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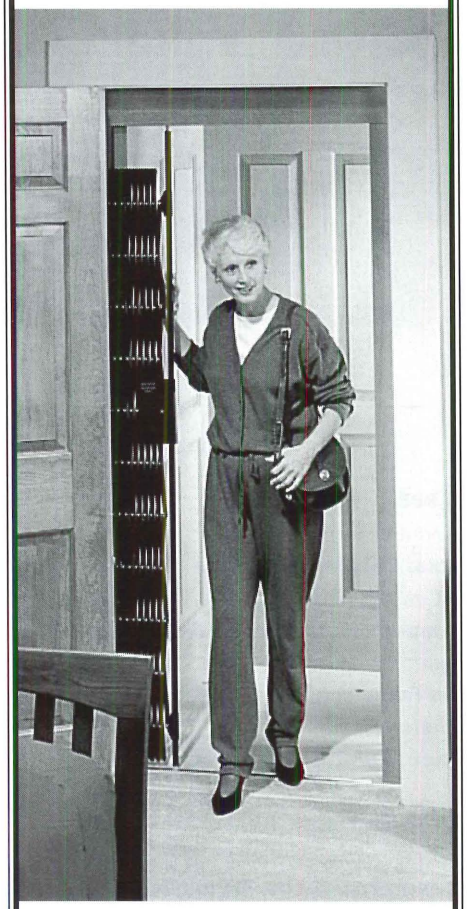

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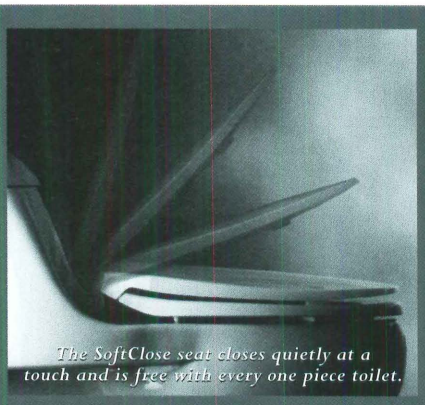

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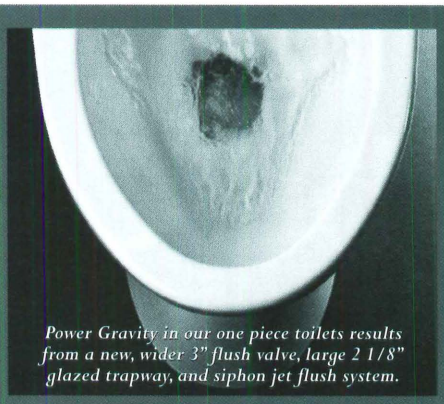

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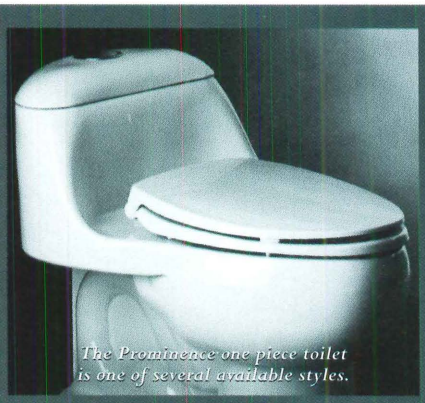

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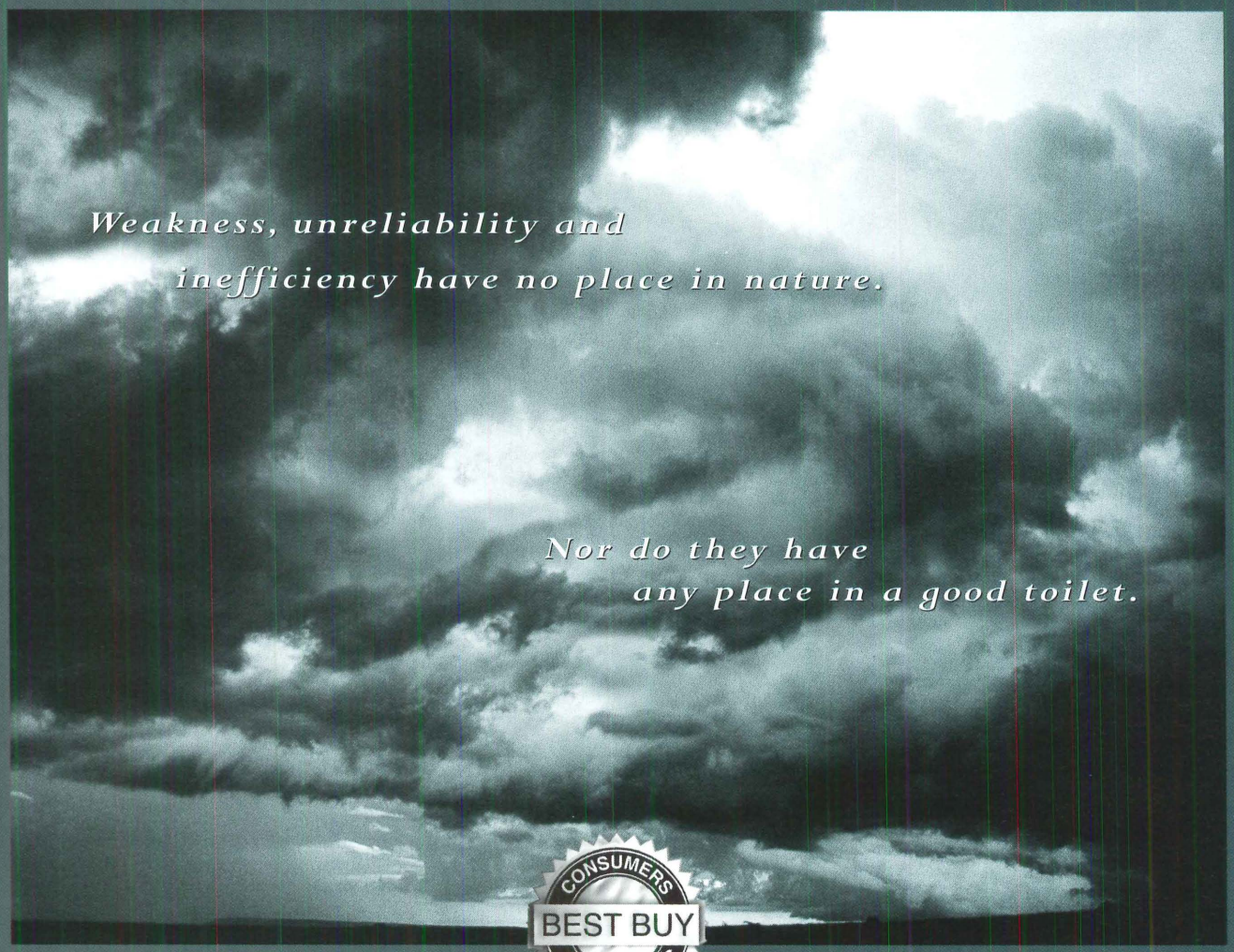

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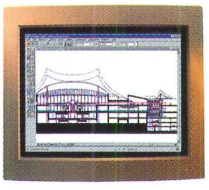

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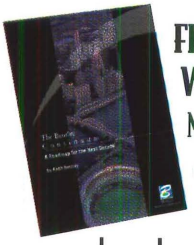

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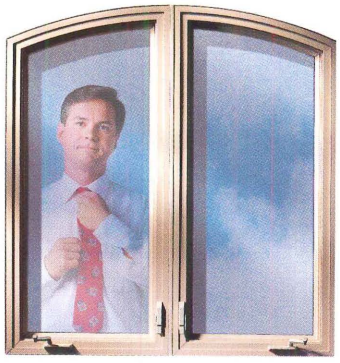

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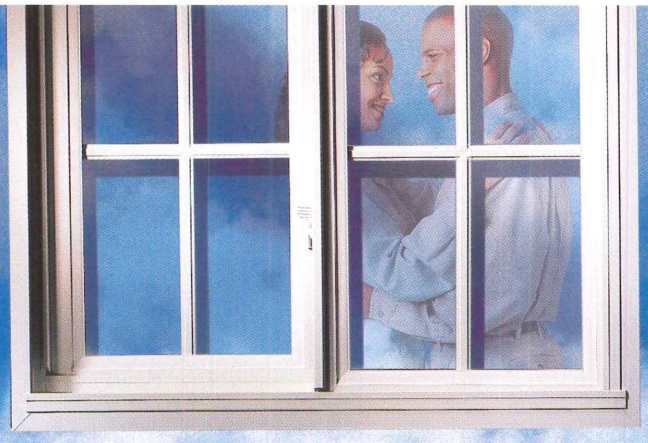

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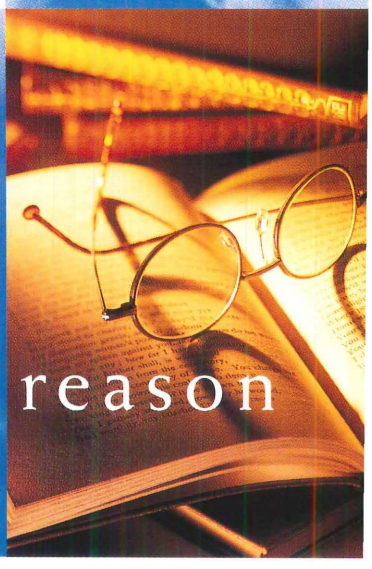

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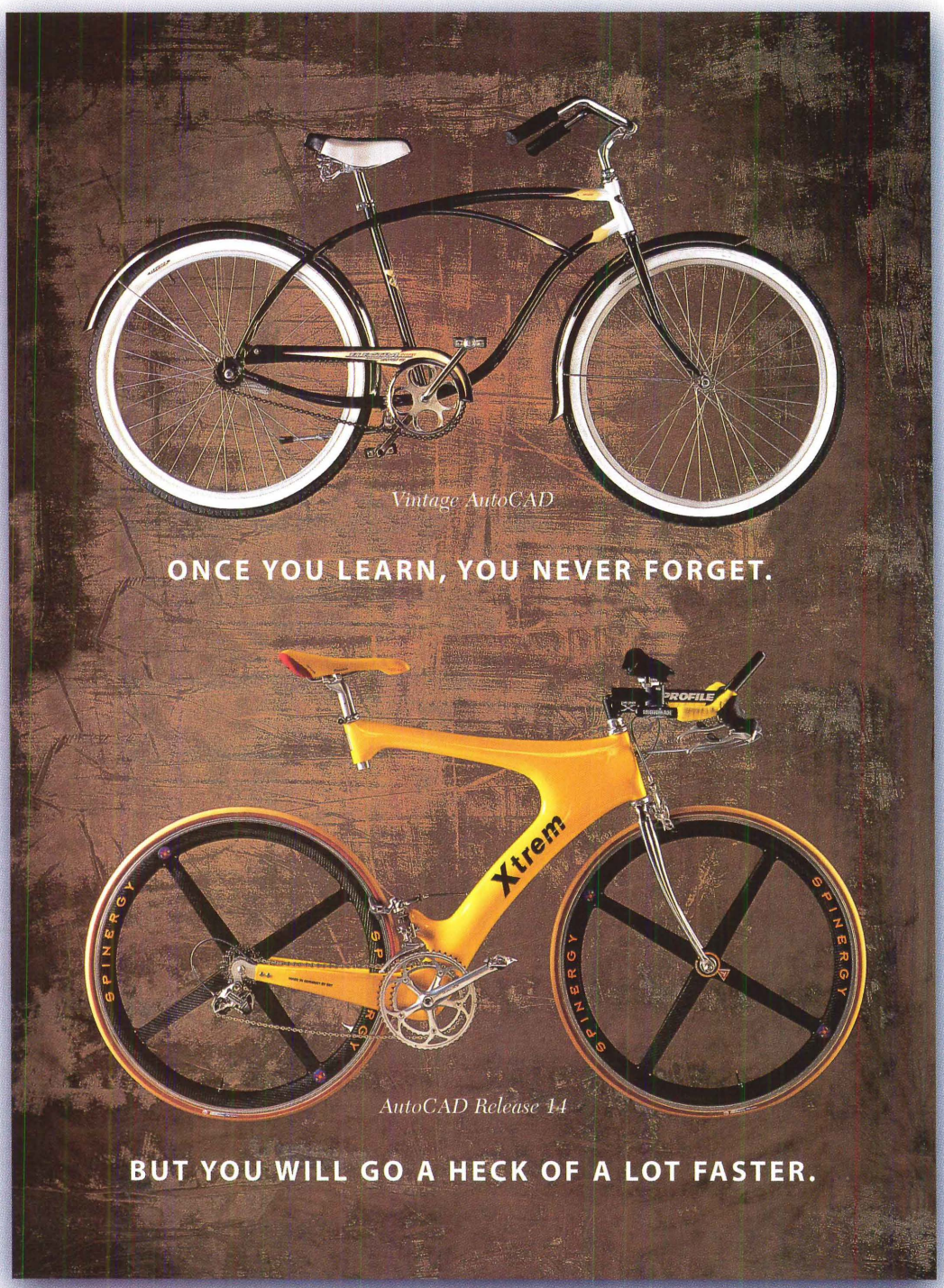

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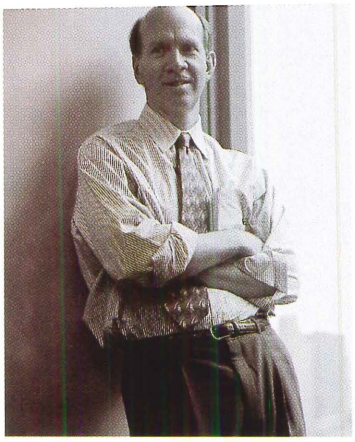


EDITORIAL

Building sanctuary

BY ROBERT A. IVY, FAIA

After visiting the Chapel of St. Ignatius at Seattle University this winter, an architect told me how powerfully the building had affected her. A lapsed Catholic, she found herself forced to sit down on first entering the interior, as she was so completely overcome by emotion and memory. The new building acted like a key for her, unlocking a wealth of internal, unspoken language with unanticipated force.

She is not alone. This one small building, set in the middle of a college campus in an unprepossessing neighborhood, has drawn 35,000 visitors since it opened last summer. And people continue to seek it out. On a recent visit, two buses dropped off retirees to tour and marvel at the same time that visiting architecture students walked through the building, intently drinking in the spaces and poring over the details. The groups were silent as they intermingled.

What is it about the building that draws people? The sense of anticipation that this magazine [July 1997, page 41] and others helped generate by publishing lush images of the completed construction? The unexpected way the building's concrete monitors rise up to catch the soft Northwest light? The processional pathway or the vaulted interior that balances forces, from compression to release? The sunlit colors that wash the walls? The artful, human touch in patterned plaster or translucent glass?

This tiny place, which had not existed prior to 1997 outside the hopes of a Jesuit community and architect Steven Holl's imagination, seems to be on its way to joining a select group of buildings that have become architectural touchstones. Like other important individual buildings before it, the chapel demonstrates that true architecture has the power to affect the human spirit—for many people, not merely for an elite few. The crowds bear stronger witness than any critic could.

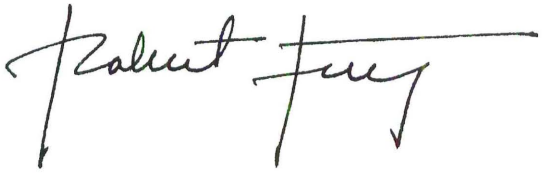
Perhaps there is something in the building type, a chapel, that enables visitors to grasp architecture in its fullness. St. Ignatius, like many other fully realized works of art, engages the senses and allows an interplay of thought and feeling, but its scale offers the possibility of some level of intimacy: we can be moved without being overwhelmed.

Historic examples underscore the point. Think of Le Corbusier's pilgrimage chapel, Notre Dame du Haut at Ronchamps, and how that billowing, concrete presence both dominates our imagination and elevates our spirits. Or Thorncrown Chapel, Fay Jones's laced-together masterwork in an Arkansas forest, a structure at once transparent and arresting. Both buildings can be grasped intellectually, yet both evoke the ineffable.

Not all such potent structures are sacred. Louis Kahn's Kimbell Art Museum in Fort Worth provides a grounded group of tentlike pavilions that bathe art and the human form in light and time and materiality. His cliffside Salk Institute can provoke catharsis, so insistently and clearly does it posit the human figure between earth and sky.

We are often uncomfortable in an age dominated by digital rationalism to express our inner motivation; irony and knowing diffidence often mark our public expression. However, the Chapel of St. Ignatius and other powerful works of architecture confront us with another dimension, a quiet zone where the human heart longs to rest. Regardless of whether or not we embrace a religious tradition, architecture, in the best hands, at the right time and place, can construct a spiritual home, a shelter for our secret selves, and a place apart. Our forebears called such places sanctuary.

While time and experience will determine whether the Chapel of St. Ignatius finds its way into the modern canon, it is encouraging that, though isolated, some contemporary examples continue to be built at the intersection of construction and poetics. They inspire us and remind us why we became architects.



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LETTERS

Bilbao in support of Gehry

I am writing in response to Richard Battaglia's letter in the January issue. As a native Basque living in Bilbao, I can report that Frank Gehry's building for the Guggenheim Museum Bilbao not only is considered an architectural masterpiece but has also become, in its four months of existence, an icon for the city of Bilbao. According to a survey, nine out of ten of the more than 380,000 people who have visited the museum since it opened rate the building as very good or excellent; local institutions have awarded Gehry the highest civil recognition; and prominent Basque artists praise his creation in laudatory terms. He has even been asked to sign autographs on the streets of Bilbao as if he were a film star.

I believe I reflect the feelings of my fellow citizens when I say we are honored and grateful for his creativity and dedication, which have produced a home for the collections and exhibitions of a first-rate modern and contemporary art museum as well as a building that has captivated our imagination and helped us understand our own city. We are proud to regard Gehry as one of us, and consider his building no more foreign to Basque culture than the Eiffel Tower is alien to Paris or Utzon's Opera House is to Sydney.

—Juan Ignacio Vidarte
Director General
Museo Guggenheim Bilbao
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O'Keeffe Museum courtyard

Thank you for your excellent article on the Georgia O'Keeffe Museum in Santa Fe (January, page 80). It is a great asset to our community not only culturally but also economically, and everyone involved deserves much credit. I have been disturbed, however, that in most articles about the museum no credit has been given to the original designer, Ron Robles, who transformed the existing structures into a unique art gallery. Some feel that the gallery spaces were even more exciting when it was still the Allene Lapides Art Gallery, particularly the way the interior spaces related to the large central courtyard. It is interesting that David Dillon criticized the present building's circulation, which requires visitors to retrace their steps. The courtyard would have been an obvious way to provide for a secondary exit while allowing the public to experience this outdoor space.

—Thomas Higley
Santa Fe, N.M.

Integrity of the PSFS building

I read with interest about the conversion of the PSFS Building (January, page 32), one of the few modern American tall buildings that are successful as both architecture and urban design. Without resorting to historical styling, the building uses sensuously modern materials and details to create a strong civic presence at street level and a memorable banking chamber one level above the street. The tower articulates its functions without using small punched windows or the bland, ubiquitous curtain wall.

It seems feasible that hotel functions could be compatible with the tower form. Howe and Lescaze's drawings show the typical floor subdivided into small offices at twice the spacing of the principal mullions. It would, however, be a tragedy if the integrity of the banking hall and the ground-floor entrance to that space were compromised. Architects should scrutinize the conversion of this building closely.

—Philip Graus, ARAIA
Sydney, Australia

VSBA: "Nifty notions"?

Your interview with Venturi Scott Brown and Associates' three principals confirmed my long-held belief that they are clever talkers but lousy architects (February, page 58).

The principals speak glowingly of how Americans "vote with their feet" in favor of the commercial buildings of the Strip and the kinetic graphics of the computer age. Yet this public, by and large, loathes VSBA's designs. This is a contradiction for a firm that bases the validity of design decisions on the judgments of the populace. In a similar vein, the architects feel that community involvement with design was terrific in the 1960s and '70s, when it was used against Venturi's Modernist opponents, but that it is being "misused" now that it regularly thwarts VSBA's work.

Another logical gap occurs when the architects complain that young designers nowadays are practicing a Modernism (Venturi's term is "abstraction") devoid of ideological underpinnings. It's hard to see how VSBA could take issue with this, since "ugly and ordinary" sources of their inspirations are equally if not more devoid of ideology.

Most irritating of all, the architects say that "it is a misinterpretation to regard Postmodernism as coming out of our books," yet they present themselves as the owners of the idea of Postmodernism and judges of its correct application. Postmodern-based arguments used against VSBA's designs are also referred to as "misinterpretations," as though the firm has the right to control how others use ideas.

Venturi, Scott Brown, and Izenour have mastered the art of inventing catchy phrases (like "complexity and contradiction" or "messy vitality"), but do these nifty notions really qualify as "architectural theory"? Good architecture sells its designer's theories more powerfully than volumes of verbiage ever could; likewise, unconvincing architecture undermines its creator's theories. One look at the hapless, witless buildings pictured alongside the interview makes it perfectly clear: the self-proclaimed emperors of architectural theory are, at best, scantily clad.

—Steven K. Dickens, AIA
Washington, D.C.

Kudos for the new RECORD

I'm a country architect with a one-horse office in a small town near Lexington, Kentucky. I got paid for my first set of plans as a 16-year-old, 40 years ago, and I've been reading RECORD as long as I can remember. In the past it seemed like it was written for academia or other architectural critics, not for those of us in the trenches each day. Thank goodness the local recycling center took magazines, because I'd toss out many an issue. Now—what a difference! Not only do I save the issues, but they end up looking a lot like Big Bird with all the Post-it notes marking articles to read. Keep 'em coming!

—Day Johnston, Architect
Georgetown, Ky.

February credits/corrections

A story on the renovation of Detroit's Renaissance Center (page 29) failed to mention Gensler as the interior designer for the project.

Inadvertently omitted from the credits for the Rhys Carpenter Library (page 82) were Michael Rock and George Stout of 2 x 4, who created the project's graphics.

The complete credits for Ventilation Building No. 7 (page 100) include David Wallace and Peter Floyd of Wallace, Floyd, Associates; Rebecca Barnes, the architect representing the Massachusetts Highway Department; David Lee of Stull & Lee; and the Bechtel/Parsons Brinkerhoff Joint Venture, the lead firm and managers of the Central Artery/Tunnel project and preliminary engineers for the building.

The custom-designed chairs for the James N. Gray offices (page 133) were made by Lampa, Aquebogue, New York.

In "Lowering the Risks of Reroofing," the photos on page 142 should have been attributed to Peter Blaufeux AIA Architects.

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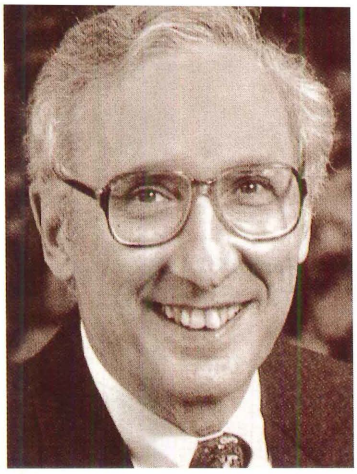
CIRCLE 12 ON INQUIRY CARD

SPEAK OUT There's no substitute for land-based planning and design principles.

KALVIN PLATT, FAIA



Kalvin Platt, FAIA, is chairman of the SWA Group, an international land planning, urban design, and landscape architecture firm headquartered in Sausalito, California.

Boston's City Hall Plaza, built in the 1960s, is an overly large, superficially impressive public square that everyone loves to hate. Surrounded by the Government Center's office buildings, it is a lifeless void in the heart of Boston and is shunned by residents and visitors alike.

Williams Square in Las Colinas, a suburban "edge city" outside Dallas, has a central fountain with a herd of nine galloping bronze horses. Bordered by office buildings and tree-shaded lawns, this public square provides the welcome sight of water in a dry climate, the pleasurable sound of a splashing fountain, and an evocative reference to Texas's frontier past. Encouraging people to visit and chat, Williams Square is a popular destination for both workers and residents.

Why are these two public spaces so different in their appeal? The answer lies in land-based planning and design principles.

Architects have building skills. Engineers have skills in infrastructure and technical systems. Policy planners and developers have implementation skills. But when these teams pursue development-as-usual, they often overlook the comprehensive land-based perspective that gives them the big picture: the land and the buildings, hard infrastructure and soft infrastructure, surrounding uses, and how the overall environment works together.

What our firm calls land-based planning and design principles work with the site and the community (not against them) to improve the built environment, transforming off-the-shelf projects into exciting catalysts for urban redevelopment and economic growth.

The following basic principles should be adopted by architects, engineers, policy planners, and developers.

Apply land-based planning and design to all locations. Whether in the countryside, suburbs, or cities, these principles can be adapted to the specific requirements of each site. In the typical edge city, for example, land-based planning and design would preclude an office tower that looks good on a brochure but actually stands isolated behind vast surface parking lots. Surface parking would instead be located behind the building, accessible but out of sight. Open space should be set aside for landscaped, tree-shaded courtyards and gardens for office workers to use in good weather.

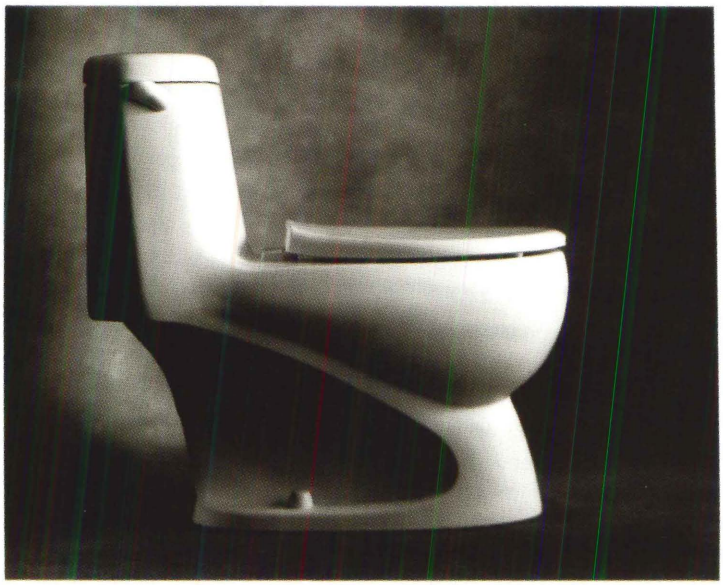
Practice contextualism. A new urban or suburban building is not an island. It should reflect (and, if possible, strengthen) the scale, character, and uses of nearby blocks, roadways, and open space. Disregard for this principle was what caused so many urban renewal projects of the 1950s and 1960s to fail so miserably. Planners of our great cities, often acting with the best intentions, replaced older, tightly knit neighborhoods characterized by low- and moderate-income housing with towers whose scale and character are totally different from those of the surrounding neighborhoods. Now, bold civic leaders (in Newark, New Jersey, for example) are replacing high-rise slums with low-rise developments that complement the existing urban fabric.

Use the landscape to create physical structures that will unify a community and give it identity. In Irvine, California, a residential development called Woodbridge is surrounded by a berm that visually separates it from adjacent developments. Its enhanced landscape and infrastructure—including sidewalks, bike lanes, a broad parkway strip, neighborhood parks, and two man-made lakes—create a strong community identity within Orange County's cookie-cutter suburbs.

Of course, some skeptics will say that land-based planning and design is too expensive. This is not true. The initial cost of protecting open space (whether it's an urban plaza or a rural hillside) is usually paid back many times over in the form of increased property values and/or rents.

Land-based planning and design principles enrich our lives, enhance the public realm, and benefit property owners. They help to guarantee that spaces like the forbidding Boston City Hall Plaza will never be built again. ■

Contributions: *If you would like to express your opinion in this column, please send submissions by mail (with a disk, if possible) to Speak Out, Architectural Record, 1221 Avenue of the Americas, New York, N.Y. 10020; by fax to 212/512-4256; or by E-mail to rivy@mcgraw-hill.com. Essays must not exceed 700 words. The editors reserve the right to edit for space and clarity. Where substantial editing occurs, the author will receive final text approval.*



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CIRCLE 11 ON INQUIRY CARD

MENTORS Organizational peer reviews can offer architecture firms a reality check and an opportunity to improve their practice.

Roger C. Brady, AIA, is manager of loss-prevention services for DPIC Companies, Inc., of Monterey, California, a leading liability insurer of architects and engineers. He was active in architectural practice for 18 years in California and Ohio.

ARCHITECTURAL RECORD asked Roger C. Brady, AIA, to discuss the process of peer review.

Traditionally, architects—and professionals in general—have shied away from outside involvement in managing their practices. Typical reasons include that the firm is too small or too unique; that there is no time (or money) for such involvement; that the necessary information can be gleaned from a book; that the firm's practices are too personal; and that no outsider could understand a firm the way the principals do.

But this attitude has begun to change. Architects are more apt to seek outside assistance in order to keep pace with the increasingly information-overloaded, complex, competitive, and quality-conscious environment in which we practice. To work "faster, better, and cheaper" requires new ideas, tools, and, most important, execution (in other words, improving your practice).

One of the best and most cost-effective aids to improving your practice is organizational peer review, a tool to help you reexamine your firm's goals, objectives, policies, and procedures and to determine your ability to deliver high-quality design services. It provides a reality check that compares what you want to do with what actually happens on a day-to-day basis.

Peer review in a nutshell

Dave Hoffman, FAIA, of Law/Kingdon, Wichita, Kansas, is the chair of the AIA's practice management PIA and, for the past four years, the institute's liaison to the joint AIA and American Consulting Engineers Council peer review steering committee. He sums up the process of peer review as follows:

As the managing principal of a firm, you select from a list of trained architect volunteers compiled by the AIA—noncompeting, geographically safe peer reviewers with extensive experience in managing architectural firms (not management consultants). You select a mutually agreeable review date.

The review itself addresses the following management areas: general management, management quality, projects, computer systems, professional development and human resources, finances, and business development.

Your reviewers read information that you provide, observe your operations, ask questions, listen to staff members, and ask and listen some more. Strict confidentiality is maintained. Finally—after a few days in most cases—reviewers give you (and your firm, if you like) a verbal report that points out issues (and perhaps blind spots) you should consider addressing to improve your practice.

What's in it for the firm?

As a very interested third party, my company strongly endorses peer reviews; we even help our policyholders pay for the process. We base our support of peer reviews on several factors.

First, we are convinced that, following a peer review, a firm is likely to be better managed and therefore a better professional liability risk.

Second, firms that have completed peer reviews give the process a score of 90–95 on a 100-point scale. In addition, most firms that have had peer reviews request follow-up reviews as soon as they are eligible.

So far, 25 percent of our largest policyholders have completed a peer review. Based on DPIC's involvement on the peer review committee, we see the AIA and ACEC commitment to peer review growing, along with the number of professional associations and organizations that endorse the program (12 as of this writing).

As a company, we strongly support the process, and we put our money where our priorities are. Happily, a few other professional liability insurers have followed our lead (although to a lesser extent), providing further evidence of the program's value.

Peer review can bring about positive changes that can lead to improved loss prevention. These days, when architects must analyze the cost benefit of everything they do, my company remains committed to this practice aid. I encourage you to take advantage of the unique benefits provided by peer review. ■

Questions: *If you have a question about your career, professional ethics, the law, or any other facet of architecture, design, and construction, please send submissions by mail to Mentors, Architectural Record, 1221 Avenue of the Americas, New York, N.Y. 10020; by fax to 212/512-4256; or by E-mail to rivy@mcgraw-hill.com. Submissions may be edited for space and clarity.*

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CIRCLE 70 ON INQUIRY CARD

PULSE RECORD readers were asked: Should the AIA charge members $50 a year to support a national advertising campaign?

NO: 55%

No: Advertising has been the primary force in destroying our sense of community, our sense of place, and our understanding of architecture. For the AIA to engage in "national" advertising would be to embrace the total destruction of architecture.
—Marlene Donnelly
via E-mail

No: I fully support the idea of the AIA's national advertising campaign but do not believe it should be paid for through a special charge. High-priority items should be funded by the institute's normal operating budget, not special charges.
—Thomas Braham
Perkins & Will
Chicago, Ill.

No: When I hear of a proposed increase in AIA fees, I cannot help but think of the questionable "benefits" of membership. I believe in the advantages of participating in a political agenda, but I am confident that the AIA wastes at least $50 a year per person on junk mail to its members.
—Gary R. Nunley, AIA
via E-mail

No: This nebulous enterprise of increasing the "public awareness of architecture" seems an exercise in fuzzy thinking. What are the goals? How will success be measured? Other than fattening some ad agency's bottom line, how will this campaign benefit the practice of the average architect? I have very little confidence that running TV ads will result in anything but cheapening the image of the profession.
—Carl Mezoff, AIA, PE
Stamford, Conn.

YES: 45%

Yes: The $50 is a small price to invest in educating the general public about the services and benefits of working with an architect. If this proposal was posed to attorneys, accountants, engineers, doctors, or any other professional group, there would be no discussion: it would just happen, as it should. But architects are a different breed; too many lack long-term vision concerning business and financial matters.
—Richard Peter Kraly, AIA
Shaker Heights, Ohio

Yes: $50 is not enough to ask for an advertising campaign whose goals are to present a strong, positive image of AIA members, illustrating the capabilities, skills, and value they bring to their clients and the general public. I predict that the campaign will be overwhelmingly approved by the membership at the convention in May, and that in the first week such advertising is aired on national television, all architects who are not AIA members will want to join just to be part of the positive impact it has the potential to create.
—Martin Santini, AIA
President, Ecoplan
Englewood Cliffs, N.J.

Yes: How long will we architects continue to bury our heads in the sand and pretend that clients will hire us simply because we believe it is the right thing for them to do? Unless we educate the public, from business leaders to elementary school children, on the importance of our services, our project coffers will continue to be diminished by other professionals with more competitive marketing strategies.
—Craig A. Duncan
San Antonio, Tex.

This Month's Question

Should the unbuilt work of significant designers be resurrected and constructed by contemporary architects?

The public seems to have an unquenchable interest in the work of certain noteworthy architects of the past, particularly Frank Lloyd Wright. But how appropriate is it to take plans intended for another era and execute them today? Can subsequent generations fully realize the details of the original design, as well as assimilating the inevitable changes in program or execution prompted by shifting codes, site constraints, and budgets?

Should the unbuilt work of significant designers be resurrected and constructed by contemporary architects? ☐ Yes ☐ No

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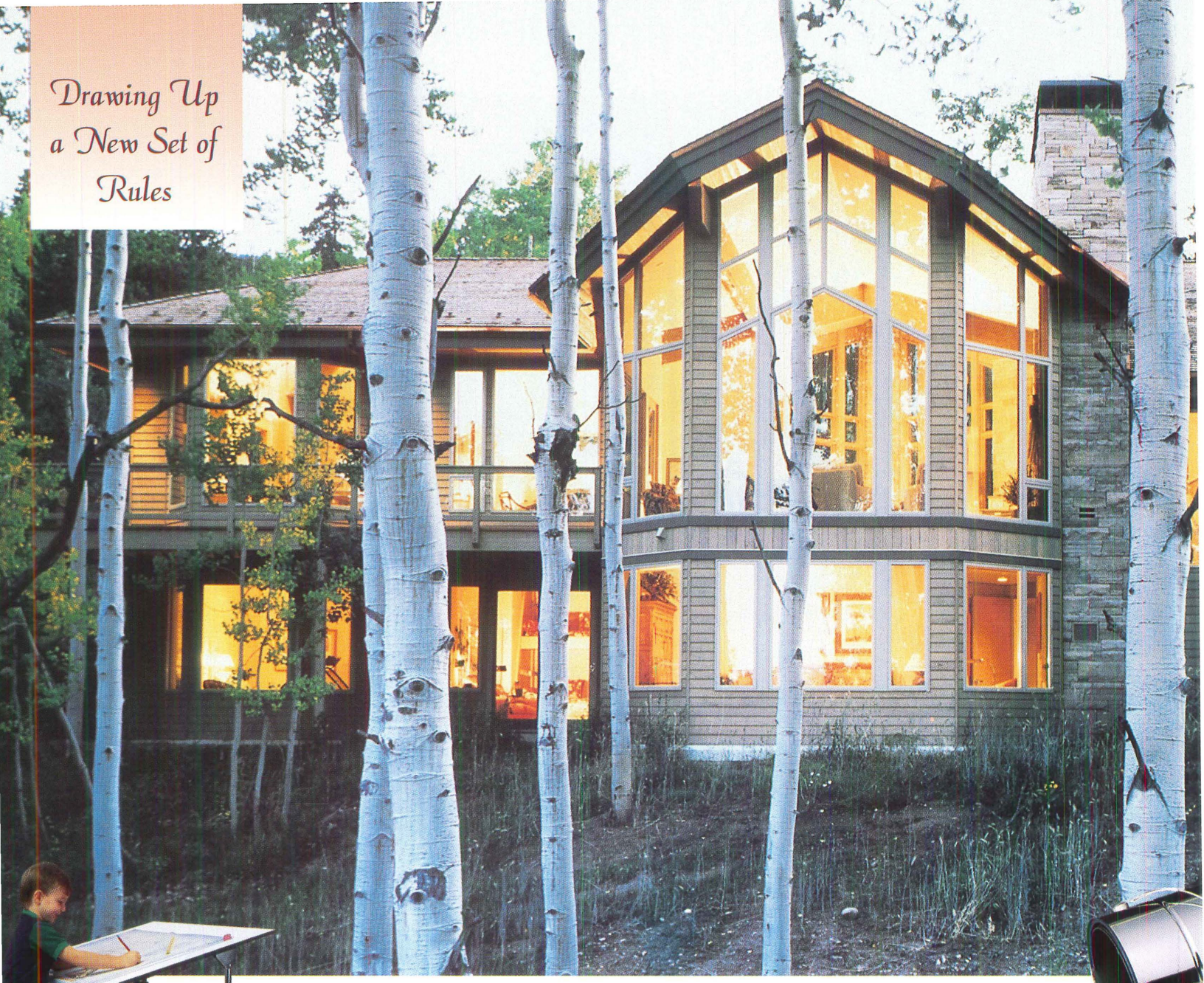
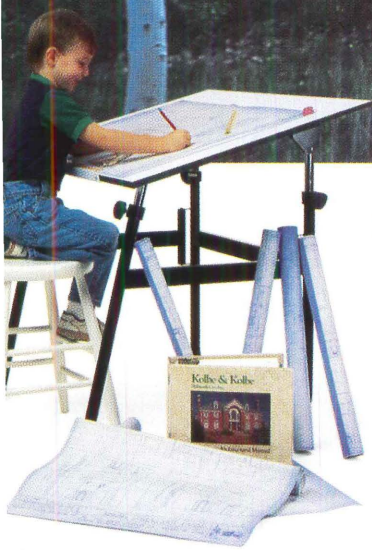
Drawing Up a New Set of Rules





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CIRCLE 13 ON INQUIRY CARD

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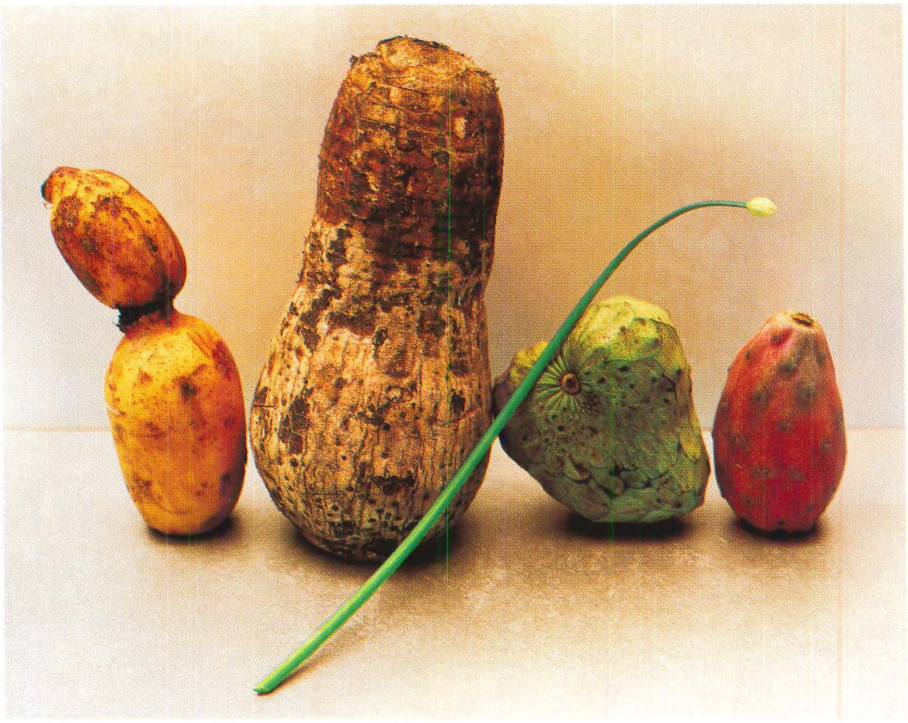

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CIRCLE 14 ON INQUIRY CARD

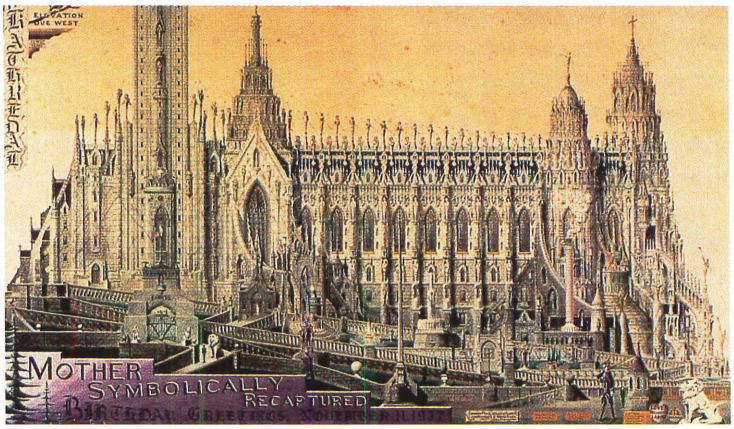
EXHIBITIONS Body buildings: Three disparate exhibitions explore the relationship between architecture and the human body.

BY DONALD ALBRECHT

A. G. Rizzoli: Architect of Magnificent Visions. San Francisco Museum of Modern Art. *Through May 24.*

Fabrications: The Tectonic Garden. Museum of Modern Art, New York. *Through April 28.*
Fabrications: Bodybuildings. San Francisco Museum of Modern Art. *Through April 28.*
Fabrications: Full Scale. Wexner Center for the Arts, Ohio State University, Columbus, Ohio. *Through April 12.*

Alvar Aalto: Between Humanism and Materialism. Museum of Modern Art, New York. *Through May 19.*



A. G. Rizzoli: *Mother Symbolically Recaptured,* a work done in 1937 after the death of his mother.

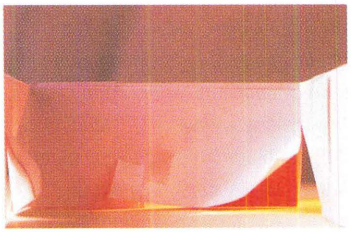
Filmmakers digitize it, geneticists try to clone it, and scholars study its tattoos and piercings for clues about gender identity. Contemporary culture's preoccupation with it—the human body—is the subject of three current architectural exhibitions that explore the relationship between bodies and buildings.

The fantastic architectural drawings of A. G. Rizzoli (1896–1981) are the focus of a compelling exhibition at the San Francisco Museum of Modern Art (SFMOMA). Rizzoli's phallic Art Deco skyscrapers and florid Gothic cathedrals were architectural embodiments of people the artist knew and his own private experiences. "Fabrications," a collaborative trio of shows presented simultaneously at SFMOMA, New York's Museum of Modern Art (MoMA), and the Wexner Center for the Arts in Columbus, Ohio, simulates the body's experience of real buildings through 12 newly commissioned installations. The best of the new exhibitions, however, is MoMA's superb retrospective "Alvar Aalto: Between Humanism and Materialism," which explores the work of the Finnish architect whose humanist approach produced some of Modernism's most empathetic buildings.

The subject of an exhibition originated by the San Diego Museum of Art and curated by Jo Farb Hernandez, A. G. Rizzoli was a reclusive architectural draftsman in San Francisco who secretly, at night and on weekends, delineated his obsessive visions of buildings. "A. G. Rizzoli: Architect of Magnificent Visions" displays nearly 85 of the artist's ink drawings, including his first major "portrait," *Mother Symbolically Represented/The Kathedral.* Using masonry with elegantly carved Gothic details to symbolize his mother's strength, beauty, and spirituality, the drawing celebrated the birthday of his beloved parent. (Rizzoli's mother was a recurring subject of his art: a 1937 drawing "symbolically recaptured" her after death.) More obvious in its symbolism is *The Primalglimse at Forty,* in which a soaring, multitiered tower commemorated the artist's sudden, middle-aged understanding of the sexual act upon glimpsing the genitals of a neighbor's young daughter. Even Rizzoli's utopian cities resonate with personal meaning. Inspired by the axial, Beaux-Arts designs of the 1915 Panama-Pacific Exposition, Rizzoli's Y.T.T.E. (pronounced "it-ty") was an imaginary Oz where the childlike artist could find sexual release: Y.T.T.E was an acronym for Yield to Total Elation.

"Fabrications" is an "exquisite

Fabrications: Mockbee/Coker Architects at the Wexner (below); Kennedy & Violich in S.F. (bottom).



Donald Albrecht is working on exhibitions for the Cooper-Hewitt Museum and the National Building Museum, and an exhibition on Grand Central Terminal.

corpse" in the guise of contemporary installation art. ("Exquisite corpse" was a game played by the Surrealists in which a drawing was produced by artists adding elements sequentially.) According to the project's three curators—SFMOMA's Aaron Betsky, MoMA's Terence Riley, and the Wexner's Mark Robbins, the exhibition comprises "divergent forms joined by a common structure. The outcome is still a body, but one in which unexpected and provocative links are the rule."

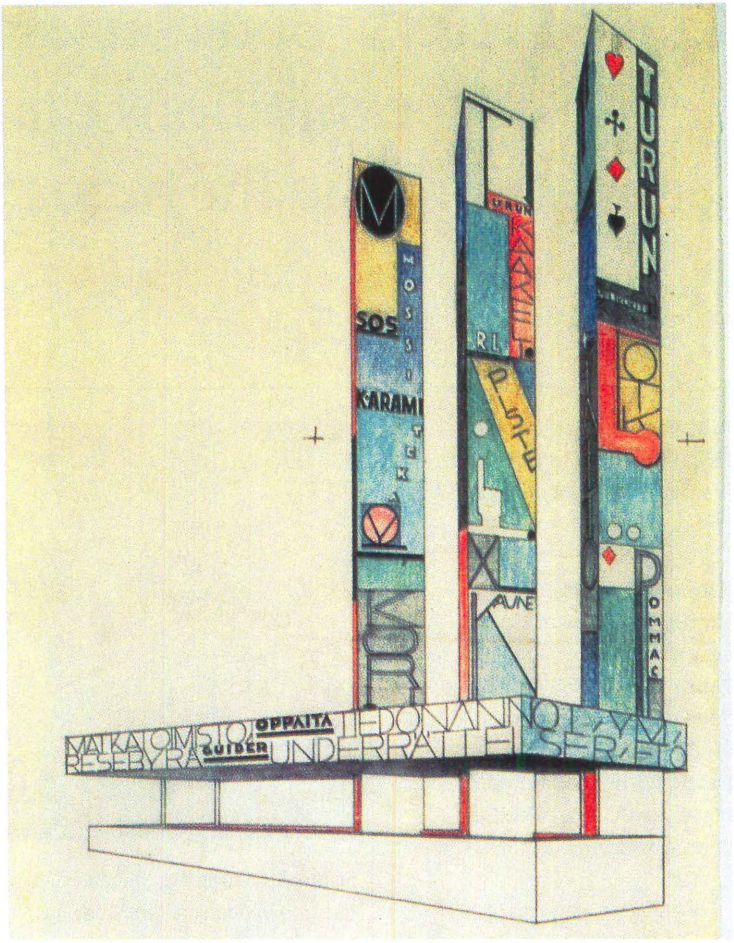
"Fabrications" departs from the architecture exhibition's customary reliance on models, drawings, and photographs, using full-scale installations to suggest to visitors the corporeal experience of architecture. The idea for the show was inspired by mock-ups on building sites and full-scale casts of historic buildings displayed in museums.

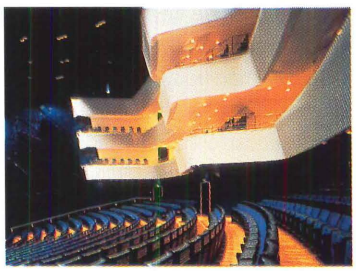
The New York and Columbus installments are less about the body than materials, space-making, and the poetics of construction. MoMA's installment, "The Tectonic Garden," formally relates to elements in the museum's outdoor sculpture court, investigating the expressive potential of such materials as folded aluminum and woven metal mesh. The participating designers were Alfred Munkenbeck, Enrique Norten of TEN Arquitectos with Guy Nordenson, Maria Ponce de Leon and Nader Tehrani of Office dA, and Henry Smith-Miller and Laurie Hawkinson. At the Wexner Center, one of Peter Eisenman's galleries is respatialized by introducing steel bleachers, acrylic sheets, a wood-and-metal ramp, and a wood cottage. The installment "Full Scale" shows work by Sam Mockbee and Coleman Coker, Eric Owen Moss, John Patkau and Patricia Patkau, and Stanley Saitowitz.

The San Francisco show, "Bodybuildings," cleverly draws direct connections between the viscera of buildings and human bodies. "By making a shelter, a frame, or a defined place for ourselves," curator Aaron Betsky says, "we are in essence building a second, fabricated version of ourselves." Four groups of architects—Craig Hodgetts and Ming Fung, Sheila Kennedy and J. Frano Violich, Rob Wellington Quigley, and Byron Kuth and Elizabeth Ranieri—have created a hybrid installation with elements that serve as analogies of the museum's internal systems.

Visitors enter the exhibition through a peeled-away section of the building. Like a three-dimensional version of Marcel Duchamp's *Nude Descending a Staircase* (an image likened by one critic to an explosion in a shingle factory), a tumult of drywall, plaster, lath, and plywood around an exposed fireproofed column reveals the museum's "somatic" body—or the body as physical entity. In the main space, visitors open the mouth of a giant fabric lung and feel the cool breath of the building's air-conditioning system. Layers of soft felt placed along the side of the space are sculpted to create womblike pockets for sitting and lying down, supporting the body in repose. A pile of discarded drywall and metal studs in a corner of the gallery are the exhibition's excretions. "Together," Betsky says, "the pieces present a monumental version of the body that both enlarges it to a grand scale and makes the built institution seem more human."

Without the literal references of "Bodybuildings," Alvar Aalto conceived buildings that also had powerful relationships with the human body. Curated by Peter Reed, "Between Humanism and Materialism" combines drawings, models, and photographs to present nearly 50 buildings and projects, representing every phase of Aalto's career, from 1917 through his death in 1976. Five video walk-throughs provide visitors with an opportunity to savor the spatial qualities, natural settings, and light of Aalto's work. Like a tactile map of the senses, the exhibition's lucid installation flows in an open Aaltoesque way and features tangible examples of Aalto-designed materials—cobalt-blue tiles and sand-textured bricks—with





Aalto: Kiosk with advertising pillars for a 1929 trade fair in the city of Turku (above); the Opera House in Essen, Germany, built in 1959.

a series of full-scale mock-ups. The exhibition demonstrates how Aalto tempered machine-age rationalism with a humanist concern for bodily comfort, sensuousness, and pleasure. The biomorphic shapes of Aalto's buildings and furnishings curve like the human body, and in his hands brick and wood seem to retain organic properties.

The patients' rooms in the Paimio Tuberculosis Sanatorium (1929–33), for example, were especially sensitive to environmental concerns. Louvers shielded sunlight coming through large windows. The floor angled up at the window to create a softly lit zone, mediating the exterior's bright light and the interior's darker illumination. Aalto also designed washbasins that minimized the noise of running water in the double-occupancy rooms.

Aalto saw public buildings as comparable to the vital organs of the human body and stressed their psychological role in the health of both cities and society. To this end, his cultural centers, town halls, and schools featured light-filled gathering spaces, grand theaters, and planted courtyards. Aalto's buildings related to the landscape like bodies rooted to the ground, explaining both his aversion to housing people in multistory residential towers and his development of site plans that grow organically from the earth. "There is always something," as Aalto said of Frank Lloyd Wright's architecture, "which reminds us of the unknown depths of our being." ■

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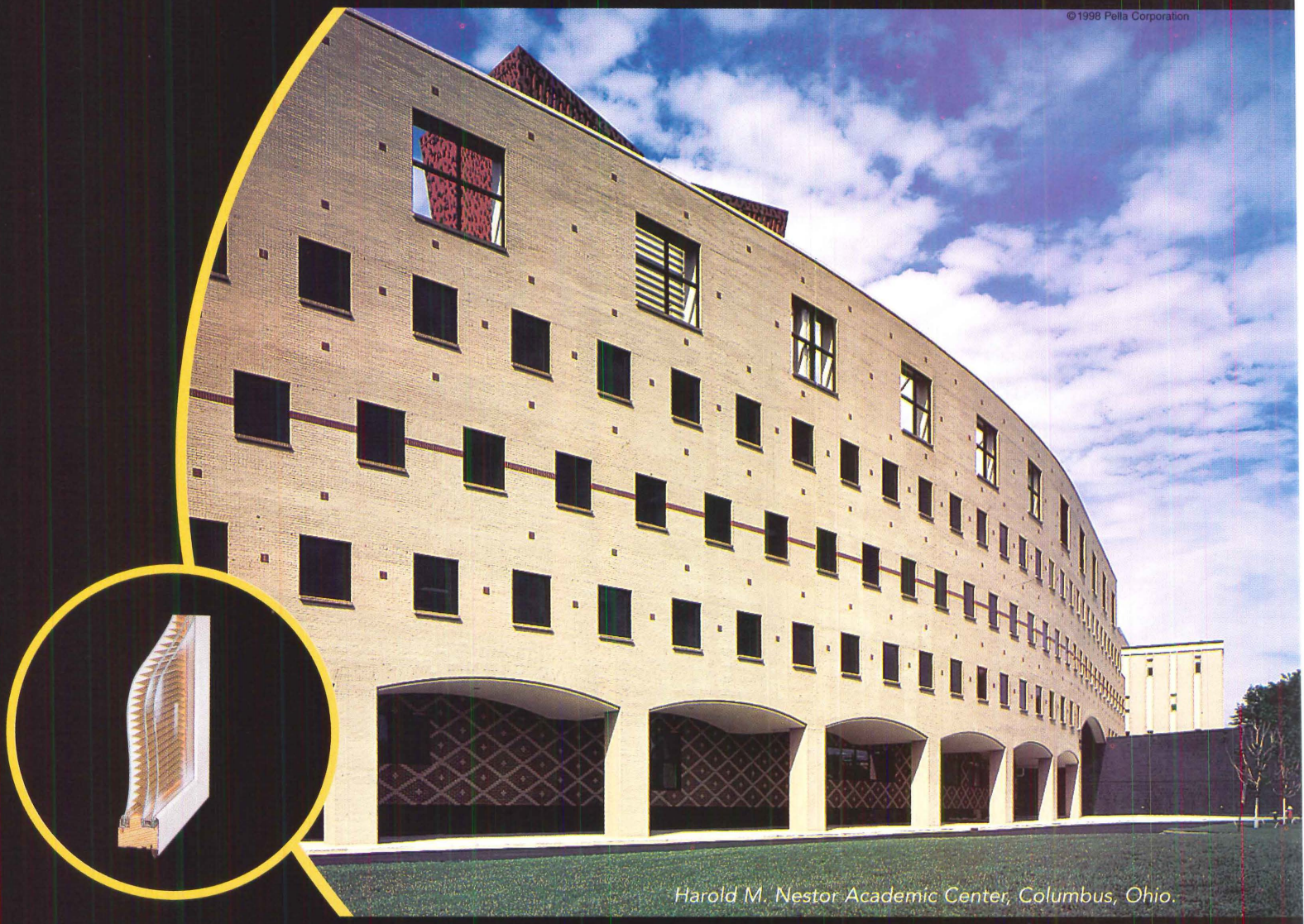

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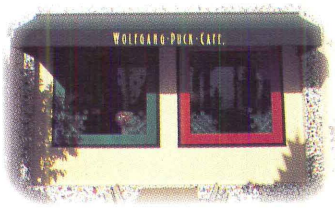

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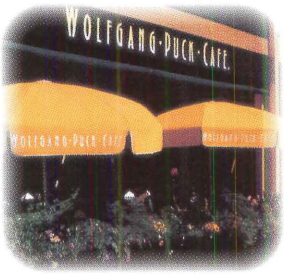

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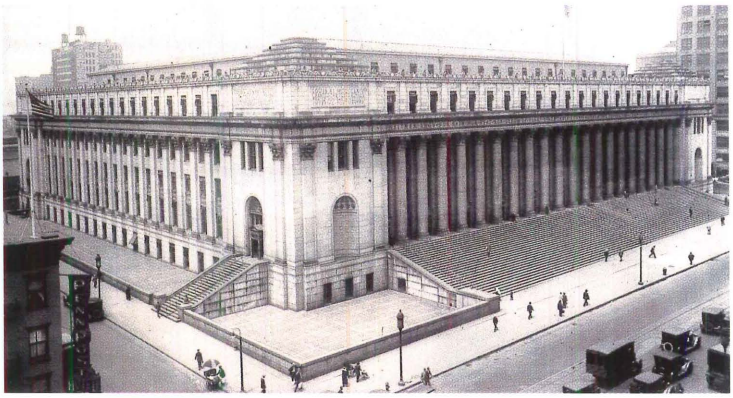


TO COMPENSATE FOR A LOST LANDMARK, FEDS MAKE WAY FOR PENN STATION

The long-hoped-for conversion of New York City's General Post Office into a new home for Pennsylvania Station will go forward, since the U.S. Postal Service agreed last month to relinquish enough space in the McKim, Mead and White–designed landmark to make the project feasible. The impressive size of the post office, with its monolithic facade and two-block stretch of 53-foot-high Corinthian columns, recalls another of McKim, Mead and White's designs: the post office's more exalted sister, Pennsylvania Station, which once stood across the street.

The latter was demolished amid protest in 1963 to make way for the yawningly ordinary Madison Square Garden amphitheater and office complex that now occupies the site. The rail station was buried underground like an overgrown subway stop, prompting Vincent Scully to lament that where once "one entered the city as a God... one scuttles in now like a rat."

The still-painful memory of Penn Station's destruction was the chief motivating force behind the lobbying efforts of the Municipal Art Society of New York and Sen. Daniel Patrick Moynihan (D-N.Y.), who made personal appeals to President Clinton for funding for the conversion. Help from high places must have forced the Postal Service's hand: the Farley Building, as it is known, is federally owned, and the Postal Service had not been taking good care of it.

