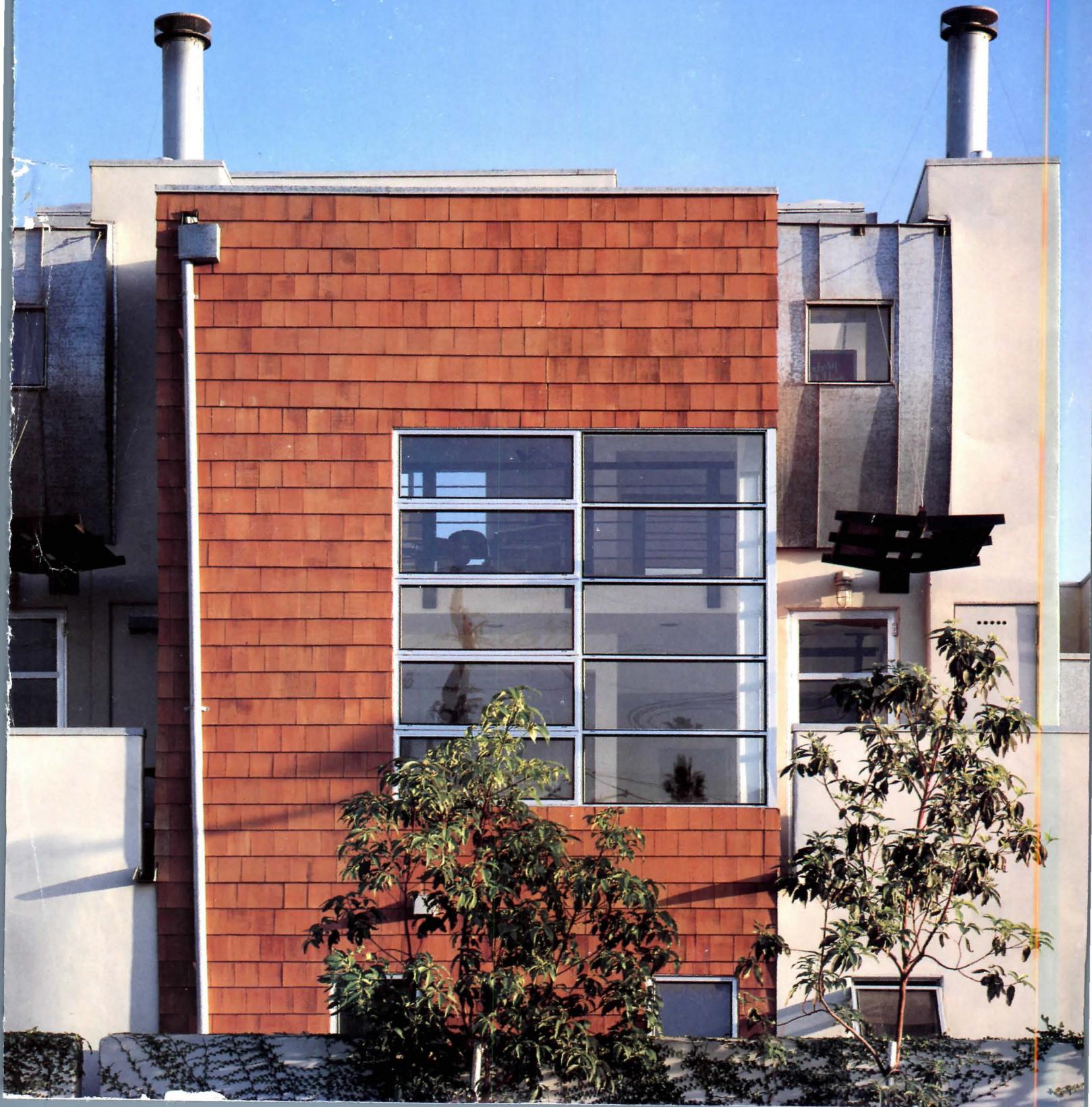
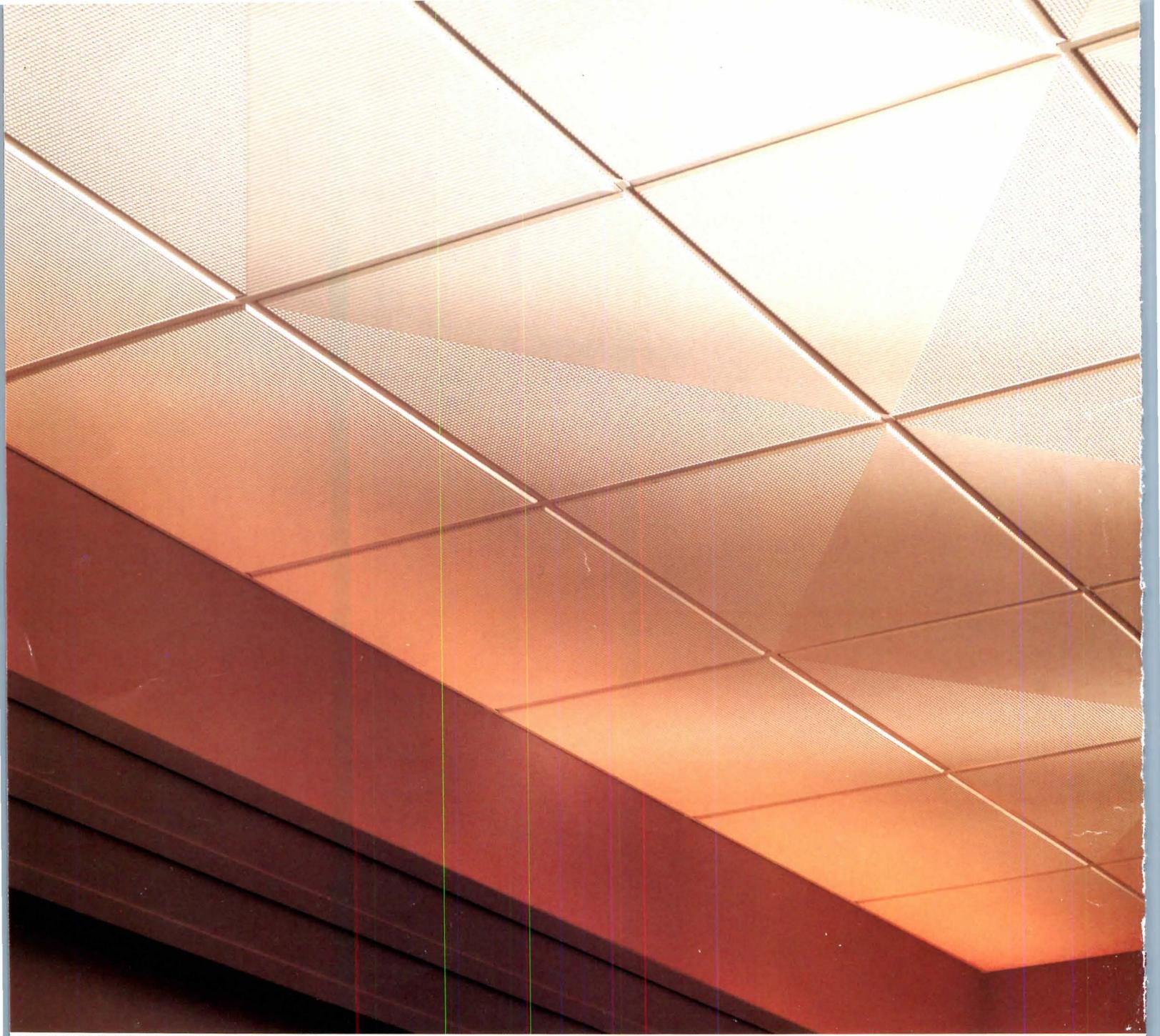


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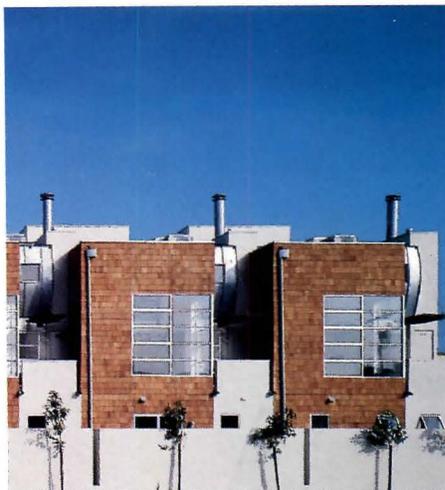
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Photograph by Douglas Hill.

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# SUPPORT CAN



*Arched chord joists, Brown & Root employee center, Houston.*



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**IF YOU'RE WONDERING  
ARE THE ANSWER, REME**



*The 65,000-seat multi-purpose Alamodome, San Antonio, Texas.*



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# WHEN JOISTS SAVE THEY CALLED IT TH



*The "Duke" installing ceiling panels in the Hanging Lakes Tunnel, Glenwood Canyon, Colorado.*

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# PSSST. THE COMPANIES HAVE SOME MA



*Twenty-six story, 312 Elm Building, Cincinnati.*



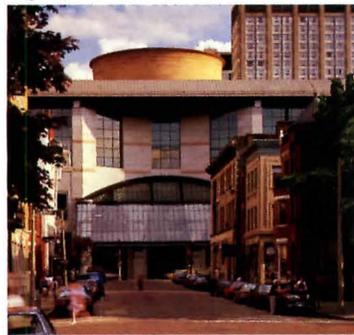
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Greater Columbus Convention Center by Eisenman Architects and Richard Trott and Partners (page 52). Photographed by Artog/D.G. Olshavsky, AIA.

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**IF YOU'RE WONDERING  
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*The 65,000-seat multi-purpose Alamodome, San Antonio, Texas.*



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Illustration by Bryan Leister.

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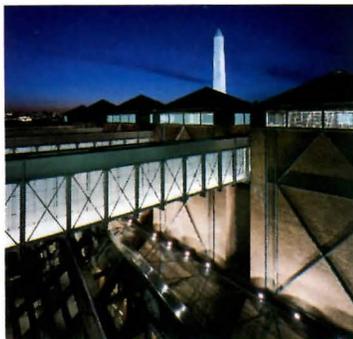
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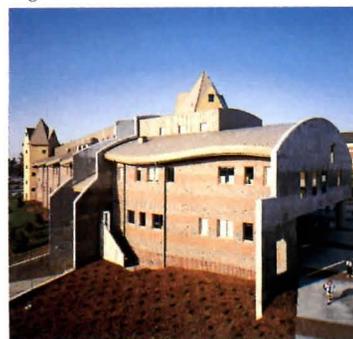
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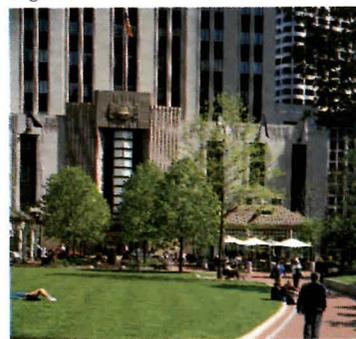


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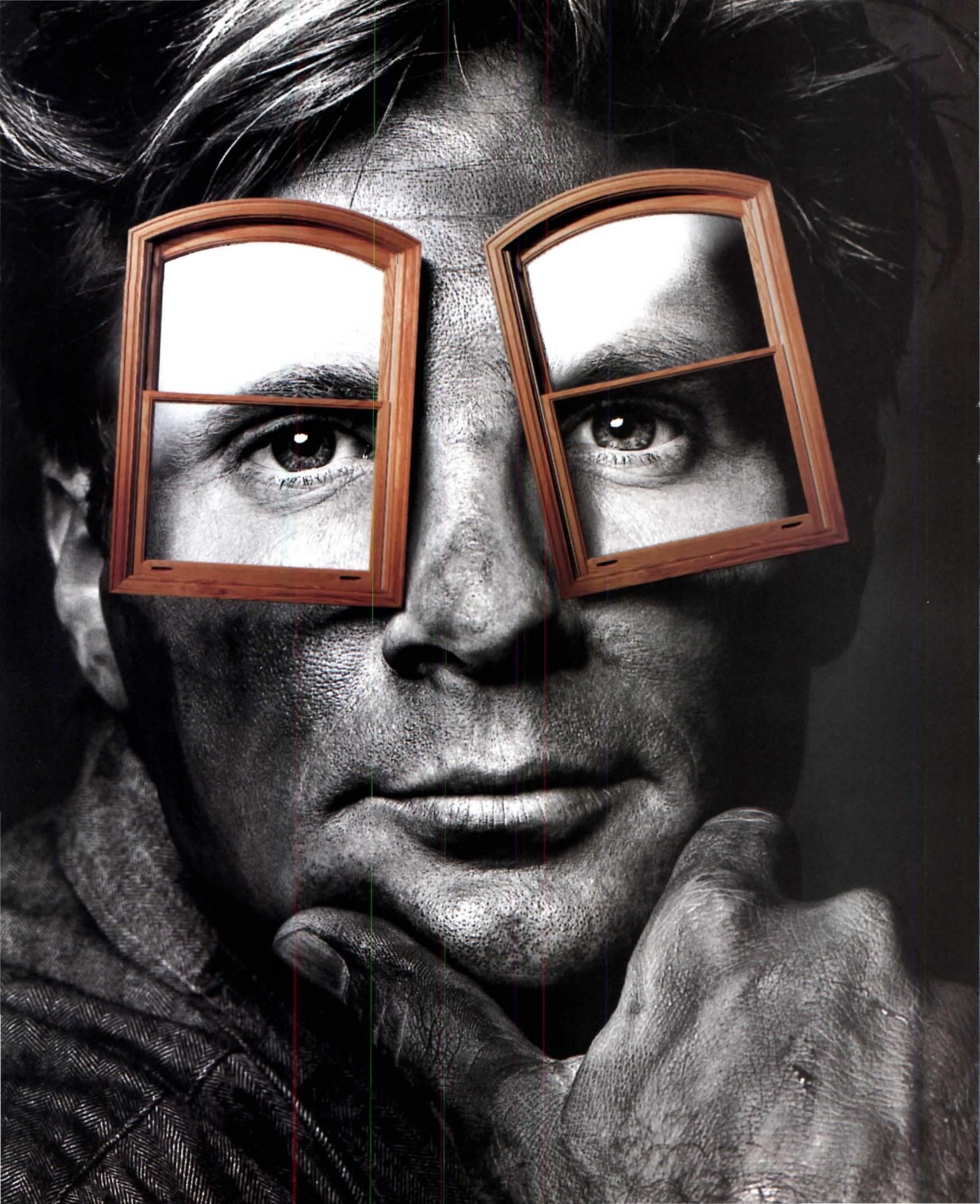
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*Sixty-seven years ago, a beautiful  
English Tudor mansion with a  
magnificent Ludowici-Celadon roof was  
built in Evanston, one of Chicago's  
most renowned suburbs.*

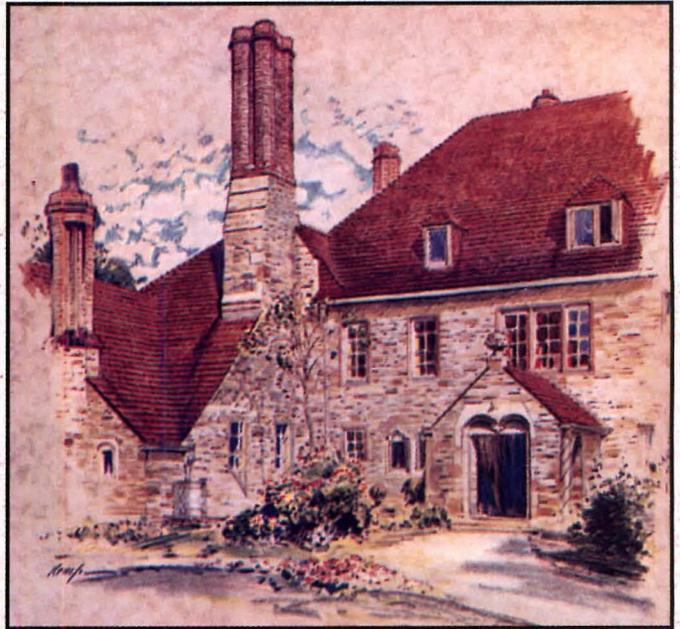
*Architect Richard Powers based his  
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JAMES H. MORRIS

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STEVE ROSENTHAL

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MAXWELL MACKENZIE

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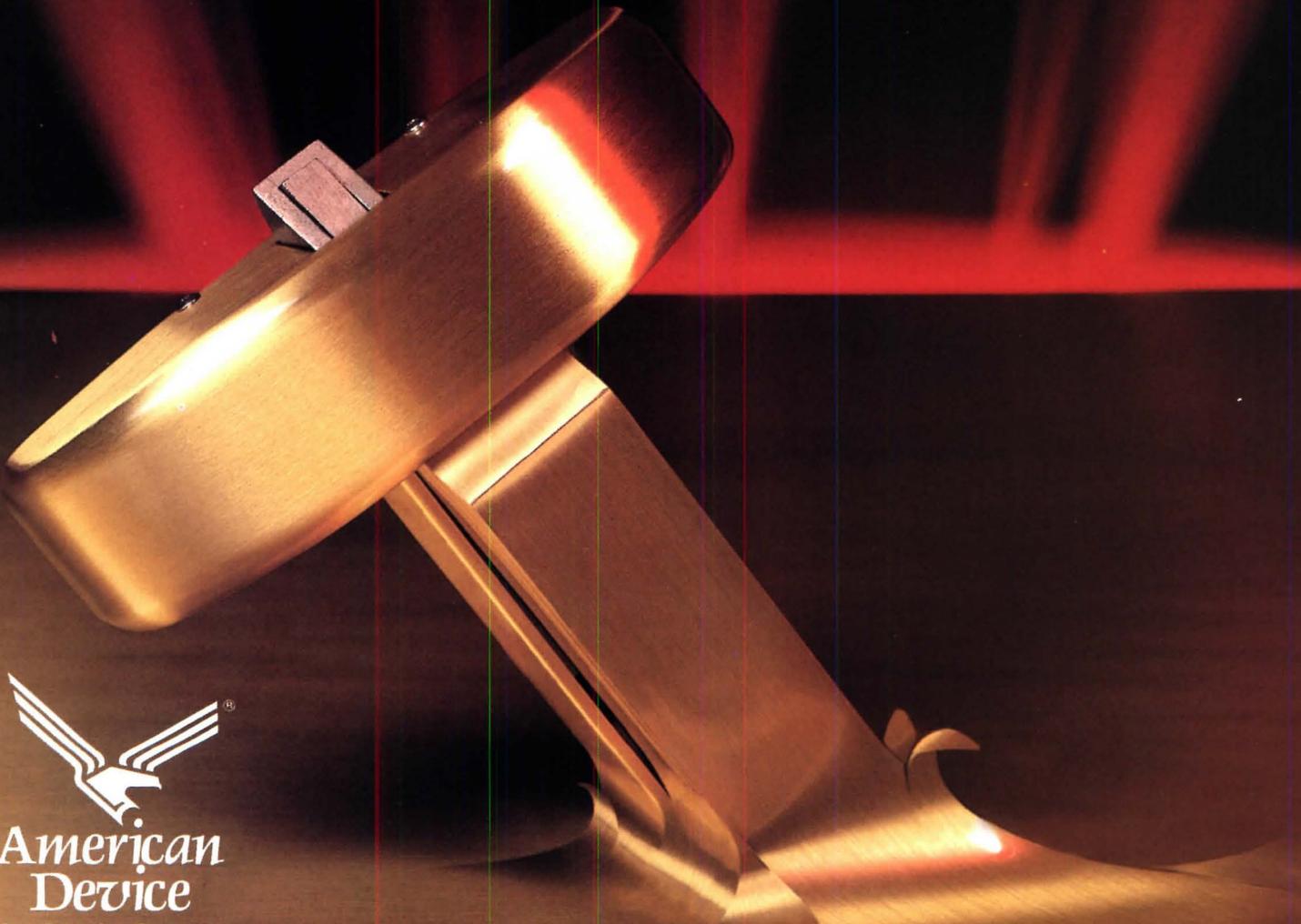
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ANTON GRASSLI

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TIMOTHY HURSLEY

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American Heritage Center and Art Museum, University of Wyoming, by Antoine Predock Architect (page 48). Photograph by Timothy Hursley.

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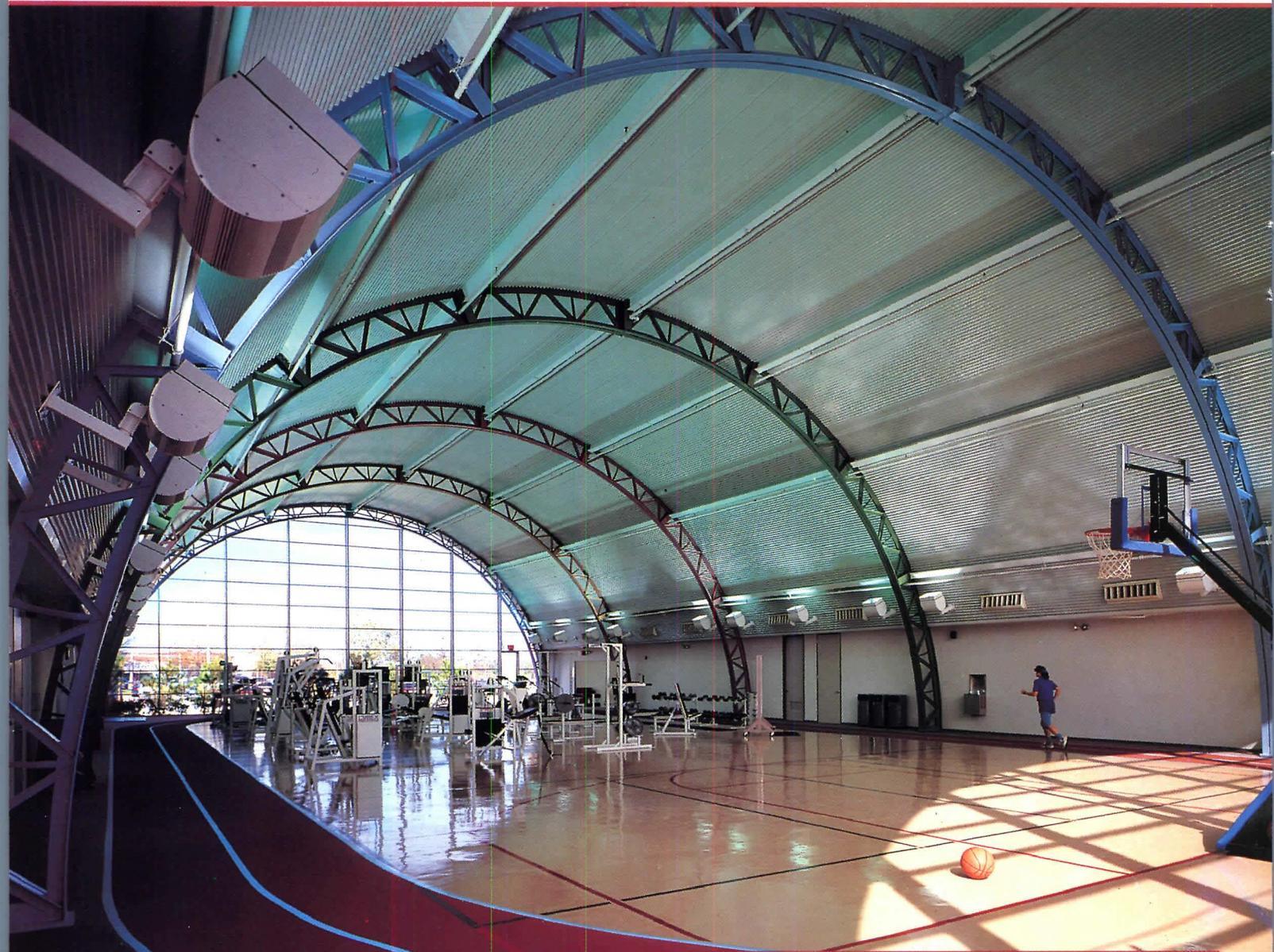
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# SUPPORT CAN



*Arched chord joists, Brown & Root employee center, Houston.*



# Improving Public Housing

CALIFORNIA, THE SUBJECT OF THIS MONTH'S ISSUE, IS A STATE FRAUGHT with contradictions when it comes to housing. While cities such as Los Angeles, San Diego, and San Francisco boast the most expensive residences in the country, they also offer small pockets of the most innovative affordable housing, thanks to the efforts of community activists and architects. This dichotomy symbol-

izes the nation's housing crisis and the lack of consensus on how to solve it. All of us agree that the government has failed in providing public housing that works, leaving more people on the streets than ever before, but few can point to a solution.

Under the Bush administration, the federal government attempted to pull out of the housing business, promoting instead resident management and ownership of public projects under programs such as Home Ownership for People Everywhere (HOPE). But due to the complexities and expense of managing and maintaining large-scale public housing, this attempt has resulted in few successes. And a bill to extend low-income tax credits for building housing was vetoed by President Bush the day after the election. While it is unlikely that President-elect Bill Clinton will return to old models of federally subsidized housing, he too must devise a better way of sheltering the poor that does not depend solely on the support of the federal government or the whims of private enterprise.

One place Clinton and his secretary of housing and urban development, Henry Cisneros, might look for advice is north of the border. For the past 20 years, Canada, a country similar to ours in culture and numbers of home owners relative to population, has succeeded where we have failed. Instead of relying on tax incentives or government-sponsored vouchers, the Canadian government creates public housing through nonprofit groups that organize the financing and construction of low-income units. This "social" sector determines the specific housing needs within a community, such as apart-

ments for single mothers or the homeless, then proposes a development package to the government. When government approval is secured, the nonprofit group commissions an architect and supervises construction. After the housing is completed, the group acts as its landlord. The government guarantees the mortgage loans and ensures that the tenants can live within the complex by subsidizing part of the tenants' rents.

Here at home, Clinton and Cisneros might well consult former president Jimmy Carter, whose efforts to help the poor grow more impressive each year. Under Carter's Project America, an outgrowth of his year-old Project Atlanta, corporations adopt inner-city "clusters" to help neighborhoods attack their social and economic problems, including housing. With the help of these corporate "partners," citizen committees within targeted neighborhoods devise specific ways of financing and implementing improvements. Last November, Carter traveled to riot-torn Los Angeles to urge that city to adopt his grass-roots approach, and he hopes other cities will follow suit.

The Canadian government and Jimmy Carter realize that the pitfalls of public housing are best avoided through small-scale development generated by neighborhoods and supported by federal funds. Future tenants must participate in the programming and design of their shelter through workshops and meetings. Only through such involvement will public housing be accepted by communities and benefit the people they serve. ■

—DEBORAH K. DIETSCH

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All submissions should be forwarded to the above address and received no later than 3rd of April 1993

# LETTERS & EVENTS

## Modern dilemmas

Your "Preserving Modernism" issue (November 1992) focused on a great subject, one that I have special interest in as a retired architect of the 1950s, '60s, and '70s. After reading and studying the various projects shown, I came to the conclusion that, with the exception of the Mummers Theater, all the featured projects were alterations and additions, not preservation. The Mummers project truly preserved the original building with understanding and appreciation. The other featured renovations, however, were not faithful to the original designs. Some were downright disrespectful and seemed to approach the projects with a "look at me, I'm so cute" attitude. Recladding a building's facade is not the same as preserving it intact for the benefit of future generations. Please do another article that focuses on preservation projects faithful to the original architecture of the Modern era.

*William Krisel, AIA  
William Krisel, Architect  
Los Angeles, California*

Your November issue was an excellent example of combining art and science through the rehabilitation and stabilization of buildings that were intended to be on the cutting edge of esthetics and technology at the time that they were built. A simple truth is painfully evident in the scenarios you depicted in your magazine—you can't fool Mother Nature.

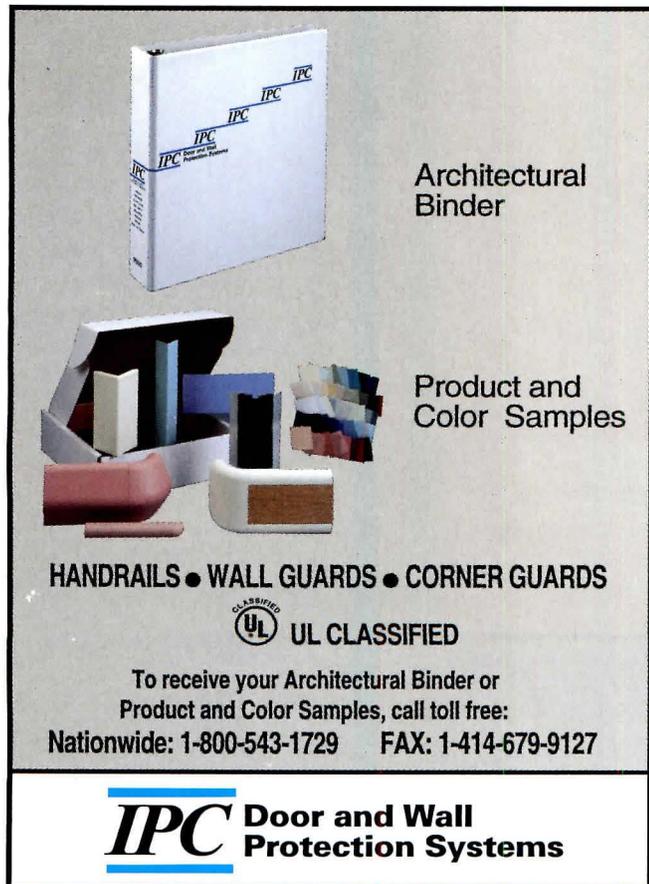
Depending on high-tech materials to defeat nature is foolhardy when compared with the use of pitched roofs to shed water, vertically stacked structure to accommodate gravity, and extended eaves for shading the sun. Visions that diverge from the natural world will suffer accelerated deterioration in a world where rain, gravity, and ultraviolet decay rule. With the pendulum swinging toward abstraction and cheap thrills, this issue of your magazine should serve as an indictment of structures that cast a blind eye toward our professional duty—to provide shelter from the elements without falling prey to them.

*Duo Dickinson  
Duo Dickinson Architect  
Madison, Connecticut*

I applaud ARCHITECTURE for calling attention to the plight of threatened Modern buildings. Yet on page 105, under the "Preserving Modernism" banner, you feature a proposal to completely redesign the exterior of 320 Park Avenue in New York City.

Although this tower may not merit the attention afforded individual landmark structures cited elsewhere in the issue, that section of Park Avenue, anchored by Lever House and Seagram, is unique in its concentration of early commercial metal and glass curtain wall design. This area has architectural merit no different from that of the cast-iron district in Soho, or the brick commercial blocks of South Street Seaport. To reconfigure the lesser buildings of the area is to rob the whole of its unique character.

If the commercial office market in Manhattan picks up any time soon, I doubt that the glass wall district of Park Avenue will be given a moment's attention, and the renovation of 320 Park will proceed. But if this trend continues, we will have to admire this lost enclave in photographic exhibitions, the



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way we do the Park Avenue of uniformly corniced masonry buildings that precedes it.

*Steve Lewent, AIA  
Graf & Lewent Architects  
Elmhurst, New York*

#### Life lessons

As a former member of the AIA Committee on Internship and Continuing Education, I found it reassuring to know, after reading "Results of AIA Learning Survey" (September 1992, page 99), that the institute is still taking an active role in the education and licensing of members.

*Joseph H. Rudd, AIA  
Rudd and Associates  
Tucson, Arizona*

#### Correction

"Standard Codes" (September 1992, page 117-119), published by Southern Building Code Congress International, included both English and metric units in its 1991 editions. Conversion tables were provided for editions published prior to 1991.

**January 11-15:** "Fundamentals of Commercial & Industrial Lighting" conference in Cleveland, Ohio, sponsored by General Electric. Contact: (800) 255-1200

**January 12-May 9:** "Women in Design," exhibition of architecture and interior design at the National Building Museum. Contact: Donna Anderson, (202) 272-3606.

**January 14:** "Building Connections, Linking Economy and Ecology for New Prosperity," AIA teleconference will explore new technologies, materials, and design methods to improve energy and resource efficiency. Contact: (800) 365-ARCH. To register, call (800) 677-2111.

**January 14-March 31:** "The Grand Projects: Chicago," Architectural Foundation, Chicago. Contact: (312) 670-7770.

**January 16-20:** "Managing Resources: Getting Results," conference, Roof Coatings Manufacturers Association, Palm Beach, Florida. Contact: (301) 230-2501.

**January 23-26:** AIA Grassroots leadership training conference in Washington, D.C. Contact: Kim Christensen, (202) 626-7378.

**January 26:** Accent on Architecture, annual awards dinner sponsored by AIA and AAF, explores "City, Past Present and Future." Contact: (202) 626-7514.

**February 17:** "Space Station Freedom—Building a Laboratory in Space," a slide-illustrated discussion at the National Building Museum. Contact: (202) 272-3606.

**February 19-22:** National Association of Home Builders 49th annual convention and exposition in Las Vegas, Nevada. Contact: NAHB (202) 822-0200.

**February 26:** Submission deadline for Energy and Architecture, a regional design competition sponsored by the Bonneville Power Administration. Contact: Onita Monary-Kunz, (503) 233-8757.

**March 4:** "Building Connections, Linking Economy and Ecology for New Prosperity," AIA teleconference will focus on improving indoor air quality. Contact: (800) 365-ARCH. To register, call (800) 677-2111.

**March 17-19:** "West Week 93," in Los Angeles, sponsored by Pacific Design Center. Contact: (310) 657-0800.

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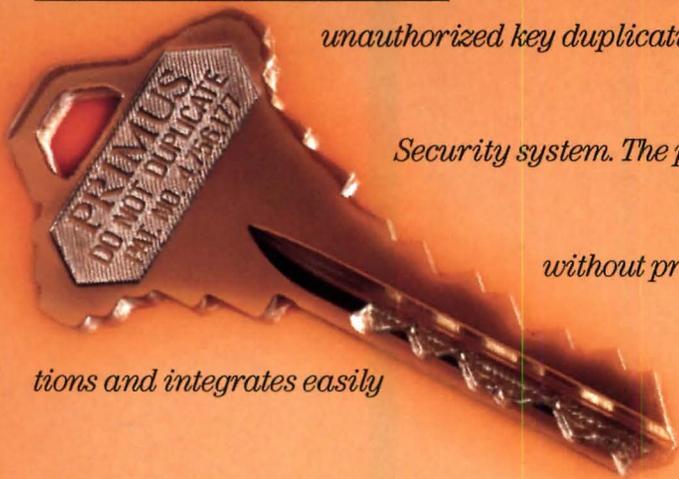
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# NEWS

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## Kevin Roche Wins AIA Gold Medal

"WHAT I HAVE NEVER UNDERSTOOD," Kevin Roche told ARCHITECTURE in 1985, "is architects who write the same poem over and over again, in the same meter and style, even though the subject matter has changed." Roche, winner of this year's AIA Gold Medal and designer of projects that range from the vast Neoclassical Bouygues World Headquarters outside Paris to the cozy, garden architecture of New York's Central Park Zoo, is the author of some very different poems indeed. Best known for the stark monumentality of his corporate headquarters buildings, including the 1967 Ford Foundation Building in New York, the 70-year-old Roche nevertheless believes architects bear a responsibility to society, to "create better and more acceptable environments for people."

Born in Dublin, Ireland, during its civil war in 1922, Roche is the son of a revolutionary who settled down in southern Ireland to amass one of the country's largest dairy cooperatives. In 1939 the elder Roche hired his teen-age son to design a warehouse for the creamery, an experience that compelled the young man to enroll in the architecture program at the University of Dublin. A student during World War II, Roche spent a year in London working for leading architect Maxwell Fry, then travelled to the Illinois Institute of Technology for a stint as a student of Mies van der Rohe. "Mies created the idea of mortal sin in architecture," Roche, raised in an intensely Catholic environment, maintains. For Mies, "there was a right way and a 'wrong way' to

design buildings. "The right way was beautiful and divine; the wrong way was a loss of life."

Despite Mies's formidable intellect, Roche believed the Modern master focused too heavily on architecture's vocabulary and not enough on its social responsibility. He left IIT after one semester in 1949, determined to learn a more socially conscious architecture by working for the great architects of the world.



1



3



5

By 1950, Roche found himself in the Bloomfield Hills office of Eliel and Eero Saarinen, where he became right-hand man to Eero Saarinen after Eliel died that year. "Eero was the consummate architect in that he was interested in technology and the humanist side of architecture." Roche recalls. After 11 years in the Bloomfield Hills office, Roche and partner John Dinkeloo assumed control of the practice



2



4



6

when the 51-year-old Saarinen died suddenly at the height of his career. They shepherded several of Saarinen's most famous projects to completion, including the TWA Flight Center in New York, the St. Louis Arch, and the headquarters for Deere and Company in Moline, Illinois.

And in the decades since Kevin Roche John Dinkeloo and Associates was founded in 1966, it is Roche who has become the consummate architect, evolving a broad-gauged practice that truly reflects its time. "We have a real concern for the condition of the people who occupy the building, and the people who look at the building," Roche explains. That philosophy steers projects as diverse as the towering NationsBank building in Atlanta (1989) and the French Gothic-style Jewish Museum addition, which opens this spring in New York City. Asked whether he favors any particular project of his long career, Roche, who has five sons and daughters, replies, "Among children, it is very difficult to have favorites. I have learned that lesson well."

—HEIDI LANDECKER

**AIA Gold Medalist Kevin Roche (1) stands before the Jewish Museum in New York City (1, 2). Roche Dinkeloo's diverse body of work is represented by the recently completed 55,000-square-foot library addition to the American Museum of Natural History in New York (3), the 1987 Ravinia headquarters complex in Atlanta (4), the 1987 Merck & Company headquarters in Readington, New Jersey (5), and the 1989 Nations-Bank Plaza (6) in Atlanta.**

## DETAILS Japanese Competition Schemes Exhibited in New York

**Robert A. M. Stern** has been selected to design a 440,000-square-foot headquarters for the Gap clothing chain in San Francisco. The Minneapolis team of **The Leonard Parker Associates** and **Setter, Leach & Lindstrom** has been commissioned to design a 220,000-square-foot library and resource building for St. Cloud State University. Boston's **Perry Dean Rogers & Partners** has been chosen to design a \$28 million health sciences library for the University of Maryland's Baltimore campus. The American Association for the Advancement of Science in Washington, D.C., has tapped **Pei, Cobb, Freed & Associates** to design its 165,000-square-foot headquarters. **Joe G. Hernandez Architects** of San Jose, California, was selected over **Antoine Predock**, among other architects, to design the Mexican Heritage Gardens in San Jose. **Benjamin Thompson & Associates** has been selected to design Theater Square, a performing arts facility in Newark. San Francisco-based **Anshen + Allen** has merged with the Baltimore firm **Hord Coplan Macht**, and has opened a new office in Baltimore. **Carlson/Ferrin** of Seattle, Washington, has been selected to design an arts building for the Lakeside School in Seattle. **Stanley Tigerman** and **Eva Maddox** have been selected to redevelop a former garment mill in Muskegon, Michigan, into a mixed-use complex. **Graham Gund Architects** of Boston has been commissioned to design Center East, a performing arts facility in Skokie, Illinois. **J. Carter Brown**, former director of the National Gallery, will receive the National Building Museum's seventh annual honor award in March. British architectural historian **John Summerson** died on November 10th at age 87.

THE MUSEUM OF MODERN ART'S handsome exhibition, "Nara Convention Hall International Design Competition," presents the schemes of 10 entrants, including winner Arata Isozaki, and offers museumgoers a valuable lesson in the hows and whys of design competitions. For Terence Riley, MoMA's new director of architecture and design, the lesson is important; Riley says that there have been few large-scale competition presentations aimed at a general audience.

Nara was the capital of Japan around the 7th century, but it now serves as a bedroom community for nearby Osaka. A master plan, designed by architect Kisho Kurokawa for 57 acres around the city's train station, including the convention center site, will surely help Nara regain some of its earlier grandeur. As part of the master plan, hotels, stores, housing, and other facilities will become the focus of future competitions.

The exhibit, which closes March 7, presents the proposals of the five finalists in the first stage of the competition. Scott Marble and Karen Fairbanks of the United States; Ryuji Naka-

mura/Takenaka Corporation of Japan; Bojan Radonic and Goran Rako of Croatia; Bahram Shirdel of the U. S.; and Yoshito Takahashi of Japan were selected in early 1992 from among 644 entrants. In the second stage, five additional competitors were persuaded to present schemes: Isozaki, Tadao Ando, Mario Botta, Hans Hollein, and Christian de Portzamparc. The jury included Kurokawa as chair, Richard Meier, James Stirling, Vittorio Lampugnani, director of the German Architecture Museum, and Japanese architects Kazuo Shinohara and Hiroshi Hara, as well as members of Nara's city government.

The program for the hall is quite simple: three meeting rooms and affiliated services. Architecture, rather than clever ways of accommodating the programmatic elements, therefore became of paramount importance. Isozaki's winning scheme appears as a long, narrow ellipse in plan; the oval footprint is rotated 23 degrees, from a line parallel with Nara's grid toward a line parallel with the train station. The interstice between the two ovals is bridged by a glass

roof to form an entry hall.

