-foot centers to form bases for cast iron lighting fixtures. Bronze tube-and-ball handrails extend up the central part of the stair. As the study of historic landscapes has increased in recent years, so have their lessons been more widely accepted by practicing landscape architects. This stair is a result.



Stair leading to former train station.

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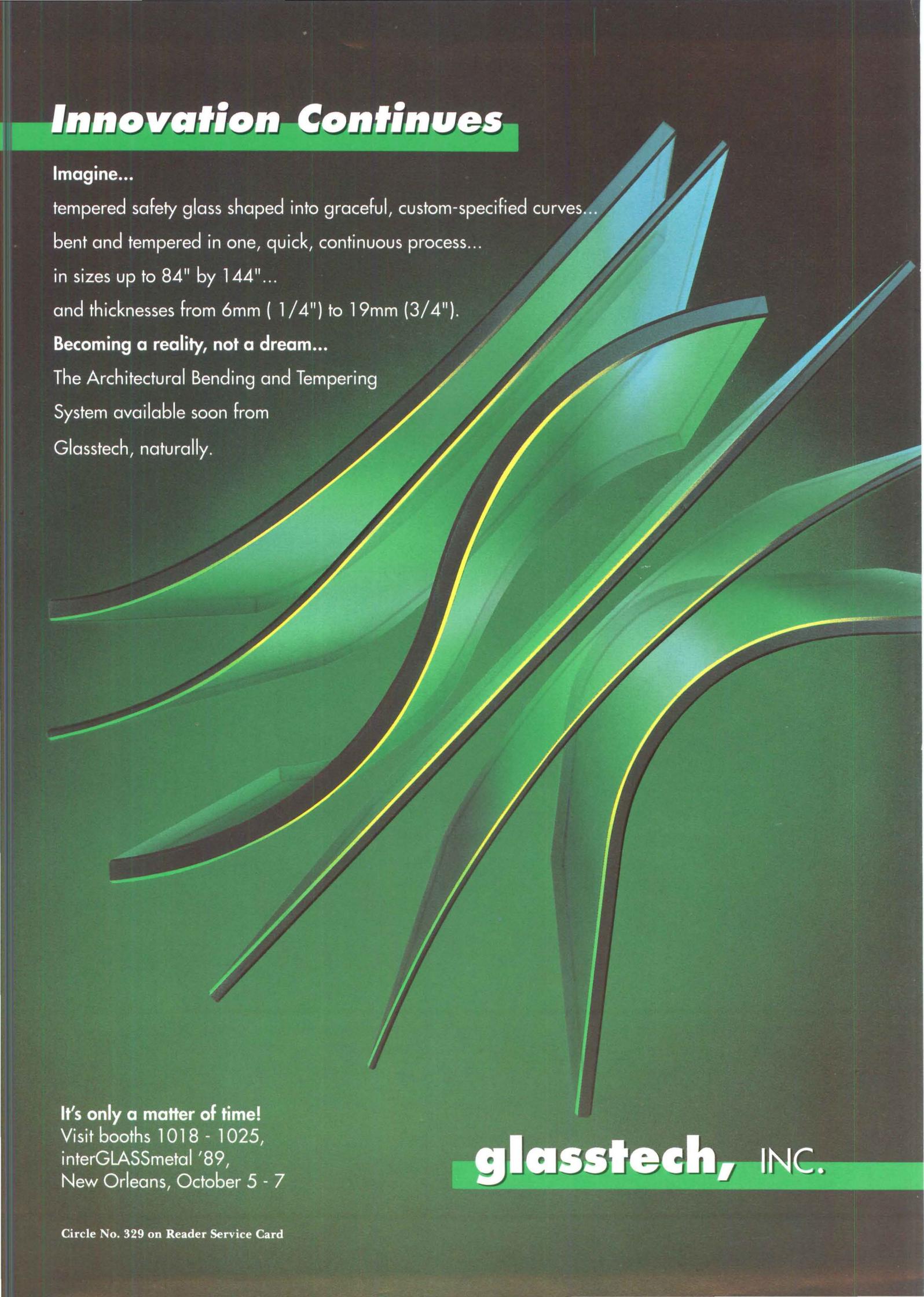
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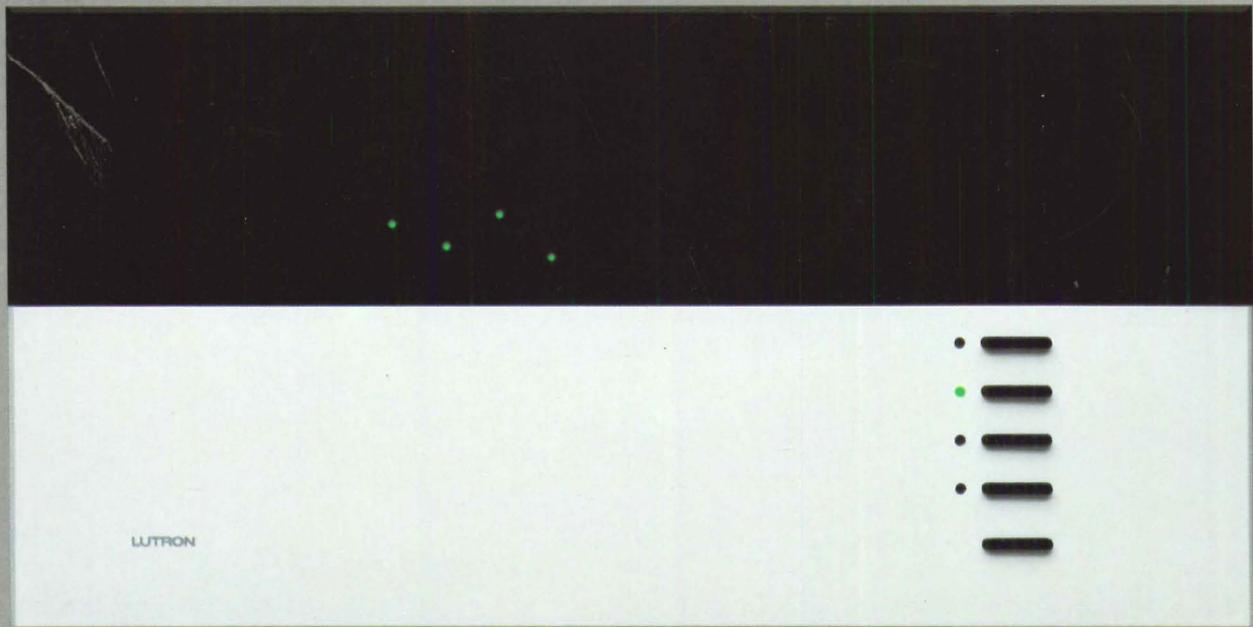
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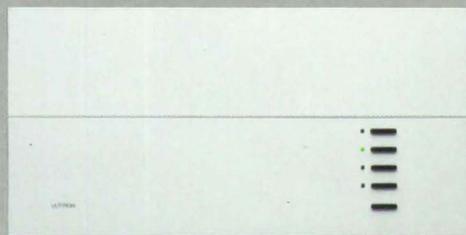
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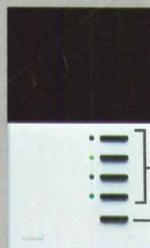
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