Economics was a factor in the old station's demolition—then-owner Penn Central sold the most glorious train shed in America for its air rights—and economics is behind the conversion of the Farley Building. The new Penn Station envisioned by the Municipal Art Society would not only serve as a gateway for high-speed rail travel along the northeast corridor, but it would also provide a civic space and retail arcade comparable to the successfully restored Union Station in Washington, D.C.

Three teams, led by the architectural firms Beyer Blinder Belle, Skidmore, Owings & Merrill, and Richard Meier and Associates, are in competition for the project, which will be developed jointly by the U.S. Postal Service and the Pennsylvania Station Redevelopment Corporation, a state agency.

Although bureaucratic restraints prevent the parties involved from commenting on the selection process, the president of the Redevelopment Corporation, Alexandros E. Washburn, says, "We insisted on having architect-led teams for this project. The architecture is an extremely important commitment that goes back to Senator Moynihan's vision of the world." *Ellen Kirschner Popper*

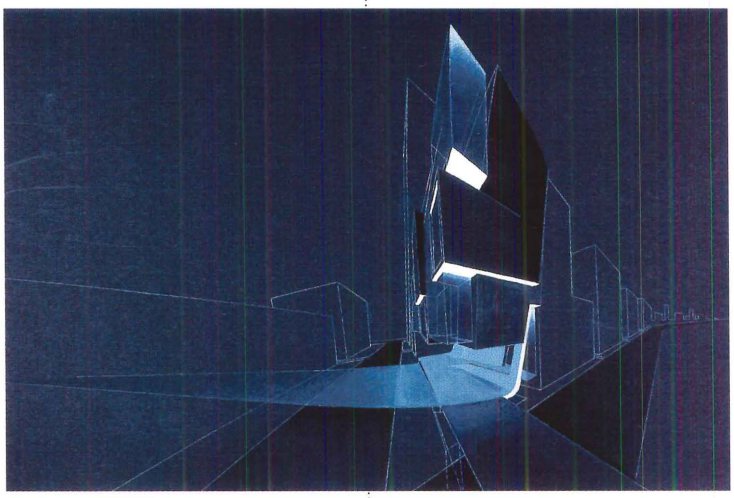
IN CINCINNATI, HADID GETS HER FIRST AMERICAN COMMISSION

In the design competition for its future home, Cincinnati's Contemporary Arts Center (CAC) wanted to find an architect with whom it could explore possible outcomes—much the same way the museum develops site-specific works with artists. Last month the CAC selected Zaha Hadid, an architect known less for her limited number of built projects than for her computer-generated models of buildings that appear to be exploding. The CAC will be the London-based architect's first project built in the United States.

In the final round of competition, Hadid, Bernard Tschumi, and Daniel Libeskind were given only two weeks to come up with a 12-page sketchbook of ideas for what will be a five-story, 65,000-square-foot building at the corner of Sixth and Walnut Streets (across Walnut from Cesar Pelli's Aronoff Center for the Arts).

The selection committee was most intrigued by Hadid's proposed jigsaw configuration of floor space, which creates intimate as well as larger galleries, with administrative offices interspersed among them. Some spaces are conceived as vertical, reaching up two or three stories. The ground floor will be open to the upper floors where, as seen in the massing model (below), activity is to be concentrated.

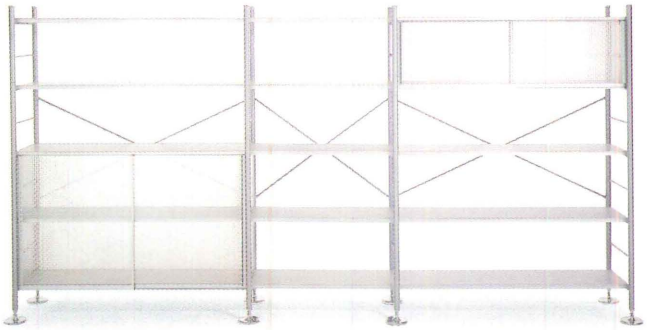
Among the constraints the architect will be working with as the design develops over the next several years is the tight floor space, the necessity of putting the loading dock on one of two sides facing the street, and a $25 million budget. *David Simon Morton*



ARCHITECTURE FILMS ON THE ROAD AND ON-LINE **In January, the Brooklyn Museum hosted Architecture on Screen '98, featuring documentaries on prominent architects—Peter Eisenman, Carlo Scarpa, and Louis Kahn among them—and experimental films on urban and environmental topics. The festival is the first in the United States to be devoted to architecture and will make stops in Washington, D.C., this spring and Houston this fall.**

The program was sponsored by the Pratt Institute's Program for Art on Film, which has compiled a research database with more than 25,000 film and video titles on architecture, painting, photography, decorative arts, and costume. The database is now accessible via Art on Film Online (www.artfilm.org), as is the program's newsletter, an art and architecture discussion group, and lists of other sites of interest to artists and architects. ***Donna Goodman***

ABRACADABRA: DESIGN DE PAS, D'URBINO, LOMAZZI



SILVERGATE: DESIGN D'URBINO, LOMAZZI

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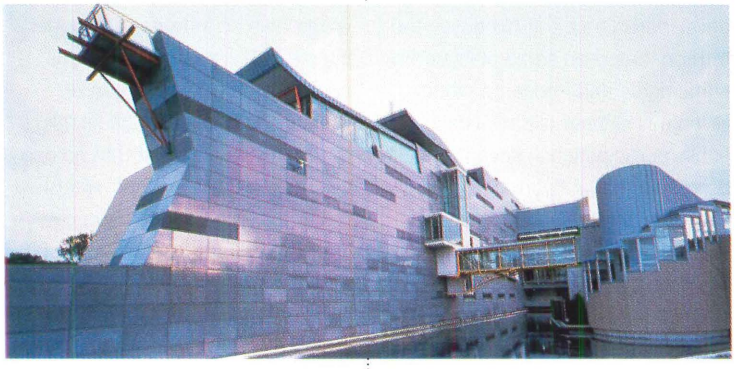
DO CULTURES CLASH OR CLICK AT NEW ZEALAND'S NATIONAL MUSEUM?

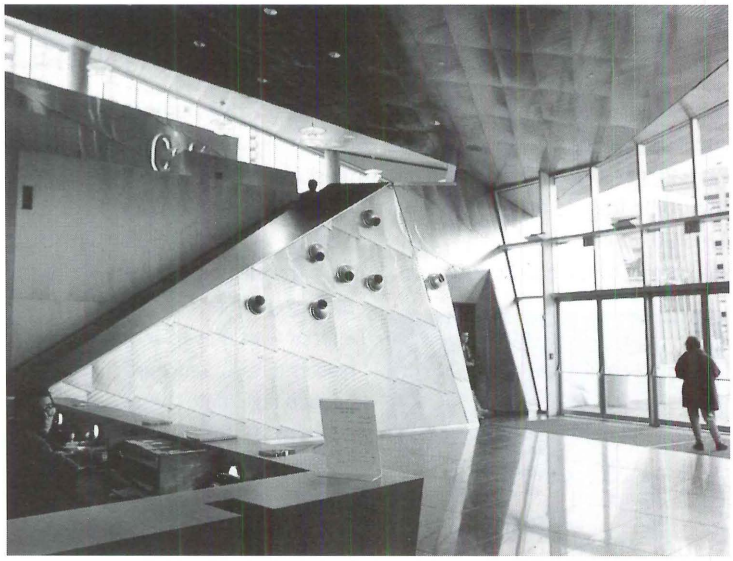
In February, New Zealand's national museum, Te Papa, Maori for "our place," was inaugurated in the capital city of Wellington. Its design was intended to convey the essence of this officially bicultural nation. It incorporates the sensibilities of both the Maori, a Polynesian people whose ancestors made New Zealand home 1,000 years ago, and the descendants of Europeans, or Pakeha, who settled eight centuries later and now make up almost nine-tenths of the population.

Like a *marae,* the traditional Maori meeting house, Te Papa reaches toward the most open part of the landscape, Wellington's harbor. The rear is enclosed by the city's waterfront, soon to be redeveloped; architecturally speaking, this affords the building little contextual comfort. The urban enclosure also serves as a reminder of the Pakeha's impact on the landscape.

As the first building of national significance that New Zealand architects have been asked to design in 50 years, the $80 million museum, by JASMAX of Auckland, has garnered its share of comments. Apart from select *marae*-inspired flourishes, Te Papa shows little kinship with traditional regional or even Modernist styles. Instead, its final form may be more a synthesis of architects' and curators' responses to the explicitly bicultural program. Critics have said that the typical "black box" exhibition spaces preferred by curators necessarily create blank exteriors. Maori and European exhibits, which are segregated, come into contact somewhat cautiously at a key wedge-shaped space that simultaneously links and separates them.

Te Papa is most expressive, however, when viewed as a jagged, advancing promontory from the harbor—which both the Maori and the Europeans had to cross to reach their new home. *Steve Bohling*





SCHWARTZ/SILVER GIVES NEW ENGLAND AQUARIUM EXPRESSIVE NEW WING

The New England Aquarium's west wing is nearing completion on Boston's waterfront. The $20 million, 17,000-square-foot addition is the first step in a planned $100 million transformation designed by Boston Architects Schwartz/Silver.

Phase one of the expansion replaces the entrance to the original building, designed by Cambridge Seven in 1969, and adds a café, a large gift shop, and a two-level exhibition area. A prominently placed pool of playful seals immediately engages approaching visitors.

The institution is rethinking its agenda, and the new wing is meant to express the change. The 1969 building—with the well-known great cylindrical tank and its helical ramp—will remain at the core of the new complex. But the aquarium will now turn its focus outward, and the architecture will convey a more active connection with the rest of the world, carrying the eye through and across exhibits toward Boston Harbor.

The new design required reviews and approvals by no fewer than 16 agencies. Making a virtue of necessity, the architects emphasized the multiple zoning envelopes that slice across the site. The new wing's chaotic-looking but highly organized arrangement of nonrectangular forms recalls the work of Frank Gehry, with whom Schwartz/Silver have collaborated in the past. But those familiar with the firm's work will recognize its distinctive style in the addition.

The building contains multiple references to sea and sealife. The stainless-steel siding forms overlapping "scales." More scales, of translucent fiberglass, cover the gift shop ceiling, where they are angled to permit glimpses of the ultramarine ducts and beams above. Flooring of epoxy terrazzo is a maritime blue. Round air vents cling to an interior wall like barnacles. A convex wood ceiling above the sales counter evokes the hull of a skiff. And tiny silver speedboat light fixtures are attached to the glass-walled ticket booth. *Jonathan Hale*

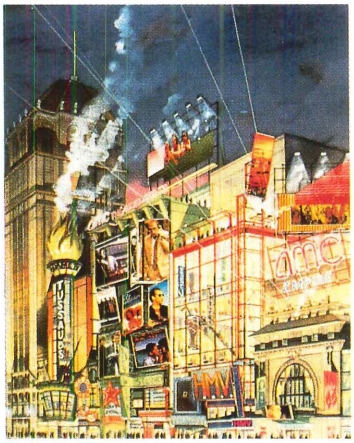
ARCHITECTS OF SEGREGATION DISCUSSED AT HARVARD SYMPOSIUM **While architects have historically escaped blame for the building of segregated communities, they received at least some criticism of their work in "The Architecture of Segregation," a symposium held last month at Harvard's Graduate School of Design. Panelists argued that architecture has not only kept people apart, most obviously in the form of separate facilities for blacks and whites, but has also given social inequality a solid form more permanent, even, than law.**

In the cities of the antebellum South, the homes of slaves had windows only on the side facing the slave owner's property; window frames, not windows, lined the wall facing the public street. The architects of 1960s housing projects isolated people in towers barren of the humanizing qualities—small scale, sculptural relief—that characterized the work of black architects like Hilyard Robinson, who built housing for the urban poor in the 1930s.

Randy Swearer, an architect who teaches at the University of Texas at Austin, spoke out against the recent and rapid proliferation of gated communities, which make for neighborhoods that are exclusive both by class and by race. Stressing the complicity of architects in the work of developers, Swearer called on the American Institute of Architects to adjust its standard of ethics to include issues of segregation. "We need to be critical of this practice, and I don't think the design community has been particularly good at that." *D.S.M.*

42ND STREET PROJECT ADVANCES WITH MOVE OF HISTORIC THEATER

With pomp and circumstance befitting a unique urban event, the landmark Empire Theater was relocated last month from its midblock site on 42nd Street in New York City's theater district to the corner of Eighth



Avenue—a move of 170 linear feet.

The Empire stood directly in the way of a planned 25-screen American Multi Cinema. The local development authority demanded that the theater be preserved, so after being restored by architects Beyer Blinder Belle, it will stand on the corner as a dramatic portal for the movie complex. Two other historic theaters, the Harris and the Liberty, will also be incorporated into plans to develop most of the block facing 42nd Street as a 335,000-square-foot entertainment, retail, and restaurant complex.

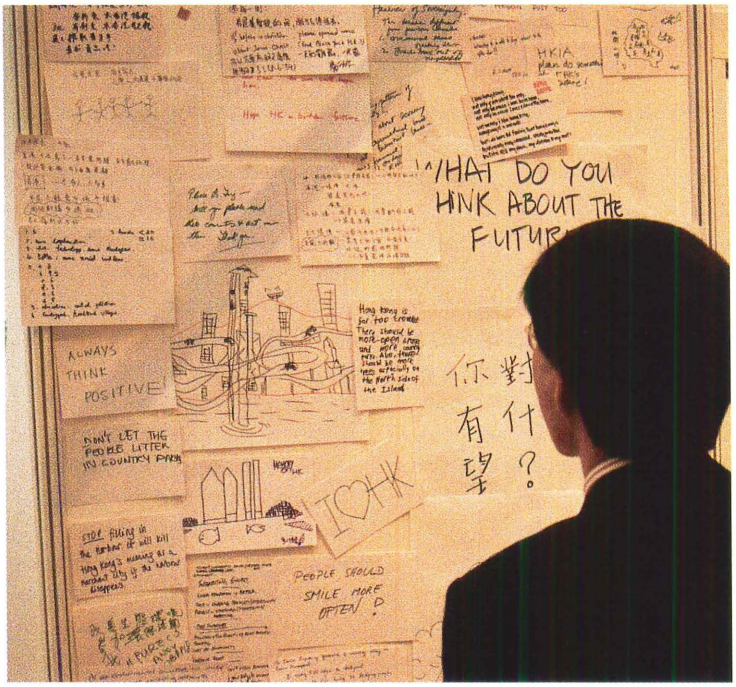
The elegant Empire, with its arching glass facade and domed interior featuring eclectic molded plaster details, was built in 1912. It housed legitimate theater until the Crash of 1929, when it became the Eltinge, a burlesque haunt. It was rechristened the Empire in 1954.

The mechanics of the move were extremely complex. A latticework of eight steel tracks was laid over a concrete pad supported by piles driven into the bedrock. Over the tracks, 250 continuous pile caps were placed on sledlike rollers. A flotilla of hydraulic jacks lifted the building just enough to slide it onto the rollers. A second horizontal hydraulic ram system moved the 3,700-ton building to its new location, a process that took five hours.

Beyer Blinder Belle coordinated the move by Urban Foundation/Engineering under the supervision of Lehrer McGovern Bovis. The move cost $1.4 million. *E.K.P.*

NOT JUST ANOTHER ROADSIDE ATTRACTION **When TravelCenters of America commissioned van Dijk Pace Westlake Architects to design a prototype "travel center" in 1995, there was one catch: the design would be accepted or rejected based on market research. The Cleveland-based firm would upgrade 125 truck stops in 36 states if its design was approved. To perfect their design, the architects visited truck stops across the country and identified key structural elements, such as awnings and mansard roofs, that evoke the American diner.**

Drivers overwhelmingly approved the firm's contemporary design, whose lines, lighting, and colors lent an inviting, clean, and safe quality to these roadside havens. Each 30,000-square-foot travel center features dining areas, a video arcade, a business center, and a store. Karen Skunta & Company in Cleveland created graphics for the prototype. Ten prototypes will be completed in 1999, and van Dijk Pace Westlake has created plans for remodeling 88 existing sites. ***Susan R. Bleznick***



IN ERA OF ERODING DEMOCRACY, HONG KONG HOLDS ITS FIRST PUBLIC CHARRETTE

Even before Hong Kong's July 1997 handover to China, the city's public had little say in the urban planning process. Decisions were tightly controlled by the government and implemented by a cadre of private developers. Since the handover, the territory has seen some of its democratic rights and freedoms erode. Given this climate of diminished public participation in government, it is notable that in February a group of architects, developers, students, lawyers, teachers, and politicians held Hong Kong's first public design charrette, Designing Hong Kong.

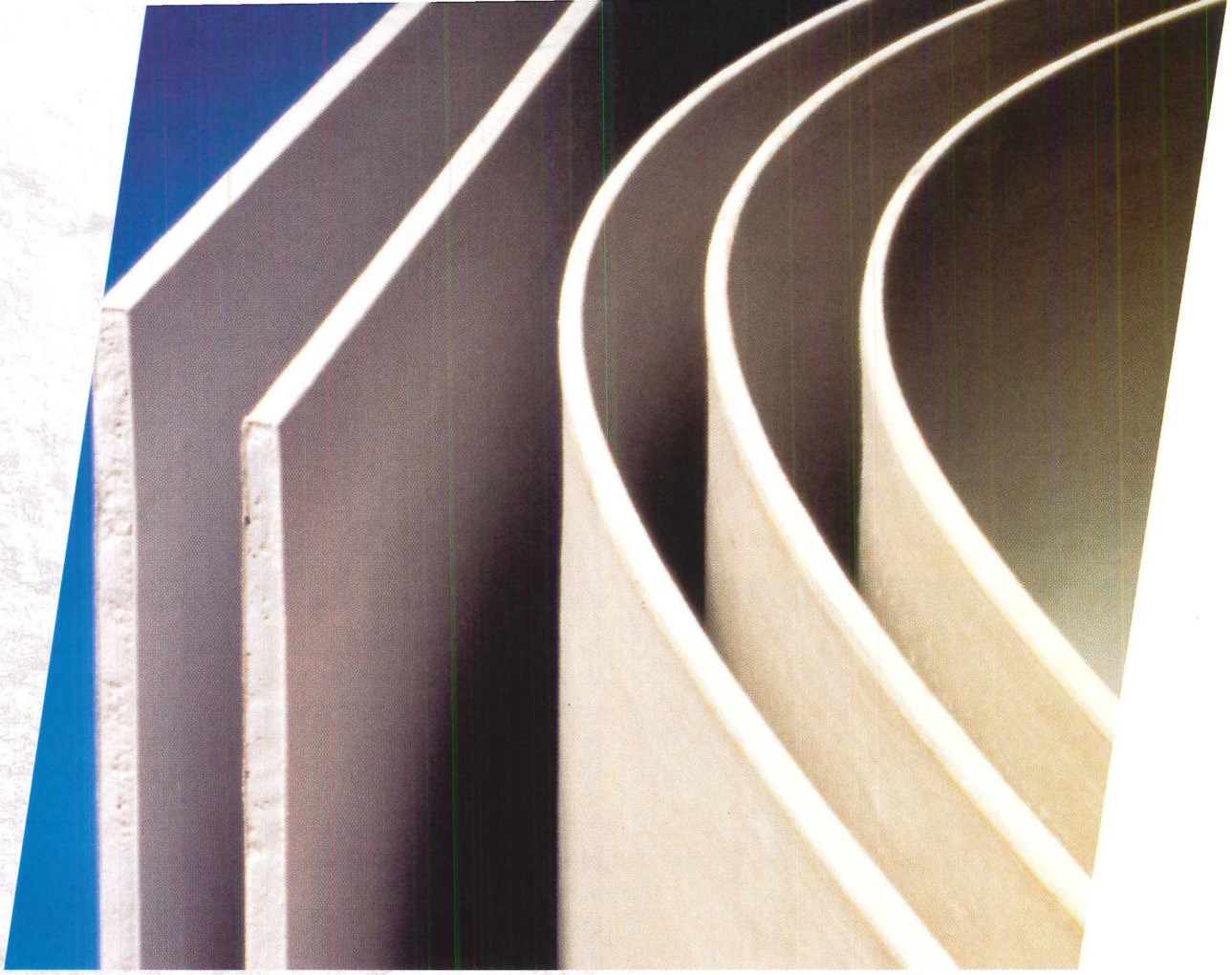
Fifty people in three teams worked over two days to generate ideas for redeveloping the harborside airport site once the airport is closed in July. This 2,200-acre site, about two-thirds of which is planned landfill, is centrally located and potentially the most valuable real estate in the territory.

The charrette took place in rooms with open ceilings in the atrium of Pacific Place, a shopping mall, allowing the public to watch from above. An exhibit designed by students at the Chinese University of Hong Kong detailed the recent history of Hong Kong's growth. Passersby were invited to write comments on notecards.

Because of the historical lack of public participation in the city's development process, the event's organizers worried that the public would take no interest. "Of course people in Hong Kong have ideas about their city," says organizer Christine Loh, chair of the fledgling Citizens Party. "It's just that no one ever asked them." Indeed, after two days the exhibit panels were covered with hundreds of responses.

The following day a symposium presented the charrette results and included lectures by local and international experts, with a keynote address by architect Cesar Pelli, FAIA. While the charrette schemes covered a range of ideas, there were some common themes: minimizing landfill, a high dependence on public transportation, and ultrahigh-density buildings with uses mixed by level.

The fate of the airport site is unresolved. But the organizers of Designing Hong Kong are hopeful that they will influence the government's plan and that by inspiring participation, they might shape both the outcome and the process of urban development. *Jack Robbins*



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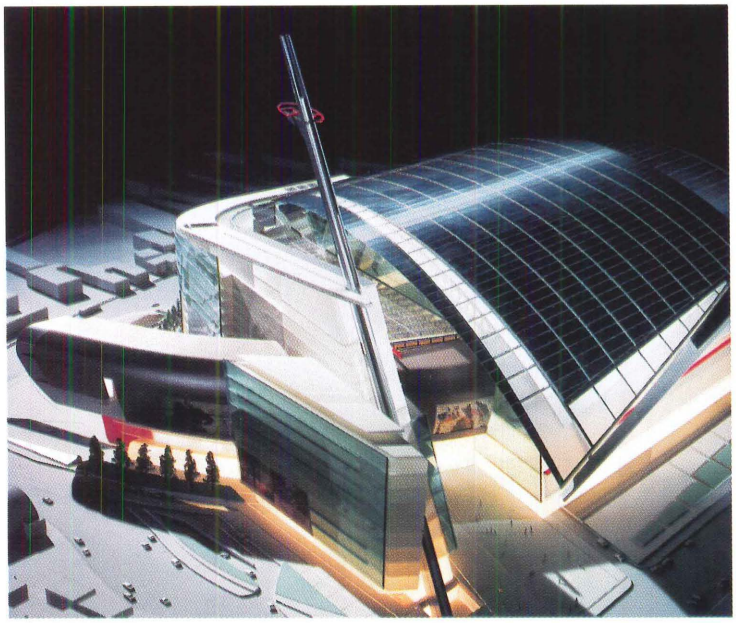
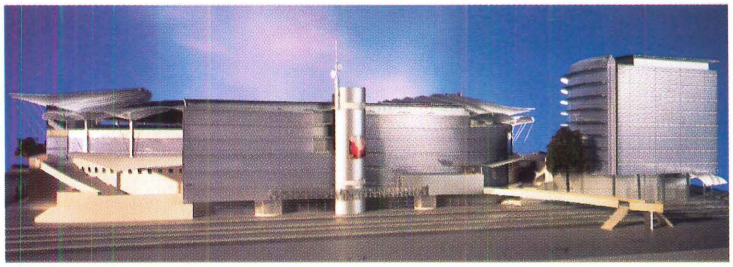
FOCUS ON: STADIUMS AND ARENAS

America outmarveled The 1989 debut of Toronto's SkyDome, a high-tech, multifunctional entertainment machine featuring a hotel, a retractable roof 33 stories high at its apex, and Earth's largest JumboTron screen, established the new paradigm for sporting facilities—except in the United States. Since the 1992 opening of Camden Yards in Baltimore, American stadiums and, increasingly, arenas have been designed to look and feel like those of 70 years ago. Everywhere else, though, the kinds of new functions and new technologies introduced by SkyDome are a natural fit for venues that look more and more like landed spacecraft. While American sports fans can relive an idealized past at the game, other fans worldwide are stimulated by the marvels of a futuristic full-service world built for their pleasure. *—D.S.M.*



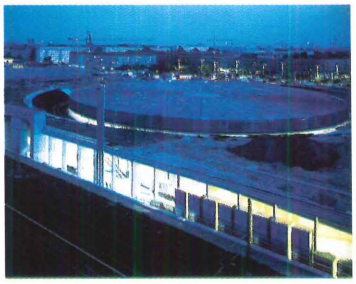
Seoul Dome LG Group, the South Korean conglomerate, intends to build nothing short of a "city landmark" with this multisport, multifunction facility. The dome will host 2002 World Cup games and thereafter will be the home field of the LG Twins baseball team. The complex will also include 2 million square feet of convention halls, restaurants, banquet facilities, cinemas, and stores. Architect: NBBJ—Peter Pran and Dan Meis, design principals; Mike Hallmark, principal-in-charge.



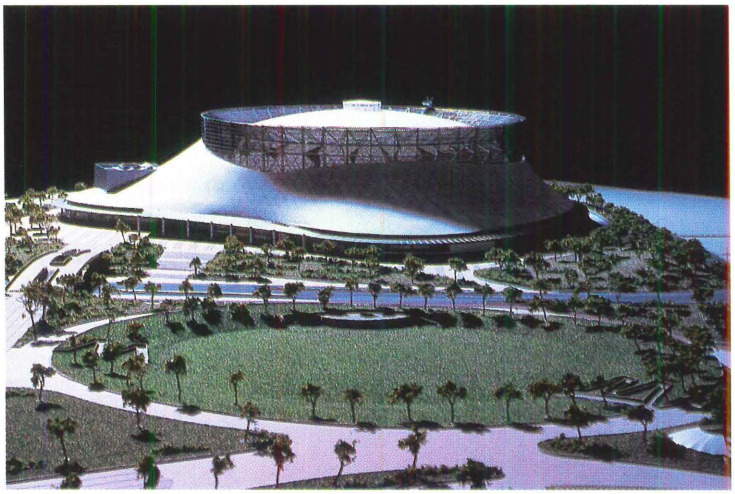
Ali Sami Yen Stadium This new home for Turkey's storied soccer club, Galatasaray, will be Istanbul's biggest soccer stadium when completed in 2000. It seats only 45,000 spectators but incorporates stores, an office building, apartments, and a six-screen theater complex. Architects: Stadium Consultants International and Brisbin Brook Beynon.

Le Stade de France The 1998 World Cup venue was completed this year in St. Denis, a Paris suburb. Five acres' worth of laminated glass constitute the roof, which floats above the stadium on 18 slender posts. The roof muffles sound and repels UV rays while allowing natural light into the stadium. Architects: Macary, Zublena, Regembal, Costantini.

Olympic Velodrome and Swimming Hall Berlin lost its Olympic bid, but it still built these minimalist monuments in a gloomy part of the city. The perfect circle of the velodrome and the rectangle of the swimming hall hide most of the bulk below grade, limned by apple trees above. Architect: Dominique Perrault.



Kumamoto "Buoyant Cloud" Stadium This domed stadium was completed last year in Kumamoto City, Japan. The doughnut-shaped roof, filled with air and supported by cables, forms a "cloud" that allows more open space beneath. The roof material is translucent, obviating the need for artificial light in the daytime hours, and also refracts sound, cutting down on interior noise. The hole at the center provides natural ventilation. Architect: Teiichi Takahashi, Dai-ichi Kobo Associates.



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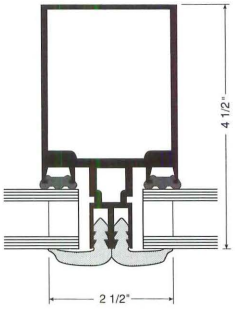

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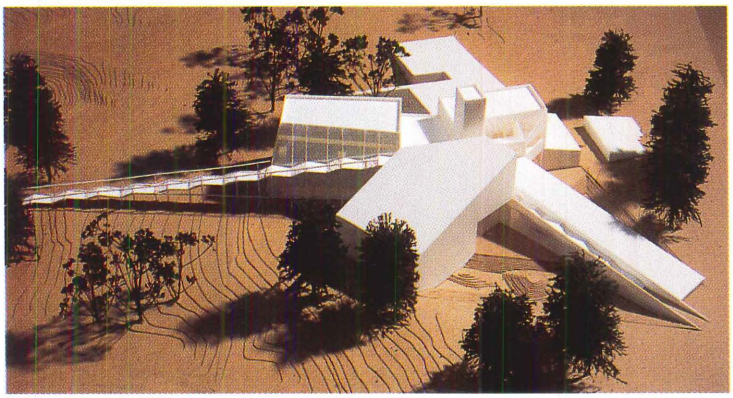

VIEWERS BECOME PARTICIPANTS IN NEW PREDOCK MUSEUM AT SKIDMORE COLLEGE

The Tang Teaching Museum and Art Gallery at Skidmore College in Saratoga Springs, New York, will be a flexible 30,000-square-foot space that celebrates the college's emphasis on interdisciplinary studies. Designed by Antoine Predock and due for completion in the fall of 1999, the building dispenses with the spatial hierarchies of the traditional display-oriented museum. Instead, its multiple entrances and circulation routes, multipurpose spaces, and large curatorial facilities and classrooms treat visitors as participants in a performance space that continually reinvents itself.

Set within a circle of majestic pines at the center of campus, the museum is a dynamic anchor for the college, its multiple arms radiating out from a central node toward main pedestrian circulation axes. Movement around, through, and over the building's many coves and protrusions is a voyage of discovery as the viewer gains fresh perspectives on the structure itself, the surrounding landscape, or the art inside when glimpsed through a window from a rooftop deck. One staircase climbs a sloping sod-covered classroom roof planted with wild grasses; another undulates downward for 100 feet along delicate scaffolding, like a roller-coaster to a picturesque pond.

Themes of transparency and dissolving boundaries are concretized in the many sightlines through multiple interior spaces. Between the curatorial area and the lobby, a wall of glass cubbies filled with objects serves to meld the typically separate domains of storage and display, private and public.

The museum's adaptable spaces can accommodate a wide range of art, from ancient Chinese painting to works based on evolving technologies, and can integrate related dance, poetry, or music programs. Earth berms embracing layers of exposed bedrock on the museum's perimeter provide intimate amphitheaters for classes, performances, and socializing. *Andrea Truppin*

NCAA CHOOSES MICHAEL GRAVES FOR ITS HEADQUARTERS IN INDIANAPOLIS

Hoosier architect Michael Graves has returned home to design the National Collegiate Athletic Association Headquarters and Hall of Champions in Indianapolis. Located in White River State Park, the project comprises a 40,000-square-foot Hall of Champions exhibition space, a 140,000-square-foot, four-story office/conference center, and a library and café in a renovated 19th-century industrial building.

The three structures, clad in earth-colored stone and brick, surround a central courtyard, recalling a college quadrangle. The Hall of Champions asserts itself with giant 45-foot glazed arches and prominent buttresses. The form of the Roman arena, whose circularity inspired the American college sports facility, reappears in the hemicycle behind, which houses the interactive exhibit area. The curve of this two-story space eases the transition to the adjacent office building, whose massive rectangular footprint is skewed to align with the historic building and a canal bordering the site. Offices are grouped around an atrium on the upper floors, with conference facilities on the ground level adjoining the Hall of Champions.

The $35 million complex, developed in conjunction with Schmidt Associates; 1717 Design Group (exhibit designer); Sasaki Associates; and Master Planners of White River State Park, will be completed in phases from 1999 to 2000. *A.T.*

A MODERNIST PARK REOPENS IN BRAZIL **After nearly 40 years of neglect, the Roberto Burle Marx Park in São Paulo, Brazil, has been restored. Brazilian landscape architect Roberto Burle Marx designed the 34-acre park in 1950 as a garden for businessman Francisco Pignatari. The park was abandoned shortly after completion, and it took until the late 1980s for a private developer to take on the repairs. In 1996, two years after its designer's death, the park was reopened as a public space, serving as a rare example of an intact Burle Marx work from the 1950s.**

Since his first garden, planted in Rio de Janeiro in 1932, Burle Marx designed approximately 3,000 works—of which only a fraction have been realized—and collaborated with architects such as Oscar Niemeyer, Richard Neutra, and Le Corbusier, who introduced him to Modernism. The landscape architect is also recognized for his discovery of a dozen Brazilian plants and his efforts in saving native species from extinction.

Burle Marx's early works were brilliantly colored, biomorphic mosaics of grasses, flowerbeds, pools, and walkways. In the 1950s these shapes became more rectilinear, and this park is a seminal example of his Modernist compositions. A main lawn is a precisely delineated checkerboard of dark and light grasses (left); the park also features a grouping of square and rectangular reflecting pools and walls decorated with colorful, geometric tile patterns. A row of Imperial Palms and plants such as the Heliconia Rostrata, with its red, fleshy blooms, provide tropical character. This more "controlled" area is set off by a wilder part of the park, with virgin forest, ponds, and little forests of bamboo.

"In each project Burle Marx sought to find plants that were best suited for the area and to take advantage of the existing site," says Fátima Gomes of the Burle Marx Studio in Rio, which is still in business. The park is managed by São Paulo's parks department and the Aron Birmann Foundation, a private, nonprofit group dedicated to creating and maintaining the city's green spaces. ***Marina Isola***

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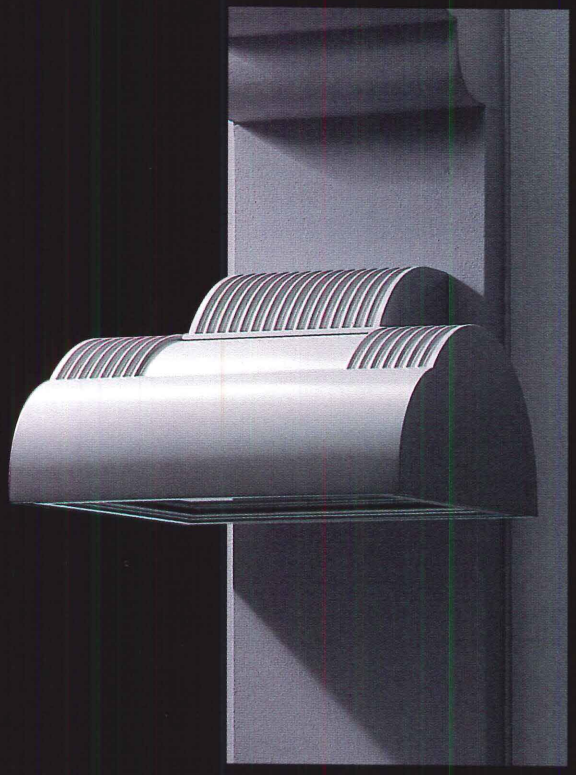

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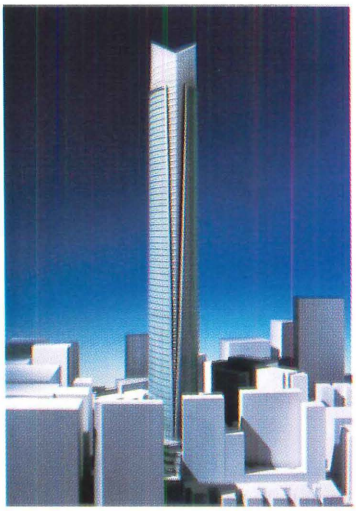
NEWS BRIEFS

Green hotel The first environmentally smart hotel in the continental United States—the 192-room Sheraton Rittenhouse Square—is scheduled to open at the end of this year. EcoSmart Healthy Properties, in a joint venture with the Lubert-Adler Real Estate Opportunity Fund and Carlyle Construction, is converting six stories of Philadelphia's Rittenhouse Regency using ecologically conscious building systems and materials, such as constantly circulating fresh air and nontoxic paints. A bamboo garden will "super-oxygenate" the air, according to EcoSmart president Barry Dimson, giving visitors to lobby restaurants "the sensation of having breakfast on a mountaintop."

Failing grades In its 1998 report card, the American Society of Civil Engineers (ASCE) awarded a D average to America's infrastructure, from mass transit, which was the highest achiever with a C, to schools, which flunked out. Drinking water received a grade of D, not much better than the D- given to hazardous waste. An investment of about $1.3 trillion should fix things, says the ASCE. The 10 categories of public works were evaluated on the basis of condition and performance, need versus capacity, and need versus finding.

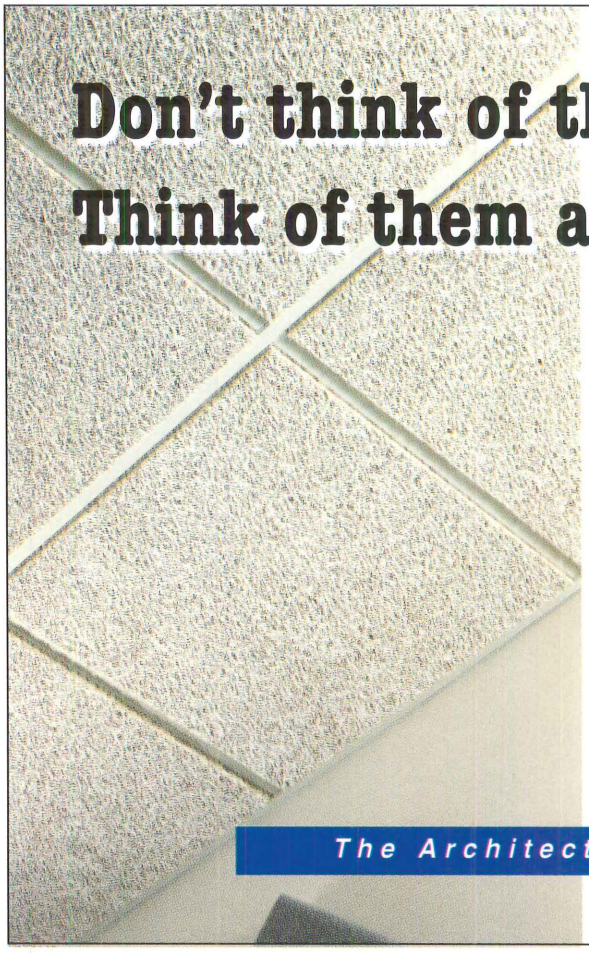
Notes from underground Hardy Holzman Pfeiffer Associates recently built the first fully underground performance space in the United States. Vilar Center for the Arts, in Beaver Creek, Colorado, houses a multilevel lobby, a 2,250-square-foot gallery, and a 530-seat theater, all tucked beneath an ice rink. Creating a suitable design with the vertical challenges posed by the tight, fixed site led to many technical innovations. For instance, to make up for the absence of a traditional fly tower, which lifts and lowers scenery, the designers gave this theater unusually large stage wings, for horizontal movement of sets.

Max headroom Once Norman Foster's Chek Lap Kok Airport opens in Hong Kong this July, development around the site of the old Kai Tak Airport, in Kowloon, will take to the skies. Where flight patterns now restrict building heights, construction will begin on a 55-story, 800,000-square-foot mixed- use project designed by American firm Leo A. Daly. The tower will stand twice as high as any of its neighbors and afford dazzling new views of Hong Kong's harbor.



Leo A. Daly's 55 story tower, to be built near the old airport in Hong Kong, which will soon close.

Streets of dreams New York City's Fifth Avenue between Tiffany's and Saks commands the highest rents on the planet, with retail space going for $580 per square foot. A survey conducted annually by Equis Retail Group showed that seven of the world's 10 priciest streets are in the United States, thanks to a stable economy and a healthy tourism industry. Oxford Street in London, at $400 per square foot; Paris's Champs Elysées, at $360; the Ginza in Tokyo, at $290; and Hong Kong's Nathan Road (tying for ninth place with Union Square in San Francisco), at $250, also made the top 10.



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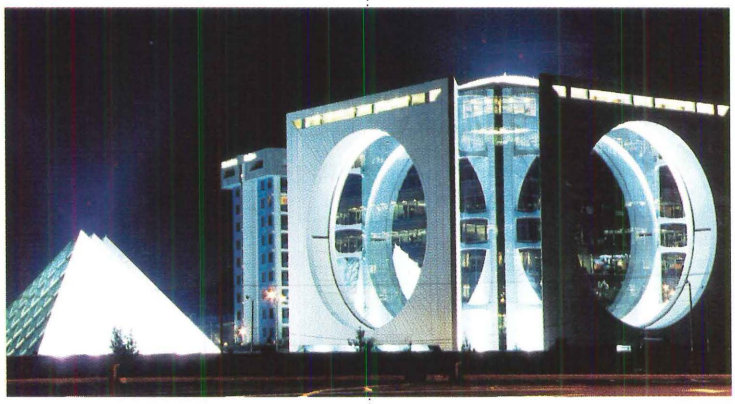
Alpine Woods In a move to create an "important" place to study architecture in Europe, SCI-Arc has named Lebbeus Woods—a noted architect, illustrator, and theorist—academic director of its Vico, Switzerland, campus. Woods, vowing not to "create America in the Alps," hopes to attract more Europeans to Vico with the Cybernetic Circus, a program studying structures of measurement and performance.

Modernist pioneer dies Architect Alberto Sartoris died on March 9 in the Swiss town of Pompaples. He was 97. Born in Turin, he had lived in Switzerland since fleeing Italy in the 1930s. Sartoris was a founder of the Italian Rationalist movement and designed one of Italy's earliest Rationalist buildings, Turin's Exhibition Pavilion. An organizer, with Le Corbusier, of the first Congrès Internationaux d'Architec-ture Moderne, Sartoris was also identified with the Futurist movement.



The Calakmul office complex in Mexico City, designed by Augustin Hernandez.

Temple of industry A 400,000-square-foot office complex for corporate giants such as Kraft Foods and Philip Morris was recently completed in Mexico City. Calakmul, an assemblage of geometric forms designed by Augustin Hernandez, draws on Mayan symbolism: the cube of reflective glass alludes to the four compass points; the steel, glass, and concrete pyramid is an offering to the Jaguar god; and the parking garage under the obelisk represents, fittingly, the underworld, home of the Mayan gods of the inferno.

BIG news The most ambitious of several recent public art and urban design projects in Santa Monica, California, will break ground this summer. For the Beach Improvement Group, or BIG Project, artist Judy Pinto and San Diego landscape architects Wallace Roberts & Todd have teamed up to design a major parkland development. This metaphorical theater encompasses a sweeping stretch of California coastline; the Palisades act as a balcony overlooking the drama of the sea and sunset, and the Santa Monica Pier acts as an aisle directing the audience's gaze.

New Safdie in Orlando Moshe Safdie Architects was recently selected to design the new Orlando Performing Arts Complex. The combined teaching and performance space, commissioned by the City of Orlando and the University of Central Florida for a two-block site next to City Hall, is in the master planning phase. Safdie's design creates a "living room" for the city, drawing people and activity downtown. Although Orlando's biggest draw is Disneyworld, this fast-growing city is home to diverse industries and a cultural scene with a whole cast of unlicensed characters. "Orlando owes something to theme parks," says Isaac Franco, firm principal, "but they're not its raison d'être." ■

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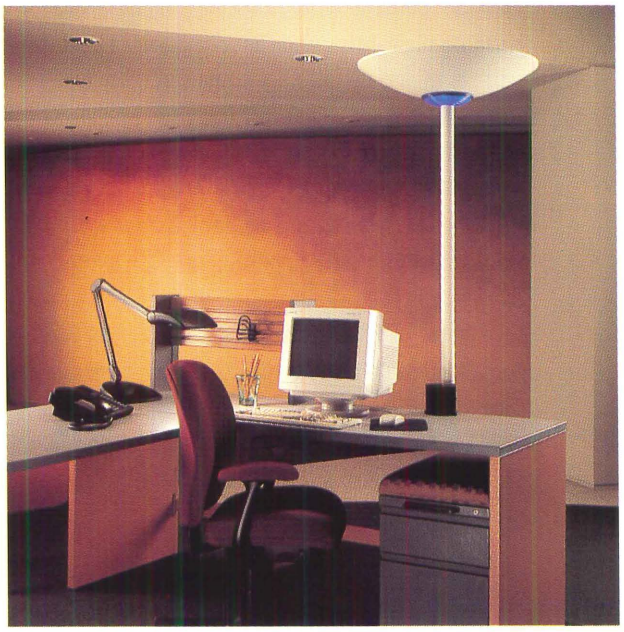

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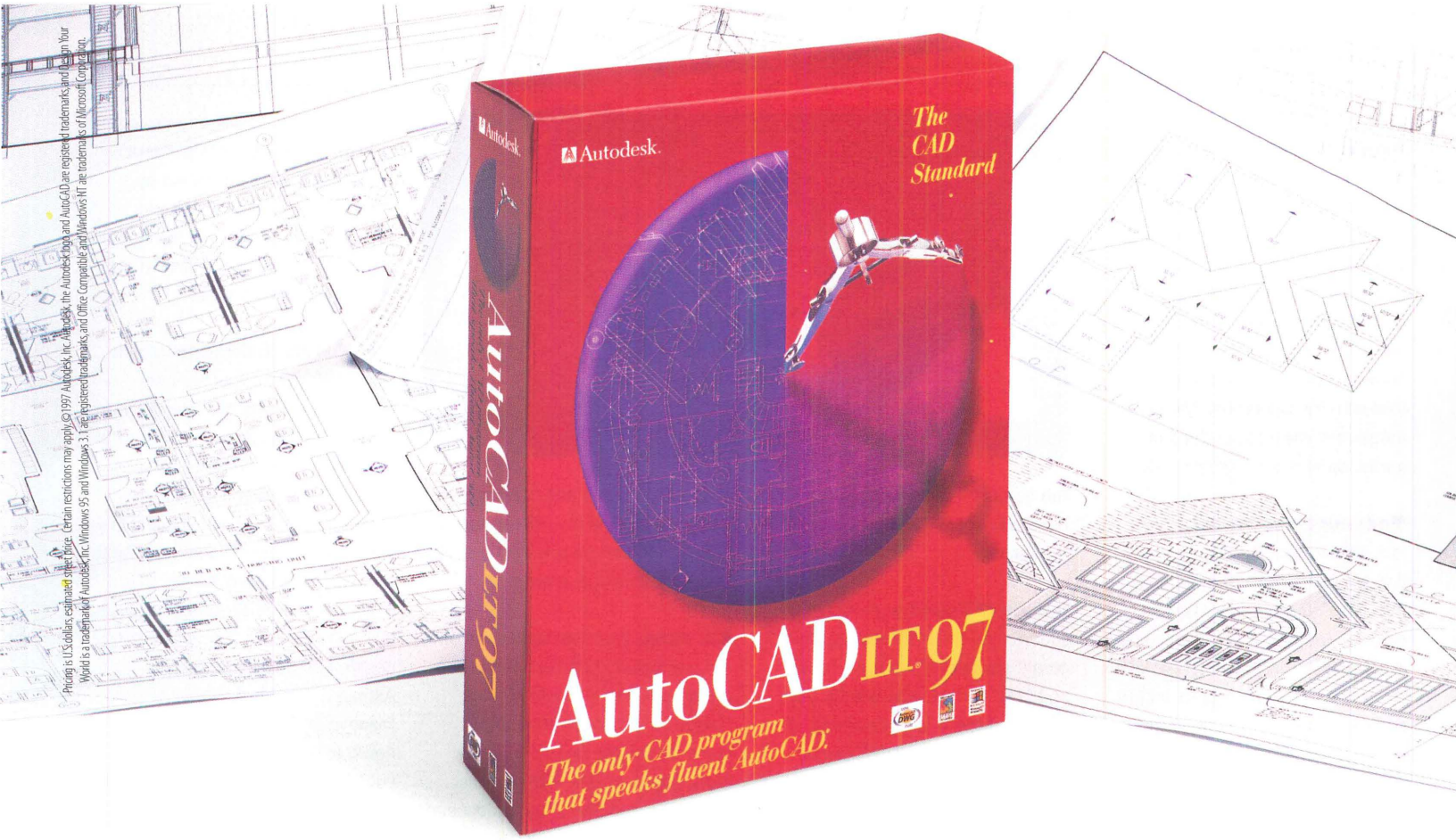

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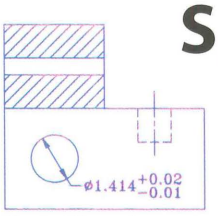

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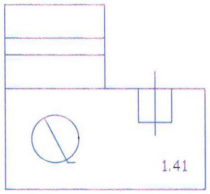

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CORRESPONDENT'S FILE With the economies of Southeast Asia reeling, architects working in the region are facing a difficult future.

BY NIGEL SIMMONDS

Nigel Simmonds is a journalist based in Singapore and Bali who has contributed to RECORD's Pacific Rim section for several years.

The warning signs had been there for years, but for many of us they were little more than inconspicuous maintenance flags on the road to riches. With hindsight, we can see them clearly now: the gleaming skyscraper towering over a carpet of slums in Jakarta; the brand new Mercedes-Benz negotiating a road built for horse and cart in Thailand. The gap between rich and poor, of course, was always stark; the one between reality and wishful thinking was less evident.

For those of us who have known Southeast Asia only in the economic upswing, the last months have been something to behold. A currency crisis has wiped at least 50 percent from the value of most Southeast Asian banknotes: in Indonesia the rupiah slipped from 2,400 to the dollar in July 1997 to more than 16,000 at one point in January 1998 (it now hovers around 10,000 to the dollar.) Stock markets have plummeted across the board as confidence in the Asian "miracle" has waned. Banks, which are central to the problem, have been forced to account for bad loans, easy finance, and chronic cronyism.

So what's going on? According to the Economist Intelligence Unit, the research and forecasting arm of the *Economist* publications, there are two distinct interpretations of the Asian situation. The first suggests that the region's difficulties lie in its foreign-exchange markets and do not reflect an underlying weakness in the economies—a situation that could be solved by a rapid surge in exports.

The second reading suggests that the precipitous slide in the currency and stock markets has exposed and aggravated a number of structural weaknesses. Says the EIU: "These include unsustainable current account deficits, overheated construction sectors, and banking sectors that have lent heavily to finance share purchases and glutted property markets." The problem here is that, with the currency and stock markets continuing to slide, banks face the prospect of bad debts mounting to unsustainable levels. "Failing banks and contracting credit could, in turn, lead to a prolonged slump," says the EIU.

Two by Arquitectonica: Pacific Plaza Towers (left), two 52-story luxury apartment buildings going forward in Manila; and Winsland House (below), completed in Singapore at the end of last year, with full-service apartments and an office complex.

In the shadows of Southeast Asia's problems are "two wild cards: Japan and China," says Francisco Larios, senior emerging markets economist for Standard & Poor's DRI. What happens with these two economic giants will have a great impact on how quickly Southeast Asia is able to revive.

If Japan were to adopt changes to boost domestic demand, it could help Southeast Asian nations revive their economies by exporting more. But "right now Japan isn't playing the role in the region that its economic weight warrants," says Larios. And while China has stayed outside the zone of troubles so far, a devaluation of the Chinese currency or signs of an economic crisis could drag Southeast Asian countries down even further.

As governments have reined in public and private spending to cope with the downturn, building and infrastructure projects in many countries have been the first to go. Many property companies—the pacesetters of Asia's growth

phenomenon—are facing a future that is at best uncertain. As a result, much of the work that foreign architects had relied on to keep them going has dried up.

Even some projects that were well under way have been brought to a halt. For example, construction of the 62-story BDNI Center in Jakarta, designed by the New York–based Pei Partnership, was frozen in early March after it had already progressed past the 10th floor. L. C. (Sandi) Pei says the project will be on hold for perhaps a year, but he expects it will go forward eventually.

Two Pei projects in Singapore that hadn't started construction—a luxury apartment building and an office tower—have also been put on hold. But Pei expects them to begin construction sooner than the Jakarta tower, perhaps within six months.

Looking at the big picture, Pei says, "I feel there is a general optimism about the future of the area but an aversion to the present." In the meantime, says Pei, "the reality is that everything in the region is in a state of turmoil right now."

Development Design Group, a Baltimore-based architecture firm that has been active in Indonesia for several years, reports mixed news from the region as well. Phase I of Legend City, a large master-planned community outside Jakarta, is being completed, as is Mal Puri Indah, an 864,000-square-foot retail center in Jakarta, says Kathleen Carney, communications director of the firm. About a half dozen other projects in Indonesia, however, have been postponed.

This apartment complex in Singapore by Pei Partnership is now on hold.

PHOTOGRAPHY: © JOCK POTTLE (BOTTOM)

This entertainment complex in Jakarta by Development Design Group has been postponed.

"We've definitely been hit, but it's not all doom and gloom," says Carney. "No clients have canceled outright" and the firm is maintaining its seven-person Jakarta office. "We're a little more optimistic than what you read in the press," she explains. "We envision things getting going again within a year or 18 months."

A few foreign firms have been able to stay busy in the region by steering clear of the countries that have been hit the hardest. "We have 40 projects under way in Asia right now," reports Bernardo Fort-Brescia, a principal of Arquitectonica International, the Miami-based firm, which has three Asian offices: in Shanghai, Hong Kong, and Manila. "The only cancellations we've had are two projects in Manila. But just this week we got a new project there," Fort-Brescia says.

His firm has been lucky since it has done no work in economically troubled countries such as Thailand, Malaysia, and Korea and just one project (completed at the end of last year) in Indonesia.

For local architects in struggling countries, though, there's nowhere to run. In Indonesia, where a succession crisis is threatening to turn violent and add to the economic woes, one local manager painted a dire picture: "Every major project in the capital has now been closed. Expatriates are leaving in droves, and at one regional bank those executives who are staying on have been issued walkie-talkies, just in case the communication systems go down."

Major casualties so far in Indonesia include the massive Jakarta Tower. "It was supposed to have been the tallest tower in the world—558 meters high, five meters taller than the CN Tower in Toronto," says Mohammad Danisworo, chairman of Jakarta's Architectural Review Board.

The story is the same in the country's other major centers, including Surabaya, where a convention center designed by Tsao & McKown Architects of New York is just one of a number of projects to have hit financial limbo.

"It seems to me the impact of Asia's current economic situation on architects and their business is a very serious one," says Danisworo. "It is not just a 'blip'; it is a major downturn, particularly for projects being financed by local investors."

Indonesia may well be at the sharp end of the crisis for now, but it all began in Thailand. Casualties in Thailand have included such major projects as the $3.7 billion Bangkok Elevated Road and Train System.

The story is not as bad in Singapore, where a massive MRT project seems ready to move ahead. The Lion City has not been immune to the crisis, however: more than half the larger private sites sold in the last two years will not be redeveloped this year. Developers seem to have put their plans on hold to wait out the uncertain market.

Not all of the news is bad, however. In Malaysia the government confirmed in January that it will continue with the construction of a new Malaysian administrative capital called Putrajaya. The total cost? Around 20 billion ringgit (or $3 billion at 6.3 to the dollar). The new town is a major piece in Malaysia's grand plan, unveiled last year before the currency crisis, to build a $33 billion "multimedia super corridor," which will also include high-tech development between Kuala Lumpur and a new international airport designed by Kisho Kurokawa. The airport is now under construction outside the city.

The world's tallest buildings, the twin Petronas Towers in Kuala Lumpur, designed by Cesar Pelli, are essentially complete, although work is continuing on an attached concert hall and shopping mall.

Looking ahead, Colin Knowles, managing director of CMR International, a Melbourne-based management consultant firm, believes the Asian currency crisis will have a significant impact on speculative development but not on infrastructure. He told the *Australian Financial Review:* "In particular there is still massive demand for the construction of roads, buildings, and sewage systems. We've got a high degree of confidence about the amount of work that will come out of Southeast Asia in the future."

Some observers, like Zack McKown, of Tsao & McKown, believe that Southeast Asia's predicament will help foster more responsible development that will respond not only to market forces but also to the needs of the people who live in these cities.