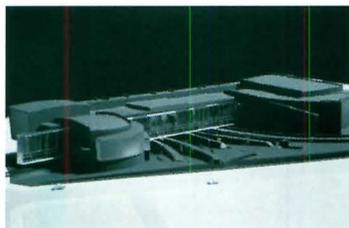
Riley argues that the results of competitions like Nara's "provide a window on contemporary architectural thinking"; certainly the entrants represent a variety of stylistic currents. Most schemes attempt to relate to Japanese design, including that of Nakamura, who incorporated pools of water; and de Portzamparc, who included the sculpture and greenery of Japanese gardens. Marble and Fairbanks integrate five video monitors, suggesting a theatrical, "medicated" environment. Takahashi's bent, sloped planes recall the work of the Deconstructivists, as do Shirdel's geometric explorations. Half of the proposals separate programmatic elements into different pavilions; of these, Botta's tempered urban Modernism is the most effective. MoMA's successful portrayal of the architectural variety afforded one particular site is a convincing illustration of why such competitions are not only important to the profession, but to the public.

—ANDREA E. MONFRIED

*Andrea E. Monfried is associate editor of Rizzoli Publications.*



**Arata Isozaki**



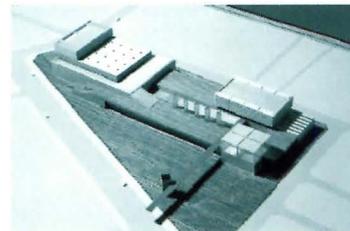
**Marble and Fairbanks**



**Radonic and Rako**



**Bahram Shirdel**



**Ryuji Nakamura/Takenaka**



**Yoshito Takahashi**

## Police Academy Competition Winner

ON NOVEMBER 18, THE COLLABORATIVE team of Ellerbe Becket with Michael Fieldman & Partners won a New York City-sponsored design competition for a new \$230 million police academy to be located in the South Bronx. In announcing the winner, Mayor David N. Dinkins stressed the city's commitment to public architecture of quality. "New York is recognized around the world for the diversity and brilliance of its architecture," Dinkins stated. "And while the public structures built by government must first and foremost emphasize function as well as prudence in the spending of taxpayers' dollars, public architecture should add to, not detract from, the urban design environment as a whole."

The Ellerbe Becket/Fieldman scheme was selected from a field of seven finalists, including Davis Brody & Associates with Richard Dattner (second place); Venturi, Scott Brown and Associates with Grad Partnership and Anderson/Schwartz Architects (third place); Rafael Vinoly Architects (honorable mention); Edward Larrabee Barnes/John M. Y. Lee & Partners; Foster Associates with Warren Gran and Associates; Perkins & Will with Edward Mills Associates. Each team had five months to develop design concepts for the 450,000-square-foot complex and received a \$50,000 stipend.

Ellerbe Becket/Fieldman's winning scheme calls for an eight-story, curved administrative tower that anchors the site's western corner. An adjacent six-story, 400-foot-long, academic wing defines the northwestern border of the 8½-acre site and screens an outdoor fitness area with a running track and basketball courts. The architects clustered the facility's main public

functions, including a library, a museum, and an auditorium, at the juncture of the two wings. The building's street facades will be clad in glass and steel, while the facades fronting the courtyard fitness area will be clad in concrete and glass.

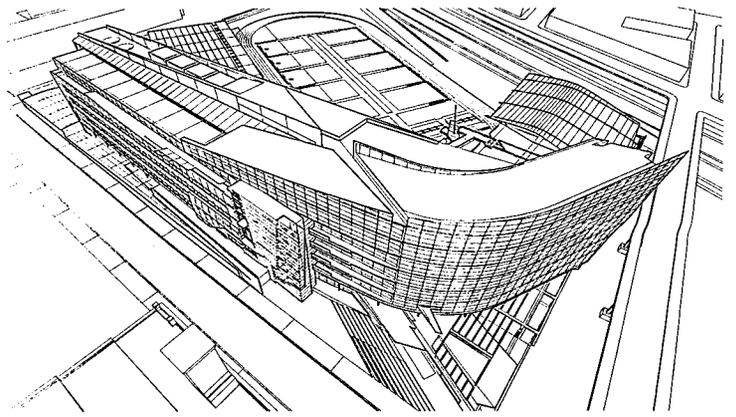
The seven finalists for the project were selected in March 1990 from more than 30 entrants by an eight-member jury comprising New York City Deputy Mayor Barbara J. Fife; General Services Commissioner Kenneth J. Knuckles; New York City Planning Commission Chair Richard Schaffer; Deputy Police Commissioner for Management and Budget Joseph P. Wuensch; architect James R. Doman, Jr., of Doman & Associates; architect Stanton Eckstut of Ehrenkrantz and Eckstut; James Ingo Freed of Pei, Cobb, Freed and Partners; and Linda L. Jewell, chair of the department of landscape architecture at the University of California, Berkeley. Mark A. Hewitt, a design consultant, served as competition advisor.

Juror and architect Doman characterized the Ellerbe Becket/Fieldman scheme as "two-thirds safe and one-third bold and visionary," adding, "the smaller footprint with stacked functions is an innovative solution to the program."

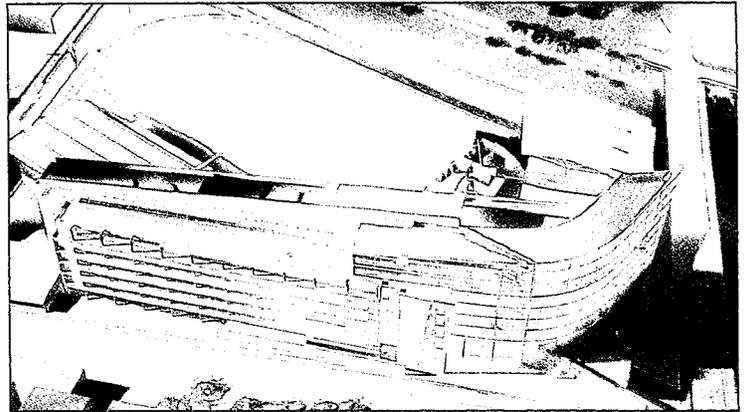
The police academy is scheduled to be completed in 1998.

—LYNN NESMITH

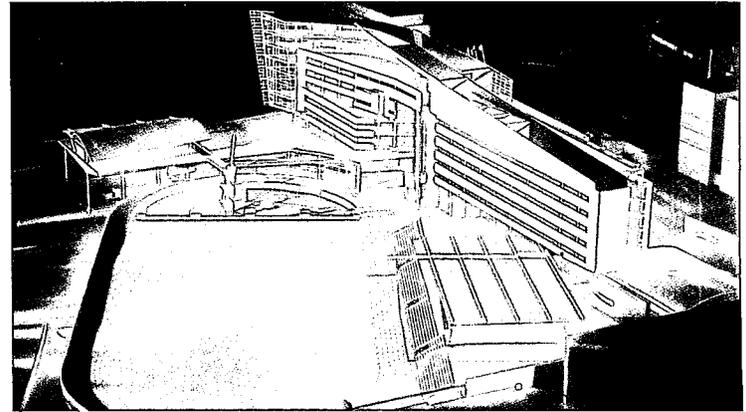
**Ellerbe Becket/Fieldman anchored western corner with eight-story administrative wing and public entrance (1). Complex extends north with a six-story academic block (2) and outdoor fitness area (3). Architects shielded muster deck—where recruits convene daily—to the south with an aerodynamic metal canopy (4).**



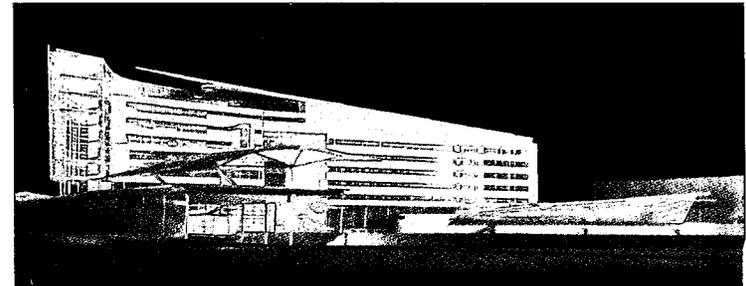
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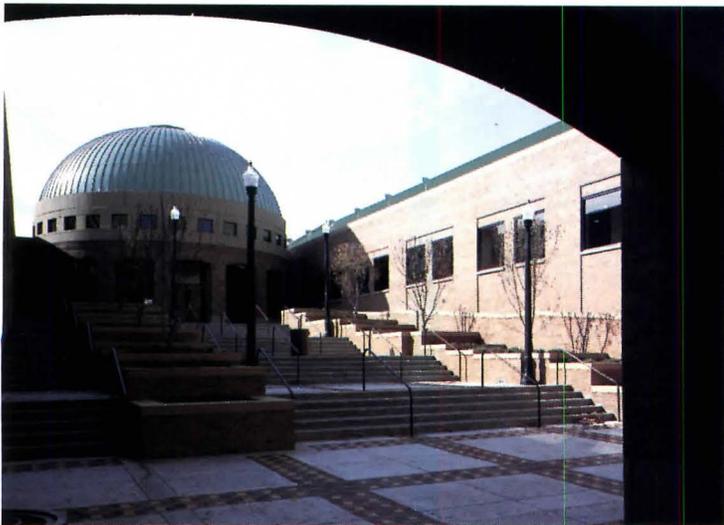
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## Civil Rights Institute Opens in Birmingham

During the 1960s, Birmingham, Alabama, was a crucible of racial tension. Increasingly militant civil rights protesters gathered in the city's parks and marched through its streets to confront unyielding racial ordinances and white resistance. At the 16th Street Baptist Church, downtown Birmingham's first African-American church, a bomb killed four young girls attending Sunday school on September 15, 1963. Television cameras in Kelly Ingram Park captured images of guard dogs unleashed on marchers who had gathered to protest the bombing.

Today, Birmingham is being transformed from a segregationist stronghold to a progressive southern city. Richard Arrington, the city's first black mayor, is determined that future generations should remember the struggle that brought positive social change. On November 15, 1992, the city acknowledged its

painful legacy by dedicating the Birmingham Civil Rights Institute, an interpretive museum and research facility dedicated to human rights. The institute's birth, however, has not been without controversy. Over the past two years, local newspapers have reported numerous allegations that Mayor Arrington defrauded the city of \$220,000 in design and construction costs for the institute he had promoted, but a federal grand jury exonerated the mayor three days prior to the institute's dedication.

Freed at last from dispute, the institute inhabits a serious building that is respectful of the gravity of its history and its important role as anchor of a newly designated Civil Rights District. Designed by New York architect Max Bond, who also developed the scheme for Atlanta's Martin Luther King Center for Nonviolent Social Change, Birmingham's institute is housed in a

**Interior courtyard of Alabama's recently dedicated Birmingham Civil Rights Institute (top left) serves as outdoor meeting area and includes steps and ramps symbolic of the civil rights movement's uphill struggle (section, facing page). Metal roof of the institute's domed entrance hall echoes neighborhood churches. The complex, designed by New York architect Max Bond of Davis Brody & Associates, occupies a critical corner within Birmingham's newly designated Civil Rights District, bordering 16th Street Baptist Church (right in bottom photo) and refurbished Kelly Ingram Park (center and bottom left), site of violent confrontations in the 1960s between civil rights protesters and police. The institute and park are bordered by buildings designated for development.**

# NEWS

58,000-square-foot, two-story structure. Skillfully massed brick walls, modulated by flat-arched openings and surmounted by metal roofs, reinforce the city's streetscape; a large, metal-roofed dome echoes the neighboring 16th Street Baptist Church.

Most of the building's ground level is devoted to administration, archives, and meeting spaces; the public climbs to the second level galleries on a massive open staircase that is shielded within an inner court, a symbolic reference to the movement's ascent to freedom.

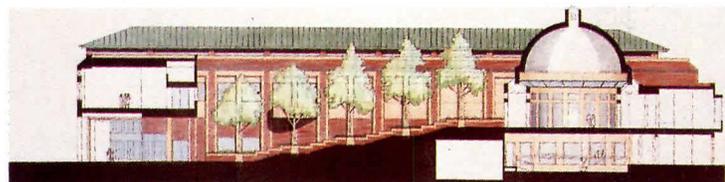
Like the visitor's path, the exhibition mounts in intensity through chronological progression from 1871 to the present. Sounds resonate through the halls like voices from the past. Songs from the civil rights era are overlaid with whisperings of hate and fear, and the calm voices of newsmen accompany multiple televised images of actual events—from Freedom Riders under attack in Jackson, Mis-

issippi, to Martin Luther King's ringing call for freedom at the Lincoln Memorial.

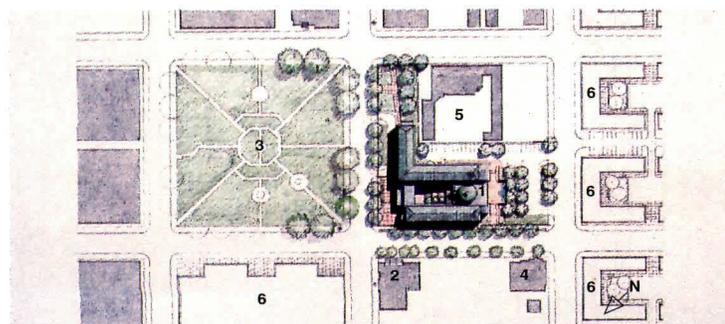
The building reasserts its presence only at the conclusion of the tour. Two windows bring light into the final gallery: one frames the 16th Street church; the other, Ingram Park. Although not all of the 28,000 square feet of exhibit space is occupied, plans for a second phase devoted to international human rights are under way.

On leaving the galleries, small groups gather on the steps to sit and recall the past, or to marvel at their forebears' courage. Directly opposite, among the city's high rises, is a communications tower that symbolizes Birmingham's economic conversion from heavy manufacturing to information and health center. The Birmingham Civil Rights Institute is a beacon announcing the city's reconciliation with its past and its determination to improve its future.

—ROBERT A. IVY, JR.



LONGITUDINAL SECTION



CIVIL RIGHTS DISTRICT

- |                                     |                               |
|-------------------------------------|-------------------------------|
| 1 BIRMINGHAM CIVIL RIGHTS INSTITUTE | 4 ST. PAUL'S METHODIST CHURCH |
| 2 16TH STREET BAPTIST CHURCH        | 5 A.G. GASTON GARDENS         |
| 3 KELLY INGRAM PARK                 | 6 PROPOSED DEVELOPMENT        |

## I'd hate to be a tourist in America and have to go to the toilet.

Yes, the toilet, not the bathroom. Americans may be the only people in the world who "go to the bathroom" more often than they take baths. Maybe we don't have public toilets because we "go to the bathroom".

But who among us has never tried to sneak past a headwaiter, never bought an unwanted drink in a grungy bar, or unzipped a red-faced toddler between parked cars, just because there was no public alternative? More than once in some big city I've wished for the kind of outhouse I can find in any fishing camp in Vermont's Green Mountains. But now one city is addressing the problem, and has given me an idea.

New York City is experimenting this Fall with three of what *The Wall Street Journal* calls "Commodos a la Mode", kiosk-style computer-automated, coin-operated, self-cleaning sidewalk toilets on loan from the Parisian firm JCDecaux, who have installed over 4,000 of their conveniences in 700 European cities.

### Design a pissoir for the Plaza and win FIVE THOUSAND dollars.



I know we can design a more elegant urban outhouse than the French, and produce it in even larger quantities. That's why I'm announcing our *Urban Outhouse Design Competition*. Design your site-enhancing public toilet for the sidewalk next to the horse carriages in Grand Army Plaza

in front of the Plaza Hotel in New York, and you may win the first, second or third prizes, of \$5,000, \$2,000 and \$1,000, respectively. Eight runners-up will receive prizes of \$200 each.

### Our Urban Outhouse Competition.

Our 1987 Design-A-Gazebo Contest was a lot of fun, and drew over 140 entries, so the first rule of this contest is: If it isn't fun, don't do it. And a hint: don't forget the little things in your plans, like a coathook, a shelf for handbags and briefcases, and a mirror long enough so that 6-foot tall men can see in it the hair they comb and 5-foot women the lipstick they apply.

All designs are due by April 30, 1993. Winners will be selected by a jury of distinguished architects, who will do their judging in a room at The Plaza overlooking the site, and I promise you we'll all have even more fun than last time. Join us by sending for the Contest rules and your application form (there's a \$5.99 entry fee, but don't send that now). Write to me, Bill Markcrow, or my son Craig, who's running the Contest, at:



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## AIDS Housing Competition Generates Design Research

AS MANY AS 1.5 MILLION AMERICANS are estimated to be infected with HIV, the virus that causes AIDS, and more than 80 percent of all people who contract AIDS will require housing assistance at some point during their illness. Until recently, however, little attention has been paid to the housing needs of this growing population. "Raising the Roof, Opening Doors," the first housing design competition for people with HIV-related illnesses, goes a long way toward rectifying the situation. Through research and design exploration, participants offered insights into

the spatial needs of people living with the disease.

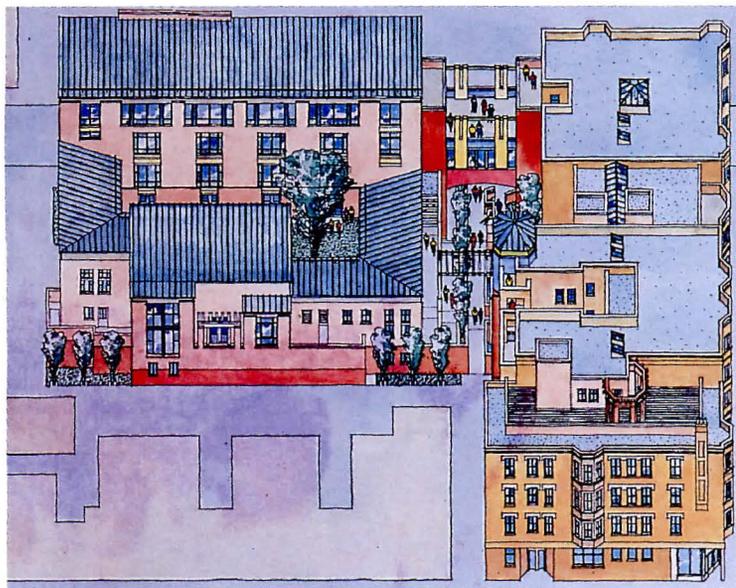
The competition grew out of a task force appointed by Boston Mayor Raymond L. Flynn in February 1991 to determine how the city could effectively address the housing needs of people with AIDS. The committee proposed developing 501 units of housing for AIDS victims in the city (one more than that proposed by the Bush administration for the entire country) by 1994. Because knowledge of the physical requirements of those afflicted with the disease is scant, Boston's Public Facilities Department,

which is responsible for reviewing all city housing construction projects, suggested a competition to generate a broad spectrum of design ideas based on participants' original research. The event, sponsored by the city department and Boston Society of Architects, received a grant from the National Endowment for the Arts. Submissions were awarded and displayed last November at Build Boston 1992.

The competition was divided into two categories. The first called for an architectural solution to an affordable housing project on a specific site. Design-

ers were asked to renovate five existing rowhouses and build on an adjacent lot. About a third of the units were to be developed for people with AIDS, the remaining two-thirds for noninfected residents. The second category was a less-structured call for ideas from a variety of design disciplines. There were 144 submissions from the United States, Canada, Argentina, and France.

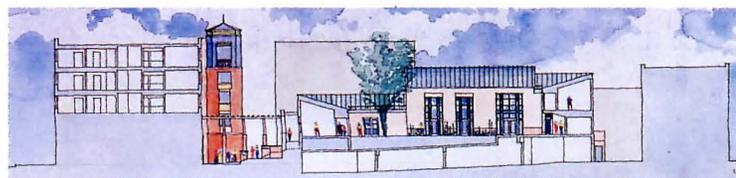
"The emphasis is on living," notes jury member Charles B. Zucker, AIA's senior director for community design and development, and the competition focused on how people live with



AXONOMETRIC



NORTH ELEVATION

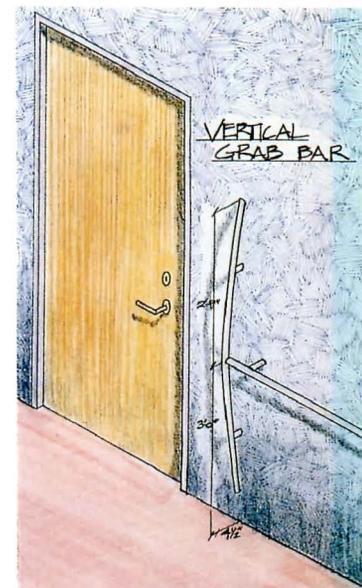


EAST-WEST SECTION

### Category 1: First Award

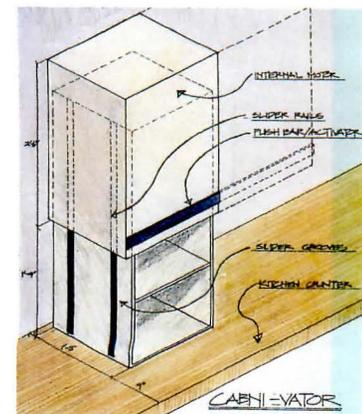
**Design Team:** David Kaplan, George Nakatani, Lalida Pinsu-  
vana, and Hong Chen  
**Consultant:** Alice Nakatani

FOLLOWING THE ADVICE OF CONSULTANT Alice Nakatani, a nurse who treats AIDS patients, the Santa Monica design team located units for people with AIDS in a new addition (left) and those for people without the virus in adjacent, renovated townhouses. A third floor community room joins the two sections. A courtyard within the new wing is divided into three areas for outdoor dining, gardening, and contemplation.



### Category 2: Second Award Designer: R.J. Reissig

VERTICAL GRAB BARS (TOP RIGHT) located intermittently along walls offer the weary a place to lean and assistance in lifting themselves up if they fall. A "cabninator," or wall cabinet that slides down to counter level (bottom right), helps residents who are confined to wheelchairs reach food supplies stored above a kitchen counter.





AIDS. Not surprisingly, the architectural schemes reflected affordable housing solutions that satisfy the needs of physically challenged residents. The first award in the architectural category went to architects David Kaplan and George Nakatani of Santa Monica, California. They proposed a five-story courtyard complex linked by a community center to existing rowhouses. The

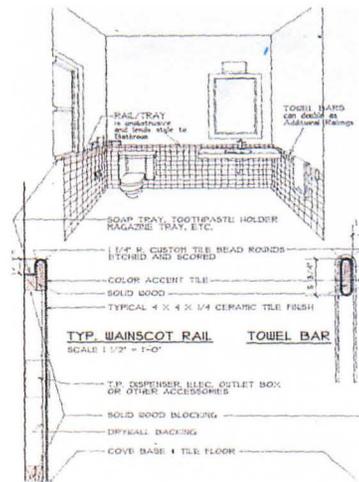
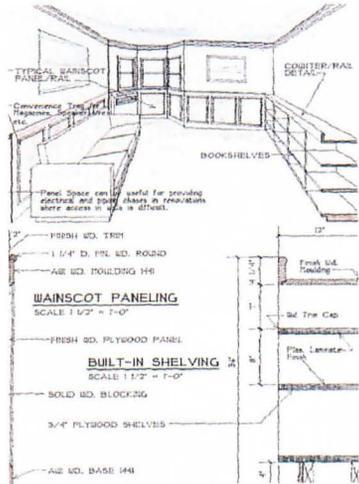
jurors were impressed by the cheerfulness of the Kaplan-Nakatani scheme. "It underscores the fact that this is a disease that one lives with," notes juror M. David Lee, principal of the Boston firm Stull and Lee.

But Zucker warns against thinking of housing people with AIDS as housing for another special needs group. "You can't just take your experience from people

with cancer, for example, and apply it to people with AIDS," he explains. The daily realities of the illness were made apparent through the second category of submissions. Sarah Conderman of Kansas State University, for example, determined that the one-story ranch house is best suited to evolve with the disease. She detailed changes that might take place—the addition of ac-

cessible bathrooms, guest bedrooms, and rest areas—as an occupant's condition deteriorated.

Another entry proposed that red benches be placed throughout the Boston area to provide rest stops for people with AIDS, who tire easily. An omnipresent reminder that the epidemic is still among us, the network of benches would be painted green when a cure is found. —N.B.S.



**Category 2: Second Award**  
**Designer: Evan Shu**

TO MINIMIZE THE HARSH PSYCHOLOGICAL effects of cold metal grab bars throughout a home, architect Evan Shu discreetly detailed wainscotting, shelving (above), and ceramic tile walls (top) to function as railings.



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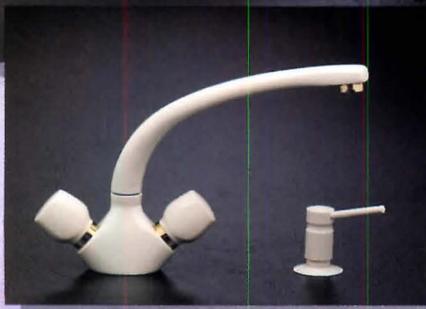
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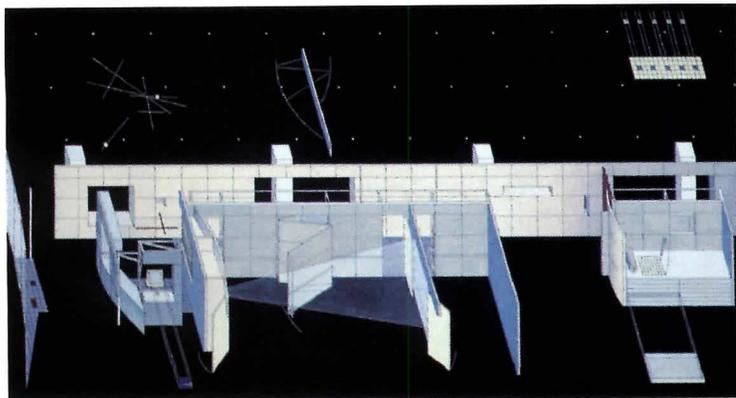
## New Headquarters for AIA New York

LAST OCTOBER, NEW YORK-BASED Thomas Hanrahan and Victoria Meyers won a competition to design the new 2,000-square-foot headquarters for the AIA's oldest and largest chapter. Approaching completion, the \$100,000 scheme will provide more office space in a mid-Manhattan high rise than the AIA New York Chapter's former home in McKim, Mead & White's Villard Houses on Madison Avenue. The new headquarters will house the organization for the next five years until it can purchase a Manhattan site.

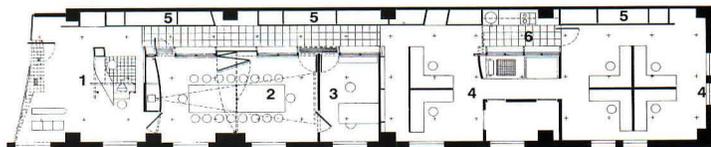
Faced with a tight budget, Hanrahan and Meyers relied upon a simple plan (bottom) and a variety of materials to distinguish the corner location overlooking Lexington Avenue. The architects divided the 85-foot-long space into four functional zones (below) and linked them with a wide corridor along the west wall. To optimize storage and provide display nooks, Meyers and Hanrahan lined the corri-

dor perimeter with maple cabinetry. The hallway's interior wall is articulated by perforated metal and glass, offering views into a conference room and director's office. For the lobby, the architects designed a curved reception desk in wood and steel that includes a workstation intended for the AIA's new Online service.

The competition, open to all licensed architects in the state of New York, drew 45 entries, from which five finalists were selected. The jury, comprising architects Bernard Tschumi and Philip Johnson, and ARCHITECTURE Editor-in-Chief Deborah K. Dietrich, lauded Hanrahan and Meyers for meeting the chapter's need for administrative areas through a clear hierarchy of spaces. chapter Executive Director Lenore Lucey applauds the decision: "The scheme simultaneously makes a strong statement about architecture and elevates the quality of our working environment." —K.S.



AIA NEW YORK HEADQUARTERS



FLOOR PLAN

- |                               |           |
|-------------------------------|-----------|
| 1 RECEPTION DESK              | 4 OFFICE  |
| 2 CONFERENCE ROOM             | 5 STORAGE |
| 3 EXECUTIVE DIRECTOR'S OFFICE | 6 KITCHEN |

## It's That Simple To Slide Into Fame And Prize Money.

The 1993 National AIA Architectural Photography Competition.  
Deadline for Entries: March 1, 1993.



Slave Hut  
by Anne Hritzay, AIA  
from the 1991 Competition.

**Snap!** Capture on 35mm slide film a representation of the global variety of architecture and design excellence in our environment. That's the first step to gaining national recognition and winning prize money for your award-winning photographic creativity.

The 1993 National AIA Architectural Photography Competition is open to Members of AIA or AIAS, and to Professional or Student Affiliate Members of AIA Components, in good standing. (Sorry, if you are a professional photographer, even though otherwise qualified, you are not eligible for the competition.)

The 54 winning entries will be displayed at the 1993 AIA Convention and International Architecture Conference in Chicago; the photographs used in the AIA ARCHITECTURE 1995 Calendar will be selected from all of the entries. The Competition is organized by the St. Louis Chapter, AIA.

### \$2,500 IN PRIZE MONEY

The top entries will be awarded \$2,500 in prizes at the 1993 AIA Convention; no entry can win more than one cash award.

First Place	\$1,000
Second Place	\$ 700
Third Place	\$ 300
Louise Bethune Award	\$ 500

Check the Conditions of Entry below and then use the form to enter your slides; photocopy the form for additional submissions. Enter as often as you want; each \$20 entry fee entitles you to enter up to five slides. Hurry, there's not much time left. **Snap!**

#### CONDITIONS OF ENTRY

- Only 2" x 2" 35mm color slides may be entered.
- Entries must have been exposed by and be owned by the entrant.
- Images previously published and/or pending publication or cash winning images in previous National AIA Photography Competitions are not eligible.
- Entry fee is \$20.00. Entrants may submit up to five (5) slides for each \$20.00 entry fee. Entrants may enter as many times as desired.
- The entry fee is non-refundable and must accompany the slides entered.
- The subject matter must have an architectural theme or must contain some element of the man-built environment. Photographic interpretation of the subject matter is the issue, not the architecture.
- Slides that do not fit in a standard slide carousel will not be judged. **Please do not send glass mounted slides.**
- Entrants grant permission to the AIA to reproduce slides for exhibitions, AIA publications, and for promotional purposes. All reproductions will become the property of the AIA.
- The decision of the judges is final on all matters relating to the Competition.
- Great care will be taken with all slides submitted, but no responsibility for loss or damage during transit or any phase of the Competition will be assumed by the St. Louis Chapter AIA or the National AIA.
- Clearly mark each slide with the following:
  - Entrant's name
  - Slide title
  - Slide identification (A, B, C, D, E) as listed on entry form
- Entries must be postmarked by March 1, 1993 and include:
  - Completed Entry Form
  - Entry Fee (check or money order) made payable to: AIA St. Louis Photography Competition
  - Adequately sized self-addressed envelope with proper postage for return of slides. (Do not use predated postage from postage machines.)
- Mail entries to:
 

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- Submission of slides implies entrant's acceptance of all the above conditions.
- Void where prohibited by law.
- Questions? Call AIA St. Louis at 314-231-4252.

#### ENTRY FORM

Please print or type all information

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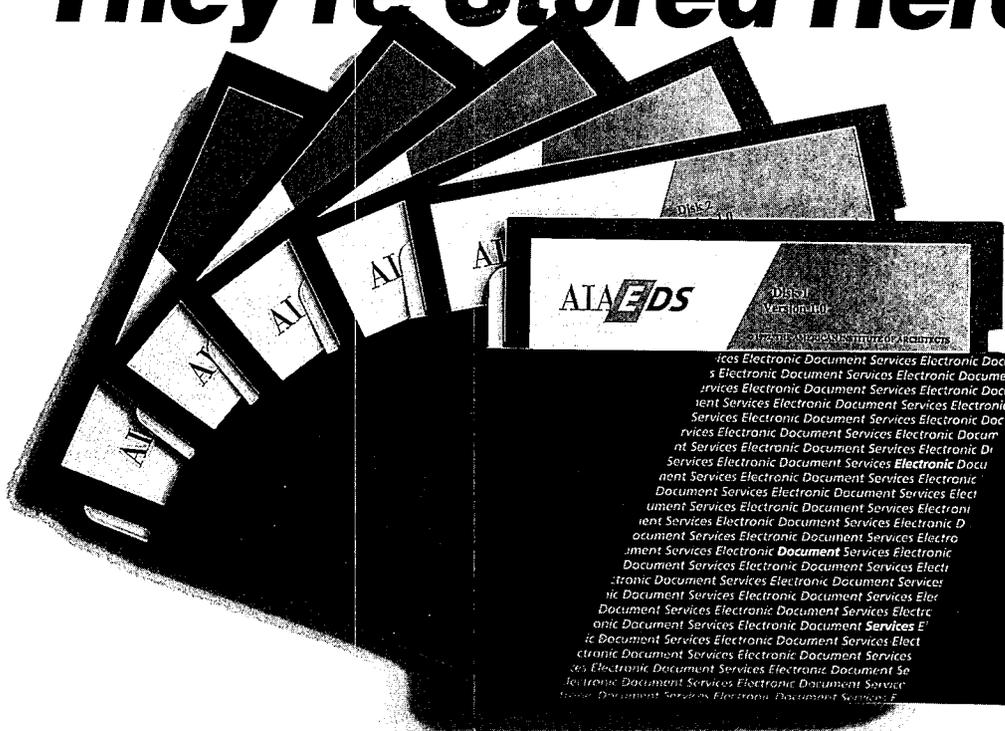
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Affordable Housing in L.A.'s Koreatown

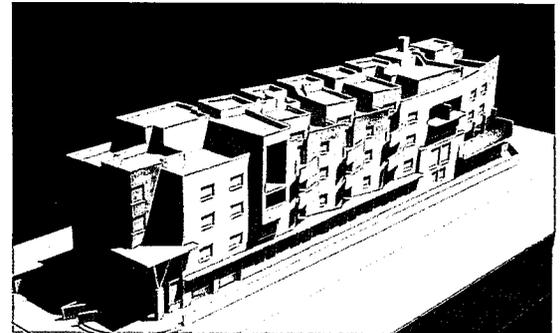
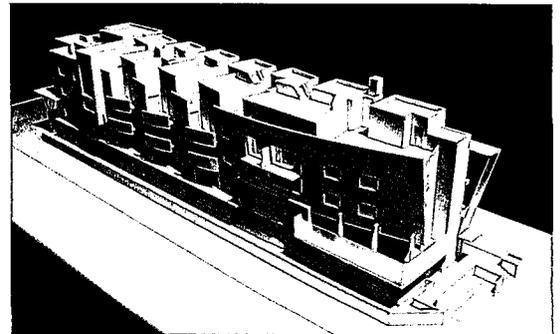
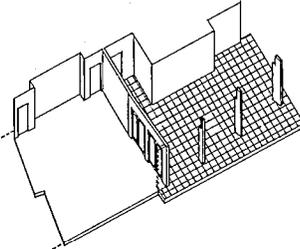
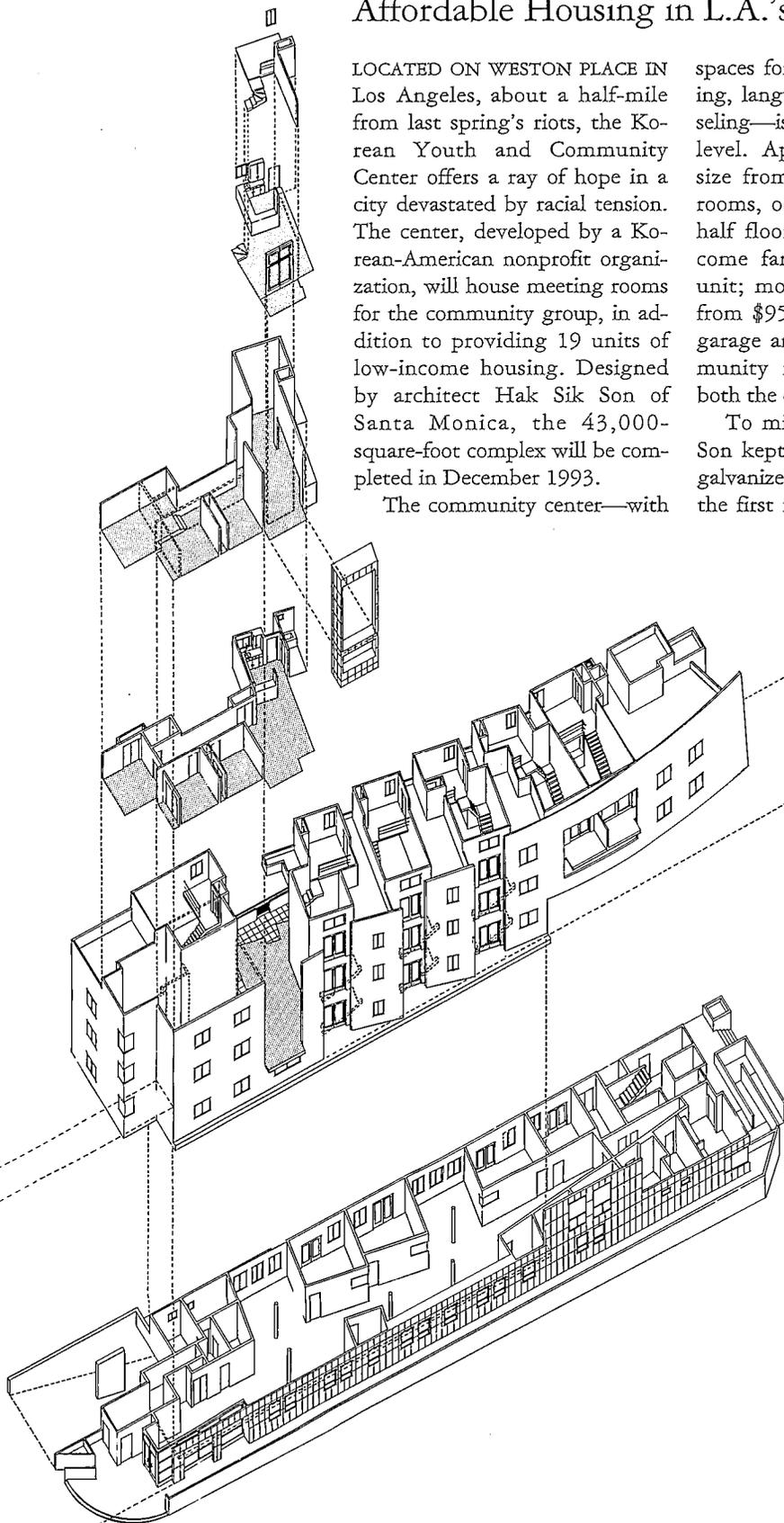
LOCATED ON WESTON PLACE IN Los Angeles, about a half-mile from last spring's riots, the Korean Youth and Community Center offers a ray of hope in a city devastated by racial tension. The center, developed by a Korean-American nonprofit organization, will house meeting rooms for the community group, in addition to providing 19 units of low-income housing. Designed by architect Hak Sik Son of Santa Monica, the 43,000-square-foot complex will be completed in December 1993.

The community center—with

spaces for workshops, job training, language classes, and counseling—is located on the ground level. Apartments, ranging in size from studios to four bedrooms, occupy the three-and-a-half floors above. Any low-income family may apply for a unit; monthly rents will range from \$95 to \$375. A basement garage and a second-floor community room are available to both the center and tenants.

To minimize costs, Hak Sik Son kept to simple materials—galvanized sheet-metal panels on the first floor and stucco on the

upper stories. He varied the building's massing by treating the north end as a standard apartment block of three- and four-bedroom units; skewing the central bays to house studio, one-, and two-bedroom units; and curving the street facade around three- and four-bedroom apartments at the south end. Loft spaces pop up above parapet walls, and balconies thrust from each apartment, contributing to an energetic design. These articulated features celebrate diversity, a welcome message in this multicultural city. —N.B.S.





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# Toward a New Urban Vision

AIA President  
Susan Maxman  
implores architects  
to fight for our  
cities through  
sustainable design.

TODAY'S URBAN AND ENVIRONMENTAL CRISES ARE interconnected. We cannot solve one without attending to the other, and we cannot achieve sustainable design without recycling the embodied energy of our cities. If we allow our metropolitan areas to die, we will never be able to sustain life on this planet. To me, the overriding challenge facing American architects in the 1990s is the revitalization of our urban centers.

One does not have to travel far to see the blight afflicting so many of our older industrial cities; like my hometown of Philadelphia, these urban environments suffer tremendously today. Faced with the task of feeding and caring for a disproportionate share of our nation's poor and disenfranchised, today's city officials have watched urban tax bases erode as the middle class and wealthy move to the suburbs. Fear and racial discrimination are slowly killing the urban cores that were once centers of culture, diversity, and knowledge. Rather than face such crime, violence, and congestion, we have concentrated on building expressways and outer loops to facilitate an easier escape from downtown.

As architects, we know better. We know that it is costly—environmentally, socially, and fiscally—to ignore these urban problems. Architect Harvey Gantt, former mayor of Charlotte, North Carolina, and a recent Democratic candidate for the United States Senate, told the North Carolina Society of Architects, "We have been too shallow in our understanding of the forces that make up the urban environment. We have been too timid to vigorously contribute to an improved understanding of what needs to be done to improve the plight of cities. It has been easier and less costly as design professionals to keep quiet about our complicity and naïveté in supporting suburban explosion. Our patrons' inability to see beyond immediate needs and greed has only been exceeded by our own virtual silence." Now we are faced with the consequences of that silence, a silence that has produced the destruction of urban centers and the disintegration of our open lands and natural environment.

