



ARCHITECTURAL RECORD

Architecture for **REMEMBRANCE**

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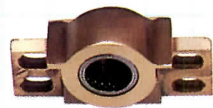
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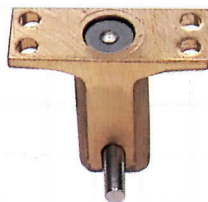
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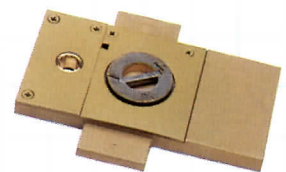
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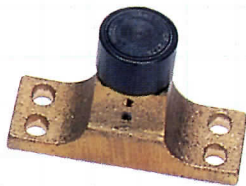
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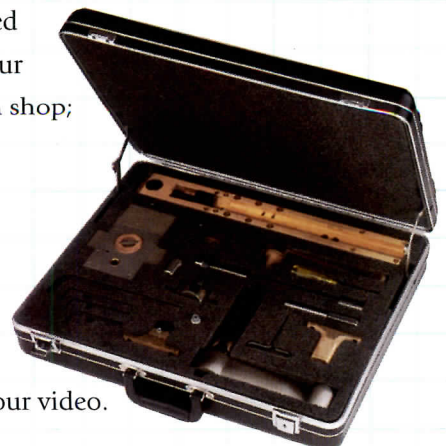


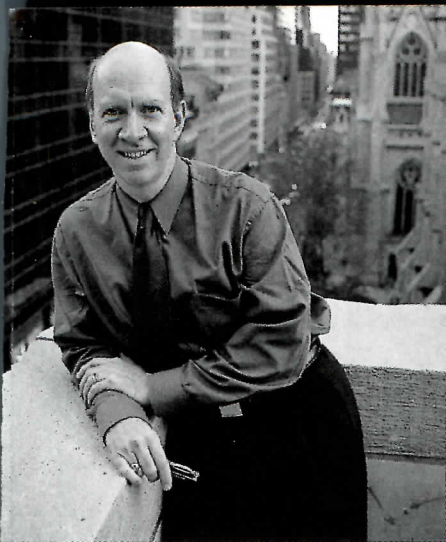
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A Singular Voice

Editorial

By Robert Ivy, FAIA

O utsiders say that architects spend too much energy giving each other prizes, but when Glenn Murcutt won the Pritzker Architecture Prize this year, you could almost hear the cheers. They came from architects throughout the world who admire his work, hail the timeliness of its selection at this cultural moment, and applaud the man himself.

In one sense, Murcutt represents the architect as strong individualist—a countertrend these days. In fact, to hear him speak, it is clear that he is a fighter for principles as much as a designer. While all of our responsible professional conversations tout collaboration, groupthink, and complexity, Murcutt practices architecture alone, out in the boonies, from a single small room. Although he and his wife, the architect Wendy Lewin, have worked together successfully on architectural projects and Murcutt has joined forces with other talented firms, it is his singular, prophetic voice from Down Under that demands attention.

What could be more “out there” than rural Australia? In fact, at a recent summer course at Harvard featuring architects who practice outside the centers of fashion, every head nodded when Murcutt’s name came up. Brian Mackay-Lyons, whose life and work center on another semiremote terrain, Nova Scotia, summed up the sentiment in the room when he described Murcutt as a mentor for himself and for others like him. “He’s my man,” he said.

Architects around the world admire Murcutt’s tough adherence to design ideals focused on specific place. The late J. Carter Brown, who chaired the Pritzker jury, encapsulated the winner’s accomplishments in plain language: “He is an innovative architectural technician who is capable of turning his sensitivity to the environment and to locality into forthright, totally honest, nonshowy works of art.”

Murcutt has managed to blend contemporary architectural language and thought into structures that comfortably inhabit the Australian landscape. His presentations evoke the vivid contrasts and rich natural settings of the native provinces that he builds in. Although he has witnessed a proliferation of imitators, no one makes a Murcutt house better than

Murcutt. Typically, in response to the landscape, the structures stretch horizontally, narrow shedlike forms perched just up off the earth, fully open along one dimension to admit light and air. Like articulated dragonflies, they appear to have zoomed in and alighted there.

A passionate environmentalist, the architect’s concern extends to the materials he chooses to use, including galvanized iron, stone, glass, brick, and concrete. Few of his houses contain any form of mechanically tempered air, relying on orientation and prevailing breezes to do the work. Overhanging roofs, jalousies, operable window walls, and other strategically placed openings are accompanied by small stoves to take the chill off.

Unlike others who have broadened their palettes to encompass all types of work, who say “yes” to almost any job, Glenn Murcutt has limited his range. Houses for private clients have provided the bulk of his commissions, with only the occasional exception: The Boyd Education Center, produced in collaboration with Wendy Lewin and Reg Lark, has been hailed as a masterwork of congregate living, an unapologetically Modernist essay set in a fragile landscape.