Federal Reserve chairman Alan Greenspan has expressed a similar sentiment—that the current crisis might initiate meaningful economic reform. If that happens, it may well pave the way for more sustainable growth in the future. ■

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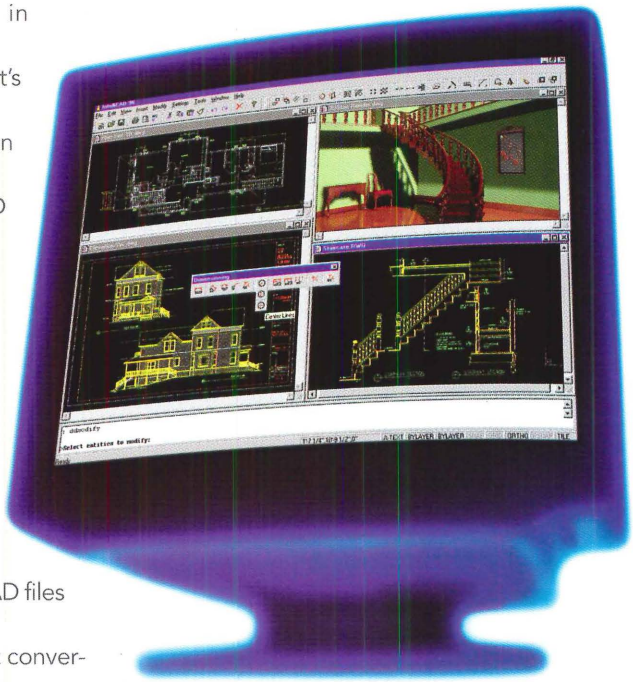

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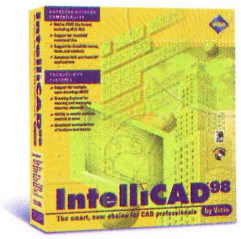

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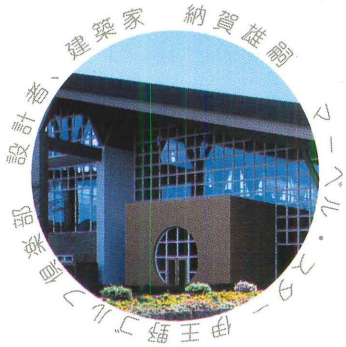
CIRCLE 27 ON INQUIRY CARD



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IOHNO PROJECT MANAGER: KAZUO SAITOH

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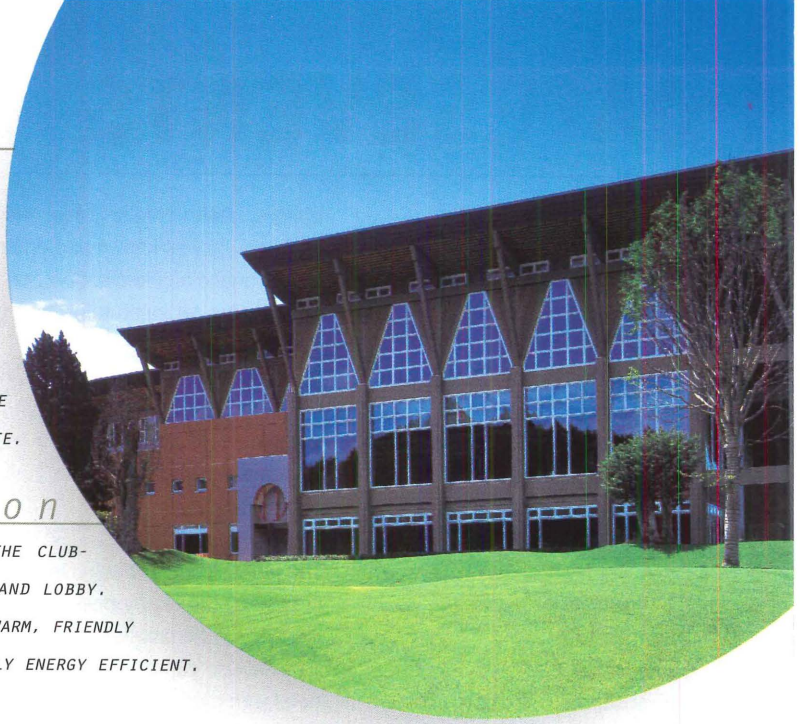

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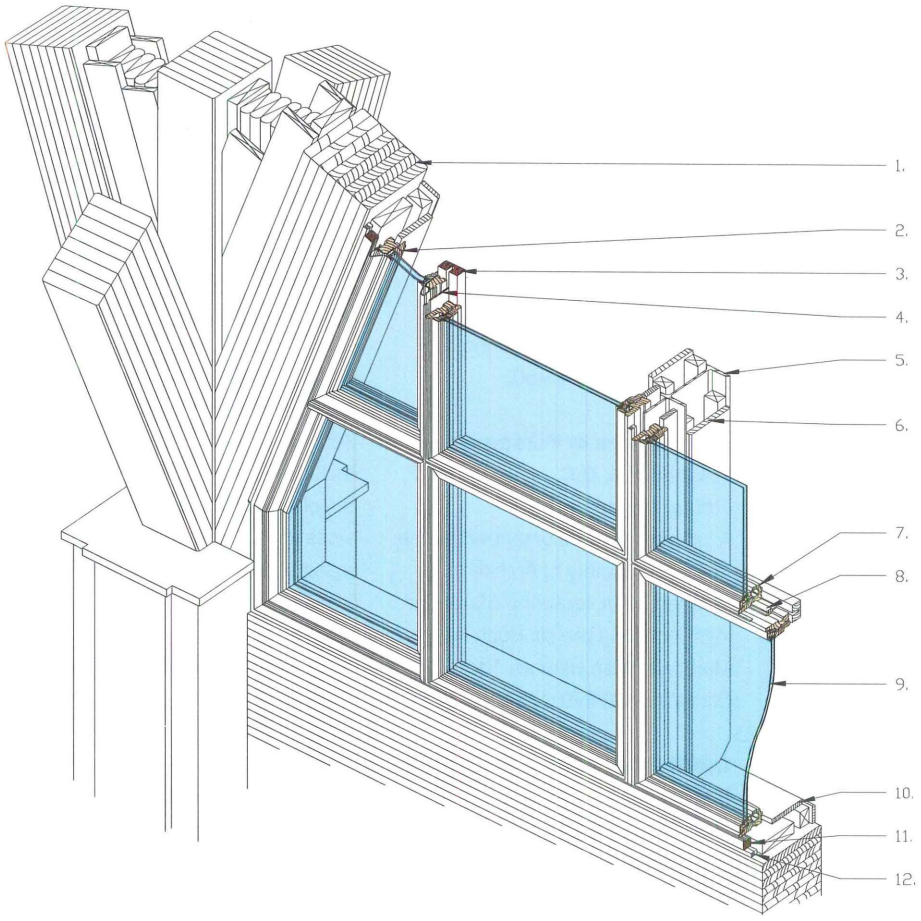

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Calendar

Lighting Design by Alvar Aalto
New York City
Through April 22
"Play of Light" includes lamps and lighting fixtures designed by architect Alvar Aalto for major building commissions in Finland from the 1930s through the 1950s. Pratt Manhattan Gallery. 718/636-3471.

Archigram, 1961–1971
New York City
Through April 25
The conceptual work of the celebrated British architectural collaborative is on view. Storefront for Art and Architecture. 212/431-5795.

Rethinking the Modern
New York City
Through April 28
Three design proposals for the expansion and renovation of the Museum of Modern Art, New York, by Yoshio Taniguchi (who won the competition), Bernard Tschumi, and Herzog and de Meuron. Museum of Modern Art. 212/708-9400.

Photographs by Ezra Stoller
Washington, D.C.
Through April 30
Black-and-white images of classic modern buildings by the well-known architectural photographer. AIA Library and Archives. 202/626-7499.

Shiro Kuramata
New York City
Through May 2
Furniture, objects, and photographs of interior designs by the late Japanese designer. This touring exhibition is the first major retrospective of Kuramata's work. Grey Art Gallery, New York University. 212/998-6780.

Japan 2000: Architecture for the Japanese Public
Chicago
Through May 3
Drawings, models, and photographs of museums, police stations, dams, bridges, health-care facilities, and stadiums by well-known and emerging Japanese architects. Co-organized by the Art Institute of Chicago and the Japan Foundation. Art Institute of Chicago. 312/443-3600.

Arquitectonica: The Times Square Project
New York City
Through May 10
The first solo exhibition in New York of work by the Miami-based firm focuses on the architects' design of a mixed-use complex combining a hotel with entertainment and retail components, to be built at 42nd Street and Eighth Avenue. Cooper-Hewitt Museum. 212/849-8300.

Civics Lessons: Recent New York Public Architecture
Washington, D.C.
Through May 11
Projects in New York initiated by public agencies working with architects from 1985 to 1995. Organized by AIA/New York and the New York Foundation for Architecture, the show emphasizes the link between public investment in architecture and the economic, social, and aesthetic quality of the city. National Building Museum. 202/272-2448.

Alvar Aalto: Between Humanism and Materialism
New York City
Through May 19
Marking the 100th anniversary of Aalto's birth, this large-scale retrospective is the first in the United States to present original drawings and models of work by the renowned Finnish architect, designer, and town planner. Included are video walk-throughs of several of his most important buildings. Museum of Modern Art. 212/708-9400.

Position/Paradox
New York City
Through May 19
An exhibition of work by the six winners of the Architectural League's annual competition for young architects and designers, accompanied by a lecture series. Urban Center. 212/753-1722.

Kisho Kurokawa Retrospective
London
Through June 13
"From the Age of the Machine to the Age of Life," a major retrospective of the work of Japanese architect Kisho Kurokawa, from his early projects with the Metabolist Group through his current addition to the Van Gogh Museum in Amsterdam. RIBA Architecture Centre. 011/01-1-580-5533.

Finnish Modern Design: Utopian Ideals and Everyday Realities
New York City
Through June 28
Featured in the exhibition are glass, ceramics, furniture, textiles, metalwork, and industrial design. Organized by the Bard Graduate Center for Studies in Decorative Arts and the Museum of Art and Design in Helsinki. Bard Graduate Center. 212/501-3000.

Titanium!
New York City
Through June 30
An exhibition demonstrating the range and diversity of titanium, including its recent architectural applications. Material ConneXion Gallery. 212/445-8950.

Architecture in Perspective
Washington, D.C.
Through July 5
A juried exhibition, organized by the American Society of Architectural Perspectivists, featuring 55 renderings, including the six Hugh Ferriss Memorial Prize winners. The Octagon. 202/879-7764.

The Making of New South Asia
Pittsburgh
Through July 19
The work of four South Asian architects—Charles Correa, Achyut Kanvinde, Balkrishna Doshi, and Muzharul Islam—is included in this traveling exhibition. Heinz Architectural Center, Carnegie Museum of Art. 412/622-3131.

Landmarks of New York
New York City
Through August 23
An exhibition of historical photographs celebrating New York's centennial, accompanied by a symposium, walking tours, and panel discussions. New-York Historical Society. 212/861-4641.

Art and Architecture Symposium
Marfa, Texas
April 25–26
A symposium on the integration of art and architecture, with participants Robert Irwin, Frank Gehry, Claes Oldenburg, Jacques Herzog and Pierre de Meuron, James Ackerman, and others. Chinati Foundation. 915/729-4362.

Tax Incentives for Developing Historic Properties
San Francisco
April 27–28
A conference on using historic rehabilitation tax credits more effectively, featuring presentations by developers, financiers, tax specialists, and representatives from the National Park Service. Fairmont Hotel. For information, call the National Park Service, 202/343-1185.

Buildings NY
New York City
April 28–29
Includes exhibits by more than 500 suppliers of new products and services for renovating New York's aging buildings. Jacob Javits Center. 203/840-5384.

Federal Contracting for A/E Services
Washington, D.C.
April 29–30
A practical conference for architects, engineers, and government agencies focusing on processes and regulations relating to federal procurement of architecture and engineering services. AIA members will

(continued on page 56)

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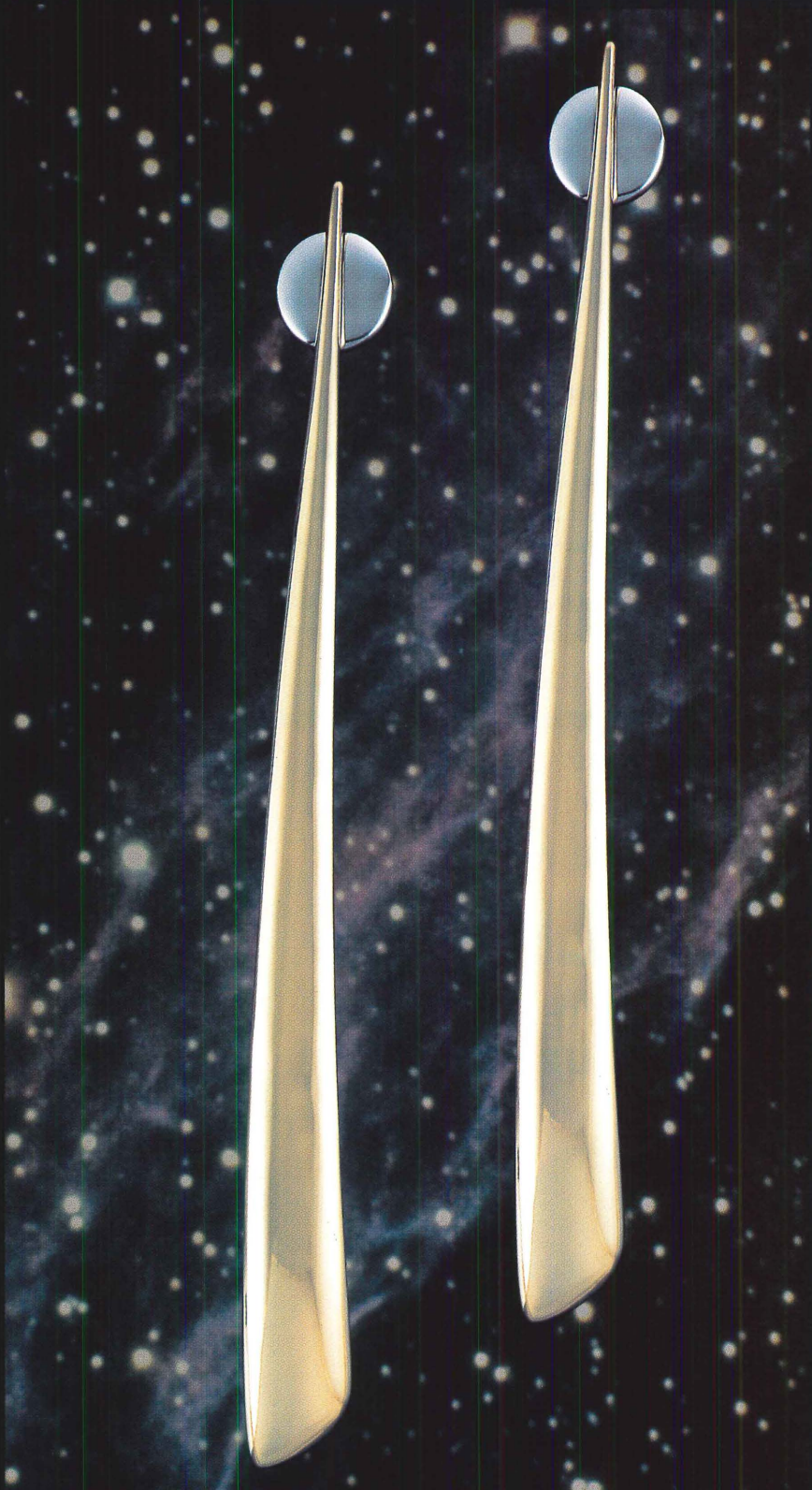

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CIRCLE 29 ON INQUIRY CARD

(continued from page 54)
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Congress for the New Urbanism
Denver, Colorado
April 30–May 3
"Cities in Context" will explore reshaping existing cities through aggressive infill strategies and integrating environmental preservation with New Urbanist developments. Speakers include architects, developers, planners, and representatives of local and federal governments. Call Congress for the New Urbanism at 415/495-2255 or visit www.cnu.org.

1998 AIA National Convention and Expo
San Francisco
May 14–17
Twelve thousand industry professionals are expected to attend this year's convention at the Moscone Convention Center. For information about exhibiting, call 617/859-4483. For other information, call the AIA at 202/626-7395 or check the convention Web site at www.aia98.org.

Competitions

Development of the Al-Riyadh District
Submission deadline: April 22
Al-Dar Real Estate Investments has announced an international architecture and urban design competition, with professional and student categories, to develop residential accommodations for Muslim pilgrims in the Al-Riyadh District, Makkah, Saudi Arabia. The design for the 3,500-square-meter site should be sympathetic to natural and environmental factors, fulfill the requirements of the pilgrims, and recall the local architectural and urban fabric. First prize for professionals is $50,000; for students $4,000. Contact Salihiyya Center, Office 702, King Abdul Aziz Street, P.O. Box 17871, Jeddah 21494, Saudi Arabia; call 011/966/2-644-4690; or E-mail aldar@mail.gcc.com.bh.

New Public Space Competition
Registration deadline: May 1; submission deadline: June 1
A design competition for a new public square on the Buffalo, New York, waterfront. For information, call Judy Camp, AIA Buffalo/Western New York, 716/852-1900, or E-mail jcamp@buffniag.org.

San Francisco Urban Design Competition
Submission deadline: May 18
A competition to develop an urban design vision for the revitalization of 24th Street, a major cultural, economic, and social artery in the Mission District and the city. The goals are to create a healthy, vibrant Latino corridor that serves the local community, attracts citywide and tourist markets, and draws Latin American investments, products, and services. Long-term goals include planning the creation of a *zocalo* and other public spaces. Write Brava, 2180 Bryant Street, San Francisco, Calif. 94110; call 415/641-7657; or fax 415/641-7684.

Precast Concrete Design Awards
Submission deadline: May 22
The Precast/Prestressed Concrete Institute offers awards for structures substantially constructed with precast concrete. Projects must have been completed in the last three years, or be substantially complete now, and must be located in North America. Open to registered architects, engineers, and government agencies. Write PCI, 175 W. Jackson Boulevard, Chicago, Ill. 60604; call 312/786-0300; or fax 312/786-0353.

(continued on page 192)

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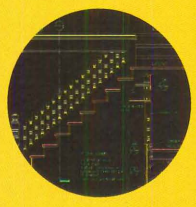

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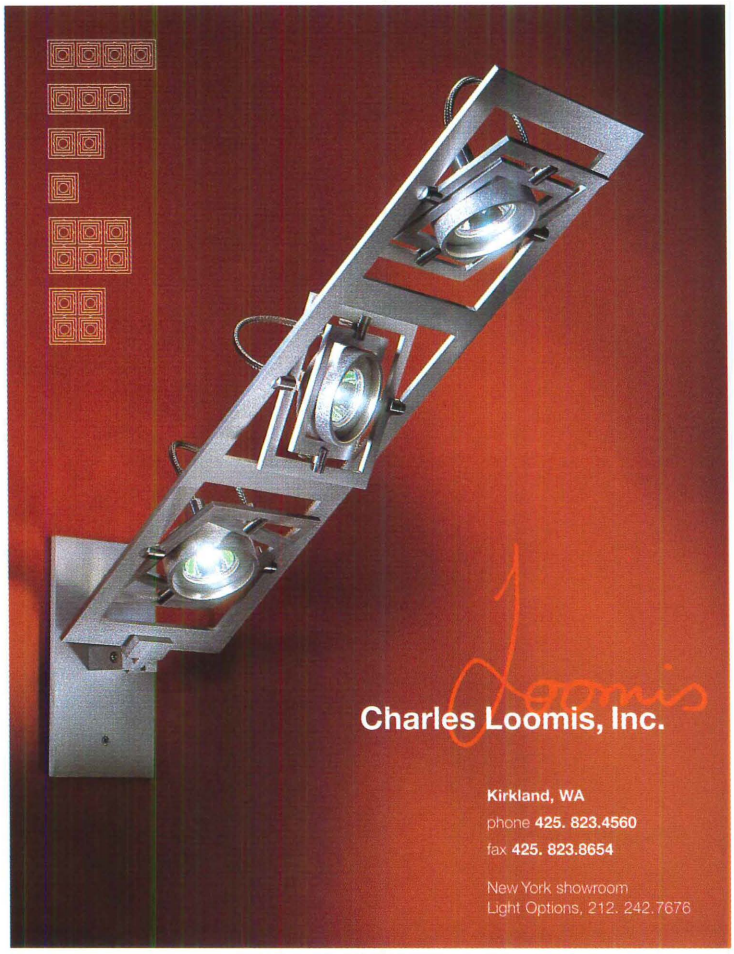

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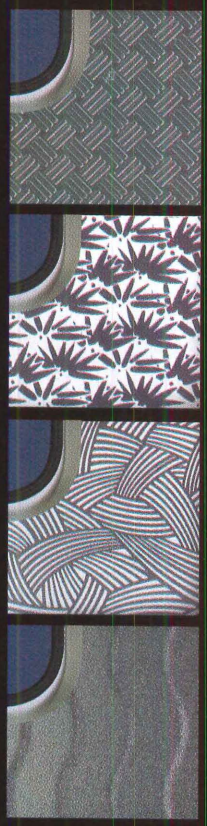

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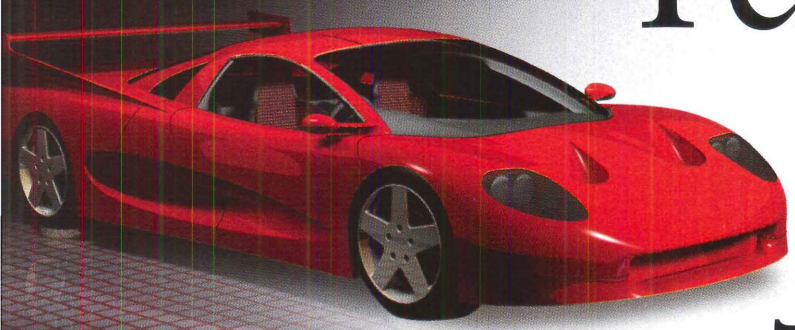

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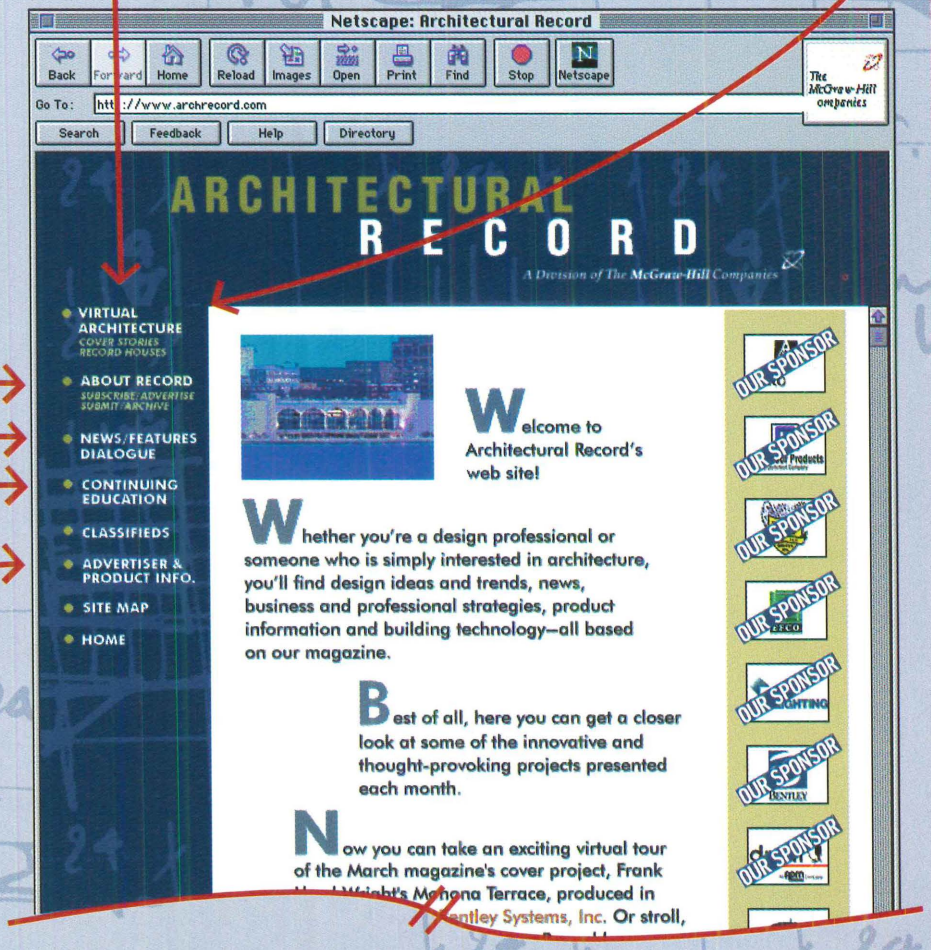

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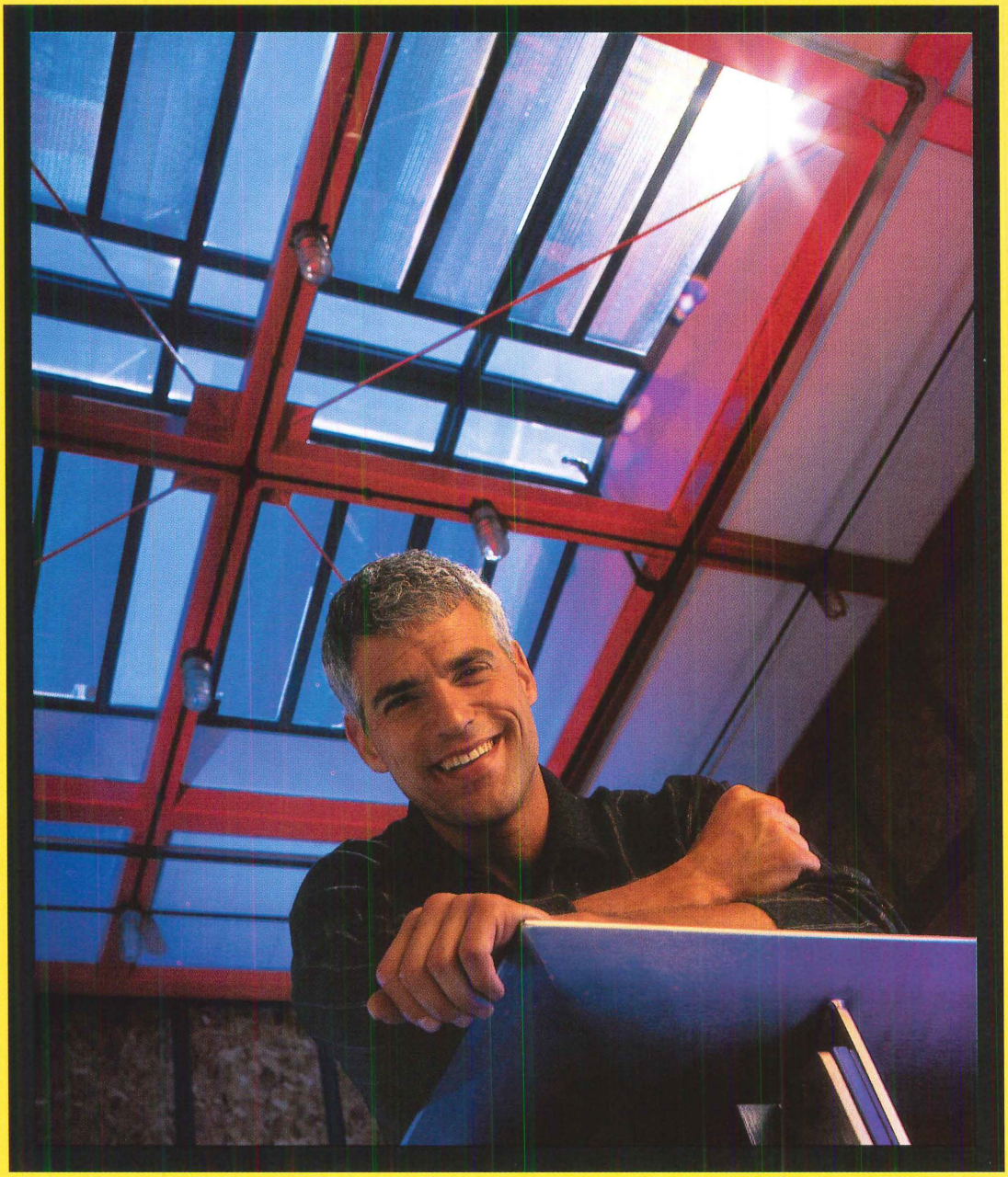

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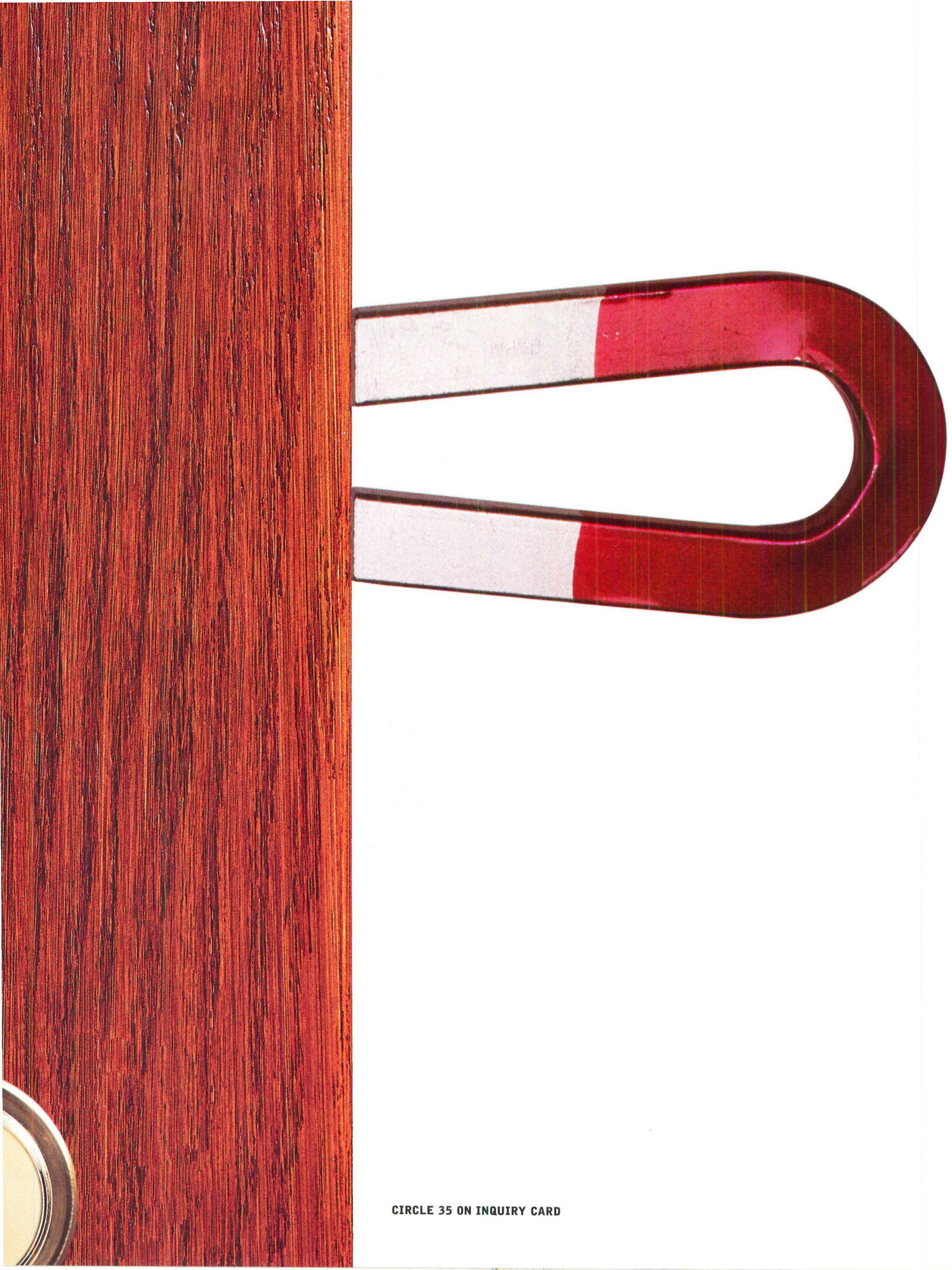

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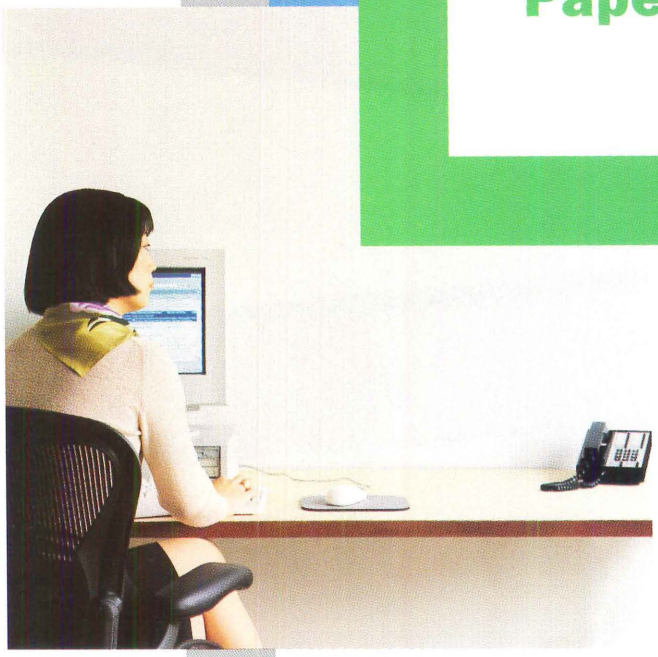

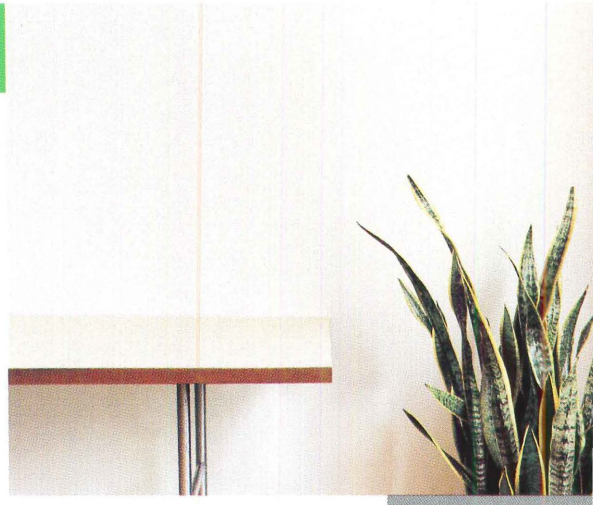

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LISTENING TO: Interior Designers

WHAT DO THEY THINK OF ARCHITECTS?

Text by Wendy Moonan **Illustration by Lebbeus Woods**

On June 4, 1997, RECORD's editor in chief, Robert Ivy, FAIA, convened a panel of prominent interior designers at McGraw-Hill's headquarters in New York City to discuss their working relationship with architects. The seven participating panelists included four who specialize in corporate interiors: Margo Grant Walsh, a director and vice chairman of the New York office of Gensler, an international architecture and interior design firm with 1,200 employees; Susan Orsini, ASID, founder of Orsini Design Associates, with a staff of 20 in offices in Los Angeles and New York; Nestor Santa-Cruz, Associate IIDA, director of interior design for Skidmore, Owings & Merrill's Washington, D.C., office; and Michael Gabellini, AIA, a New York City–based architect whose 25-person, multidisciplinary firm concentrates on well-known fashion and retail clients. Three other interior designers, whose practices are primarily geared toward residential work, were also on the panel: Peter F. Carlson, who, after eight years on the Manhattan design scene followed by four years of practice in Los Angeles, recently opened an office with four employees in Lyme, Connecticut; and New Yorkers David Anthony Easton and John Saladino, ASID, both heads of highly successful eponymous interior design firms with impressive client rosters and several registered architects on staff.

Although architects and interior designers routinely collaborate on both large and small projects, the designers assembled defined some very real tensions in their working relationship. The panel members' remarks on the fundamental differences between architects and interior designers tended to be provocative, sometimes in direct conflict with how architects see things. Nevertheless, RECORD has presented their opinions and commentary as the interior designers stated them, strong feelings and controversial pronouncements intact. In this way, the entire design community will be able to hear their colleagues' voices. One theme that recurs throughout the panel discussion requires clarification: Despite the tenor of the remarks, architects are integrally involved in interior design work at all scales, and, in fact, the majority of interior design work in commercial settings is performed by architects. The results of the discussion, with some additional interviewing and reporting, follow.

Interior designers, in general, seem to view their collaborations with architects as uneasy, characterized by the architects' lack of respect for their intellect, their experience, and their ability to contribute to a project. The interior designers in this panel attributed these strained interactions to different ways of thinking about design, a turf-war mentality, and jealousy (mostly about fees and income levels) on the part of architects.

The consensus among the interior designers on the panel was that architects think differently and work differently than they do. "Architects design buildings from the outside; the inside is fallout," said John Saladino, who has three AIA members on his staff. "The inside is often a disaster because architects don't change scale. They are above caring about the necessities of life." Saladino has designed several multimillion-dollar houses for clients from the ground up. "I wear two hats," he said. "In my firm, we do architecture and interior design. You have to be two-headed. You go from siting the house to conceptualizing the exterior. Then you do the interior. You go from the general to the particular and back again. When you think about the interior, you may change the outside. You may change the windows, for example. Then you may revise the inside. You keep going back and forth."

"Architects are more abstract; for us, design is about the pursuit of beauty," said Michael Gabellini. When asked his opinion, Charles Gwathmey, FAIA, of Gwathmey Siegel & Associates in New York City, an architect who creates the furniture and interiors of many houses he designs, agreed with Gabellini to a degree: "The interior designer is image driven as opposed to content driven," he said. "If you believe in editing and the essence of things, you tend to be reductive rather than additive. [Interior] designers are additive. There's an ideal that says you see the space, the form, and the object simultaneously, and they have to support each other as a whole. I don't make a separation. It's holistic."

THE GROUP'S REMARKS ON THE DIFFERENCES BETWEEN ARCHITECTS AND INTERIOR DESIGNERS TENDED TO BE PROVOCATIVE—OFTEN IN DIRECT CONFLICT WITH HOW ARCHITECTS SEE THINGS.

Wendy Moonan is an editor at large at House & Garden *and a frequent contributor to ARCHITECTURAL RECORD.*

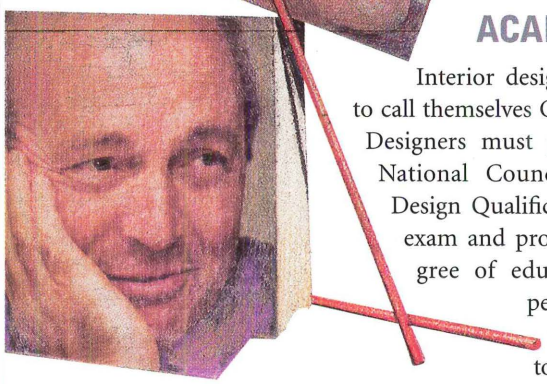
Clockwise from top: Michael Gabellini, John Saladino, Margo Grant Walsh, Susan Orsini, David Anthony Easton, Peter F. Carlson, Robert Ivy, Nestor Santa-Cruz.

"Architects are trained to perceive their designs as sculpture," offered Susan Orsini. "Interiors people have been trained to perceive spaces from the inside out. That's a very critical difference. 'How will the rooms be used, how can a conversation be held in this space?' We always start with the furniture plan and develop the lighting, the power, the infrastructure to support that plan. And, invariably, we're presented with the architectural plan for power and lighting that has absolutely no relationship to the way any space is going to be used." Orsini, who has worked with the CEOs of Trust Company of the West, GTE, Disney, Goldman Sachs, and Forstmann Little & Company, said her goal is "one hundred percent client satisfaction. The form is secondary. It's almost as if you designed the room without walls. It goes to the proportion, to the number of entrances and exits and encumbrances that hinder the space, whether there are windows or doors or any kind of penetration. That's the basic difference of approaching the room from the inside or the outside."

"Inherent in the architect's training and practice is the defining of space through the three-dimensional media of floors, walls, ceiling, light, and material," says David Ling [former AIA], a young New York City architect who trained with I. M. Pei and Richard Meier and currently designs commercial and residential interiors. "Inherent in the interior designer's training and practice are furnishings, surface treatment, and objects. Decorating is an assemblage of objects accrued outside the space."

Learning curve

Interior designers are trained differently. Unlike architects, they are not required to earn a design degree, apprentice with a firm, or pass a state licensing exam in order to hang out a shingle. Interior designers must follow individual state codes on issues like accessibility. Because they are not responsible for health and safety issues, they do not need liability insurance.



Interior designers who want to call themselves Certified Interior Designers must pass a two-day National Council for Interior Design Qualification (NCIDQ) exam and prove a certain degree of education and experience. However, few clients seem to care about these credentials. In New York State, where thousands of people call themselves interior designers or decorators, only 105 are actually state-certified Interior Designers, according to Lorraine O'Keefe, Education Program Assistant for the New York State Education Department's Board for Interior Design.

Comparing the backgrounds of designers is revealing. Of the members of RECORD's panel, Saladino studied painting in graduate school at Yale and Peter Carlson studied theater, English, and art history at Connecticut College. The other participants attended design schools, where they studied color theory, materials, the history of architecture and design, and learned to draw to scale and do renderings, but only two became members of the American Society of Interior Designers (ASID), because, they say, clients hire them for their style not for their professional designations—which they believe have no real meaning in terms of job performance.

Established in 1975, ASID is a national professional organization of interior designers, with 20,000 practitioner-members (there are student- and industry-affiliate memberships as well). Of the 20,000 practitioners, 4,000 are exclusively residential designers, 6,400 are involved only in contract design, and 9,600 do both. Professional (as opposed to affiliate) members of ASID must have a combination of design education from an accredited institution and/or full-time work experience, have passed the two-day NCIDQ exam, and pay a $90 initiation fee as well as $355 in annual dues.

The AIA members participating in the panel, however, felt that their licensing was important. "It has a very strong effect on the way architects perform their craft," said Gabellini, "because they are bound by a different set of expectations and rules. They have to be very specifically involved with many different technical things. And it makes a difference in terms of ethics and responsibility."

"THE BIGGEST COST IN BUSINESS IS NOT THE REAL COST. IT'S THE COST OF CHANGE." —Margo Grant Walsh

The interiors professionals felt strongly that architects don't respect them. "Architects think of decorators as 'purchasers,'" stated Saladino. He holds the media partly responsible. "Designers are characterized as *Cage aux Folles* types or women between marriages." "We aren't perceived to be as professional as architects," said Carlson. "Perhaps it's because we deal with the clients on all the bread-and-butter issues. We are perceived as people who don't have the academic or intellectual backgrounds architects have."

"DESIGNERS ARE PERCEIVED AS NOT HAVING INTELLECTUAL OR ACADEMIC BACKGROUNDS." —Peter F. Carlson

On the panel, the interior designers said they find architects to be arrogant, overly intellectual, ideological, and unworldly. "Why do architects think they can do interiors?" asked Orsini, who is currently designing interiors for Disney's first two cruise ships. "You wouldn't hire a heart surgeon to do plastic surgery." "I have sympathy for architects; they are as well educated as brain surgeons even if they aren't as well paid," said Saladino. "But architects' egos are often taller than the tallest skyscraper, because they have been raised to believe that they are the alpha and omega in school. Architects are taught to work on a scale I call megalomaniacal; designers do small scale. Architecture schools have taught architects to believe they are above the clients. The architect abstracts the client. Interior designers connect to the client on a human level."

"THE QUALITY THAT WE ALL GREW UP WITH, THAT WE USED TO BUILD WITH...IS OVER." —David Anthony Easton

Competitive edges

Architects' lack of collaboration on projects was cited by several interior designers on the panel as a major problem. Easton, who earned a bachelor of fine arts in architecture at Brooklyn's Pratt Institute but is not a registered architect, recalls the fights between the architects and designers at the venerable New York City decorating firm Parish-Hadley, where he worked until 1978. "Architecture may be my first love, but I came into conflict several times with architects, who put furniture at the wrong side of the room; the two offices didn't deal very well together." Ultimately, a group of several Parish-Hadley architects left to form Ferguson, Murray & Shamamian Architects, and Easton started his own office, which currently has 45 employees, including 16 architects. When he can, he builds houses from the ground up. (His clients include some of the wealthiest people in America: John Werner Kluge, the William Crockers, the Thomas Dittmers, and Elizabeth Johnson, among others.)

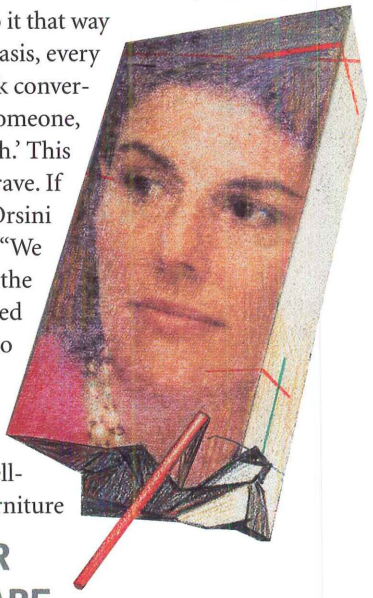
"Competition presides over collaboration," said Gabellini. On the panel, most of the interiors experts thought architects were often weak on floor plans. "Architecture and interior design are two trades," said Orsini. "Optimally, an architect would employ a decorator as a consultant, so they could work together." "I want to work with the architect from Day One, the very beginning of the project," said Margo Grant Walsh, who worked at SOM until 1973. She recalled the system there in the past. "Once the building was designed, accepted, and in production, the architect went on to something else. Then the process started for the interiors." Today, Walsh's work style is more collaborative.

Price fix

Decorators and interior designers often make a great deal more money than architects. The irony is that the client doesn't chafe at paying an interior designer a larger fee than an architect on the same project. As Barry Goralnick, AIA, of Goralnick Buchanan, a small New York City architecture and interior design firm, explains, "People resist paying me more than 20 percent in architecture fees, but they don't blink at the 30 percent we charge for decorating."

The AIA's posture is that all architectural compensation is negotiable, according to AIA Vice President for Public Affairs Charles E. Hamlin, but the reality is that most architects charge between 15 and 22 percent of a project's construction costs. Small residential interior design firms tend to charge a percentage on all purchases, from art and antiques to upholstery and textiles. The markup for upholstery is about 33 percent (50 percent when the job is custom), 50 percent on fabrics, 33 percent on ready-made furniture, and 15 percent on antiques. In this fashion, a decorator can make a good living.

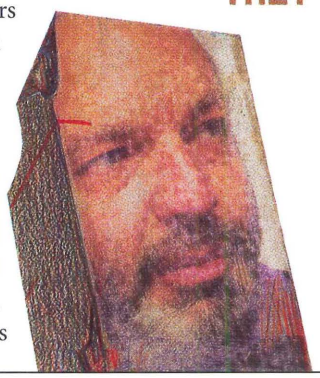
At larger and specialized contract (commercial) firms, interior designers bill differently. Of the designers on the panel, four bill by the hour. "A long time ago I abandoned working on a percentage basis," said Saladino. "On each project, I start with a design fee, which ranges from $25,000 to $100,000, depending on whether the client wants a site plan, a real model, a rendering, floor plans, and a full set of boards showing all materials, furniture, fabrics, and the like. I do it this way because it gives people a dignified avenue of retreat. They have paid me for my services. If they are scared, they can hire a local architect to copy my scheme and not be at my mercy." He continued: "Once I get the go-ahead on the project, however, we bill just like a law firm, by the hour. It's a pyramid, with me at the top. We bill clients once a week, and that has made me a lot of money. If you don't do it that way and you are working on a percentage basis, every Monday morning you get a quarterback conversation with the client: 'I was talking to someone, and maybe we should do such and such.' This could go on until they put you in the grave. If you work by the hour, it's different." Orsini structures her billing in a similar way: "We charge a design fee and then bill by the hour. All of the net costs are passed directly through to the client, with no markup. It's the cleanest way."



At Gensler, Grant said, the firm charges only a design fee, usually with a guaranteed maximum and well-defined scope. Gensler does not buy furniture and textiles for clients. At SOM, Nestor Santa-Cruz explained, "we estimate how much time the job will take me, the project managers, and the designers on the job, and we charge either a flat fee or a fee based on the square footage of the job. We don't construct and build—we recommend contractors—and we don't procure things. We only specify what we think is right, and then the client hires a dealer to order it. The dealer tends to charge about 15 percent above net cost. The client is billed directly."

"INTERIOR DESIGNERS BECOME CLOSER TO CLIENTS, BECAUSE WE ARE GIVING THEM THE ULTIMATE PLEASURE." ***—Susan Orsini***

"ARCHITECTS ARE CULTURALLY DEPRIVED. THEY ARE UNDERPAID.... THEY DON'T TRAVEL." ***—John Saladino***



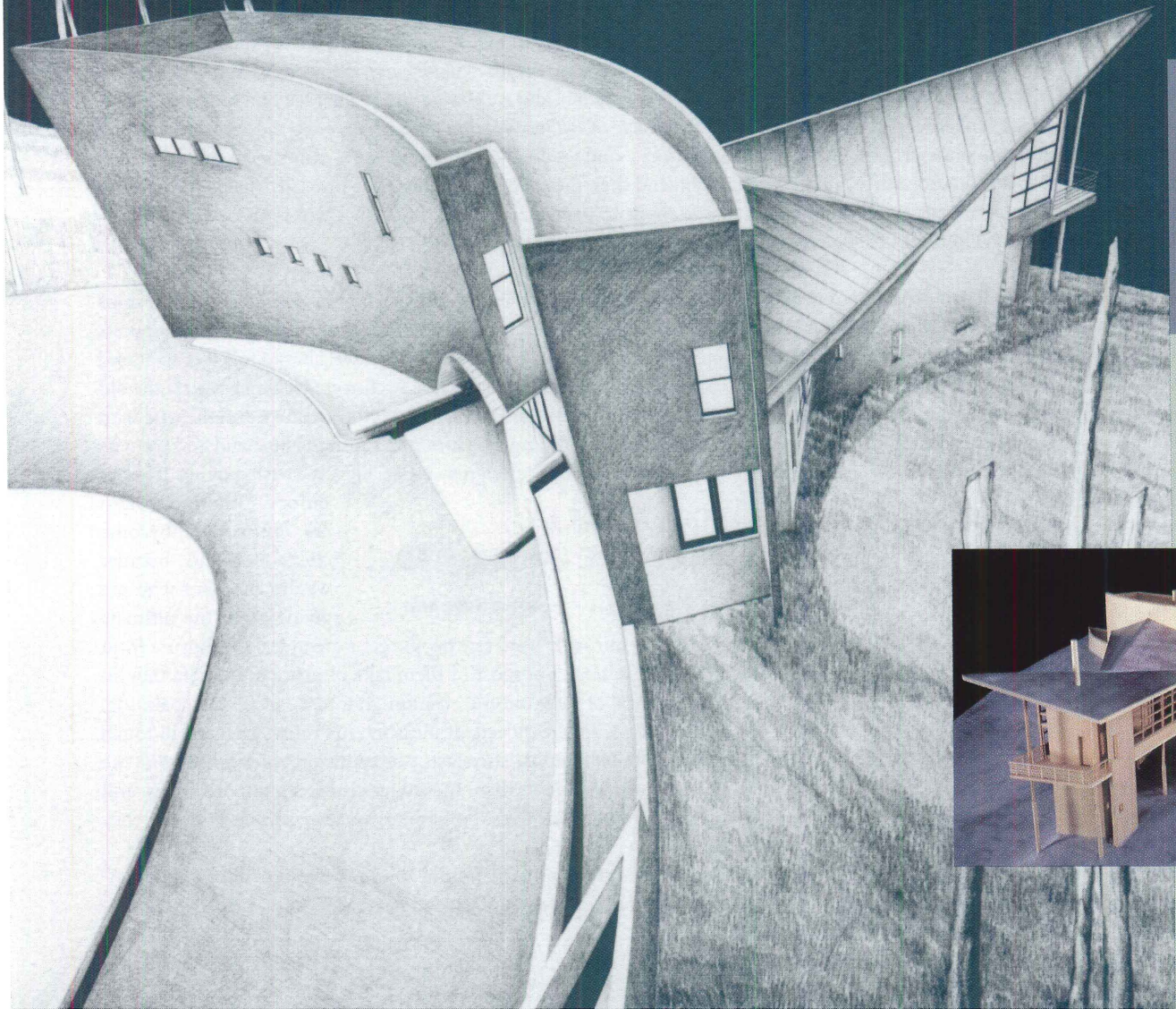
Bonding rituals

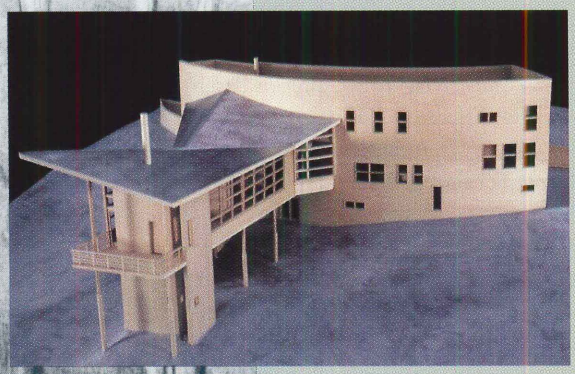
In the opinion of the RECORD panelists, interior designers' relationships with clients tend to be longer and stronger than architects'. Designers shop with their clients, share meals, even travel abroad together to attend antiques shows in London and Paris. Architect Goralnick rejects the old cliché that has the husband working with the architect and the wife with the decorator. Actually, muses Goralnick, both the husband and the wife work with the interior designer, especially on lavish buying trips to Europe. "Interior designers ultimately become closer to clients, because we are the ones who are giving them the ultimate pleasure," Orsini said. "Very few people get a great deal of pleasure from windows and doors, but most of them take pleasure in the sofa they sit on, in the type of down in the cushion, in a piece of silver, a painting. We're dealing with the objects of pleasure, the things clients will touch and enjoy. I think that that also starts a different kind of intimacy with the client, because we know where the underwear is stored, the linens, and everything about their lives. Sometimes we put away everything they own."

"Designers provide instant gratification; it's called shopping," says Steven Harris, a New York City architect who *(continued on page 176)*

Making a Spec House Special

ARCHITECTS GISUE AND MOJGAN HARIRI TEAMED UP WITH A TRADITIONAL DEVELOPER IN VIRGINIA TO BUILD A SPEC HOUSE THAT OFFERS A MODERN ALTERNATIVE TO THE NORM.





Riverbend House was designed to challenge the way developers look at spec house projects and suburban homeowners live the American dream.

by Elana Frankel

Gisue and Mojgan Hariri are known for their high-style architecture, but when they decided to team up with developer Manou Faily, who has been building traditional speculative houses in northern Virginia since 1979, they had to rely on research and instinct. In a time when young, well-educated entrepreneurs are migrating to the area's flourishing computer, telecommunications, and wireless industries, there are plenty of millionaires who are able to afford to buy new homes in this pricy Washington, D.C., suburb. "We looked around and found that people in the area were ready for something different," says Gisue Hariri. "They wanted unique homes and had more sophisticated design tastes." But new money doesn't always translate into modern taste, and many home buyers seem unsure of how far they are willing to go. According to the architects and the developer, the trick has been to encourage these buyers to think outside the traditional development box—and to buy modern.

The result of their collaboration, Riverbend House, is a modern architectural statement that sits quietly but proudly on 2½ acres on the edge of a cul-de-sac in Great Falls, Virginia, among traditional developments and a handful of California contemporaries. From its infancy, much media attention has been turned on the house's design, as well as its potential impact on the speculative housing industry. Riverbend ignores all of the attention and simply blends into the undulating and wooded landscape.

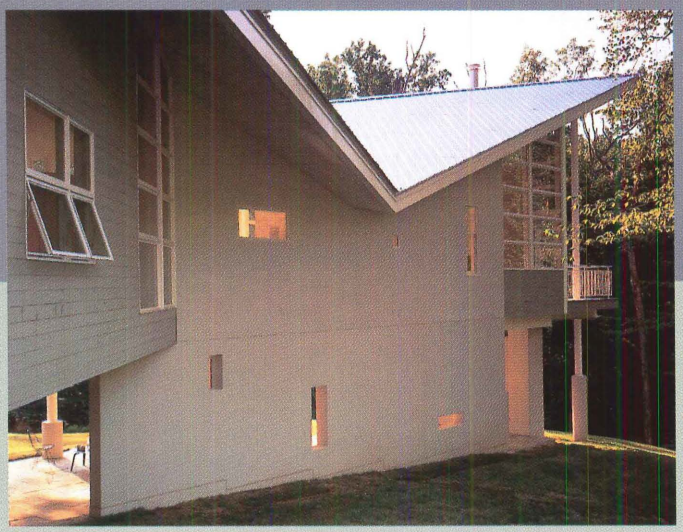
Great Falls, touted by local real estate agent Penny Yerks of Weichert Realty as "good horse country," has a strong Colonial history. Riverbend House is surrounded by the comfortable 3,000-square-foot cookie-cutter designs familiar to many affluent suburbs—either formal residences with opulent front elevations, enormous porticoes, and vinyl Corinthian columns, or overscaled bungalows with false dormer windows, shutters, and balustrades. Expected details have always driven the area's brisk residential market.

But four years ago, Faily, with the backing of investors; his building company K.B.F., Inc.; and its general contracting subsidiary Manco, Inc., decided the time was right to test a modern speculative house project in the marketplace with the Hariri sisters as its designers. Although Faily admits it was a risky choice because the architects had little experience creating development houses in America (though they were working on developments in Holland), he had seen their work in a builder's magazine and was impressed. The group immediately purchased an inexpensive plot of land, which had been deemed unbuildable by previous developers because of its rolling landscape, and went to work.

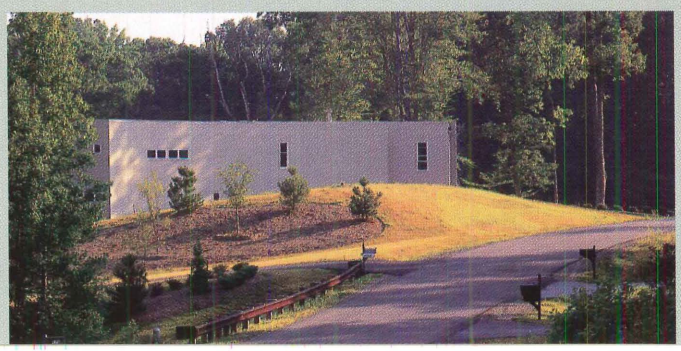
Faily, who trusted the Hariris' knowledge of modern design, gave them free rein to create the program and floor plans, although he did contribute ideas about which aspects of traditional homes sell in the area. The final result, however, "is substantially different than the typical development," he says. "A lot of what they did is a no-no in traditional housing."

These "no-nos" start at the house's entry. Ignoring the traditional suburban ideal of a well-manicured front lawn and a white picket

The front of the house mimics the curved wall and driveway while maintaining its simplicity. The architects placed their more opulent effects elsewhere.



Though surrounded by more traditional development lots, Riverbend House holds its own, creating a modern statement that contrasts with many of the area's houses.



DEVELOPER

After 19 years of building hun-dreds of traditional speculative homes, Manou Faily, the developer of Riverbend House, decided to experiment with a spec house project in Great Falls, Virginia. Why? He had overheard out-of-towners talking about modern design being popular in California, parts of New York, and other northern states. Faily says that although there are only a few modern houses in the Potomac area and, overall, people have very traditional tastes, he believes it is just a matter of time before a new aesthetic will start to emerge and "catch on."

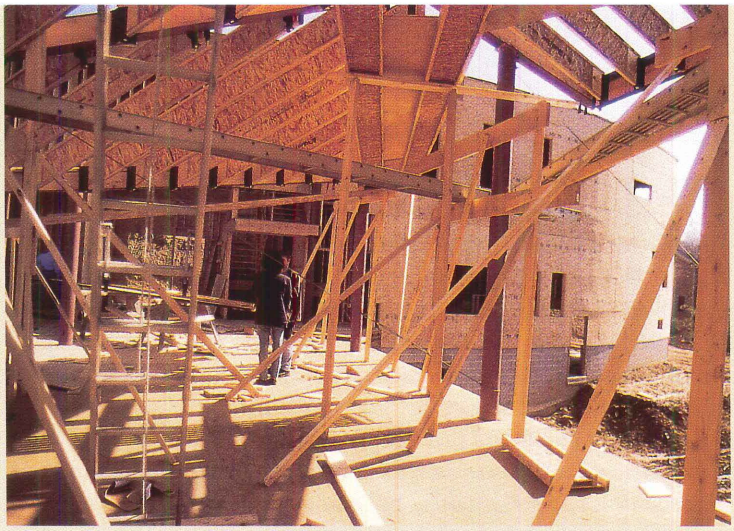
"It isn't California," Faily muses, "but we took a chance and implemented the new design…to see what would happen." Beauty is in the eye of the beholder, and Faily admits that it will take a certain type of eye to appreciate this house.

But every new venture has its risks, says Faily, and he is confident that the right people will come along and find the appeal in the Riverbend House's unique form. Faily hones in on the form of the house because, he says, "it is unusual for a residential site and implementation was tricky."