What can we as professionals do to right these wrongs, to enhance—rather than ignore—America's cities? We know how to design commercial centers and public spaces that act as magnets to at-

tract further neighborhood investment. We know how to visualize and plan, in a balanced way, the appropriate use of space. We know how to motivate and inspire. We know how to recycle buildings and find alternative uses for historic structures. And we know how to design the affordable housing cities so desperately need. We architects are the visionaries—if only we choose to be.

It is my contention that for architects to grow in influence and to be truly of service to society, we must join the battle for the survival of our cities. We must lead the way, instead of following behind our former patrons, the developers. We must go beyond a single-project mentality, looking instead at the interconnectedness of adequate housing, clean water, waste management, transportation, and green space in urban areas.

A revealing book written in the late 1960s by the AIA Committee for the Study of the Future of the Profession poses a question that is still worth considering today. "Can the architect transcend the mastery of the construction of single buildings and move on to sharing in the design of whole environments?" the committee asked more than a quarter of a century ago. Fortunately, there are now many architects who have indeed transcended the single-building mentality, developing an interdisciplinary approach to the design, planning, and infrastructure of entire cities.

For example, by taking an interdisciplinary approach to urban problems, architect Jaime Lerner, former mayor of Curitiba, Brazil, did more to enhance his city of 1 million than any of his predecessors. Lerner offered free mass-transit tokens to Curitiba's citizens as rewards for household recycling, thus encouraging conservation while discouraging the use of automobiles.

To me, one of the most sustainable recent architectural projects in the United States is Oriole Park at Camden Yards in Baltimore. The decision to locate the Orioles' new baseball stadium on recycled land downtown, where Baltimoreans can either walk or take public transportation to the games, certainly represents an investment in the future of the city. Similarly, a decision by the architect-developer team of Morris Architects to convert a downtown Houston warehouse into a prison also

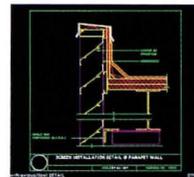
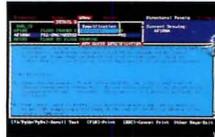
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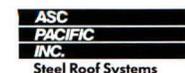
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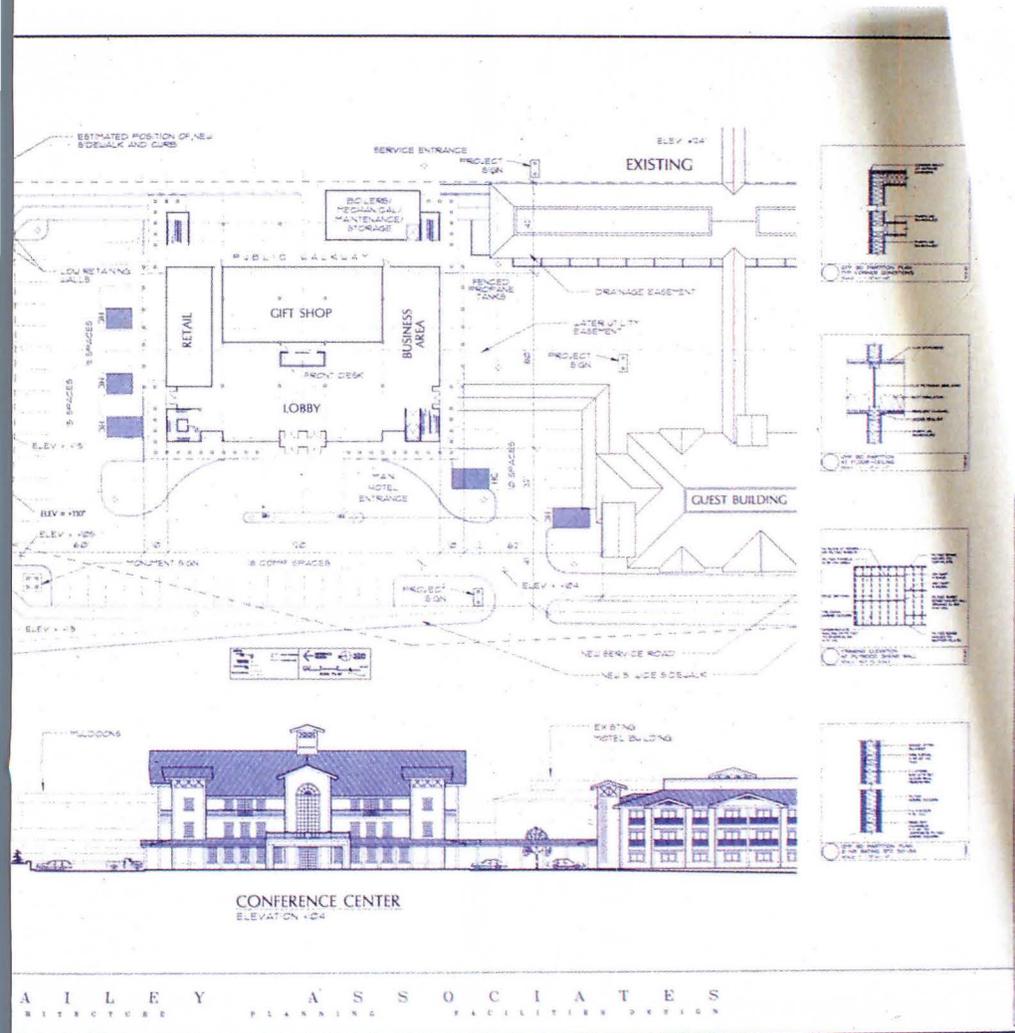


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promotes the city, while protecting open space around it. The team convinced the city of Houston that it was more economical to recycle an existing structure than to build a new one, as had been originally proposed. The derelict warehouse was an eyesore, but its renovation included refurbishing its facade, creating a visual improvement for the city.

We cannot solve all the problems of the cities alone, but we can join planners, other design professionals, and public officials to effect a change in how and where we build in the future. Based on the notion that the most important building block after the family is the neighborhood, the AIA has taken a strong stand in lobbying for such an urban agenda. We propose assistance for physical, social, and economic improvements focused on neighborhoods in need, with assistance coordinated through neighborhood-based planning. We also propose the establishment of a civilian conservation and construction corps that would train young volunteers to carry out urban forestry, housing renovation, and the rebuilding of public works.

The Philadelphia chapter of the AIA has addressed the ongoing disintegration of North Philadelphia, one of the most blighted urban areas in the country. We organized a Regional/Urban

Design Assistance Team (R/UDAT) several years ago and called in a team of experts—including architects, city planners, the former mayor of Berkeley, California, and the chief of police of Cincinnati, Ohio—to lead the five-day project. Together, these experts represented a cross section of the knowledge and skill required to solve society's most complex problems. The R/UDAT produced a civic action group of North Philadelphia citizens working to take back their neighborhood block by block. Now, two years later, Philadelphia architects are still working with this community.

Architects can make a difference. We can learn to solve problems and visualize solutions in a new way. The fundamental principles of an ecologically sustainable architecture must be the basis for all architectural decision-making, theory, and practice. For architects to regain the stature we once had as a profession, we must seize the opportunity to be outspoken advocates for change in the way we plan, build, and preserve our built environment. We are trained to be professional visionaries. Let's not be afraid to dream, to imagine how things should be, rather than remaining complacent and perpetuating the way things are.

—SUSAN MAXMAN

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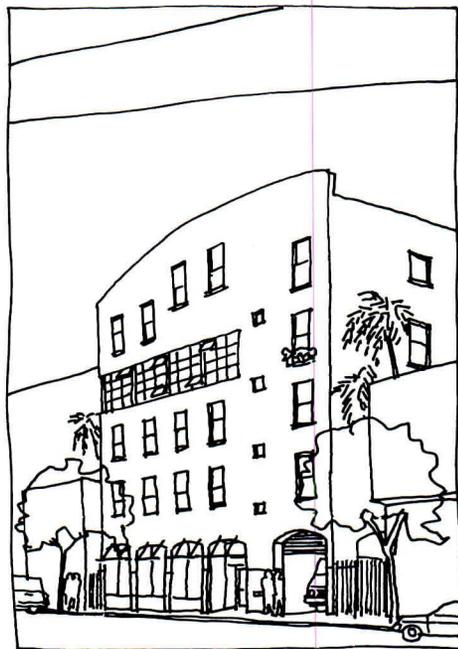
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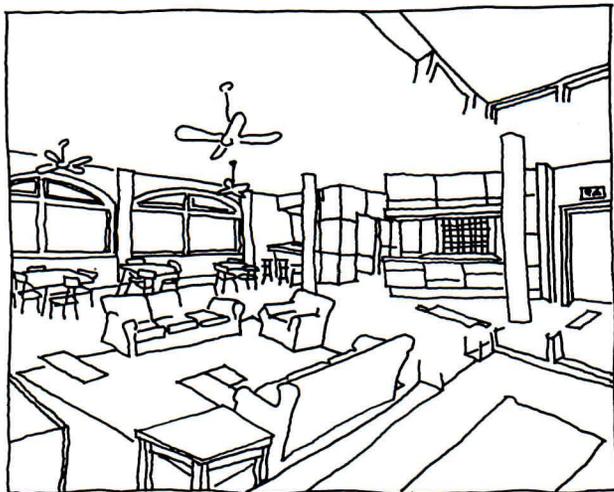


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## Housing California



**Simone Hotel, Los Angeles**  
(above and left), designed by  
**Koning Eizenberg Architecture**

THE CURRENT CONSTRUCTION LAG HAS AFFORDED architects time to ponder how Americans live, and how they want to live. Diverse household structures—single-parent families, single adults, and multigenerational households—are creating a need for alternatives to traditional residential models. To show how West Coast architects are solving the problems of affordable housing, we explore several residential types—the market-rate rowhouse, the single-room occupancy hotel, shared housing, and subsidized housing—in Los Angeles, San Diego, and San Francisco.

Old urban forms are providing the strongest inspirations for this new generation of urban housing. The rowhouse, once a metropolitan staple, was abandoned in the 1950s in favor of high-rise, high-density housing. But architect Jonathan Segal has returned to the rowhouse model to repopulate downtown San Diego. In San Francisco, Donald MacDonald and David Sternberg are reviving the American dream while fighting the state's epidemic sprawl, with rowhouses that maximize vertical space. William Adams of Los Angeles has also adapted the rowhouse to urban lofts on a tight Santa Monica lot.

The single-room occupancy hotel has been revived with some stunning successes, including the Simone Hotel by Koning Eizenberg and Cavaedium's renovated Prentice in Los Angeles. Rob Quigley's fourth SRO in San Diego incorporates cafés and a courtyard.

Other projects in this issue address the need for diversity, flexibility, affordability, and community. A prototype by Smith & Others combines shared units with private townhouses, and Michael Pyatok's subsidized James Lee Court brings dignified housing to some of Oakland's poorest residents.

Our practice section features a story on new housing models that serve single mothers and other neglected populations. These structures, like the rest of the projects featured in this issue, send a clear message that activism, strong design, and the willingness to build a community from the ground up can solve the nation's housing crisis. ■

**Simone Hotel**  
**Los Angeles, California**  
**Koning Eizenberg Architecture**



**SINGLE-ROOM OCCUPANCY HOTEL**

## Skid Row Star

**Residents enter the Simone Hotel through a portal shaded with a perforated metal canopy (above). Terrazzo floors and building base provide surfaces that are durable, washable, and elegant. Glazed arched openings connect the building's lobby and lounge to the street (facing page, top).**

VISITORS MAY NOT FIND THE SIMONE HOTEL on the star maps of Los Angeles, but it won't be for its lack of stylishness. The new single-room occupancy (SRO) hotel on San Julian Street is not likely to attract tourists who flock to Bel Air, Hollywood Boulevard, and the Venice boardwalk, but it is the first such hotel to be built as permanent housing in Los Angeles since the late 1930s. For that, it deserves a star on the map, if not the sidewalk.

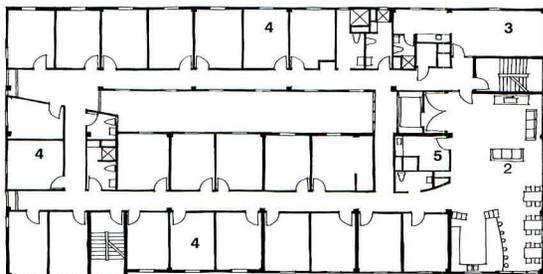
Named the Simone Hotel after an older neighborhood SRO that was razed, the striking building is located in Los Angeles' Skid Row, named Central City East by the city's Community Redevelopment Agency (CRA). The city's housing efforts in the area were sparked by pressure from activists like Alice Callaghan, an advocate for the homeless who heads an organization called Las Familias del Pueblo in Skid Row. In 1983, the city of Los Angeles formed SRO Housing Incorporated to renovate existing hotels in the district. Funded exclusively by the CRA, this group turned out only two projects a year; other projects developed by social service organizations were equally slow to be realized. In 1989, Callaghan founded the Skid Row Housing Trust (SRHT) to more speedily fill the need for SRO housing in the district, by protecting available low-income housing stock through rehabilitation and by acquiring parcels for new construction. The trust currently has 15 SROs under way.

Developed by the SRHT, the Simone Hotel was financed by a number of sources, including the CRA, the New York-based Local Initiative Support Corporation (LISC), the California State Department of Housing and Community Development, and equity from the sale of low-income tax credits. Although SRHT had primarily worked with architect James Bonar (pages 48-51, this issue), Koning Eizenberg Architecture was already involved with the Simone project when SRHT bought the rights to develop the building (ARCHITECTURE, February 1990, page 26). Educating the architects about the special requirements of the program was part of the development, and in the process, the architects educated SRHT about the potential of this residential building type.

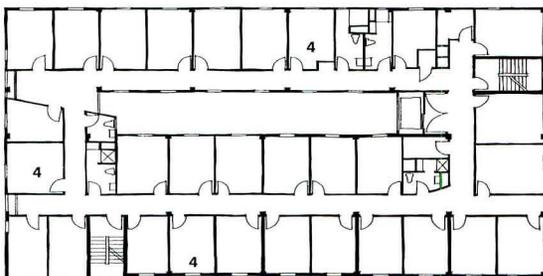
On San Julian Street, the five-story stucco hotel is unusual for Los Angeles in that it is subtly contextual, filling its mid-block site with a simple, rectangular volume. The guest rooms, which are arranged in a doughnut plan around a light court, are expressed on the building's surfaces in 3-by-6-foot windows. At the top of the street facade, a



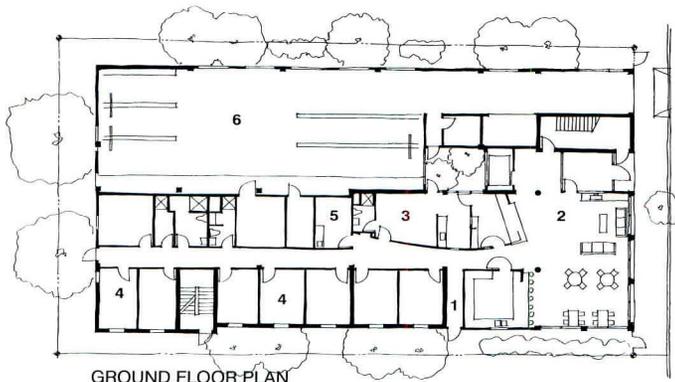
Street facade (top left) has a traditional tripartite division, with the piano nobile capped by a band of glazing at the fourth floor lounge and the top emphasized by a curved parapet. In the lobby (bottom left), reception desk is clad in stained red birch plywood and framed by concrete columns, finished to look like stone.



FOURTH FLOOR PLAN



SECOND, THIRD, AND FIFTH FLOOR PLAN



GROUND FLOOR PLAN

- 1 ENTRANCE
- 2 COMMON ROOM
- 3 MANAGER'S APARTMENT
- 4 TYPICAL UNIT
- 5 LAUNDRY
- 6 PARKING

curved parapet wall differentiates this building from the row, as does its conspicuous glazing for the public spaces, a large band of windows on the fourth floor, and arched openings at the street.

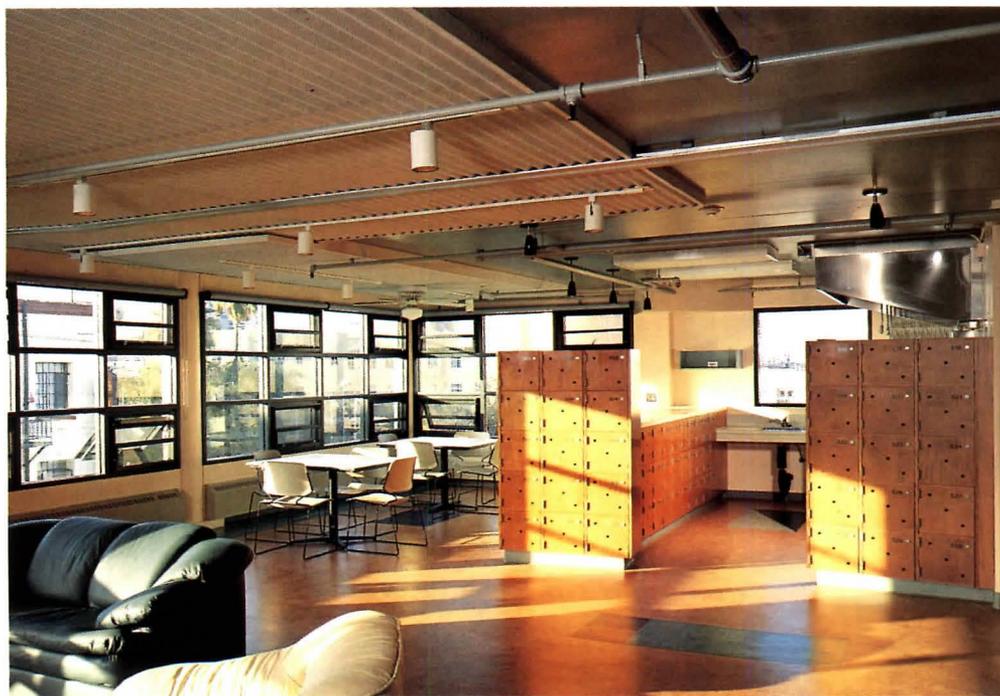
Julie Eizenberg's description of the building as looking like a small European hotel is borne out in its carefully composed facade, as well as its airy lobby and lounge. The reception desk is framed by polished concrete columns that look like stone, and the vinyl floor is accented in a rich palette of colors, including a deep blue-green and a strong orange, in patterns reminiscent of Josef Albers' color exercises. Hank Koning's knowledge of building codes permitted the architects to combine rooms for more light and spatial continuity than required fire separations usually allow: the kitchen looks out to the lounge on the ground floor, with an automatic fire shutter closing the opening between them, while on the fourth floor, kitchen and lounge are treated as a single room. And although both kitchens employ durable materials, birch plywood cladding the reception desk is applied to lockers and cabinets, making the commercial kitchen feel more domestic.

The corridors are all naturally lit, and are accented with birch plywood doors and colored vinyl floor patterns. Of the 123 rooms, two are manager's units, one near each of the common areas, and 10 are double rooms, meant for couples. Residents get a bed with weekly linen changes, a small refrigerator, a sink and mirrored medicine chest, a wardrobe, and a dresser. Shared bathrooms, at a ratio of one per five rooms, contain a toilet, sink, and shower, which the SRHT prefers over ganged facilities, because it provides privacy and security for residents.

With rent at \$238 per month and expenses to run the hotel at around \$200 per month per tenant, the Simone Hotel is self-supporting, providing an affordable refuge in a city with a severe shortage of low-cost housing. But more than just satisfying the program, Koning Eizenberg has pushed the boundaries of what is often described as "social" architecture by listening to the client, testing the limits of code restrictions, and exploring design principles of contextualism and composition. The design not only respects and enhances the urban environment but creates a dignified living environment for its residents, making the Simone Hotel certainly worth a visit on future tours of Los Angeles. ■

—JUDITH SHEINE

*Judith Sheine is a Los Angeles-based architect.*



**SIMONE HOTEL**  
LOS ANGELES, CALIFORNIA

**CLIENT:** Skid Row Housing Trust, Los Angeles Housing Partnership

**ARCHITECT:** Koning Eizenberg Architecture, Santa Monica, California—Hank Koning (principal); Julie Eizenberg, Stuart Emmons, David Woo, Leem Jong Jang, Neil Peoples, Mark Schoeplein, Tim Andreas (project team)

**LANDSCAPE ARCHITECT:** Robert M. Fletcher & Associates

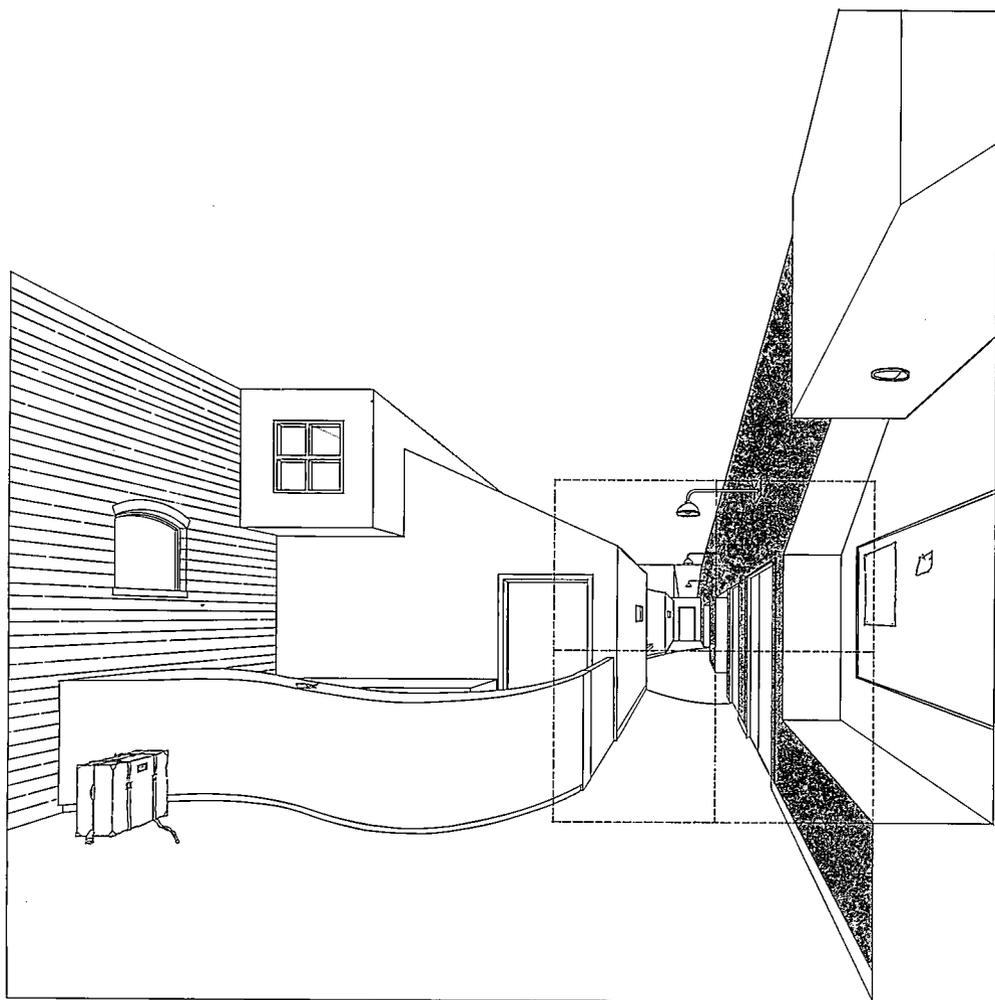
**ENGINEERS:** Freet, Yeh, and Rosenbach (structural); Mel Bilow & Associates (mechanical); Storms & Lowe (electrical)

**GENERAL CONTRACTOR:** McCormick Construction Company

**COST:** \$3.9 million—\$120/square foot

**PHOTOGRAPHERS:** David Hewitt and Anne Garrison

SRO wraps around central light court (plans, facing page), which lights both rooms and corridors (top left). No room is more than one floor away from a common space such as lounge and kitchen (bottom left) on the fourth floor. One wall of 150-square-foot room is painted a dark color to break up the boxiness of the space (facing page, top).



to current seismic, fire-safety, and access standards. But they surpassed merely satisfying codes, giving the three-story masonry building a new life. Converting the 44-room hotel with virtually no street presence into 45 new single-room units and one manager's unit, Bonar added a prominent new entrance, a common lounge, a kitchen and dining space, and a laundry room on the ground floor along with disabled access units and a refurbished commercial space. The connection between the upstairs rooms and the street is emphasized on the facade, where glazed block seismic panels below the windows match the colors of those around the entrance and street-facing lounge. The commercial space is differentiated from the rest of the hotel by black and yellow tile.

To further connect the units to the street, and to emphasize a residential scale and character, the architect arranged the public spaces along an interior "street." A high ceiling allows the manager's unit to be articulated as a "house" with a pitched roof; large "street lamps" provide illumination. Along the internal street, a semicircular phone alcove, a TV niche in the dining area, and picnic tables in the small outdoor garden all contribute to the personalization of common spaces.

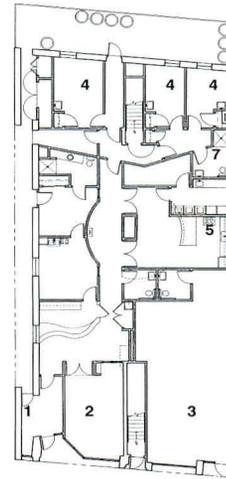
This personal touch is continued on the upper floors. Vinyl tile floor patterns vary in the corridors, which are illuminated with a combination of natural light and "porch" lights, articulated with a square of yellow paint, over each doorway. Bathrooms, at a ratio of one for every five rooms, contain a sink, toilet, and shower, affording residents complete privacy. The individual rooms, ranging from 110 to 120 square feet, are small but comfortable, with a closet, sink, and mirror, a bed with weekly linen change, a nightstand, and a bureau.

With rents of \$225 per month, the Prentice Hotel is a self-supporting venture that fulfills the needs of its residents, whose annual income averages about \$5,000, for secure and dignified housing. About half of the hotel's residents have attended the Chrysalis Center's programs, and the center has plans to extend its services to include in-house workshops aimed at improving tenant relationships in the common areas. Bonar has accomplished more than just a renovation of the hotel's interior spaces; the architect's attention to detail enhances both private spaces and social interaction. The new Prentice Hotel not only brings hope to its residents, but to its entire Skid Row community. ■

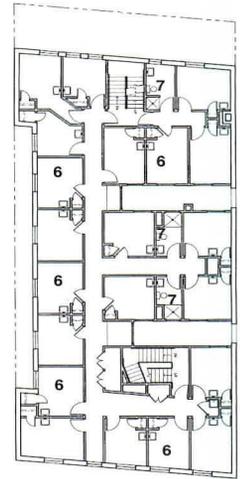
—JUDITH SHEBINE



- |                   |                  |
|-------------------|------------------|
| 1 ENTRANCE        | 5 DINING/KITCHEN |
| 2 COMMON ROOM     | 6 TYPICAL UNIT   |
| 3 RETAIL SPACE    | 7 BATHROOM       |
| 4 ACCESSIBLE UNIT |                  |



FIRST FLOOR PLAN



SECOND FLOOR PLAN

**Curved, wood-faced reception desk fronting manager's unit (facing page and bottom left) greets residents upon entry. The open desk and "house" are meant to evoke a friendly domesticity that contrasts with the security-conscious reception areas of most single-room occupancy hotels. Within upper stories, the hotel's E-shaped plan organizes rooms around two light courts.**

**PRENTICE HOTEL  
LOS ANGELES, CALIFORNIA**

**CLIENT:** Chrysalis Center, Los Angeles Community Design Center

**ARCHITECT:** Cavaedium, Los Angeles, California—James Bonar (principal-in-charge, formerly with Archiplan); Brian Lane (project designer); Susan Watt (contract documents); Al Der (construction administration)

**ENGINEERS:** David Taubman & Associates (structural); M B & A (mechanical); G & W (electrical)

**CONSULTANTS:** Gary W. Zinn Associates (cost consultants); deWeerth Design (furnishings)

**GENERAL CONTRACTOR:** Illig Construction

**COST:** \$1.35 million—\$104/square foot

**PHOTOGRAPHER:** Henry Blackham



**La Pensione at India and Date**  
**San Diego, California**  
**Rob Wellington Quigley, Architect**



**SINGLE-ROOM OCCUPANCY HOTEL**

## Home, Sweet Home



ROB WELLINGTON QUIGLEY IS A PIONEER OF single-room occupancy hotels in San Diego, a city that has pioneered the SRO movement by permitting developers to build the high-density, affordable housing now occupied by some 5,000 residents. Most of San Diego's SROs are not solutions to the homeless problem; they are semi-affordable, usually temporary, residences designed to house the urban working poor. "This is not housing for people who have no money," Quigley explains. Admitting that SROs fill a niche between subsidized housing and studio apartments, developers make no secret of the hotels' for-profit nature. Quigley calls SROs the "one example of capitalism that works."

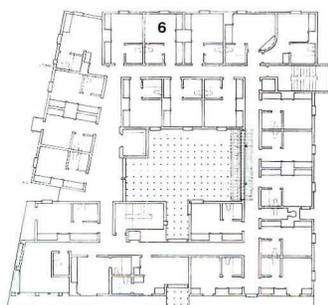
Although SROs are frequently branded with a "wrong kind of people" reputation, Quigley has been successful in creating energetic, colorful projects that benefit the city. The architect's first hotel was the 1987 Baltic Inn on the fringe of Gaslamp Quarter, San Diego's tourist enclave. According to Laurie Woodside, who owns a nearby restaurant, it was an economic "shot in the arm" for the neighborhood. Quigley's newest SRO, La Pensione at India and Date, in the harbor city's Italian district, provides a similarly positive infusion.

The 80-unit project, now open for a year, differs from Quigley's other SROs (the Baltic, the J Street Inn, and 202 Island, which opened last May) in that it combines a pair of restaurants with the residential program, allowing the architect to tackle urban design as well as housing. Little Italy, built in the 1920s, was bisected by a 1960s-era freeway, leaving only a two-block stretch for commercial storefronts. A few restaurants, bars, and an old-fashioned Italian bakery lie directly across the street from Quigley's site, affording the architect the opportunity to create a triangle of lively activity in Little Italy's heart.

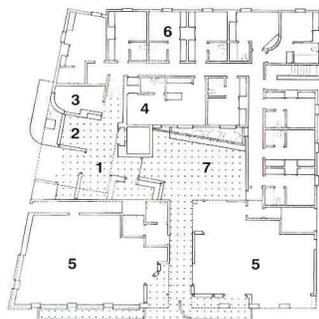
The typical SRO population owns few cars, so La Pensione's parking garage and airy, comfortable restaurants made the wood-frame stucco complex more costly to build than Quigley's earlier projects, more expensive to live in, and therefore attractive to more upscale tenants, who pay as much as \$150 per week for their rooms. Nightly rates are offered, and the hotel has even become popular among European tourists. La Pensione also differs from Quigley's other SROs in that it embraces a recast fragment of a historic structure. A 1920 butcher shop on the site proved structurally irreparable, so Quigley, whose father-in-law grew up in the neighborhood, measured the building and rebuilt it true to form.



**La Pensione Hotel occupies the corner of India and Date streets in San Diego's Little Italy, embracing a 650-square-foot courtyard (axonometric). The hotel's India Street facade is broken into two 50-foot-wide volumes (facing page), joined above an alley. These volumes house cafés at street level, echoing neighborhood low rises (bottom left). A 1920 butcher shop (with curved roof, left photos) was recast and incorporated.**



THIRD FLOOR PLAN



FIRST FLOOR PLAN

- 1 RECEPTION
- 2 LOBBY
- 3 LAUNDRY
- 4 MANAGER'S UNIT
- 5 RESTAURANT
- 6 TYPICAL UNIT
- 7 COURTYARD

The reconstructed shop is topped by a two-story setback and wrapped by a C-shaped volume; the two embrace a small courtyard, emulating older buildings nearby.

Except for a single room with a glass prow overlooking the city, the living units, designed according to the developer's floor plan, are not La Pensione's architectural highlight. Arranged along single- or double-loaded corridors or balconies that open onto the courtyard, each 11-by-16-foot unit is equipped with a TV, microwave, sink, toilet, and shower—a hybrid of a European pension and a college dorm room. Quigley's varied shapes and forms—triangular fins on the Date Street roof line, a boldly dissonant corner, an alley between the two India Street volumes—are the project's strengths.

The 26,000-square-foot building is broken into 50-foot-wide streetside elevations, echoing the storefronts of the neighborhood. The result produces distinct facades for the two restaurants on India Street and a third frontage on Date, where the hotel is entered. This variation separates the hotel from the restaurants, and also reduces the mass of the structure, which would otherwise seem immense alongside neighboring one-story restaurants and shops.

Inside the hotel, a few fine finishes ornament the 10-by-10-foot lobby: a marble-clad reception desk is echoed by marble trim around the elevator door; and a seating area overlooks Date Street through a bay window. Tenants can socialize in the lobby or in an adjacent laundry room, or sip cappuccino with café patrons in the courtyard, accessible from both the hotel and the restaurants.

Ironically, Quigley notes, SRO housing may become a thing of the past, even in San Diego, a city that wrote new zoning laws in the 1980s so that SROs could thrive. Fearing the hotels' popularity among both tenants and developers, San Diego's city council has now virtually outzoned SROs from most of the downtown area, hoping to coerce developers to build more substantial apartment buildings. That may be just as well. Called the flophouses of the 1990s by opponents, SROs have also been criticized by affordable-housing advocates, who claim developers could charge less for the tiny rooms and still come away with a profit. Nevertheless, San Diego's SROs remain at 80 percent occupancy, and seem to fill a contemporary urban need for well-maintained, basic dwelling units in the heart of town—places to hang your hat, if not much more. ■

—HEIDI LANDECKER



The hotel's Date Street entrance is flanked by a recast historic storefront to the west and a garage entrance to the east (facing page). Room arrangement includes single- and double-loaded corridors, as well as units that open onto a balcony above a courtyard (plans, facing page). Lobby addresses Date Street with aluminum-framed glass bay containing small seating area (top left). Courtyard noise is muffled by fountain (bottom left).

**LA PENSIONE AT INDIA AND DATE  
SAN DIEGO, CALIFORNIA**

**CLIENT:** Barone Galasso and Associates  
**ARCHITECT:** Rob Wellington Quigley, San Diego, California—Rob Quigley, Bob Dickens (design team); John Silber (project architect); Judy Clinton, Guillermo Tomaszewski (project team)  
**ENGINEER:** AMS Engineering

**CONSULTANTS:** David Baird (interior design/restaurant); McCulley Design Group (exterior signage); Kathleen McCormick (colorist)  
**GENERAL CONTRACTOR:** Barone Galasso and Associates  
**COST:** \$55/square foot  
**PHOTOGRAPHERS:** David Hewitt and Anne Garrison

1515 9th Avenue  
San Diego, California  
Smith & Others



## SHARED HOUSING

# Rich Man, Poor Man

**Disguised as conventional, if quirky, townhouses (above), Smith & Others' mixed-income housing contains 12 low-cost units that share four kitchens in a fiberglass-shingle-clad section (facing page), and two townhouses in the stucco portion. Smith's three-story structure includes tall, narrow rooms that accommodate 10-foot-high windows (facing page), affording a sense of grandeur. Rooftop volumes bring in light and give residents access to a roof terrace.**

ARCHITECT TED SMITH HAS INVENTED A new housing type for America, if only someone would listen. The affordable housing he advocates for the 1990s is an adaptation of a prototype he's been building since the 1980s, called the "go-home." Ten years ago, when Smith was 34 years old and built his first project in Del Mar, a beach town north of San Diego, the architect favored "going home" to a simple, wood-frame structure where he combined working and living. Today, a better name for his prototype might be "co-home," for Smith is one of the few architects in the country designing and building shared housing.

Go-homes comprise three to five bedroom-living spaces that share a kitchen; each living space has its own entrance and micro-bathroom. The five three-story go-homes Smith designed in Del Mar were built as unfinished shells that could be cheaply rented or purchased and completed by their occupants. His latest building, designed with partner Kathleen McCormick, is an urban version, reflecting San Diego's market reality. Although 1515 9th Avenue contains 12 go-home units that share four kitchens, the downtown project also incorporates two conventional private townhouses. One of them, occupied by designer-developer-builder-landlords Smith and McCormick, reaches up to a penthouse and roof deck, with a view of San Diego Bay.

The townhouses, designed by McCormick, are differentiated from Smith's go-homes by their stucco cladding; the go-homes are sheathed in industrial fiberglass shingles. The two types are joined by a stucco-clad unit that can be rented by one occupant or family, but also includes enough bathrooms and entrances to be shared.

In the quirky, warrenlike go-homes, living areas comprise one-room spaces, sometimes 12 feet high and 12 feet wide, with plywood sleeping lofts tucked up near the ceiling. Curtains shield corner shower and toilet areas. Smith's penchant for private entrances to avoid the foyers and corridors that attract crime produces stairs that run everywhere within the units, giving them the quality of an M.C. Escher print. Airy kitchens with colorful vinyl floors, simple cabinetry, and open shelves are the focus of these units, which rent for as little as \$250 a month and reflect the on-the-go lifestyles of young artists, students, and musicians, for whom the rooms may double as practice rooms and motorcycle workshops.

All the living units at 1515 9th Avenue include space for in-home offices. Smith's own office occupies the 12-foot-high third story of the fiberglass-shingled volume, its



**Tiny, brightly colored kitchens (below) are the focal points of the go-home units, where residents occupy private bedrooms but share cooking and eating areas. Living quarters are minimal, with bunklike sleeping lofts (bottom). Twelve-foot-high rooms allow light to penetrate offices, such as that occupied by Smith & Others (facing page). Three-story scheme allows architects to leave structure and ducts exposed, avoiding drywall sheathing required for larger buildings.**



rooftop "spire" containing Smith's sleeping loft and bathroom. In the city of the future, Smith believes, housing will be designed to integrate work and leisure; commuter-oriented workplaces will simply grow too costly.

McCormick's townhouses are designed to attract more upscale renters than the go-homes. With simple yet elegant detailing, the 46-year-old designer has given tight quarters lightness and grandeur. Marble countertops in kitchens, mahogany accents, fireplaces, and fir floors make these spaces far more stylish than the go-homes, even if their bathrooms are some of the smallest on the West Coast. Incorporating street-level garages and second-floor offices, the townhouses rent for \$1,200 to \$1,800 per month, creating a mix of incomes that is another component of Ted Smith's city of the future. Residents with higher incomes typically spend more on maintenance, Smith reasons, so he promotes class integration and owner occupancy for upkeep and economic stability.

In Del Mar, Smith considered his go-homes as soldiers along a Maginot Line between commercial highway sprawl and private houses. If he could encircle the marauding businesses with a few go-home sentries, Smith reasoned, sprawl would be contained. In fact, Del Mar residents were more interested in containing Smith's housing, which, they feared, would lower property values. So the architect brought his guerrilla tactics to the city, where he hopes that several of the strategically placed go-home-townhouses might deter the high rises that are sure to sweep his hilly neighborhood, with its three-story apartments, vacant lots, and dramatic views.

Convincing developers to build shared housing may be akin to urging vegetarianism on steak eaters, but Smith is undeterred. If he can afford to buy the lots, he will continue to design, build, and develop more go-homes. "In our dreams," Smith muses, "San Diego's 300-by-200-foot blocks could be ringed by these buildings, with large, private spaces in the middle. Our prototype hopes to demonstrate the possibility."

Smith's shared housing may not appeal to most Americans, but by deterring crime, ending wasteful commutes, and reducing housing expenses, it solves some of our cities' worst problems. And if urban development continues its current pace, Smith's prescient scheme for integrating the haves with the have-nots may be one of the most farsighted housing proposals in America. Unfortunately, no developer has embraced it yet. ■

—HEIDI LANDECKER

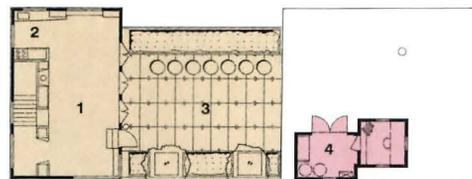


Eliminating crime-inducing corridors and foyers, Smith punctuates 12 go-homes with private entrances, internal stairs, sleeping lofts, and minuscule bathrooms (plans). McCormick's rooftop living room is 12 feet high and takes in views of the city (below), opening on to a terrace of slate panels salvaged from a pool table factory (bottom). Elegance is achieved through fir floors, tall windows, and built-in cabinets made of stained plywood (facing page).

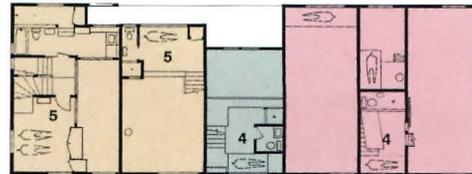


**1515 9TH AVENUE  
SAN DIEGO, CALIFORNIA**

**OWNER-BUILDERS:** Ted Smith and Kathleen McCormick  
**ARCHITECT:** Smith & Others, San Diego, California—Ted Smith, Kathleen McCormick (designers)  
**ENGINEER:** Delta Engineering  
**COST:** \$459,000—\$53/square foot  
**PHOTOGRAPHERS:** David Hewitt and Anne Garrison



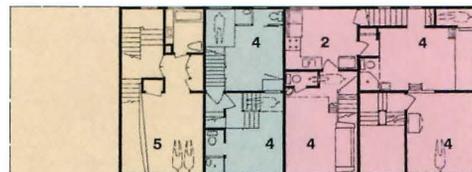
TERRACE PLAN



MEZZANINE PLAN



THIRD FLOOR PLAN



SECOND FLOOR PLAN



GROUND FLOOR PLAN

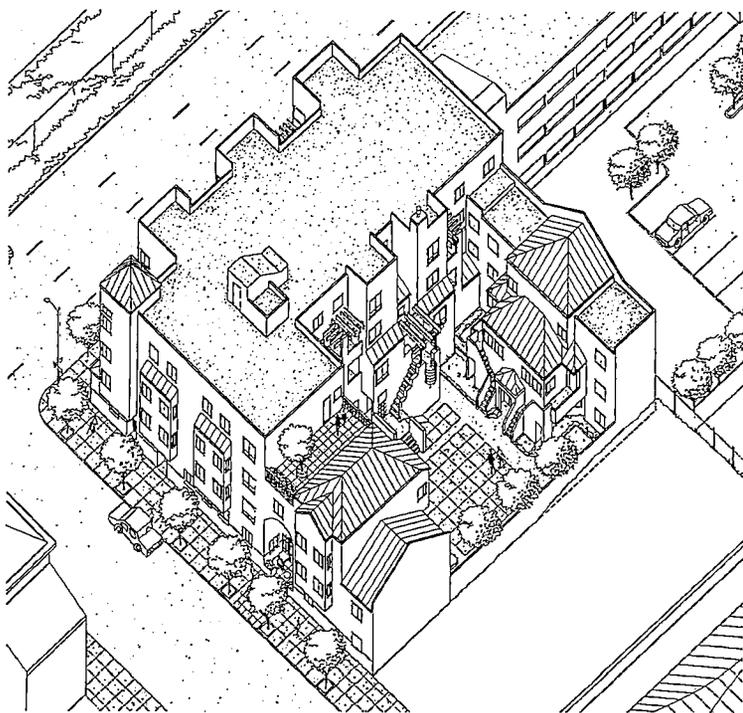
- |                   |                   |
|-------------------|-------------------|
| 1 PENTHOUSE       | 6 OFFICE          |
| 2 KITCHEN         | 7 LIVING ROOM     |
| 3 ROOF TERRACE    | 8 GARAGE          |
| 4 LIVE-WORK SPACE | 9 MOTORCYCLE SHOP |
| 5 BEDROOM         | 10 MUSIC ROOM     |
- TOWNHOUSES  
 TOWNHOUSE/GO-HOME  
 GO-HOMES



James Lee Court  
Oakland, California  
Pyatok Associates

SUBSIDIZED HOUSING

## Courting Diversity



JAMES LEE COURT, A 26-UNIT SUBSIDIZED housing project for the homeless, stands proud. Its tower, capped by a pyramid-shaped roof, guards the corner at 15th and Castro streets in downtown Oakland, California. Its four-story, stucco-clad volumes are graffiti-free, and no trash litters the pavement. Young saplings march down the street in a neat row, and potato vines are beginning to grow up around the arched entrance. When Michael Pyatok, the architect of James Lee Court, walks through the development, he is greeted like an old friend. Pyatok has devoted most of his 25-year career to building affordable housing—as a board member of three nonprofit housing corporations and as the principal of his own firm.

Only a little more than two years elapsed between land acquisition and occupancy of James Lee Court, named for a homeless man killed by fire in an abandoned Oakland building in 1989. While the \$2.5 million project was built in record time, speed says little about the struggles involved. Before Pyatok was called in, two years of squatting and civil disobedience by homeless citizens and advocates were required to force the city to provide \$1 million in land and construction costs for the 33,500-square-foot rental housing development.

Commissioned by Dignity Housing West, a nonprofit venture, Pyatok formed a design committee that included eight formerly homeless members of the Oakland Union of the Homeless, a project sponsor. "We were the comic relief," the architect says of the weekly meetings. "Our design problems were lighthearted stuff compared to the problems these people faced each day." Yet the experiences of the homeless participants were essential to developing a successful design, Pyatok attests. After reviewing several schemes, the group chose a U-shaped plan surrounding a courtyard, with the largest building block facing an expressway to the west. The complex, which steps down to respect facing Victorian buildings, is entered from 15th Street.

Pyatok's greatest challenge was to fit a mix of apartment sizes into the U-shaped footprint. Four townhouses, intended for larger families, are entered from the courtyard, allowing children direct access to a central play area. Three- and four-bedroom units are concentrated on the second and third floors, while one-bedroom units are distributed along a double-loaded corridor on the fourth level. With only \$73 per square foot for construction, Pyatok worked miracles to create



Residents enter James Lee Court (top left) through an arched opening in the 15th Street facade framed by African-inspired tile patterns (left). The 26 units are organized around an interior courtyard (facing page) that serves as a play area. Pyatok built Buddhist spirit houses (above) to protect spirits displaced during construction.

**Elaborate masonry staircase leads from courtyard to second-floor apartments (bottom). Larger units retain access to the central play area via individual stairways (facing page, top and bottom). Inside the apartments (facing page, far right), open kitchens allow child supervision.**



SOUTH-NORTH SECTION



**JAMES LEE COURT**  
OAKLAND, CALIFORNIA

**CLIENT:** Dignity Housing West  
**ARCHITECT:** Pyatok Associates, Oakland, California—Michael Pyatok (principal-in-charge); William Olin (project architect); Vijay Yagnik, Anjali Yagnik, Dan Koch, Willie Pettus (design team)  
**LANDSCAPE ARCHITECT:** Chris Pattillo

**ENGINEERS:** Nellie Ingraham (structural); William Mah (mechanical); Sat Bahtia (electrical); Barbara Van Maren (civil)  
**CONSULTANT:** Charles Salter (acoustics)  
**GENERAL CONTRACTOR:** Roberts-Ohbayashi  
**COST:** \$2.5 million—\$73 square foot  
**PHOTOGRAPHER:** Richard Barnes

housing that would hold up under the demands of the more than 50 children who now live there. The architect also developed outdoor play areas, including a concrete masonry play-stair with broad treads, ample landings, and a balcony. Pyatok likens the stair to a New York City stoop.

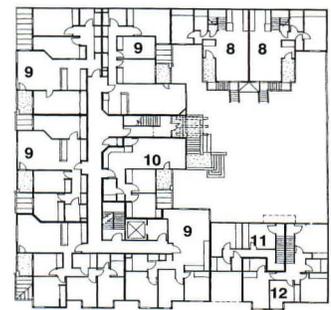
In addition to housing, the program called for 6,000 square feet of social services, which Pyatok grouped on the ground floor of the complex's southwest corner. A 40-child day-care facility will be used rent-free by Head Start, and rooms for counseling and classes in parenting and money management are available for tenants. After research revealed that car ownership among the homeless averaged one per 40 individuals, the architect convinced the city to reduce its minimum requirement to 11 spaces, which Pyatok tucked underground.

Most of the design committee's attention centered on the layout and quality of the units. "The committee members wanted nothing that resembled a shelter or transitional housing—no sharing of facilities," explains Pyatok. "They wanted real apartments, no matter how small." To meet site and budget constraints, Pyatok devised suites that are 20 percent smaller than their market-rate counterparts, yet he managed to design no two apartments alike. The group decided that the reduction in square footage should come from the bedrooms rather than the living areas, where the families were more likely to socialize. Units on the second and third floors have balconies large enough to accommodate a table and chairs. For single adults, Pyatok provided a communal lounge and outdoor deck on the fourth floor.

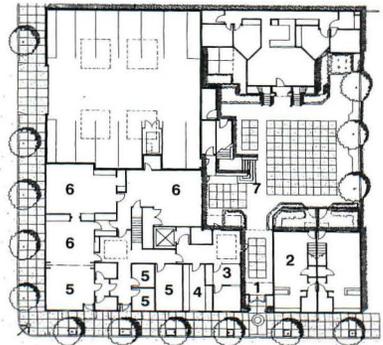
Tenant selection followed an unusual procedure. An outside management company screened 600 applicant families, representing a tenth of Oakland's homeless population. Some 200 were eliminated because of income levels; another 200 were eliminated because of criminal records or drug problems. The final 26 occupants were selected by lottery.

To enliven the facade, Pyatok secured a 1 percent for art grant from the city and commissioned a team to design and install African-inspired tiles that zigzag along the top of the building and over the entrance. Reflecting Oakland's cultural diversity, a mural with a Latino theme will be installed in the archway. In his spare time, Pyatok built three wooden Buddhist spirit houses that adorn the west facade. They are intended to shelter spirits displaced during construction. In James Lee Court, everyone is safely housed. ■

—SHARON LEE RYDER



SECOND FLOOR PLAN



GROUND FLOOR PLAN

- 1 ENTRANCE
- 2 MANAGER'S TOWNHOUSE
- 3 OFFICE
- 4 LAUNDRY
- 5 COUNSELING
- 6 CHILD CARE
- 7 COURTYARD
- 8 THREE-BEDROOM TOWNHOUSE
- 9 THREE-BEDROOM APARTMENT
- 10 TWO-BEDROOM APARTMENT
- 11 TWO-BEDROOM TOWNHOUSE
- 12 FOUR-BEDROOM TOWNHOUSE



MARKET-RATE ROWHOUSES

## Material Clarity

**North elevation (above) creates a composition in which stucco, shingles, and metal are deployed to express different interior functions. East elevation (facing page) presents a bold, abstract facade toward Second Street, creating a prominent visage within the neighborhood's mixed context.**

THE RESIDENTIAL SECTION OF SANTA MONICA between the Santa Monica Freeway and nearby Venice is a contextual jumble of small houses and apartment buildings. Beachside shacks from the 1920s jostle Spanish-style courtyard apartments dating from the '30s and cheap Modernistic apartments built after World War II. Within the past decade, however, the area has become fashionable and expensive, and among these conventional buildings are clusters of houses and condominiums designed by a younger generation of Los Angeles architects.

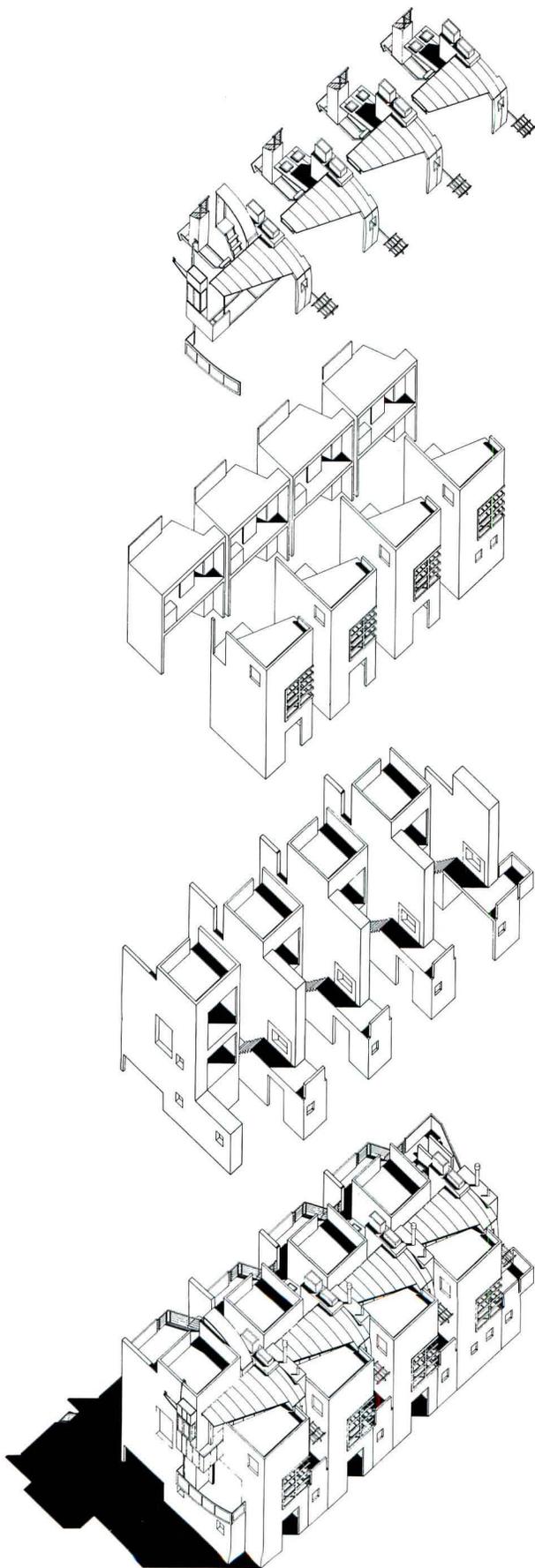
One of the newest and most accomplished examples of the more sophisticated style of Santa Monica residential architecture is Kippen Condominiums on Second Street. This four-unit building, designed by local architect William Adams, manages the difficult task of fitting in gracefully with its ragtag surroundings while remaining obviously a cut above its neighbors. It is a textbook example of how to transform a simple building type into an act of architecture without creating contrived elaborations or violating its essential ordinariness.

On a tight, 53-by-166-foot site, Adams planned the four 1,650-square-foot units with precision. Each unit comprises two full floors and a mezzanine loft, over a basement parking garage. The double-height living room in each condo is set on the second floor, above the first-floor bedrooms, to take advantage of seaward views to the west and north. The living rooms open onto sun decks that, linked together, provide the alternative fire escape route demanded by local laws. The mezzanine lofts, which can serve as studies or third bedrooms, offer wide-open vistas of the surrounding streets.

This simple, clear plan is given distinction by Adams's adroit handling of materials. Interweaving what he calls "carved, assembled, and prefabricated" elements of stucco, redwood shingles, zinc, and steel, the architect provides each frontage with unfussy, graphic articulation. Stucco and shingles are common elements in the local building vernacular, and the zinc-clad bays, black steel balconies, and suspended canopies are part of the local contemporary idiom.

Moreover, the exterior materials are used to indicate interior functions. Shingles sheathe the main programmatic elements, living rooms, and bedrooms; zinc-coated steel indicates circulation areas; and black steel denotes auxiliary elements such as balconies, awnings, and railings. Adams says the "evolution of references in time dominates the idea," and he views Kippen Condominiums'





stucco building as an “ancient, almost archaeological element” animated by “technological attachments”—stairs, balconies, awnings, and clerestories. According to Adams, this evolution of references achieves an elusive sense of melancholy, which, he believes, haunts the bright world of trendy Santa Monica.

Each facade is visually distinct and crisply detailed, exuding an air of lively elegance. Clever use is also made of the walls between the units. On the south side, each party wall is punctuated by a recessed setback that marks the entrances and emphasizes the fact that the rowhouses run directly through from front to back. The same articulation is evident in the skillful arrangement of projecting bays overlooking the open lot of the local Latter-day Saints’ church to the north. The open vistas provided by the proximity of the church’s parking lot gave Adams an opportunity to display the Kippen’s north and west elevations to public view. Compared with the south elevation, separated by a narrow setback from a neighboring apartment building, the north and west facades are visible along their full lengths.

Since the price of land in this section of Santa Monica is inflated, Adams kept within the modest \$100 per square foot construction budget by limiting interior finishes to a bare-bones minimum of painted plaster dry-wall. The one interior extravagance is oak-strip flooring in the living rooms. The architect’s skill in making the best of a tight budget and simple materials transforms the interiors of the condominiums as well as their exteriors. Despite their narrow width, the units seem airy and spacious with no sacrifice of privacy.

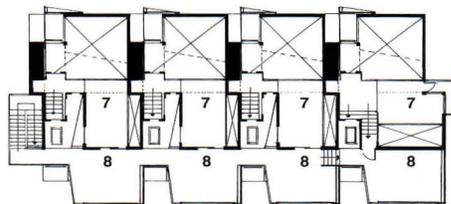
Adams has spent the past 17 years designing beach condominiums, a small film production studio, and other residences in Los Angeles. He has won a number of awards for his projects: the 1978 LA/AIA Honor Award for his Zuma Mesa Apartments in Malibu, the 1982 LA/AIA award for the Chase house in Malibu, and the local chapter’s 1991 Design Award for Kippen Condominiums. The architect balances the vagaries of a small practice with a full-time professorship at California State Polytechnic in Pomona. This mixture of academic and practical experience has enabled Adams to develop and refine an esthetic rooted in the realities of the market that rises above its limitations. ■

—LEON WHITESON

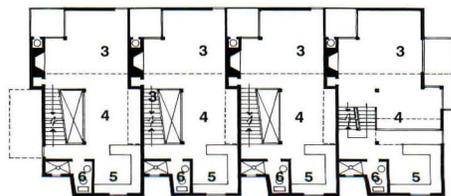
*Leon Whiteson is a writer based in Los Angeles.*



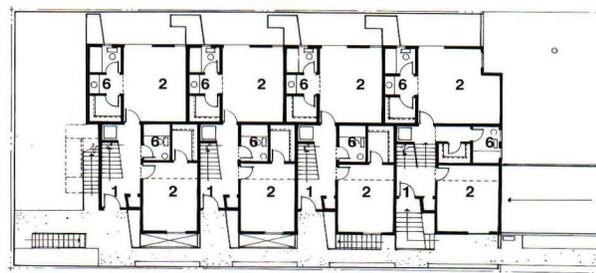
West elevation features zinc-clad external stair that links sun decks and provides a secondary fire escape (top). Living room interior and mezzanine loft contrast simple drywall surfaces with oak-strip flooring and black metal railing (above). Axonometrics (facing page) illustrate application of different layers of materials (top to bottom): metal attachments, wood framing, plywood, shingles, and stucco.



THIRD FLOOR PLAN



SECOND FLOOR PLAN



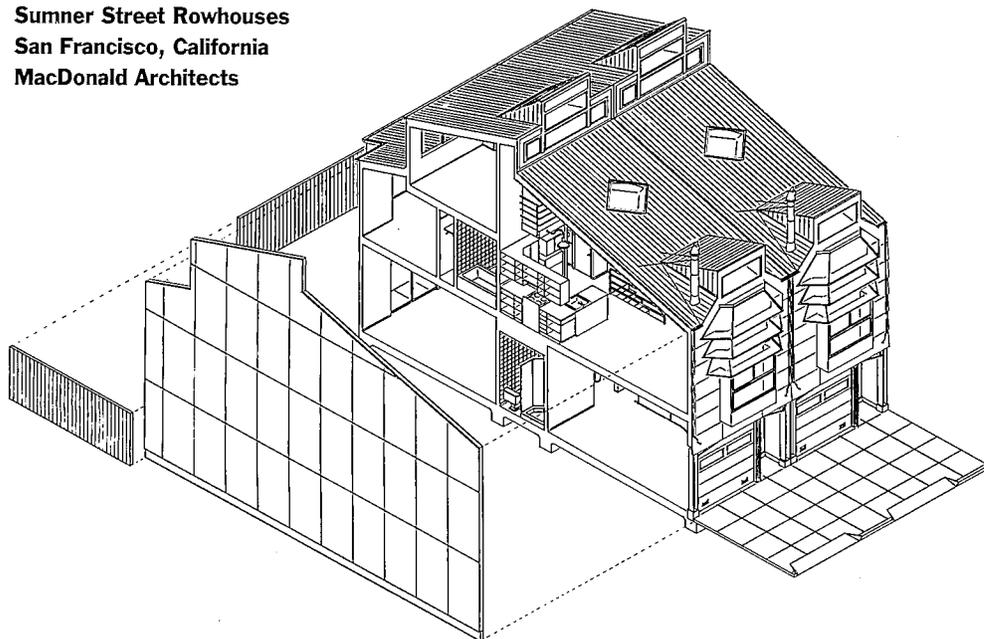
FIRST FLOOR PLAN

**KIPPEN CONDOMINIUMS  
SANTA MONICA, CALIFORNIA**

**CLIENT:** Ian Kippen  
**ARCHITECT:** William Adams Architects, Santa Monica, California—William Adams, George Proctor, Pam Chandler, Eric Odor, Allison Adams (design team)  
**LANDSCAPE ARCHITECT:** D. L. White Designs  
**ENGINEERS:** Parker Resnick (structural); Donlite & Associates (mechanical/electrical)  
**GENERAL CONTRACTOR:** Salter Construction  
**COST:** \$100/square foot  
**PHOTOGRAPHER:** Douglas Hill

- 1 ENTRANCE
- 2 BEDROOM
- 3 LIVING ROOM
- 4 DINING ROOM
- 5 KITCHEN
- 6 BATHROOM
- 7 LOFT
- 8 DECK

Sumner Street Rowhouses  
 San Francisco, California  
 MacDonald Architects



MARKET-RATE ROWHOUSES

# Flexible Armature

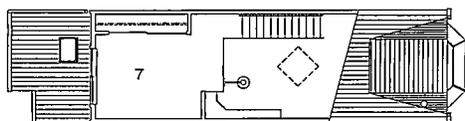
DONALD MACDONALD PASSIONATELY BELIEVES that the small house—in the form of rowhouses or urban cottages—is the solution to the problem of affordable housing within cities. Perhaps nowhere is this conviction more evident than in his Sumner Street Rowhouses, located in San Francisco's South of Market district. Sumner Street's units manage to combine three bedrooms, two baths, and a garage in 1,220 square feet—configured within a building barely 12 feet wide—and each has its own small private yard.

Since founding his practice in 1966, MacDonald has assembled a considerable bag of tricks for cutting construction costs and making such houses seem larger than life (previous pages, this issue). But the Sumner Street project also shows how adaptable MacDonald's ideas are to almost any urban setting. Metal-clad two-and-a-half-story units relate to elements of nearby commercial structures and maintain such familiar San Francisco rhythms as bay windows and alternating garages and doorways. From the outside, Sumner Street's bright colors and reflective sheet-metal siding add a sense of futuristic cheer to a narrow, nearly treeless side street. Inside, the angled panes of glass in each unit's central window bay collect and diffuse light, and create sunny display shelves for plants and personal objects. The airy, dynamic quality of the interior is reinforced by skylights and clerestories.

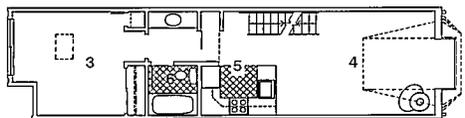
At a time when American households are becoming less traditional, MacDonald believes urban residences should be designed as "armatures of use," flexible spaces that can accommodate shared living arrangements and personalized live/work situations. His Sumner Street units represent that flexibility with a 12-by-18-foot multipurpose room on the ground floor, which serves as an office, a third bedroom for a family, or a bedroom/living room in a cohousing arrangement. The large garage could be reclaimed as living or workshop space.

A persistent social critic, MacDonald notes the irony that even these little houses must be marketed in the \$210,000-\$230,000 range. But a lower rate is impossible, he says, given land prices and the cost of doing business in San Francisco's heavily regulated environment. MacDonald's little houses do maintain the tradition of the city's residential developments, built by entrepreneurs in small, side-by-side batches. Projects like Sumner Street reinforce the city's fine, ever-changing, urban grain, offering residents an alternative to mid-rise apartment buildings.

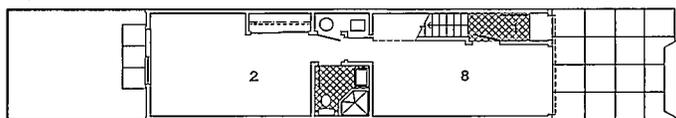
—DAVID MOFFAT



THIRD FLOOR PLAN

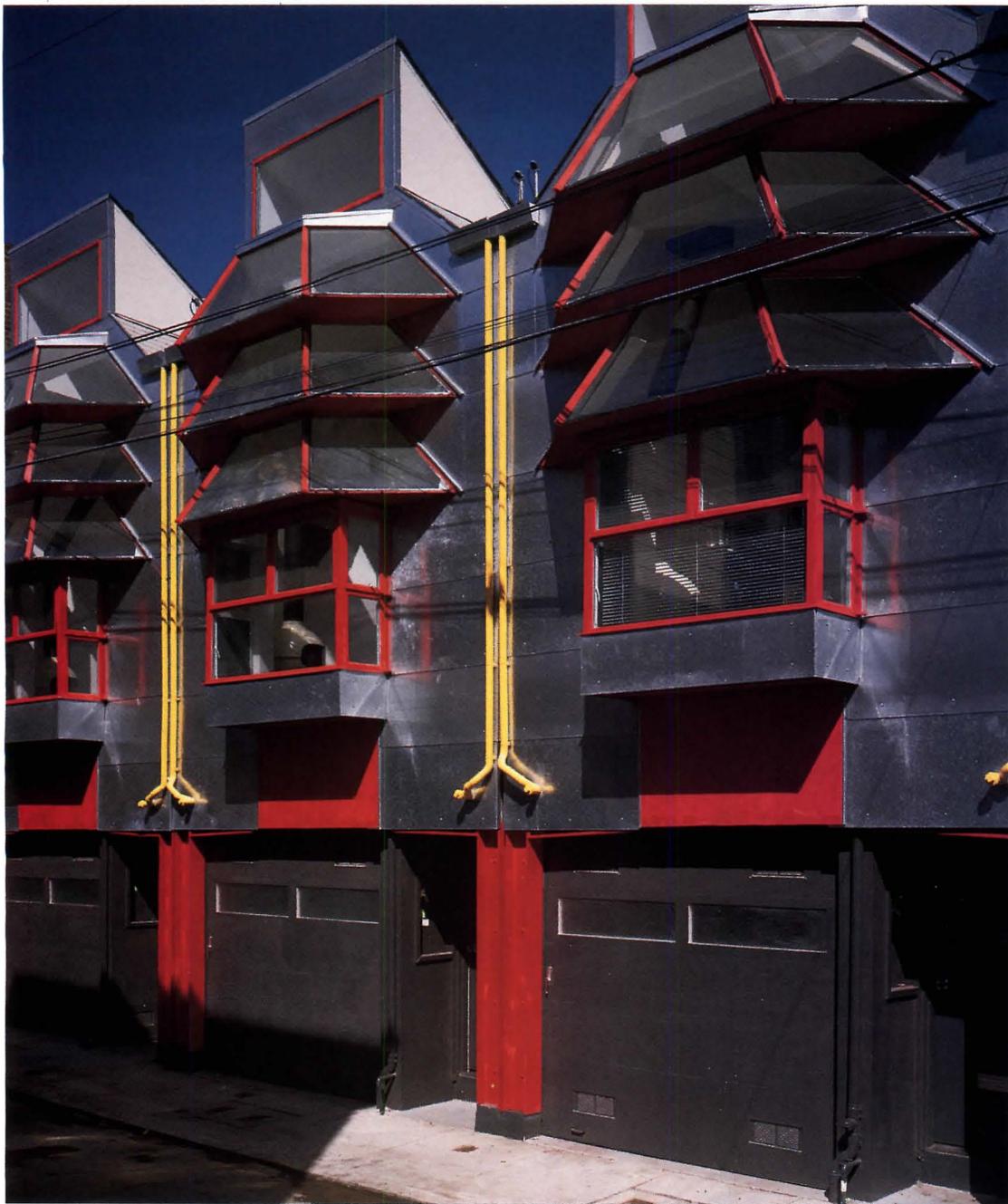


SECOND FLOOR PLAN



FIRST FLOOR PLAN

- |            |                       |          |
|------------|-----------------------|----------|
| 1 ENTRANCE | 4 LIVING ROOM         | 7 LOFT   |
| 2 DEN      | 5 KITCHEN/DINING ROOM | 8 GARAGE |
| 3 BEDROOM  | 6 BATHROOM            |          |



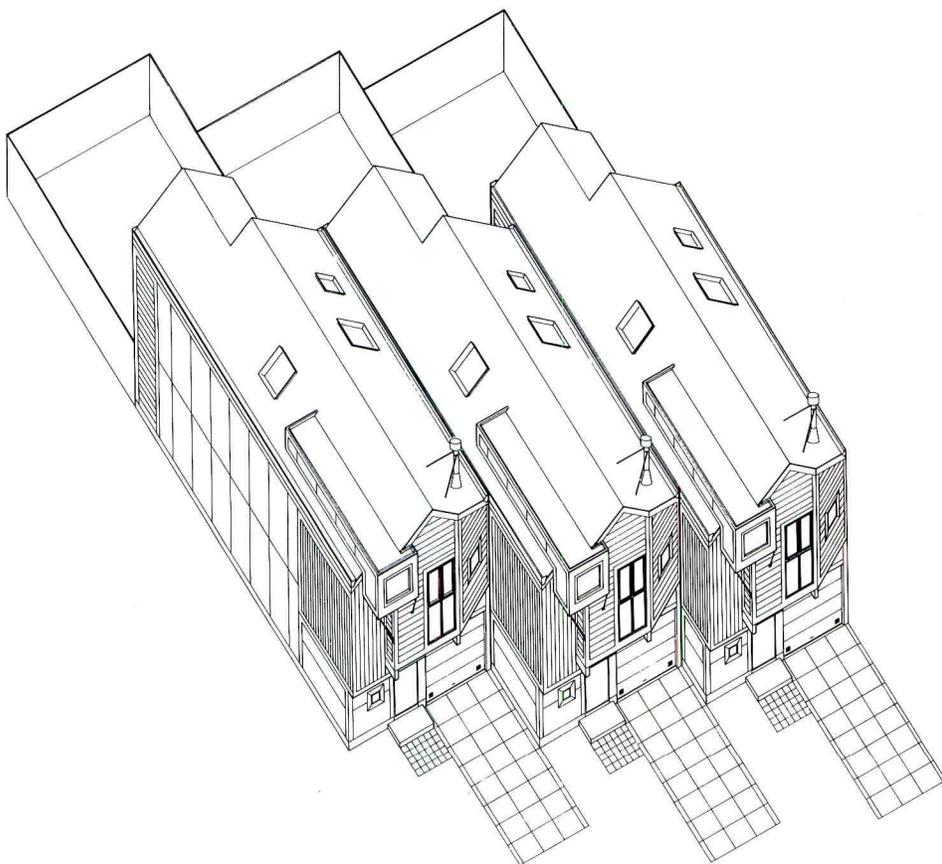
Barely 12 feet wide, MacDonald's Sumner Street rowhouses provide a remarkably flexible arrangement: garage and den at street level, a kitchen/dining/living room and one bedroom on the second level, and a sleeping loft above (plans, facing page). Futuristic exteriors feature angled glass bays (bottom left) that direct light into the interiors (bottom right). Brightly painted steel frames around garage and entrance (left) provide shear bracing against earthquakes.



**SUMNER STREET ROWHOUSES  
SAN FRANCISCO, CALIFORNIA**

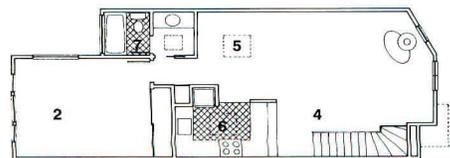
**CLIENT:** John Stricklin  
**ARCHITECT:** MacDonald Architects, San Francisco, California—Donald MacDonald (designer); Casper Mol (project architect); Bruce Bengtson (architect)  
**LANDSCAPE ARCHITECT:** Donald MacDonald  
**ENGINEER:** Uno Veideman (structural)  
**GENERAL CONTRACTOR:** C.C.I. Construction  
**COST:** Withheld at owner's request  
**PHOTOGRAPHER:** Christopher Irion

**Otsego Gardens**  
**San Francisco, California**  
**MacDonald Architects**

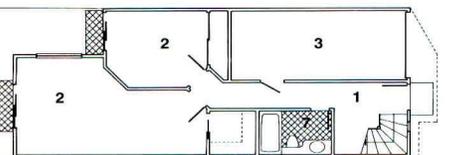


**MARKET-RATE ROWHOUSES**

# Breaking the Box



SECOND FLOOR PLAN



FIRST FLOOR PLAN

- 1 ENTRANCE
- 2 BEDROOM
- 3 GARAGE
- 4 LIVING ROOM
- 5 DINING ROOM
- 6 KITCHEN
- 7 BATHROOM

FEW WEST COAST ARCHITECTS CAN CLAIM AS many novel approaches to affordable housing as San Francisco's Donald MacDonald. In addition to designs for traditional developers and builders of affordable housing, MacDonald has promoted 20-by-20-foot urban "garden cottages" and "city sleepers," 4-by-8-by-4-foot plywood boxes for the homeless. Working as both designer and developer, MacDonald has also built 200 units of urban infill over the past 11 years. Otsego Gardens, located on a quiet residential street on San Francisco's southwestern fringe, illustrates the 57-year-old architect's trademark approach: the little house in the big city.

MacDonald begins where more conventional planners leave off. "Studies show that 80 percent of Americans want detached homes," he points out. "I'm trying to realize this dream at urban densities." Other architects may seek affordability by aggregating parking and open space, but MacDonald argues for slab-on-grade foundations, two-story wood-frame construction, and private yards. He also advocates keeping volumes simple to reduce wall area, and building up rather than out to save on roofs and foundations.

Another hallmark of MacDonald's approach is a 2-inch space between townhouses, which actually makes them "detached." This separation, MacDonald argues, is more than a gimmick; the gap allows owners flexibility in modifying their units, and reduces homeowner association fees. The three townhouse units at Otsego Gardens—located within an unusually deep, double mid-block lot (an existing house facing the street provides the fourth unit in the project)—present an efficient approach to the notion of urban infill. They are reached by a gated, shared driveway, and each three-bedroom, two-bathroom house is individually identified by a pitched roof and setback alignment.

Brightly painted boxes protrude from the otherwise conservative facades, further distinguishing the townhouses. Inside, each box works as an elongated dormer to add dimension to the interior space. The rafters, painted the same color as the dormer's exterior, are exposed. The dormer holds a band of clerestories, illustrating MacDonald's belief that affordable units can be visually exciting without having to be glitzy. A final key to making small spaces livable, MacDonald says, is lifting the "tyranny" of the 8-foot ceiling. Open, attic-free space overhead adds dignity, and a larger-than-life sense of light and air is reinforced by mirrored surfaces and skylights. ■

—DAVID MOFFAT



Staggered for privacy within a double lot, MacDonald's three-bedroom townhouses are arranged to include a one-car garage (left) and two bedrooms on the first level, with a living/dining area, kitchen alcove, and bedroom on the second story (plans, facing page). Clad in painted redwood siding and cedar clapboards, the colorful facades are broken by a 4-by-4-foot-square dormer (bottom left) that incorporates an 18-foot-long, east-facing clerestory in living room (bottom right). Exposed rafters are painted to match the dormer's exterior.



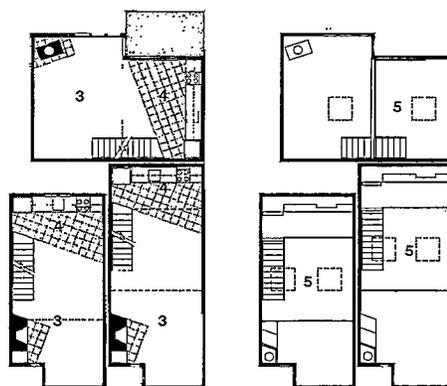
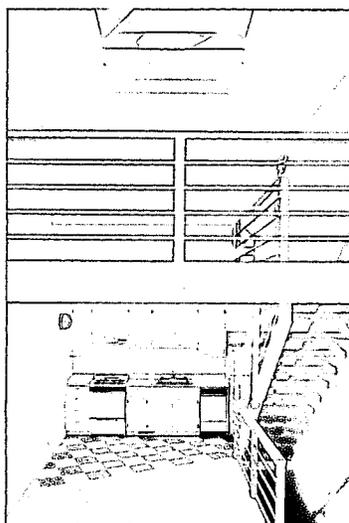
**OTSEGO GARDENS  
SAN FRANCISCO, CALIFORNIA**

**CLIENT:** John Stricklin  
**ARCHITECT:** MacDonald Architects, San Francisco, California—Donald MacDonald (designer); Keith Rivera (project architect); Camden Hicks (architect)  
**LANDSCAPE ARCHITECT:** Donald MacDonald  
**ENGINEER:** Uno Veideman (structural)  
**GENERAL CONTRACTOR:** SRH Construction  
**COST:** Withheld at owner's request  
**PHOTOGRAPHER:** Christopher Irion

271 Shipley Street  
 San Francisco, California  
 David Sternberg Architecture

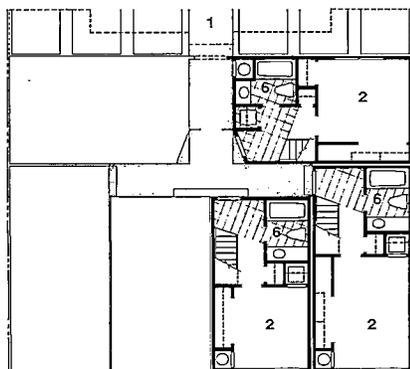
MARKET-RATE ROWHOUSES

# Industrial Jigsaw



SECOND FLOOR PLAN

MEZZANINE PLAN



GROUND FLOOR PLAN

- |               |                       |
|---------------|-----------------------|
| 1 ENTRANCE    | 4 KITCHEN/DINING ROOM |
| 2 BEDROOM     | 5 SLEEPING LOFT       |
| 3 LIVING AREA | 6 BATHROOM            |

SAN FRANCISCO'S SOUTH OF MARKET DISTRICT has long reflected a diverse, often conflicting pattern of development. Polite Victorians stand shoulder to shoulder with cheap hotels, nightclubs, and a melange of businesses. But with downtown's recent expansion to the south and the construction of the giant Yerba Buena Gardens redevelopment, the district has taken on a new identity: that of laboratory for market-rate housing experiments.

One local architect, David Sternberg, has taken a lead from his former employer, Donald MacDonald (previous page, this issue), in designing housing along the district's narrow, mid-block side streets, emboldening MacDonald's model of the tightly planned house. At 271 Shipley, the first project both designed and developed by the 42-year-old Sternberg, the architect reveals his self-avowed "contextual eclectic" response to South of Market's hodgepodge environment. His six 725- to 825-square-foot townhouses clustered on a 50-by-72-foot lot are a deliberate collage of disparate elements. Brightly painted panels of structural plywood overlaid with diagonal battens express the "romantic, residential side of life," explains Sternberg. Corrugated metal cut in a jagged stairstep pattern reflects the industrial history of the neighborhood; lap siding pays tribute to traditional San Francisco residential design.

Sternberg learned many lessons well from MacDonald. He held costs to a minimum by using wood-frame construction and a slab-on-grade foundation, and unit prices were kept down by providing only on-grade, uncovered parking. Furthermore, some of Shipley Street's details are derived from the building code's requirements: when the code called for plate steel under the fireplace floor tiles, Sternberg decided to install the steel but not the tile.

Sternberg also learned that small house sales depend on creating exciting interior volumes. He believes that the average unit should be no smaller than 723 square feet, staging interior drama with oversized windows, open stair treads, skylights, and angled geometries. While steep roof pitches are exposed inside, they are hidden behind tall parapets outside to maintain a higher profile.

The Shipley Street houses have many of the amenities of larger homes, but Sternberg compares their small-scale design to that of a jigsaw puzzle. His next challenge may be to push the design of the small house further to include individual ground-floor storefronts for the variety of businesses now blossoming in the South of Market neighborhood. ■

—DAVID MOFFAT



Arranged around a T-shaped common entrance (plans, facing page), the two-and-a-half-story Shipley Street townhouses make dramatic use of simple materials. Stairstep parapets at front and rear are clad in corrugated metal sheathing (left), which plays off brightly painted plywood fronts and angled balconies.

**271 SHIPLEY STREET  
SAN FRANCISCO, CALIFORNIA**

**CLIENT:** David Sternberg  
**ARCHITECT:** David Sternberg Architecture, San Francisco, California—David Sternberg (principal-in-charge); Tom Hunter, Earl Weiss, Charlie Cannon (design team)  
**ENGINEERS:** Santos & Urrutia (structural); GL&A Associates (civil)  
**CONSULTANT:** Jill Pilaroscia (colors)  
**GENERAL CONTRACTOR:** K. Mueller Builders  
**COST:** \$520,000  
**PHOTOGRAPHER:** Christopher Irion



7 on Kettner  
San Diego, California  
Jonathan Segal, Architect



#### MARKET-RATE ROWHOUSES

## Right Side of the Tracks

**Rhythmic fenestration, balconies, and roof canopies (above) establish strong street presence. West-facing rear wall (facing page) mimics skyline, with openings for balconies and windows. Stair to third floor of architect's unit is a code requirement (facing page); balcony outside unit offers panorama of downtown.**

LIKE SO MANY CITIES, SAN DIEGO EXPERIENCED a downtown construction boom in the 1980s that spawned a variety of residential projects, including high-rise apartment buildings, hotels, and condominiums. But many of these large-scale developments failed to sensitively address their temperate, urban setting. Double-loaded corridors limited natural light and cross-ventilation; parking structures were poorly camouflaged; and internalized building entrances, accessible only from underground garages, failed to generate the foot traffic needed to revitalize downtown sidewalks with activity.