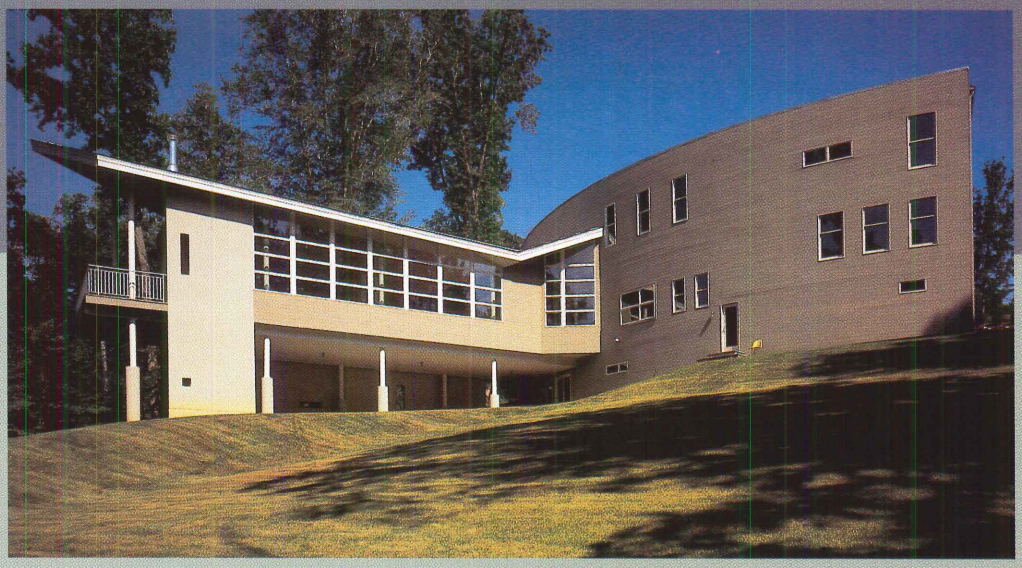
As any good developer and contractor knows, curved lines are always more difficult to build than straight lines. But Faily and his team were prepared. "Curved shapes? No problem. However, there was more steel structuring involved than usual and that was difficult for the residential trade to understand. It was outside the normal way that trades do residential work."

The labor-intensive building process was not without its rewards. The strength of the structure resides in the steel column and beam and wood hybrid construction, which created larger spans and helped accommodate the house's open plan and sculpted spatial areas. The result, says architect Gisue Hariri, is that "it is not a simple, square box."

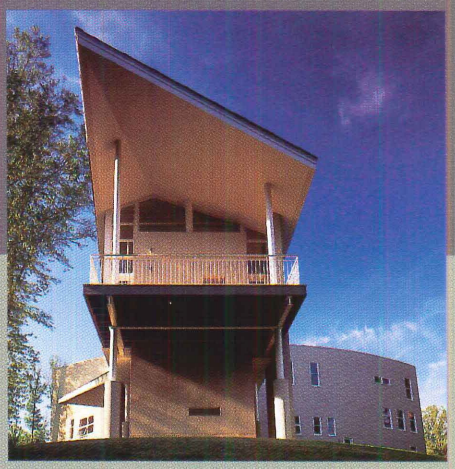
The house is far from the typical development site, and thankfully so, say architects and developer. "We're looking to broaden people's horizons," says Gisue Hariri, "and encourage others to take chances." *E.F.*



The steel and wood hybrid structure created larger spans, allowing for Riverbend House's open plan and sculpted spatial areas.



There are two distinct sections to the house. The Hariris refer to them as "earthbound" and "skybound."



In an unexpected twist, the porch, typically placed at the front of a house, is set up to look out on the backyard.

fence, Hariri and Hariri used flowerboxes and planters to provide a welcoming effect and a wall of green hedges to mark the property line. And though the surrounding houses focus a lot of attention on the front doorway, the architects decided not to concentrate on this detail because, Gisue Hariri says, "the front door is traditionally used only for special occasions." The entry doorway is well marked but simple, elegantly

AS A MODERN ARCHITECTURAL STATEMENT, RIVERBEND HOUSE SITS QUIETLY BUT PROUDLY ON THE EDGE OF A CUL-DE-SAC.

following the lines of the curved stone wall. The windows on the cedar-sided front elevation, though meticulously appointed, look randomly placed, in contrast to the symmetrically balanced windows at the entries to other houses in the neighborhood.

The design concentrates on the house's 5,000-square-foot plan, which is divided into two separate and distinct areas. The first is what the Hariris refer to as "earthbound," a heavy masonry structure that follows the land's contours and includes the house's private parts: four bedrooms; a split-level master suite with walk-in closets, a spa-tub, and separate shower; and a laundry facility, which has been raised from its usual basement status.

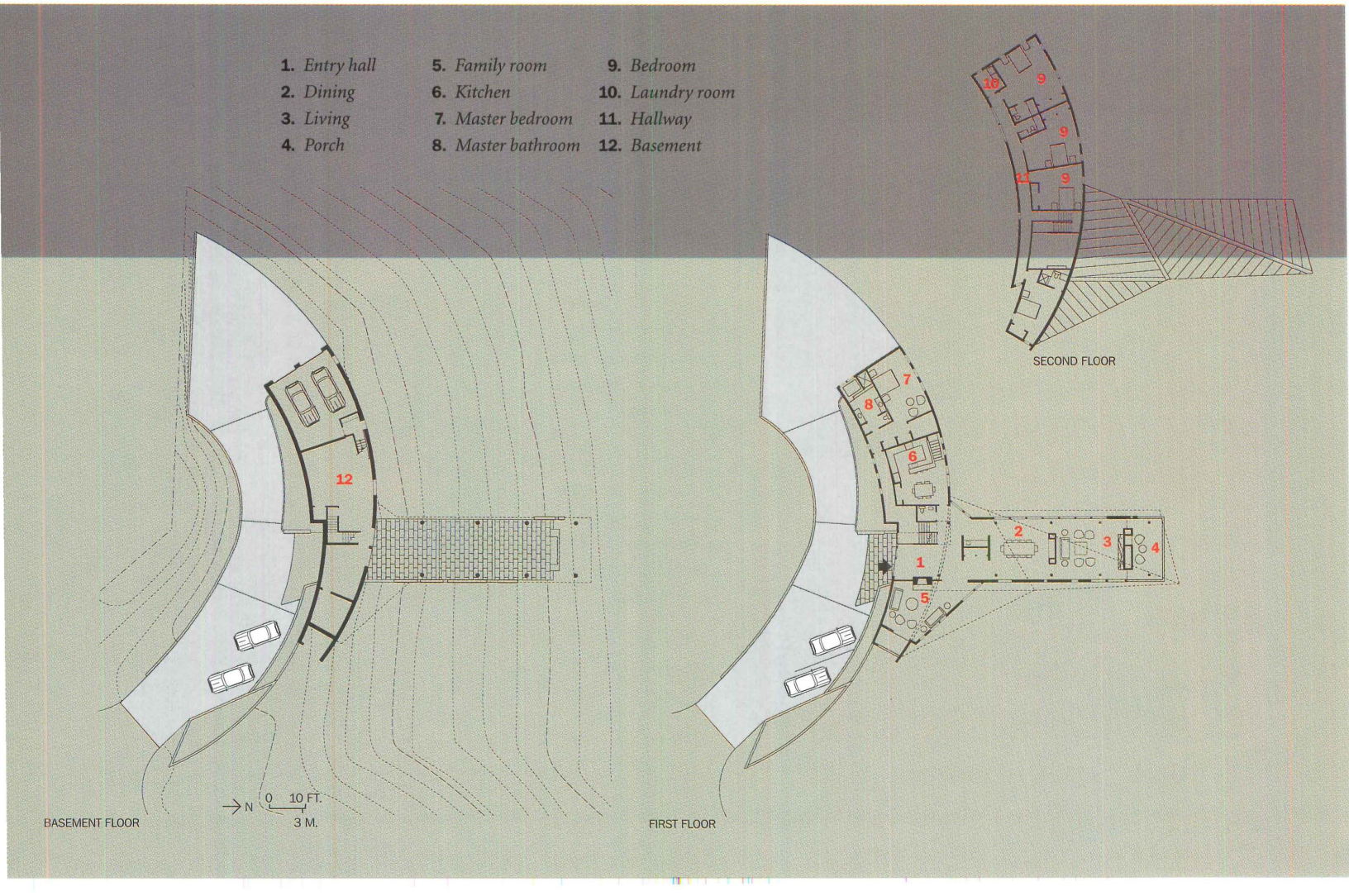
The "skybound" part of the house, a light, airy, treehouselike structure that juts out into the property's backyard, is supported by steel columns with a stucco exterior and largely enclosed by glass curtain wall. "This whole section of the house emphasizes the human desire for weightlessness," says Gisue Hariri. "The folded plane roof and 22-foot ceilings give the illusion of a precisely formed wing about to take flight."

This part of the house contains the more public areas: the family, dining, and living rooms. The dramatic open spaces of the family and living rooms are divided by partial walls constructed from stucco and feature wood-burning fireplaces with 2-inch stone slab raised hearths. These added details give the rooms warmth; the stucco walls in particular provide a tactile and textured accent.

The public spaces offer panoramic vistas of the wooded setting and a small creek. A 6-by-10-foot deck off the family room expands the space and provides outdoor views. A porch, transported from its traditional front location to behind the living room, also brings the interior closer to the landscape.

The stillness of the setting is reflected in the interior's minimalism and austerity. Doing away with the chaotic trappings of modern life, the architects chose simple details to hold the house together stylistically. European beechwood kitchen cabinets, for example, are used in the butler's pantry, a separate and well-hidden wet bar off the dining room, and the bathrooms.

Although the basement is not finished, the space could accommodate a home office. Extending from the basement's doors is a flagstone

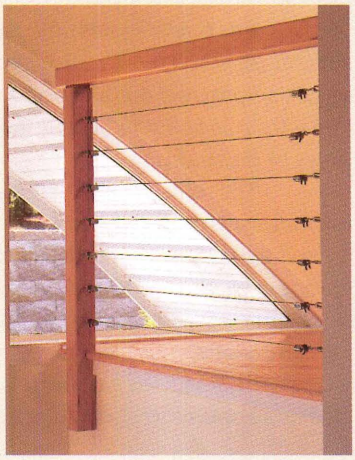


Architects Gisue and Mojgan Hariri pay close attention to details in all of their projects and are sensitive to the material needs of the entire space. Riverbend House is no exception.

Striving for an expressive ideal, the sister architects use various materials to create a comfortable and livable setting for a modern American family. Examples of their carefully thought-out yet simple use of materials include the marble vanity tops in all of the bathrooms and the butler's pantry/wet bar; the granite kitchen countertops; and the clear-grade oak flooring and staircase.

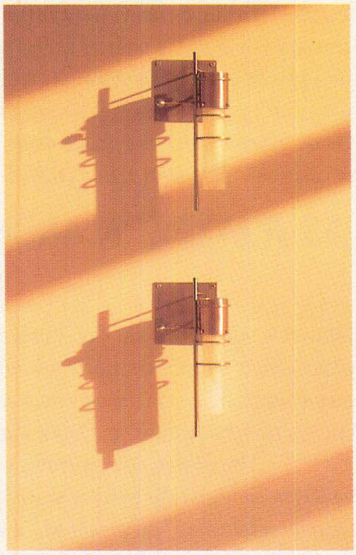
Two main themes run through the treatment of materials in the house. First is the idea of nature in general and the surrounding landscape in particular. The late afternoon light on the interior plaster stucco walls creates geometric patterns and shadows that eliminate the need for carpeting or a lot of "busy" furniture. Like the house's surroundings, the interior design is clean, simple, uncluttered, and streamlined.

The second theme, and the more noticeable Hariri trademark, is the adaptive use of industrial materials in a residential setting. This utilitarian treatment stands out particularly in the context of this wooded and suburban setting.



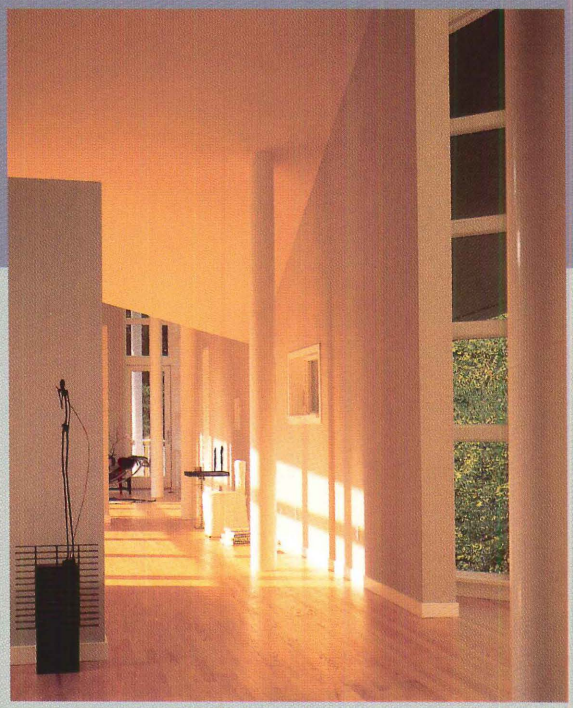
The steel-wire stair railings (below left) are representative of the architects' experimentation with such new ideas, as is the tightly built steel column and beam construction that supports the structure. Brushed stainless-steel restaurant-style surfaces, like those in the kitchen, reflect the architects' desire to play with notions of urban materials.

The custom-designed metal wall sconces (right) and all of the kitchen lighting were designed by the architects and produced by George Kovacs as part of the company's Hariri and Hariri Stasis series. The urbane originality and industrial feel of the lighting, especially when viewed in relation to the house's setting, is one of the aspects most admired by potential homebuyers touring Riverbend House, according to real estate agent Penny Yerks.



Throughout their design work, the Hariris strive to create a balance between opposites—natural versus man-made, rural versus industrial—in their use of materials. Many visitors to Riverbend House would agree that here the architects have found that balance. *E.F.*

Light plays an important role in the daily life of the house, creating changing patterns and shadows.



The house's cathedral ceilings are supported by steel beams, which give the house a more industrial look.

terraced patio—a large, shaded area with a built-in bench at the far end, outdoor lighting, and a finished plaster ceiling. Originally the patio, measuring 58 by 20 feet, was designed to complement a pool; once the pool was eliminated from the plan, however, the patio became an "outdoor room," integrated with the landscape to create a private recreation area.

By challenging conventional suburban wisdom, the Hariris have created an alternative type of house that reflects not only the needs of today's family but also changing aesthetics. The architects and developer hope that, like a haute couture dress, the ideas behind this one-of-a-kind house will achieve greater mass appeal. In an area where developers rely on houses that are buildable and sellable, Riverbend House is a visionary architectural test that merges theoretical principles of architecture with speculative house development.

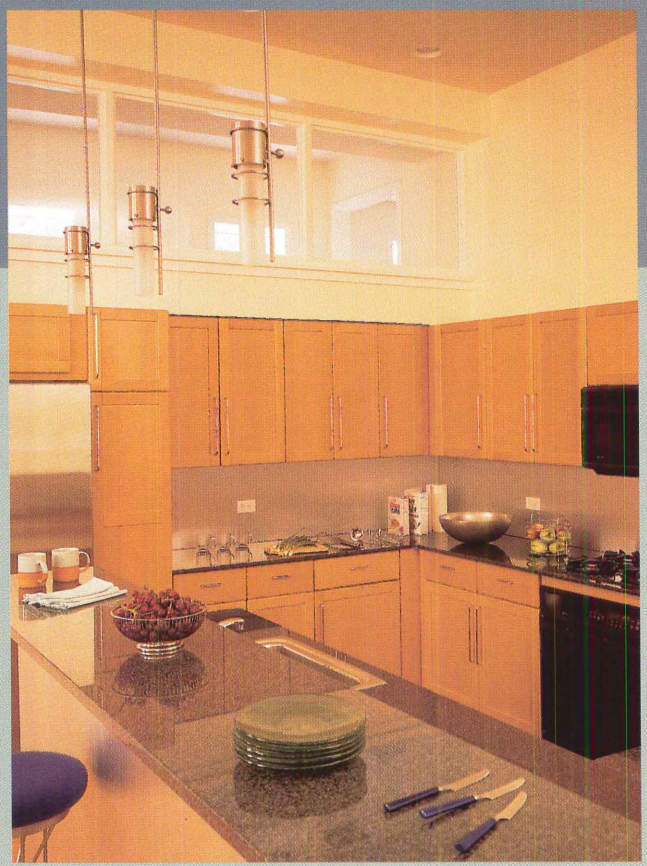
But the people behind the creation of Riverbend House each have their own goals. On the one hand are the typical concerns of any developer: the house's resale value, the need for it to "fit in" with its peers, its relationship to the oft-cited vision of the American dream house. Developers also measure a house's success by its monetary worth. Faily recently sold two traditional homes in the Great Falls area for $1.33 million and $1.47 million, and sold them fairly quickly. Riverbend House is listed at $1.1 million and has remained unsold for close to a year. The Hariris' goals for the house were to experiment with design, challenge perceptions of modern family living, and create a new speculative housing option. The architects' measure of success is the simple fact that the house got built to their specifications. ■

Architect: *Hariri and Hariri—Gisue Hariri, Mojgan Hariri, partners-in-charge; Gisue Hariri, Mojgan Hariri, Graydon Yearick, design team; Ray Koh, Zoe Lin, Graydon Yearick, model makers*
Associate Architect: *Bahram Youssefi*
Engineers: *Robert Silman Associates, PC (structural); Professional Design Group (land survey)*
Mechanical Consultant: *Marcy Ramos*
Builder/General Contractor: *K.B.F., Inc./Manco, Inc.*

Sources
Joists: *Trus Joist*
Steel work: *Structural Steel Fabricators*
Awning and double-hung windows, glass curtain wall, feature window combination, insulated and tempered glazing, Frenchwood hinged doors, and sliding Perma-Shield doors: *Andersen*
T&G siding: *Western Red Cedar*
Stucco: *Dryvit*
Membrane roof: *Carlisle Roofing*
Galvalume: *Fabral*
Orbit locksets: *Schlage*
Garage door: *Ceco/Winsor*
Full mortise hinges: *Stanley*
Wire pulls, cabinet hardware, and cabinetwork: *Ikea*
Latex paint/stain: *Benjamin Moore*
Bathroom tile: *American Olean*
Vinyl sheet resilient flooring: *Lonseal*
Le Corbusier chaise longue: *Atelier International*
Marcel Breuer Wassily chair: *Knoll*
Eames wire chairs: *Herman Miller*
Cloud couch and Impala lounge chair: *Modernica*
Hariri and Hariri Ryoanji side table and Hariri and Hariri Statis lighting: *George Kovacs*
Recessed ceiling lights: *Lightolear*
Wall sconce: *Hubble*
Decora lighting controls: *Leviton*
Sink, whirlpool, shower set, and faucets: *Kohler and Elkay*
Retaining wall and planter box: *Keystone Retaining Wall System*

The partial-height stucco wall and fireplace in the living room separate the space from the back deck.

The kitchen has both a bar area, shown here with a stool, and a family eating area big enough for a table of six or eight.



ELVIS
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Loren
TIM
97
20 YEARS
Still Lovin' You
ELVIS YOU ROCK MY WORLD, YOU'RE BEAUTIFUL!!!
KIRIN '97
ISRAEL
Penny Roberts
Loving You
DAWN Smyth

America's MOST VISITED Houses

A HIGHLY PERSONAL TOUR OF TWO RESIDENTIAL SHRINES, WITH RUMINATIONS ON THE CHARACTER OF CELEBRITY.

by Michael Sorkin

On the covers of the official guidebooks, Graceland and the White House look pretty much the same. Tight shots on white porticoes—four classical columns each—evoke the big house, our standard-issue national icon of gracious living. And, of course, I'm writing this piece because we're all invited for a visit. Indeed, more people visit these two houses than any others in the U.S., over a million to the White House annually, three quarters of that number to Graceland. (No numbers are available for drive-bys at O.J.'s Rockingham.)

Which brings me to the first big difference: nobody lives at Graceland. It's different in D.C. According to the White House guidebook, the presidential villa is the "only residence of a head of state open to the public on a regular basis free of charge." Isn't this exactly what we've been fighting Saddam about? Putting global resonances aside, this is an extraordinary piece of information. Indeed, in today's Did-Bill-Kiss-Monica atmosphere, such national visitation rights suggest that we hold our presidents' privacy to a pure celebrity standard: inquiring minds need to know.

The open-door policy relegates the president to shopkeeper status, living above the store, a tourist attraction in his own home. This is a hallmark of the contemporary presidency: we want to get up-close and personal with the man in the White House. Even I receive a Christmas card from the First Family and, having gotten a couple, feel I'm entitled to receive them forever. We expect hospitality from the president—at least a look around the pad—and we can get it just by showing up at the door. Such simultaneous free access to both the press-hyped presidential peccadilloes and to the president's space begs the current questions: what did the president do and where did he do it?

Opposite: Elvis's Graceland is, like the White House, relatively small, but it came with such perks as a jet, armor-plated cars, and ubiquitous retainers.

Above: The Secret Service handle for the current White House occupant is, not surprisingly, Elvis.

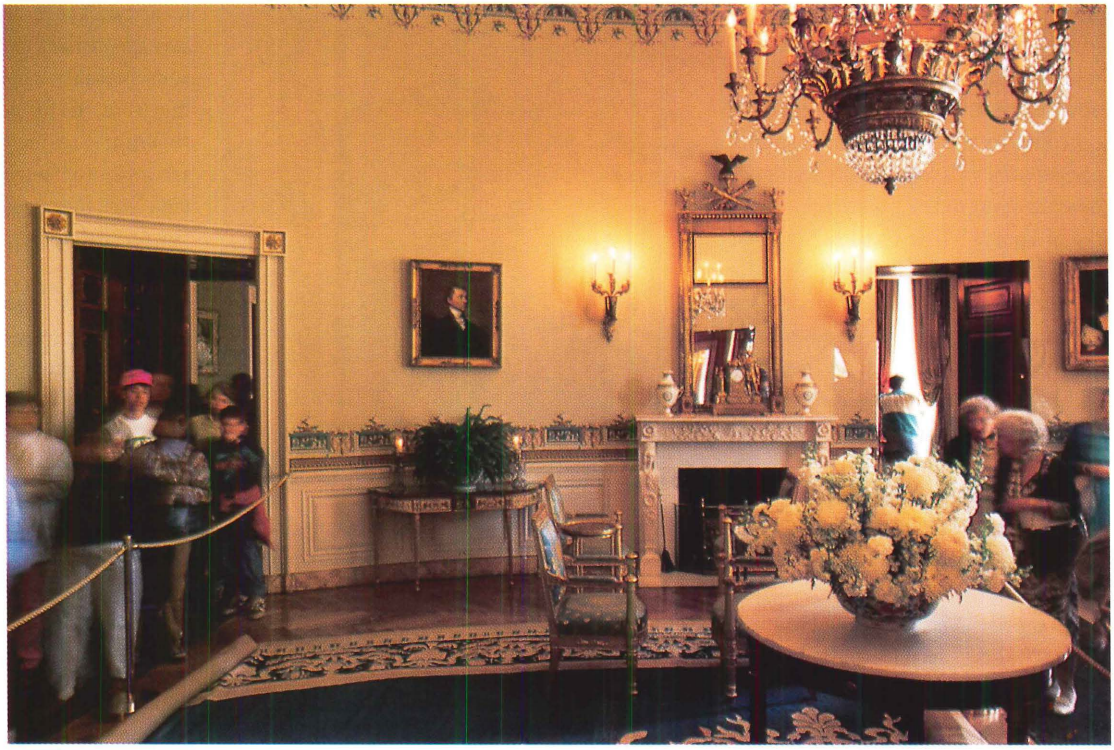
This surveillability of the presidency has become increasingly optical and architectural. I lifted a page from a copy of *U.S. News & World Report* during my recent swing to Washington and Memphis to get an axonometric drawing of the president's inner sanctum, otherwise "off limits" (like the upstairs bedrooms) to the public. (Actually, this is a somewhat elastic situation: upstairs is the area of the residence which is open to the public on payment of a fee.) The magazine image maps the Oval Office, study, dining room, bathroom, pantry, patio, and secretarial office. More interesting, the drawing shows the location of several peepholes, which allows the average citizen to calculate precisely the optic surveillability of the space, even those rooms that remain, for us, behind closed doors. Not shown in the image (but alluded to in the text) are a photoelectric sensor system for keeping tabs on the president's movements and a "secret" tunnel joining the office and the family quarters.

It is a map of the invisible, of the few gaze-free zones in the White House, not necessarily the scene of the crime but scenes in which the commission of the hoped-for crimes *might* be undertaken. Elvis was himself no slouch in the peccadilloes department, and, like the White House's, the Graceland tour is structured to both reveal and conceal, to create a forbidden region where forbidden pleasures (the pill popping and the girleen bacchanals) might have taken place. Like the White House, Graceland puts upstairs off-limits out of respect for the privacy of The King. And it is off-limits: the flack who took me around had been in Graceland's employ for 10 years and had never mounted those fateful stairs. It's canny management: the unknown is the most fertile ground for fantasy, and everyone, it seems, who comes to Graceland is interested in the fundamental mysteries of the cult. Half of the country claims to have seen Elvis in the last six months. This makes him strangely visible, which, in turn, makes the preservation of his privacy a thoroughly reasonable idea.

We have come to accept a standard-issue version of celebrity. Ours is the culture that invented attention-deficit disorder and we seem to like our icons as succinct and empty as possible, no nuance please. By such shorthand, Graceland and the White House produce the aura of celebrity very similarly. Both offer the spatialized *(continued on page 192)*

Right: The bodies of Presley, his mother, paternal grandmother, and father are buried in the Mediterranean garden, built by Presley in the 1960s as a quiet refuge. Beyond is the pool and main house.

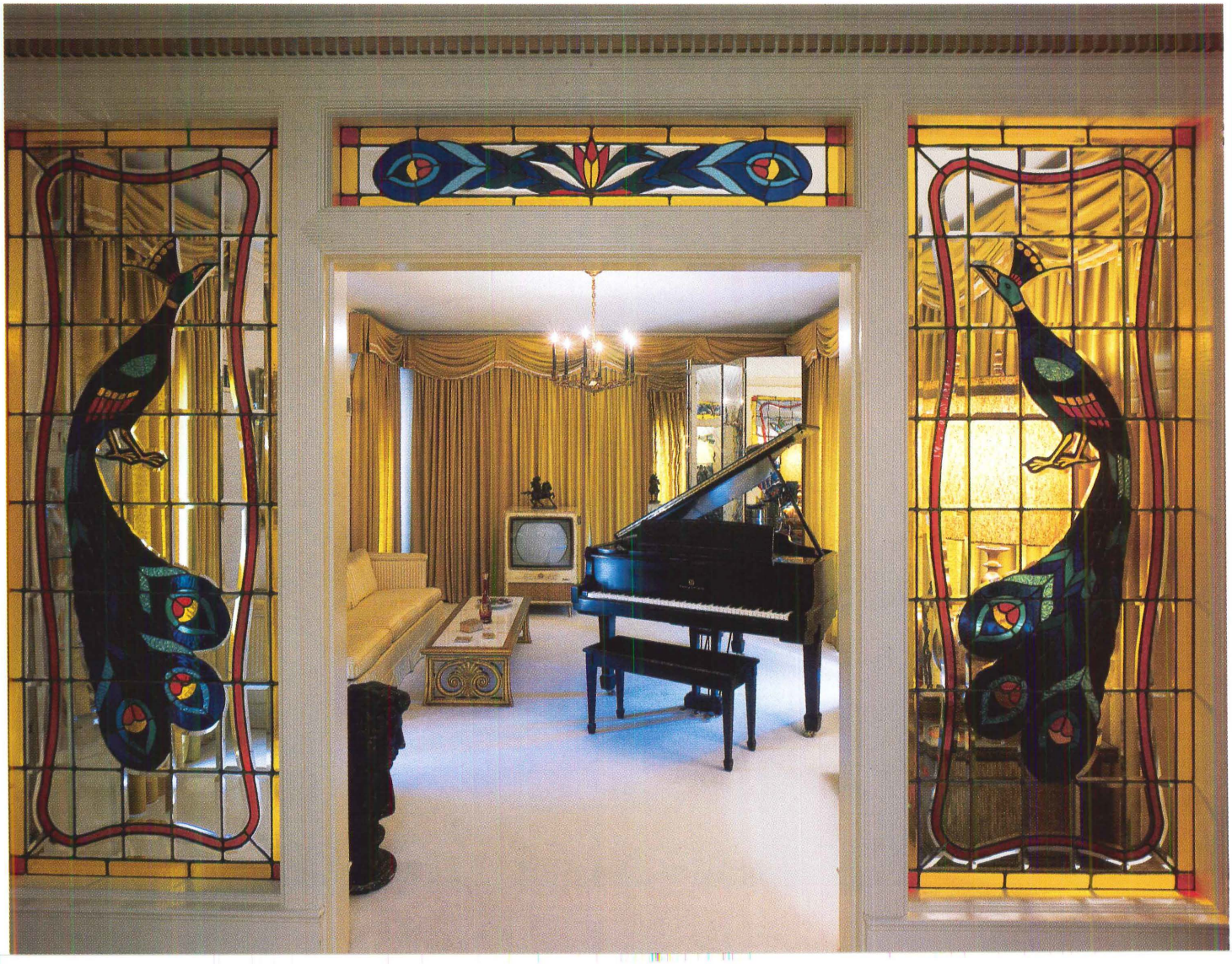
Right: White House visitors may view the Blue Room, an oval second-floor reception room behind the South Portico. It is shown here prior to 1995 renovations.



THE OPEN-DOOR POLICY RELEGATES THE PRESIDENT TO "LIVING ABOVE THE STORE." WORSE, HE IS A TOURIST ATTRACTION IN HIS OWN HOUSE. THE GRACELAND TOUR IS CONSTRUCTED TO BOTH REVEAL AND CONCEAL, TO CREATE A FORBIDDEN REGION WHERE FORBIDDEN PLEASURES MIGHT HAVE TAKEN PLACE.

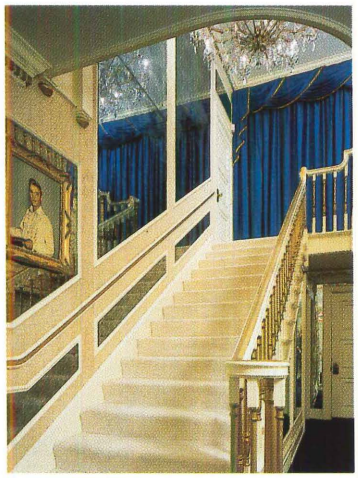
Right: The Red Room is one of four White House state reception rooms open to the public. Empire style furnishings predominate.

Below: Before opening the house to the public in 1982, Graceland's proprietors replaced Elvis's last "red motif" music-room decoration with the look it had in the 1960s and 1970s.



Opposite: The State Dining Room is set with wildflower-decorated Lyndon B. Johnson china. The room was enlarged to its present size in 1902 by McKim, Mead & White.

This page, clockwise from right: The 1974 Presley TV room. The three sets were inspired by President Johnson, who liked to watch all network-news broadcasts simultaneously. Elvis's dining room is set with Noritake china. The stair leads to the off-limits upper level.



**WHATEVER ONE'S DECORATIVE SENSIBILITIES,
THESE ARE BOTH PLACES DEEPLY INVESTED IN PERIOD.
NEVER MIND THAT ONE IS DONE IN EMPIRE BLEU
AND THE OTHER IN AVOCADO GREEN AND HARVEST GOLD;
THIS IS TASTE THAT IS DEFINITELY NOT OF OUR TIME.**

Opposite: The Blue Room after its 1995 refurbishing has new drapes, wall fabric, upholstery, and carpet. The couch was first acquired in 1817.

Right: Graceland staff calls this den the Jungle Room, explaining that Presley picked out the carved-wood and fake-fur chairs on a whim in the 1970s. Not shown is a fieldstone wall fountain.

IF THE WHITE HOUSE IS A SHRINE TO THE GENTEEL STYLES OF THE EARLY REPUBLIC, GRACELAND IS A MECCA OF HIGH TACK, JUST THE DECOR TO GO WITH SEQUINED JUMPSUITS AND PINK CADILLACS.

Left: Mirrors surround the fireplace in the living room. Perpetually urging those he met to visit, "Elvis is thus regarded as Graceland's original tour guide," according to the official guidebook.

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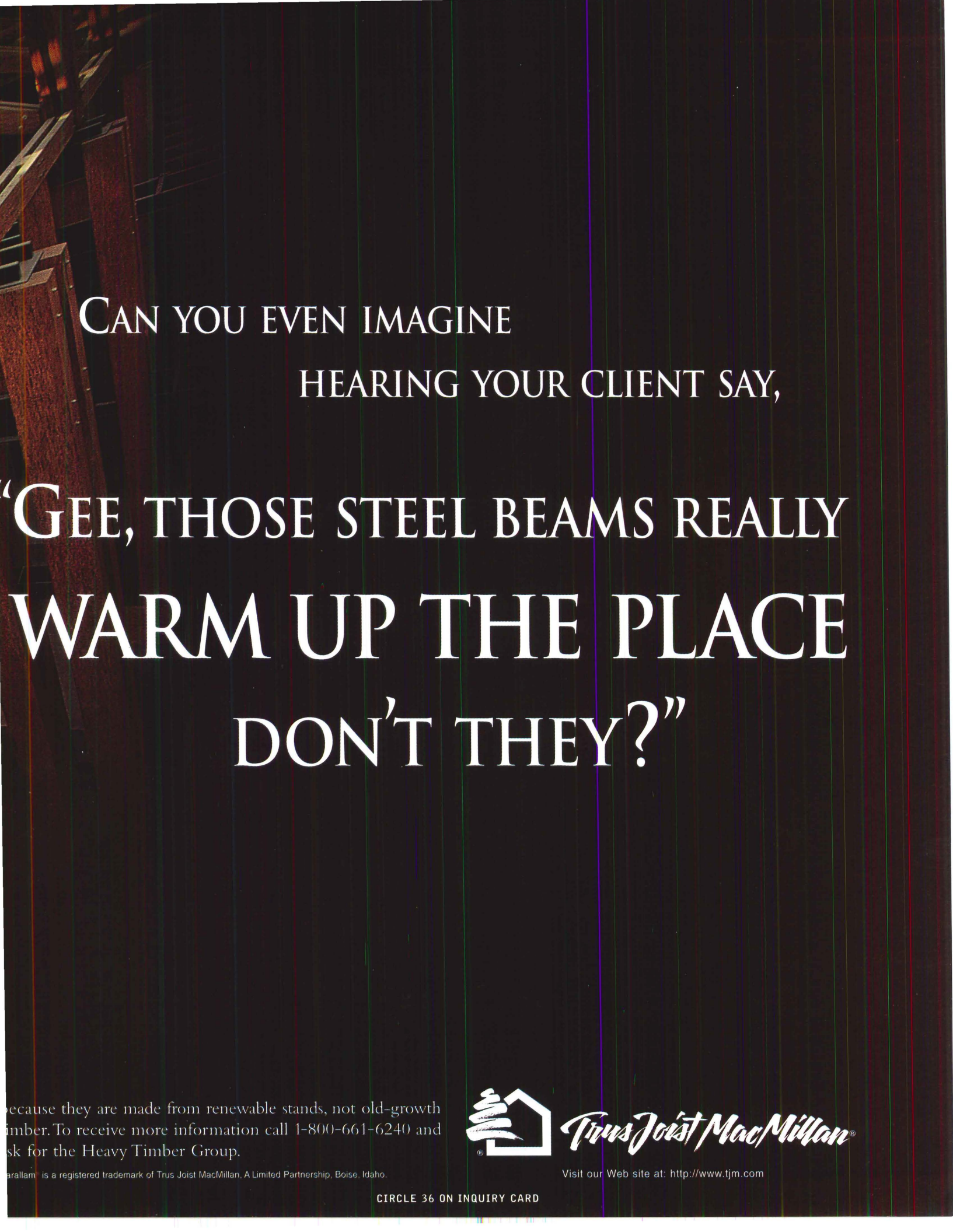
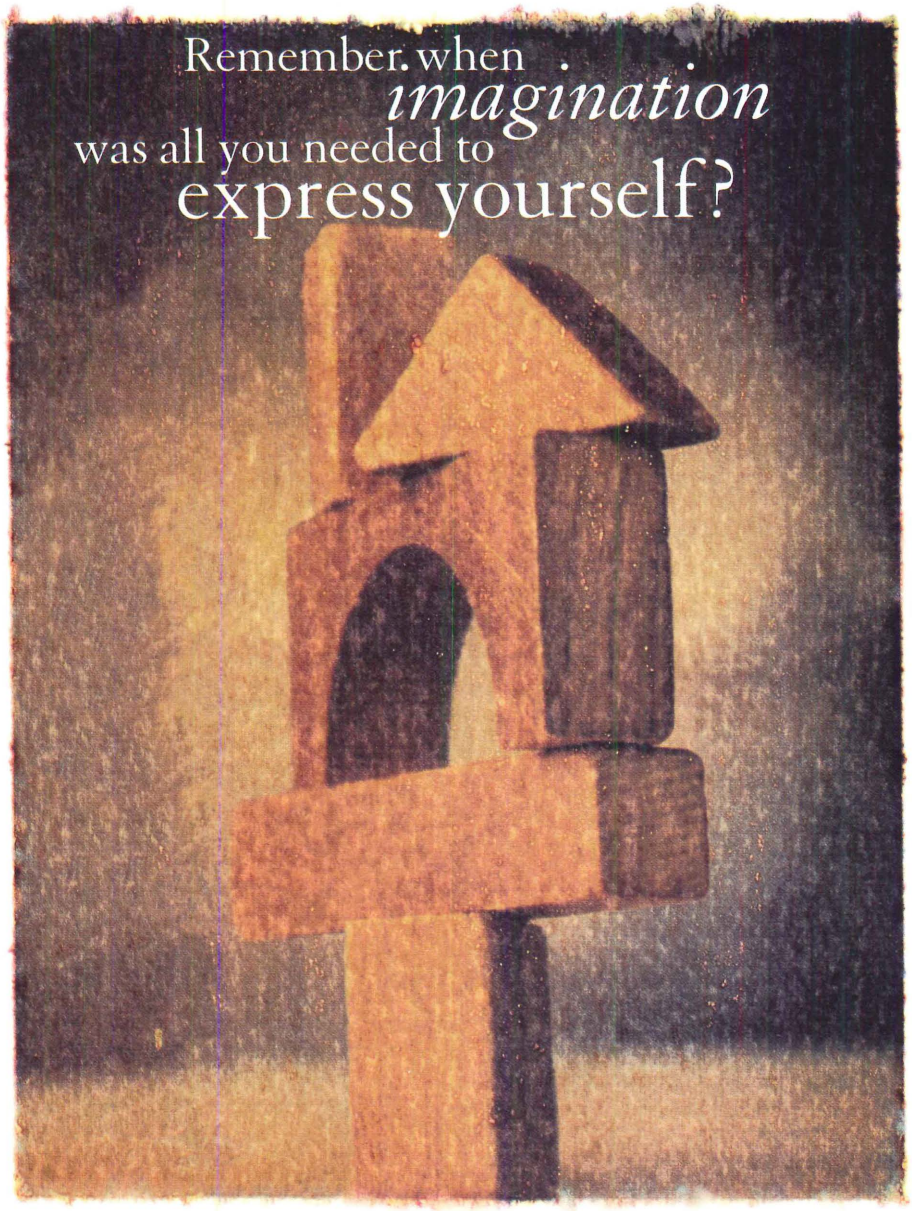


CIRCLE 36 ON INQUIRY CARD



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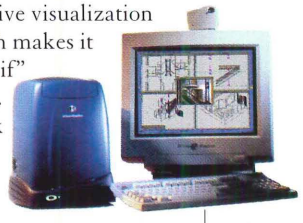

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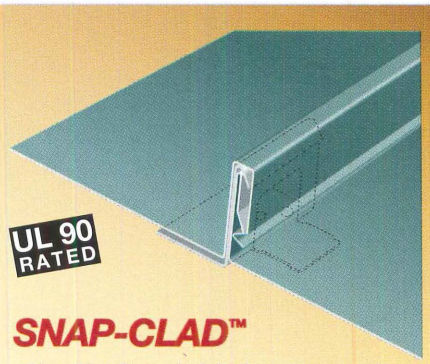

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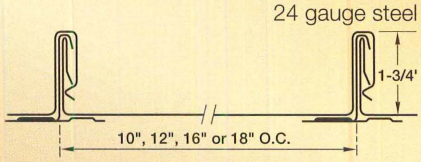

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General Contractor: Rector Construction
Roofing Contractor: GRC Roofing Inc.
Color: Forest Green
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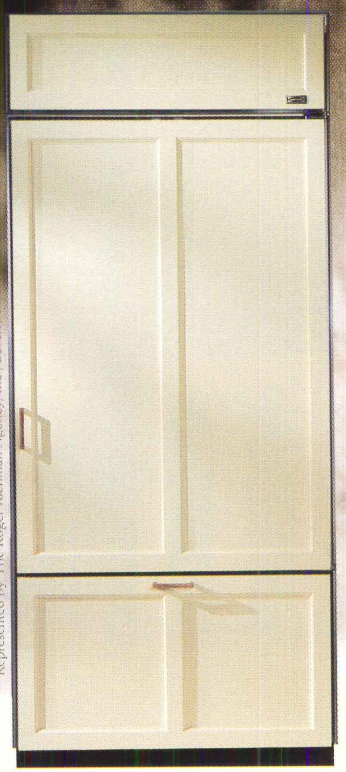

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CIRCLE 39 ON INQUIRY CARD

Record Houses 1998

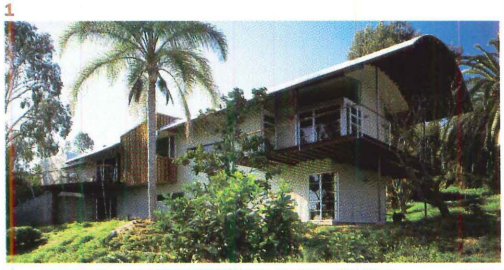
The great experiment in American architecture" is what Mack Scogin calls the architect-designed house. He should know. His firm, Scogin Elam and Bray, has completed numerous houses over the years that have questioned the norms of domesticity, including his home with Merrill Elam, which they redesigned after a hurricane obliterated 20 years worth of renovations to the couple's Atlanta bungalow (page 130).

The variables in these great experiments are not always the same. While acts of nature may force an unlucky few to rethink their domestic surroundings, other clients are prompted more gradually. Leslie Gill and Bryce Sanders's clients, for example, were faced with the space constraints of a family with two young children and one work-at-home adult. The challenge was to fit extensive storage requirements into a Brooklyn Heights, New York, carriage house without significant exterior alteration (page 124). Fitting it all in was also a concern for Jim Jennings, although he had a more generous site and budget. Within San Francisco's building constraints, he sought to accommodate his client's museum-quality contemporary art, as well as guest suites for visiting artists, without making the house appear institutional (page 102).

Outside city limits, the boundaries are as much implied as imposed. The home and studio that Frank Harmon designed for an artist couple in the woods of Piedmont, North Carolina, is reminiscent of nearby farm buildings (page 98). Cheng Design's Del Mar, California, house was conceived as "a pioneer in an unsettled land" (page 90). David Salmela's house in Duluth, Minnesota, combines Scandinavian motifs with an open plan, demonstrating that a modern house can have old roots (page 110).

For each architect there are different ingredients that make a house, and the strength of the design is in their combination. For a house in Stowe, Vermont, Peter Rose choreographed a sequence of views from country road to dirt driveway, dense wood to grassy meadow, wide-open plain to protected arrival court (page 116). Here, the great experiment that is residential architecture begins long before you even see the house. Karen D. Stein

Houses by:
1. Cheng Design
2. Frank Harmon Architect
3. Jim Jennings Architecure
4. Salmela Architect
5. The Office of Peter Rose
6. Leslie Gill and Bryce Sanders
7. Scogin Elam and Bray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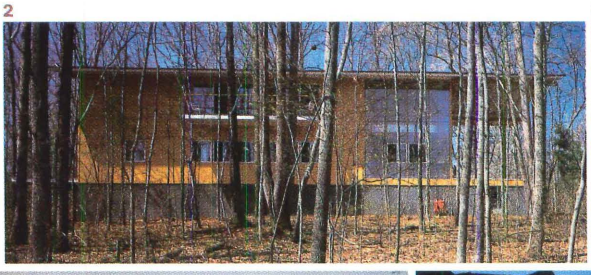
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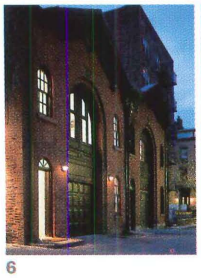
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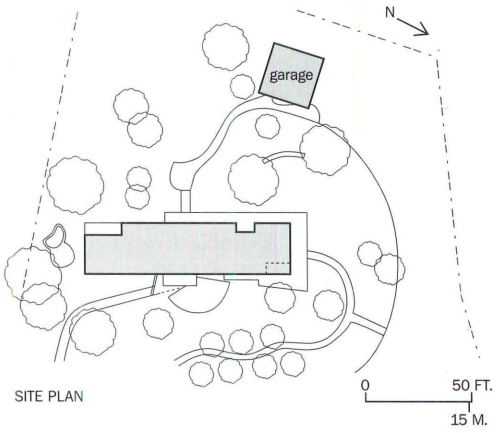
7

Inspired by streamlined trailers and a wild setting, **FU-TUNG CHENG** made the Hogan/Mayo House rugged but warm.



SITE PLAN

The siting of the house preserved almost all of the existing trees (above). A Zenlike simplicity is evident in the front elevation (opposite). Landscaping by Adams Design creates a variety of gardens around the house.

by Clifford Pearson

When Michael Hogan and Kathy Mayo hired Fu-tung Cheng to design their new home north of San Diego, they imagined something similar to his first residential commission—a barnlike house with Asian touches built north of San Francisco four years ago. But inspired by the wild vegetation on the property (including eucalyptus, jacarandas, palms, and bamboo), Cheng had a different idea: to design a rugged metal structure as if it were a pioneer in an unsettled land. "I saw the house as an Airstream trailer or an old Army quonset hut from the Fiji Islands," says Cheng.

"At first, Kathy was mortified by all the metal," recalls the designer with a laugh. Luckily, Hogan had known Cheng for many years—first as a tai chi teacher, then as a friend—and trusted him. "All of his projects are imbued with a spirit that is natural, simple, clear, and warm," explains Hogan of Cheng's work. "The materials may change, but I knew there would always be a warmth," he adds. For Mayo, trusting the designer's choices was more difficult, but after making a "leap of faith" during the early stages of the project, she now loves the house.

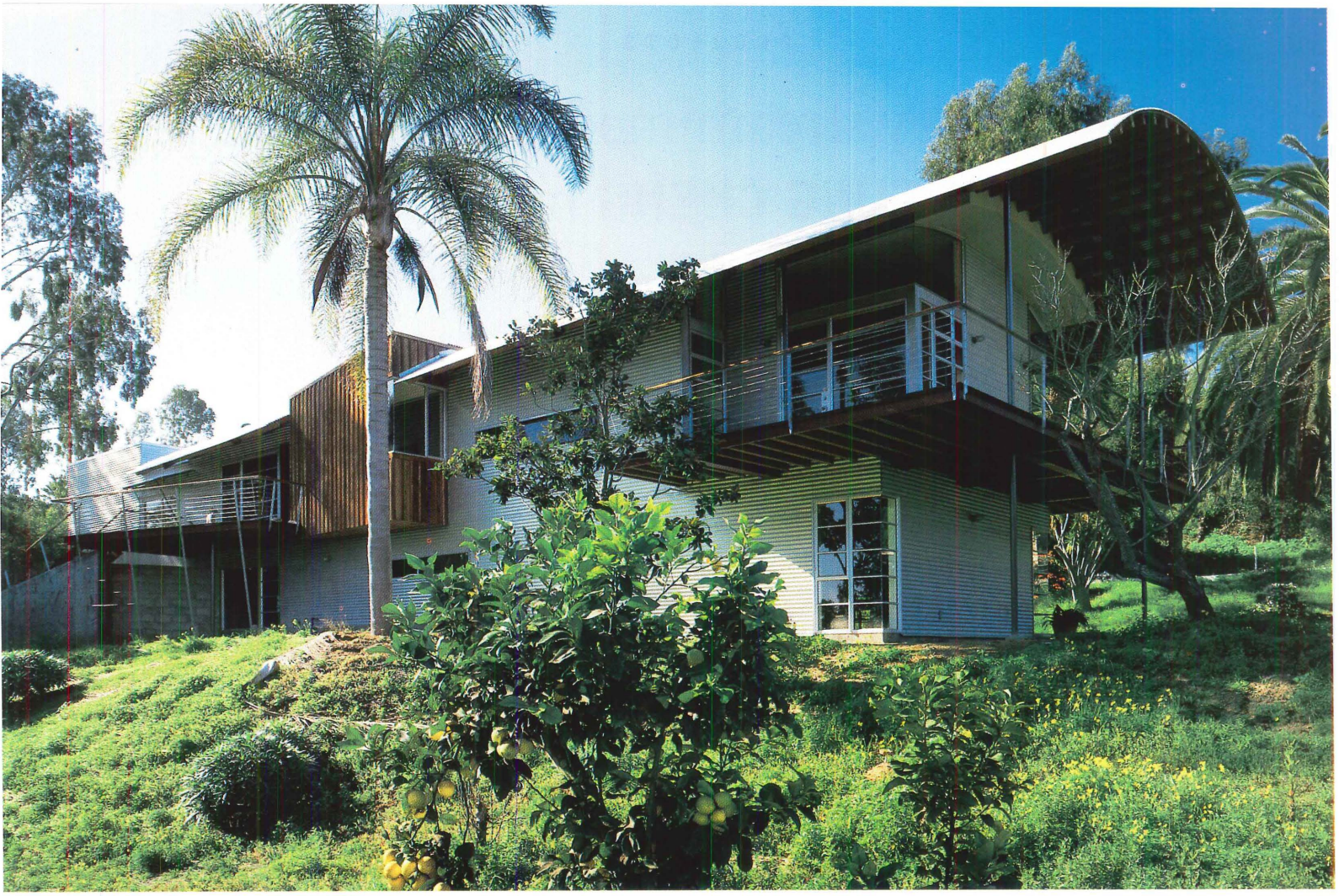
An old two-story clapboard house had sat on the site and Cheng considered renovating it. But it turned out to be in worse condition than anyone thought, and he ultimately recommended starting from scratch. To minimize the amount of cutting and filling and the impact on the land, Cheng loosely followed the rectangular plan and axis of the original house. In addition, every effort was made to cut down as few trees as possible, since the flora play such an important part in setting the character of the place. Built on a gentle slope, the house looks north and east across a valley. Trees and vegetation block most views of nearby houses where several residents have built corrals for horses and even alpacas.

Hogan and Mayo, each of whom has two grown children from a previous marriage, kept their program simple. "We wanted openness," states Hogan. "It's really just a house for Kathy and me, so we didn't want a lot of rooms." Cheng's design responds to this desire with a straightforward organization. On the main level, the living room, dining room, and kitchen are in one flowing space covered with a curving metal roof and separated from a master-bedroom suite by an enclosed breezeway dubbed the dog trot. Indeed, a very large, very affectionate dog named Niko is usually parked here and serves as unofficial greeter. On the lower level are two bedrooms, as well as laundry, storage, and mechanical rooms.

Trained as an artist, Cheng began working in construction as a student to make money. Later, he became a licensed contractor and earned a reputation as a kitchen designer. "In college, I wanted to be a pure artist," says Cheng. "But my nature is practical. I love to work with my hands, to build. I also enjoy working with other people, rather than alone." So residential design came naturally to him.

At his Berkeley studio, he employs several people trained as architects and one who is a licensed architect. Cheng and his associates sometimes act as design-builders, but the distance between Berkeley and Del Mar prevented that arrangement on this project. Here the firm built

Project: *Hogan/Mayo House, Del Mar, California*
Owners: *Michael Hogan and Kathy Mayo*
Designer: *Cheng Design and Construction—Fu-tung Cheng, Frank Lee, Alice Soohoo, project designers; Robert Ryan, Jud Smith, Chris Tong, Greg Vendena, Janet Szalay, Glenn Gardner, project team*
Engineer: *Robert Lawson (structural)*
Consultants: *Adams Design Associates (landscape); Gage Cauchois Design (lighting); William Guba & Associates (cabinetwork)*
Concrete contractor: *Gene Carranza Construction*
General Contractor: *Beacham Construction*



only the poured-concrete, integrally colored counters in the kitchen and bathrooms, which were shipped in pieces and then installed on site.

From the front, the 2,700-square-foot house appears to be a single metal block wedged into the earth. But from the back, the unified volume breaks apart as decks, a great outdoor stair, and an angle-roofed cube pop up and out. Different materials, including concrete and wood board and batten, also help articulate individual parts of the house, such as the dog trot and an alcove off the dining room. In the same way, the master bedroom has a flat roof rather than the vaulted one above the main living spaces and the dog trot. "I wanted to give it the feeling of a shed attached to the Airstream trailer that is the rest of the house," says Cheng of the bedroom suite on the southeast end of the building.

THE HOUSE HAS A WARMTH ENHANCED BY CONTRASTING MATERIALS: METAL, CONCRETE, AND WOOD.

By carving away at the main volume of the house and attaching various decks and pieces to the rear elevation, Cheng created a variety of outdoor and enclosed spaces that take advantage of the balmy southern California climate. Each of these places has its own personality, ranging from a private concrete terrace off the master bedroom to the exuberant stairs off the back of the house, which can be a fine spot to sip drinks with a crowd of people. At the same time, the great sweep of the projecting roof offers ample shade for sitting on the redwood deck.

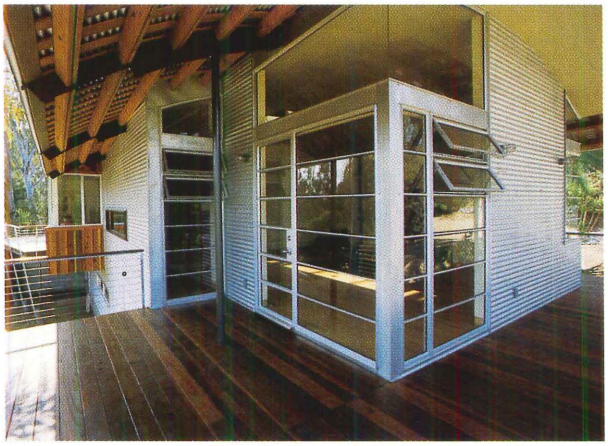
Adding to the experience of relaxing outdoors is the craftsmanship displayed on the underside of the roof, where several layers of materials (corrugated metal, 1-by-6 wood sheathing, 2-by-6 wood joists, and metal beams) are exposed for all to see. A similar treatment is used for the underside of the roof in the dog trot, reinforcing the sense that the space is not quite indoors even though it is enclosed.

The barrel-vaulted portion of the house has a steel frame with slender metal columns and curved steel I-beams spaced 12 feet apart, which support the wood joists. The columns are set about six inches inside the walls to show how the house's structural system and its enclosing surfaces work independently. The master bedroom, on the other hand, has an L-shaped, poured-concrete supporting wall and wood framing. A concrete-block retaining wall on the ground level and a poured-concrete wall for the outdoor stair complete the structure.

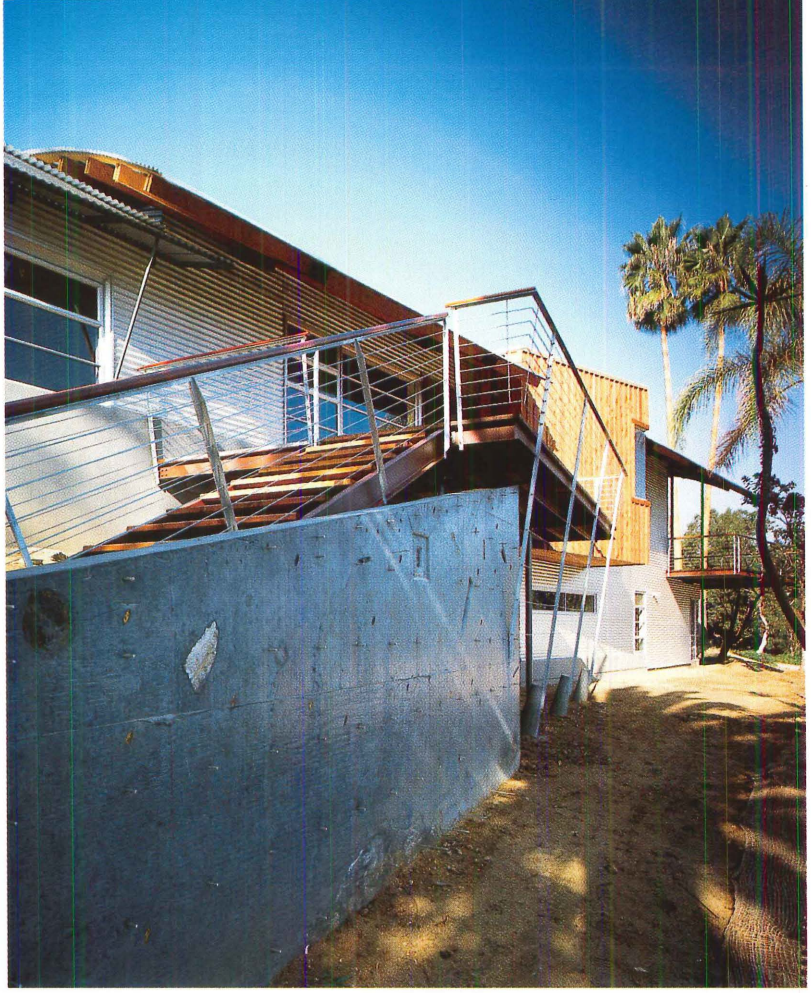
As Hogan had suspected at the beginning of the design process, Cheng's use of metal and concrete is anything but cold. By combining corrugated metal on the roof and exteriors with richly colored wood on other surfaces, the designer imbued the house with a warmth that is enhanced by contrast. Cheng's experience building concrete kitchen counters proved helpful in this project too. Floors in the master bedroom, the dog trot, the entry of the living area, and the lower level are all concrete. In the master bedroom, the concrete is acid-washed in two different tones—celadon and beige. In the dog trot, the concrete is scored and has the look of terrazzo with its aggregate exposed. Downstairs it is hand-troweled.

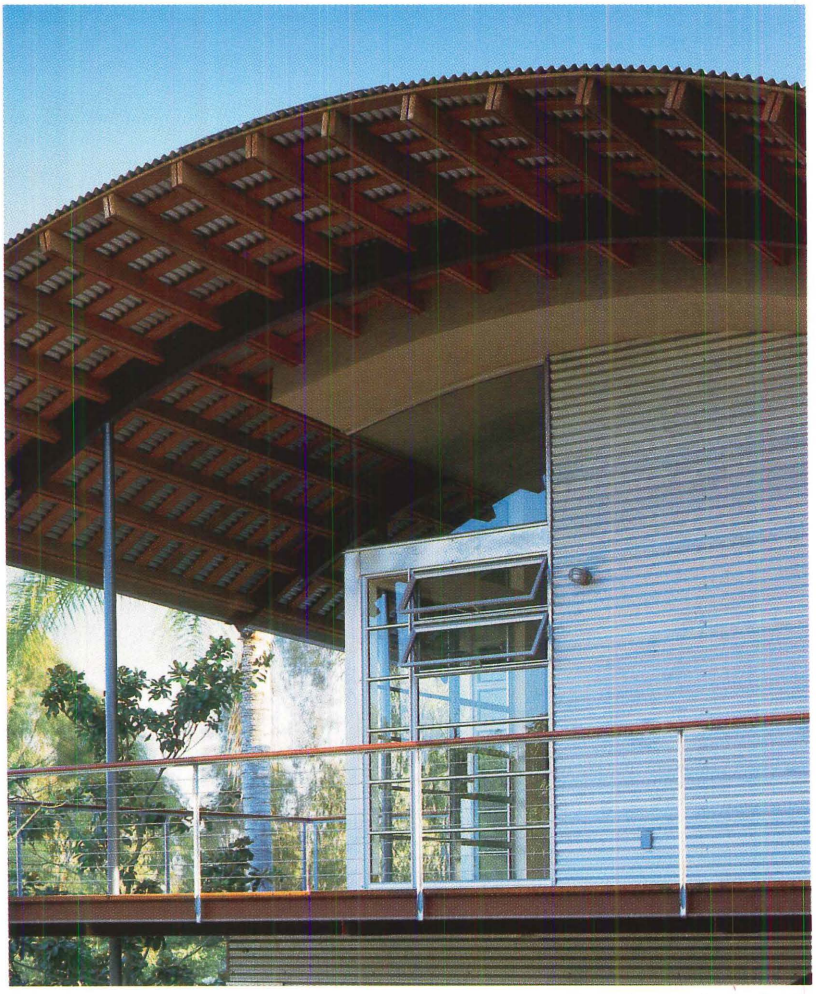
Throughout the house, Cheng embedded found objects in the concrete—aluminum automatic transmission-valve covers, ammonite fossils, gears, computer parts, water-pump cams, a circular saw blade, a piece of steel rebar, and naturally polished stones—as well *(text continues)*

The house takes advantage of the sunny climate by providing a variety of outdoor spaces, including a wraparound redwood deck (below) and terraces off bedrooms upstairs and down.



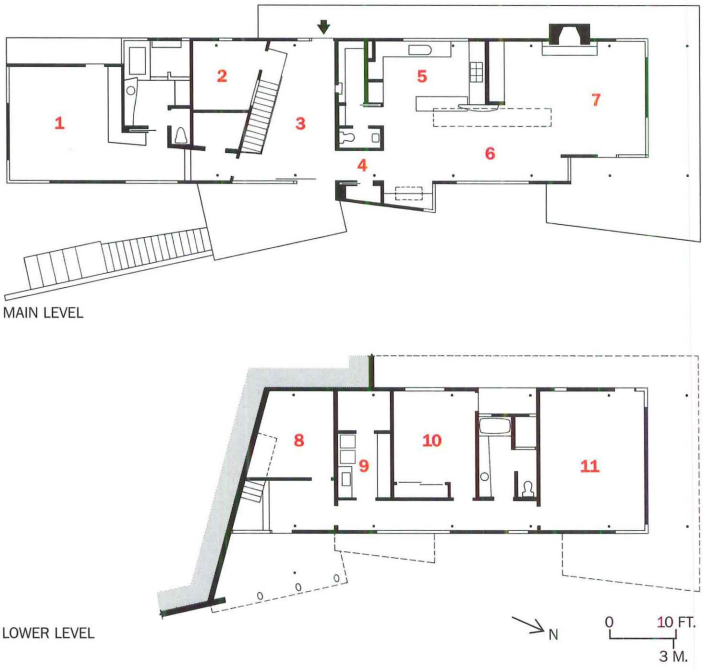
The "dog trot" (above), a transitional space that is enclosed but not air-conditioned, separates the public areas from a bedroom. The concrete wall of a stair (top right) was poured into a plastic-sheet-lined form to give it an irregular surface.





A sense of flowing space is emphasized in the dining and kitchen area by a curving poured-concrete counter and a long horizontal window (partially visible on left side of photo). Various oxides added color to the counter.

The textured ceiling was created by raking plaster with a serrated mastic brush, then applying drywall compound. Cheng did much of this job himself.



The clients had asked for openness in the house, and the living/dining room provides an uninterrupted space that flows out toward a wraparound deck (opposite). The door from the dog trot entry to the public portion of the house is on a pivot. Its knob is a Buddhist hand that one of the clients found at a flea market (above). A stair railing that combines wood and steel was inspired by one designed by Carlo Scarpa, says Cheng.

1. *Master bedroom*
2. *Office*
3. *"Dog trot"*
4. *Entry*
5. *Kitchen*
6. *Dining*
7. *Living*
8. *Storage*
9. *Laundry*
10. *Bedroom*
11. *Bedroom/library*

as a few small designed pieces such as tile mosaics and symbols from the *I Ching*. The effect is to inject touches of levity and spontaneity into a material that is usually utilitarian.

Wall surfaces are also treated to provide subtle changes in texture and color—some are painted drywall, while others are hand-troweled plaster. Hues range from celery to wheat to slate blue, and many were hand-mixed by Cheng himself. "The selection of colors was more painterly than intellectual," says the designer.

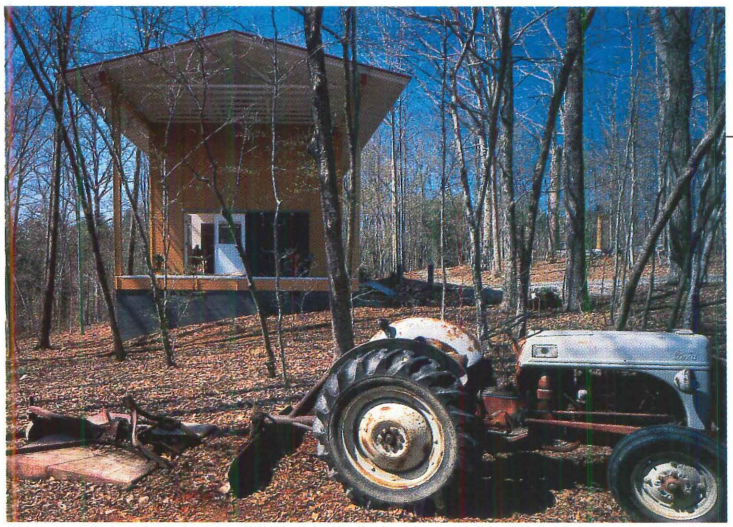
With lush views all around the house, some designers would have been tempted to use lots of glass. Cheng took a different approach, treating views as precious commodities to be offered sparingly and then adroitly framed. Early on in the design phase, the clients questioned the wisdom of this strategy. But as soon as they moved into the house, they realized Cheng was right. In an alcove off the living area, for example, a small window focuses attention on a graceful sycamore tree. "It's a beautiful effect," states Hogan with satisfaction. Corners tend to have more glazing than walls, and a long, narrow skylight runs along the ridge line of the curved ceiling in the living room. As a result, daylight comes in around the edges of the main living area, providing illumination without overwhelming the space.

The tightly framed windows, the sleek railings on the decks and stairs, and the metal siding conjure different images in the minds of the designer and clients. While Cheng sees a streamlined trailer, Hogan says the house reminds him of a taut but comfortable boat. Whether grounded or afloat, the house has a relaxed sense of movement and space that seems to agree with its residents. ■

Sources

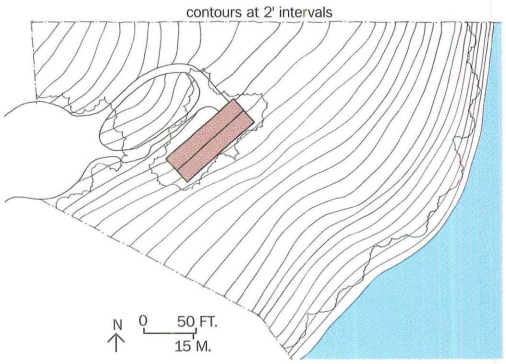
Custom steel: *Carroll Metal Works*
Corrugated-metal cladding: *BHP Steel (Zincalume)*
Corrugated-metal roofing: *BHP Steel (Nu-Wave Corrugated)*
Clear-anodized aluminum windows: *Torrance Aluminum Windows*
Locksets: *Schlage*
Butt hinges: *Stanley*
Aluminum cabinet hardware: *Forms & Surfaces*
Custom concrete counters: *Designed by Cheng Design and Construction*

A house and studio designed by **FRANK HARMON** bring two artists the peace and quiet they need for their work.



by Charles Linn, AIA

The Rozzelle-Ragan residence stands on a wooded lot above a river near Piedmont, North Carolina. When the trees are full of leaves in the spring and summer months, birds and other wildlife become the couple's intimates.



Architect Frank Harmon likes to discuss the biological succession of plants and trees as he cruises the winding rural highways that cut through the forests outside Raleigh, North Carolina. These forests are in a perpetual state of change. Rapidly growing pines shoot skyward from the meadows, only to disappear when overtaken, and then blocked from life-sustaining sunlight, by taller, deciduous trees such as oaks and hickories.

The homes people build for themselves through successive generations evolve in the same way as a forest's ecosystem. The house that suited a farmer with a large family 50 years ago isn't necessarily what the scientist who grows cultures in test tubes somewhere in Research Triangle Park desires. Hence, sprawling houses built by contractors have superseded the farmhouses in this region.

Just as mature, deciduous forests eventually die out and make way for the reemergence of the evergreens, in the case of the Rozzelle-Ragan house, the earlier, utilitarian farm dwelling has succeeded the commuter's familiar suburban house. Like many people today, Ron Rozzelle and Rosa Ragan work at home, although they are not telecommuters: he is a painter, and she restores carousel horses and vintage fairground art. Rozzelle's and Ragan's vocations are so central to their lives that they have elected to commit the majority of the enclosed space in their home to work. And, like many of the old-time farmers who turned carpenter in order to construct the homes they wanted, Rozzelle traded his sable paintbrushes and palette for a hammer and nails off and on over a period of three years, building most of the house himself.

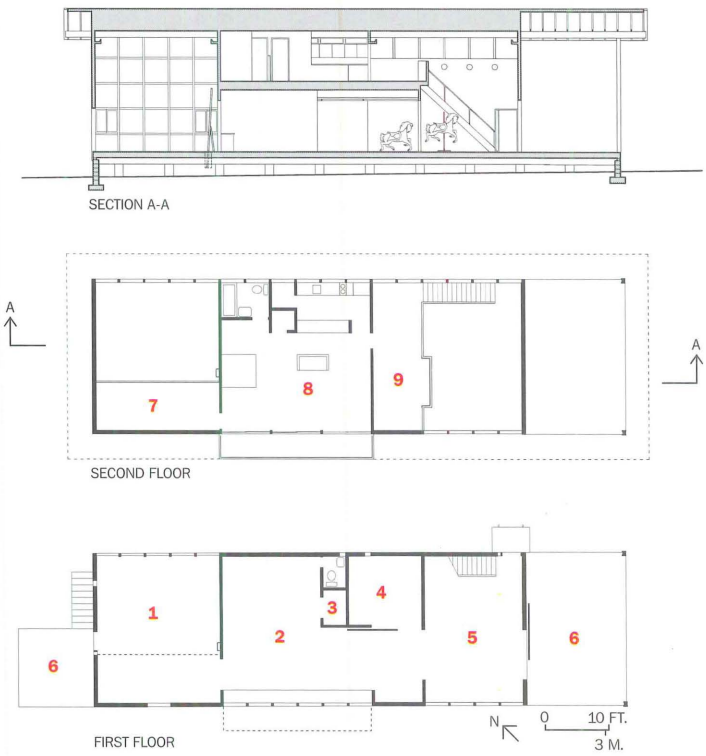
Harmon says he hoped that the house's forms would be reminiscent of nearby farm buildings. They are, but the references are not always obvious. It is easy enough to recognize that the rough-sawn plywood siding, for example, is a modern take on the generic, flat, vertical boards used as siding on barns long ago. Harmon's updated version, however, is painted a muted yellow, not the gleaming white that local dairy farmers once prized. Rozzelle clad the house using hex-head screws, which he painstakingly applied in a perfect grid and then painted a dark red, giving the exterior a precise appearance that an old-time farmer used to driving tenpenny nails with three blows of a hammer probably would not have appreciated.

With very few exceptions, the house was built of ordinary lumberyard materials. The white-painted open rafters on the eaves and those supporting the porch roof; the painted, corrugated-metal roofing; and the large, metal sliding security door that covers a pair of swinging doors leading from the larger porch into the carousel studio are the same as those found on almost any agricultural building in the region.

The inside of the house, however, has none of the agrarian references of the exterior—nary a potbellied stove in sight. It looks more like a big-city artist's loft, except for the abundant light coming through the floor-to-ceiling windows and the extraordinary view of the forest. The rooms have white-painted gypsum-board walls and ceilings and polyurethane-finished oak floors, and they are lighted by fluorescent coves and troffers fitted with prismatic lenses.

Project: *Rozzelle-Ragan House and Studio, Piedmont, North Carolina*
Owners: *Ron Rozzelle and Rosa Ragan*
Architect: *Frank Harmon Architect—Frank Harmon, AIA, principal-in-charge; Quan Banh, project architect*
Engineers: *Synergetics*

The painter's studio receives soft daylight through windows glazed with ribbed plastic panels. A trap door under the easel opens so that canvases can be lowered and their upper portions painted.



1. *Painter's studio*
2. *Workshop*
3. *Mechanical*
4. *Sanding and painting room*
5. *Carousel studio*
6. *Porch*
7. *Storage balcony*
8. *Apartment*
9. *Balcony*

Harmon's firm did only half the usual number of drawings for the building, and he and Rozzelle worked out the rest of the details in Saturday morning meetings. Harmon is careful to point out that this kind of architect-owner collaboration doesn't work with every client, but Rozzelle's building experience, artistic sensibility, and attention to detail made him ideal for this approach. "You have to have a builder with a lot of devotion to get the sort of quality this building has," says Harmon. The doors and laminated-wood window frames are a good example of Rozzelle's handiwork. He glazed most of the openings with double-celled polycarbonate sheet, which has a relatively high R-value and provides diffused light with few shadows—light that is ideal for the sorts of tasks performed by artists. Rozzelle installed aluminum sliding windows in the remaining openings.

THE INTERIORS ARE REMINISCENT OF A CITY ARTIST'S LOFT—EXCEPT FOR THE EXTRAORDINARY VIEWS OF THE FOREST.

Ragan's studio is at the southeast corner of the house near the front door, because she doesn't mind being interrupted by the occasional caller. Ragan also needs ready access to the large covered porch, where unpleasant, and sometimes noxious, operations like paint removal can be performed in plenty of fresh air—and away from the studio's polished oak floors. The floor of the porch is wood decking finished with marine fiberglass.

A room off the studio is set aside for jobs that are best performed in a self-contained environment, like the sanding and fine painting that comprise the final steps of restoring the carousel horses. The doors are equipped with filters, and the room is ventilated by a heavy-duty exhaust fan. An office and library are located on the balcony just off the stair leading to the apartment.

Rozzelle's studio is at the opposite end of the first floor, where he works in absolute privacy. A custom-built easel illuminated by a row of suspended track lights allows the artist to paint in the same incandescent light his work will most likely be shown in. By opening a narrow trap door beneath the easel, Rozzelle can lower a canvas and paint the upper portion without getting up on a ladder. A metal ladder leads to a balcony where he stores canvases and supplies. A workshop is located between Ragan's studio and Rozzelle's, so the two can share tools without disturbing each other.

The diminutiveness of Ragan and Rozzelle's apartment relative to the studios is a testament to the major role of work in their lives. At about 400 square feet, the upstairs living area brings to mind an efficiency apartment, except for one wall of floor-to-ceiling glass doors that lead to a balcony jutting into the forest. The balcony allows the artists to enjoy extraordinary views of flora and fauna, and the couple spend their evenings there chronicling the lives of the cardinal, owl, and woodpecker families they get to know each season and listening to the sound of the river nearby. Despite the apartment's small size, it is not cramped or cluttered: Rozzelle and Ragan are not encumbered by many possessions.

Once they became successful, early farmers here would build new homes for their families and convert their original homes—which were usually no more than log cabins—into utilitarian structures devoted to storing grain or drying tobacco. Ragan and Rozzelle plan to follow the tradition. As they prosper, they will use this building solely as a studio and guest apartment, and build a new home nearby. ■

Sources

Glazing: *Polygal*

Sliding windows and glass doors: *Binnings*

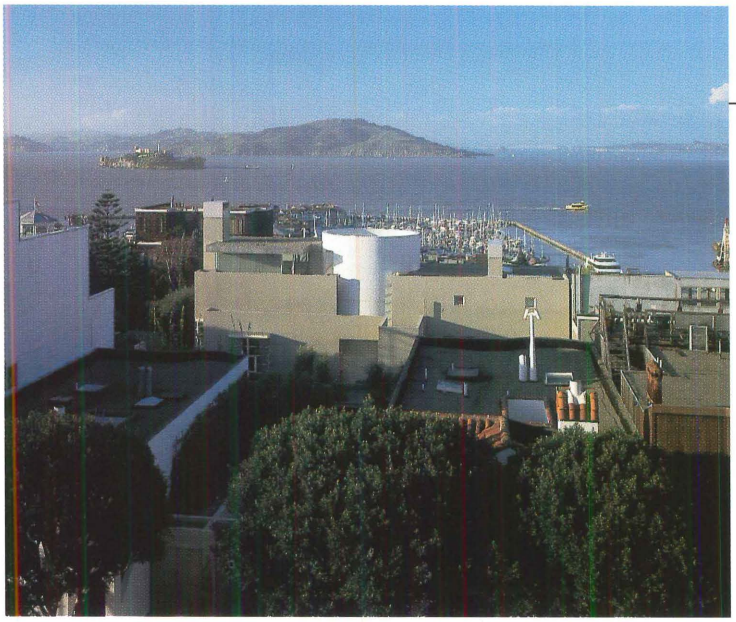
Paint: *Sherwin-Williams*

Gypsum board: *Georgia Pacific*

Fluorescent strips and troffers: *Lithonia*

The stepped forms of the house were inspired by Art Deco apartment buildings in the area, explains Jennings. "In its own way, it's contextual," says the architect.

Working for a longtime client on a prime San Francisco site, JIM JENNINGS designed an art-filled house that engages the city.



by Clifford Pearson

Working on a house for nine years gives an architect rare perspective. So when Jim Jennings talks about the residence he designed for Steven and Nancy Oliver in the Telegraph Hill neighborhood of San Francisco, it's clear he is fully steeped in the subject. And what he emphasizes is not the project's formal qualities or the precision of its details (a precision for which he is well known) but the way it engages its urban context. "How do you make architecture in the city? That's what this project is all about," Jennings says.

Part of his answer is in the massing of the three-story structure, which echoes the stepped volumes of its neighbors and Art Deco apartment buildings in the area. Part of it is in the simple geometric forms that read clearly from nearby hillsides and fit into the residential cityscape. And much of it lies in the way the house provides a multitude of outdoor experiences. Indeed, not only does the house have a generous front court, but nearly every major room has its own outdoor space with its own character and dimensions. Forging such bonds between indoors and out is common in southern California, but much less so in the foggy, cool San Francisco climate. "I wanted to explore how you modulate the experience of being outside in the city," says the architect.

That the house took so long to complete is not surprising considering San Francisco's notoriously difficult approvals process, which in this case took three years. But the most important factor was that the clients enjoyed the creative process so much they were in no hurry to put an end to it. "The problem was I was having too much fun," explains Steven Oliver, who owns the construction company that built the house and was actively involved in the entire project. He also sits on the board of directors of the San Francisco Museum of Modern Art and is an important collector of postwar art.

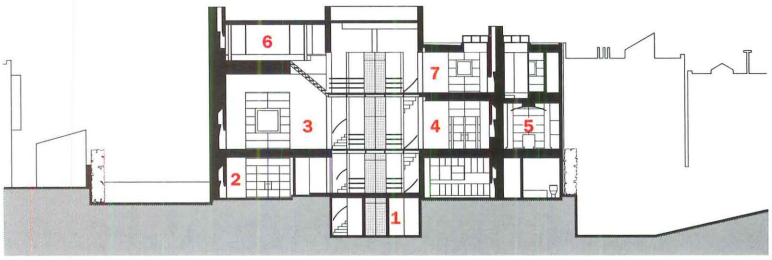
The Oliver-Jennings collaboration is a long-term affair. Oliver commissioned Jennings to renovate a weekend house on a sheep ranch north of the city back in the 1980s and now plans to go forward with a new guest house for the ranch designed by Jennings. He cites Jennings's clarity of vision in helping to keep the projects focused.

Oliver has the roll-up-the-sleeves personality of a good builder and enjoys playing the role of patron—to both artists and architects. At his upstate ranch and now his city house, he runs an artist-in-residence program, which provides visiting talent with lodging and a hospitable environment for weeks at a time. With Jennings, he offered much latitude, asking only for a good place to display art and entertain and a house that would be different from his country ranch. To that end, Jennings developed a design that is more formal and controlled and one where paintings and drawings, rather than sculpture, are given pride of place.

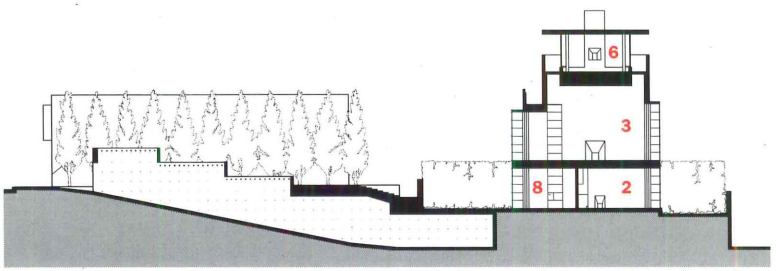
"THE PROBLEM WAS I WAS HAVING TOO MUCH FUN," SAYS THE CLIENT.

The city house replaces a three-story apartment building that set the limits for the project's footprint and height. Although the sixth-of-an-acre site is generous by San Francisco standards, it is a tight fit for a 5,200-square-foot house with underground parking for nine cars and lots of outdoor spaces. Jennings had wanted to pull the driveway off a small lane to the east, but the city wouldn't allow any change in access from the

Project: *Oliver House, San Francisco*
Owners: *Steven and Nancy Oliver*
Architect: *Jim Jennings Architecture—Jim Jennings, partner-in-charge; Cheri Fraser, project architect; John Holmes, Jay Kammen, project team*
Interior Designer: *Gary Hutton Designs*
Engineer: *Sear-Brown (structural)*
Consultants: *Delaney and Cochran (landscape); Dodt Electric (lighting); Steinbach Cabinets (custom pocket doors)*
Custom ironwork: *CW Ironworks—Chris Wilhelmsen, Pete Wilhelmsen, Dennis Wilhelmsen, project team*
General Contractor: *Oliver and Company—Steve Chambers, superintendent of construction*



EAST-WEST SECTION



NORTH-SOUTH SECTION

1. *Garage level*
2. *Living/studio*
3. *Living*
4. *Dining*
5. *Kitchen*
6. *Office*
7. *Master bedroom*
8. *Bedroom*

The front court (below) is a landscaped platform with the driveway and parking below (sections above).

The front court (above) sits above the driveway, which leads to an underground garage with a turntable for cars. The entry hall (right) is a three-story space that introduces the interior palette of materials: concrete, punched metal, and plaster walls.

arrangement established by the apartment building, so the house is entered frontally, on axis with the driveway.

The visual and structural anchor of the house is a 50-foot-tall, 12-inch-thick, poured-concrete cylinder rising from its center. This towerlike form contains an elevator, stairs, and translucent glass bridges connecting the two sides of the house, and serves as a seismic brace for the entire structure. "The cylinder is a transitional space, not one to be occupied," explains the architect. While the cylinder is at the intersection of the two axes running through the house (front to back and side to side), it is slightly off-center. "I made no attempt at symmetry," says Jennings. "The position of the cylinder was determined by the site"—by its alignment with the entry and the east-west axis.

Indeed, the blocks on either side of the cylinder are of different sizes and proportions. Each room in the house is also unique; ceiling heights vary, even on the same floor. The idea was to shape each space for its function and give each its own character. The living room on the second floor has a 15-foot ceiling, while the dining room and kitchen on the same floor have ceilings that are 12 feet high. An office on the top floor has a low ceiling, just eight feet high, but feels spacious, since large panes of glass surround the space and provide grand views over the bay to Alcatraz and the Golden Gate Bridge.

The strong presence of the concrete cylinder, however, imbues the house with a clear sense of order. "The cylinder makes itself felt no matter where you are," Oliver says. And the straightforward procession of spaces along an axis makes all of the rooms fit together. "The axes aren't theoretical conceits," states Jennings. "They're experiential, directly affecting what it's like to move through the house." On each floor, the main axis of the house is anchored by fireplaces rising at both ends.

Striking the right balance between mass and light was a key concern for Jennings. "It was important for the house to have a sense of volume, of solidity—not just in the cylinder, but in the walls too," says the architect. "In terms of relating to its neighbors" with openings and windows, Jennings wanted the house to be "discreet, inscrutable."

But he worked hard to make the house feel expansive on the inside, employing large bay windows that project out from the building envelope and offer oblique and straight views. "The typical approach to views is like frontal nudity, which is not as interesting as oblique views,"

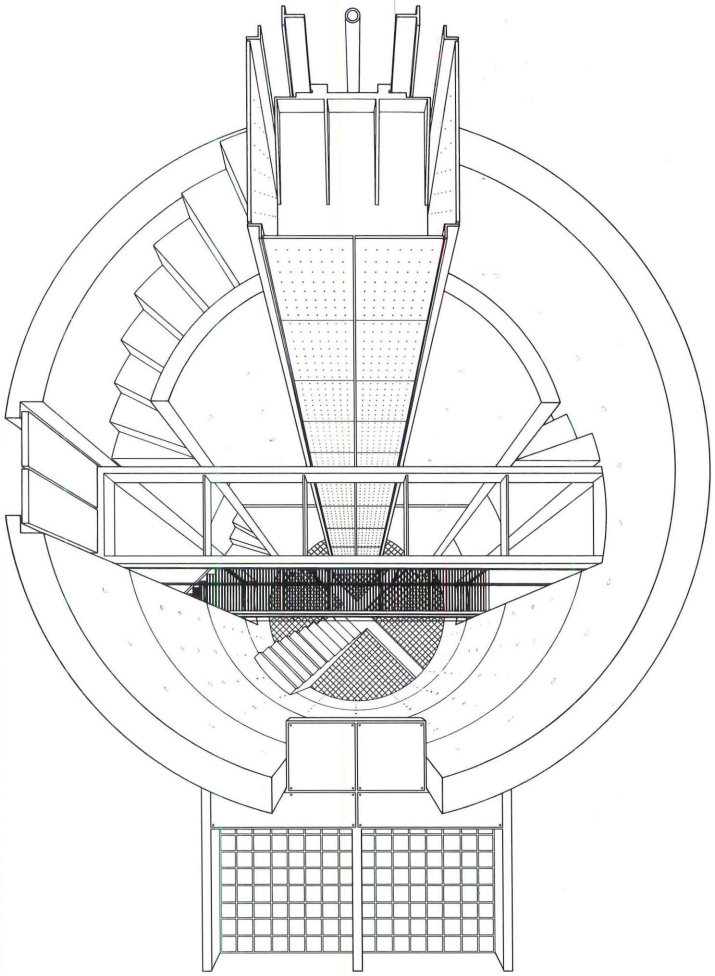
LAYING DOWN AXES WAS MORE IMPORTANT THAN SYMMETRY, SAYS JENNINGS.

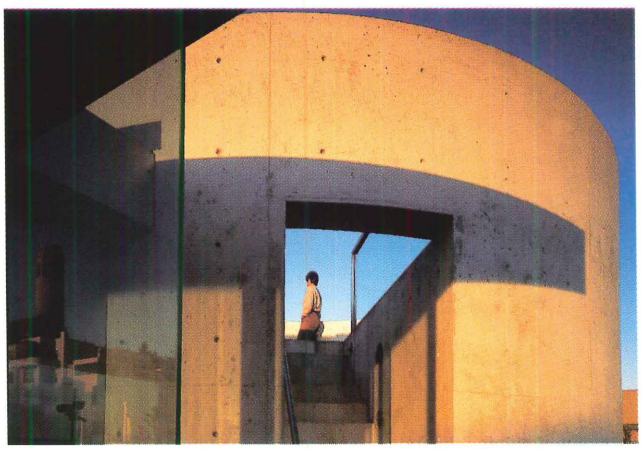
states Jennings. The architect also enhanced the sense of expansiveness by topping the cylinder with translucent glass to bring light in from above. The cylinder injects an intriguing element of surprise into the house. "From the outside, you think the tower is a dark space. But when you get inside, you discover it's filled with light," Jennings says.

Still zoned for multifamily use, the house was designed so the bedroom suites on the first floor can act as independent apartments with their own entries and kitchenettes. This arrangement allows a visiting artist some privacy and the chance to be with his or her family. Upstairs are the main living spaces for the Olivers, which offer plenty of room for entertaining and large wall surfaces for artwork. The master bedroom and a home office are on the third level.

Materials and colors were selected to serve as *(text continues)*

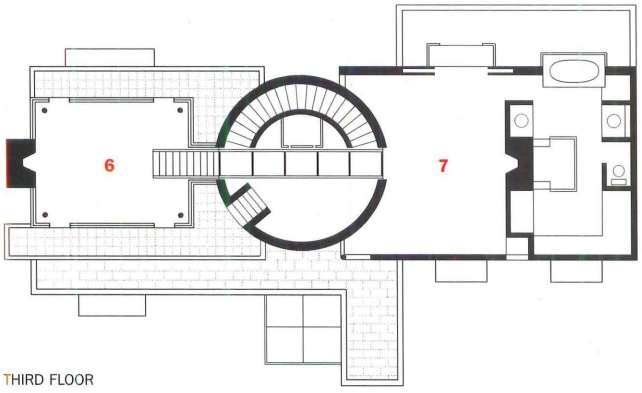
The 50-foot-high cylinder is a transitional space, the architect says, used for circulation, not for occupying. By pulling all of the vertical circulation into this central tower, Jennings was able to make a clear distinction between service areas and "served" spaces. The 12-inch-thick poured-concrete walls of the cylinder (opposite) act as seismic support for the entire house. The wings on either side of the cylinder are wood-framed. Bridges across the cylinder have translucent-glass floors. Cantilevered stairs hang above the third-floor bridge (right, top and bottom) and lead to a glass roof terrace (below). The contrast of solid and transparent materials heightens the impact of each.



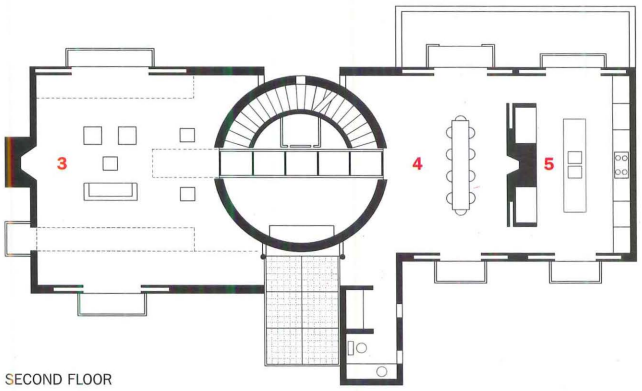


Fireplaces at both ends of the house (and on all three floors) reinforce the design's cross axis. Rick Arnitz's painting *Taps* (1991) hangs above the fireplace in the living room.

1. *Bedroom*
2. *Living/studio*
3. *Living*
4. *Dining*
5. *Kitchen*
6. *Office*
7. *Master bedroom*



THIRD FLOOR



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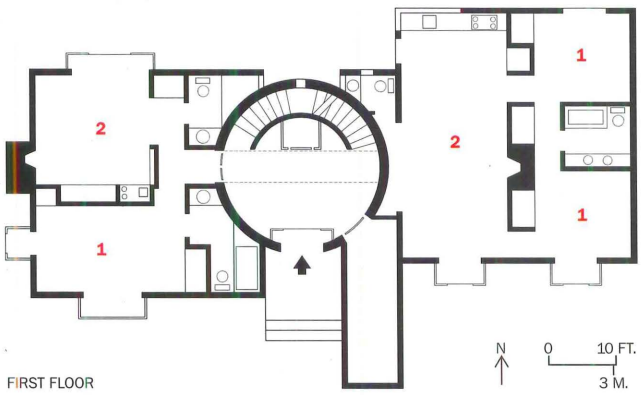


FIRST FLOOR

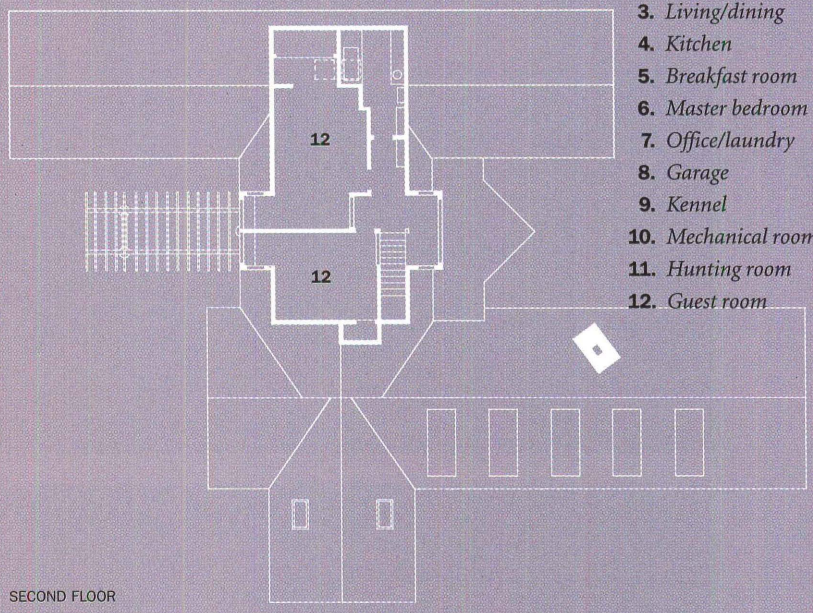
By varying ceiling heights and dimensions for each of the major rooms, Jennings gave each its own character. In the living room (right bottom), a tall ceiling and bay windows imbue the space with a sense of drama. Pocket doors in the bay windows can be closed for more intimacy. In the office (right top) wraparound glass and a terrace (with hot tub) direct one's attention outdoors.

quiet backdrops to either the formal elements of the architecture or the artwork on display. A putty gray stucco, for example, was used on the exterior of the house to reinforce the blocky forms of the wings on either side of the cylinder. "I wanted a color that was no color," explains the architect. Inside the house, polished maple floors and neutral colors for walls allow a rotating collection of mostly post-1970 paintings and drawings to take center stage. Indeed, the walls are plaster applied over plywood, the same surface found in most museums. Two pieces of art were commissioned specifically for the house: a video by Ann Hamilton in the second-floor powder room and a thread sculpture by Fred Sandback in the entry hall.

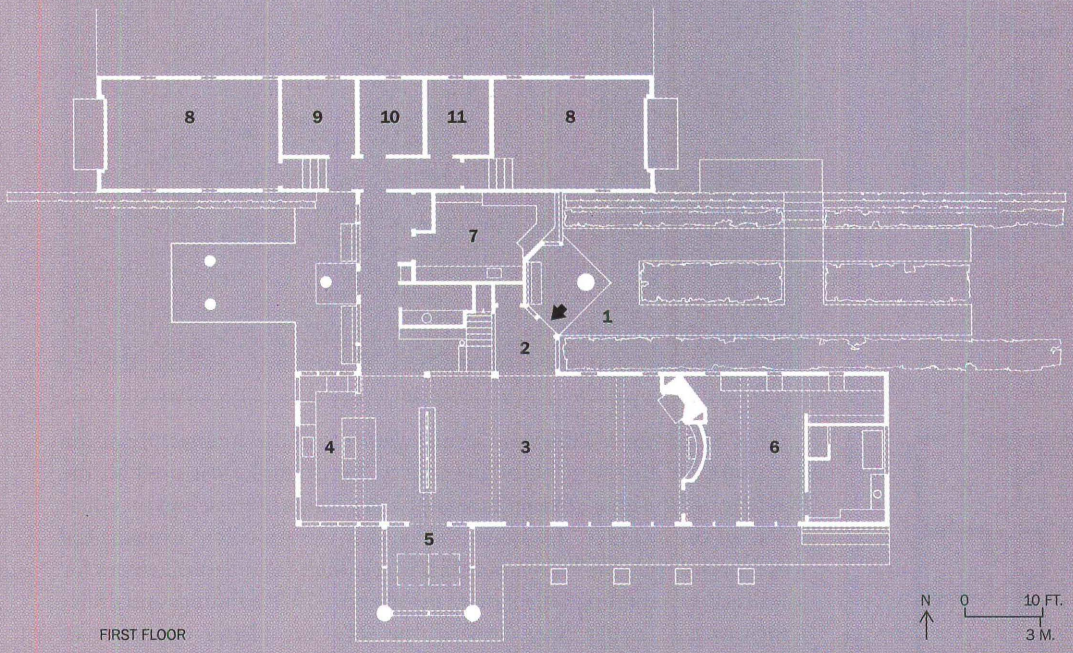
The Oliver House, though, is not a museum for living in. It is a gracious home with rooms that accommodate both large parties and private conversations and where the outdoors is always just a couple of steps away. Change is an option offered by the architecture. Close the sliding pocket doors installed in the bay windows and you create a sense of intimacy. Hang a painting in a room with different proportions and it seems to change character. Although formal, this house is anything but static. ■

Sources
Steel windows and doors: *Hope*
Ambient lighting: *Belfer/Wedge*
Downlights: *Regiani*
Custom maple cabinetwork: *Designed by Jim Jennings*
Custom pocket doors: *Steinbach Cabinets*

1. *Courtyard*
2. *Entry*
3. *Living/dining*
4. *Kitchen*
5. *Breakfast room*
6. *Master bedroom*
7. *Office/laundry*
8. *Garage*
9. *Kennel*
10. *Mechanical room*
11. *Hunting room*
12. *Guest room*



SECOND FLOOR



FIRST FLOOR

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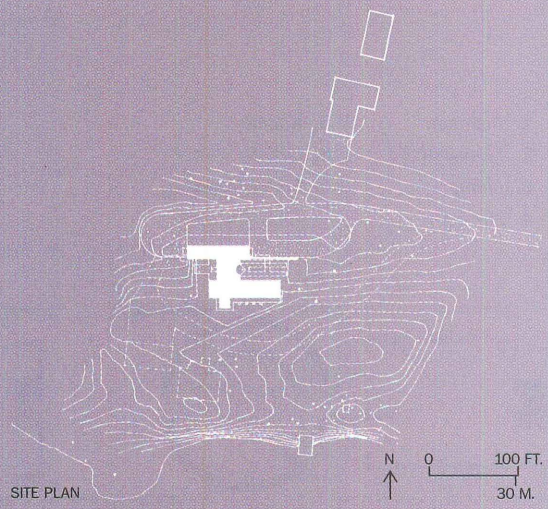

SITE PLAN

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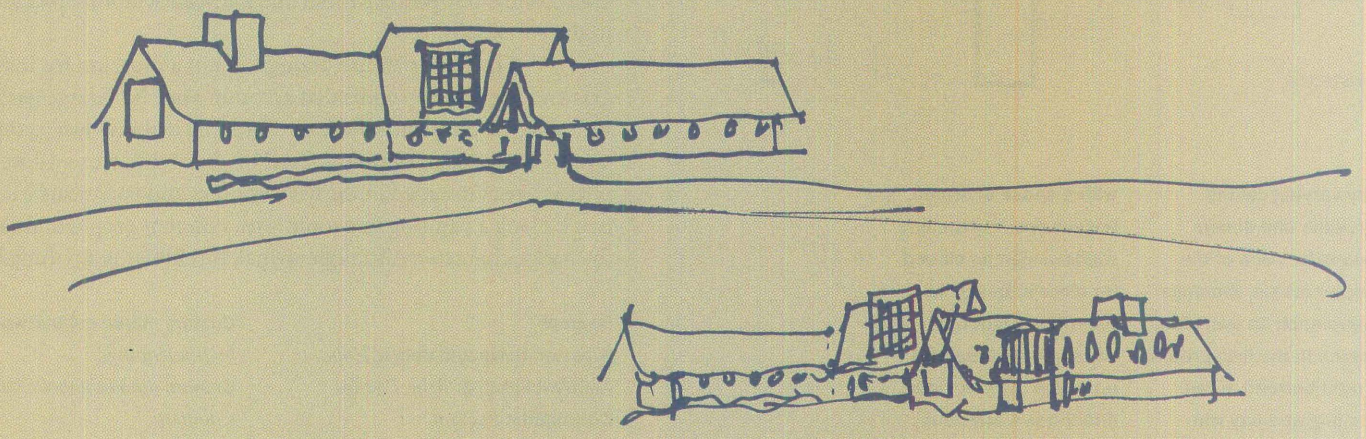


Scandinavian vernacular architecture and Modernist design principles inform a lakeside Minnesota house by **DAVID SALMELA.**

by Linda Hallam

In a restrained play on a traditional Norwegian motif, architect David Salmela designed the 24-inch-diameter exterior entry column from a white pine tree cut on the property. In a nod to Modernism, the maple plank front door, set on angle, is devoid of ornamentation and trimmed with off-the-shelf hardware.

Known for his bold use of geometric forms, rugged materials, and bright colors, architect David Salmela of Duluth, Minnesota, finds progressive design can pull back as well as push forward. "It's a modern house," says Salmela of the 3,500-square-foot lakeside home he designed for clients Peter and Cynthia Emerson. "The program is based on the principles of Modernism: practicality, openness, common spaces, the division of the master bedroom for privacy. But it has old roots, too."

Salmela, who has produced residential and institutional work in Minnesota and Wisconsin for more than eight years, the last four as his own one-man firm, says that because half of Minnesota's population has some Scandinavian ancestry, the folk memory of immigrants and early vernacular houses plays an important part in the contemporary shared culture. In fact, the Emerson house, located 20 miles from Duluth, was built by local carpenters and brothers Brad and Curt Holmes, who are of Finnish heritage. "The idea is to draw on our roots here, to incorporate modern into a Minnesota vernacular. That, along with the symmetry and order of classicism, was the vocabulary we used for the house," he explains.

Linda Hallam is a book editor with the Meredith Corporation in Des Moines, Iowa. Her books include Easy Style *and* Express Yourself With Color. *She was formerly homes editor at* Southern Living *magazine.*

Set among towering white pines, the residence takes advantage of a southern exposure with lake views. By nestling the steeply roofed house into a slope and partitioning it into a core and two wings, Salmela visually reduced it to the modest scale the clients requested. The two wings—the master suite and living area on the south (lake) side and the tandem garage on the north—flank the center core to create a protected courtyard. As a play on traditional Scandinavian architecture, the 15-foot-wide garage front is detailed with exposed trusses replicated from a nearby village town hall. Walls are clad in lapped cedar siding and sealed, like all the exterior cladding, with opaque white stain. The Emerson house cost approximately $138 per square foot of heated space.

To visually reduce the size of the master wing, Salmela made an oversized six-foot-square window in the wing's gable end. In contrast to the garage wing, exterior walls are board-and-batten cedar. Battens are 1½ inches deep rather than the more common ¾-inch, for extra shadow definition. The angled, whitewashed brick chimney visually pierces the cedar shake roof. The architect also manipulated the scale and *(text continues)*

Project: *Emerson Residence, Duluth, Minnesota*
Architect: *Salmela Architect—David D. Salmela, AIA, project architect*
Engineer: *Kreck & Ojard (structural)*
Consultants: *Coen + Stumpf + Associates (landscape); Rod & Sons Carpentry (casework)*
General Contractor: *Rod & Sons Carpentry*

Located 20 miles from Duluth, Minnesota, the Emerson house is set among white pine trees with views of a nearby lake. "In the winter, the days are short and the light is precious. Not only do we have daylight through windows and French doors, but we have moonlight through the dormers," says Cynthia Emerson.

Slate flooring continues the bluestone paving used outside (above). Counters are wood and slate. Vaults in the kitchen and family room are constructed from tie beams recycled from previous use, and the white-painted slatted staircase is in keeping with the house's Scandinavian motifs (left). The backs of the brick hearth and the wood television cabinet, both purposely exposed, jut into the master bedroom (opposite right). The dining room is surrounded by windows like a summer porch (opposite left).

materials of the formal entrance. From the first view of the house, the oversized front dormer acts as an immediately perceivable icon. The dormer is repeated on axis as an interior clerestory window and a rear dormer bathing the second level in natural light.

Inside, floors on the first level are slate tile, warmed by radiant heat, echoing the bluestone courtyard walkway. Walls and trim are painted stark white, mimicking the white exterior stain. The architect captured the open spirit of Modern architecture and the ambience of Scandinavian lodges for the kitchen/living/master wing by vaulting the 17-foot ceiling with 10-by-12 tie beams recycled from old buildings. Load-bearing walls were designed with steel-reinforced wall headers to absorb the loads. And in a restrained nod to the regional vernacular, the tongue-and-groove pine ceiling was fitted in place, then sprayed with water for an appearance of age. The tongue-and-groove planks were also fitted vertically inside the dormers, which enhance the light above the lake-facing French doors.

"IT'S A MODERN HOUSE," SAYS ARCHITECT DAVID SALMELA. "BUT IT HAS OLD ROOTS, TOO."

With private spaces arranged on the east side, the more public spaces—the dining porch and the open kitchen—are clustered along the south and west sides. Combining porch with sunroom, Salmela employed awning windows, with removable screens, for the three open sides. The two skylights in the barrel-vaulted, tongue-and-groove ceiling frame views of an 80-foot-tall white pine tree to the east and a maple to the west. Below the vault, the pilasters are the interiors of 24-inch-diameter support columns cut, like the column at the entrance, from white pine trees on the lakefront property.

In contrast to the stark white porch pavilion, the adjacent breakfast room and kitchen share the punch of color from a painted blue-green freestanding cabinet that is accessible from both sides. With glass shelves and upper double glass doors crafted from barn sash, the cabinet focuses light without blocking it. For openness, all other cabinets are tucked below counters. In keeping with the palette of natural materials, counter surfaces are sealed bluestone. To provide contrast, Salmela chose the light-reflecting quality of sealed maple to clad the counter below the board-and-batten gable end wall. Punctuated by a six-foot-square window, the wall gives the space the ambience of an enclosed summer porch.

To contribute to this effect, the architect pulled the built-in cabinets used as the pantry to the stairwell—a location convenient to the family entrances from the garage. (For accessibility into the long, narrow garage, entrances are on the front and rear; see plan, page 110.) The stairwell, which is modest in scale but whose detailing is in keeping with both Modernist and Scandinavian design, contributes a simple design element with vertical 2-by-2s used as screening slats for privacy from the entry.

A clerestory window under the steeply pitched roof draws precious light to the second floor, which is planned as a guest space. The window, also made from barn sash, floods the two bedrooms with natural light, dispelling any notion that these are secondary spaces. Floors are natural pine, sealed for light-reflecting shine. Tucked under the eaves, the guest bath offers an innovative solution to tight space. For a continuity of materials, the sealed, slate-tile counter, laid over maple, repeats the flooring material. A skylight opens the windowless space to natural light. "There's never a dark house with David, and not many hallways," explains carpenter Brad Holmes who, along with his brother, has worked with Salmela on several projects. "His art is that he knows how to work with light."

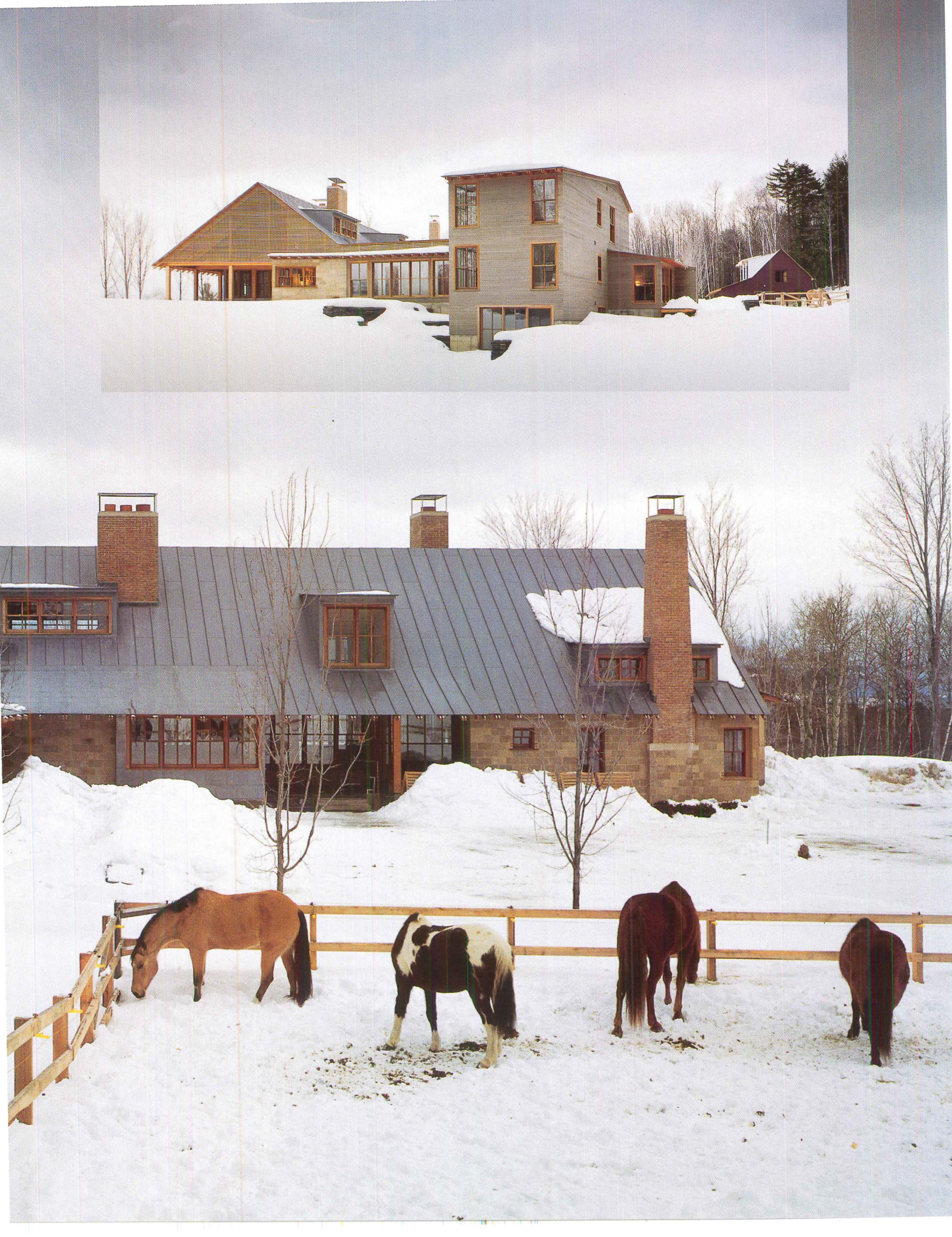
"The understated quality is its strength," says Salmela of the Emerson house. "We wanted the house to feel as though it belongs here; sometimes that's a quality missing in contemporary architecture." His clients agree. "It's an honest house," Cynthia Emerson says. "It is what it is. And there's not a thing about it we would change." ■

Sources

Prepainted wood windows with clear low-E argon glass, wood doors: *Marvin*
Clear low-E argon skylights: *Velux*
Locksets, hinges: *Schlage*
Custom cabinetry: *Designed by David Salmela, fabricated by Rod & Sons*
Paints, stains: *Pratt & Lambert*
Slate: *Hilltop Slate*
Dining chairs, stools, tables: *Room & Board*
Interior ambient lighting: *Progress*
Track downlights: *Troy*
Task lighting: *Lucifer*
Exterior lighting: *Lampas*

With sensitivity to the landscape and an experimental use of materials, **PETER ROSE** crafts a mountainside country retreat.

Located on the western slope of Mount Worcester in northern Vermont, the project consists of a main house, with walls of concrete block, and a guest wing, clad in tongue-and-groove red cedar. Both are roofed with lead-coated copper.



A brise-soleil of Douglas fir filters the sun on the west elevation. The terrace is made of Maine slate.

by Nancy Levinson

Multiplying narratives" is a phrase Peter Rose uses when describing the country residence he recently completed for a couple in Stowe, Vermont. The practical-minded might dismiss the description as an architect's overly literary conceptualization of a house. But here it seems an illuminating metaphor for the visitor's experience of this satisfyingly complex project, first as a sequence of buildings in a landscape and second as a series of spaces that reveal a rich exploration of material and craft.

An essential endeavor of any project is to determine the relationship between building and land. The intricacies of this process are multiplied when the site is 160 acres located on the western slope of Mount Worcester—a north country landscape of granite peaks, abundant maple, beech, fir, and spruce trees, wide meadows, and, everywhere, the kind of views that define the popular image of this state. Into this seductive countryside the architect was asked to fit an extensive program. The client, a couple from Montreal with adult children, wanted their country retreat to include not just a main house with a four-bedroom guest wing, but also a caretaker's house, a three-car garage, an equipment shed, a horse barn, paddocks, and a tennis court.

Working closely with landscape architect Dan Kiley, Rose grouped the main buildings—house, barn, garage—just where the slope becomes gentle enough to accommodate construction. The house is halfway up the steep, wooded site, at an elevation of 1,200 feet, providing views of a pond, a meadow, and, in the distance, Mount Mansfield, the state's highest peak. The approach to this cluster of *(text continues)*

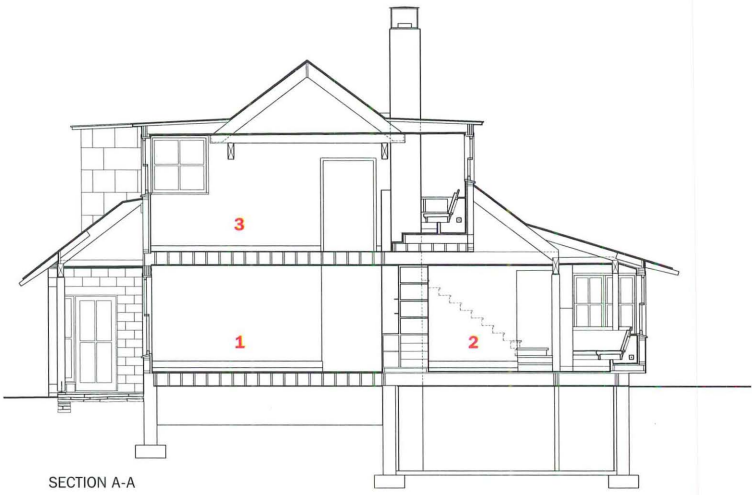
At night the illuminated house becomes a beacon for guests as they drive up a winding dirt road and alongside a meadow after passing a roadside caretaker's cottage (above). The dormers on either side of the chimney bring additional light to the study (right).

Nancy Levinson, a Cambridge-based RECORD contributing editor, is associate editor of Harvard Design Magazine.

Project: *Stowe, Vermont, Residence*
Architect: *The Office of Peter Rose—Peter Rose, principal; James Dallman, project architect; Emily Kuo, Dallas Felder, Hani Asfour, David Griffin, project team*
Engineers: *Nicolet Chartrand Knoll—Rafir Matta (structural); Irving Graif and Associates—Irving Graif (mechanical)*
Consultants: *The Office of Dan Kiley—Dan Kiley, Peter Meyer (landscape); George Sexton Associates—George Sexton, Jean Sundin (lighting)*
General Contractor: *Donald P. Blake Jr. Inc. Construction—Donald P. Blake Jr., Michael Menard*

The 18-foot-high living room is a study in the harmonious mixing of materials: cherry floors, mahogany cabinets, plaster walls, fir ceiling and rafters, and steel beams. The fireplace surround is Kasota limestone and the chimney is sand-struck brick.

1. *Dining room*
2. *Sunroom*
3. *Game room*

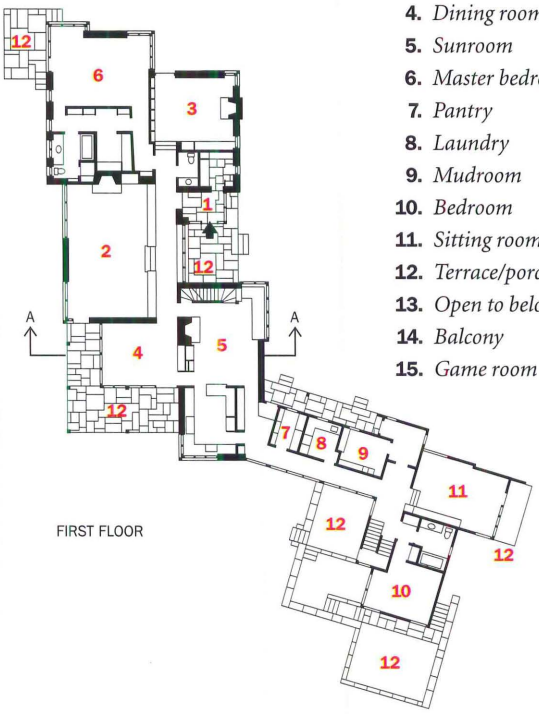


SECTION A-A

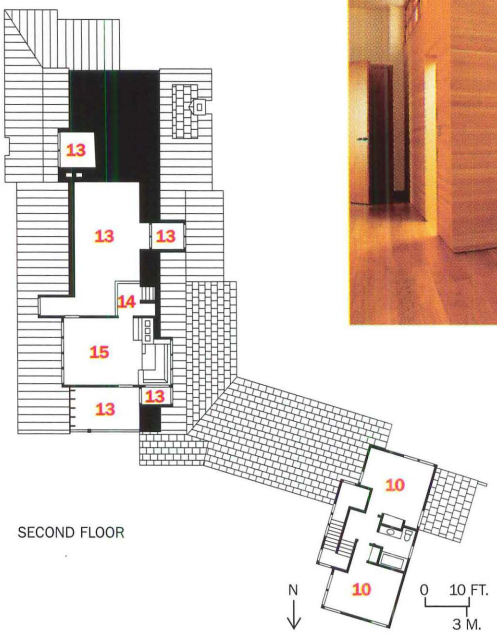
The dining room sideboard is mahogany (above). To achieve different reflectivities in the alcove above it, the large wall surface is clad in stainless steel, while the side walls are of cold-rolled steel. The mahogany windows of the passage connecting the main and guest houses are, as elsewhere, custom (right). The stair railing is made of ¾-inch-diameter steel tubing.

The master dressing room closets are Douglas fir. Instead of using hardware, the architects carved away part of the doors to create pulls and a decorative pattern.