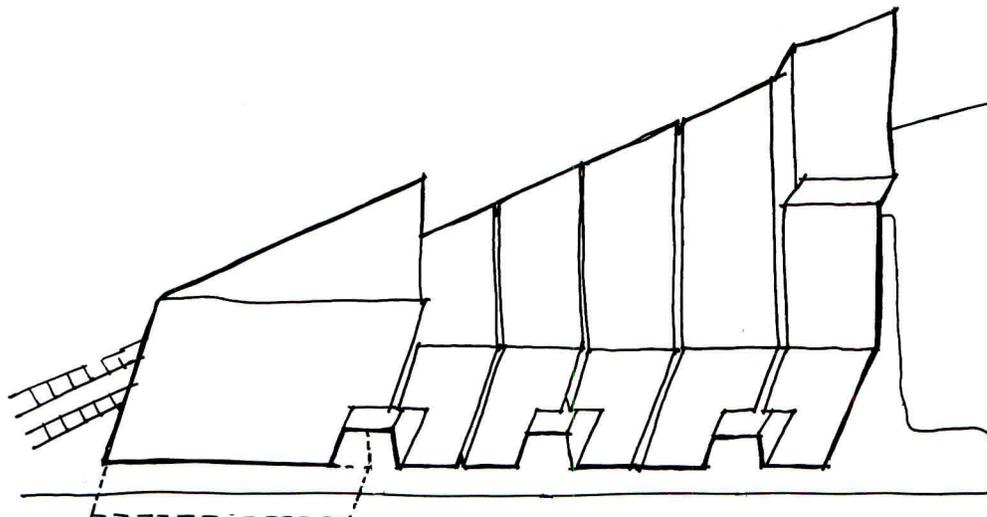
But at 7 on Kettner, a trainlike string of townhouses parked on a neglected wedge of land next to the downtown trolley tracks, San Diego architect Jonathan Segal presents a more suitable prototype. Segal served as both architect and developer, allowing him to completely control the design of the project, which adapts the New York-style rowhouse to San Diego. The putty-colored stucco building is divided by three entrances, which serve six two-story townhouses; a seventh unit is tucked into a back corner. Pairs of concrete footings step forward on the sidewalk to announce these entrances, carefully orchestrated open-air transitions between public and private realms. Steel gates designed with a light touch give residents a sense of security while allowing visual communication between stoop and sidewalk.

Segal divided his wedge-shaped building into parallel, two-story, two- and three-bedroom units of 1,200 to 2,000 square feet, with his own unit in the nose of the building, facing south. He tucked 15 parking spaces below grade, and hid the driveway on the north end of the building, preserving the street frontage as a purely pedestrian event.

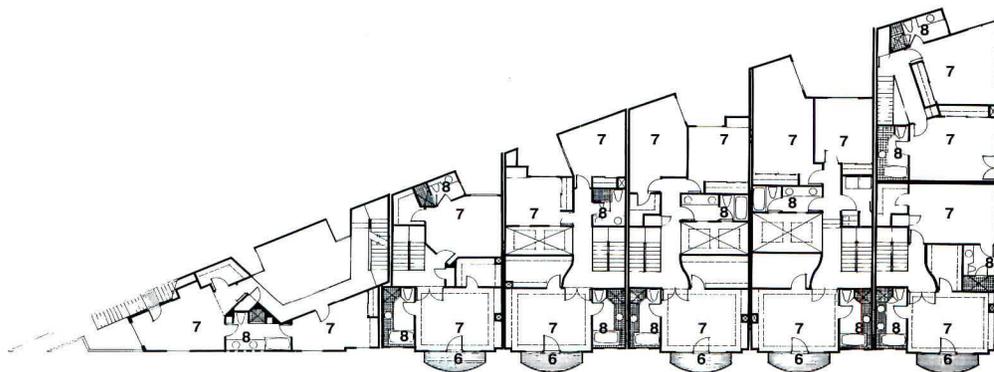
Within a construction budget of about \$85 per square foot, the architect meticulously detailed his building to suggest an urbane quality. A simple, concrete-block base anchors the complex. Flat roofs that rest atop the building like hats push forward over the front facade, calling to mind the crisp cornice lines of classic urban rowhouses. Within the east-facing front elevation, deep vertical recesses define individual units, wood-framed windows set 6 inches into walls add depth and weight, and a row of punched glass-block openings adds detail to Segal's own residence.

San Diego's light-rail trolleys clatter by the building from morning until night. Six of the seven units share the rear facade that faces the tracks, but interior noise is kept to a minimum by dual-glazed acoustic windows

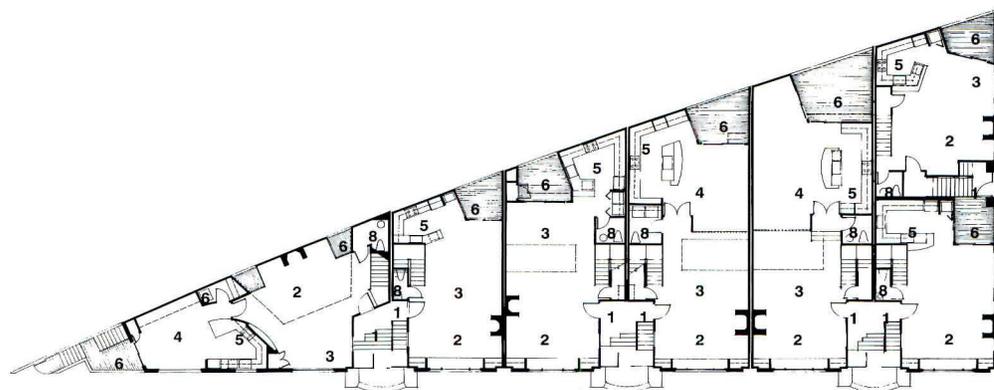




BUILDING AXONOMETRIC



SECOND FLOOR PLAN



FIRST FLOOR PLAN

- |               |            |
|---------------|------------|
| 1 ENTRANCE    | 5 KITCHEN  |
| 2 LIVING ROOM | 6 DECK     |
| 3 DINING ROOM | 7 BEDROOM  |
| 4 FAMILY ROOM | 8 BATHROOM |

and an extra-thick insulated wall framed with 2-by-6s and covered inside with double dry-wall over resilient steel channel. Second-floor balconies cut into the rear wall help deliver natural light into the interior.

The site dictated unusually shaped, compact units, but Segal designed the interiors to encourage light and openness. The architect's own living room soars to 18 feet, with an open upstairs hall running bridgelike along the edge. Other units feature light wells that add spaciousness and distribute natural light, and operable skylights atop the two largest units provide daylighting and ventilation.

Streetfront entrances are rare in downtown San Diego, but security has not been compromised at 7 on Kettner. Second-level balconies; broad, street-level windows that allow views of people inside; and transitional entrances that separate outer gates from front doors accomplish a brand of security promoted by such urban planning gurus as William Whyte. "There's a preconceived notion that fortification creates safety," Segal says. "But true safety depends on eyes on the street. People feel very safe here."

By the time the complex was completed, Segal had sold six of the 7 on Kettner units for prices ranging from \$290,000 to \$500,000, and his success illustrates how architects can combine business with esthetics and take true control of a project. The architect tied up the rights to the land with \$5,000, without assistance from the city's redevelopment agency, and then recruited equity partners who contributed a total of \$300,000. He was fortunate to seek financing before the real estate bust: with his drawings, model, and accountant's pro forma in hand, he secured construction financing from the second lender he contacted.

More recently, Segal has finished a new project: 17 loft-style units downtown priced from \$89,000 to \$169,000. With redevelopment financing, buyers can put down as little as \$5,000 and keep their monthly mortgage payments around \$500, making ownership a genuine possibility for artists, service workers, and other downtowners of modest means.

At a time when large residential projects are at a standstill downtown, the 31-year-old architect and developer stays in business by offering solid, simple designs and listening to the market. "My objective is to provide real architecture for low- and mid-range housing," he says. "That doesn't mean funky materials, just honest spaces."

—DIRK SUTRO

*Dirk Sutro is a writer based in San Diego.*



Three entrances on the east side of the complex serve six units (facing page, top). Efficient plans (facing page, middle and bottom) include central light wells that distribute natural illumination. Front windows (top) promote eyes-on-the-street security; balconies and gated entrance (above) reinforce interplay between public and private.

**7 ON KETTNER**  
SAN DIEGO, CALIFORNIA

**ARCHITECT:** Jonathan Segal, San Diego, California—Jonathan Segal (principal-in-charge); Brad Duckett (project architect); Douglas Prankie Byce (design team)

**LANDSCAPE ARCHITECT:** Land Studio  
**ENGINEERS:** Mike Kratz (structural); San Diego Mechanical (mechanical); Keith Thompson (electrical); Pacific Land Survey (civil)

**CONSULTANT:** McKay Conant & Brookes (acoustical)

**GENERAL CONTRACTOR:** Perians Construction Company

**COST:** \$1.2 million—\$85/square foot

**PHOTOGRAPHERS:** David Hewitt and Anne Garrison



# Technology & Practice info

Information on building construction, professional development, and events

## AIA Offers New Computerized Network

SEARCHING FOR A LOCAL MANUFACTURER OF an obscure product or for lucrative government commissions? Now the AIA can help. The Institute has teamed up with Houston-based Telebuild, a network database company, to provide a telecommunications system for the design and construction industry. Known as AIAOnline, the new service, which begins early this year, will electronically link the computer workstations of architects, clients, engineers, contractors, and product manufacturers. The AIA has developed the content of this automated system; Telebuild is providing computer, telecommunications, software, and management support.

With Online, architects will be able to call up on their computer screens the latest federal requests-for-proposals, or read the latest financial data on a news wire. With a laptop and modem, practitioners on the run can transmit change orders to project team members from an airport telephone. For a monthly and/or minute-by-minute fee, plus a one-time charge of \$50 for the communications software, architects with a Macintosh, IBM, or IBM-compatible computer and a modem can tap into the network. Once linked, subscribers can access three information menus: Information Services, Searchable Databases, and Gateway.

Information Services provides the electronic equivalent of published papers, such as the AIA's Code of Ethics or the Americans with Disabilities Act. Texts can be read on screen or printed as needed.

Online's Searchable Databases allows architects to track potential projects, research building products, and locate professionals in related fields. For example, instead of

waiting for a paper copy of the *Commerce Business Daily*, which carries requests for proposals by the federal government, a practitioner will be able to review an electronic copy as soon as the issue is released.

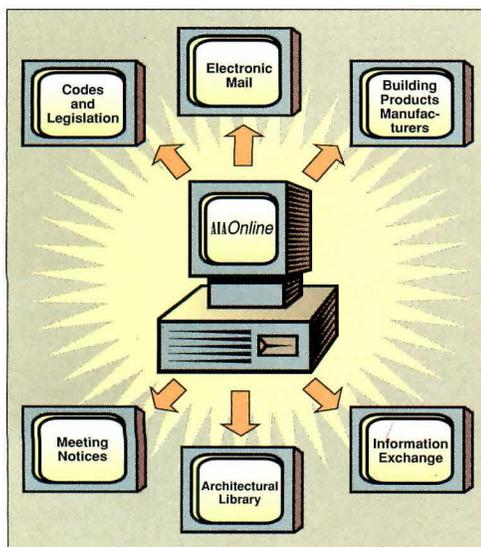
Another component of Searchable Databases is a directory of more than 5,000 product manufacturers, organized according to Masterformat. Once a manufacturer is chosen, a practitioner can request through E-mail, Online's electronic mail component, that the manufacturer transmit product specifications by modem to the firm, send brochures by overnight mail to a potential client, or schedule a visit from a regional representative.

For an additional fee, the Gateway feature allows AIAOnline subscribers to use Easynet, another information network that contains 850 business and educational databases, including the Business Periodicals Index and Avery Library's architecture index.

While E-mail allows for communication between individual subscribers, Online also encourages information exchange among professional groups. Under its Forum format, an electronic discussion can be conducted among several subscribers. A manufacturing company's representative, for example, may be available at a prearranged time to answer questions regarding a new product. A feature called Bulletin Board allows for electronic exchanges on subjects such as the Americans with Disabilities Act, mandatory continuing education, and quality management.

AIAOnline is currently being tested by architects and product manufacturers at sites across the country. To learn more about the system, or to subscribe, call 800-365-ARCH.

—N.B.S.



## Sustainable Architecture Competition Announced



TO PROMOTE ENVIRONMENTALLY sound design, the AIA and the International Union of Architects are cosponsoring an international competition entitled "A Call for Sustainable Solutions." The competition is open to architects and nonarchitects who present concepts that address ecologically sustainable building and development practices. Submission guidelines will be released later this month. Entries will be judged by an international jury of 10 interdisciplinary professionals, who will award \$50,000 in prizes in three categories that echo the themes of the 1993 AIA convention in Chicago: energy and resource efficiency, healthy buildings and materials, and land use and urban ecology. The results will be displayed and discussed during the convention, presented in a subsequent traveling exhibition, and published in a monograph.

Within the three outlined categories, participants are expected to clearly define how their proposals solve a specific environmental problem. Entries will be judged on how effectively they communicate a feasible solution through written explanation and graphic presentation. In addition to rewarding existing efforts to create sustainable communities, the competition aims to identify areas for future research and development, explains Carl Costello, director of the AIA's recently formed Center for the Environment.

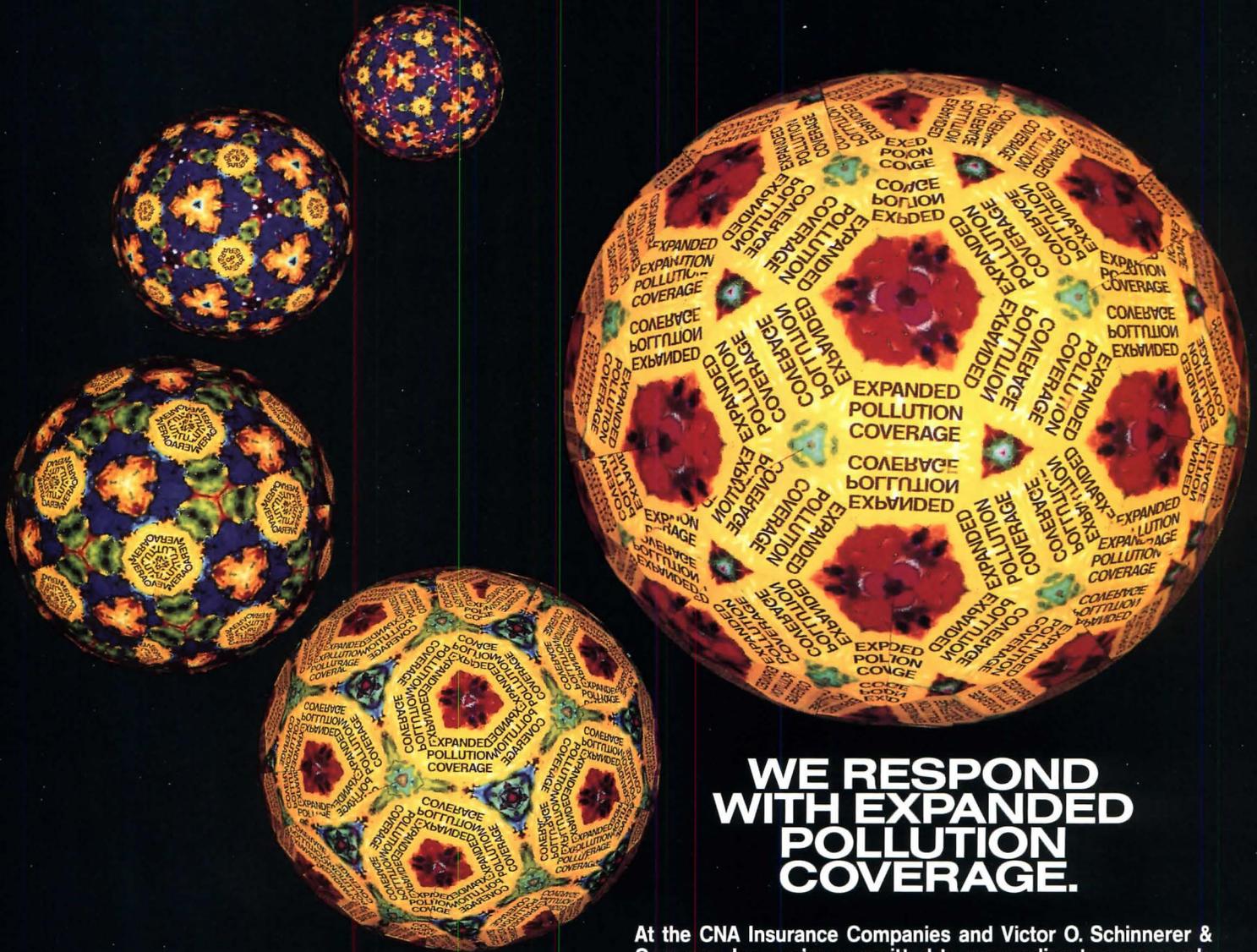
The deadline for registration is April 1, 1993; submissions are due by May 1. Anyone who would like to register or who is interested in obtaining a copy of the submission guidelines, which further detail judging criteria and presentation requirements, should contact the AIA at 800-365-ARCH.

—M.S.H.



**BUILDING  
CONNECTIONS**

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# Alternative Housing Models

Architects respond to America's changing demographics through new dwelling types.

THE UNITED STATES CANNOT SOLVE ITS HOUSING CRISIS WITHOUT understanding its people. Single adults now make up one fourth of America's population, with female-headed households numbering 6.8 million, a figure that has doubled since the 1970s. With fewer women and men marrying, some 50 percent of marriages projected to end in divorce, and 57 percent of all women ages 16 and older now part of this country's work force, the traditional family is disappearing. Yet single-family detached houses make up nearly two-thirds of the nation's housing stock. And the size of owner-occupied units has increased every decade since World War II, perpetuating the nuclear-family myth. Over the last few years, however, socially minded architects have begun revamping residential models to fit the country's changing demography. These housing prototypes, featured on the following pages, challenge conventional assumptions about the way Americans want to live.

The key to serving diverse households, as these architects demonstrate, is flexibility. Through simple provisions such as interconnected rooms and shared amenities, architects are creating affordable dwellings where mothers and children can find emotional support. Self-contained rooms added to larger units allow low-income families to run businesses from their houses. By reconfiguring dwelling types and sizes, architects are also making it possible for extended families to live together and for communities to become more diverse. In addition, on-site counseling and job training services are being incorporated into housing, fostering self-sufficiency for residents.

What is most significant about these alternative housing models is a profound understanding of each population served. Extensive programming and participatory design prevent a mismatch between user and building, and cultivate a cooperative spirit. "Building community starts with the design process," affirms Oakland, California, architect Michael Pyatok, who provides future occupants with kits of building parts to help them determine their spatial needs. Berkeley-based co-housing architects Kathryn McCamant and Charles Durrett conduct a thorough predesign phase, which they liken to an anthropological survey of clients. According to Durrett and Peter Wilcox of Portland Community Design in Oregon, new housing is not meaningful unless it reinforces greater social values—including environmental conservation—and both West Coast architects design dwellings with energy-efficient materials to minimize heating costs. Nor is new housing a success unless it remains affordable to a range of households, Durrett and Wilcox maintain. By taking the time to understand the individual needs of their communities, architects are designing housing with dignity, and helping to cure some of the nation's ills in the process. But with tight financial resources, progress has been slow. While the absence of regulatory standards has allowed architects and nonprofit organizations the freedom to explore new dwelling forms, only with government support will housing truly begin to meet the needs of long-neglected members of society.

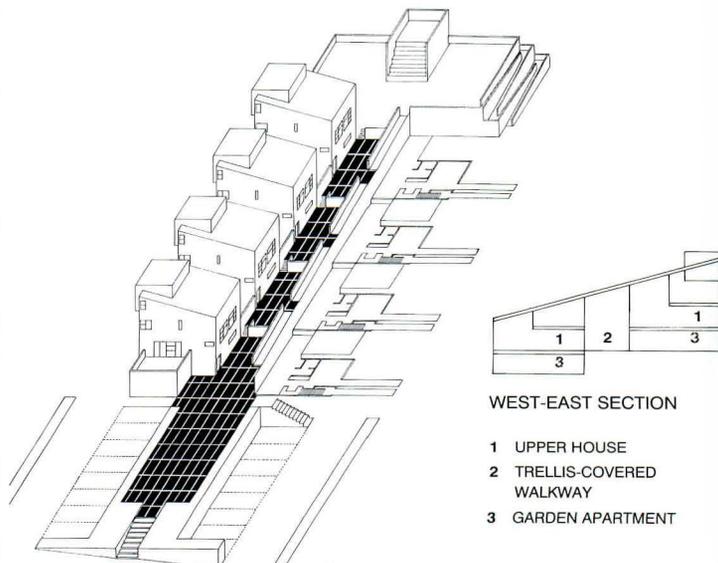
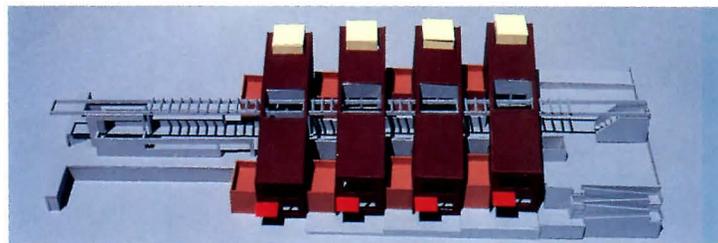
—KAREN SALMON

## INTERGENERATIONAL HOUSING

TO ACCOMMODATE THE INCREASING number of Latino, Asian, and European immigrants in San Diego who seek to live near family members, local architects René Davids and Christine Kilory designed eight rowhouses with self-contained apartments at ground level, on a site 2 miles northeast of the city's downtown. Intended for middle-income homebuyers, this two-for-one arrangement also allows two families to share a mortgage, or one family to earn rental income.

The units are arranged so that each portion retains access to a private outdoor court. Double-height living rooms and simple floor plans add to the feeling of spaciousness. To integrate the complex within the greater community, the architects provided sizable yards facing two bordering streets. The project was named the Ark by the architects to symbolize the several generations of immigrant families who will occupy the houses when completed this spring.

The Ark, San Diego, California



HOUSING ISOMETRIC

WEST-EAST SECTION

- 1 UPPER HOUSE
- 2 TRELLIS-COVERED WALKWAY
- 3 GARDEN APARTMENT

## COMMUNITY HOUSING

SIENA VILLAGE, A NEWLY-PLANNED, 8½-acre neighborhood in Watertown, Massachusetts, was conceived by the Dominican Sisters of Saint Catherine of Siena as a revision of the American dream. By converting their vacant Rosary Academy to low-cost apartments and a retirement center for members of the order, and building 59 affordable townhouses, the Dominican Sisters succeeded in housing their aging laity and creating a supportive, intergenerational community.

The Boston firm Comunitas was commissioned by the Sisters to help realize their goal of turning a site they had occupied for 70 years into a cohesive development that does not shun nearby

residents. Throughout the design process, members of the order participated in weekly sessions with the architects and attended zoning meetings. In the final scheme, Comunitas drew upon traditional planning elements, replacing a grammar school building at the center of the site with a neighborhood green. The architects rehabilitated two adjacent structures to include a community center, 40-child day-care facility, 25 rental units for the elderly, a 40-unit retirement complex, and an 80-seat chapel. The chapel was designed as a simple, open space to facilitate its future conversion to additional retirement apartments for the Sisters.

After determining that manu-

factured housing would reduce development costs by 27 percent, Comunitas Principal Antonio DiMambro designed two- and three-bedroom rowhouses as modular assemblies of porches, greenhouses, and bay windows. DiMambro arranged enfilades of the two- and three-story townhouses along the site's northern and southern edges, allowing room for semiprivate yards and at the same time respecting the density of adjacent streets. Due to the depressed real estate market in the late 1980s, revenue from the sale of the townhouses was not enough to finance redevelopment of the apartments and the retirement center. Ultimately, the state subsidized 20 of the units for the

elderly through its rental assistance program.

To its neighbors, the \$8 million Siena Village represents the antithesis of the condominium megablock. The rows of townhouses, each of which sold for \$160,000 to \$180,000, are divided by playgrounds and two traffic arteries that lead directly to the common. Having worked repeatedly with nonprofit clients, DiMambro believes that innovative and lasting solutions to social problems are spurred at the community level. Beyond its value as a prototype for religious institutions, Siena Village is a model for how mixing generations and incorporating amenities can strengthen neighborhood fabric.

Siena Village, Watertown, Massachusetts



PETER LEWITT

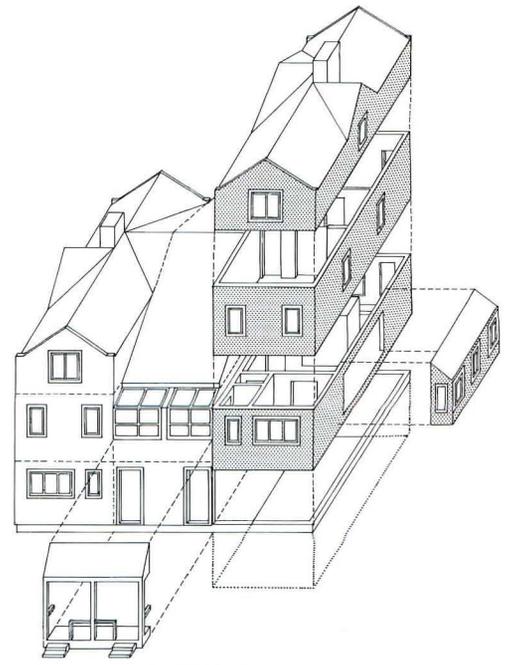


PETER LEWITT



SITE PLAN

- 1 APARTMENTS  
DAY-CARE, AND  
COMMUNITY CENTER
- 2 NEIGHBORHOOD  
GREEN
- 3 RETIREMENT CENTER
- 4 CHAPEL
- 5 PLAYGROUND



TOWNHOUSE AXONOMETRIC

## SHARED HOUSING

ARCHITECT CHARLES MOORE'S view that the "beauty of a building is a function of the energy that goes into it," holds special meaning for the residents of 5514 Doyle Street, the nation's third cohousing project. Berkeley-based architects Charles Durrett and Kathryn McCamant led Doyle Street's occupants through two-and-a-half years of weekly design meetings and fierce battles with the planning commission. Joined by four single adults, six married couples, a grandmother, and five children, McCamant and Durrett moved into the 12-unit complex located in Emeryville, California, last May.

For some, shared housing may defy the American dream. But for

those who cannot afford a detached dwelling or fail to fit the nuclear-family mold, cohousing is an attractive option. Doyle Street residents paid between \$135,000 and \$250,000 for a private unit in their new complex, where they share meals and amenities with a ready-made community. The 17,500-square-foot development, within a recycled warehouse, includes a 2,200-square-foot common area with a kitchen, dining room, and living room, as well as a playroom, workshop and guest room. The architects respected the area's industrial character by applying corrugated metal siding to the units' upper floors and turning culvert pipes into exterior columns.

McCamant and Durrett view their project more as a cultural symbol than as nuts-and-bolts architecture. The couple spent the first six months identifying the requirements of future residents before putting pencil to paper. One priority was to ensure the structure's environmental sensitivity by installing solar panels and applying heavy insulation.

In Portland, Oregon, a second example of shared housing by Portland Community Design (PCD) targets low-income, single adults. By working closely with the developer-builder, architect Peter Wilcox designed a simple, balloon-framed house with five bedrooms, five bathrooms, and five pantries, in addition to a

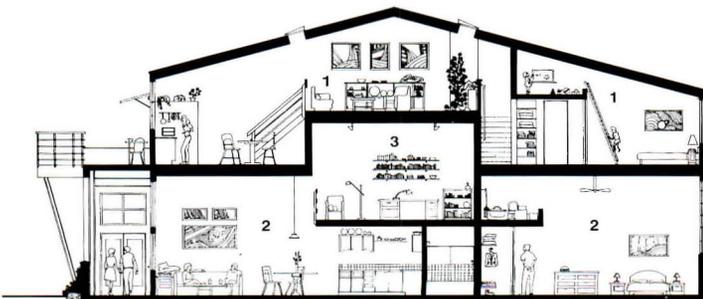
shared kitchen, eating area, and lounge. The newly completed, 2,800-square-foot structure, which is located in a low-income neighborhood 1 mile west of downtown, will provide rental housing for four single adults and a resident manager. According to Wilcox, costs were reduced to \$30 per square foot through careful planning of materials and by employing local youths, who constructed the building within three months.

Like Doyle Street in California, the Portland project encourages a sense of community through citizen involvement, an approach that has led PCD to design two shared houses in Portland for the mentally ill.

### 5514 Doyle Street, Emeryville, California



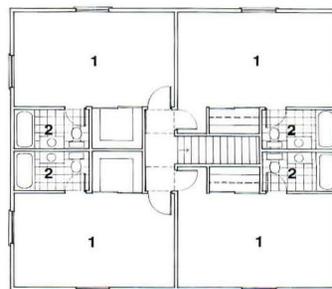
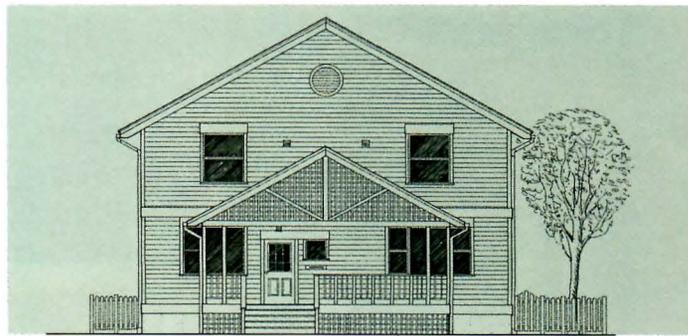
RICHARD BARNES



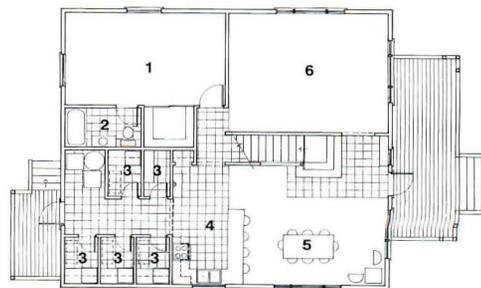
NORTH-SOUTH SECTION

- 1 UPPER UNIT
- 2 GROUND-FLOOR UNIT
- 3 MEZZANINE

### Shared House, Portland, Oregon



SECOND FLOOR PLAN



FIRST FLOOR PLAN

- 1 BEDROOM
- 2 BATHROOM
- 3 PANTRY
- 4 KITCHEN
- 5 DINING ROOM
- 6 LIVING ROOM

## LIVE/WORK PROTOTYPES

IN LATINO AND ASIAN NEIGHBORHOODS east of downtown Oakland, families run extension cords from their kitchens to ice cream trucks parked on the street, and convert garages into beauty or repair shops. As a long-time resident of East Oakland, Michael Pyatok of Pyatok Associates is familiar with these efforts to establish businesses within residential neighborhoods.

Due to restrictive zoning, new housing that contains work space typically appears in gentrifying neighborhoods, and is designed for specialized uses. Over the past year, however, Pyatok has developed two low-cost housing schemes with space for family-run enterprises.

To win zoning approval for Jingle Town, a 2-acre development of houses with 200-square-foot work spaces, a coalition of Oakland neighborhood organizations fought the city for three years. As a result of this effort, 54 two- and three-bedroom houses for first-time homebuyers will begin construction next year. Pyatok placed workshops and courtyards to provide a buffer between public areas.

He designed a second live/work scheme with Ratcliff Architects to offer low-income rental housing and retail space eight blocks from Jingle Town. San Antonio Commons is a 108,000-square-foot development that positions townhouses and apart-

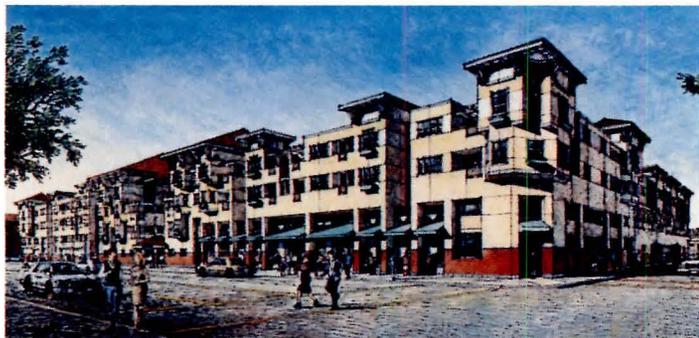
ments above an 8,000-square-foot, 18-foot-high market hall at street level. Vendors now occupying the site and San Antonio residents will pay minimal overhead costs to relocate their businesses inside the hall or in alcoves marked by awnings along the street.

The project's 92 living units are arranged around three courtyards. Similar to Pyatok's design for James Lee Court (pages 62-65, this issue), San Antonio Commons includes townhouses with direct courtyard access, and apartments on upper floors. The development also includes a day-care center and community room. Subsidized through local and federal grants, units will rent to

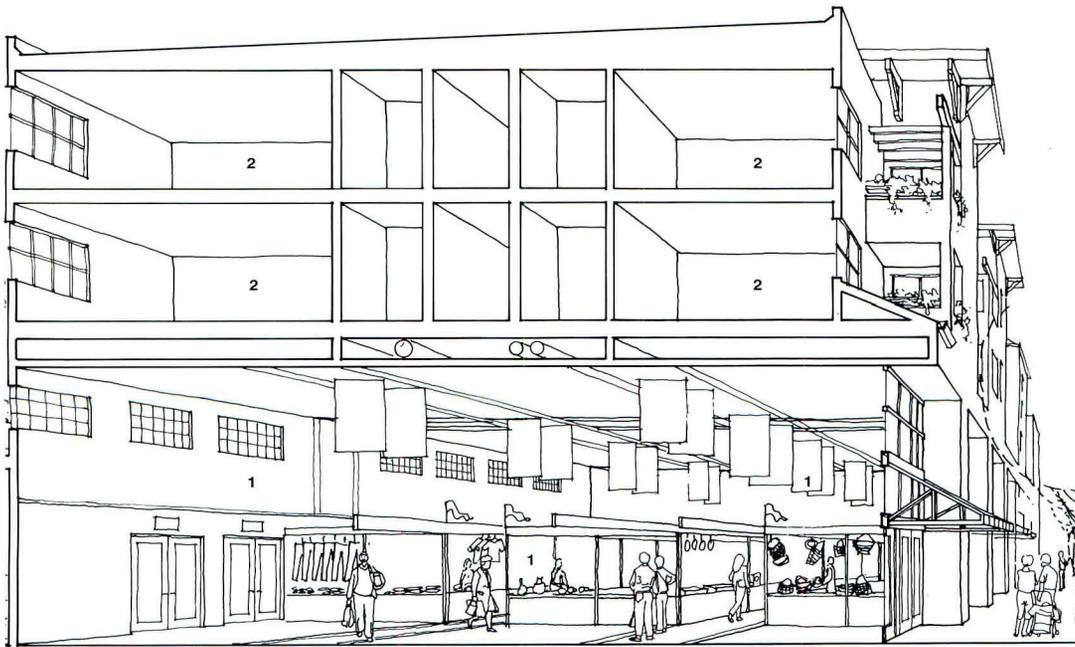
families with a maximum combined income of \$30,000.

Pyatok modulated the structure's mass with concrete-tiled roofs supported by wood brackets in a contemporary interpretation of the region's Craftsman style. Clapboard siding distinguishes residential units from the project's stucco commercial facade. San Antonio Commons is being developed by local nonprofit organizations representing African-American, Asian, and Latino interests, and will begin construction next month. By supporting business development through alternative housing, Pyatok hopes that Jingle Town and San Antonio Commons will help the economies of their impoverished neighborhoods.

### San Antonio Commons, Oakland, California



- 1 MARKET HALL
- 2 TYPICAL HOUSING UNIT

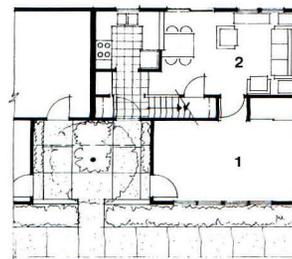


SECTION PERSPECTIVE

### Jingle Town, Oakland



SECOND FLOOR PLAN



GROUND FLOOR PLAN

- 1 WORKSPACE
- 2 LIVING/DINING AREA
- 3 BEDROOM

## HOUSING FOR WOMEN

BETWEEN 1970 AND 1990, THE number of single mothers in this country more than doubled; today, unmarried women with dependents are 8.7 million strong. Because most of these women earn less money than men, lack affordable child care, and generally live in inner cities, they cannot afford market-rate housing. Yet their plight is ignored by the federal government, which fails to consider housing that serves women's needs as an alternative to welfare, or as a solution to the rising number of homeless females.

While this lack of support might stifle some architects' creativity, Katrin Adam of New York has been devising innovative spaces for today's new fami-

lies. In 1984, Adam began designing flexible apartments for low-income women within three Brooklyn hospital buildings owned by the city. She proposed linking adjacent living units with shared kitchens and dining areas, and providing communal rooms as gathering spaces, work areas, or guest rooms. Adam also added one-room apartments next to larger units to accommodate grandparents or friends, and storage areas for baby carriages and toys on the ground floor. Not one of Adam's proposals was approved by New York City's Housing Preservation Department, however. Unconvinced by the viability of shared housing for this population, the city approved

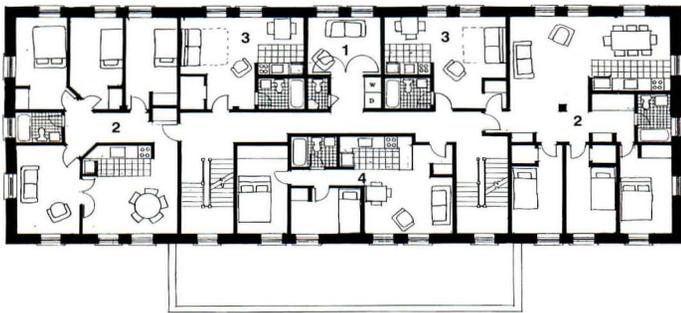
only the architect's open kitchens to facilitate child supervision, and doors linking adjacent units.

Groups like the Women's Institute for Housing and Economic Development of Boston, and the Young Women's Christian Association (YWCA) have had greater success accommodating single mothers through housing that combines dwelling units with child care and on-site services. Brookview House, an eight-unit residence in Boston, was developed in 1990 by the local Women's Housing Initiative, now part of the Women's Institute. The facility supports a program that pairs one transitional family with one permanent family. Similarly, the YWCA is sponsoring a

service-enriched transitional dwelling for women-run families in Redmond, Washington. YWCA Family Village will offer 20 spacious units; a day-care facility and resource center at ground level; and a clothing bank in the basement. Pyatok Associates of Oakland, California, designed the 31,500-square-foot complex with Seattle-based Stickney & Murphy Architects to incorporate wide, glazed corridors, play porches, and a community room.

These organizations recognize that housing alone will not end poverty, illiteracy, and emotional distress. But by sponsoring secure, sensitively designed units, they are maximizing women's chances of becoming self-reliant.

### Neighborhood Women Renaissance Housing, Brooklyn, New York



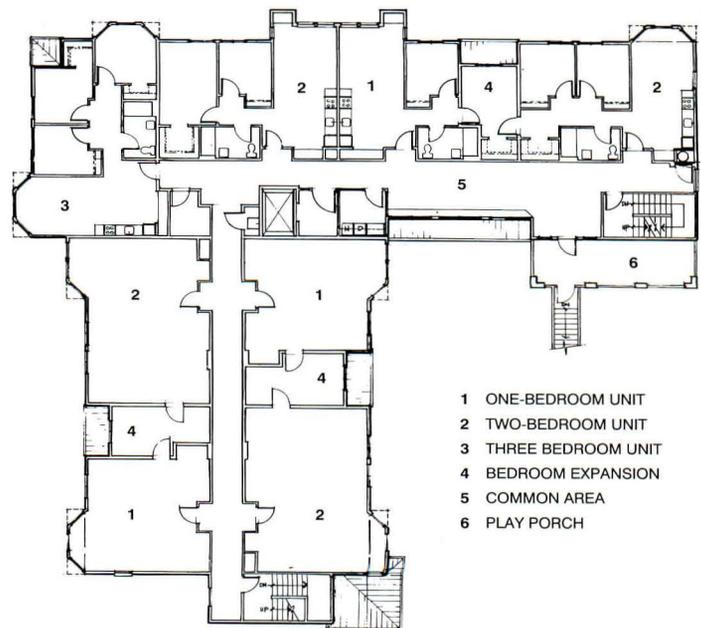
TYPICAL FLOOR PLAN



FIRST FLOOR PLAN

- 1 COMMUNAL SPACE
- 2 THREE-BEDROOM UNIT
- 3 STUDIO
- 4 TWO-BEDROOM UNIT
- 5 STORAGE

### YWCA Family Village, Redmond, Washington



SECOND AND THIRD FLOOR PLAN

- 1 ONE-BEDROOM UNIT
- 2 TWO-BEDROOM UNIT
- 3 THREE BEDROOM UNIT
- 4 BEDROOM EXPANSION
- 5 COMMON AREA
- 6 PLAY PORCH

## TRANSITIONAL SHELTERS

NORTHERN CALIFORNIA SHELTER providers recognize that reversing homelessness will require more than hot meals and warm beds. For example, when the Salvation Army of San Francisco commissioned local architect Howard Johnson in 1988, the nonprofit group envisioned a short-term-stay facility. After a few meetings, however, it became clear to both client and architect that without a strong social program, such a complex would not alleviate the city's homeless crisis. Made possible by federal and local grants, the Johnson-designed Gateway shelter provides family housing for up to two years, in addition to child care, drug counseling, job training, and job placement.