1. *Main entrance*
2. *Living room*
3. *Study*
4. *Dining room*
5. *Sunroom*
6. *Master bedroom*
7. *Pantry*
8. *Laundry*
9. *Mudroom*
10. *Bedroom*
11. *Sitting room*
12. *Terrace/porch*
13. *Open to below*
14. *Balcony*
15. *Game room*



FIRST FLOOR



SECOND FLOOR

The exposed truss in the master bedroom is southern pine and the walls are tongue-and-groove Douglas fir (above). The plan provides most of the main rooms westerly mountain views (left).

structures is a carefully composed succession of movement, view, and entry. Leaving the main road, visitors drive up a curving dirt road, through the woods, and past the caretaker's house. As the road ascends, the woods thin out across a meadow, and there's a first glimpse of the house. A few hundred feet up, the barn looms into view. Finally, circling around the shed-roofed garage, visitors arrive at the entry court, defined by house, garage, low stone walls, and paddock fence. For this sheltered space, Kiley selected a ring of American beech trees, a natural complement to the grouping of buildings.

For the main and guest houses, Rose and project architect James Dallman used a range of materials—block, brick, stone, wood, steel, aluminum, tile, glass, and plaster. Evidence of their efforts to rethink the typical, to refine the standard, is everywhere. (Both cite the important contributions of contractor Donald P. Blake.) Concrete block, for example, rarely figures in rural residential architecture in New England, a region that is almost obsessively loyal to its clapboard and shingle heritage. Its use here is part of Rose's ongoing research into concrete-masonry unit (CMU) technology. "The concrete blocks in this house are buff-colored with subtle variations of hue, which is achieved by putting red sand and warm gray limestone in the cement mix," the architect explains. "Their texture varies, too, as a result of changing the quantity of water from batch to batch." But more than material technology accounts for the CMU; just as important is the architect's conviction that in a culture dominated increasingly by ideas of the ephemeral and virtual, architecture ought to be durable and real. "Anything that costs as much as architecture costs, that effects such significant changes on places and people's lives, and that is often around for a long time, should be able to endure and age *well*," Rose says.

RETHINK THE TYPICAL, REFINE THE STANDARD, SAYS THE ARCHITECT.

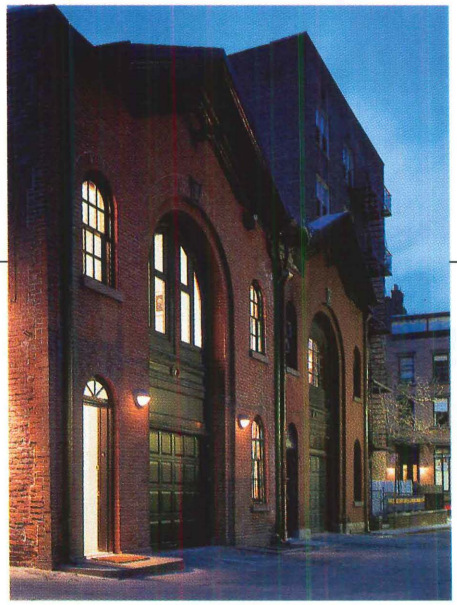
Inside, the same readiness to experiment makes the house seem, from room to room, a kind of theme-and-variation of texture, craft, and detail. The architects have, for instance, designed a series of light fixtures, using various combinations of steel, brushed aluminum, and sandblasted glass. Included in this group are the pendant fixtures in the living room; the elegant light shelf in the kitchen, in which halogen spots play peek-a-boo with steel; the narrow steel strip of lights hinged to the wall above the dining room sideboard; and wall-mounted bathroom fixtures whose soft light turns the mirrors they bracket into sources of flattery. The built-in cabinetry that is an essential element of almost every room, spatially as well as practically, becomes another such subject of study.

The clients, who selected Rose after interviewing a dozen firms over a one-year period, recall, "We wanted someone who approached architecture as art." As a result, the design and construction processes were "challenging," as one of the clients recalls. Rose and Dallman "made us question some of our initial ideas of what a house could be," she says. "When concrete block was first suggested, it seemed such an odd material to use in the country. Until the steel beam in the living room was installed, we weren't sure that we wanted to leave it exposed. But now we wouldn't want the house without the block or steel. The process wasn't always easy, but the house is far better for it." Rose agrees. "Architecture is such a dynamic process—there is no single instant when design happens." ■

Sources

Concrete block: *Superior Materials*
Brick: *Cadillac Brick*
Lead-coated copper cladding, roofing: *Burrell Roofing*
Fixed mahogany double-hung windows, mahogany and glass entry door: *William Parry Windows*
Interior solid-core doors: *Patella*
Oil-rubbed bronze handles, locksets: *Nanz Custom Hardware*
Nickel-plated bronze hinges: *Merit Hardware, Rajack Hardware*
Living room cabinets: *A. R. Foss*
Wood flooring: *Sterling Hardwood Co., Kaswell Flooring*
Lighting: *Edison Price, Nulux, Lightolier, Lutron*

Through a design process both cerebral and pragmatic, LESLIE GILL AND BRYCE SANDERS house a family and its myriad collections.



The carriage house shell of the Watrous-Weatherman residence had been restored by previous owners. The architects' "insert" respected this front while integrating storage, display, and a stair (opposite).

by James S. Russell, AIA

Leslie Gill points to clay-green leaf forms painted on panels in her office conference room. The office is in New York City's SoHo district, perhaps one of the most densely built and least natural environments in America. Gill is talking about landscape. "I have been studying the visual impact of the landscape in paintings and how it can be addressed as an idea," she says.

This is curious, because landscape seems to have little to do with the project she is discussing: the renovation of the Watrous-Weatherman residence in Brooklyn. Located in only a slightly less manmade context than SoHo, it started as an almost-windowless, irregularly shaped landmarked carriage house that took up all but a tiny fragment of its site. But in the end, Gill not only constructed a kind of landscape no one thought could exist in such a location; she and her collaborator, Bryce Sanders, created it through a cerebral process of discovery that involved both clients and architects, a rare and daunting feat given the clients' complex needs.

Those needs went far beyond reworking the carriage house for the clients—Peter Watrous, Bess Weatherman, and their two children. There was the issue of Watrous's "incredible amounts of stuff," says Gill. Watrous is a writer, and stacks of mail come in every day with material to be considered. But he is also a collector. "Where to begin?" he muses. He collects Mexican ceramic figures from Ochumichu, including foot-high figures of an entire funeral procession. He also has a beaded, folk-art Haitian flag collection, Beaux Arts paintings by his great uncle Harry Watrous, boat models, paintings on wood by Steve Klein, and cartoons by Gary Panter. There are thousands of books and recordings.

"We were aware that architecture could do something beyond fix planning problems," explains Weatherman. But the couple described their aspirations to Gill and Sanders almost entirely in pragmatic terms. Indeed, it was the arrival of their second child that spurred the couple to renovate the one-bedroom, 1860s house. They asked for two additional bedrooms, more light in the back, and storage for the collections. They wanted to keep the existing garage and make the basement—accessible at that time only by an outdoor areaway—more useful.

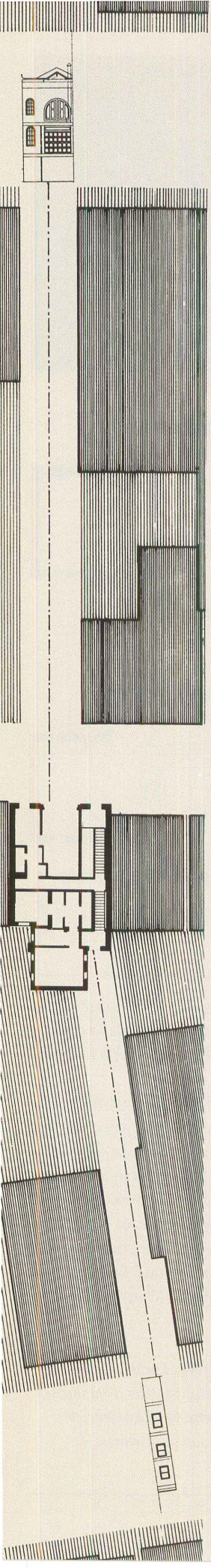
Gill invited Bryce Sanders, with whom she had collaborated in her earlier partnership with Karen Bausman, to engage in a dialogue, with the intention of distilling something singular and essential out of these unwieldy requirements. The architects agreed that a deep understanding of the program could lead to a design that would be more fully realized than the wrapping of functional needs in attractive packaging. Hence, recalls Watrous with some amazement, "They measured and catalogued everything. They interviewed us for months."

Since Sanders had his own firm, he and Gill usually worked apart for awhile, studying the problem or reiterating a solution, then met to share ideas. "At certain points, this was seminal," says Gill. "Two visions can come together, coexist, and enhance each other."

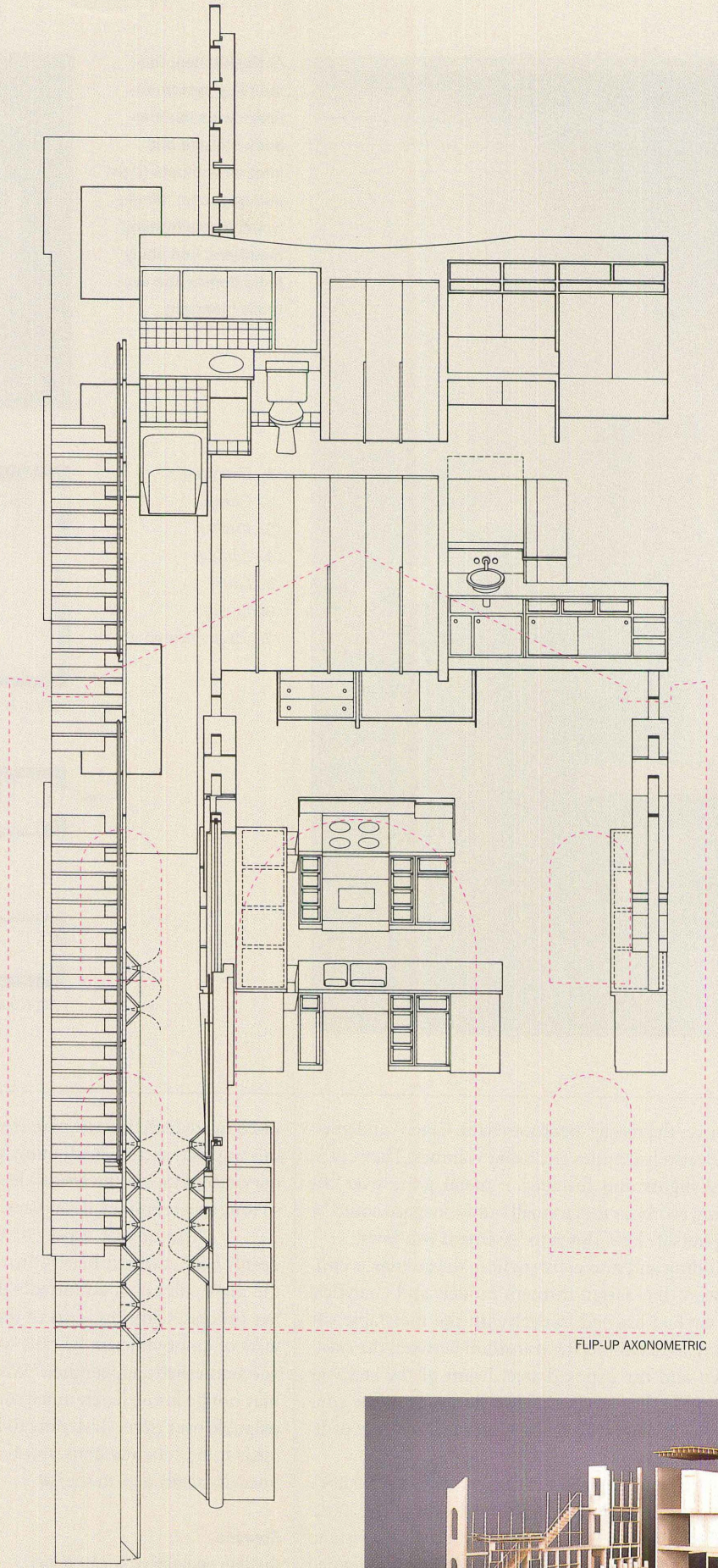
Gill tried out schemes with a center stair. Sanders worked on one where the stair crept up the side. "The project was driven by the section," explains Sanders. Ultimately, the scheme coalesced into what the architects call an "insert," a steel-framed bay system that incorporates a modular subsystem for framing the stair. This runs from front to back and integrates means for storage and display.

To the casual observer, the system's controlled, modular transformation from stair to tubular picture rail to book shelf might seem unsuited to the irregular volume of the existing house. But the architects never lost sight of the ultimate goal: to bring order to this potential chaos of accumulation. Having handled storage in the vertical circulation system, they dealt with other issues less rigidly. They tucked two small children's bedrooms on a mezzanine above the second *(text continues)*

Project: *Watrous-Weatherman residence, Brooklyn*
Architects: *Leslie Gill Architect, Bryce Sanders Architecture/Design—Celia Chiang, Peter Flubacher, Kimbro Frutiger, Mike Jacobs, Kristina Manis, David Pysh, project team; Wilmay Choy, Mark Faunlagui, Peter Flubacher, Jennifer Hanlin, James Hicks, presentation drawings and models*
Engineer: *Office of Structural Design*
General Contractor: *Silverstein & Associates Interiors*

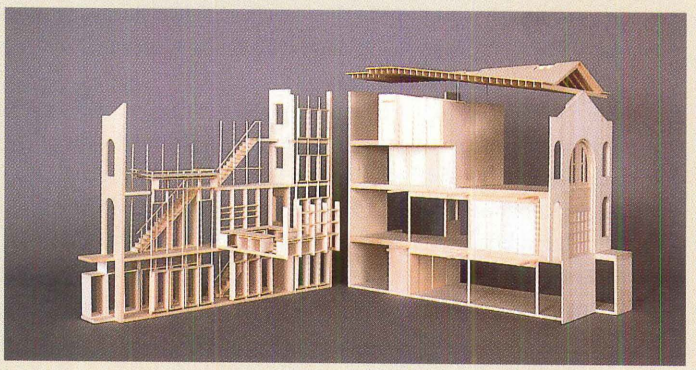


MODEL PHOTO: LESLIE GILL; DRAWING: JAMES HICKS, COURTESY THE ARCHITECTS



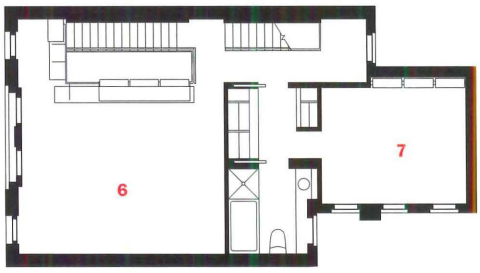
FLIP-UP AXONOMETRIC

The stair risers are partly punched out to allow views through to new windows, which reveal a previously unseen vista (site drawing, left). A steel-framed 6-by-26-foot opening was created between the ground and second floors. Within this opening, the three-foot module devised for the stair is reflected across the hall as a tubular armature for hanging artwork (opposite), which transforms at the upper level into a bookcase. Budget limitations kept the system from extending to the basement (drawing left and model below).



At the kitchen, the stairway system re-articulates itself as book storage and kitchen cabinets (right and opposite). Maple wood, matte framing members, and shiny bolts denote the system's hierarchy.

1. *Entry, stair*
2. *Garage*
3. *Kitchen*
4. *Dining*
5. *Guest*
6. *Living*
7. *Master bedroom*



SECOND FLOOR

FIRST FLOOR

level, stacking their bath over the master-bedroom bath. Green- and gray-tinted polished plaster selectively denotes enclosing volumes. They cut in 12 new windows and skylights and installed a metal grate over the areaway outside the dining room, so that a small outdoor space could be provided while allowing outside light down to basement windows.

Throughout bidding and into construction, the architects continued to refine the ideas of the design through models and analytical drawings, using what they had learned to deal with the inevitable site deviations. They reworked, for example, the transition between the existing ceiling at the kitchen and the exposed steel beam of the stairway system and its plywood infill. They credit the fastidiousness of the contractor's foreman, Cheng Hok Sing, who tended to the complex coordination issues the design presented.

Light entering from new windows at the rear draw the visitor's eye upward from the entrance. At the second-floor landing, the dark-tinted floor forms a kind of "horizon line," says Gill, anchoring a vista to the upper floor and outward onto a narrow alleyway, where it is extended beyond the tight confines of the site. It is in such subtle moves that Gill's landscape explorations paid off. The arched window in the living room also opens to a view of another narrow alleyway, a "landscape" Gill captured in an analytical site plan (see page 127). Drawing the eye outward in this way may seem a small thing when compared to the vast vistas of ordinary suburbia, but the results deeply impressed the clients, who had lived so long in a cramped, dark place.

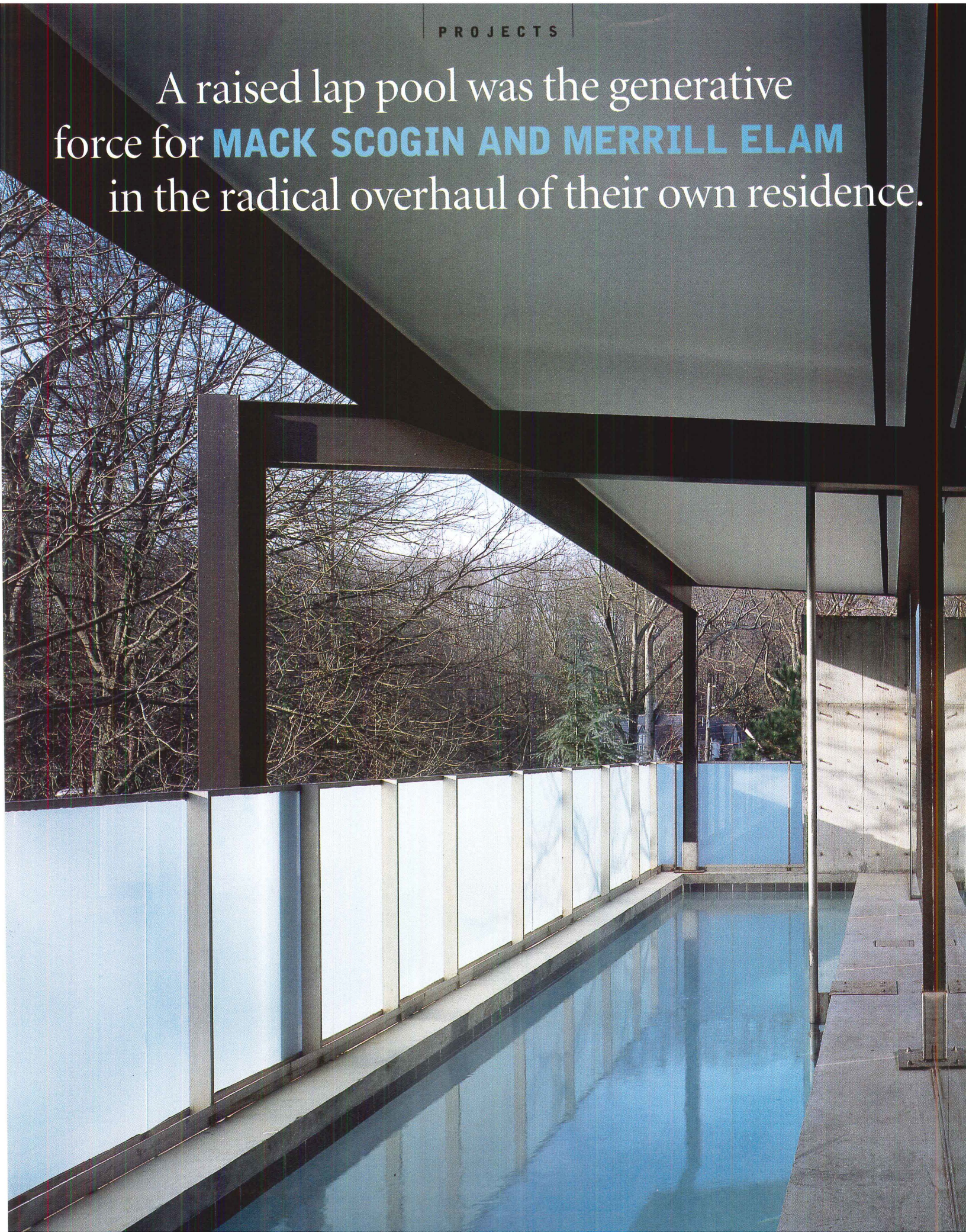
The unique aspect of the architects' approach was how their deeply held aesthetic beliefs drove the 3,300-square-foot project beyond the mere solving of admittedly difficult functional issues. In describing her process, Gill cites ideas of the sublime and the picturesque. Sanders talks of an organicism he calls "more fundamental than amorphic form and naturalistic appearance." While the architects' sources of inspiration may not be immediately apparent in the built design, their effect becomes palpable over time. "Listening to Leslie, I sometimes found the geometric ideas to be subcutaneous, not really visible," explains Watrous. "But the linearity really gets to me." ■

Sources

Custom cabinetry: *Sandor Ronai Cabinet Designs*
Custom plaster: *Stucco Lustro Veneziano*
Custom lighting: *Lucid Lighting*
Lighting: *Elliptipar, Flos, Fontana Arte*
Cast concrete: *Get Real Concrete*
Furniture: *Monique Savarese for Dialogica*

MEXICO
IMAGES OF MEXICO
COOKING A to Z
INDIAN LIVES

A raised lap pool was the generative force for MACK SCOGIN AND MERRILL ELAM in the radical overhaul of their own residence.



Elam hopes to plant a bamboo grove in the front yard to shield the 1,500-square-foot-house from the street (below). Laminated glass provides a hazy screen for the second-floor lap pool. At night the screen is animated by wavy patterns and mysterious reflections (left). A bridgelike library, unfinished for now, connects the main house with two guest pavilions in the back (section right).

by Karen D. Stein

All eyes on the high board." The children's summertime call reverberates through the leafy streets of Brookwood Hills, a planned residential community dating from the 1920s, tucked between downtown Atlanta and the affluent Buckhead area. While Brookwood's community swimming pool and the perilous activity on the uppermost diving board draws its share of attention during the months of June, July, and August, it's the structure across the street—the new house of architects Mack Scogin and Merrill Elam, with its own daring water feature, a second-story lap pool wrapped in milky glass—that has all eyes on it year 'round.

Scogin and Elam have lived in the neighborhood since 1976, when they purchased a steep-roofed postwar bungalow, not for its architectural merits but for its modest price and desirable mid-urban, mid-suburban location. "Merrill hated the house," Scogin recalls. "So much so that the day we moved in she took a sledgehammer and knocked down walls between the tiny rooms." Elam adds, "I just started throwing stuff out the back window."

If the desire for a new architectural order was present from the moment the architects moved in, it took time, a gradual accumulation of financial resources, and surprising twists of fate to make their imagined changes real. For nearly 20 years, Scogin and Elam lived in their bungalow, completing only modest renovations—a streamlined interior plan and the addition of two small guest pavilions in the backyard.

FINDING A PLACE FOR THE POOL WAS NOT EASY, SO THE ARCHITECTS PUT IT UP IN THE AIR.

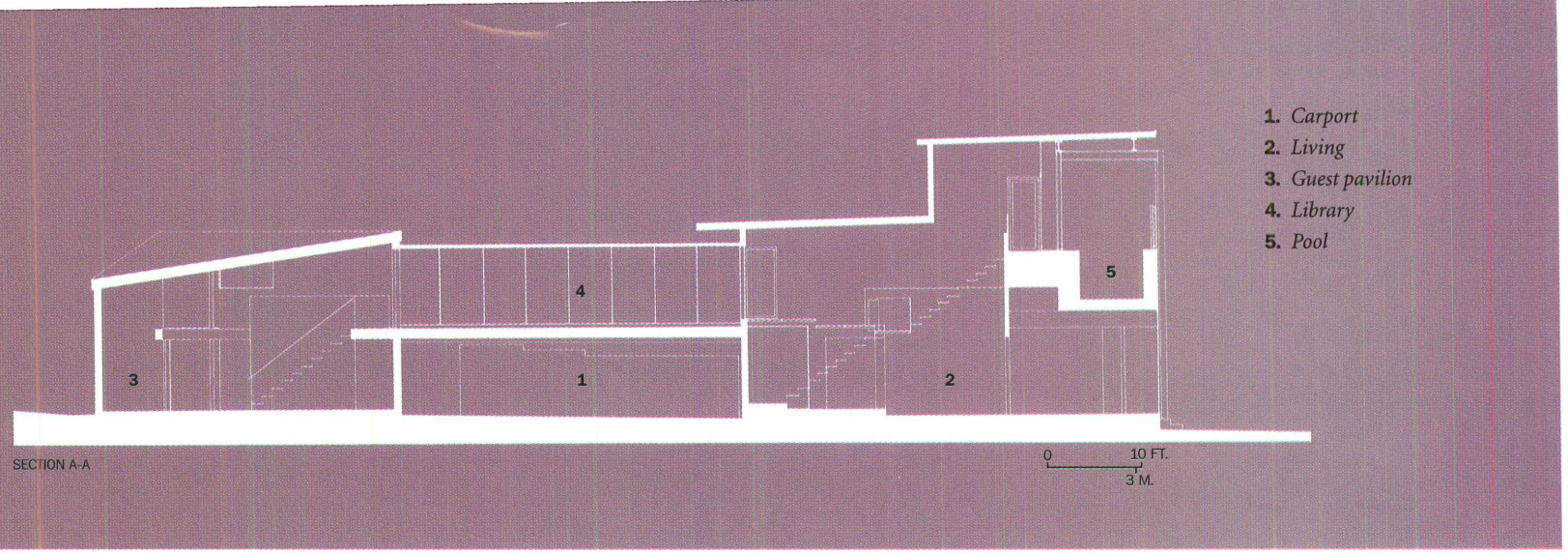
Three years ago nature stepped in. In October 1995 the gale-force winds of Hurricane Opal snapped a mature water oak planted at the sidewalk and it fell diagonally across Scogin and Elam's lot, landing on the couple's bed. Luckily they were both in their apartment in Cambridge, Massachusetts, where Scogin was completing his term as chairman of the Department of Architecture at Harvard University's Graduate School of Design. Twice before, trees had fallen on the house, swatting the roof, but this one fell *into* the house.

When the news reached the couple, they didn't rush home. "It's a bit of an embarrassment," explains Scogin of their delayed reaction. "We

lived in a modest house for years. We spent our time working on other people's houses, not our own. So we didn't have *things*." When they did finally return to Atlanta to salvage their belongings, there wasn't much left of their house. "This tree cracked all the walls and split the roof's ridge beam," recalls Elam. "If it had been a car you would have said it had been totaled." It took 15 men more than two days just to remove the tree.

At first, the architects camped out in what was left, pitching a tarpaulin in a tiny corner of the wobbling structure to keep out the rain. Like many who have suffered the loss of their home from natural causes, they planned to rebuild, re-creating the house pretty much as it had been. "We were going to save as much of the house as possible," remembers Scogin of their initial response. "We did demolition drawings for the contractors that said, 'save this, but not that.' Then we'd *(text continues)*

Project: *64 Wakefield Drive, Atlanta*
Architect: *Scogin Elam and Bray Architects—Mack Scogin, AIA, and Merrill Elam, AIA, with Lloyd Bray, AIA*
Engineer: *Palmer Engineering Company (structural)*
Consultants: *Edward L. Daugherty, Landscape Architect (landscape); Ramon Luminance Design (lighting); Aqua Blue Pools, Inc. (pool installation); Paul Wilson (metalwork)*
General Contractor: *John Wesley Hammer Construction Company*


1. Carport
2. Living
3. Guest pavilion
4. Library
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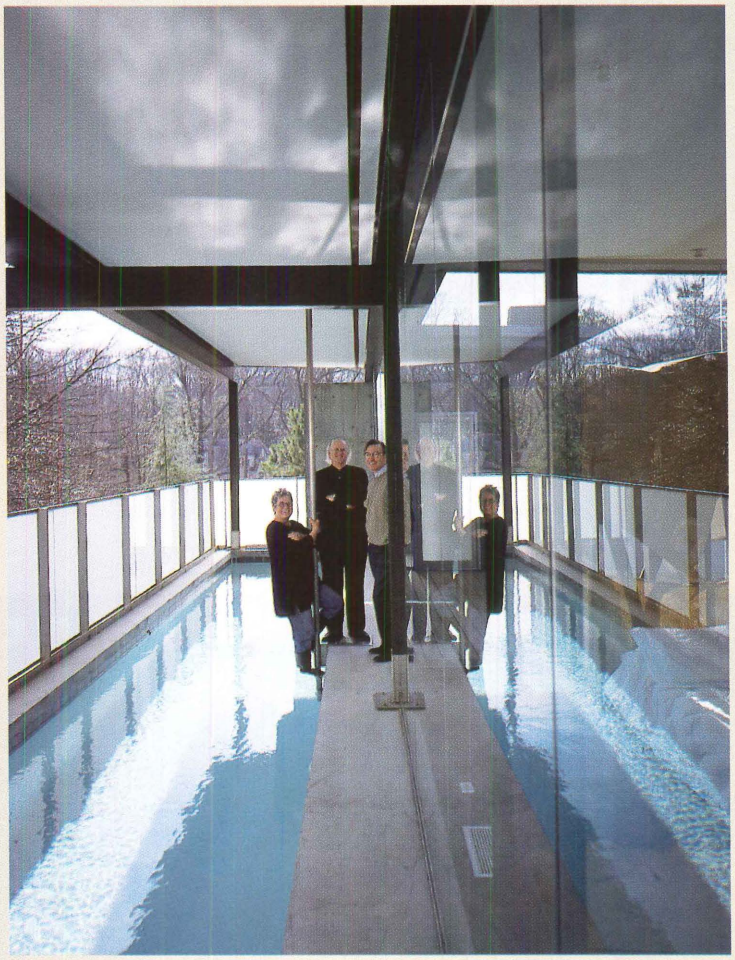
SECTION A-A



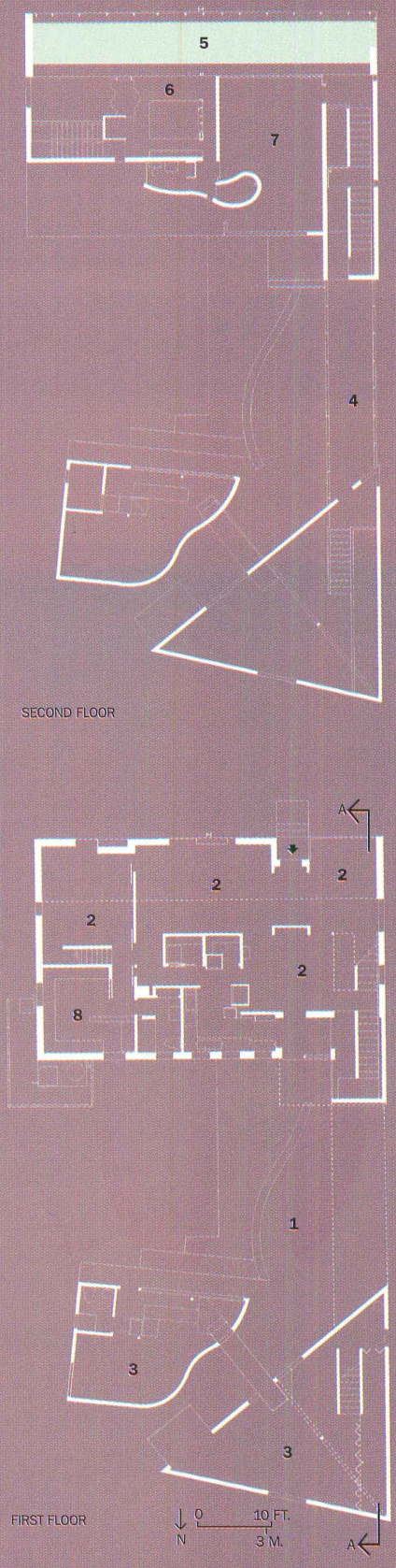
From left to right: Merrill Elam, Mack Scogin, and Lloyd Bray, principals of their own Atlanta-based firm since 1986, poolside at Elam and Scogin's house.

Party of three "Not at all," is how Lloyd Bray characterizes his involvement in the design of Mack Scogin and Merrill Elam's house. Elam's opinion differs—not in terms of workload, but attitude. "He provided tolerance," chuckles Elam of Bray's invisible role in the house, "as he does in all that we do." Explains Bray of the three-way partnership, "Mack and Merrill are the design spirit of the firm. I throw out design ideas. Most of them get laughed at, though every once in a while one will get incorporated into a project. I concentrate on business issues."

This happy collaboration has been going on since the late 1970s, when the trio worked together at a much larger Atlanta office, Heery and Heery Architects and Engineers. Scogin was the firm's president, chief operating officer, and director of design until 1984, when he left to form his own practice. Elam and Bray soon followed.

While Scogin and Elam oversee all design aspects, Bray keeps things running. His partners travel far and wide teaching, lecturing, and interviewing for new work. Scogin is a Harvard professor, so he spends two days a week in Cambridge for at least one semester a year. Elam has taught all over the country, including Los Angeles's SCI-Arc, Clemson University, and the University of Virginia. This year she's commuting to the University of Houston.

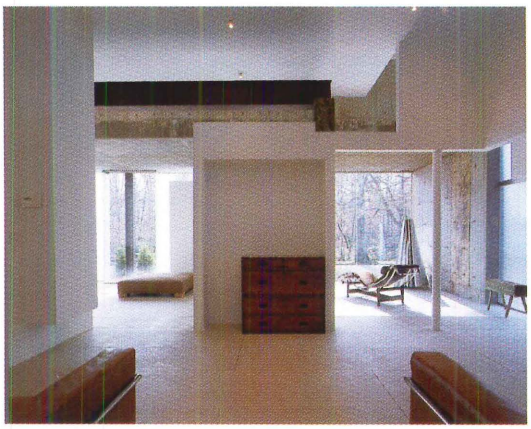
"Mack and Merrill work all the time. They wake up in the morning and they do architecture all day," reports a somewhat incredulous Bray. What about the pleasures of their new house? "Well, maybe now they wake up in the morning and take a quick swim. And then they do architecture all day." *K.D.S.*



1. *Carport*
2. *Living*
3. *Guest pavilion*
4. *Library*
5. *Pool*
6. *Master bedroom*
7. *Deck*
8. *Laundry/dressing*

For now, Elam and Scogin's collection of architect-designed chairs is their principal furnishing.

Steel beams seem to be a dramatic expression of structure (above) but are in fact decorative. The 50-foot-long pool is supported by concrete outer walls. A piece of wood is suspended between the pool enclosure and the bedroom's built-in television cabinet (right).



Furnishings in the house remain minimal for now. A blackboard from Scogin's former office at Harvard University's Graduate School of Design is preserved with sketches by director Robert Wilson (below), who lectured at the school.

come by and it would all be gone," says Elam. Apparently, the contractors didn't think much was worth saving.

Then Elam had an epiphany: "One day I said, 'I don't want a house, I just want a pool.'" No one was more surprised than Scogin, who says, "It was a total shock to hear Merrill ask for a lap pool. She never wanted anything. It became an obsession to get her that pool."

Finding a place to put it was not easy. The backyard, with the two pavilions and swath of grass, was not large enough, and putting the pool in the front yard was prohibited by local zoning. The result was to push the pool up in the air. "It was the generative moment," says Scogin of the decision to locate the lap pool on the second floor of a "plan that makes no sense." It is indicative of Scogin and Elam's architecture that "no sense" became common sense and that happenstance took on the air of inevitability as the scheme developed.

The outdoor pool, surrounded by a deck, is the culmination of Elam's quest. It crowns the two-floor master-bedroom suite, with dressing rooms and closets downstairs and a sleeping area, bathroom, and bathing above. "It's a vertical suite," jokes Elam. "It's a house that keeps you healthy by making you go up and down." Hoisting the pool required its own heavy lifting. The shell is cast-in-place concrete, which is one to two feet thick on its four sides, one foot deep, and supported by 12-foot-deep foundations at the load-bearing walls. Once the pool was designed, other living spaces were arranged around it.

"IT'S A VERTICAL SUITE," JOKES MERRILL ELAM OF THE TWO-FLOOR MASTER BEDROOM.

The architects, who moved into an apartment during construction, stopped by regularly to discuss design details with the contractors, working in a design-as-you-go process that they thoroughly enjoyed but would not use with clients. In fact, as their house was under

Wood-fibrous cement flooring panels were laid on top of the existing structure (above). The pool's shell has a purposely rough finish.

construction their firm, Scogin Elam and Bray Architects, was working on four other houses concurrently. [For the first completed project of the group, a house in Dillard, Georgia, see RECORD, April 1997, pages 90–97]. The firm's houses are as different as their clients, locations, uses, and budgets. But all are connected by the architects' unique expressionistic forms, which are as much about aesthetic appeal as about constantly playing against expectations—finding coherence in the seemingly absurd collage of spaces, and richness in the plainest of materials.

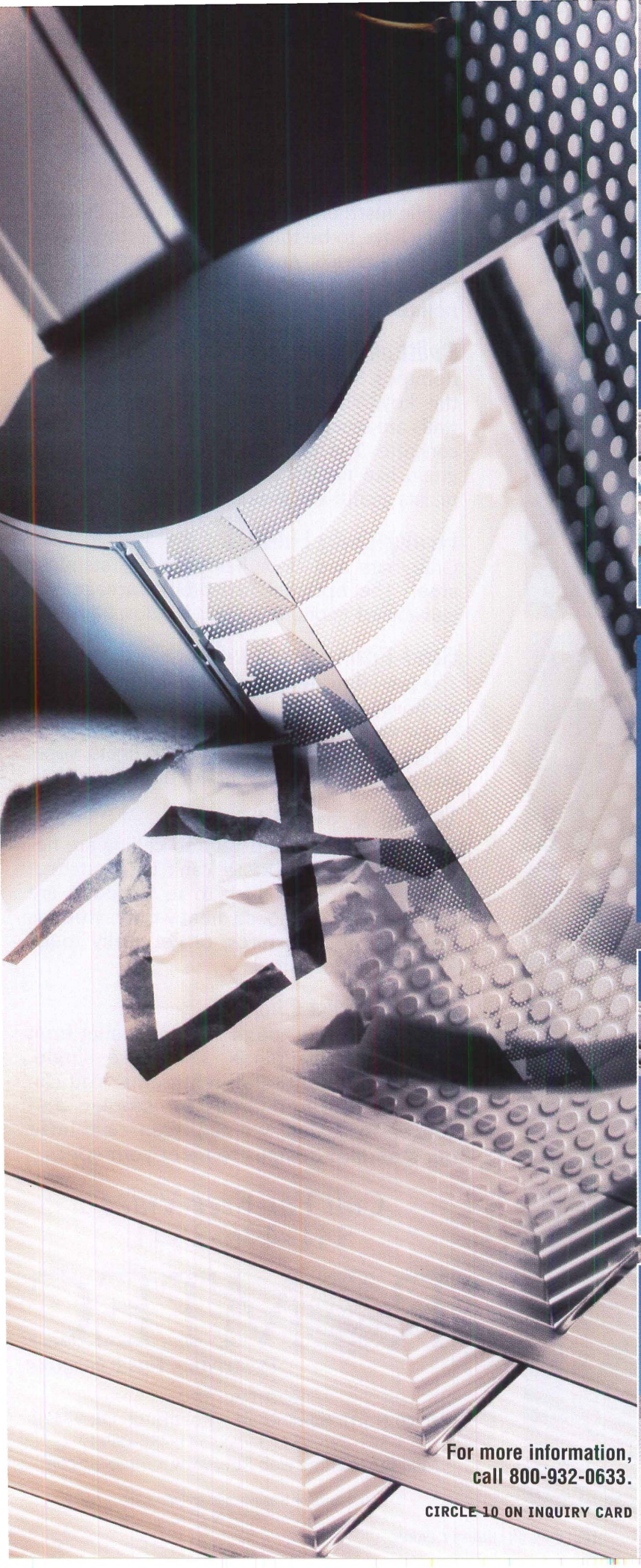
"The house is the great experiment in American architecture,"

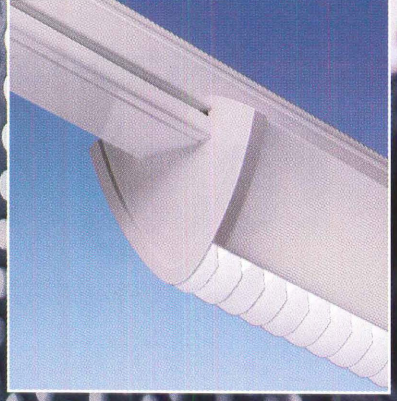
THE OVERLAPPING SPACES ARE LESS A SERIES OF ROOMS THAN A CHOREOGRAPHY OF MOVEMENT.

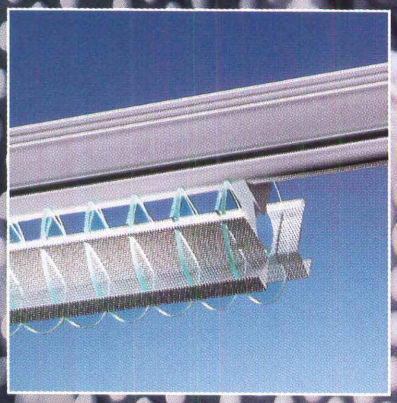
says Scogin. But in their own house, the architects went a little further, melding horizontal and vertical spaces into a three-dimensional pinwheel. The overlapping spaces are not conceived as a series of planned rooms as much as a choreography of movement. "I told my mother there are no rooms, just situations," reports Scogin of the first parental visit. This deliberate ambiguity and open-endedness of "rooms" is increased by the reflections of the open-air pool against its shimmering glass partial-height walls. At night, the windswept pool water casts shadows on the translucent front, animating the facade with ripples. During the day, images of trees are projected onto the concrete walls around the pool, making the structure itself appear transparent. "I wake up every morning seeing through concrete," marvels Scogin of the panorama of trees, both real and reflected, that is visible from his bed. "The first thing I see every day is a miracle." ■

Sources

Oynx entrance stoop: *Artistic Stone Craft*
Aluminum windows: *Phoenix Metal and Southern Aluminum*
Glass and aluminum entry doors: *Amarlite*
Custom hardware: *Designed by Mack Scogin*
Cabinet hinges: *Grass America, Inc.*
Plastic laminate surfaces: *Wilsonart International*
Cementious flooring: *U.S. Architectural Products Inc. (Plycem)*
Pool floor, wall tile: *Quality Pool Tile*
Encapsulated halogen lamps in recessed sockets: *Abco*
Lighting controls: *Lutron*
Sofa: *B & B Italia, courtesy Domus/Atlanta (Charles Section sofa designed by Antonio Citterio)*
Oversized ottoman: *Flexform, courtesy Domus/Atlanta (designed by Antonio Citterio)*
Chaise: *Cassina LC-4 Lounge, courtesy Domus/Atlanta (designed by Le Corbusier)*







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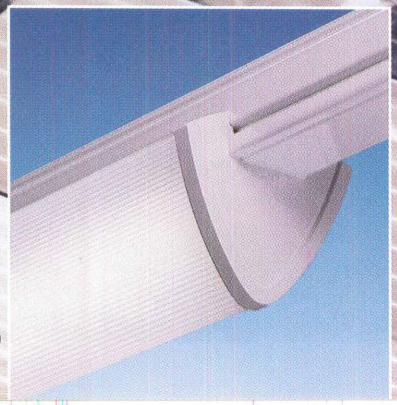

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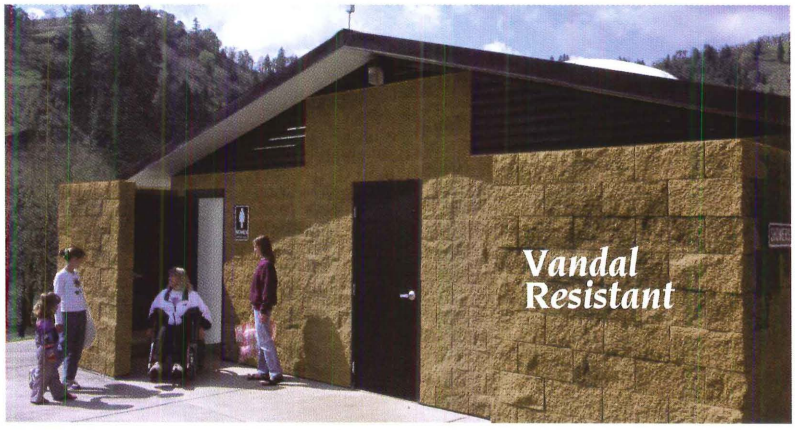

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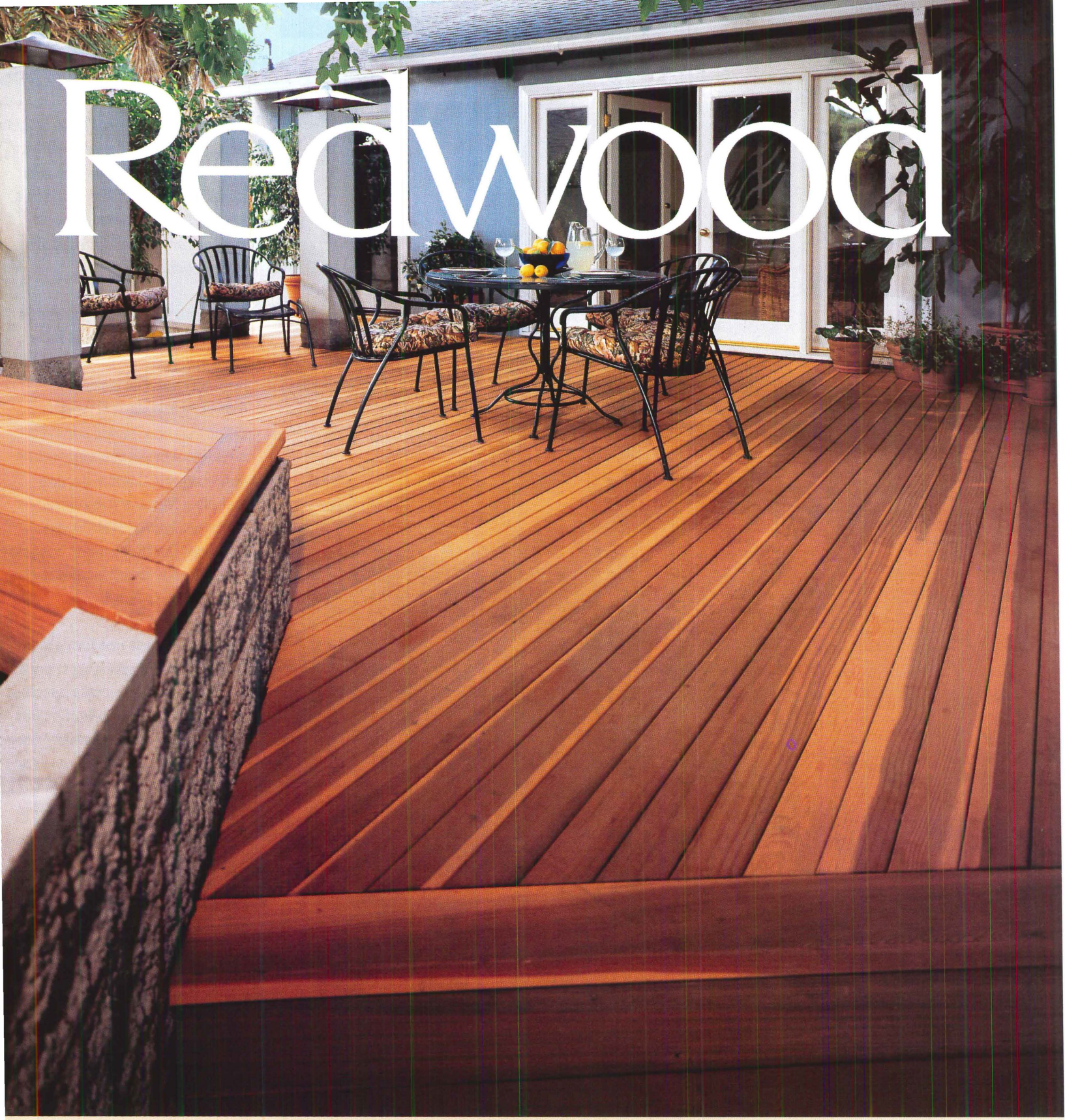

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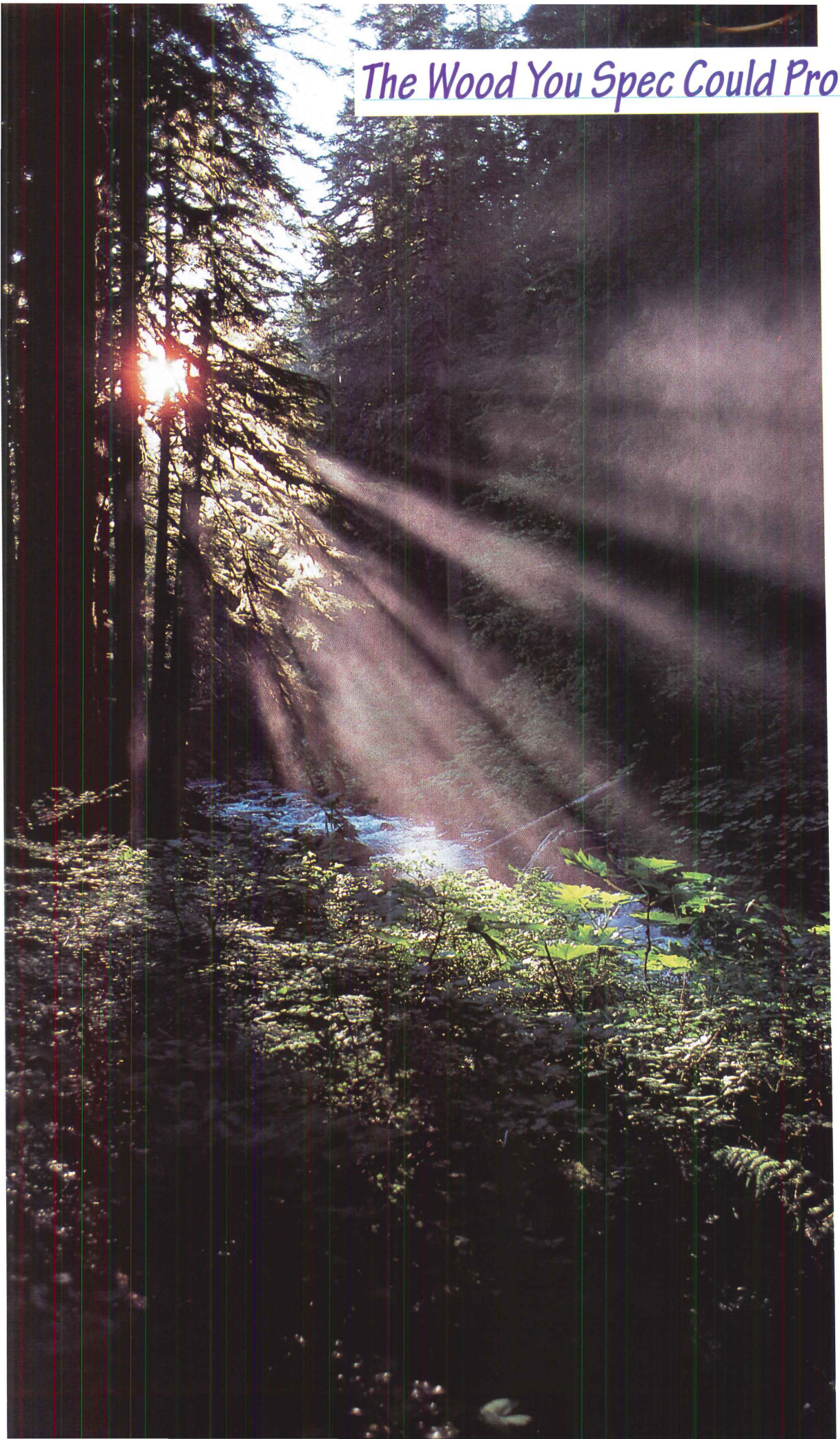

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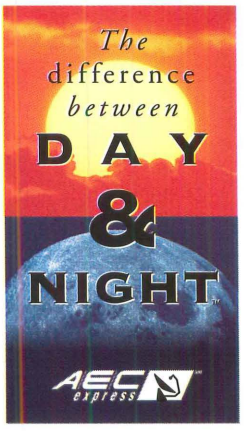

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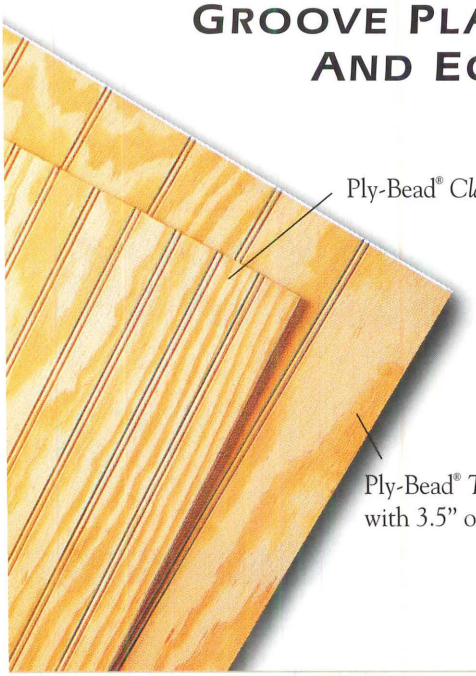

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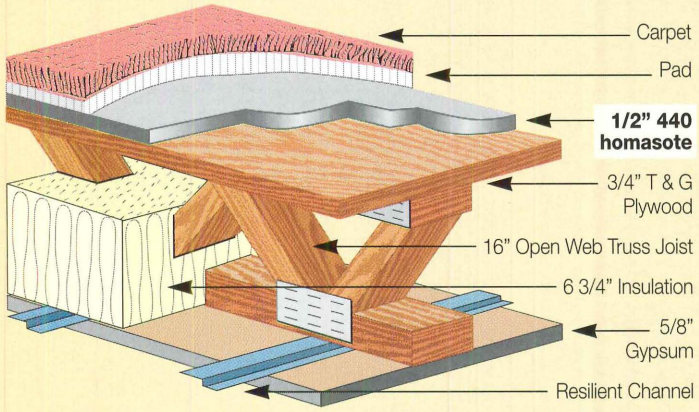

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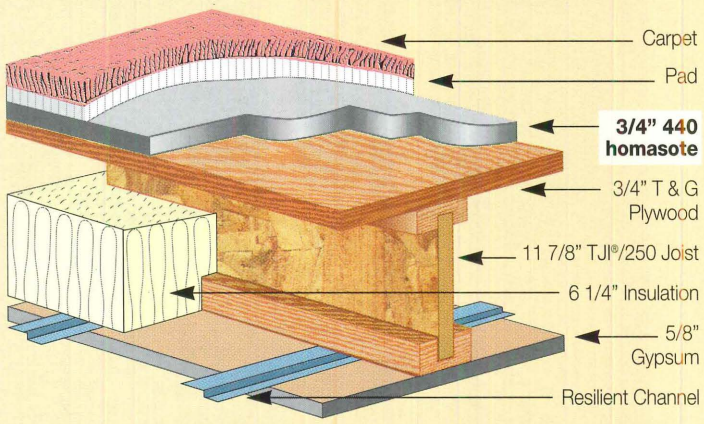

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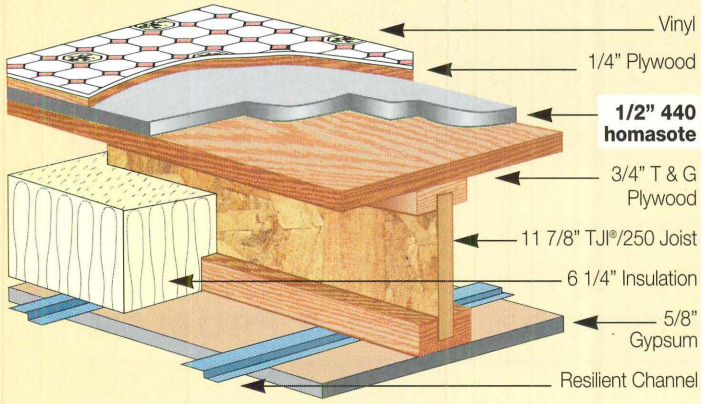

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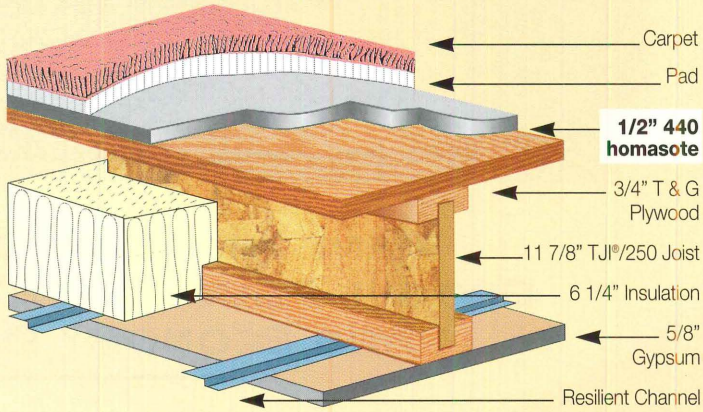

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CIRCLE 47 ON INQUIRY CARD

The Nature of Green Architecture

NOW THAT ARCHITECTS ARE BEGINNING TO TAKE SUSTAINABLE DESIGN SERIOUSLY, HOW CAN THEY FIND THE HELP THEY NEED TO MAKE THEIR BUILDINGS SUCCESSFUL?

by Wendy Talarico

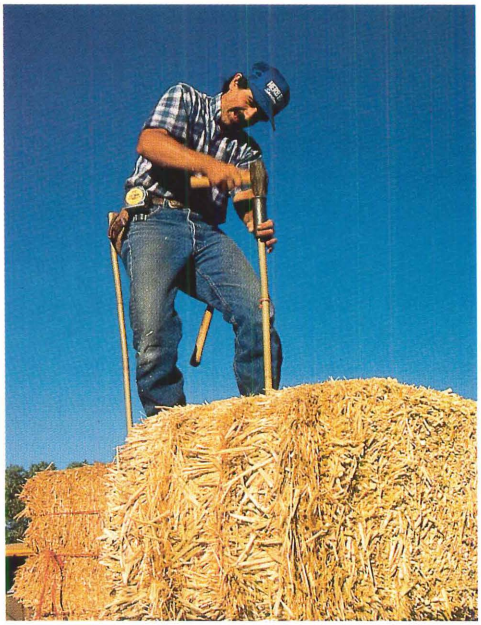
An architect in Denver, an expert on sustainable housing design, won't admit to being a "green" architect. "I don't want people to think of me that way," he says. "I don't want to work with clients who harvest their own wheat and freak out if you mention carpeting or plastic pipes."

Clearly there are architects who worry that by positioning themselves as green they will attract ecofanatics who desire back-country bomb shelters built out of bizarre materials and powered by wind turbines. But, says Rick Joy, an architect in Tucson who specializes in rammed-earth houses, "Green houses don't have to look like they were built by beavers. And you don't have to be a weirdo to live in one."

Green, or sustainable, design—the two terms are used interchangeably—may have implied an extreme approach to building 20 years ago. Now it simply means minimizing the ecological impact of a building. Most architects have always been concerned about the environment, but only in the last few years has the profession as a whole seriously taken up designing buildings with sustainable materials. Says Marvin Rosenman, chairman of the architecture department at Ball State University, the move toward sustainability is "happening, but slowly."

Among the signs of green design's acceptance are recent subdivisions across the country that are sympathetic to the environment—like Prairie Crossing in Central Lake County, Illinois, and Dewees Island near Charleston, South Carolina (see page 150). In addition, several prestigious design groups, including the Boston Society of Architects, have begun to offer awards for sustainable design, and many design competitions now require that green products be included.

Nationwide, about a dozen demonstration houses using experimental green technologies and materials are either under construction or have recently been completed. One of these, built in Atlanta by the Southface Energy Institute, was designed as an educational tool: It shows architects, builders, and code officials that environmentally sensitive houses can look "normal" and provides a forum for demonstrating new products and techniques.



As a renewable material for building walls, baled straw has much to recommend it. It is cheap, renewable, and allows for quick construction. Adding finish coats of stucco results in massive walls with a high R-value.

Perhaps most important, sustainability has become a serious subject in architecture schools. Educating Architects for a Sustainable Environment (EASE), a group of professors and administrators, is working with money from the federal government to devise a curriculum that combines architecture and environmentalism.

Much of the impetus for a greener education is coming from architecture students themselves. At the University of Arizona's School of Architecture, assistant professor Rocky Brittain is working with his classes to build a 1,000-square-foot classroom facility out of rammed earth. The students, he says, are learning firsthand the economic, thermal, and structural advantages of this material for desert construction. "I've been teaching this subject for 20 years and have watched interest grow. Now I would say there's some element of sustainability taught in just about every architecture school in this country," Brittain says.

What does "green" mean?

Sustainability is an amorphous subject that's filled with confusing terminology and conflicting information. Fiberglass insulation, for instance, is not "resource efficient" except when it's made with recycled glass or when it's the most effective way to cut energy consumption. At first glance structural insulated panels might not seem to be green because their cores are made of expanded polystyrene foam, a product that is energy-intensive in its manufacture. But because their energy performance is so

Continuing Education *Use the following learning objectives to focus your study as you read this month's ARCHITECTURAL RECORD/AIA Continuing Education article. Then complete the questions on page 188 and check your answers (page 190). AIA members may fill out the self-report form (page 190) and send it in for two AIA Learning Units. —Mark Scher, AIA Director Distance Learning*

Learning Objectives *After reading this article, you should be able to:*

1. *Cite an approach for evaluating green design and at least 12 criteria for selecting sustainable products, with attention to manufacturing and post-installation issues.*
2. *List at least four sources that provide information and education about sustainable design.*
3. *Describe the state of sustainable design in terms of major geographical influences, product selection, and the building associates who are key to project construction.*

GREEN COMMUNITIES MERGE SUSTAINABLE DESIGN WITH NEOTRADITIONAL IDEALS

There's no main street in Civano, a high-density suburban community under construction outside Tucson, Arizona. Instead, there's a main pathway. The development, planned by Community Design Associates, Duany Plater-Zyberk & Company, and Elizabeth Moule & Stefanos Polyzoides, will feature natural landscaping, homes sited to take advantage of passive-solar energy, a water-harvesting system that will irrigate the community garden, and an emphasis on photovoltaics.

When it's completed, Civano will have enough light industry to provide one job for every two households. No steel mills or nuclear-power plants will be built here, though, only environmentally sound manufacturing. The first firm to have reserved a spot in the community manufactures photovoltaic film.

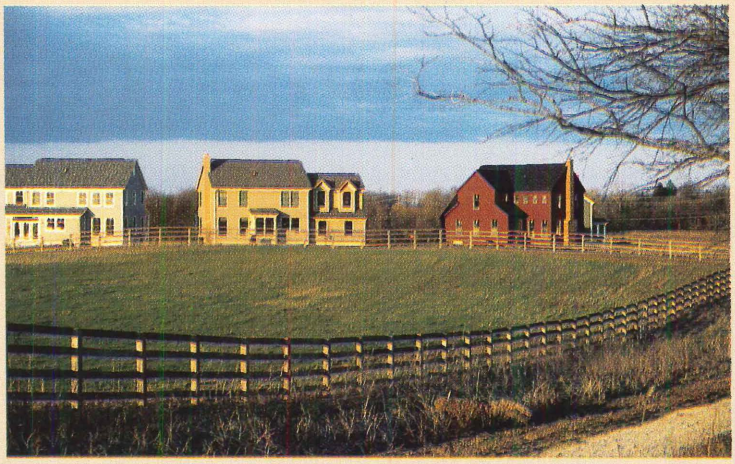
On Dewees Island, a 1,200-acre patch of sand, trees, and swamp off the coast of South Carolina, developers John Knotts, Jr., and Burt Hill Kosar Rittelmann Associates are allowing only 137 homes targeted at high-income, environmentally sensitive clients. Trees must be moved, not cut, to make way for construction. Homes may not exceed 5,000 square feet, none are located on the oceanfront, and restrictive covenants guide homeowners toward sustainable products. Transportation around the island is limited to bicycles and golf carts, although there is no golf course.

Meanwhile, in Loudoun County, Virginia, Burt Hill Kosar Rittelmann is helping develop EcoVillage. This cohousing development addresses sustainability issues with very small houses supplemented by a community center where residents share meals and entertainment. The houses will be built using structural insulated panels with a core made of straw and skins made of oriented-strand board.

Organic farming will be a shared community effort, as it is at Prairie Crossing, 40 miles north of Chicago, which has a 450-acre garden at its center. Cottage industries will foster a sense of community in EcoVillage, which is about 40 miles west of the Washington, D.C., beltway. In case residents need a quick taste of the Capitol's bright lights, the development is within walking distance of a commuter rail line.

Neotraditionalism goes green

It's been said that it all started in 1981 with Village Homes, the nation's first environmentally sensitive, high-density community. Located in Davis, California, and developed by Michael Corbett, Village Homes broke new ground with a storm-water system using natural drainage swales instead of sewers, agricultural fields integrated into the community's fabric, and narrow streets designed to encourage foot and bicycle traffic.



Prairie Crossing (top) and Dewees Island (above) merge Neotraditionalism with sustainable design.

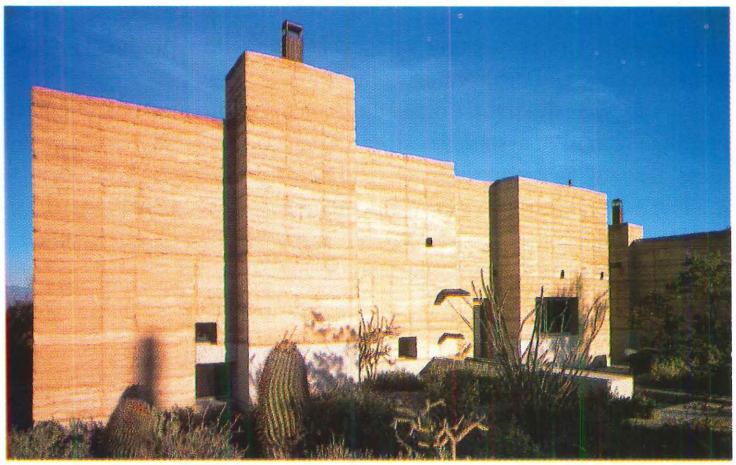
But many planners say there's nothing new about these ideas. "This is the way it was done until the car came along and changed everything," says Harry Gordon, a principal at Burt Hill. "We're trying to get back to a system that worked better."

Neotraditional communities have not necessarily been green developments. But more and more, the two sensibilities are merging. That's partly because the former promotes pedestrian traffic, high-density cluster design, and site preservation. Furthermore, Civano, Dewees Island, and EcoVillage emphasize indigenous materials whenever possible.

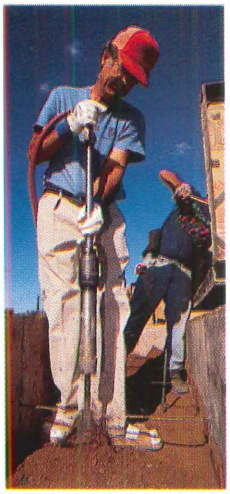
Paul Weiner, an architect and builder in Tucson, is designing houses for Civano that are, he says, compatible with the desert landscape: nothing's taller than a cactus or more brightly colored than the sandstone. What's most remarkable about Civano is the involvement of production builders, who will make houses from local green materials, such as structural insulated panels, adobe, straw bale, concrete-foam building systems, and rammed earth. "This is a first step toward weaning builders off of traditional, wasteful materials," Weiner says.

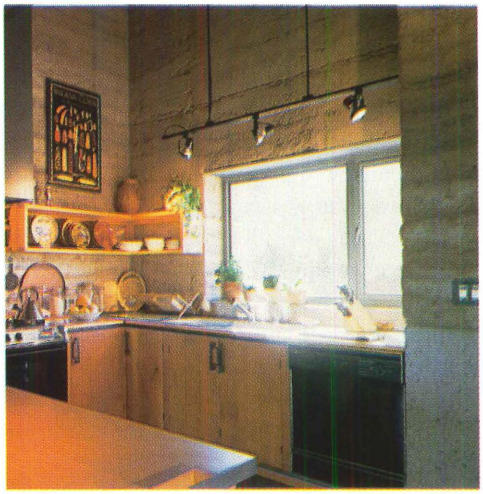
As these communities progress, they help make green design more credible. The developers of Village Homes battled local officials for years to get their community approved. Now houses are selling for up to 25 percent more than in other Davis communities. And Civano's developers are in partnership with the city of Tucson and Fannie Mae. Weiner says, "That gives us credibility and gives them experience with environmental design." *W.T.*

Production builders will be using local green materials to construct Civano, outside Tucson (below).



Straw-bale walls are topped by a timber roof structure (left) before being finished. Because the walls are typically 18 to 24 inches thick, deeply set windows (below) are necessary.





Views of a rammed-earth house (left) show the horizontal banding that occurs when layers of soil are placed in forms and pneumatically compacted. Only some types of soil are suitable for the process; also, rammed earth will not hold up in damp environments.

good, the panels are considered "environmentally responsible." One cannot always determine what is green by simple intuition.

Gail Lindsey, AIA, chairman of the AIA's Committee on the Environment, is working to bring quantitative measures to the subject and to make information about sustainability easier to understand and use. The committee has divided green design into five areas: site and land use (including transportation issues), energy efficiency, materials, indoor ecology, and waste reduction.

If there's one thing that proponents of green design have learned over the past few years, it's that you can't make a building sustainable by just plugging in a few green products. A designer must pay attention to each of the five categories and capitalize on the choices that benefit a given community most. In the northern United States, that may mean focusing design efforts on the heating system, whereas in the Southwest water conservation may be the top priority and in coastal regions site preservation may be most important.

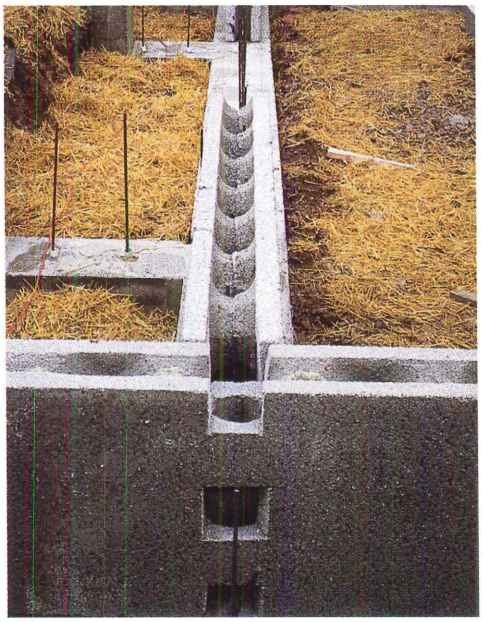
Under the auspices of the U.S. Department of Energy, the AIA Committee on the Environment is participating in the Green Building Challenge, which culminates in a conference this October in Vancouver, British Columbia. For the past two years, as part of the challenge, architects from various countries have worked to develop a barometer for measuring a building's "greenness." The AIA group has developed a system of evaluating designs with a tally sheet that anyone—architect, builder, building owner—can use. The sheet gives points if a house is, say, within walking distance of mass transit or uses fluorescent lighting in each room. Energy efficiency is a priority: designs that conform to or exceed ASHRAE 90.1, an energy-conservation standard applicable to commercial and residential buildings, earn the highest number of points.

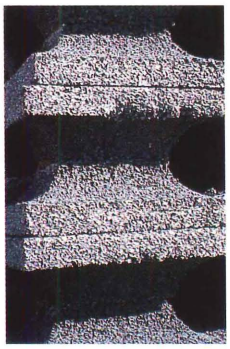
Because sustainability is, to some degree, region-specific, the AIA group's rating system is controversial. Some argue, for example, that extra points should be given for putting a building close to mass transit in areas where traffic congestion and air pollution are significant problems. Similarly, buildings that conserve water in localities where it is scarce should receive more points.

Affordability also matters, and sustainable design details should be equally applicable to low-cost housing and high-end, custom homes. Until recently, says Lindsey, being green was something of a luxury, reserved for homeowners who had enough money to buy triple-pane argon-filled glass windows or wool wall-to-wall carpeting. But with the growing availability of less expensive green materials, this is no longer true. Sustainable design is a balancing act, a matter of concentrating the architect's time and the client's resources on choices that will do the most good. "We've learned that a house doesn't have to be alternative or extreme to be green," Lindsey says. "If we can find a way to lessen the ecological impact of production houses, even tract houses, then we're getting somewhere."

Green products

A major problem for architects dealing with green materials is that there are suddenly so many of them. These days, it's good marketing for companies to call their products green, but there is no official standard of comparison. Architects must familiarize themselves with a plethora of green products and develop a way to judge the attributes of each. This can be time consuming. A team of architects designing an administrative





Concrete is mixed with recycled polystyrene foam to create precast panels (left and below). An alternative technology uses recycled wood for post-and-beam components.

building for the University of British Columbia were required to incorporate 50-percent-recycled materials, along with high-efficiency heating and cooling systems and water-conserving plumbing fixtures. The architects reported that it took them three times longer to come up with a green plan than it would have taken to design a conventional building. Because they were unfamiliar with green products, the architects had to educate themselves every step of the way.

Another issue for architects is that the value of some sustainable materials is readily apparent while that of others is less obvious. One can't really "see" that a product is saving energy or that it didn't create toxic waste during manufacturing, but carpeting made from recycled milk jugs lies on the floor in plain sight.

Lynn Simon, a San Francisco–based architect, works as a consultant to other architects, helping them become familiar with and select sustainable materials. She's found that once architects design one or two projects using green standards, the process becomes simpler. "It's like getting used to recycling your bottles, cans, and newspapers. Pretty soon it becomes automatic," she says.

Simon evaluates a green product with the following checklist: Is it locally produced? Is it from a sustainable or renewable resource? Is it reusable or salvageable if the house is disassembled later? Does it contain recycled products? Were toxic by-products created during the manufacturing process? How much energy is required to create the product? Is there any post-installation off-gassing? How easily maintained is the product? How long will it last? More obvious considerations include the material's availability (because they tend to be region-specific, many green products are not widely distributed), ease of installation, and cost.

"It's something of a science to track down much of this information and make sense of it," says Simon. "How many architects have time to go searching around? Also, everyone's a little shy about trying something new." She encourages clients to go green where it will have the greatest impact in a project when compared with conventional materials, typically on the largest surface areas: walls, insulation, and flooring. Simon also emphasizes energy-efficient products, since in most areas energy is generated by nonrenewable fuels and their by-products pollute the atmosphere and deplete the ozone layer.

Despite the trend toward the greening of architecture, standard building materials like steel, wood, and glass are not forbidden in a green house. Rick Joy turned to rammed earth because it is a historically correct building material, but he hasn't excluded other materials. Joy's houses are hybrids, combining adobe, earth, steel, and wood. "I'm not a rammed-earth guy, I've just added it to the palette," he says.

Bonding with builders

It's one thing to design a house that is sensitive to the environment and another to actually build it. For example, preserving trees on a building site might be a natural instinct for an architect, but finding an excavator who shares this sensibility could be difficult. In addition, craftsmanship is often lacking where new materials are employed. Finding tradesmen who understand structural insulated panels or the new concrete-foam building systems is nearly impossible, and looking for a subcontractor who knows how to install a ground-source heat pump may be an ordeal. An architect might go to great lengths to include resource-conserving products, while a building crew thinks nothing of tossing recyclable waste—like cardboard boxes, carpet scraps, and unused bricks—into the dumpster.

That's why it's a good idea to team up with a builder who has experience working with sustainable buildings at the beginning of the design process. A seasoned contractor, among other things, can help fight the battle for code approval, which is hard won when unusual materials are specified. While parts of Arizona, Washington, and California may be more progressive—straw bale and rammed earth are acceptable in Tucson, for instance—in most of the country, such innovations as gray-water systems or waterless urinals are out of the question.

"Count on spending plenty of time at the buildings department, talking to inspectors about what you're working with," says Dennis Creech, executive director of Southface Energy Institute. "Don't wait until you get out in the field. I haven't seen a problem yet that couldn't be resolved with patience and education."

Architects must be cautious about alienating bankers as well. A straw-bale house may be wonderfully efficient, but it's just about impossible to get a loan to build one. The fact is, most loan officers don't want to put up money for anything that strays too far from conventional materials and construction methods.

There is a thin line between houses that are environmentally astute and those that are so green they're intimidating. The challenge is to incorporate as many green strategies and technologies as possible without increasing the cost and complexity of the project so much that it becomes impractical.

ONCE AN ARCHITECT DESIGNS A FEW PROJECTS USING GREEN STANDARDS, THE PROCESS BECOMES SIMPLER. LIKE RECYCLING, IT BECOMES AUTOMATIC.

Resources

The following organizations offer books and CD-ROMs on green materials: Southface Energy Institute, Atlanta, 404/872-3549; the Center for Resourceful Building Technology, Missoula, Montana, 406/549-7678; and the Rocky Mountain Institute in Snowmass, Colorado, 970/927-3851. Another good resource is the *Environmental Building News Product Catalog*, which contains literature from the manufacturers and independent analyses by the editors of *Environmental Building News*, a newsletter about green building (802/257-7300). ■

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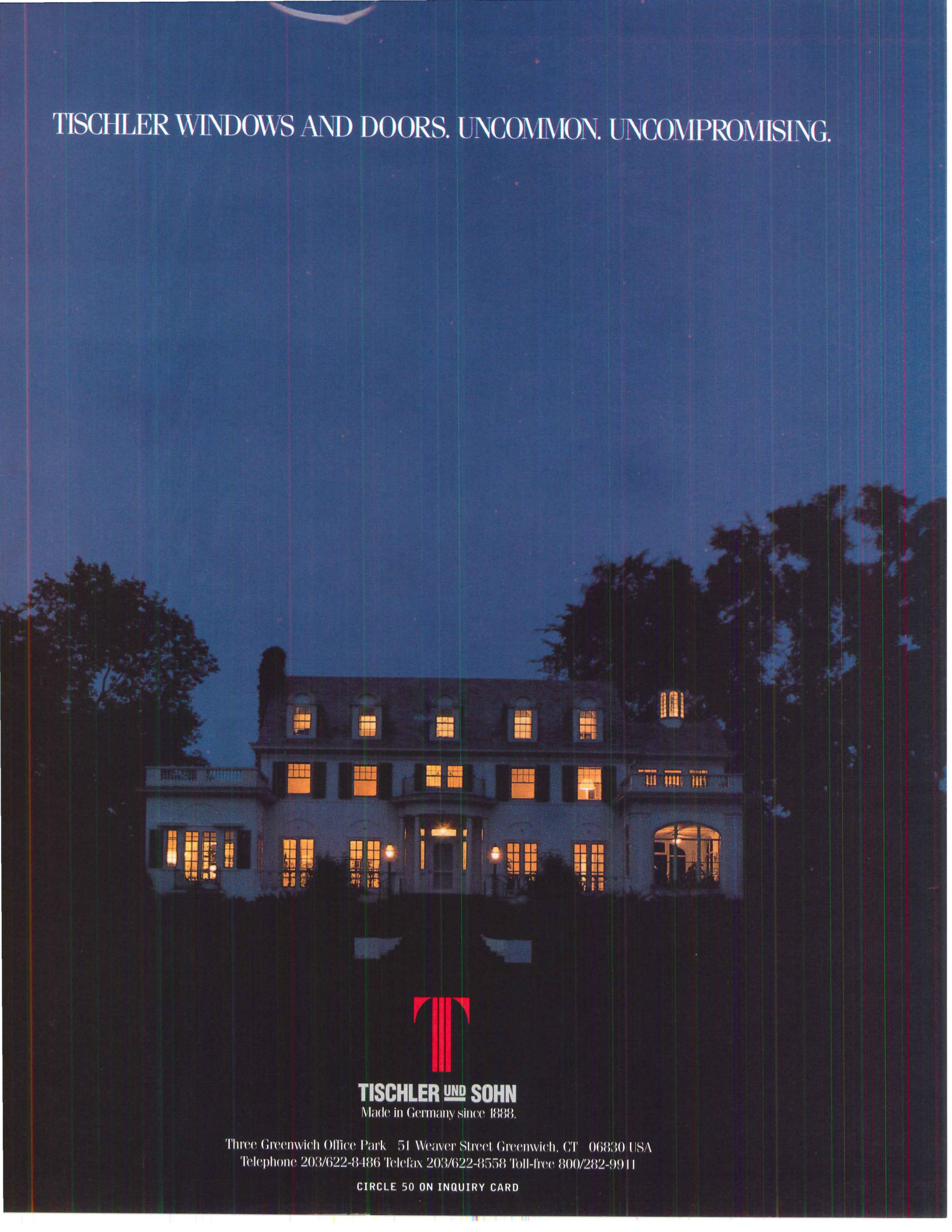

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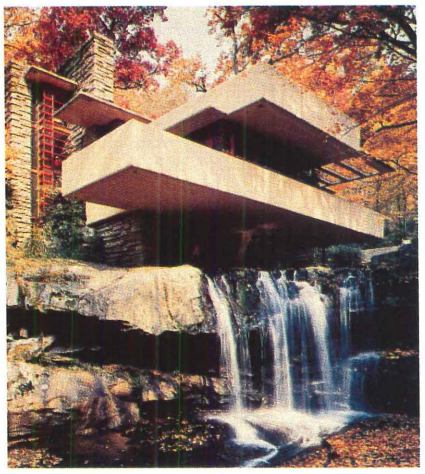

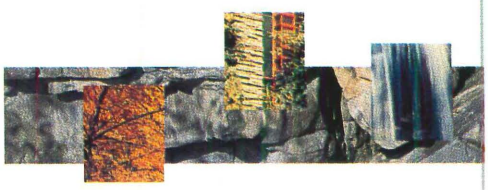

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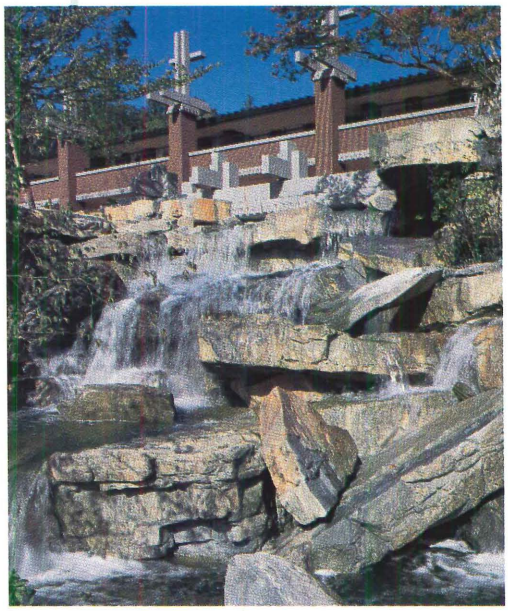

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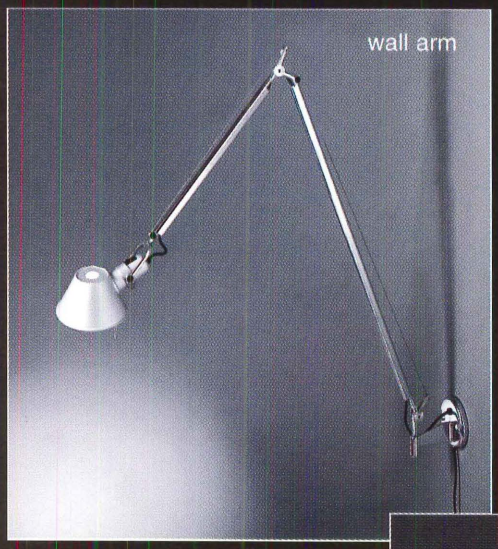
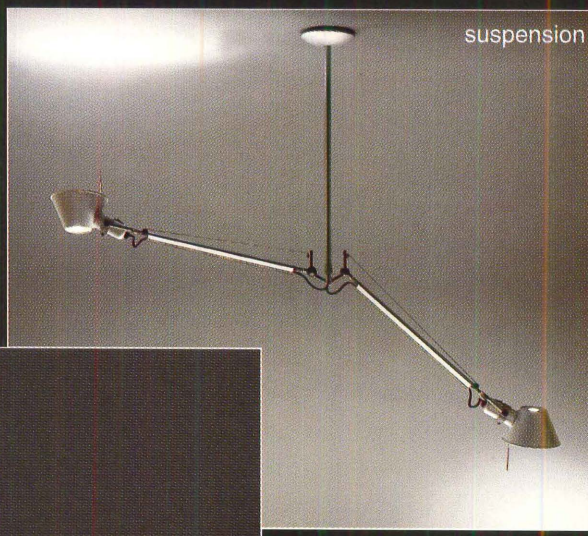
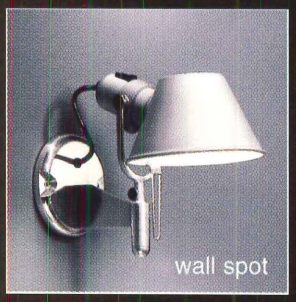
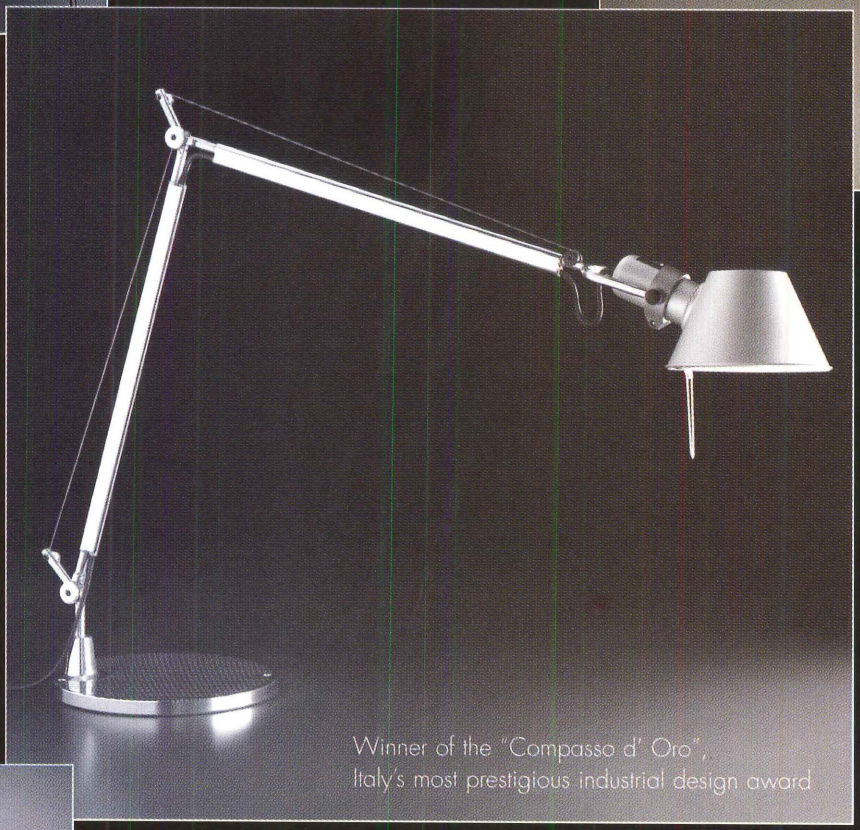
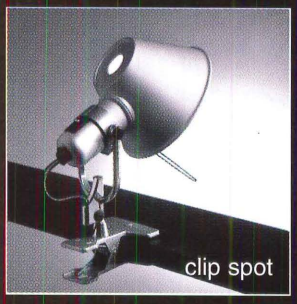


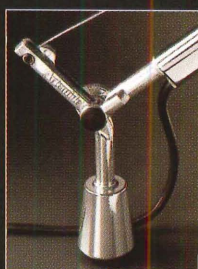


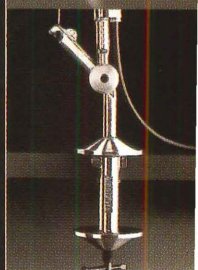


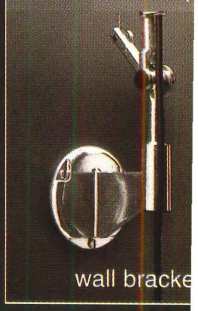


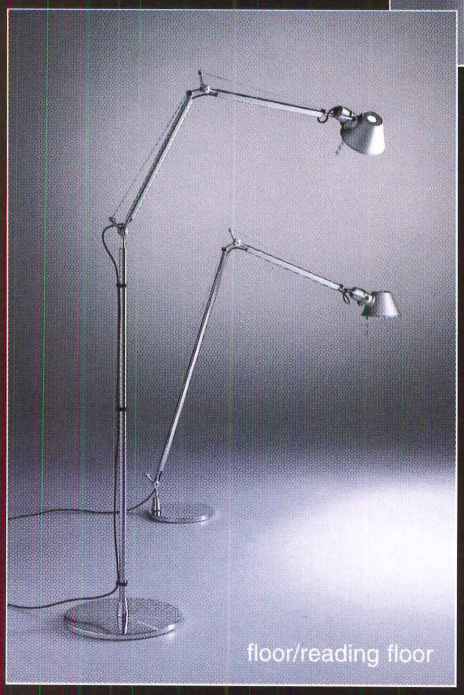
Winner of the "Compasso d' Oro", Italy's most prestigious industrial design award











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CIRCLE 8 ON INQUIRY CARD

NEW PRODUCTS

In keeping with the project pages of this issue, this month's product pages center around the residential, from handmade ceramic tiles and high-style lavatories to solar roofing panels and reclaimed timber. The New Products pages highlight ceramic tiles from companies in Spain, England, and the United States, especially those in the Home of the Future at the National Home Builders Show. The Product Briefs pages include innovative environmental building materials, new design enhancements for living spaces, and the latest offerings for the kitchen and bath. ***—Elana Frankel, New Products Editor***

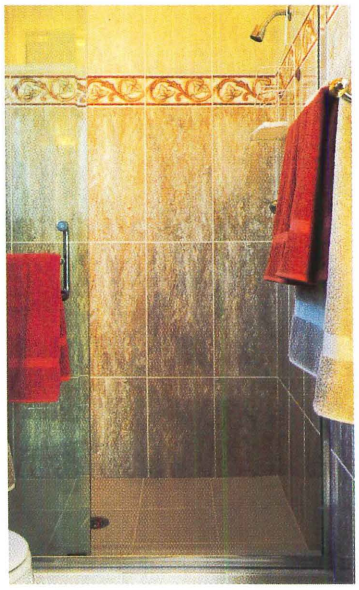
SPANISH TILES: A LONG-HELD TRADITION FINDS A HOME IN THE FUTURE

Europe has one of the strongest and oldest ceramic tile traditions in the world, while the United States is just beginning to understand the material's uses and benefits as a floor and wall covering. Spain is lending the U.S. a hand with a healthy export business: according to the U.S. Department of Commerce, this country imported 175 million square feet of ceramic tile from Spain in 1996, up from 88 million in 1991. In addition, there are currently more than 80 Spanish manufacturers that distribute ceramic tile in the United States and 23 companies with permanent offices here. Most of the production remains concentrated in Spain's Castellón province and the majority of tiles are sent to distributors in Florida, Texas, California, and New York.

Recently, the Home of the Future, built as a demonstration house for the National Home Builders Show in Dallas by architect Barry Berkus, featured more than 4,000 square feet of tile contributed by 12 of Spain's manufacturers. To complement the house's building innovations and its future-oriented look, the architect decided to include traditional materials. Drawing on the continuing rise in popularity of ceramics, Tile of Spain, the organization that promotes Spain's industry in the United States, became the exclusive provider of ceramic tile for the house. Here is a sampling of the tiles included in the Home of the Future.

The great room

Azuvi's 18-inch-square stone-look tile in beige, called Creta, covers most of the home's downstairs (top right). The tile's rustic, warm shades unify the great room and the family bath (bottom right), as well as the foyer, media and morning rooms, kitchen, and pantry. 800/886-3570. Azuvi, Jacksonville, Fla. CIRCLE 200



Courtyard

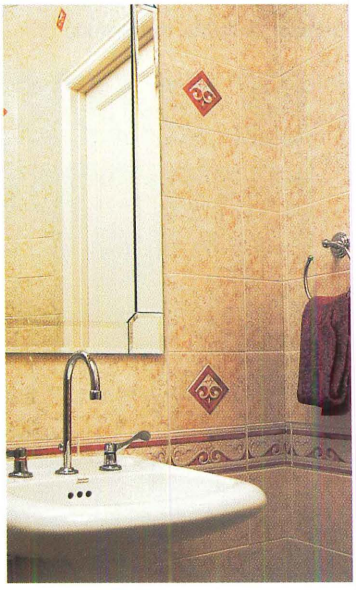
The Compactto Pedra series of porcelain tiles from Pamesa lends a rustic feel to the home's courtyard while providing the strongest possible surface for the outdoor space (middle right). A mix of Baviera Negro (charcoal) and Baviera Marengo (gray) in three sizes (six-inch-square, six by 12 inches, and 12-inch-square) paves the way between the tiled foyer and the brick exterior. 305/446-4387. Available through Tile of Spain, Miami. CIRCLE 201

Master bath

Ceramic tiles from Gres de Valls provide a soft, warm, and calming atmosphere in the elegant master bath and spa (below). The tile conforms to the room's irregular shape to create a dramatic, unusual look. On the walls are examples of the company's 12-by-16-inch Shegel Blanco tiles, which are vertically set. The curved spa area features six-inch-square Shegel Blanco combined randomly with gray- and peach-toned six-inch-square Gotica decorative tiles. 305/593-6803. Gres de Valls is available at EPC, Miami. CIRCLE 202

Guest suite bath

The floor and walls are covered in an earth-toned, marble-look-alike ceramic tile from Grespania (below). Called Barcelona, the large-format 12-by-24-inch tiles are set square on the walls and used in the same color as the Corts 12-inch-square tile set diagonally on the floor. On the walls, a stronger shade of Barcelona anchors the design below a 5½-by-12-inch Ramblas border of green and terra-cotta floral garlands set at half height. 516/736-0770. Grespania, Farmingville, N.Y. CIRCLE 203



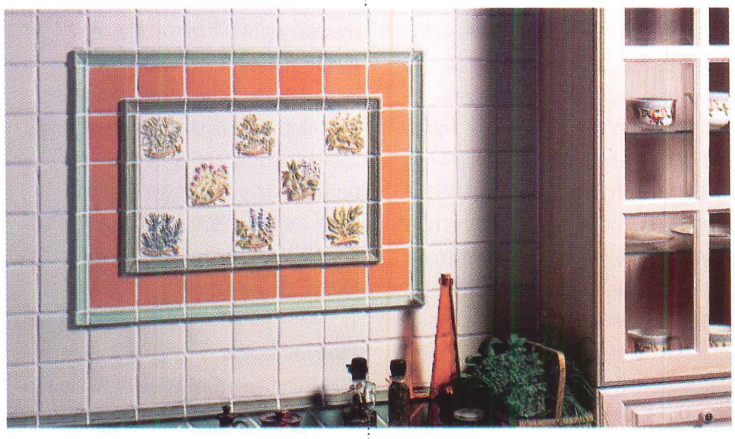
LA BELLE CUISINE TILES: THE FINE ART OF NOVELTY IN THE KITCHEN

Although ceramic tiles are now being used in innovative applications, they are also still being specified in traditional ways—for kitchens and baths—and in traditional patterns. Countertops, floors, backsplashes, and shower installations are a natural fit for ceramic tile, as are floral patterns and animal motifs (though the latter are often considered a novelty item).

Original Style, a British company, is one manufacturer that continues to work in traditional styles, producing individually decorated, hand-painted, relief-molded tile. Although the United Kingdom is not among the top ceramic tile producers, it has a small but steadfast industry whose products are readily available through independent distributors in the United States.

Original Style's ceramic artists, based in Exeter, England, handcrafted the wall plaques (the central tiles, which measure 12 inches square), 4-inch-square field tiles, and borders (which measure 8 by 2 inches) shown here with the ever-popular La Belle Cuisine collection of tiles with fruit, flowers, shellfish, and farm animal motifs.

Because some of the tiles have a copper-based laurel glaze that is prone to discoloration by mild acids found in some soaps (lemon-scented, for example), they are not recommended for kitchen sink areas. Check with your local distributor. Phone 011/441/392-474022. Fax 800/273-0636. Original Style, Devon, England. CIRCLE 204



GLASS, RELIEF, AND GLAZED: THE LATEST IN TEXTURED TILES

Portland, Oregon–based Ann Sacks Tile and Stone debuted its latest tile products at the National Home Builders Show in January. Here's a quick look at the company's latest offerings.

Made in the United States by European artisans, the Historic Tile collection (below right) is a reproduction of a honey-and-rust-textured brick tile dating from the 19th century. The tile is shown here with a collection of Virginian cabinetry from Canac Kitchens Limited for an English cottage look.

Inspired by lush garden design and sprawling landscapes, the company's Topiary series (below left) uses a hand-glazing technique to produce a rustic stoneware finish. (It is also available in an elegant creamy white or crackle.) The tile is shown here with Madison Avenue cabinetry from Canac Kitchens Limited and a Provence faucet and Cardamom sink from the Kohler Company.

Also available are the company's Porto Fino collection, an octagon and dot design that was originally presented at the Home Builders Show in the trendy colors of candle white and dark cobalt; Chateau Rideau, the company's first fruit series; Pavimenti Allende, a checkerboard mosaic pattern that is available in such colors and designs as Versace, Giallo Brulee, Coral, and Cashmere; Antiqued Stone, a Crema Marfil natural tumbled marble look; Caracol, a metal tile that is handcrafted from a combination of steel, stainless steel, aluminum, brass, copper, and bronze with a patina pattern; and Glashaus, a tile that has a slightly worn and handcrafted look.

Another recent addition to the Ann Sacks palette is a series of authentic Arts & Crafts glazes for the company's tiles, including soft and muted shades of saffron and verdigris. 503/281-7751. Ann Sacks Tile and Stone, Portland, Oreg. CIRCLE 205

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Look beyond the stunning curb appeal of Senturion Wall Systems. Underneath the exciting shapes, colors, and textures lies a tested moisture drainage system. Senturion Residential Wall Systems* will keep water out, and also accommodate incidental moisture that might enter a wall around windows, doors, decks and other wall penetrations. Only CDsystems by Senergy provide an unobstructed drainage plane over the entire secondary moisture barrier.

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PRODUCTBRIEFS

▲ Portable campfire

Sing songs anywhere at anytime around Heat-n-Glo's Patio CampFyre. The seven ceramic fiber logs, surrounded by very realistic-looking river rock, give off a flame with 60,000 BTU. The movable unit comes standard with a protective cover and can be ordered for natural or LP gas. Some LP tanks may require an adapter for hookup. 612/890-8367. Heat-n-Glo Fireplaces, Minneapolis. **CIRCLE 206**

▼ Furniture fabrication

After graduating from the University of California at Berkeley's architecture program, Matthew Bear and Scott Moulton formed Union Furniture, a design firm based on the Modernist idea of functional yet visually minimal furniture. One example, the Proun Desk (below), measures 32 inches wide, 64 inches long, and 29 inches high and has a solid elm frame, solid oak cases, and a frosted-glass top. The doors are made from colorlith—a cast sheet of fiber with reinforced concrete that is traditionally used in laboratory settings. The openings are large enough for binders and files; custom configurations are also available. 510/652-0602. Union Furniture, Emeryville, Calif. **CIRCLE 209**

▼ Spontaneous seating

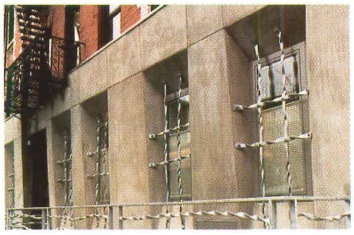
The Torsion chair from KI, designed by Giancarlo Piretti, debuted at West Week '98 last month. With its flip-up seat, casters, and space-saving design, the chair provides a quick seating solution for impromptu or informal office chats, team meetings, or the occasional unexpected visitor. The seats and backs are available in six polypropylene colors: black, blue-gray, bordeaux, juniper, sand, and warm gray. They can also be specified in a selection of upholstery fabrics from KI, Pallas, and C.O.M. 800/424-2432. KI, Green Bay, Wis. **CIRCLE 207**

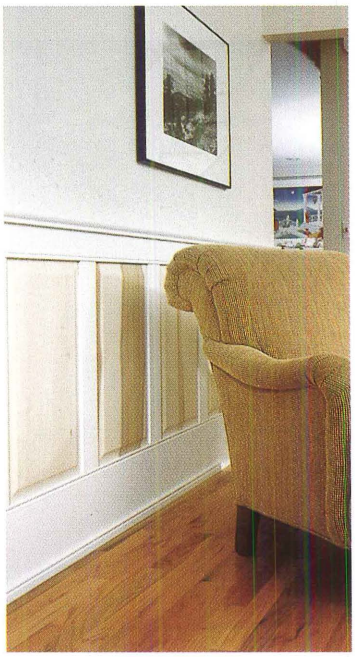
▲ Commissioning glass art

Glass artist Ellen Mandelbaum recently won the AIA award for religious art and architecture for the 10 stained-glass windows and window wall she created for the entryway of the Adath Jeshurun Synagogue in Minnetonka, Minnesota. Among her other notable commissions are custom work for the Greater Baltimore Medical Center, for Boston architects Finegold & Alexander, and a painted glass door for New York architects Christopher Scholz and Ines Elksop. Her technique is leaded hand-blown stained glass enhanced by glass painting kiln-fired at 1,200 degrees. An exhibition of the artist's commissioned work will be on view at the Queens College Art Center in New York from April 30 to July 13. 718/361-8154. Ellen Mandelbaum, Long Island City, N.Y. **CIRCLE 210**

▼ Decorative security gates

Made of forged galvanized steel, the window guards from Ferra Designs measure six feet high and three feet wide with riveted connections. Railings measure a total of 40 linear feet. 718/852-8629. Ferra Designs, Brooklyn, N.Y. **CIRCLE 211**



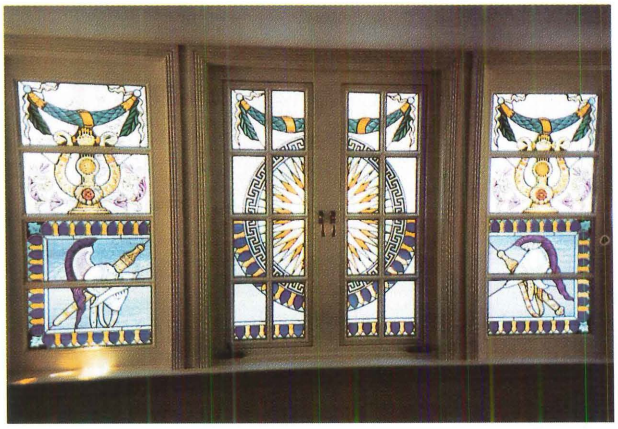


▲ Raised panel systems

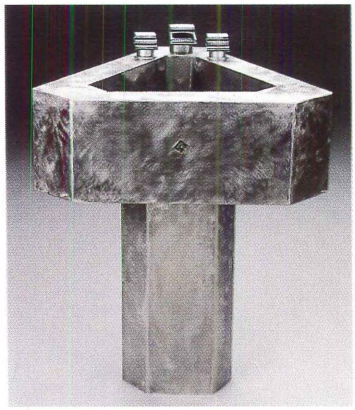
Ready-to-finish raised wood wall panel systems from New England Classic interiors are made from medium-density fiberboard—which is both temperature- and moisture-resistant—and covered with a choice of oak, maple, or paint-ready veneer. The standard available heights are 32 and 36 inches, and widths are six, nine, and 12 inches. Special sizes are also available for wainscoting, as well as partial- or full-wall coverage. The product is backed by a five-year limited warranty. 888/460-6324. New England Classic Interiors, Inc. Portland, Me. **CIRCLE 208**

▼ Behind closed doors

The late, great fashion designer Gianni Versace spared no expense with his luxurious home in South Beach, Miami. So it comes as no surprise that he commissioned the designers at McMow Art Glass to create the stained-glass windows in the mansion's living and dining areas. 888/701-3494. McMow Art Glass, Lake Worth, Fla. **CIRCLE 212**



PRODUCTBRIEFS



◄ Custom pedestal sink

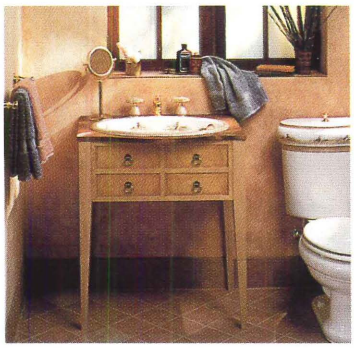
Diamond Spas' triangular lavatory is a bold new design constructed of 304, 16-gauge stainless steel. The sink consists of a hand-crafted geometric shape, with a hand-welded seam and a hand-buffed finish that is not stamped or molded. The sink is available in three sizes: 20 by 26 inches, 22 by 28 inches, and 24 by 30 inches. All are available with a sink depth of six or eight inches and a pedestal height of 32 or 34 inches. 800/951-SPAS. Diamond Spas, Broomfield, Colo. **CIRCLE 213**

▲ Long live Italian design!

Viva, a sleek and efficient Snaidero kitchen design created in collaboration with automobile designer Paolo Pininfarina (think Ferrari, Alfa Romeo, and Bentley), has a '60s retro color palette that includes Vanilla, Malaga Orange, Mint Green, Night Blue, Grecian Blue, Rope White, and Smelting Gray. Other features include smoked glass doors, sloping cabinets, and a set of exclusively designed tables, chairs, and stools. 310/516-8499. Snaidero, Los Angeles. **CIRCLE 214**

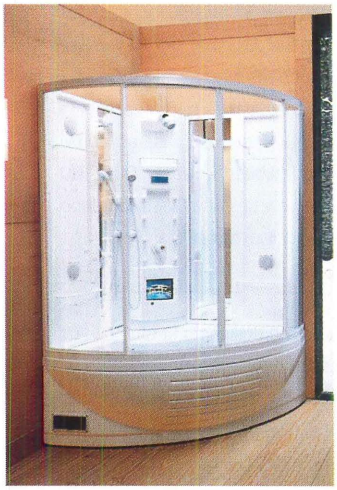
► Artistic license

To help usher in Kohler's 125th anniversary, the company has extended its Pheasant Artist Editions pattern to include the Revival two-piece toilet, which completes the bathroom suite. Vibrant, a new polished-brass finish that is corrosion-, tarnish-, and scratch-resistant, is currently available on all Revival faucets. 800/4-KOHLER. Kohler, Kohler, Wis. **CIRCLE 215**



▼ A cook's true pleasure

GE's answer to the latest cooking craze is a series of stainless-steel over-the-counter combination microwave and convection cookers, called the Profile Performance. The Spacemaker XL 1400 (below) offers a customizable 20-second audio message for brief cooking reminders. 800/624-5443. General Electric, Louisville, Ky. **CIRCLE 216**



▲ Ultimate luxury

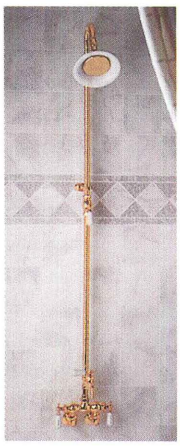
What could be more fabulous than Jacuzzi's J-Allure? The unit combines a whirlpool bath (with body and lumbar jets for lower-back massage), a shower (with two multifunction showerheads), 12 vertical body sprays, a steam bath built for two, and a built-in stereo/CD system with four speakers. And just in case that's not enough, a television/VCR monitor is also available. The unit measures 52 by 52 by 94 inches. 800/288-4002. Jacuzzi, Walnut Creek, Calif. **CIRCLE 218**

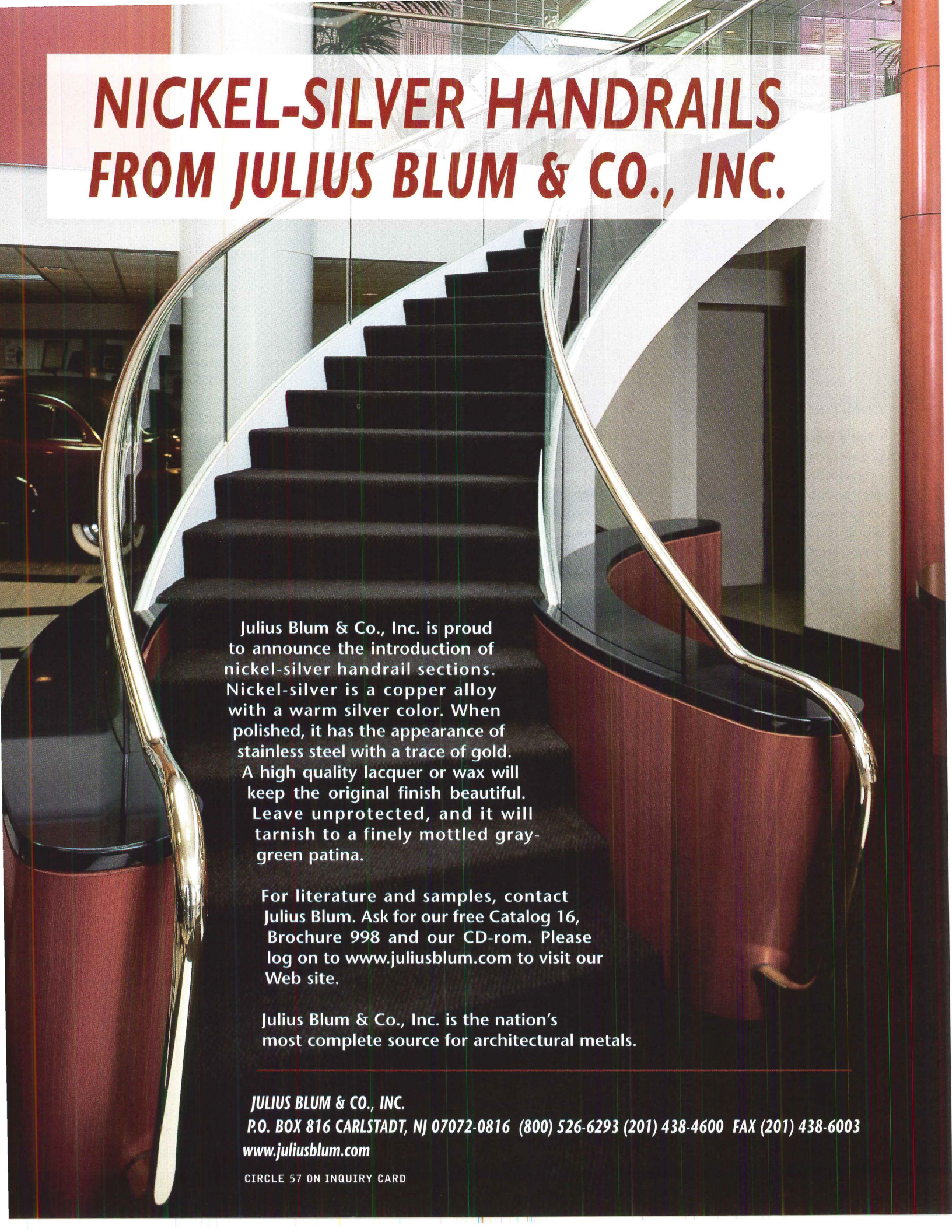
▼ Elegant and polished finish

Kroin has added to their collection of sanitary fittings three hand-polished stainless-steel washbasins. The polished basin shown here is 18 inches in diameter and finished inside and out with a Kroin sanitary fitting model HV3 lavatory faucet. The new series also includes round basins with polished or satin finishes on the inside, or inside and out. Also shown are Kroin's new angled shut-off valves. The collection has won numerous awards, including the Danish Classic Industrial Design Award, for products that have remained in production, unchanged, for 25 years. 800/OK-KROIN. Kroin, Cambridge, Mass. **CIRCLE 217**

► Flower power

In response to the skyrocketing consumer demand for classic-looking commercial faucets, Chicago Faucet has made its products available through both commercial and residential sales channels. The residential product lines (which include Architectural, Renaissance, and Legacy) have been combined with the commercial products to form the Chicago Kitchen and the Chicago Bath collections. The exposed sunflower shower and tub filler with porcelain lever handles (left), one example from the Chicago Bath collection, is certified to the Underwriter Laboratory's ANSI NSF 61, section 9 standard and is stamped to signify certification. 847/803-5000. Chicago Faucets, Des Plaines, Ill. **CIRCLE 219**





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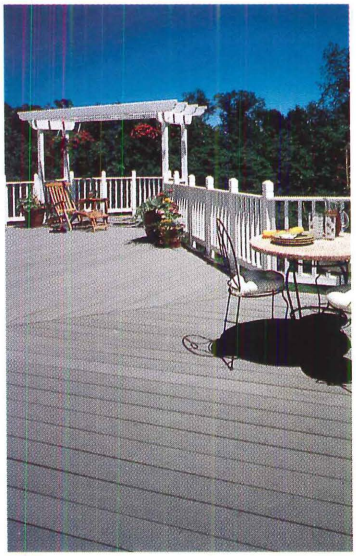
PRODUCTBRIEFS

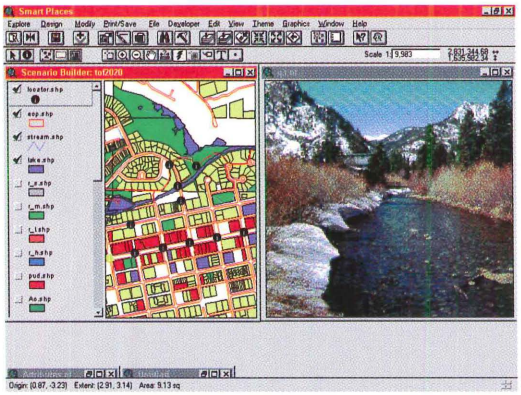


▲ The great outdoors

Splinter-free Trex Easy Care Decking is made from recycled grocery bags, reclaimed shrinkwrap, waste wood from furniture makers, and reconstituted shipping pallets. The decking resists moisture, insects, and UV rays and will not rot or crack. It meets ADA standards for slip-resistant walking surfaces and is the only wood-polymer lumber that is code listed with BOCA, ICBO, and SBCCI. Colors include natural, which will weather to driftwood gray after six to twelve weeks outdoors, and Winchester Gray, which will weather to a deep, rich gray. 800/BUY-TREX. Trex, Winchester, Va. **CIRCLE 221**

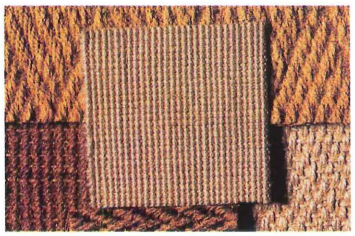
▼ Strategic decisions

Smart Places PC-based software evaluates the implications and opportunities of both rural and urban planning alternatives. Applications span diverse geographic strategies, including business target marketing, economic development, land-use planning, transportation systems, facilities management, environmental remediation and protection, energy forecasting, water allocation, and resource control. 650/855-2720. Electric Power Research Institute, Palo Alto, Calif. **CIRCLE 220**



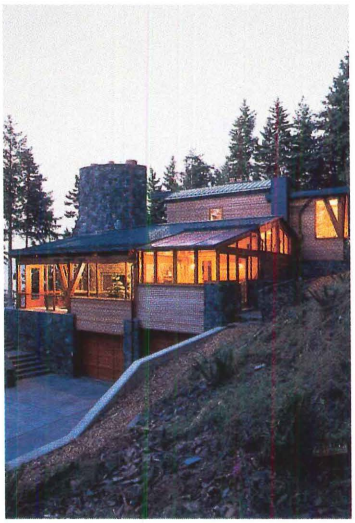
▼ Nature underfoot

The Natural Design collection from E.C.O. of New York is a group of sisal, wool-blended, and coir carpeting. 800/238-5008. E.C.O. of New York, Bronx, N.Y. **CIRCLE 222**



▼ Solar shingles

Atlantis Energy's SunSlates are solar electric roofing tiles with photovoltaic cells that convert solar energy into household current. The tiles are fit to conventional roof layouts and can be applied like standard roofing tiles—with galvanized nails and battens. Wire connectors link adjacent shingles. Unlike the bulky and unsightly solar tiles of the 1970s, SunSlates look like roofing shingles and blend in seamlessly. 916/346-9595. Atlantis Energy, Colfax, Calif. **CIRCLE 224**

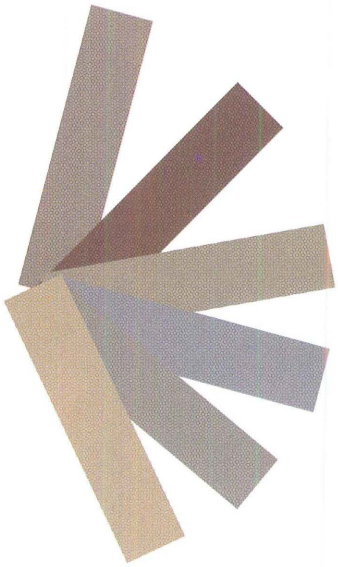


▲ Salvaging timber

West Coast Lumber Inspection Bureau (WCLIB) records show that a gross amount of 2.6 trillion linear feet of timber has been sawn from 1904 to 1996. The G. R. Plume Company does its part to preserve this obvious and most valued resource by specializing in custom architectural timber fabricated from reclaimed Douglas fir. Rescued from turn-of-the-century structures such as railroads and barns that have been scheduled for demolition, the timbers are cleaned (and all metals extracted), resawn, and graded on-site by the WCLIB. Each timber is hand-selected and milled according to project specifications. 360/384-2800. G. R. Plume, Ferndale, Wash. **CIRCLE 225**

▲ One-stop green shopping

Environmental Building Supplies carries products that are natural, renewable, of low toxicity, and entirely or partially recycled. Their inventory includes floor coverings, finishes, building products, and housewares. Shown above are Forbo's Marmoleum linoleum tiles; recycled glass tiles from AMDEC; remilled fir flooring; natural cork; wool carpeting; carpeting made from recycled soda bottles; AFM's Safecoat, a solvent-free, low-VOC latex paint; and Terra Green's Traffic Tile, which is 70 percent recycled windshield glass. 503/222-3881. Environmental Supplies, Portland, Oreg. **CIRCLE 223**



▲ Recycled paint

The e coat recycled paint products division of the Kelly-Moore Paint Company collects excess latex paint from household hazardous waste collections and surplus commercial and industrial customers. The collected paint is sorted, tested, and recycled into a 100-percent post-consumer paint product—a flat acrylic house paint for exterior surfaces such as wood, concrete, and stucco. 800/874-4436. Kelly-Moore Paint Company, Sacramento, Calif. **CIRCLE 226**

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PRODUCT LITERATURE

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Siplast engineered roofs have an insulation system made from lightweight concrete and an expanded polystyrene foam board. The latest brochure highlights various projects around the country that use the system and offers comparative analyses with ordinary rigid board. 800/922-8800. Siplast, Irving, Tex. CIRCLE 227

CD-ROM for brick walls

Available June 1, Boral Vision for Architects is a specialized CD-ROM to help design drawings of brick-wall details, which can be transferred to CAD programs. 800/754-9090. Boral Bricks, Atlanta, Ga. CIRCLE 228

Food-service plumbing

Fisher's 108-page specialties catalog for the food-service plumbing industry is now available. 800/421-6162. Fisher, Tulare, Calif. CIRCLE 229

Southern pine buyer's guide

A state-by-state listing of Southern pine products and services from members of the Southern Forest Products Association (SFPA) is assembled in this annual directory, which lists mill capacities, production details, and sales contacts. 504/443-4464. SFPA, Kenner, La. CIRCLE 230

Environmental product catalog

What's Working, a green building consulting firm in Brattleboro, Vermont, has teamed up with the editors at the monthly newsletter *Environmental Building News* to produce the Environmental Building News Product Catalog. A must for architects interested in alternative building products. 800/861-0954. Environmental Building News, Brattleboro, Vt. CIRCLE 231

Rolling doors

New options in finishes, especially powder-coated colors, and closing and control systems for fire doors are highlighted in Cornell Iron Works' 24-page catalog. 800/233-8366. Cornell Iron Works, Mountaintop, Pa. CIRCLE 232

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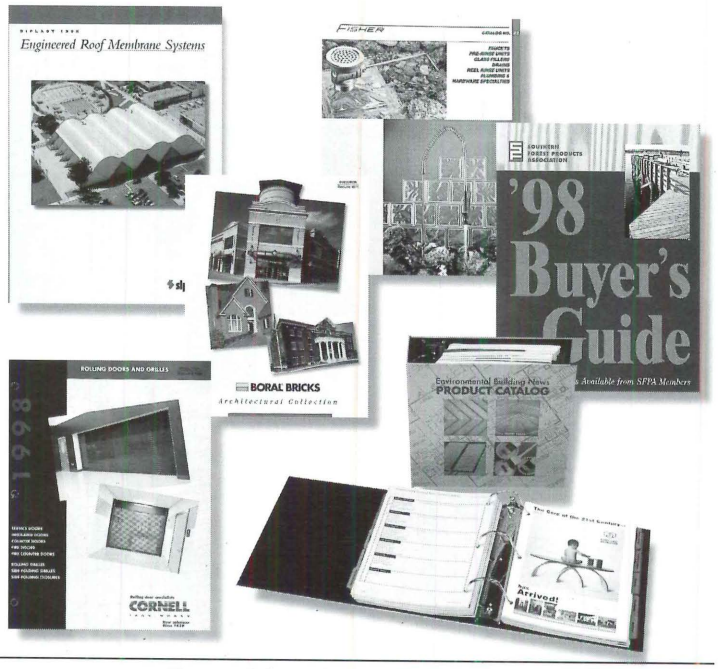

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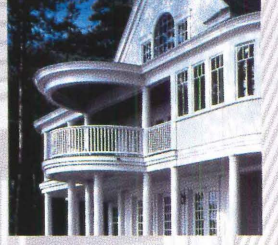

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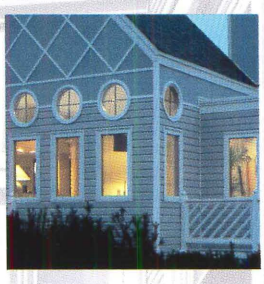

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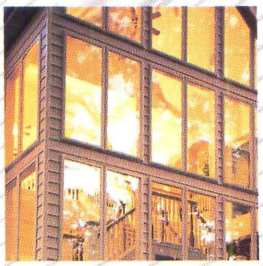

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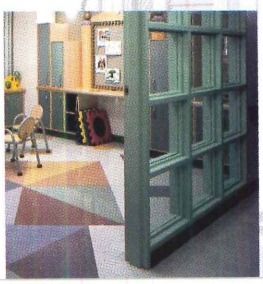


Photos courtesy of Mannington Commercial and CertainTeed Corp.