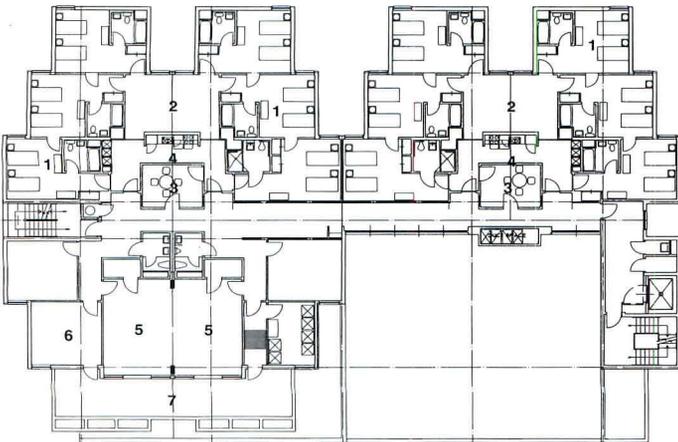
The architect claims that after the intensive one-year programming process, based on numerous staff interviews, the four-story, 30-family complex virtually fell into place. To comply with San Francisco zoning laws and meet budget constraints, Johnson was forced to locate parking on the ground level. To compensate for the garage's antisocial street wall and to temper the building's institutional scale, Johnson stepped the third and fourth floors back to indicate dwelling units. He divided each of these floors into three living clusters, containing six bedrooms, a common area, a kitchenette, and a counseling room. The up-to-

four-person bedrooms share internal doors to allow for a range of family sizes.

When the Tri-City Homeless Coalition hired David Baker Associates to design its new facility across the San Francisco Bay in Fremont, the nonprofit had a clear sense of its homeless population's needs based on two years of emergency assistance. Since its founding, the grassroots organization had shuttled homeless individuals between the Coalition's day program of counseling and job placement services, and church-based overnight shelters. Nearing completion, the wood and stucco shelter will centralize these services, while offering families and singles a home for

three months. Baker divided the 36-bed family complex and the single-adult facility with a spine of support spaces, including a galley kitchen where volunteers prepare meals. He arranged 10 family bedrooms with bathrooms, and four dormitories for singles around separate courtyards. As in Johnson's Gateway, family bedrooms are linked by internal doors. Like the Salvation Army, the Tri-City Homeless Coalition believes that people who lack housing require more than a few weeks to regain self-sufficiency. By designing secure housing that balances privacy with community, Baker and Johnson are helping the homeless improve their lives.

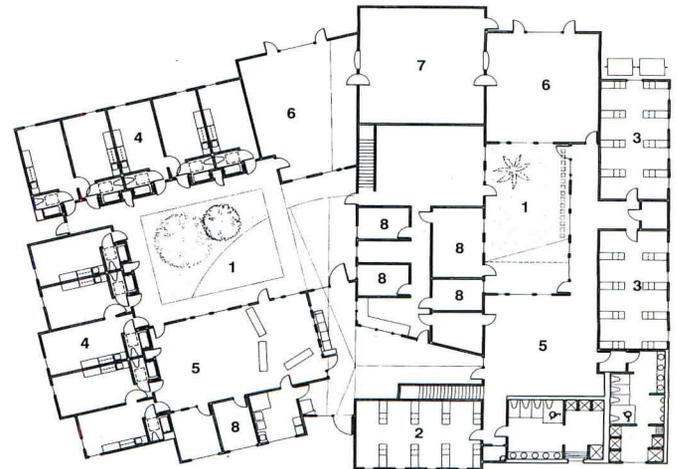
**The Gateway, San Francisco, California**



FOURTH FLOOR PLAN

- |                              |                 |
|------------------------------|-----------------|
| 1 TYPICAL UNIT WITH BATHROOM | 5 CLASSROOM     |
| 2 LOUNGE                     | 6 COMPUTER ROOM |
| 3 COUNSELING ROOM            | 7 ROOF DECK     |
| 4 KITCHENETTE                |                 |

**Tri-City Homeless Coalition Program Center, Fremont, California**



FIRST FLOOR PLAN

- |                          |                   |
|--------------------------|-------------------|
| 1 COURTYARD              | 5 COMMON ROOM     |
| 2 WOMEN'S DORMITORY      | 6 DINING ROOM     |
| 3 MEN'S DORMITORY        | 7 KITCHEN         |
| 4 TYPICAL FAMILY BEDROOM | 8 COUNSELING ROOM |

## SINGLE-ROOM OCCUPANCY HOTELS

SAN DIEGO HAS BECOME A LEADING proponent of single-room occupancy hotels as a low-cost housing solution, having supplied a total of 5,000 rooms since 1987. While Rob Wellington Quigley, who has built three SROs in the city's Gaslamp Quarter and another in its Italian district (pages 52-55), has experimented with increasing amenities for this housing type, Kaplan McLaughlin Diaz of San Francisco and New York-based Architrope are currently revising the SRO model to include social services and expand communal space.

San Francisco, now faced with 6,000 homeless people and the most expensive real estate in the country, will make use of the

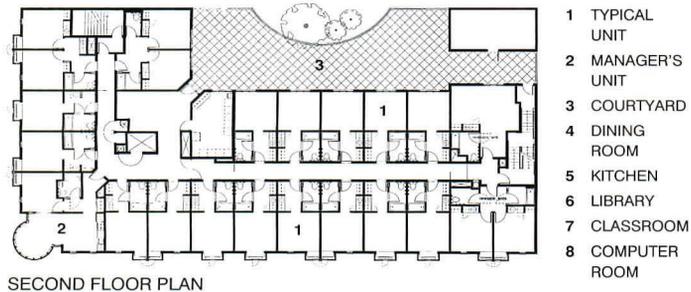
state's Rental Housing Construction Program to assist Episcopal Community Services in building the city's first new SRO 10 blocks southeast of City Hall. KMD is designing Canon Kip, a five-story building with 104 bedrooms for single and married adults, a shared courtyard, and a communal kitchen, dining room, computer room, library, lounge, and classroom. Many of the 12-by-12-foot units will include balconies overlooking the street. Slightly larger corner units for married couples will incorporate curved bay windows. Residents will pay \$8 to \$10 per night for lodging and a meal, and will be able to stay indefinitely while taking advantage of job training,

psychological counseling, and drug rehabilitation.

The number of homeless in New York City is estimated at more than eight times that of San Francisco, and while the state approximates that 20 percent of those individuals suffer from mental illness, social service estimates are much higher. In 1990, Governor Mario Cuomo promised to provide 1,900 apartments for the mentally ill homeless within three years, but so far the state has produced fewer than 500. To help state efforts, New York-based Architrope presented the Office of Mental Health with a proposal to house 48 emotionally disturbed homeless people in Brooklyn's Bushwick neighborhood.

Like Canon Kip, the 24,200-square-foot New York SRO will offer social services and contain ground floor amenities such as a shared kitchen, dining room, and library. Bedrooms on upper floors incorporate bathrooms and kitchens for privacy. To mitigate the building's institutional masonry facade, the architects inserted a 12-foot-wide townhouse with a single window at the main entrance. They also designed a 4,000-square-foot garden behind the building. Architect Jonathan Kirschenfeld believes that this service-enriched SRO could effectively be adapted to serve populations with other needs, such as the elderly or AIDS patients. Construction will begin in late 1993. ■

### Canon Kip SRO, San Francisco, California

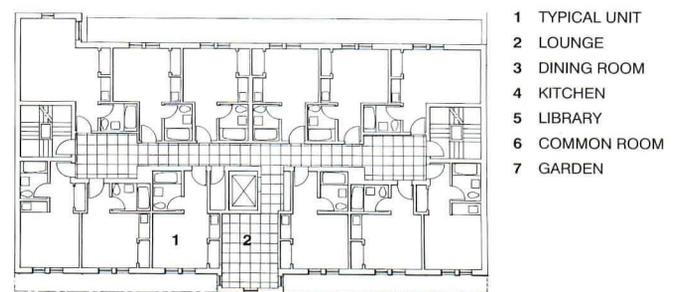


SECOND FLOOR PLAN

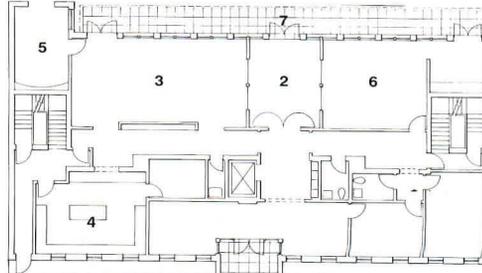


GROUND FLOOR PLAN

### Service-enriched SRO, New York City



TYPICAL FLOOR PLAN

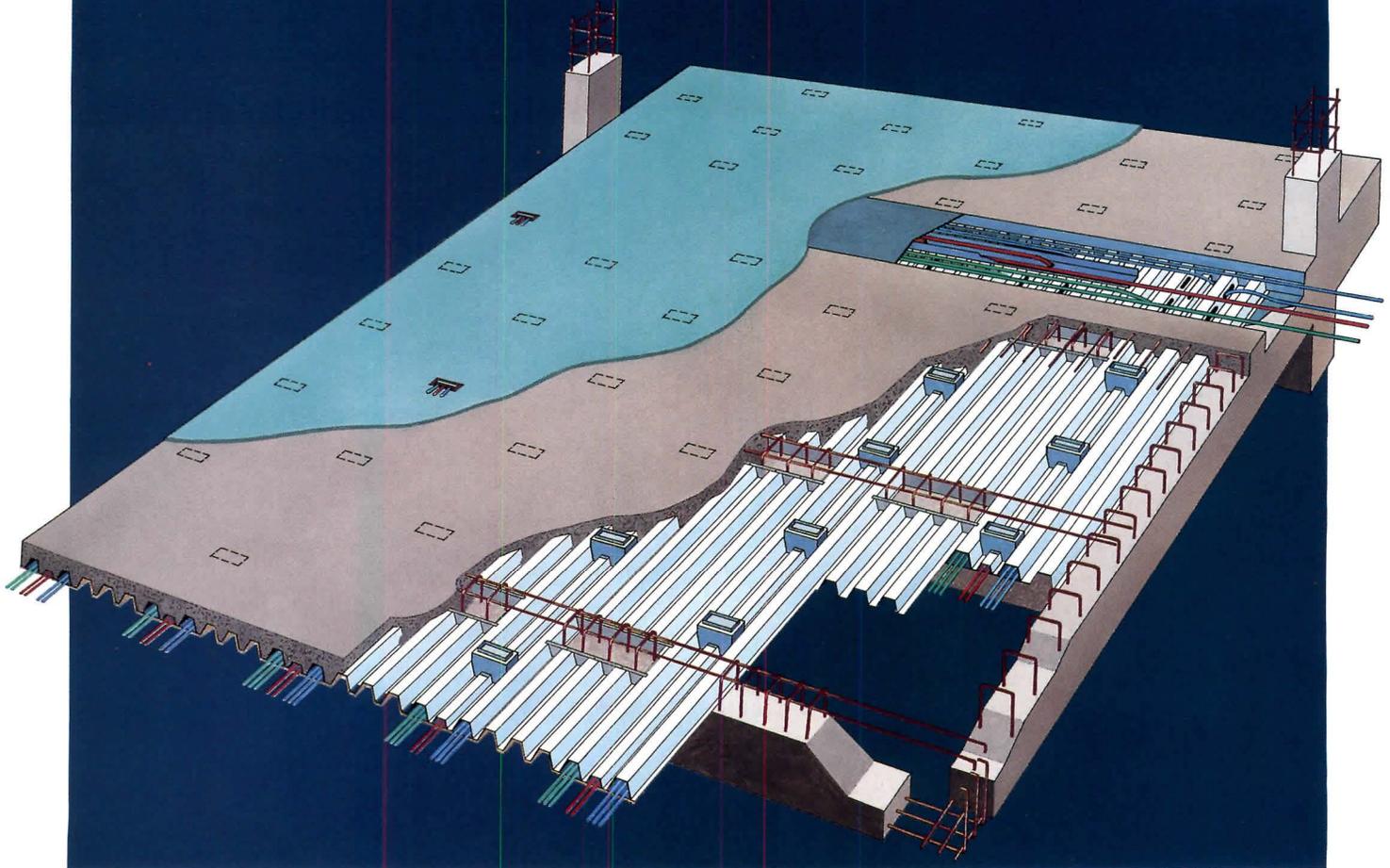


GROUND FLOOR PLAN

# CELLCAST<sup>SM</sup>

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# Log Construction Renewed

Rustic houses are pushing the limits of traditional timber technology.

THE LOG CABIN FIRST BECAME AN ICON OF American independence during the great wagon train migration west, when a settler needed little more than an ax and a strong back to erect a house in the wilderness. Today, log architecture remains a potent symbol of rugged American individualism, prized by those seeking an escape from the city, but it bears little resemblance to the modest and primitive prototypes of pioneer days. Better described as log mansions than as log cabins, these timber dwellings are grander, larger, and far more complex than the early pioneers could have imagined. Today's log "cabins" range in size from 5,000 square feet to 15,000 square feet and can cost from \$130 to \$300 per square foot to build. This "upscaling" of the traditional log vernacular, driven largely by the rich and famous seeking mountain retreats, has given many architects a host of new and often unfamiliar challenges. As they seek to create modern, comfortable buildings with the most rugged of means, architects must keep one eye on centuries-old traditions of craftsmanship, and the other on technical innovations that stretch the natural qualities of the material.

Industry experts estimate that as many as 20,000 log houses were built in North America last year, perhaps 80 percent as primary residences and 20 percent as vacation houses. And an increasing proportion of these homes are being designed by architects and built with hand-peeled logs in the handcrafted tradition.

## Log migration

LOG CABIN CONSTRUCTION METHODS WERE introduced into America some 300 years ago by immigrants from Sweden, Germany, and Finland. The log house reached its first peak of popularity in the United States in the late 1700s and early 1800s, but went out of fashion by about 1850. The log house industry began its current resurgence during the back-to-the-land movement of the 1970s, and saw its fortunes rise with the economic

expansion of the 1980s. Japan has also become a major buyer of handcrafted log architecture. Japanese clients imported \$80 million worth of log houses from North America in 1990, says Brian Lloyd, a log house consultant based in British Columbia.

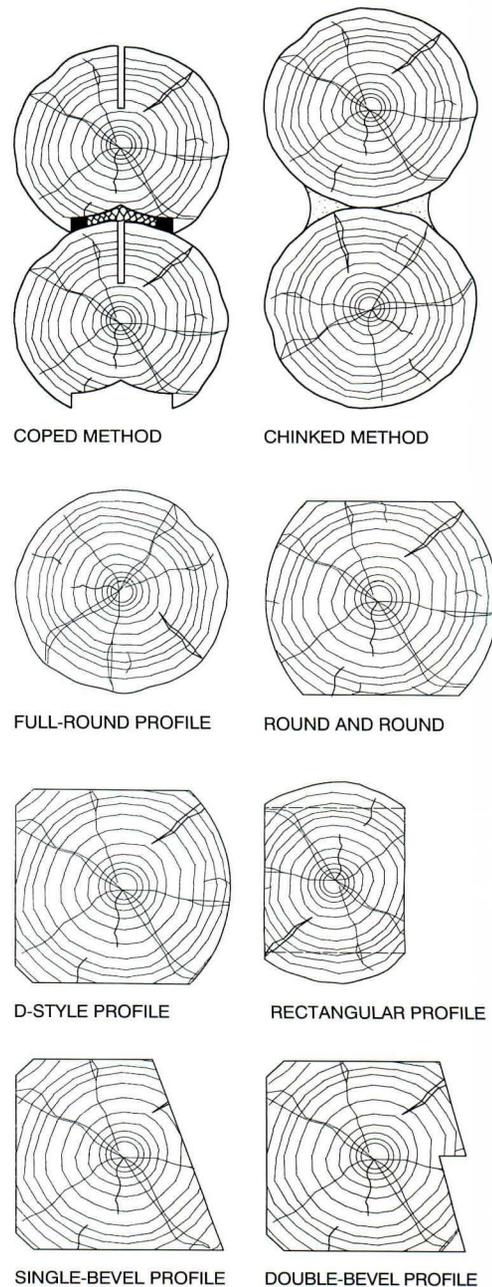
## Log technology

ACCORDING TO ARCHITECTS WHO WORK with them, logs are one of the toughest building materials to deal with. In many ways, building with logs is like building with concrete blocks: both materials are loadbearing, require total contact between members when they are stacked, and naturally lend themselves to structures with heavy walls and small openings. But logs are not as homogeneous as blocks, and therein lies both their charm and their challenge. No two logs are exactly alike, so establishing a standard wall section or window detail is impossible. The most challenging characteristic of logs is their tendency to shrink after construction, and to expand and contract as the seasons change. "Essentially, what log walls do is move," says Jean A. Steinbrecher, a Langley, Washington-based architect specializing in log houses.

Most architect-designed log houses in the United States are handcrafted according to one of two log-building traditions: the Scandinavian, known as the Swedish "coped" or "scribed" method, and the North American, called the "chinked" method. In both types of construction, the logs are hand-peeled to remove bark. The most popular style of log design calls for leaving the logs in their full-round state to create a rustic appearance.

## Coped and chinked methods

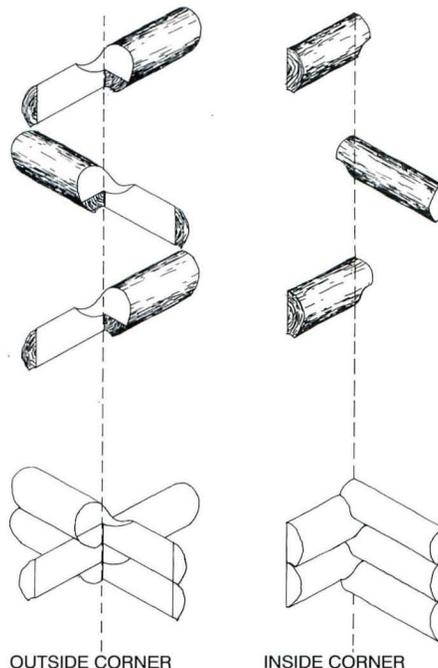
IN THE SWEDISH COPED TRADITION, THE logs are cut to fit closely together and are laid up without mortar or chinking. Each log is coped, or notched, along its entire length to create a rounded hollow. When one log is stacked on top of another to create a wall, the hollow in the upper log cups the rounded top surface of the log below it. In modern



**Swedish coped (top left) and North American chinked (top right) methods are the most popular types of log construction. Of the basic profiles, full round is most common.**

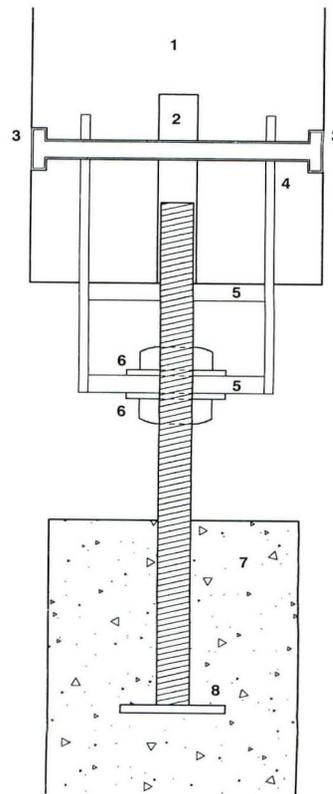
**Wyoming House**  
Janet Jarvis, Architect

AFTER NEARLY A DECADE OF DESIGNING LOG buildings, architect Janet Jarvis says she decided to take a hiatus from working with logs upon learning that she had become known locally as the "log lady." Now, several years later, Jarvis has resumed working with logs and has taken them beyond traditional design to develop hybrid structures, combining frame and log construction. In a 11,000-square-foot house in Wyoming, Jarvis achieved the appearance of a traditional Swedish coped-log building, but avoided any problems of log shrinkage and settling by implementing typical frame construction and fastening half-logs to the frame with wood screws. The screws are countersunk, and the holes are plugged to conceal connections. Traditional saddle-notched corners were created by leaving the ends of the logs in their full-round state.



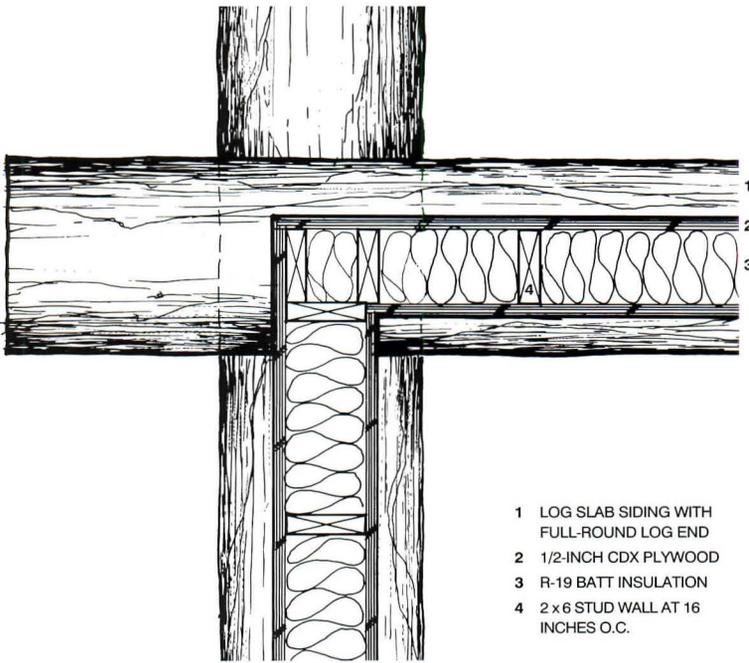
**House and barn**  
Wilson, Wyoming  
Edgcomb Design Group

DEVELOPING JACKING AND SLIPPAGE DETAILS to compensate for log shrinkage in a house and barn built of "green" lodgepole pine logs was a task that turned out to be more time-consuming than architect Jim Edgcomb had anticipated. Because logs shrink across their diameters and not across their lengths as they dry, log buildings shrink unevenly: an 8-foot-high wall that supports the roof may shrink 6 inches while a vertical log column that supports the same roof structure will not shrink at all. Edgcomb installed several dozen steel screw jacks at the bases and tops of log columns, enabling the builder to lower the columns or the structure they support at regular intervals after the house was completed. This frequent adjustment keeps the building level.



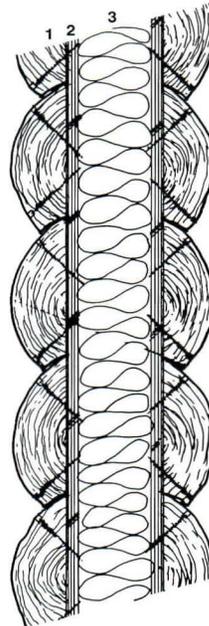
SCREW JACK AT COLUMN BASE

- 1 LOG POST
- 2 SETTLING SPACE
- 3 BOLTS COUNTERSUNK AND PLUGGED
- 4 KERF LOG POST
- 5 8 x 8 x 3/4-INCH PLATE
- 6 FLAT WASHER AND NUT
- 7 CONCRETE
- 8 1 1/2-INCH-DIAMETER ROD, WELDED TO PLATE



PLAN

- 1 LOG SLAB SIDING WITH FULL-ROUND LOG END
- 2 1/2-INCH CDX PLYWOOD
- 3 R-19 BATT INSULATION
- 4 2 x 6 STUD WALL AT 16 INCHES O.C.



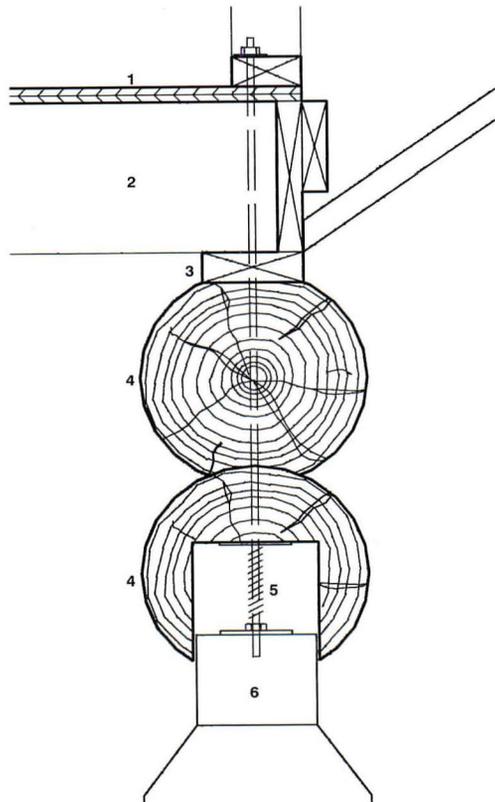
WALL SECTION

construction, the space between the logs is often filled with foam insulation, and a line of caulking is sometimes hidden between them to prevent air infiltration. In the chinked method, the logs are laid one upon the other and the space between them is sealed on the exterior and the interior with a synthetic compound. Synthetic chinking compounds developed within the past dozen years expand and contract as the logs move, maintaining an airtight seal. The chinked method of construction is generally considered to be more flexible and forgiving, since chinking does not require the logs to fit together as precisely. In both methods, steel tie rods or spikes are driven through the log courses to secure the logs vertically, and logs are sealed with oil to help protect them from insects and ultraviolet light.

### Log shrinkage

DEALING WITH LOG MOVEMENT, ESPECIALLY shrinkage and settling, is a matter of some controversy within the log-building industry. The greatest shrinkage occurs when a designer chooses freshly cut logs, which have an initial moisture content of between 50 and 100 percent. A drying log shrinks across its width as cells within the log collapse; logs do not, however, significantly shrink parallel to the grain along their lengths. Many builders prefer to use green logs because they have not yet begun to decay, but green logs may shrink as much as  $\frac{3}{4}$  of an inch per foot in the first several years after construction. Shrinkage can crush an interior partition or make a door unopenable. A more popular log type is "standing dead wood" from trees that have been killed by beetles or by fire. Since the moisture content in standing dead wood is generally between 10 and 20 percent, shrinkage is minimal and of less concern during design. The most popular species of tree used in log construction is lodgepole pine, because it grows to more than 40 feet in height and exhibits very little taper. Other popular species include spruce, fir, and white pine.

Log shrinkage was of major concern to architect James Edgcomb of the Warren, Vermont-based Edgcomb Design Group during the design of a 5,000-square-foot residence and an 800-square-foot barn and apartment in Wilson, Wyoming. Edgcomb opted for Swedish coped construction, which requires a high level of dimensional precision, to achieve a pure, wood-on-wood look for the buildings. To keep the buildings in alignment as the logs settled, Edgcomb worked closely with British Columbia-based Highland Log Builders to incorporate jacking and slippage



SCREW JACK AT COLUMN TOP

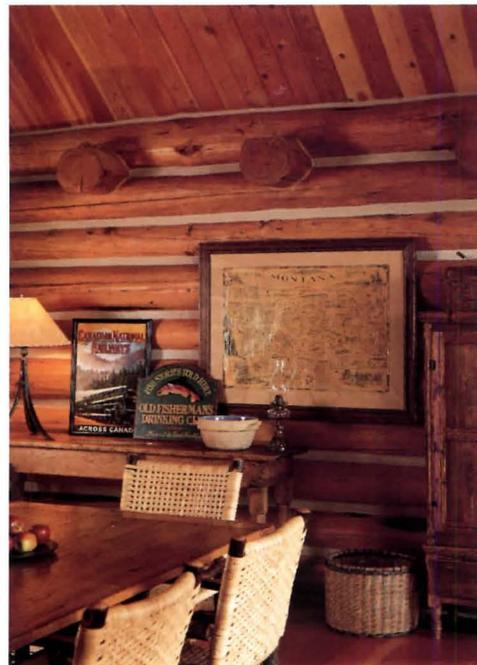
- 1 3/4-INCH TONGUE-AND-GROOVE PLYWOOD
- 2 2 x 8s AT 16 INCHES O.C.
- 3 2 x 6 PLATE
- 4 FULL-ROUND LOG, COPED METHOD
- 5 SCREW JACK
- 6 TENON AT TOP OF COLUMN

**Montana Cabin**  
**Backen Arrigoni & Ross, Architects**

"THE LOG HOME HAS A LIFE OF ITS OWN," says architect Howard Backen, who recently designed a 6,500-square-foot log fishing lodge in Montana for a group of investors. Working with interior designer Lori O'Kane Backen, the architect took a small, chinked-style log house already on the site and expanded it to almost five times its original size using 10-inch-diameter lodgepole pine logs. Rather than go through the "gymnastics" of adding steel to the log structure, Backen says he worked within the traditional rule-of-thumb constraints of log construction, using spans of 40 feet or less and placing windows at least 18 inches from corners, for example. As is typical in log construction, the log courses of intersecting walls are offset by half-logs so that overlapping, saddle-notched corners can be created.



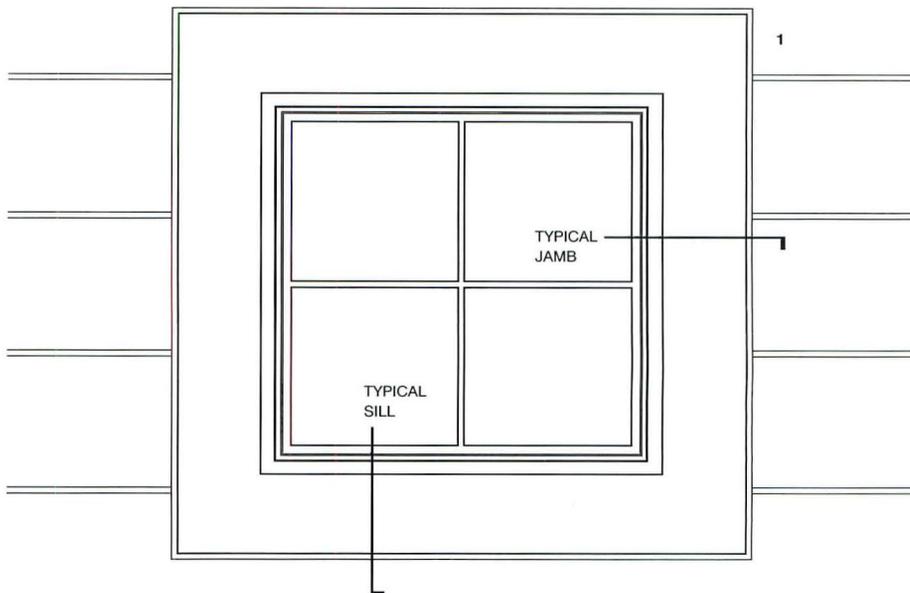
PHOTOS: JOHN M. HALL/COURTESY ELLE DECOR



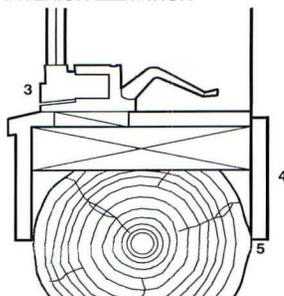
PHOTOS: TIM MURPHY/FOTO IMAGERY

**Colorado House**  
**Tigerman McCurry Architects**

ARCHITECT MARGARET MCCURRY SAYS SHE recalls that designing a Colorado vacation home of logs was "unlike anything I had done before," adding that she was especially struck by the "sense of materiality" inherent in log construction. McCurry says she chose to work within the boundaries of traditional log construction and selected the North American chinked style of construction to achieve a building that would create an "image of the old West." Windows for the house were designed to protect them from log movement and to achieve a customized look. The 5,000-square-foot house contains a double staircase and a fireplace of local river rock. The log shell was shipped from Montana on three trucks; the house required only nine days for assembly on site.

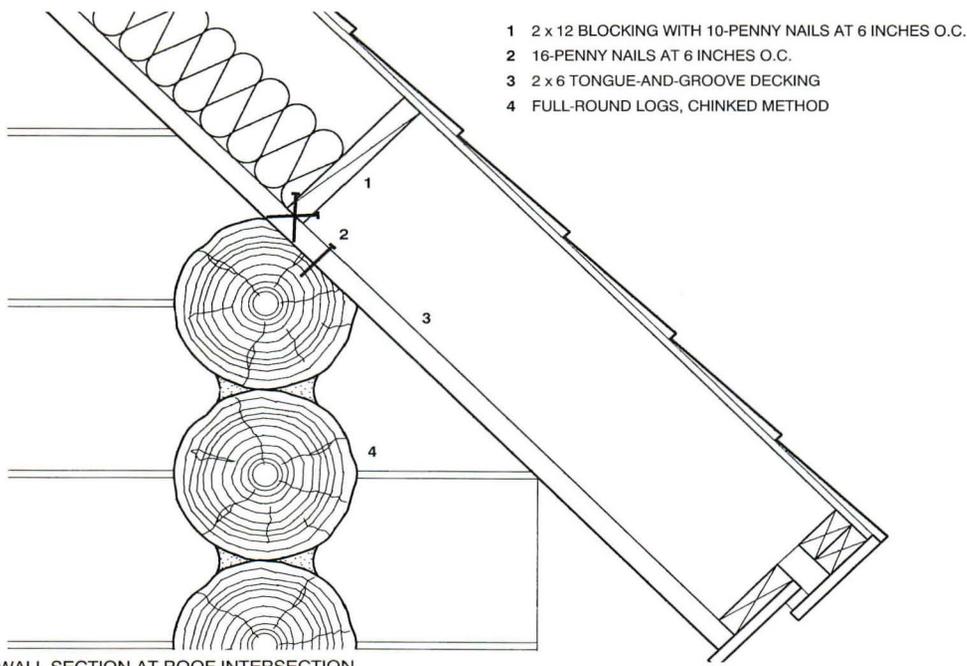


INTERIOR ELEVATION



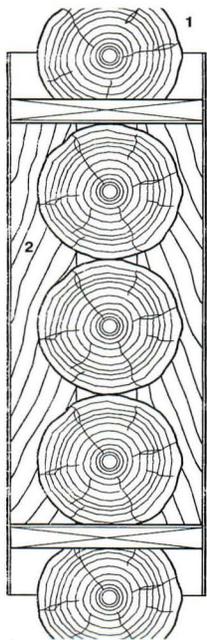
TYPICAL SILL

- 1 10-INCH NOMINAL DIAMETER PEELED LODGEPOLE PINE WITH CHINKING
- 2 2-INCH-THICK WOOD SPLINE CHISELED INTO LOGS AND SCRIBED TO FORM SIDE OF SHADOW BOX
- 3 WOOD CASEMENT WINDOW
- 4 1 x 6 WOOD CASING, PAINTED
- 5 CAULKING AS REQUIRED
- 6 2 x 10 WOOD BUCK
- 7 1/4-INCH REENTRANT CORNER

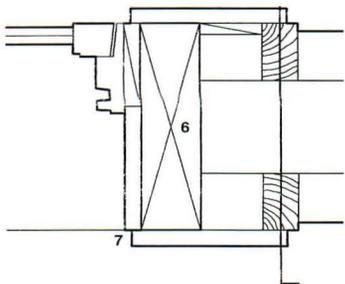


- 1 2 x 12 BLOCKING WITH 10-PENNY NAILS AT 6 INCHES O.C.
- 2 16-PENNY NAILS AT 6 INCHES O.C.
- 3 2 x 6 TONGUE-AND-GROOVE DECKING
- 4 FULL-ROUND LOGS, CHINKED METHOD

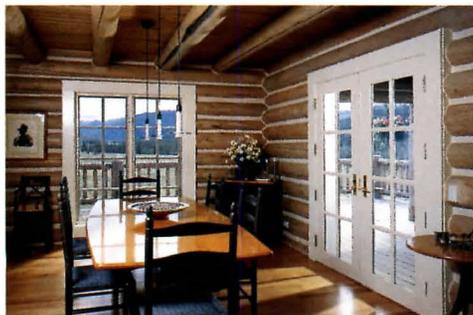
WALL SECTION AT ROOF INTERSECTION



SECTION



TYPICAL JAMB



details into the structures. Loadbearing log columns were cut several inches shorter than comparable log walls so that columns and walls would be the same height when the logs finished shrinking. To support the structure until shrinkage was complete, the columns were raised on screw jacks—1 1/2-inch-diameter steel rods threaded between steel plates that span the bottom of the column and the floor. The builder used the jacks to lower the columns every three months in the first year after construction. When the jack is placed at the top of the column, it lowers the structure above it as the horizontal logs around the column shrink.

Slippage details, in which the architect leaves a shrinkage allowance space of several inches and designs a sliding trim detail to conceal the space, were specified for doors and windows and in non-loadbearing situations, such as interior partitions. At the windows and interior partitions, Edgcomb left a shrinkage allowance of several inches above doors and windows and covered the space with sliding trim.

The issue of log shrinkage was largely avoided by architect Margaret McCurry of Chicago-based Tigerman McCurry Architects, who designed a 5,000-square-foot Colorado vacation house in standing dead lodgepole pine, implementing the more flexible chinked style. As is typical in handcrafted log construction, McCurry worked with the selected log manufacturer, in this case Alpine Log Homes of Victor, Montana, to develop the design and log details.

#### Log company collaboration

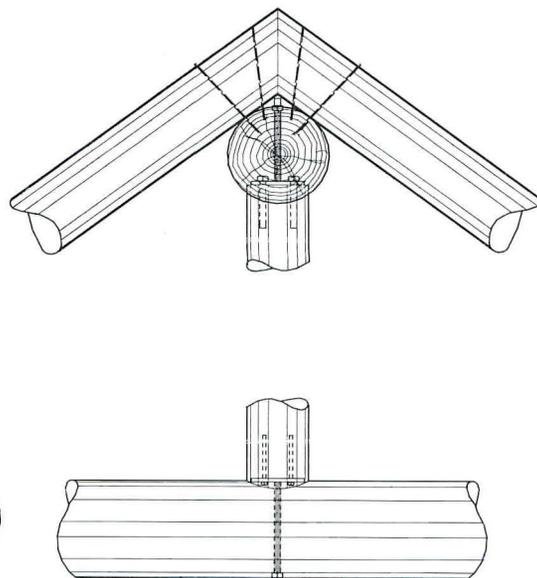
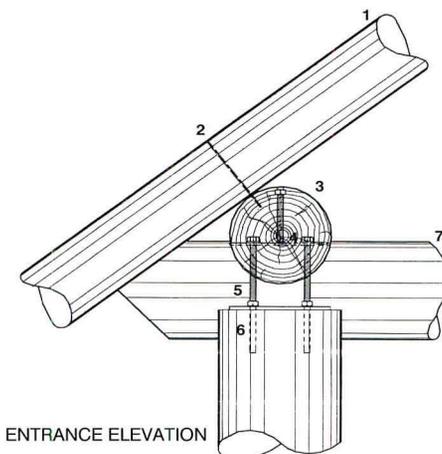
BECAUSE THE VERY NATURE OF LOGS IS SUCH an important element of log-house design, architects generally select the log supplier early in the design process. After the design is complete and shop drawings have been prepared, the log company cuts the logs and prebuilds the house at its own site to make sure that all the pieces fit before shipment. The house is then taken apart, loaded onto trucks, and driven to its site, where it is reassembled and the roof added to fully load the walls before door and window openings are cut.

Brookline, Massachusetts-based architect David Pill, worked with Alpine Log Homes on a 2,800-square-foot, chinked vacation home he designed on the shore of Lake Sebago in Maine. Pill started with a book of typical details supplied by Alpine, and spent about three months sending drawings back and forth to the company as the design progressed. Architect Howard Backen of Backen Arrigoni & Ross, San Francisco, also opted for the chinked style and lodgepole pine for a 6,500-square-foot Montana fishing cabin he designed.

**Sun Valley House**  
**Ruscitto/Latham/Blanton, Architects**

TO CREATE THE LARGE OPEN SPACES DESIRED within an 8,000-square-foot log residence designed for a client in Sun Valley, Idaho, architect James Ruscitto says he relied on massive log trusses whose members are connected with concealed steel plates and bolts to achieve the desired spans. Everything about the house, intended to invoke the image of an old hunting lodge, is oversized. Ruscitto says he used oversized 16-inch-diameter logs, larger-than-average doors, and wide windows "to trick the eye" into reducing the building's scale. The architect was able to create large expanses of glass by incorporating log post-and-beam framing, which is not subject to movement, to bracket wide areas of glass. Detailing of the building was done in-house since the architects provide the logs for their own projects.

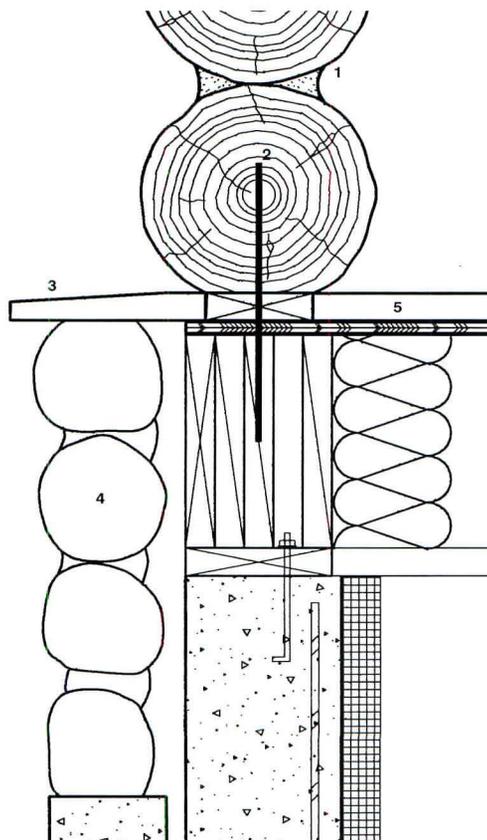
- |                              |                              |
|------------------------------|------------------------------|
| 1 12-INCH-DIAMETER RAFTER    | 4 METAL PLATE                |
| 2 REBAR SPIKES               | 5 BOLT                       |
| 3 18-INCH-DIAMETER OUTRIGGER | 6 LAG BOLTS                  |
|                              | 7 20-INCH-DIAMETER TRUSS LOG |



PHOTOS: DAVID PILL

**Maharam House**  
**Raymond, Maine**  
**Pill/Maharam, Architects**

ARCHITECT DAVID PILL SAYS HE WANTED TO stay within the bounds of traditional log construction techniques in developing the design for a vacation house on Lake Sebago in Maine. "I wanted to work with the logs and not against them," recalls Pill. As is typical for this type of construction, perimeter log walls are connected through a pressure-treated bottom plate to the foundation with 10-inch spikes that are countersunk in the bottom course of logs at regular intervals. Since logs are seldom available in lengths of more than 40 feet, it is usually necessary to splice them to build an exterior wall. That splice, in which the abutting logs are connected with metal strap ties, takes place at the intersection of a perpendicular wall so as not to create a point of weakness.

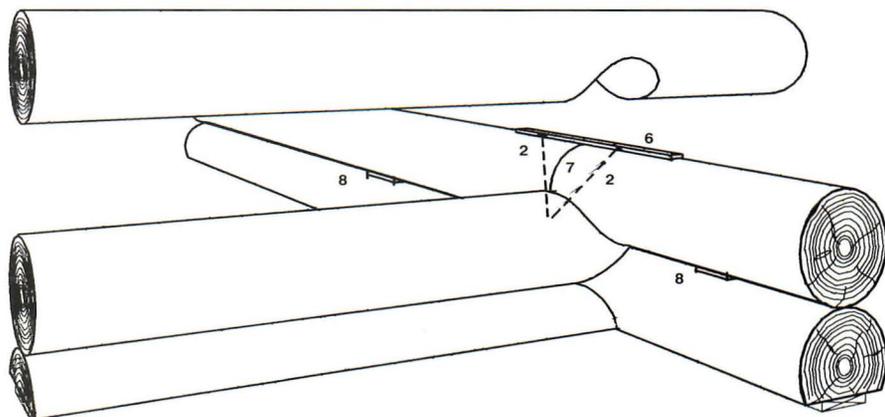


- |                      |                    |
|----------------------|--------------------|
| 1 LOG WITH CHINKING  | 5 FLOORING         |
| 2 SPIKE              | 6 STRAP TIE        |
| 3 LEAD-COATED COPPER | 7 SPLICE           |
| 4 STONE VENEER       | 8 PLYWOOD BLOCKING |





JONATHAN STONE



SPLICE POINT CONNECTION DETAIL

One challenge in designing a log structure, says Backen, is insulating the walls. Because there is no wall cavity in which to hide insulation, architects must rely on the properties of the logs themselves for warmth. Logs have an R-value of about 1.25 per inch, so a typical 10- to 12-inch-diameter log will provide a value of from R-12 to R-15—not high enough for the cold climates in which many log homes are constructed. Architects often compensate for low R-values by adding insulation at floors, framed gables, and roofs to improve the structure's insulation value.

But not all architects are willing to accept log construction's limitations. James Ruscitto of Ruscitto/Latham/Blanton in Sun Valley, Idaho, explains that his firm sometimes incorporates hidden steel to achieve the strength required for longer spans and to carry larger loads. For an 8,000-square-foot house constructed of oversized 16-inch-diameter lodgepole pine logs in Sun Valley, Ruscitto inserted a range of steel plates and bolts within openings in log truss members to strengthen the trusses. Ruscitto points out that supporting the roof with these massive, steel-reinforced trusses freed him to use more glass than is typical in a log structure, especially in the front wall, which "became almost a curtain wall." The house's large windows were positioned so they would be least affected by log movement, and thick vertical log supports were added to further secure the edges of windows.

To completely avoid log shrinkage and movement, some architects are taking log construction one step further, creating hybrid designs that combine log construction with frame construction. Janet Jarvis, a Ketchum, Idaho-based architect, approached an 11,000-square-foot Wyoming mountain residence this way. Although the house appears exactly like a log structure built in the Swedish coped style, it is actually a frame construction with half-round logs fastened with wood screws to studs on either side. Jarvis specified half-logs of standing dead lodgepole pine, cut to mimic traditional wood-on-wood coped joints. The ends of the full-round logs were left whole and cut to fit together in a traditional saddle-notched joint.

As for hand-peeled logs, they are still being hand-peeled. "All the high school drop-outs in Vernon, British Columbia, work as peelers, using double-handled drawn knives," says Jean Steinbrecher. "That is, they do it until they decide it would be better to go back to high school."

—VIRGINIA KENT DORRIS



Avis Employee-Owner  
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# Large Firm Realities

Principals of eight offices dispel the myths of corporate practice.

IN 1984, FRUSTRATED BY THE ABSENCE OF A FORUM for large architectural firms to discuss their common problems, Harold Adams, principal of Baltimore-based RTKL Associates, invited leading AIA member firms nationwide to convene in Washington, D.C. "We had a great turn-out and found the experience to be incredibly valuable," recalls Adams. The group, which has become known as the AIA large firm roundtable, has met twice a year in different host offices across the country ever since. Founder Adams remains its ongoing chair.

These roundtables are an opportunity for principals to share information and insights on the latest developments in the profession. Recent topics have included design-build, governmental procurement of architectural services, and continuing education.

Over the years, from 35 to 40 firms have been represented at the meetings, although a typical session draws 25 to 30 principals. To join, a firm must have at least 50 registered architects on staff, and its chief executive officer must be the active participant. Several auxiliary groups have spun off from the principals' roundtable: financial officers and human resource directors of large firms also meet on a regular basis to discuss issues that affect their work.

Although allied with the AIA, the large firm roundtable is not an official committee nor a task force within the institute. But it does pro-



**Harold L. Adams, John C. Gaunt, Wilson Pollock (front row, left to right), Rex M. Ball, Robert Packard, Sheldon Fox, Jerome J. Sincoff, Benjamin T. Rook (back row, left to right).**

vide a vehicle for large firms to express their opinions to the institute in unison. And this is no small voice. Notes Adams, "Our group represents as many as 10,000 architects."

Because large firms employ the majority of practicing architects today, and therefore significantly influence the profession, ARCHITECTURE invited eight principals of the AIA large firm roundtable to participate in a panel discussion last October. Panelists dispelled the long-standing myth that design plays only a supporting role in large firms. They argued, in fact, that many corporate firms actively encourage innovative design by inviting academics to review ideas, arranging firmwide critiques, and structuring mentoring programs to attract and develop young talent.

The eight principals also outlined changes within their practices to cope with the recession. "Rather than just offering design, we're putting the financial, marketing, sales, legal, and environmental teams together to make something happen," adds Benjamin T. Rook of Odell Associates.

Small firms have much to learn from these large firms. According to Rook, many firms have an inferiority complex because they offer the same services in a poor economy, and have failed to seek out new ventures. Maintains Rook, "We as a profession just have to pick ourselves up by the seat of our pants and reassume our natural role." —N.B.S.

## Roundtable Participants

### Harold L. Adams

RTKL Associates  
Headquarters: Baltimore  
Offices: Dallas; London; Los Angeles; Tokyo; Washington, D.C.  
Firm size: 500

### Rex M. Ball

HTB  
Headquarters: Oklahoma City  
Offices: Washington, D.C.; Dallas; Tulsa  
Firm size: 200

### Sheldon Fox

Kohn Pedersen Fox Associates  
Headquarters: New York  
Offices: London  
Firm size: 285 (including Kohn Pedersen Fox Interior Architects)

### John C. Gaunt

Ellerbe Becket  
Headquarters: Minneapolis  
Offices: Kansas City; Los Angeles; New York; Tokyo; Washington, D.C.  
Firm size: 1,060

### Robert Packard

Zimmer Gunsul Frasca  
Partnership  
Headquarters: Portland, Oregon  
Offices: Newport Beach, California; Seattle  
Firm size: 160

### Wilson Pollock

ADD  
Headquarters: Cambridge, Massachusetts  
Offices: none  
Firm size: 60

### Benjamin T. Rook

Odell Associates  
Headquarters: Charlotte, North Carolina  
Offices: Greenville, South Carolina; Richmond; Tampa  
Firm size: 230

### Jerome J. Sincoff

Hellmuth Obata & Kassabaum  
Headquarters: St. Louis  
Offices: Dallas; Hong Kong; Kansas City; London; Los Angeles; New York; San Francisco; Tampa; Tokyo; Washington, D.C.  
Firm size: 900

## One of the problems in managing a large firm is maintaining project teams of 50 while maintaining a consistent office and design philosophy.

*Besides size, what qualities and working methods distinguish a large firm?*

**Jerome Sincoff:** The overriding quality of the large firm is its diversity of people, bringing different points of view to our clients, and to the projects.

**Rex Ball:** While we may have some small projects that we enjoy, most of us are organized to deliver a result to very large clients, who generally have the same type of structure that is reflected in our organizations.

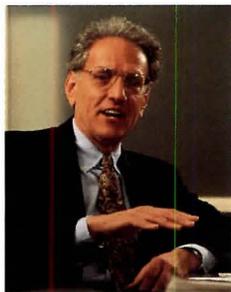
**Benjamin Rook:** We have the advantage of being able to weather the peaks and valleys of the economy. We certainly found that true in the last two or three years. If you have three or four specialties, one or two will

be pretty strong. You can shift multitalented people to these various specialties.

*Wilson Pollock, you once said, 'We're not a large firm, but we think like a large firm.' What did you mean by that?*

**Wilson Pollock:** My perception of the large firm—we are now half of what we were at one time—is that it's businesslike. It has to do with goal setting, organization, and following through on an orderly basis. I know a lot of smaller firms that don't think in those terms. Thinking like a large firm means trying to determine exactly what your company should be and investing in your firm to try to accomplish your goals.

**John Gaunt:** There is an aspect of very large firms that I'll call decentralization, and I don't mean geographically. It's very different from a small firm, with one, two, three, or even four partners and a very clearly understood, highly centralized mission, strategy, and culture. When you have 1,000 people in six offices, as we do, you try to extend that culture. It wouldn't make any sense to have six offices if they were all going to be operating with different strategies. But it is quite a challenge to have together, in a cohesive whole, a highly decentralized system with very strong leaders and a very strong culture. Communication becomes a really significant factor. We have communications strategies that a small firm doesn't require. In a small firm, you just do it, you're there. We deal with a firm as an organism, rather than a network of offices that connect in certain ways.



Jerome Sincoff

**Harold Adams:** I view the large firm as a group practice, with a greater ability to provide specialists than an individual practice. We are always breaking our practice down into smaller groups. We have always felt that the 30 to 35-person group is an ideal size for an architectural firm that could handle almost any site or project.

We break our office down into that size group so that they're large enough to share people, share projects, and get a handle on virtually any size project. In addition, I believe that the future of our firm will come not necessarily from the home office, but from the people who have grown up in the regional offices they've created. One of the most wonderful things about opening an

office is it continues to empower and to give opportunity for young people to grow in an office. It's a self-renewal process.

*How do you respond to the clients who would rather go to a small firm because they can get personal attention with the principal working directly on the design?*

**Gaunt:** In our case, we're structured to give any client essentially a small office. It works quite naturally. We may assign 50 people to a team for the duration of a project. It constitutes a small office. We try to retain that team for continuing clients. We have to break through the perception of the big corporation as being impersonal.

**Sheldon Fox:** One of the problems in managing a large firm is maintaining those teams while maintaining an office philosophy. You don't want anyone to feel that you have 10 small offices working within one office. It's got to be 10 offices that are like 10 children with the same parents. That's one of the hardest jobs you have in a large firm. Getting that cross-balance between project teams so that they all work the same way.

**Sincoff:** Most of us have experiences with very small offices, so we understand what it means to relate to clients. Whether it's a 10-, 20-, 30-, 50-, or 100-person organization, it's still the relationship to the clients and projects that is most important.

**Pollock:** In terms of sustaining a client, it's down to a one-on-one situation between the team leader and the client. It's important that the client perceive the leader as being empowered to represent the company.

**Gaunt:** I went from a very small firm to a very large firm. What immediately struck me was that the process was essentially the same. It is people dealing with the client to satisfy that client's design needs. I very seldom hear a client express any concern that this process is somehow impersonal. The nature of the process simply builds a relationship very quickly.

**Adams:** I only hear the comment about being impersonal from small firms trying to create a negative image of large firms. It's an individual meeting and chemistry with the client in every instance.

**Rook:** And it really boils down to the reputations of the individuals, more than that of the firm, in fact.

*A lot of architects in small firms have negative images of large firms in the area of design. How does a large firm encourage design innovation, especially now that the recession is pushing back your fees?*

**Adams:** It's true that we have to work harder in encouraging cutting-edge design in large firms. Many of the institutional projects that we're selected for are by their nature much more difficult to be cutting edge. We were

very sensitive to this point a few years ago, and therefore started a whole process with educational institutions: creating fellowships within various universities, bringing in critics. An outside critic comes from North Carolina on a monthly basis to our Baltimore-Washington office. He reviews projects to discourage the momentum of an organization that can stifle design innovation.

**Rook:** The three deans of local schools come into the firm once a month to do similar things. We also try to decentralize the design decision-making process. We have studios that range from Deconstructivism to Postmodernism to historical work, and we feel that this brings a healthy attitude within the firm. We're not recognized specifically for one style of architecture, but we do multiple styles, and we find that is more appealing to younger designers.



Rex Ball

## The challenge within the large firm is to create an environment in which younger designers have some sense of ownership in the projects.

**Adams:** That may be one of the problems of larger firms. You have so many approaches that there is no single statement.

**Gaunt:** There are a number of designers in our firm that really do innovative work. And it isn't just in our New York office. We specifically encourage it in each of the offices. And we are demanding about it. We have critiques between offices. We expect very high standards, and we simply empower those people to operate as design principals. It's part of the decentralization attitude that I was talking about earlier.

**Fox:** All of us, as architects, are trained as designers. That's what drives most firms. We also give architects experience they don't get in a small firm. One of our designers said that he worked with a famous architect in a six-man office. He did nothing all day long because the head of the firm was always out, trying to get work or at a meeting. He couldn't do anything until the boss got back. In our office, we give people responsibility on our major projects very early in their careers.

**Sincoff:** Many large firms developed with designers as the principals. The firm culture follows the leadership of prominent designers in the firm. There are extremely talented younger architects who are working every day on wonderful projects in some of the larger firms in the country. It's just a little more difficult for them to get the kind of recognition that one can get in a small-firm environment. But the talent, energy, and creativity are there.

**Robert Packard:** In a large firm, you have opportunities that are as interesting and challenging as you could find anywhere. The challenge is to create an environment in which the younger designers have some sense of ownership in those projects. And that's not always easy. They can be relegated to a piece of a complex project and not feel like they are dealing with a greater whole.

**Ball:** You have to have a client who is interested in cutting-edge design to do cutting-edge design. We all have had that kind of client and have done that kind of work, but it won't be every job. But on the standpoint of being competent, contextual, and contributing to the community and client, the stan-

dards have been raised significantly throughout the profession.

*How do you attract young talent?*

**Roork:** The reputations of designers within your office serve to attract the younger designers. They will have read about them, or seen something that they've done that inspired them. We try to nurture that in our firm and have our designers serve as recruiters. They go out and teach and interact with students.

**Ball:** Your magazine plays a major role in this respect. A published project will carry the name of a project manager and a project designer.

**Gaunt:** There are architectural firms that are more businesses than they are design firms, but I

think what we're talking about here are firms that are design firms. And if you are declarative about that, it's a tremendously contagious thing. You can't stop it. I'm with an architectural firm that came from being service-oriented, to having a very, very strong design direction.

*How did that transition happen?*

**Gaunt:** Well, it happened over a period of years. You set a mission to do it, and you put strategies in place to do it, and you say, 'there's going to be a change.' If you can carry support for design in whatever you do, you almost can't stop it from happening. It's a powerful idea, it's what everybody wants to do, and you have to keep it in balance with all of the management systems that a large firm requires. It's very inspiring to watch the whole thing happen, and I've seen that in other firms too, not just our own. It's a matter of being very clear that you're going to do it, and then empowering people to do it, and rewarding them for doing it.

*How do you reward them?*

**Gaunt:** The rewards are verbal and financial. Having projects published in any of the leading journals is a terrific reward. So are awards, publications, and financial rewards.

**Fox:** Unfortunately, because of the terrible pay scale, the architectural profession can't reward people for the kind of effort they put in.

Instead, people walk away with the satisfaction of being involved in the design of a major project. The amount of effort and hours that people put in architecture, compared to any profession, is unbelievable, and rewards, financial or otherwise, are very minimal.

**Packard:** Every day you have people making decisions that you hope will remain consistent with the mission. If the mission is design and that's preeminent in the firm, then you encourage decisions, whether it's about a project or a management-related issue, to be consistent or supportive of the notion that design is important. This occurs at all different levels: people that you hire, systems that you set up, the teams that you set up, the people that you put on these teams.

**Pollock:** You encourage design in the firm by not discouraging the designers. By not cutting them off at the knees when it's time to go to the client. By showing support for design innovation.

**Adams:** We have a forum twice a year in which we bring our young designers together from all of our offices. They create their own momentum, with traveling exhibits and a variety of things that keep design in front of the entire organization all the time.

**Gaunt:** We do exactly the same thing, twice a year. What I've found is when you bring the design principals from six offices together, there is tremendous pressure on people to do well, to show good work.

Fortunately, it creates more of a supportive environment than it does an antagonistic one. Because you can have that too—you can have studios competing against one another. We've all seen that in various firms. If you can create a supportive environment in which expectations are high, and there is a high rate of exchange between them, it sets up expectations for high quality work that everybody can work toward.

**Roork:** In addition, we take trips to see buildings. All the designers, 20 people, will spend four or five days in New York or Columbus, Indiana, critiquing important buildings as we walk through them. Everyone in the firm wants to go on that trip. It becomes a perk, something to strive for, something that people look forward to.



Harold Adams



Wilson Pollock

## The small office today is equally competitive with the large office, simply by creating the proper strategical alliances with other firms.

**Fox:** The design philosophy has to permeate every level of your firm. The successful offices do not separate design from production. The designers are working with the production people at all times. Any projects that we're dealing with are three or four years in duration. A lot of things happen to a project within that time period. There are so many modifications that occur that you are always dealing with the design all the way through. Design never stops.

**Ball:** Design is a way of life, not just something you put on like a coat or a pair of clothes. Good design begins with the small things: the graphics of the firm, business cards. And then, of course, your own office makes a statement of what you're all about.

**Sincoff:** We get designers together once or twice a year as well, in different offices each time so we can visit the cities, see the buildings, work with one another, talk with one another. It really like a master's class. Because everybody is working on it, thinking about it, and actually doing it. These are the practitioners, these are the people who are really doing the design.

*How has getting work changed since the recession? Is it forcing you to experiment with new practice techniques?*

**Sincoff:** In the United States, the marketplace is only two-thirds the size of a few years ago. And many more people are trying to get part of the entire design and construction process in one way or another. We're not just competing against our colleagues, but against a whole host of other players. Everybody's trying very hard and responding in different ways, such as specialization. There aren't as many specializations as there were a few years ago, because some building types are not in the marketplace.

**Rook:** And everybody is in competition now. With the teaming, with the strategic alliances, with all the things that the profession uses to be more competitive. The small office is equally competitive with the large office, simply by the proper strategical alliances. A small local firm that's wired politically and chooses the right partner is very formidable. We're having to be a catalyst for our projects, to make people realize that they need architects and that maybe the

definition of an architect is a little different. Rather than just design, we're putting the financial, marketing, sales, legal, and environmental teams together, to make something happen. It's exciting to me, because I think it puts us back in the leadership role with the program managers and construction managers and all these guys out there that say we want to be king. We should be king.

**Pollock:** I've found that clients are becoming a lot more sophisticated, and it has changed our practice tremendously. We are now doing a substantial amount of predesign service. We are analyzing alternative locations and alternative buildings for clients who are contemplating moving, and we're doing a lot more program analysis to try to make more efficient use of their existing space.

**Adams:** Clients are much less willing to take risks today. If you don't have a special expertise, you have much less of a chance of entering the door.

**Packard:** There are so many more architects who are working as clients. They know the questions to ask, and they're not willing to take that off-the-brochure rationale that we could get away with for a long time. The questions are now much more demanding.

**Ball:** One of our more innovative developments is "out-sourcing," where we actually become the in-house architect of the client. We actually will hire other architects, landscape architects, engineers, or contractors, whatever they need for a specific assignment.

**Fox:** The nature of projects has changed because of the recession. We've found in recent years that our association is

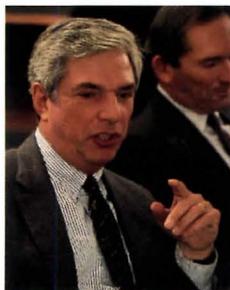
much greater than ever before. We're not doing it by choice, we're doing it because clients are driving it.

*Is that putting pressure on you to shrink?*

**Rook:** We're not shrinking, but we're not growing.

**Gaunt:** A lot of the comments made here suggest that large firms should become small firms. But I don't see the dynamic that takes us to being a smaller firm, at least not at this

point. Our ability to give clients comprehensive services is really powerful in many instances. We have clients for which we are doing predesign services, planning and programming, design architecture, engineering, construction administration, and pre- and post-construction services.



Sheldon Fox

**Sincoff:** A large firm has the ability to do the comprehensive assignment, but also has the ability to unbundle it into several little pieces of service that are very valuable to a client. Let's say you've had a client for quite some time, they don't have a great big project right now, but because they're your client, they may need this little part or that little part, which could mean work for you.

*Are you focusing on specialties you always had, or are you expanding into new ones?*

**Packard:** When you have a broad-based practice, it enables you to respond to certain cycles in the market and different building types. Some types, like healthcare, for example, are not ones you dip in and out of, so you have to maintain a level of knowledge that is commensurate with where the clients are. We found that a broad-based practice helped us survive the ups and downs of the economy.

**Gaunt:** A large firm by its nature has specializations, and they will grow very naturally. The recession has forced the fine-tuning of those, and some of those specializations just drop off. When there's no commercial work going on, you don't have a commercial practice. But when it regenerates, those firms that want commercial work will do it.

**Fox:** We've gotten into types of work other than commercial, but it's been very difficult. We were probably forced more than other firms to do overseas work because we didn't have a diversification within the U.S. with healthcare and other markets.

**Rook:** In our area, the recession has increased the stock of the multidisciplinary firm because it continues to have work. Architects are drawn to us. Just in the past week or two, we hired five or six people who we have been trying to get for years.

**Sincoff:** This notion of specialization is being driven by clients. The whole change in the economics in this country has made clients more sensitive to what they're doing with their



John Gaunt

## Clients are much less willing to take risks today. If you don't have a special expertise, you have a much smaller chance of entering the door.

facilities. If you have a \$30, \$50, \$100 million project, it stands to reason that you'd want to deal with someone who knows something about that. You don't go to an eye doctor for a broken leg. I remember a story that George Hellmuth told many years ago about being interviewed for a small school project. HOK had grown up doing schools, so George thought he knew everything about schools. He went down to a rural school district in Missouri. People on the interview team asked George, 'Now we have this school building and we're going to need 11 rooms. How many 11-room schools have you done?' Of course he had designed schools all over Missouri and Illinois, but he had never done an 11-room schoolhouse, and he didn't get the job! So the attitude has always been there, it's just very exaggerated now because of client sophistication.

**Adams:** And this is worldwide. You go into some small, rather shabby-looking office in a third world country and find that the person you're talking to is very sophisticated, with a stack of brochures from all these guys.

*You talked about clients becoming more sophisticated, but many expect more services for less or more upfront work without compensation. How are you coping with that?*

**Roork:** The nice thing about the sophisticated client is that you can negotiate a sophisticated fee. You can truly sit down with them and negotiate a very tight scope of services for what you are going to provide. If you get that outlined before you begin, it's a great advantage. Everyone feels good about it.

**Ball:** Even with federal government work, we're starting to see an interest in fees that aren't arbitrarily set at 6 percent, but that are commensurate with more sophisticated projects, which the government's going to be required to do in the future.

**Sincoff:** Many of the government agencies that purchase our services are substituting their staffs of trained architects with an accountant or a secretary who takes a six-week course to become the purchasing agent.

**Fox:** One day they're buying paper clips and stationery, and the next day they're buying architectural services. They treat them both the same way.

**Adams:** That's a nightmare. I'd rather deal with a very informed architect who knows all the

tricks of the trade. The more sophisticated client is much better to work with.

*What's your opinion of bridging, partnering, and total quality management? Are you using these tools?*

**Adams:** Bridging is destructive in my opinion. It is one more fee being taken away from the architect that's going to be paid to a bridging consultant who will then manage the design architect and the production architect for the client. But partnering is one of the best things that's come down the road. It was first conceived by the Army Corps of Engineers. In the beginning of construction, they would have a large group meeting of everyone involved in a project to build trust and understanding among the team. It established a mechanism for communication between the client, tenant, agencies, architect, engineer, contractor, and consultants. It does reduce the number of change orders, the number of problems. We are just starting a new project with the Army Corps of Engineers and had our partnering meeting about two weeks ago. And it was just incredible. Out of it comes a united group.

**Roork:** We've got to partner with the educational system. Right now, there is a big chasm between architecture schools and practice. We have to collectively determine how to educate ourselves to provide the services that clients will need.

**Packard:** We're trying something new with quality control by meeting with a major contractor in Portland. One of the things we began to realize is that his young people and the young people in our office don't really know what the other does. So we are about ready to start taking three or four people in each of our offices and just switching for a couple of days, to have our people watch them put bids together in that last frantic five or six hours when we wondered why the contractor didn't understand the documents. We hope we can increase the understanding and recognition about what pressures each of us are dealing with. It should be beneficial for our firm, and I hope that it is also beneficial for the contractors.

**Pollock:** Encouraging design is one part of quality management. You need to encourage innovation and you need to recognize innovation. And you can spread that right through the company, down to the person that is at the reception desk. You can recognize and understand what each person is doing. That's the way I look at quality management internally, at least. It really means encouraging innovation.

*Fewer firms are growing from small to medium to large. Is the large firm becoming a dinosaur? Are you the last of a dying breed?*

**Adams:** I think we may see more firms forming alliances. In the U.K. it's quite common to have a large organization of

maybe 800 people that is an alliance of partnerships, of specialists that can then market themselves as a large entity. In the future, growth may not occur through the old mechanism, but we could have larger firms grow through this new mechanism.

**Gaunt:** I'm amazed at how a large firm can remain very stable even through a recession. I think the reason is that there's a kind of clientele for whom the large firm works very effectively. This clientele wants the kind of comprehensive service that only a very large firm can offer.

**Fox:** I've been in practice almost 40 years now, and we're delivering architecture the same way we did back in 1955. But the next 40 years are not going to be the same. I don't think any of us sitting around this table know what it's going to be. A high-tech corporation could develop a process for producing drawings, and we may have to buy into that service and be a very different kind of practice.

**Roork:** The architect is losing ground rapidly, and it's time for us to restructure some of the ways that we've done things in the past. Program managers, lawyers, accountants, construction managers, environmentalists, and bankers are chipping away at what we have done historically. It's time for us to assess what we can do to regain a position of strength. I think the form and the definition of what an architect is 40 years from now, or even 10 years from now, will be different from what the architect is today.



Robert Packard



Benjamin Roork

*How should the profession change to regain leadership?*

**Roos:** We need to be more proactive about what we do. Rather than have a lawyer say this is what we need to do about zoning issues, we need to be the ones giving form to that. If you've worked with 65 developers and then you go to one as a client, you must know more about how to develop that building than that one developer. We need to get paid for that.

**Pollock:** We're being attacked the strongest in pre-design services, where we've lost quantity take-off capabilities, and cost-estimating capabilities. And that's where we have to work the hardest to show clients we can do it.

**Adams:** Because of the insurance crisis of the last 10 years, the profession tended to walk away from areas that required taking risks. The future will require us to be bigger risk takers, going in and offering services that you would not otherwise offer to a client. And you will find that the clients are looking for ways to change. Corporate America wants to get out of the areas it doesn't know much about, such as facility management. That leaves a great opportunity for the architect.

**Packard:** We've spent long hours talking

about losing ground to lawyers, accountants, construction managers, project managers, on and on. But we also have to be candid and realize that clients have gone to many of those people because architects haven't done the job as well as we should have.

**Fox:** Years ago, we may have had four or five special consultants on a major job. Now we have 10 or 12 consultants on every job we do. We used to do those things ourselves, be responsible for them. Now we pass all those things out, so we've eroded our role.

**Gaunt:** We gave estimating, for example, to construction and project managers, supposedly because we didn't handle it well. Most architects do some form of estimating anyway to protect themselves, so there's double and triple estimating going on in these projects.

**Adams:** The construction managers have taken a very large chunk of the fee and they've got themselves at the client's ear. The architect no longer has the client's trust. We have to whisper in the ear of the construction manager, who whispers in the ear of the client.

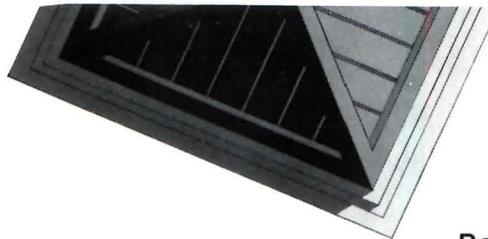
**Pollock:** We have a large corporate client that is now so attuned to needing a project

manager because he is afraid that the architect is so invested in the design that he or she would not give a fair number. The current perception is that architects are going to burn, not represent, the client.

*What do small firms have to learn from you?*

**Packard:** I hope that small firms learn from us that they shouldn't be overwhelmed by the management side of practice. If they want to have a three-person office, they ought to learn how to structure what they want to do to support that. Large firms use management systems to support what they want to do, rather than be servants to them.

**Roos:** There's a lot that the large firms can do to assist in continuing education programs. But more than anything, large firms can give others the confidence of what we as architects can do. A lot of the firms where I perform peer reviews have inferiority complexes. And the reason is that they're in a bad economy, and they're still trying to practice the same thing. They haven't looked for other avenues of what they could be doing. We as a profession really just have to pick ourselves up by the seat of the pants, step out, and reassume our natural role. ■



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# Site Design Software

CAD looks beyond the building to topography and landscaping.

IN THE PAST, CAD IMAGES TOO OFTEN PORTRAYED buildings without sites or with surroundings that were flat and featureless. Likewise, civil-engineering programs that could model complex sloped sites were not integrated with architectural software. Now, site design software is bridging the gap between engineering and architecture. These programs include graphic tools for laying out site elements such as planting, parking, and irrigation; calculation procedures for sizing these elements and estimating their cost; and 3D representations that allow them to be incorporated into rendered perspectives. Several of the available programs are modules of larger, integrated packages.

An example of this integration is Arris Site Design and Drafting, which works with a broad array of other Arris software. With it, architects can construct contour maps from survey information and lay out buildings, parking, utilities, sidewalks, and plantings. John Carroll, vice president of master facility

programs at the University Hospitals of Cleveland, used the software to design and present a plan for incremental development of his campus over a seven-year period. Among the obstacles he faced were a constricted, landlocked site, the need to keep the hospitals operational during construction, and the need to persuade review boards and community groups that his proposals were sound. With the Arris software, he developed a sequence of models, which he rendered in 3D, that showed the site development quarter by quarter, for seven years. The series showed phased demolition and construction, temporary shuttle services to help visitors navigate the construction sites, and optimum locations for the construction cranes. "If I had tried to explain in words what I was proposing," Carroll admits, "people would have thought I was crazy. For example, I wanted to tear down a parking garage that was only six years old and conveniently central to the campus. But when I showed the overall development through time, everyone could

agree it made sense." Carroll also used the Arris images in brochures to explain the changing campus access routes to the public. Showing the site development in 3D was critical for persuading the lay audiences.

## Topographical models

AN IMPORTANT ROLE OF SITE DESIGN SOFTWARE is to transform surveyors' data into contour maps and other forms that architects can use in their CAD systems. Numerous programs are available that accept spot elevations and other field data, calculate and draw contour lines, and then generate digital terrain models (DTMs). These 3D models portray the variations in sloped sites as an undulating mesh, as a stepped "wedding cake," or as triangulated irregular networks (TINs). All of these forms are built from a mathematical representation of the three-dimensional topography. Users can manipulate the computer models to grade slopes for roads and buildings.

David Willenbrock is a landscape archi-



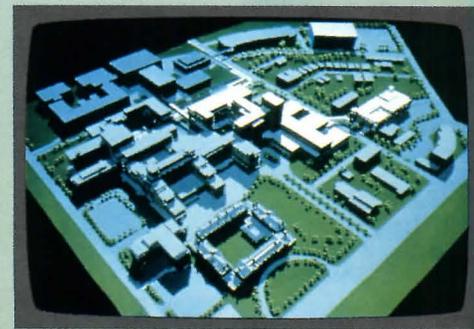
AMAP

**Advanced Modeling for the Architecture of Plants (AMAP)** is distributed in North America by Design Vision. The AMAP Growth Engine simulates plant growth over time, with botanically correct growth by species, age, and season. With AMAP LandMaker, architects can add realism to their 3D models by creating gardens and urban scenery with realistic topography and atmospheric effects.



ArcCAD

**ArcCAD**, from the Environmental Systems Research Institute, brings geographic information systems (GIS) technology to AutoCad. Several site plans can be viewed at once with dimensions for selected buildings shown below. Buildings are color-coded by type, and street center lines and parcel boundaries are also displayed. GIS data is provided in both graphic and nongraphic formats.



Arris Site Design and Drafting

John Carroll, vice president of master facility programs at the University Hospitals of Cleveland, has modeled his campus with Arris Site Design and Drafting from Sigma Design. Site planners, citizen groups, and university board members can better visualize relationships between buildings through perspective views of the site. A sequence of such views simulated construction over seven years.

tect with the L.A. Group in Saratoga Springs, New York. His firm uses a variety of civil-engineering and landscape-design modules from Softdesk. He appreciates the automated cut-and-fill calculations, which determine the amount of earth to be removed from the site or the amount to be brought in. "These earthwork calculations used to take an immense amount of time," he relates. "Now we can equalize cut and fill as part of our design process, instead of waiting till the end and seeing how close we got." Willenbrock finds the Softdesk modules useful for a multidisciplinary firm because the same model can be used throughout the design process. When DTM programs are modules of, or are compatible with, architectural design systems, the architect can place a CAD model of a building into the digitally defined site. Other such systems include Unix-based MountainTop Site Design, the AutoCad application ASG TOPO, LANDesign and LANDview for Macintosh, and MicroStation-based SiteWorks.

Form-Z, an architectural solid modeler for Macintosh, now offers digital terrain modeling. Working from contours that are either imported into the common DXF format or drawn within form-Z, the software can create mesh, stepped, and triangulated models. Madis Pihlak, a landscape architect and professor at the University of Maryland at College Park, has been working with his students in designing trails for a hilly nature park in Takoma Park, Maryland. He credits form-Z

with helping students visualize the terrain. "The site has a road right-of-way that is so steep," Pihlak says, "that the road was never built. The students are changing it into a staircase with landings. They work with 1-foot contour lines to understand exactly how earth has to be moved around and where retaining walls need to be." The students place these walls and pathways in the terrain within form-Z with the same editing functions they would apply in developing architectural forms.

### Representing landscape

ANOTHER FEATURE OF SITE DESIGN SOFTWARE is the representation of trees, shrubs, and ground cover. Several programs provide graphic symbols for plant layout and keep track of the plants that have been placed for cost-estimating purposes. Plant databases help users to find trees and shrubs that meet particular color, size, growth, and shape requirements. In many cases, these plants are represented not only by 2D but also by 3D symbols, so they can be easily incorporated into rendered images of the building and its site. One example of such software is Landscape Designware, a MicroStation application. Its plant database lists quantities, scientific and common names, and sizes. In plan, it features plant labeling and shadowing, and the layouts can also be projected into 3D.

Landscape Designware user Kathy Prefling is a landscape designer with Wheat-Gallagher in Tucson, Arizona. She appreciates being able to customize the database by

adding plants suitable for the arid Southwest. The firm uses the software for counting the plants in a design scheme for project cost-accounting, and it plans to use the program to evaluate its designs in 3D for visibility. "In the planting master plans we do for the state and the county roadway projects," Prefling explains, "we need to make sure that visibility is maintained for drivers at intersections." Other planting design software includes ASG Site Design, LandCADD, and Softdesk Landscape. AutoCad-compatible Advanced Modeling for the Architecture of Plants (AMAP) simulates plant growth over time, with attention to species, age, and season.

### Site construction

A THIRD IMPORTANT FUNCTION OF SITE DESIGN software is its ability to lay out roads, driveways, sidewalks, parking lots, site furniture, exterior lighting, and other site construction. In some packages, such as Arris, Landscape Designware, LandCADD, and Softdesk Landscape, the tedious job of laying out parking is automated. An architect specifies the number, size, and location of the desired stalls, and the software prepares the layout.

Kathy Miller of Miller Landscape in Rochester Hills, Michigan, developed the site design for GE's "Smart House," a demonstration of the state-of-the-art in residential automation and conservation, using LandCADD. The precision allowed by this AutoCad application was important to the project for several reasons. The Smart House



form-Z

**Madis Pihlak, a landscape architecture professor at the University of Maryland, has his students model this hilly park site in form-Z from autodessys. The model enabled them to visualize the terrain and propose trails and retaining walls. Digital terrain modeling is increasingly implemented with architectural software to facilitate the integration of buildings with sloped sites.**



LandCADD

**The Smart House is a state-of-the-art energy-conserving demonstration house in Detroit, Michigan. Landscape designer Kathy Miller developed the site for the project and modeled it in LandCADD, an AutoCad application from LandCADD International. This software facilitated the placement of landscape elements and provided the flexibility required when project definitions changed midstream.**



M-COGO

**M-COGO is coordinate geometry software from Engineering Desktop, designed for multiuser PC networks. Coordinate geometry packages accept surveyors' field data, generate contour maps, and facilitate map editing. The software is aimed at civil engineers, but is of interest to architects because it runs inside Intergraph's MicroStation, smoothing the integration of site and building designs.**

included an underground geothermal heat exchange system that traversed the property. Miller recalls: "Identifying the exact location of that system was critical during landscape excavation. Also, LandCADD let us measure the brick-edged driveway precisely so that the bricks fit without needing to be cut."

#### Irrigation layout

A FOURTH FUNCTION COMMONLY FOUND IN these programs is irrigation design. This allows the architect to locate sprinkler heads and specify spread patterns. Some programs size the heads and pipes, but, according to Willenbrock, this can become technically complicated. He recommends that architects use the software for schematic layouts, then hand them over to an engineer or landscape architect for final system sizing and cost estimation. Programs that offer irrigation support include ASG Site Design, LandCADD, Landscape Designware, and Softdesk Landscape.

#### Disciplinary unity

AS COMPUTER HARDWARE IMPROVES IN power, allowing professional software to grow more complex and extend into allied fields, the boundaries between engineering, architecture, and landscape architecture are blurring. Site design software is one example of how technology is permitting architects to offer their input in areas once off-limits.

Another example is the gradual integration of CAD applications and the important field of geographic information systems

(GIS). Such systems are used at the regional, national, and global levels in mapping geographic data. But GIS and CAD are similar in that they both seek to integrate graphic data with nongraphic information. Just as the distinctions among design fields are less clear-cut, so are those between GIS and CAD.

ArcCAD is AutoCad-compatible software from the Environmental Systems Research Institute (ESRI), which is best known for its GIS software. ArcCAD can display what may look like a conventional CAD site plan, but each graphic entity contains links to sophisticated relational databases. At any scale, not just geographic, ArcCAD's graphic entities can be queried and analyzed based on any combination of spatial, graphic, and attribute criteria. With the simpler CAD databases, users could answer questions such as "How many buildings on this map are zoned commercial?" By contrast, ArcCAD "understands" the graphic and nongraphic data topologically. So, for example, a user may widen a street on a city map and ask "How many square feet does each commercial lot lose by this street widening?" The capacity to link overlays of graphic elements with calculations promises tremendous potential for site analysis within CAD systems. Some experts believe that nongraphic data manipulation, rather than improved graphics, will eventually make CAD invaluable to architects. Today, GIS is strengthening site analysis capabilities. In the future, watch for GIS to shift its analytic focus to the building. ■

—B.J. NOVITSKI

## Landscape Design Software

<b>AMAP</b> Design Vision (416) 585-2020	<b>LANDesign</b> Landview Compuneering (416) 738-4601
<b>ArcCAD</b> Environmental Systems Research Institute (714) 793-2853	<b>Landscape Designware</b> IdeaGraphix (404) 352-5110
<b>Arris Site Design and Drafting</b> Sigma Design (617) 270-1000	<b>M-COGO</b> Engineering Desktop Solutions (801) 373-6110
<b>ASG COGO</b> <b>ASG TOPO</b> ASG (415) 332-2123	<b>MountainTop Site Design</b> Accugraph (800) 678-1061
<b>form-Z</b> autodessey (614) 488-8838	<b>SiteWorks</b> Intergraph (205) 730-8434
<b>LandCADD</b> LandCADD International (303) 688-8160	<b>Softdesk Landscape</b> Softdesk (603) 428-3199



**MountainTop Site Design**

**Site Design** is a module of Accugraph's MountainTop CAD and Information Management System. It offers digital terrain modeling that is compatible with MountainTop's 3D modeler, facilitating the integration of site and building. Site Design also offers perspective views, cut-and-fill calculations, and slope analysis. Points may be digitized or imported numerically from contour maps.