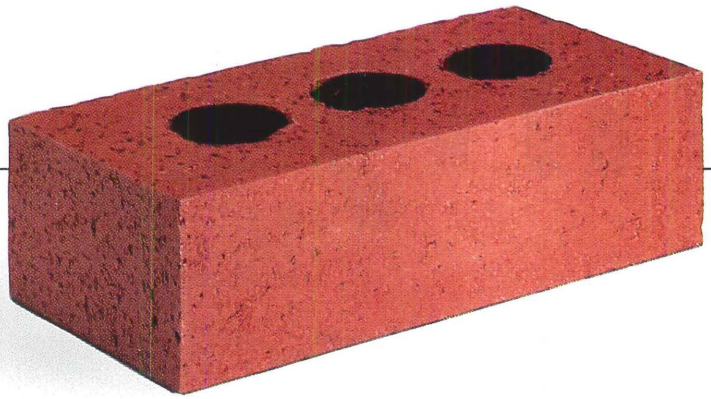
VINYL BUILDS AMERICA BETTER

The Vinyl Institute

CIRCLE 73 ON INQUIRY CARD

Sixty second guide to Belden Brick:

COLORS



Belden Brick is made in over 116 colors that include 2 choices in black, 28 browns, 7 tans, 8 buffs, 3 creams, 18 grays, 16 pinks, 26 reds, and 8 whites.

In addition, it is made in 12 different textures, although not all our brick is made in the same range of textures.

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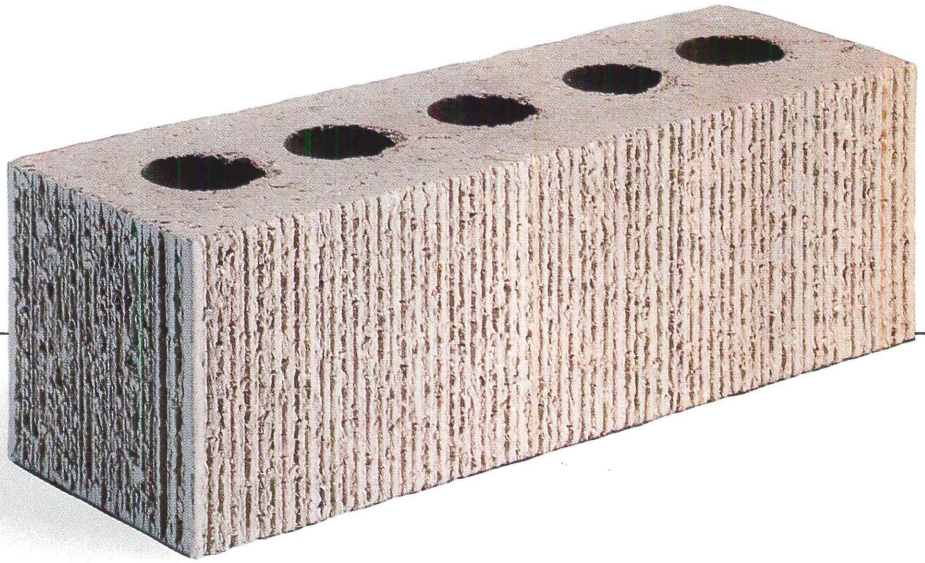

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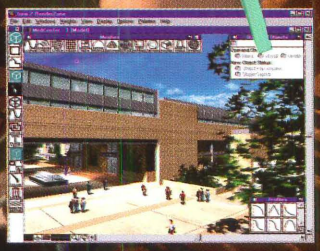

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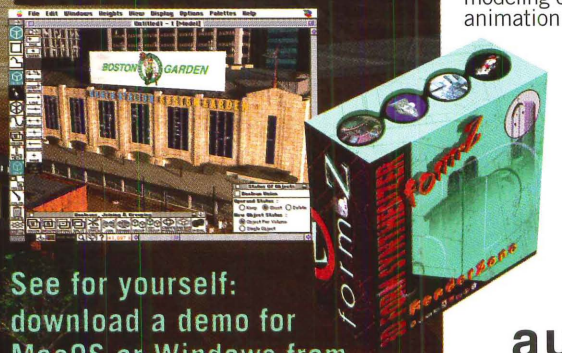

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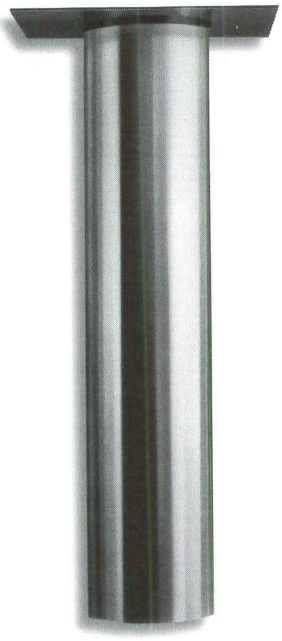

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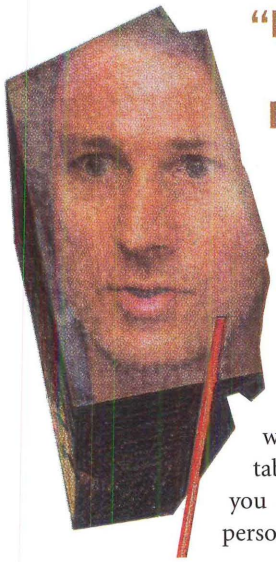


"LICENSING HAS A VERY STRONG EFFECT ON THE WAY AN ARCHITECT PERFORMS HIS CRAFT." ***—Michael Gabellini***

teaches architecture at Yale and has had a full-time interiors person on staff at his firm for seven years. "Clients have enormous emotional needs that we have to involve ourselves with," said Carlson, who has designed houses for several celebrities in California. "We become part of our clients' lives. We tend to be more involved with clients, down to the drawers in their night table. It's difficult to keep a distance because you are dealing with family, children, the most personal parts of people's lives."

One fairly recent phenomenon affecting the relationship of architects and designers is the use of consultants on both corporate and residential projects. "Now on a big project, there will probably be 10 or 12 consultants, most of whom are controlled by project-management consultants, who have far more input from the financial side, in terms of what our clients spend, so they are really a dominating factor," said Walsh. "They can be good, or they can be bad, and they can make our life miserable. You end up serving two masters: your client and the project consultant, who is looking only at the bottom line."

The residential interior designers say that hiring consultants is almost inevitable. "They are necessary evils whom we have to learn to work with—and control better," said Saladino, "because there's no way to keep up with the technology in lighting or audiovisual equipment." For example, for one client's 8,000-square-foot apartment, Saladino hired outside consultants for security, acoustics, air-conditioning, structural engineering, and exhaust venting. The danger, Saladino and Carlson pointed out, is that the consultant tries to get between the interior designer and the client. "A lot of consultants whom we need will try to get rid of you," said Saladino. "Clients think consultants know more than they actually do. So I have to be the keeper of the lock."

A matter of taste

The definition of taste, good or bad, played a large role in the panel discussion. The interior designers felt that they have it, while architects do not. They also agreed unanimously that it cannot be taught. "I think you are born with it," said Saladino. "It's a sensibility, a sensitivity to people and therefore to life and everything else. *(continued on page 178)*

SELECTED PROFILES

Michael Gabellini

After earning a bachelor's degree in fine arts and architecture at the Rhode Island School of Design in 1980 and studying at the Architectural Association in London, Michael Gabellini joined Kohn Pedersen Fox Associates for six years and worked as an architect and senior designer. He then collaborated with the late designer Jay Smith, producing retail, advertising, and residential designs in the New York area.

In 1991 he founded Gabellini Associates in New York City, making his mark creating boutiques and showrooms for fashion designers such as Jil Sander, Giorgio Armani, and Adrienne Vittadini, among others, as well as residences, exhibition and furniture design. He currently employs a staff of 25 full-time employees, including architects, project managers, and interior designers.

Gabellini, an AIA member, received the organization's Medallion Award for the 10,000-square-foot Jil Sander flagship store and showroom in Paris, completed in 1993 [RECORD, September 1993, page 90].

Margo Grant Walsh

Born on the Blackfoot Indian Reservation in Fort Peck, Montana, Margo Grant Walsh is a member of the Turtle Mountain Tribe of the Pembina Band of the Chippewa Nation. She earned her degree from the University of Oregon School of Architecture and Allied Arts in 1960, and worked for Skidmore Owings & Merrill's San Francisco office for 13 years before moving on to Gensler, where she has been for the past 24 years. Walsh is now vice chairman of the firm's board of directors and the managing principal of the New York office, which has 235 of Gensler's 1,200 staff members. She was inducted into the Interior Design Hall of Fame in 1986.

A specialist in corporate interiors, Walsh has watched the design business change radically over the past 35 years. "After the war, SOM made a strong effort to provide architecture that supported the businesses that were commissioning buildings—and it was very much the International Style. SOM had the idea to implement interior design in the same way, so the buildings would be modern inside and out," she explains. "That all changed in the late 1960s and early '70s, when more and more developers got into designing buildings and wanted to build the best building for the least amount of money.

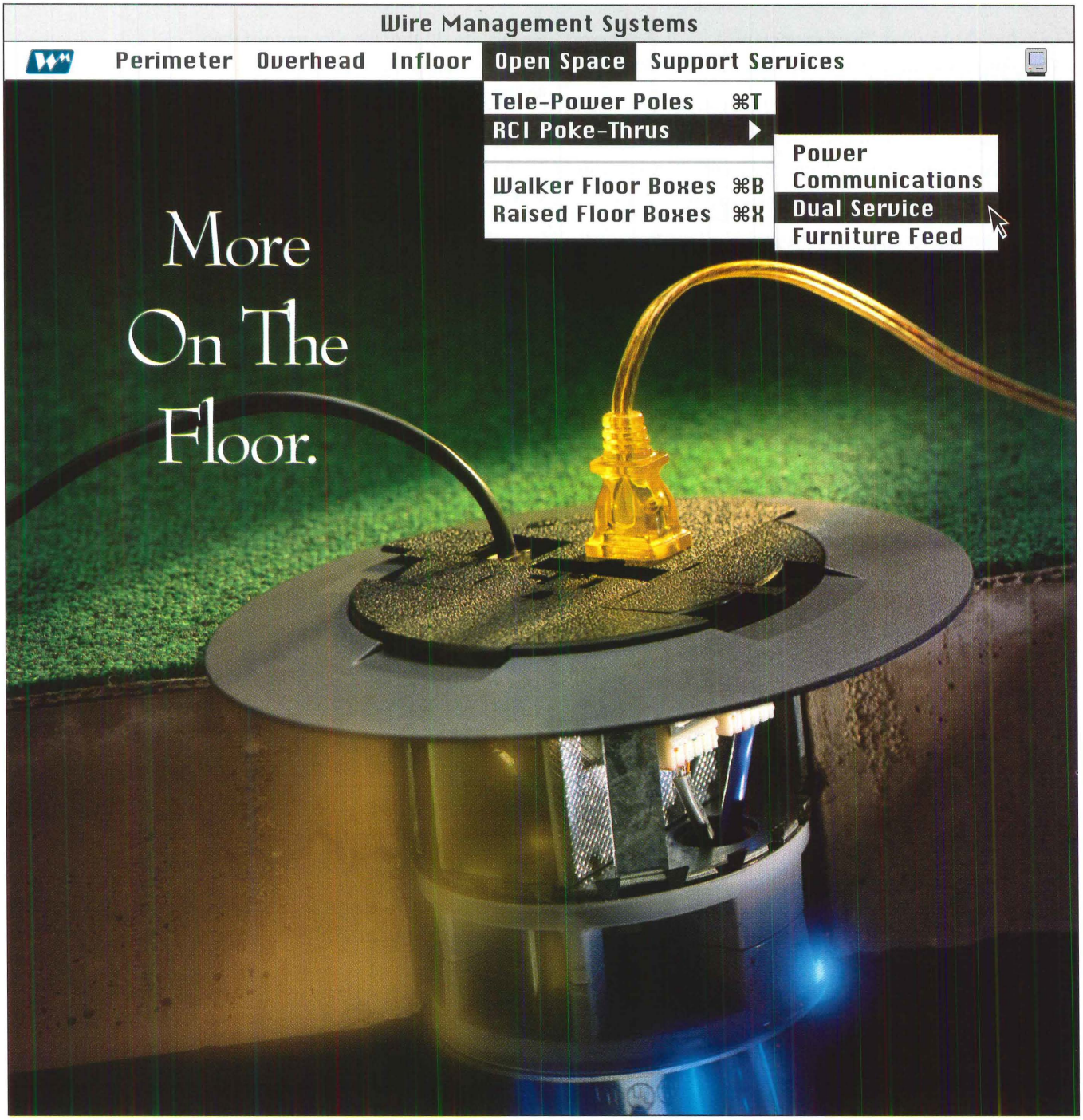
"My job is to fit the business in the shell, and it's not easy because of the giant scale—often 300,000 square feet. When you work at this scale, architecture and interior design aren't any different. You have to manage the process. You have to design it. And you have to implement it."

John Saladino

A native of Kansas City, Missouri, John Saladino graduated from Notre Dame University and went on to graduate study at the Yale School of Art and Architecture. From 1968 to 1969 he lived in Rome, working with Italian architect Piero Sartogo. He returned to America and opened his own design practice in New York City in 1972, but the experience in Italy still suffuses his work. There are always historical references in his designs, whether they are for chairs, buildings, office headquarters, or an 11,000-square-foot Palladian-style villa on the New Jersey shore.

"I was trained as a painter," Saladino says, "but I practice as an architect, an interior designer, and a landscape architect. My work is very dependent on classical references." He cites as inspirations the Villa of Mysteries in Pompeii and William Kent.

Saladino has 25 people on staff, including four architects, and does corporate, residential, and hospitality design. He is perhaps best known for his opulent residential projects, many designed from the ground up for wealthy clients across the United States, including some of the country's most prominent art and antiques collectors. After designing furniture collections for Dunbar, Bloomingdale's, and Baker, Knapp and Tubbs, Saladino started his own to-the-trade furniture company in 1987. *W.M.*



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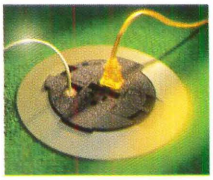

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Architects are culturally deprived. They are underpaid. They don't know art history. They don't travel, which forces you to be more objective about your own taste and teaches you to edit it."

"You can hone your taste, improve it, educate it, and refine it," said Easton, "but unless it's there to begin with. . . ." Orsini remarked: "I've often wondered if the division between design and architecture has to do with taste, because the people I see in schools who want to be designers, the ones who had no sense of taste to begin with, chose the path of architecture. This sounds terrible, but I see people going this way so they won't have to deal with taste or style. They can deal with form."

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Future shock

At the end of the session, moderator Ivy asked panelists to reflect on the future. In general, as they looked ahead, the interior designers were not optimistic. "Technology is going to change the way we produce a job," Easton said, yet he is wary about this. "I cannot hire someone trained in CAD and bring him or her into the office. I have to hire a designer and then let him or her learn the CAD system. Otherwise, there's something missing." "The design business is getting much more difficult," said Orsini, "because there are so many people who aren't qualified: the vendors, the people who supply us with services, the carpenters, the electricians. They are less educated and you have to sift through a lot more of them."

Walsh cited the unpredictability of business—her clients' businesses—as having an impact on her practice. "The biggest cost in business is not the real cost—it's the cost of change. If we start a project today, and the client moves in, in six weeks the situation could be totally different in terms of where my client is going. The office is not downsizing; the office is everywhere you go. It's in the airport. It's on your laptop. It's on your cell phone. You are never away from it."

"The democratizing of society will be the biggest change," said Saladino. "Before World War II, America was basically a two-class country. Architecture [and interior design] was practiced by people from usually affluent families who knew clients socially and the kind of lives they led. Things were built to last. Now we have a car mentality. You build what is expedient, and if it survives 30 years, fine. You have disposable buildings as you have disposable cars. The future for me is all constant fighting—for quality." Easton reacted: "The values, things lasting forever, the quality that we all grew up with, that we used to build with—is over. You throw the car out. You throw the kids out. You throw the wife out."

"It will be interesting to see how the professions change with the increasingly democratic, do-it-yourself, interactive, and customized media environment," says Ling. "Clients are accustomed to increasingly tailor-fit options in technology. Why not in architecture and interior design? Already Home Depot will design, deliver, and build your kitchen. You can order your drapes on the Net. The Home Shopping Network will form your space today and deliver it tomorrow. But who is training them?" ■

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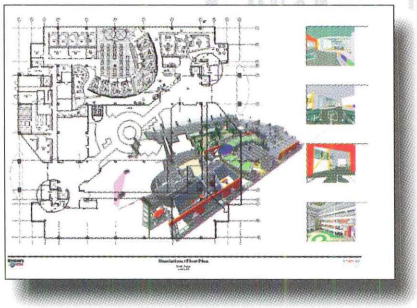

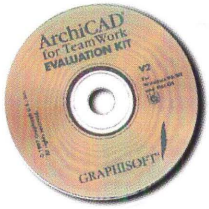

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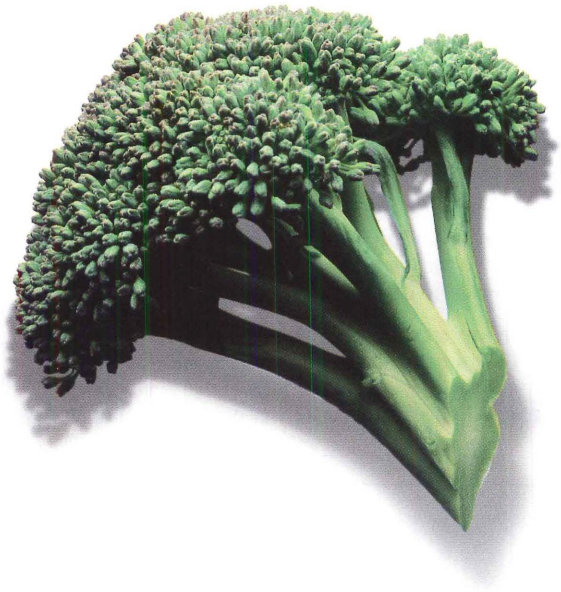

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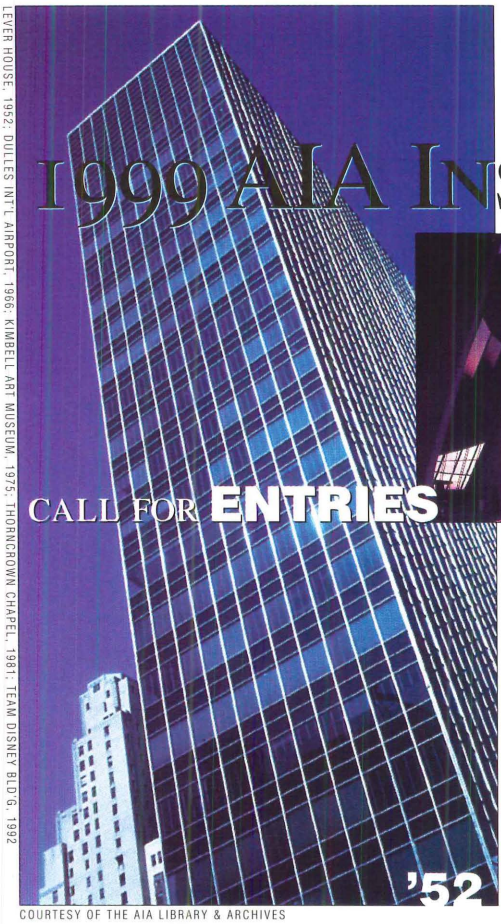

LEVER HOUSE, 1952; DULLES INT'L AIRPORT, 1966; KIMBELL ART MUSEUM, 1975; THORNCROWN CHAPEL, 1981; TEAM DISNEY BLD'G, 1992

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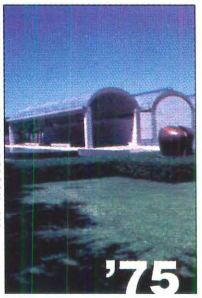

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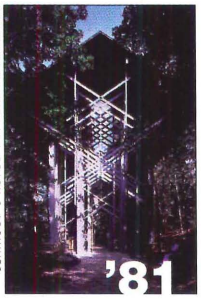

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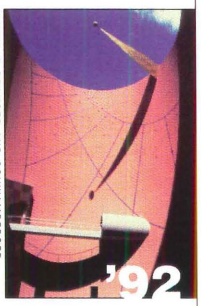

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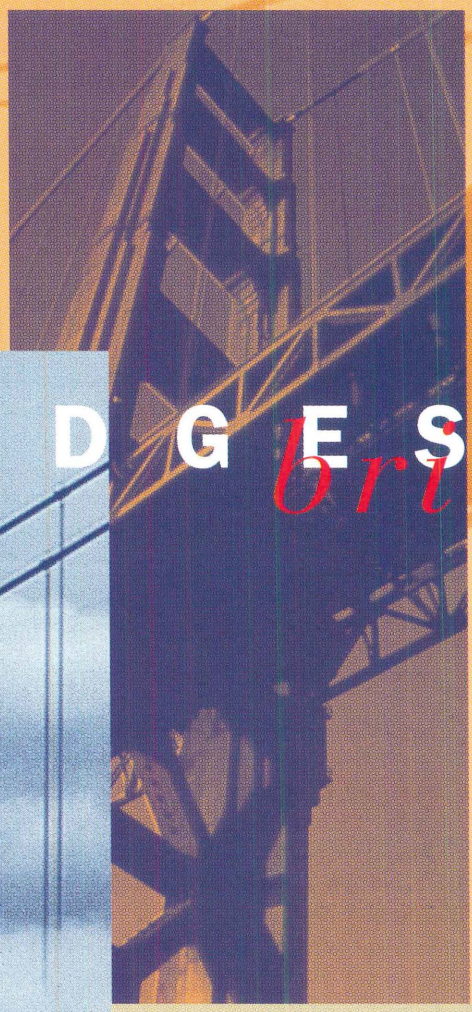

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AIA/ARCHITECTURAL RECORD CONTINUING EDUCATION

INSTRUCTIONS

- Read the article "The Nature of Green Architecture" (page 149) using the learning objectives provided to focus your study.
- Complete the questions below, then check your answers (page 190).
- Fill out the self-report form (page 190) and submit it to receive two AIA Learning Units.

Questions

1. List four developments that illustrate the increasing acceptance of green design.

2. Provide three examples of how regional factors may influence priorities in sustainable design.

3. Describe a system devised by the AIA for evaluating green designs.

4. Explain what a designer may encounter when first working on a sustainable project, and why environmental design may take longer than a conventional approach.

5. Describe what factors should be considered in evaluating green products.

6. Discuss the relationships between an architect and contractors, building inspectors, and bankers in regard to sustainable projects.

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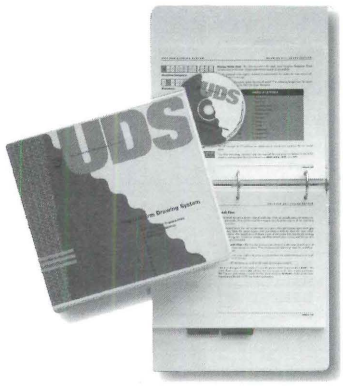

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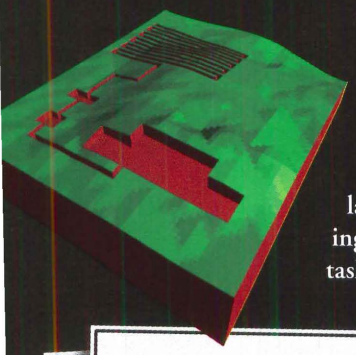

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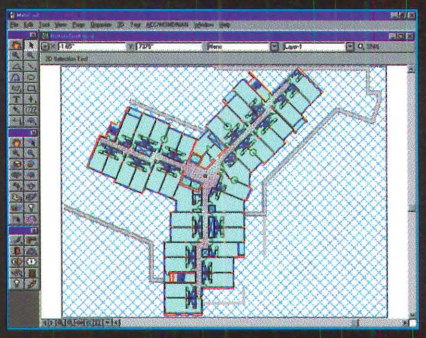

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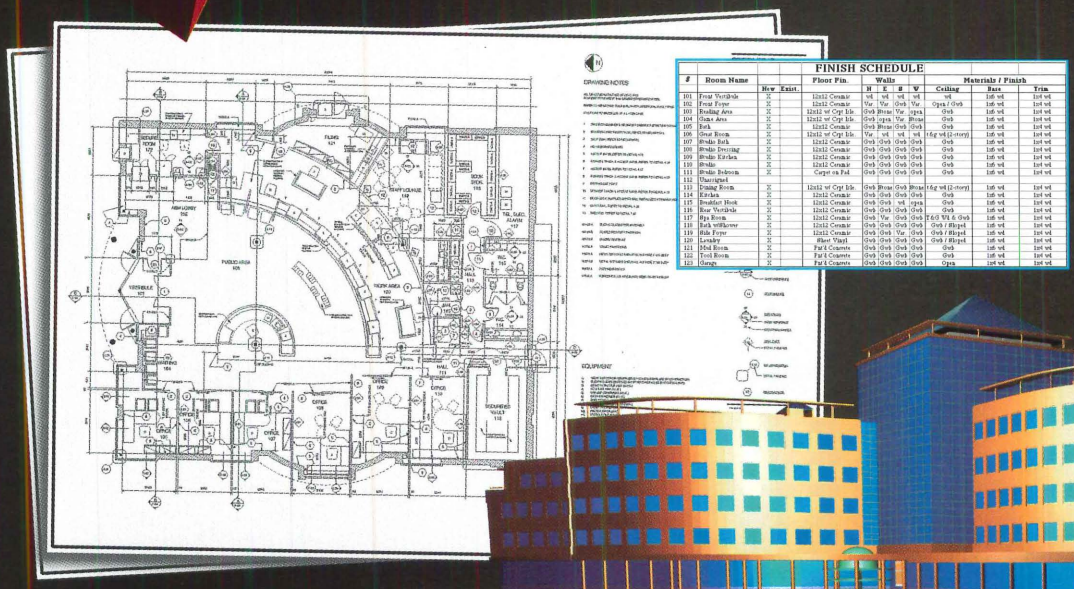

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AIA/ARCHITECTURAL RECORD CONTINUING EDUCATION

ANSWERS

To receive CES credits, fill in the self-report form below.

1. a) Prestigious design groups such as the Boston Society of Architects are now offering awards for sustainable design and the use of green products. **b)** Demonstration houses, like the one built by the Southface Energy Institute, are being developed that use experimental green technologies and materials. **c)** Programs such as EASE are working to devise a curriculum that will teach students how to combine architecture and environmentalism. **d)** Books and CD-ROMs on green materials are now being offered by such organizations as the Southface Energy Institute, the Center for Resourceful Building Technology, and the Rocky Mountain Institute, as well as the Environmental Building News catalog and newsletter.

2. In the North, efforts often focus on the heating system, in the Southwest on water conservation, and in coastal regions on site preservation.

3. The AIA Committee on the Environment has a system for evaluating different designs by rating such things as the project's energy efficiency (or its conformance with the ASHRAE 90.1 standard), proximity to mass transit, conservation of water and other resources, application of scientific discoveries and technological innovations, and affordability.

4. Designers new to this area will discover that "green" is a relative term and will probably have to develop their own systems for comparing product attributes. The value of some sustainable materials is readily apparent, while that of others is less obvious. Today there are so many green products that designers new to sustainable design need time to educate themselves on the subject through research. Locating needed information and products may add time to the design process.

5. Is it produced locally? Is it from a sustainable or renewable resource? Is it reusable or salvageable if the house must be disassembled later? Does it contain recycled products? Were toxic by-products created during the manufacturing process? How much energy is required to create the product? Is there any post-installation off-gassing? How easily maintained is the product? How long will it last? How available is the material? How easy is it to install, and how affordable is it?

6. The designer must look for a builder who has experience doing sustainable buildings from the beginning of the design process. The contractor's aid should be enlisted during code approval, particularly when building departments are unfamiliar with materials specified. Before field work, the designer must spend time educating inspectors. Education is also important when dealing with bankers and loan officers, who generally prefer proven approaches.

AIA/CES SELF-REPORT FORM

(Use to report learning units earned for Architectural Record only.)

Member information:

Last Name **First Name** **Middle Initial or Name**

AIA ID Number

Program/project title: Architectural Record (04.98)

☐ "The Nature of Green Architecture" (page 149)

Completion date (M/D/Y): _____ / _____ / _____

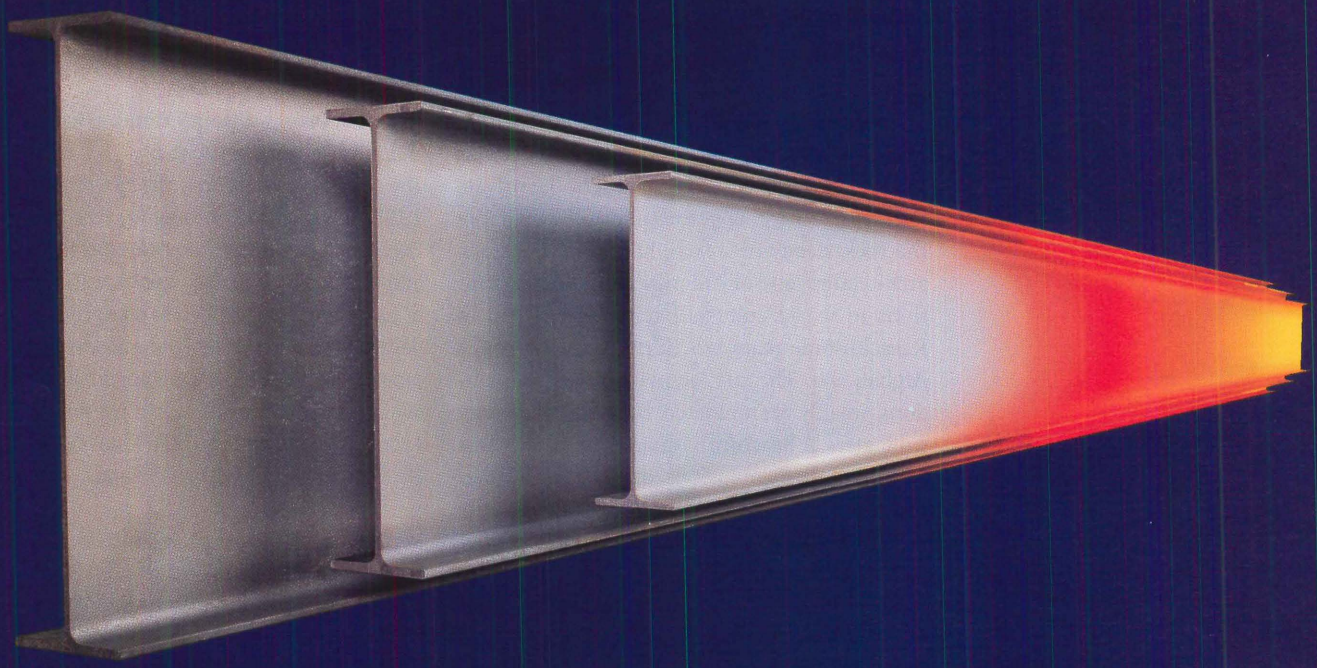
Quality Level (QL) of this program: The article will earn you a total of 2 LUs at Quality Level 2. (fill in:) ____ total LUs.

Quality Level of the article is 2. Material resources used:
Journal article. This program addresses issues concerning the health, safety, or welfare of the public.

I hereby certify that the above information is true and accurate to the best of my knowledge and that I have complied with the AIA Continuing Education Guidelines for the reported period.

Signature **Date**

Send completed form to University of Oklahoma, Continuing Education, AIA/CES, Room B-4, 1700 Asp Avenue, Norman, OK 73072-6400. Fax 405/325-6965. For additional information, call 800/605-8229.



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CIRCLE 75 ON INQUIRY CARD

MOST VISITED *continued from page 77*

mysteries of the second floor and the secret ceremonies of the Oval Office or the Rec Room, sites where we can attach our own conclusions about the most interesting aspect of the private lives of celebrity: appetites and follies. There's the rock-steady neo-class, homes-of-the-stars, architecture, one of America's signal contributions to world culture. I remember a trip to Karachi some years ago, during the days of the Afghan war. The city was awash with tremendous wealth accumulated by arms and drug smugglers. A beachfront quarter of the city was filled with their mansions, and the most magnificent of them was a preternaturally white replica of the White House at the correct five-eighths Disney scale.

"America's White House bears the stamp of every president," reads the guidebook. Some, of course, leave a greater imprint than others and decorating doesn't seem to be a particular passion of the current occupants. Elvis—after buying it from some local patricians—moved into Graceland and really redid the place. If the White House is a shrine to the genteel styles of the early Republic, Graceland is a Mecca of High Tack, just the decor to go with sequined jumpsuits and pink Cadillacs. Never mind the mirrored walls and carpeted ceilings, the effect was very much like my White House visit, at least structurally. Whatever one's decorative sensibilities, these are both places deeply invested in period. Never mind that one is done in Empire Bleu and the other in Avocado Green and Harvest Gold; this is taste that is definitely not of our time.

On the side of purer pleasure, the standard scenes of the American presidency include the White House pool (think JFK skinny-dipping with Fiddle and Faddle) and the private screening room (think of Nixon and Kissinger watching *Patton* for the umpteenth time). Elvis's screening room—done in delicious Mod Squad style by Memphis decorator Bill Eubanks—even incorporates presidential technology, the triple TVs that Elvis had admired in the LBJ White House (although Elvis used his to watch not the three networks' news but a simultaneity of football games). Elvis had just what the president has (and it's all on display at Graceland, including the private jet) and he lived the style to the hilt, a wiggling dervish of sociability wading through a crowd of sycophants and hangers-on.

One of our national myths is that anyone can grow up to occupy the White House. As Graceland makes abundantly clear, you don't even need to be president to do it. ■

DATESEVENTS

(continued from page 56)

Architecture + Energy Competition
Submission deadline: June 5
The AIA has announced a call for entries for the 1988 Architecture + Energy Awards: Building Excellence in the Northwest, for the successful integration of outstanding design with energy-efficient technology. Open to completed nonresidential new construction and major renovation projects in Idaho, Montana, Oregon, and Washington. Write AIA/Portland, 315 SW Fourth Avenue, Portland, Oreg. 97204; call 503/223-8757; or E-mail aeprogram@aiaportland.com.

Vital Signs Student Competition
Submission deadline: June 15
The Vital Signs Project, administered through the University of California, Berkeley, announces its 1998 Student Case Study Competition. Undergraduate and graduate students in ACSA member schools of architecture and ABET member schools of architectural engineering in the U.S., Canada, and Puerto Rico are asked to investigate, measure, evaluate, and report on the performance of existing buildings. Write Gail Brager, Vital Signs, UC Berkeley, Berkeley, Calif. 94720; E-mail vitalsigns@ced.berkeley.edu; or visit www.ced.berkeley.edu/cedr/vs/act/act_main.html.

Boston Society of Architects Design Awards
Submission deadline: August (unbuilt awards); September (honor awards)
The BSA's Architectural Design Honor Awards program is open to all Massachusetts architects' projects anywhere in the world and to all architects who have designed built projects in Massachusetts. The Unbuilt Architecture Design Awards are open to architects, architectural educators, and students anywhere in the world. Call BSA at 617/951-1433 x221; fax 617/951-0845; or E-mail bsarch@architects.org.

Membrane Design Competition
Submission deadline: September 2
This year's Membrane Design Competition, sponsored by Taiyokyogo Corporation, honors the creative design of airport structures using membrane. Write Membrane Design Competition, 4-8-4 Kigawa-higashi, Yodogawa-ku, Osaka 532-0012, Japan; fax 011/81-6-306-3154; or E-mail mh_001600@fc.taiyokogyo.co.jp.

Please submit information for exhibitions, conferences, and competitions at least six weeks prior to the magazine's publication date (i.e., May 15 for the July issue).

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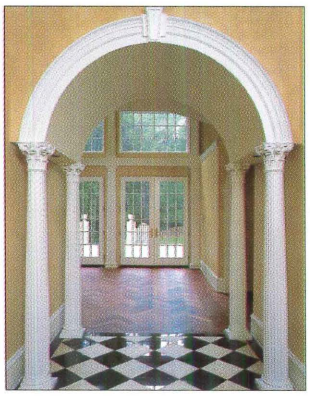

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CIRCLE 150 ON INQUIRY CARD

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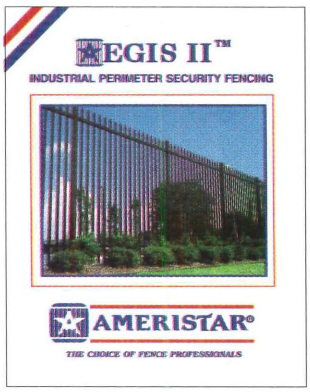

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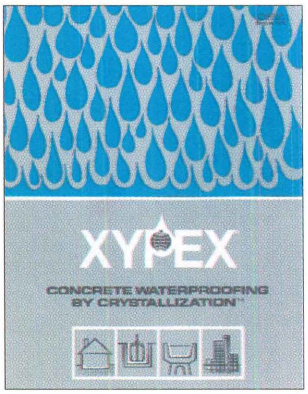

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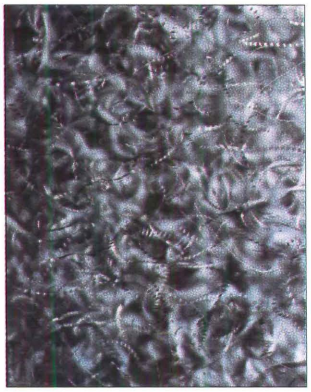

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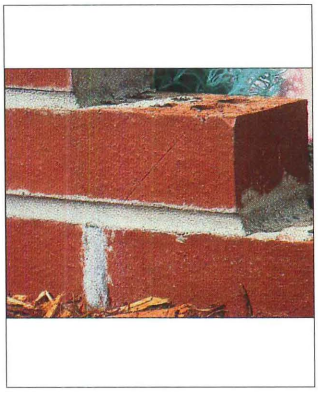

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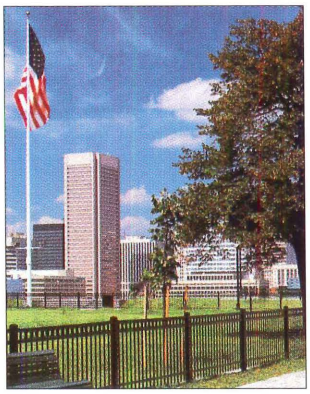

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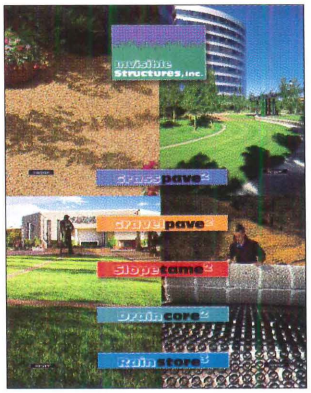

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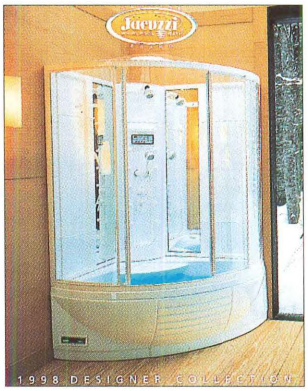

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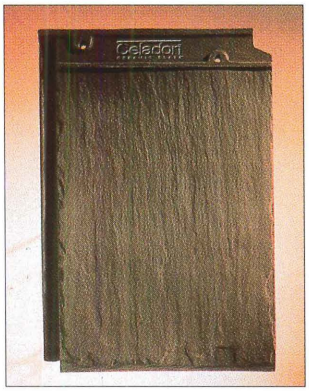

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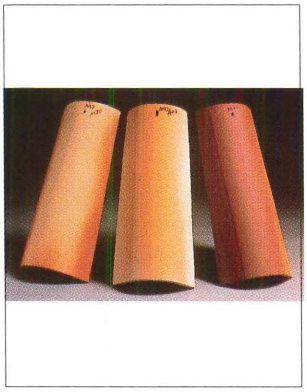
Ludowici Roof Tile



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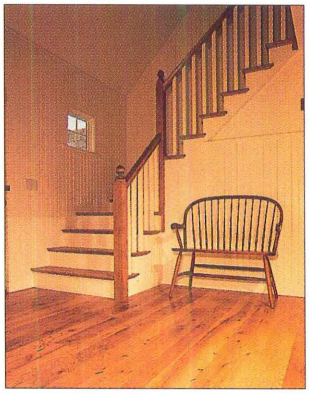

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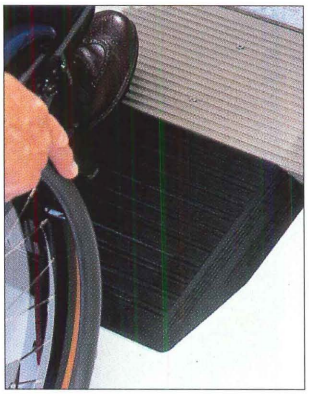

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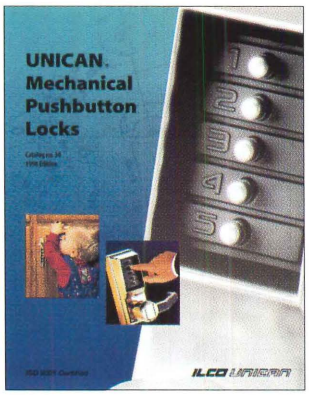

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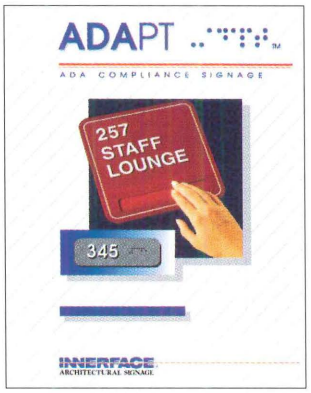

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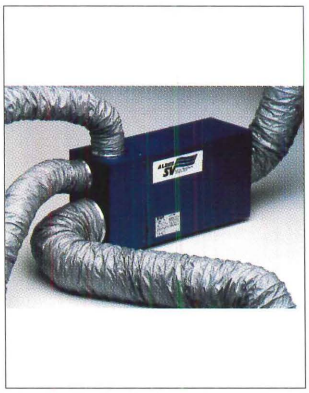

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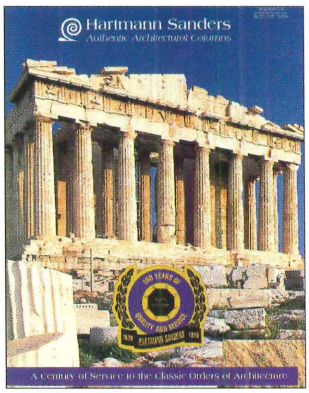

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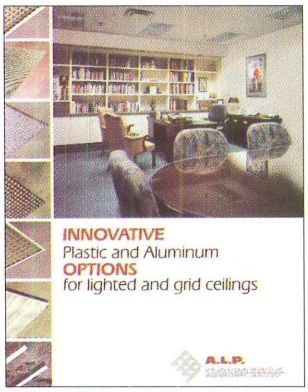

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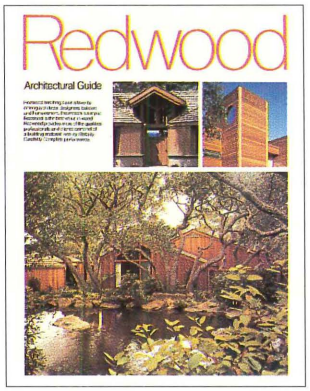

Redwood Architectural Guide--Eight-page color booklet. Provides technical information for specifiers. A guide to properties, grades, sizes and patterns of redwood lumber. Easy-to-use charts and drawings of redwood siding and paneling sizes and patterns. Recommends finishes and hardware.

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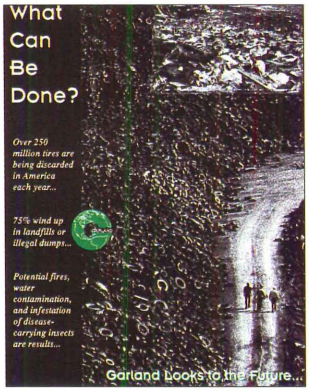

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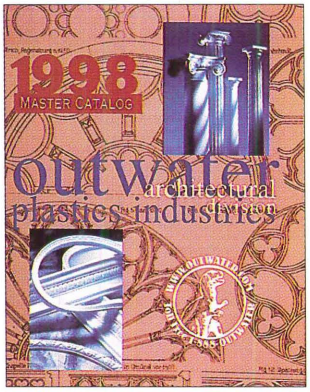
1998 Master Catalog



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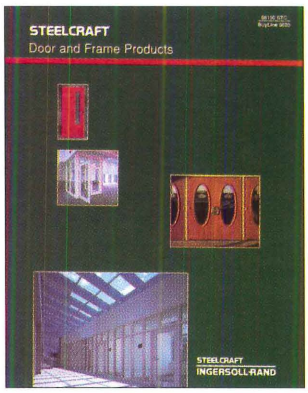
SteelCraft Product Guide #613



The Steelcraft Product Guide is designed with the architect, & design community in mind. Product specifiers can find basic door & frame specs in a special chart. We have included a "Relative Cost Chart" that shows the cost comparison between various Steelcraft products. We include Steelcraft product specs; fire label charts; door & frame selection charts; handing charts; & info service list.

Steelcraft

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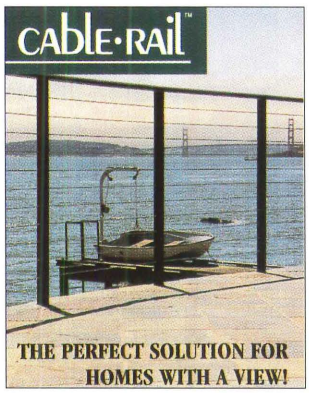

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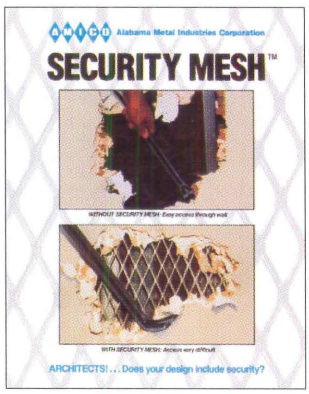
Security Mesh



Security Mesh sheets are steel mesh panels used as a penetration resistance shield behind drywall finishes. Sheets are to be attached to metal studs & track or wood supports designed for use in walls. Uses: Prisons, government offices, stripmalls, storage rooms, computer rooms, courthouses, apartments, condos, pharmacies, mail rooms, airport security, banks, hospitals, police stations & office security.

Amico

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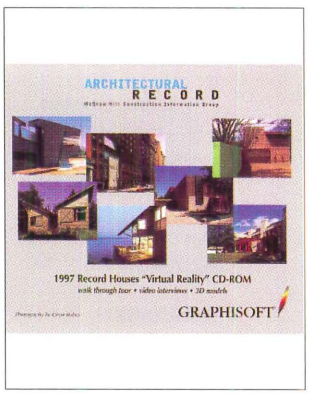
Record Houses "Virtual Reality" CD-ROM



A room-by-room tour, with architects discussing their creative and product decisions. Click and zoom and move around objects via QuickTime©VR. Architectural Record worked closely with Graphisoft©, using ArchiCad©, to produce an interactive CD-ROM house tour that includes photos and excerpts from the articles from the April '97 issue. For Windows and Mac. $24.95. Record Houses CD-ROM, Rm 1448, 1221 Ave of the Americas, NY, NY 10020.

Record Houses

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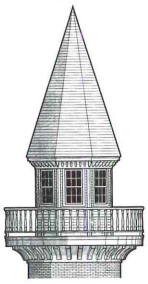

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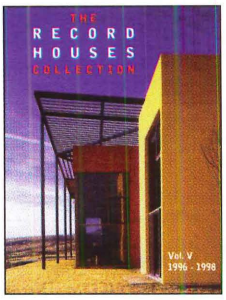

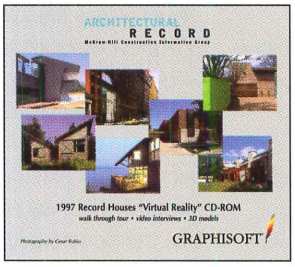

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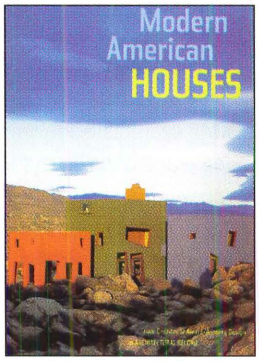

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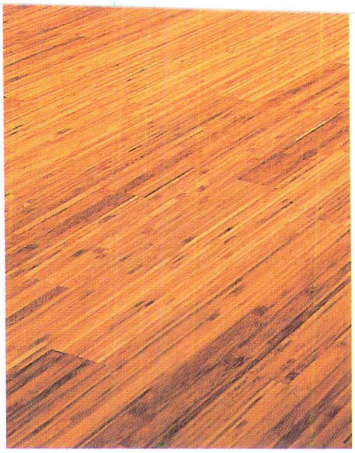
THE FUTURE Will bamboo, an ecologically sound alternative and a renewable resource, become the norm?

BY ELANA FRANKEL

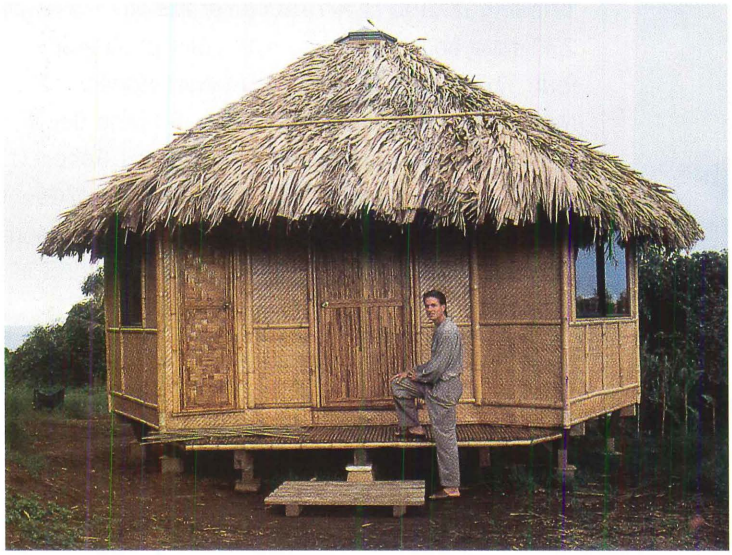


To help ensure a sustainable future, architects and product manufacturers have begun to collaborate in developing environmentally responsible building systems and materials. Some forward-looking thinkers are working with alternative products like reclaimed timber, recycled plastics and paints, straw-bale housing, solar panels, and natural floor and wall coverings [see "The Nature of Green Architecture," page 149]. But others are working even beyond the accepted alternatives of their peers.

One example is the small but growing group of designers who are working with bamboo, a species of grass that grows anywhere from one foot tall to giant timber more than 100 feet high. The material—a hard, strong, dimensionally stable building product—is a natural and sometimes prominent part of the landscape that matures in three years, regenerates without replanting, is fungus-resistant, and requires little fertilization or pesticides. In many parts of the world, bamboo has long been the primary building material. In cities like Hong Kong and Saigon, there is a noticeable juxtaposition of bamboo scaffolding and modern high-rise materials.

In the United States, with its strong history of building with wood, bamboo hasn't quite outgrown its hippie affiliation. But that's beginning to change. A few years ago, there were only a few bamboo flooring distributors. Today there are eight, and support services and information on the material have expanded. Trade shows and conferences, as well as consumer magazines, now feature and promote bamboo's widespread use.

American bamboo lovers, affectionately known in the industry as bambuseros, include Doug Lewis, co-founder of the Seattle-based company Bamboo Hardwoods and its sister factories in Oregon, Vietnam, and Indonesia. The company manufactures a variety of products, such as prefabricated bamboo houses and structural bamboo poles. But it is the company's flooring systems—including laminated long-strip, rubber-backed, and solid-strip flooring—that are doing the briskest business.



Like an age-old family recipe handed down through the years, the manufacturing process begins with hollow round bamboo shoots that are sliced into strips, boiled to remove starch, dried, laminated into solid boards, milled into standard strips, and treated with a preservative. The installation process is the same as with standard hardwood flooring (nail, sand, and coat), and three finishes are available: Swedish (the most common, although it involves harmful off-gassing), waterborne (whose durability is questionable), and oil-borne (which is 100 percent plant extract and has obvious environmental advantages). Like traditional wood floors, bamboo can be purchased unfinished, prefinished, bleached, or stained, and it costs $4 to $8 per square foot.

Hawaiian architect David Sands, who has worked in partnership with Lewis and construction manager/consultant Jeffree Trudeau to create prefabricated bamboo houses (above), is interested in developing bamboo's potential as both a high-end construction material and an attractive product for use in affordable housing.

The trio has created three bamboo structures. The first is an outdoor gazebo with a roof over a platform, bench, or table. The second type, made of ferro-cement and bamboo, is the only bamboo housing structure permitted by Hawaiian building codes. The third is a fully enclosed, weatherproof bamboo house, a pure bamboo structure that is currently in the middle of a long, painstaking permit process.

Sands and Trudeau have set up three bamboo test houses on the island of Maui, each measuring 230 square feet and costing about $15,000 to erect. However, Sands believes it will be at least another two years before American building codes are modified to allow for their use. "It's a challenge. There are great international studies on bamboo and some from the University of Washington, but no standards are in place yet," he laments.

This setback hasn't stopped the dedicated bambuseros, however. Lewis has more products in development, including bamboo dowels and structural building products such as trusses, reinforced particle board that can span great distances without deflection, laminated beams, and bamboo-covered recycled tire rubber for floors and vaulted ceilings.

With architects developing new designs and distributors creating a market, bamboo products are starting to see a profit. But bamboo enthusiasts are interested in more than dollars. Lewis, for example, wants to reforest parts of this country's Southeast, where bamboo is indigenous. "We want to have a mill [there]," he says, "and revitalize the economy and infrastructure. Most of all, we want to heal the soil." ■