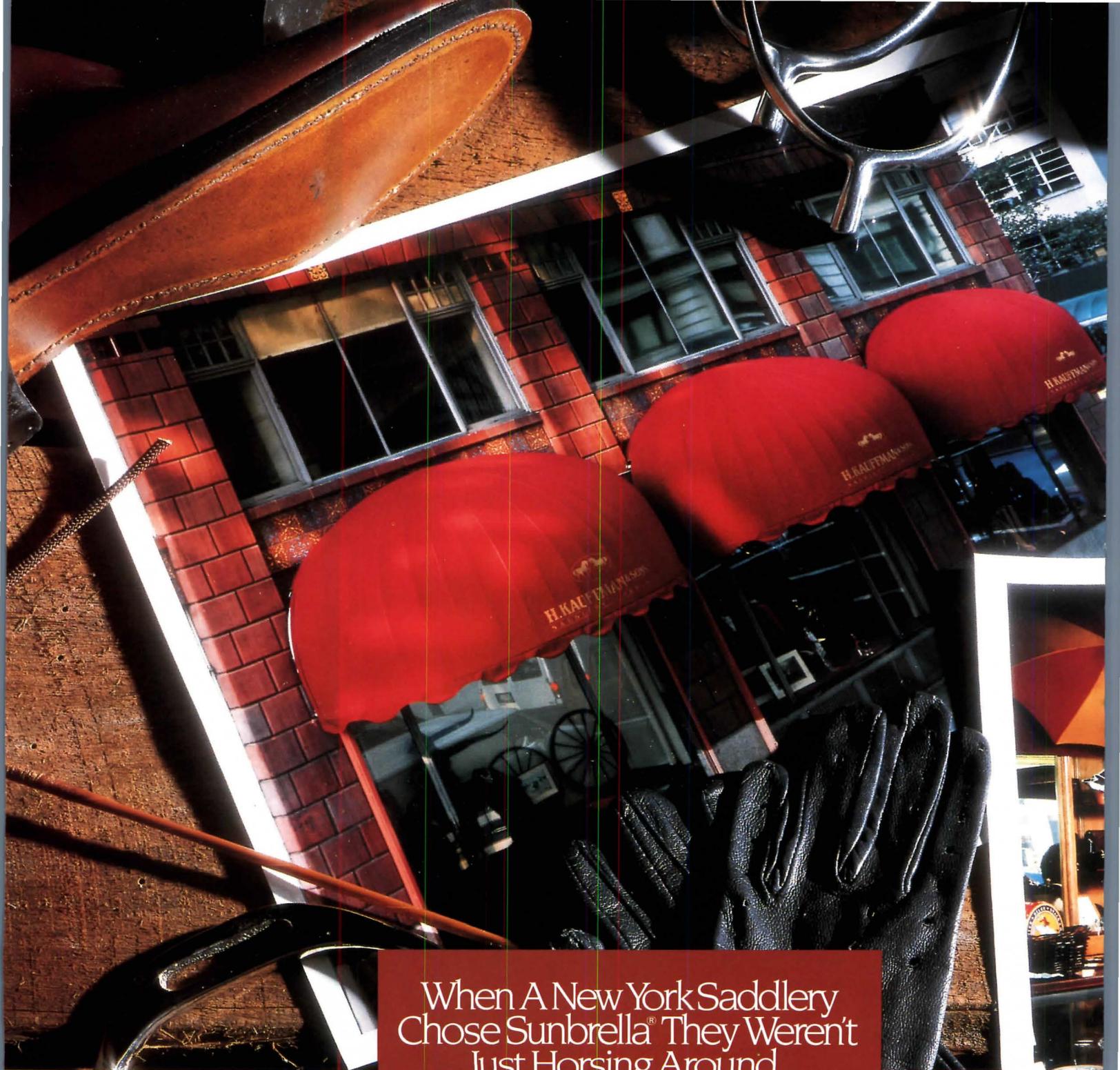
**SiteWorks**

**SiteWorks** from Intergraph works with digital terrain models, generating perspectives, cross sections, labeled contours, and other views. A variety of calculation procedures assist in the analysis of stockpile and landfill volumes. SiteWorks is integrated with software for building design and structural modeling and is based on MicroStation, available for PC, Unix, and Macintosh platforms.



**Softdesk Landscape**

Softdesk's Landscape software supports landscape designers in an integrated process, from concept through schematic design and development to construction documents and landscape maintenance. Database contains plant-materials data and aids in selections appropriate for particular soils and climates. Irrigation design is facilitated through symbol libraries, calculations, and head schedules.



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**ADA COMPLIANCE SIGNAGE.** INNERFACE makes it easier to comply with the new Americans With Disabilities Act (ADA) standards for signage. INNERFACE OFFERS: Sign Survey Analyzes; Compliance Signage; A Solid 21 year history; National Representation & Distribution; Economical Attractive Signage; Modular & Changeable; Rapid Response. INNERFACE also offers a complete line of interior and exterior signage. Call 1-800-445-4796 for a free brochure.

Circle 2.

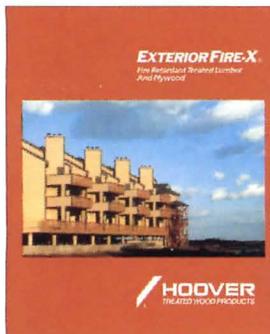
## CROWNaluma CORP.



**Maintenance-Free Lattice System.** Aluminum frames/rails designed for use with CROSS VINYLattice provide a complete, easily installed, durable lattice system. Ideal for balcony and utility enclosures, building facades, fences and trellises. Entire installations can be shipped in pre-assembled sections thus reducing labor costs and waste. CROWNalumaCORP will custom fabricate to meet special design or code requirements. For quotation send drawings to 3174 Marjan Dr., Atlanta, GA 30340. Phone: 800-521-9878, Fax: 404-457-5125.

Circle 4.

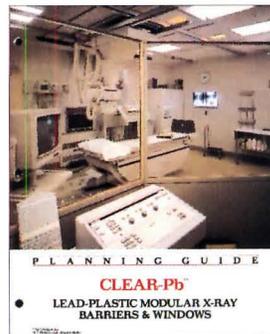
## Hoover Treated Wood Products, Inc.



**NATIONAL EVALUATION REPORT ISSUED.** PYRO-GUARD third generation fire retardant treated lumber and plywood is thoroughly strength-tested at high temperatures for roof sheathing, trusses and other structural applications. NER-457 on PYRO-GUARD contains strength adjustments and use recommendations based on a 50-year predictive period. Like all NER reports, it is subject to re-examination, revisions, and possible closing. Hoover Treated Wood Products, Inc.

Circle 6.

## Nuclear Associates



**FREE X-RAY ROOM PLANNING GUIDE.** Made of lead-impregnated, transparent plastic, CLEAR-Pb® X-Ray Room Shielding from Nuclear Associates provides complete radiation protection with panoramic viewing in hospital x-ray, CT and special procedures rooms. Features include pre-fabrication for quick on-site assembly, shatter-resistance, 200 stock sizes, choice of lead equivalencies. Free CLEAR-Pb Planning Guide available.

Circle 8.

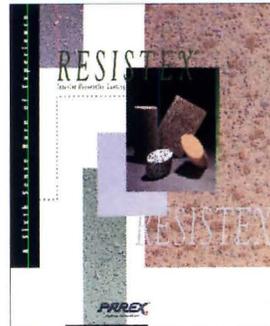
## Transwall Corporation



**TRANSWALL'S PRIVATE & OPEN PLAN PARTITIONS ENHANCE OFFICE SPACE.** Transwall offers a full line of private and open plan office partitions. All systems include a wide choice of fabrics, baked enamel finishes and trim. Work surfaces, storage units and accessories readily interchange between lo and hi-wall. Free-standing computer support furniture blends with panel-mounted work surfaces. Electrical and electronic support is system integrated. For more information call 1-800-HI-1-WALL.

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## Parex Inc.



**Resistex®** - Durable interior decorative wall coating for heavy traffic areas where durability and design are necessary. Resistex is the ideal wall coating for heavy traffic areas such as lobbies, hotel and hospital rooms, schools, etc. It is available in any desired custom color and various Finish coat textures. Resistex is mildew resistant, vapor permeable and scrubable. It can be sprayed or troweled onto a variety of substrates for retrofit as well as new projects. To receive Resistex literature, call 1-800-LEP-AREX (537-2739).

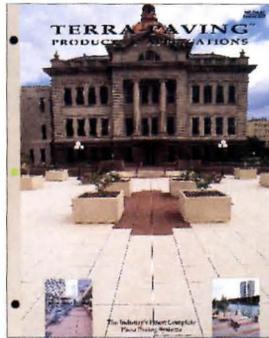
Circle 12.

## Wausau Tile Inc.



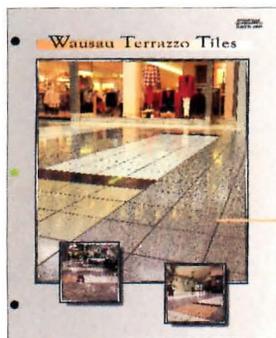
**Terra-Form** Division of Wausau Tile celebrates the company's 40th anniversary with several new products in its 36-page 1993 catalog. Featured are waste containers, tables, benches, planters, signs, ash urns, bollards, and recreation products, all of solid reinforced concrete. Hundred of styles, colors and finishes are shown. Custom products available. Shipped from WI, FL and CA. Wausau Tile Inc., (800) 388-8728, FAX (715) 355-4627. **Circle 14.**

## Wausau Tile, Inc.



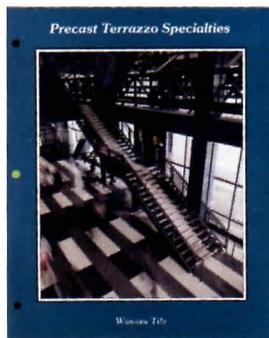
**Terra-Paving** Division of Wausau Tile is recognized nationwide as the leading source for precast concrete pavers and the unique complete roof/plaza deck system "Terra System One." The full color catalog illustrates installation methods for a variety of roof deck and on-grade applications. Terra-Pavers are available in custom or stocked colors and surfaces in several sizes. Test results exceed all others. Wausau Tile, Inc., (800) 388-8728, FAX (715) 355-4627. **Circle 16.**

## Wausau Tile, Inc.



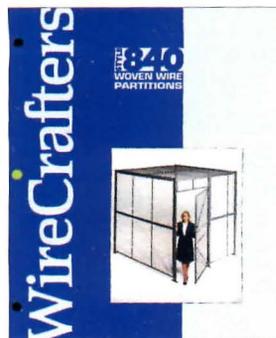
**Wausau Terrazzo Tiles**, from Wausau Tile's Terra-Paving Division provide all the benefits of traditionally installed terrazzo at a fraction of the cost and with even more versatility. Polished and slip-resistant "New Rustic" finishes are pictured in full color in the 1993 catalog. Tiles are available in dozens of stocked colors or in custom colors. They are nominal 12" sq. x 7/8", and weigh 10 lbs. They are installed by the tile trade. Made in the USA. Wausau Tile, Inc. (800) 388-8728, FAX (715) 355-4627. **Circle 18.**

## Wausau Tile, Inc.



**Precast Concrete and Terrazzo** from the Terra-Paving Division of Wausau Tile is the industry leader for solid concrete and terrazzo tread & risers, base, copings, column covers, wall panels and other custom architectural precast items. All can be manufactured to match Wausau Terrazzo Tiles, Terra-Pavers, or Terra-Form site furnishings. Literature illustrates standard options and shows typical applications. Established in 1953. Wausau Tile, Inc. (800) 388-8728, FAX (715) 355-4627. **Circle 20.**

## Wire Crafters, Inc.



**Wire Crafters Style 840 Partitions** are strong, versatile, and reasonably priced. Four and five foot high modular panels stack, one on top of the other, to form partition walls 8', 9', 10' or up to 40' high. All assembly hardware is obscured from the partition's exterior, providing an extra measure of security. A full line of hinged and sliding gates are available. Send for our eight page color brochure. Wire Crafters, Inc., 6208 Strawberry Lane, Louisville, KY 40214-2929, FAX 502-361-3857, TOLL FREE 800-626-1816. **Circle 22.**

## California Redwood Association



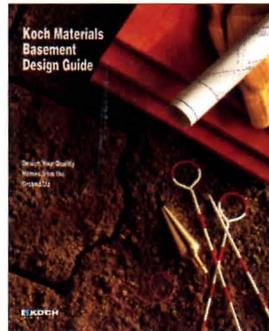
**REDWOOD LUMBER GRADES AND USES - NEWLY REVISED GUIDE TO SPECIFYING REDWOOD.** Free four-page color booklet is a visual exploration of the range of grades, grains and textures available to those specifying redwood. Photographs of each grade make it easy for specifiers and consumers to visualize finished appearance. The booklet also offers a useful guide to specialized grades and redwood grademarks. CALIFORNIA REDWOOD ASSOCIATION, 405 En-frente Drive, Novato, CA 94949, 415-382-0662. **Circle 24.**

## Envirospec, Inc.



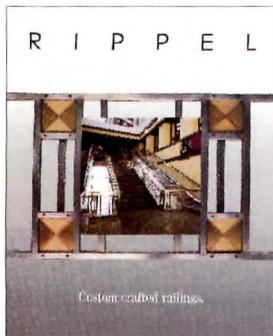
**A PRACTICAL SOLUTION TO ROOF PAVER STONE APPLICATIONS.** New bulletin shows a better way to transform a roof into a patio, terrace, balcony, walk-way, plaza podium, promenade, or just plain roof deck, using the Pave-El Pedestal System. Designed to elevate, level, and space paver stones for drainage in any weather, Pave-El reliably protects roof, paver stone, membrane and insulation. Enviro-spec, Inc., Ellicott Station Box 119, Buffalo, NY 14205 (716) 689-8548. **Circle 26.**

## KOCH Materials



**This brochure highlights construction techniques and design considerations** that help make the basement into a livable space. By using these recommendations and Koch Materials' Tuff-N-Dri Exterior Foundation Waterproofing System, leaky basement walls can be eliminated. The system comes with a 10-year limited warranty. **Circle 28.**

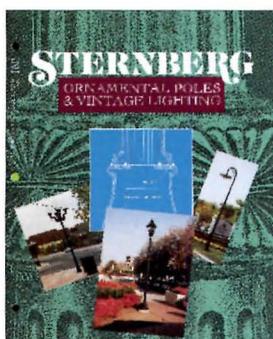
## Rippel Architectural Metals, Inc.



**Custom Crafted Railings** of stainless steel, aluminum and bronze are a specialty at Rippel Architectural Metals. We are committed to quality craftsmanship in the fabrication of custom railing systems and ornamental components for a variety of architectural applications. Rippel has over 45 years of experience and professional competence to create your vision. Call (312) 772-0600.

Circle 30.

## Sternberg Vintage Lighting



Sternberg's NEW 1993, 64-page color catalog shows over 40 styles of ornamental poles, 48 styles of fixtures and many lighted bollards for use in commercial and residential installations. Over 40 new fixtures, poles, bollards, bracket arms and fitters are shown. Welded, single unit durability (even the candy-cane poles) and vandal resistant cast aluminum construction make Sternberg products the best products available today.

Circle 34.

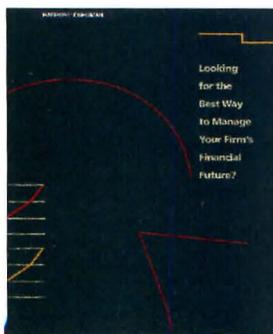
## Adams Rite Manufacturing Co.



**Exit devices** — 32-page catalog shows Adams Rite Mfg. Co. touchbar exit devices Series 8000 (listed for life safety) and Series 3000 (listed for fire doors rated up to 3 hours). Ten finishes of aluminum, brass, bronze and stainless materials are shown along with various matching entry trim, electric operation, monitoring and other options. Contact: Adams Rite Mfg. Co., 4040 S. Capitol Ave., P.O. Box 1301, Industry, CA 91749; 213-699-0511, Fax 213-699-5094.

Circle 38.

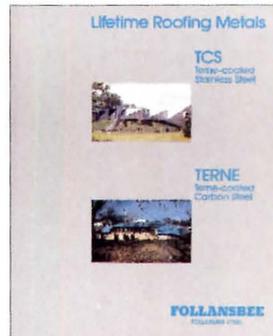
## Harper and Shuman, Inc.



**Financial Management Systems.** The only systems sponsored by the AIA. Harper and Shuman develops, sells and supports financial management software specifically for architectural and engineering firms. CFMS (Computer-based Financial Management System) runs on the DEC VAX and MICRO/CFMS runs on PCs and networks. A modular approach lets you buy only what you need. Call today 1-800-872-4050. Harper and Shuman, Inc.

Circle 42.

## Follansbee Steel



**Two Lifetime Roofing Metals.** Two roofing metals are manufactured by Follansbee Steel. TCS, terne-coated stainless steel, is 304 architectural stainless steel coated with a terne alloy. Terne is copper-bearing carbon steel coated with the same terne alloy. TCS does not require painting and weathers naturally to a warm, attractive gray. Terne requires painting with TerneCoat, a two-paint system developed by Follansbee.

Circle 32.

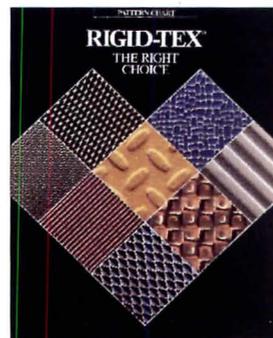
## Xypex Chemical Corporation



**Concrete waterproofing by crystallization.** Although applied as a slurry coating, Xypex is a chemical treatment which waterproofs by penetrating the concrete with a crystalline formation which 'plugs' the pores of the structure preventing water seepage. Xypex is ideal for use on the 'inside' of wet underground structures. Xypex Chemical Corp. 604-273-5265.

Circle 36.

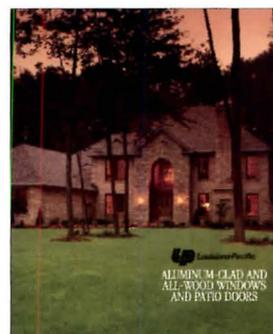
## Rigidized® Metals Corp.



**TEXTURED METALS BY RIGID-TEX.** Rigid-TEX® metals combine beauty and durability in Rigidized® and etched metals. Dozens of patterns and custom designs for interior and exterior use. For elevator doors and interiors, column covers, walls, ceilings, entrances, signage and trim. Available in a wide selection of metals, gauges, sizes and colors. Rigidized® Metals Corp, 658 Ohio St, Buffalo, NY, 14203-3185, (800) 836-2580.

Circle 40.

## Louisiana-Pacific



**Aluminum-Clad and All-Wood Windows & Patio Doors.** Louisiana-Pacific's wood windows and patio doors are available with three types of exteriors including aluminum-cladding; a factory-applied high performance coating (48 colors available); and with a primed wood exterior. Available in all the basic styles, plus complementary round-tops and custom shapes. Double-insulating glass is standard and high performance glass is available.

Circle 44.

## LinEl, Inc.



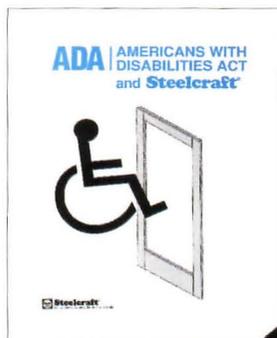
Innovative architects have always sent LinEl through the roof, but now they drive us up the wall. . . . From the same source of quality LinEl skylights comes LinEl wall. A new metal wall system designed to solve wall panel problems. No added sealants, no exposed seams, no caulked seals, easy to install. Let us send you all the details.  
**Circle 46.**

## CertainTeed Corporation



**Thermal & Acoustical Insulation Catalog.** CertainTeed Corporation is offering a new catalog describing its complete line of fiber glass insulation products for residential and light commercial applications. Contains important data on availability by size and R-Value, latest energy standards and code information.  
**Circle 48.**

## Steelcraft Manufacturing Co.



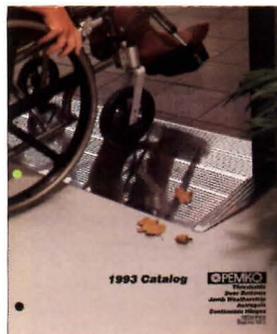
**AMERICANS WITH DISABILITIES ACT.** A catalog that explains the ADA requirements for doors and frames is now available from Steelcraft. Covered in this catalog are the minimum door width and how it is determined, floor clearance requirements, and lock locations. To obtain your free copy of Catalog No. 586, write to Steelcraft Manufacturing Co., 9017 Blue Ash Road, Cincinnati, Ohio 45242, or call (513) 745-6400.  
**Circle 50.**

## Raynor Garage Doors



**Full line reference catalog** supplying tech data on sectional overhead type doors and operators for commercial and industrial application. Features Raynor TriCore, a 3" thick door with a solid insulating core and a mechanically interlocked thermal break for maximum thermal efficiency.  
**Circle 52.**

## Pemko



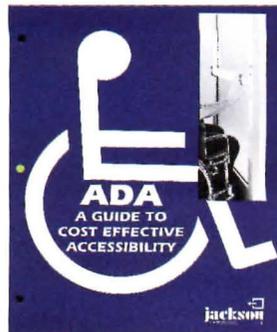
**WEATHERSTRIP/THRESHOLDS/DO OR SILLS/GASKETING.** Pemko's full-line catalog illustrates a broad line of weatherstripping and threshold products. Pemko offers many fire labeled, smoke labeled, barrier-free access, sound tested, and custom fabricated products. New products include: ADA compliant ramp threshold assemblies, PemkoHinge™ -continuous geared hinge, non-handed reversible automatic door bottoms, a series of locking astragals and smoke-labeled gasketing.  
**Circle 54.**

## International Conference of Building Officials



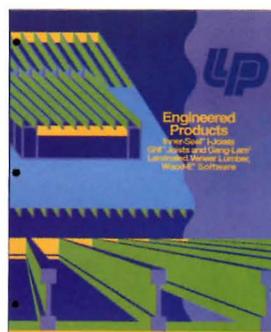
**1991 UNIFORM CODES AVAILABLE ON CD-ROM.** Current editions of the *Uniform Building, Uniform Mechanical, Uniform Plumbing, and Uniform Fire Codes* are now available from ICBO on one CD-ROM. You can instantly retrieve code information by subject, phrase, key words or "word proximity"; scan chapters for desired provisions, scroll page by page, and obtain print-outs. For information, call (310) 699-0541, ext. 264.  
**Circle 56.**

## Jackson Exit Device



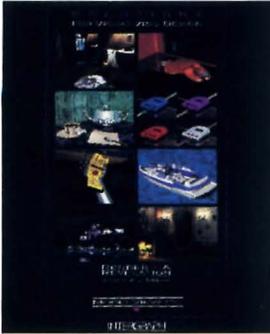
**ADA CLEAR WIDTH PROBLEM SOLVED.** You don't have to make costly door changes to meet ADA standards. The narrow profile, Jackson 2100 series exit devices are the only panic bars now available that meet the 32 inch ADA requirement in existing 36 inch doorways. Send for this free brochure today. Call 800-533-6229. CA only 800-585-6533.  
**Circle 58.**

## Louisiana-Pacific



**Engineered wood products** are designed to eliminate the common problems of solid sawn lumber. Gang-Lam LVL, Inner-Seal I-Joists and GNI Joists are stronger, more stable and easier to handle than solid sawn lumber. Catalog includes span and uniform load charts, and information on new Wood-E® Cut and Wood-E® CAD engineering software also available.  
**Circle 60.**

## Velux-America Inc.



**NEW VELCAD SOFTWARE** - Velux introduces first CAD software designed exclusively for roof windows and skylights. Designed in Microsoft Windows™ 3.0. Operable within or out of AutoCAD®. Accommodates two levels of user experience. Can generate and receive DXF files. Allows printing of detail drawings and specs and, with AutoCAD, manipulation of elevations, drawings and schedules. Contains a drawing viewer for printing and viewing head, jamb and sill details. VELUX AMERICA INC.

Circle 62.

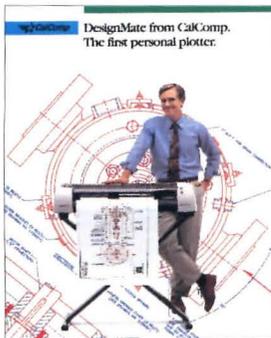
## Spacesaver Corporation



With a Spacesaver high-density mobile storage system you can double your filing and storage capacity. And because all our products are custom designed, you can use our systems in any number of places you never thought possible. For more information, call us at 1-800-492-3434. Spacesaver Corporation, 1450 Janesville Ave, Fort Atkinson, WI 53538-2798.

Circle 64.

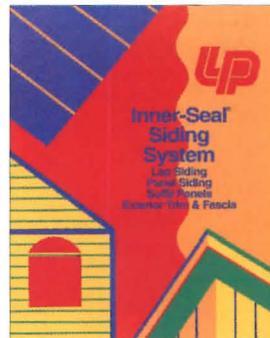
## CalComp



**LARGE FORMAT 8-COLOR PLOTTER FOR PRICE OF MONOCHROME OR SMALL-FORMAT PLOTTER.** Eight-page brochure describes CalComp's new low-priced DesignMate pen plotter. The brochure details the plotter's versatility (it plots on ANSI 1-through 4-size media, on desktop or optional stand); ease of use; unmatched reliability;; and unsurpassed plot quality. Illustrating the brochure are full-color reproductions of actual plots produced on a DesignMate, including architectural drawings and renderings. FREE COPY.

Circle 66.

## Louisiana-Pacific



**A complete line of exterior products made from Inner-Seal OSB** - lap and panel sidings, soffit panel, trim and fascia board, with a protective overlay that's pre-primed to hold paint and stain longer. Uniformly strong and consistent composition throughout. Exceptional moisture resistance to prevent warping, splitting and buckling.

Circle 68.

## Intergraph Corporation



**ModelView PC Rendering and Animation Software.** Through photorealistic renderings and computer animations, ModelView PC meets designers' needs to visualize and communicate project design during every stage of development. Modelview PC allows the user to establish perspective, lighting, and surface features and qualities in models, and interactively apply colors and materials to raytraced images. Compatible with Intergraph's MicroStation 3D design files and DXF-translated files.

Circle 70.

## Louisiana-Pacific



**Made from 100% recycled newspaper,** Nature Guard insulation costs less than fiberglass and has a 3.8 R-value - the highest available. Its fluffy, natural fibers completely seal the wall cavity, resulting in lower air infiltration and greater sound absorption. And it helps keep our environment cleaner.

Circle 72.

### For further information on Architecture's Literature Portfolio:

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Johnson & Associates  
1625 Oak Hill Road  
Chester Springs, PA 19425  
Phone: 1-800-642-4866  
Fax: 1-215-983-0655

# Weather-Resistant Windows

New insulated glazing systems boost energy efficiency.



**1.** Hurd Millwork's Insol-8 aluminum-clad windows and patio doors incorporate insulated glass by Southwall Technologies. The glazing system comprises two clear sheets of insulating film suspended between two panes of glass, three gas-filled insulating chambers, a nonconducting spacer, and a gas-retention system. Circle 401 on information card.

**2.** Kolbe & Kolbe manufactures curved, double-hung windows in wood with insulated glazing. The line is available with a range of molding profiles and curved pediments. The company also produces custom windows in a

range of glazing options. Circle 402 on information card.

**3.** Pella's Envirometric System offers two types of energy-efficient glazing. SmartSash II comprises two panes of glass separated by a 1 5/16-inch air space, and is purported to reduce energy costs by 17 percent. It is estimated that SmartSash III, which incorporates three panels of glazing, reduces heating and cooling bills by 28 percent. Circle 403 on information card.

**4.** Pozzi Wood Windows manufactures 4,000 wood window frames and components for new and renovated houses. The company's line includes casement and picture windows that can be capped by a radius strip. A choice of narrow or standard bar grilles is also available. These elements are removable for cleaning. Circle 404 on information card.

**5.** Andersen Windows introduces a line of wood-framed roof windows that includes stationary, tilting, and venting models. Exterior sashes and frames are covered with polyurethane-coated aluminum.

Each version is available in nine sizes. Circle 405 on information card.

**6.** In addition to wood windows and doors, Weather Shield manufactures the Vision 2000 vinyl fenestration line, designed for energy efficiency in new and remodeled buildings. Circle 406 on information card.

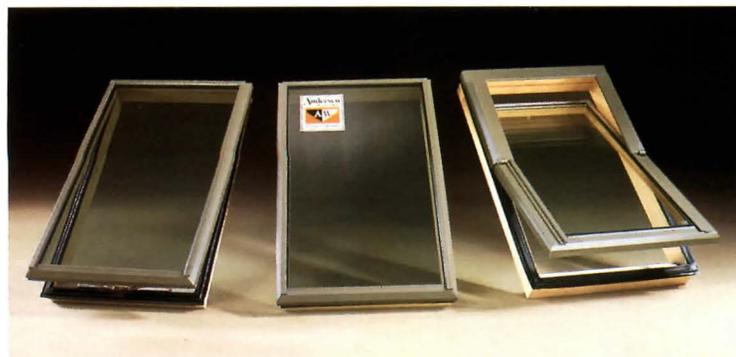
1



2



3



5



4



6



### Rolling doors

The Overhead Door Corporation manufactures the Series 640/641 fire-rated counter door (above) for pharmacies, cafeterias, concession areas, and additional applications. Available in stainless steel or galvanized steel with a baked-on paint finish, the door is raised manually. Transparent panels can be installed for visual effect.

Circle 407 on information card.

### Arched windows

Caradco expands its wood fenestration line to include a series of

arched windows and patio doors. These products are available in custom sizes and offer a variety of glazing types, including: clear, bronze, gray, obscure, and tempered.

Circle 408 on information card.

### Wood-clad windows

Milgard produces a series of standard and custom aluminum windows that incorporate Douglas fir cladding on interior faces. The windows are manufactured with 3/4-inch-thick glazing.

Circle 409 on information card.

### Retaining walls

Versa-Lok, a manufacturer of retaining wall systems, has introduced a 32-page catalog. The publication outlines installation procedures for the wall systems, material-estimating guidelines, and reinforcing tables for different wall heights and soil types.

Circle 410 on information card.



### Tile diversity

Florida Tile manufactures a range of floor, wall, accent, and trim tiles for commercial applications (above). The Natura Tough-One and Natura Granite lines include 8-inch-square and 12-inch-square floor tiles for high-traffic areas that coordinate with the Confetti wall tile series. The Geo tile series comprises a range of geometric shapes for floors or walls.

Circle 411 on information card.

### Roof tile

CCN Clay Roof Tiles of Fort Myers, Florida, has issued its six-page

installation and specifications guide. The company's line includes four profiles: French, Roman, Mountain, and Princeton. The literature includes installation procedures for tile roofs requiring hurricane clips and snow guards.

Circle 412 on information card.

### Period pendant

Rejuvenation Lamp & Fixture introduces the Fifth Avenue pendant, manufactured in solid brass. The fixture is available in a variety of metal finishes and glass shades. It requires three 60-watt lamps.

Circle 413 on information card.

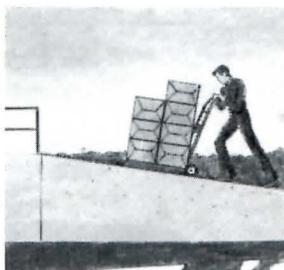
### Emergency lighting

Lithonia Lighting's Quantum ELM, a compact, low-profile, emergency fixture, is designed to be installed within three minutes. The wall- or ceiling-mounted unit incorporates a lead calcium battery and a microchip charger.

Circle 414 on information card.

## "THE DISAPPEARING DOCK"

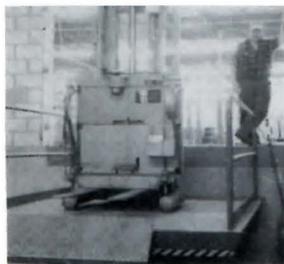
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Circle 84 on information card

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### Houston Instruments

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### Roland Digital

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SP 4821 A-D	3900.00
SP 4830 A-E	4200.00

### Pacific Data Protractor

512K	1050.00
5MB/HPGL	1590.00

### JDL

Autoplotter	2450.00
Omniplotter	Call
Express Plotter	Call
NEW Express Plotter II	Call

### Graphics Cards

Diamond Stealth	230.00
Nth S3	450.00
Nth 124	750.00
Nth 150	Call
Hercules Gold 16+2	395.00
Hercules Others	Call
Photon Video Cards	Call
VMI Video X-256	1695.00
Truevision	Call
NDI Volante	Call
#9 Level 22	960.00
#9 GX Level 25	1295.00
#9 Level 29 Tricolor	1670.00
Arist XJ100 NEW 50 MHz	995.00
Arist XJS 1280-256	1750.00
ATI Ultra Pro 2MB	525.00
ATI Ultra Plus	Call

### Monitors

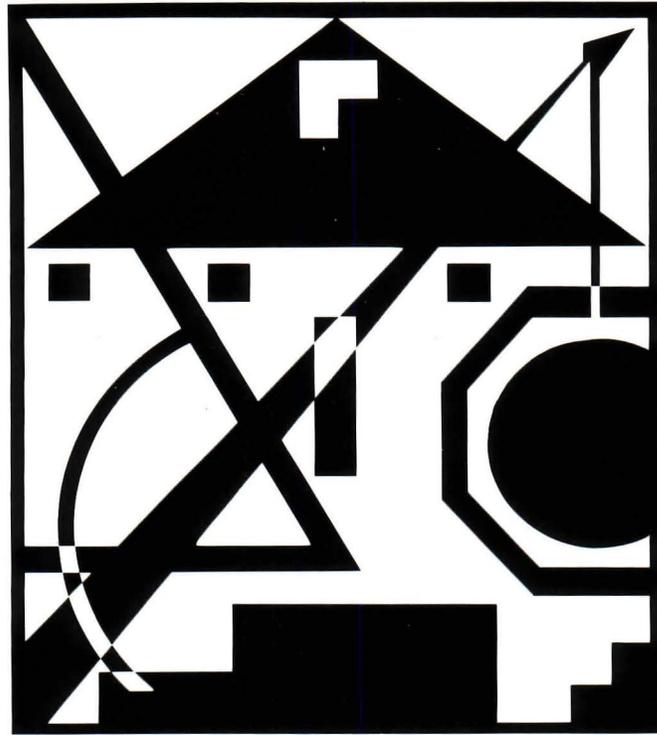
Hitachi 2187M 21"	2295.00
Hitachi 2065M 20"	1325.00
Nanao F550 17"	1100.00
Nanao 1560 17"	1850.00
Nanao 1660 20"	2475.00
Nanao 1750 21"	2050.00
Nanao 9080 16"	940.00
NEC 5FG 17"	1325.00
NEC 6FG 21"	2275.00
Mitsubishi Diamond Pro 17	1150.00
Mitsubishi 6855 20"	1795.00
Mitsubishi 7955 20"	2050.00

Circle 86 on information card

# CELEBRATE THE BUILDING OF AMERICA



*The National  
Building Museum  
celebrates American  
Achievements in  
Building.*



# E

Established in 1980, the National Building Museum focuses on all aspects of building, from the architects' and engineers' role in the original design to the finishing touch of skilled craftsmen.

Become a member of the National Building Museum and see our exhibitions on buildings, construction techniques, landscape design, and architectural drawings; participate in our public programs on issues such as redevelopment in American cities and rebuilding our nation's infrastructure; and enroll your children in education programs on architecture, design, and urban planning. Take part in the annual Festival of the Building Arts where young and old can try their hand at building crafts; receive our award-winning quarterly publication BLUEPRINTS, which keeps you up-to-date on the world of building; and join our tours of construction sites and the museum's home, the landmark Pension Building.

If you are interested in architecture, building, engineering, landscape architecture, preservation, or urban planning, the National Building Museum has something for you. Join today.



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City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

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with proof of enrollment

Contributor \$35

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Sponsor \$100

Benefactor \$250

Patron \$500

Payment enclosed \_\_\_\_\_

Visa Mastercard

Account No. \_\_\_\_\_

Expiration Date \_\_\_\_\_

Signature \_\_\_\_\_

**Mail to: Membership, National Building Museum, 401 F Street NW, Washington, DC 20001**

Make checks payable to the National Building Museum. Contributions are tax deductible to the extent allowed by law.

### Aluminum windows

Produced by Malta, the Monarch collection of aluminum-clad wood windows and doors is suited for residential and light commercial applications. The line includes double-hung, casement, awning, studio, bay, and custom models, in addition to architectural shapes in custom sizes. Swinging and sliding doors are also available.

Circle 415 on information card.

### Versatile covering

Concourse by Eurotex is a tightly woven wool-and-nylon material suitable for covering floors and walls in schools, libraries, stores, and museums. The fabric is manufactured in a variety of colors and is available with a choice of backing options.

Circle 416 on information card.

### Metal ceilings

Hunter Douglas produces a metal ceiling system in 70 colors

that accommodates a variety of panel widths. Panels can also be layered for a variety of effects.

Circle 417 on information card.

### Configuration management

Accugraph Corporation has introduced Version 1.05 of MountainView, a software system designed for configuration management with links to Hewlett Packard's OpenView and IBM's NetView/6000. MountainView includes tools for automated design, network modeling, and graphic links to relational database management systems.

Circle 418 on information card.

### Window finish

Marvin Windows and Doors has introduced a new finish for the company's aluminum-clad, wood-framed products that is manufactured from fluorine and carbon to minimize maintenance.

Circle 419 on information card



### Wall surfacing

Marlite's Surface Systems is a line of wall-surfacing products for office suite and hospitality interiors. Surface veneers include wood, wood fiber, metal (above), high-pressure laminate, phosphate masonry, fiberglass panels, and a range of faux finishes. Panels are 24 inches square or 24 by 16 inches. Three installation methods increase design options.

Circle 420 on information card.

### Tile catalog

Dal-Tile Corporation's 1993 catalog includes installation photographs, specifications, applica-

tion information, and size, color, and trim data for each of the company's products.

Circle 421 on information card.

### Communications network

SmartSystem Network by Dukane Corporation is an electronic communications system for educational settings that allows users to access from the classroom media devices such as VCRs, laser disks, and CD-ROM, through a computer, telephone, or Local Area Network.

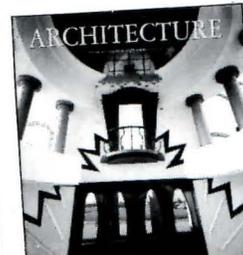
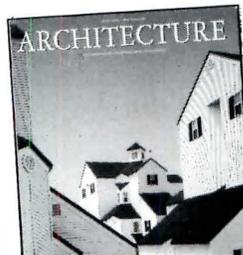
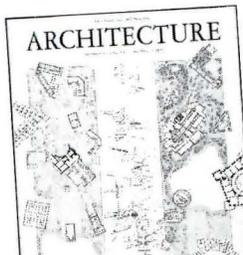
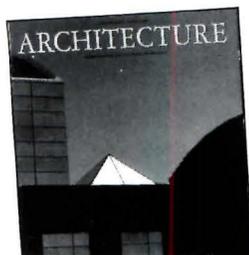
Circle 422 on information card.

### Bath valve

Equilibrium is a pressure-balance valve manufactured by Hansgrohe that regulates water pressure to maintain selected temperatures within 2 degrees Fahrenheit. The valve shuts off if pressure fails due to heavy usage at another water-supply point. ■

Circle 423 on information card.

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Andersen Corp.: In today's designs, it's the brand that helps architects take value to new heights.

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Birdair, Inc.: Send for our free brochure featuring eighteen of our most recent installations. *Circle No. 47*

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Bonneville Power: Find out more about our awards competition. *Circle No. 35*

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CYRO Industries: Send for our abrasion test kit and compare of yourself. *Circle No. 21*

Gold Bond Building Products: We've consolidated our product literature into a comprehensive guide. *Circle No. 43*

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ISICAD, Inc.: Trade-up to CADVANCE for Windows. *Circle No. 45*

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## THE FENCE

*an open design competition*

### JURY

Eric Owen Moss  
Crombie Taylor  
Susan Whitin  
Hank Koning  
Dion Neutra  
Barbara Stauffacher Solomon  
David Gebhard

### CHALLENGE

This ideas competition seeks innovative designs for a fence; one that serves as a model for the security, identity and enhancement of urban neighborhoods.

### SITE

The Village Green is an urban oasis of over 100 multi-family dwellings housing over 600 families on 64 acres within riot torn central Los Angeles. Built as Thousand Gardens and also known as Baldwin Hills Village, The Village Green is an architectural, landscape design and urban planning masterpiece. The Village Green was designed by Reginald D. Johnson and the Firm of Wilson, Merrill and Alexander with Clarence S. Stein as consulting architect. Built from 1938 to 1942. The Village Green is the quintessential manifestation of the Radburn idea.

### PRIZES

Grand Prize	\$7500	Second Prize	\$2500
Third Prize	\$1000	Merit Awards	\$ 250

### CALENDAR

Program available	January 15, 1993
Submissions due	April 22, 1993
Exhibition	May 1993

Registration fee is \$50; fee for students is \$25.

To register, send name, address, and fee to:  
The Fence Competition, PO Box 1332, Culver City, CA 90232  
Phone/fax number is (213) 296-6226.

*NOTE: This competition is privately funded and has received no public monies or support. No offer of a design commission has been made; this is an idea competition only. This competition has no affiliation with The Village Green Homeowners' Association.*