Formally, Murcutt’s work manages to incorporate regional influences without appearing regionalist. Informed by Mies and other Modern masters, spare and rigorously unsentimental in his designs, Murcutt has avoided the vernacular trap that lay at his doorstep. By aligning his projects with larger intellectual currents and interlacing the fabric of design with strong ideas, his work stands apart, both resolute and as light on the ground as he describes it.

How fitting that this tractor-driving, hardheaded, generous man, who never gave an inch, should be singled out at Michelangelo’s Campidoglio in Rome. Sometimes awards can give a message, and the Pritzker for Murcutt cuts to the architectural core.

Criticism of criticism

In the film *What Happened to Kerouac?* Louis Armstrong is quoted as saying, "If you've never heard it, you'll never understand it." In architecture, I think some modern architects like Sullivan, Wright, Aalto, Kahn, Moore, Eames, and even Corbu, all heard it, saw it, understood it, did it, wrote about it, and then tried to teach or bring it to us.

The vapid book review of Christopher Alexander's *A Pattern Language* and *The Nature of Order* in your May issue [Commentary, page 93] firmly establishes that William Saunders and his ilk of misery will never get it, and therefore have little to contribute to the real challenges of our profession. Like a rat nibbling at left-out cheese, Saunders wastes over half

of his diatribe on a superficial review of the 30-year-old *A Pattern Language* as weak setup to sucker punch the overtly personal *The Nature of Order*. Then, with blindfolds firmly in place—like a culinary critic who hermetically seals his nose and tongue in order to deny the experience of taste or smell—Saunders reveals simple ignorance as he slips into the ridiculous with statements such as, "The ideal life for Alexander is California/Mediterranean—comfortable, easygoing, sensuously pleasurable, communal, and full of leisure time." (Okay, so he is the editor of that East Coast university *Design Magazine*). In the end, unlike the naively flawed but intellectually generous books subject to his review, Saunders leaves us with

absolutely nothing creative with which to move forward—except that we better make sure that "Deconstruction" is spelled properly and, of course, capitalized. Rather than providing insight or knowledge, Saunders chooses to leave us empty with a suggested vision of an architectural ideal that should ridicule and deny emotion, human experience, the search for beauty and the betterment of the human condition, only to wallow in a sea of his architectural mental masturbation and pseudo-intellectual elitism. (Okay, so he is the editor of ...) Unlike the modern architects I mentioned above, William Saunders will never "understand it," because he simply can't see it, not without the intervention of the most gifted cranial proctologists on earth. But

there is hope, for I know there are still some very "bright" minds at Harvard these days. Let's go surfing now!

—John M. Lucchesi, AIA
Calif.

Happy with Horyuji

What a pleasure to see the Horyuji treasure house on the cover of ARCHITECTURAL RECORD [June 2002], and inside, a beautiful description of one of the finest recent examples of modern architecture abroad or in Japan. I was deeply moved by the spare and serene perfection of this work during my first visit to Japan in the winter of 2000–2001, and I am thrilled that an American magazine has honored it. Thank you.

—Wendell Burnette
Phoenix, Ariz.

wide fo

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Immaculate spaces

I would like to share some of my thoughts on ARCHITECTURAL RECORD that I have been building up in my mind for some time. Firstly, I would like to assure you that I think the magazine is the best it has ever been.

Now to my point in writing. I remember when I was a small child, and some of my happiest times were my visits to my grandparents' house. The house had a fairly large living room with a pair of French doors with many small glass panes.

The real point of this story is what I saw through the glass. As the years passed, every time I looked, the room was always the same.

The room and its furnishings never changed, because no one was allowed into the room.

What brought on this childhood memory was looking at the many photographs of building interiors in your issues. They are usually well-designed spaces, but they are so pristine, so immaculate, so sharp and precise, and so *empty*. They are almost always devoid of any human

content. It is as if I am again looking with my nose to the glass at a lifeless space.

I was taught, and I have always believed, that the beauty of our profession is the fact that we are the only major art to respond to the needs of people. In fact, those projects you feature do this well enough to win awards for their design, but why are we afraid to show the people *using* the spaces?

That is the true measure of their design. People lend not only scale to a space, but they add *life*—and that's what we are all about.

—David R. Dibner, FAIA
McLean, Va.

Visions appreciated

Robert Ivy's editorial in the May 2002 issue [page 23] is at once expansive, refreshing, and visionary. It is well worth reading over again, as I have done several times.

I can only hope the commissioning authority for the World Trade Center, when chosen, can look at the big picture, the international one

included. September 11 shook and tore at the very foundations of free society across the world.

—William Schnabel, AIA
Sydney, Australia

One size doesn't fit all

I wanted to thank you for your great article regarding small, medium, and large firms ["Is Growth a Burden or a Blessing?" May 2002, page 190].

As a recruiter for a consulting firm, I find that my clients want success and profitability, but often it is their core staff who suffer, with long hours and little pay. While most of the architects I interview are very passionate and committed to a career in architecture, they continually ask me, "Is it possible *not* to work 70-hour weeks?"

For a profession as complex as architecture, a profession that requires training comparable to that of a physician, you would think we could find a way to reward members of the industry for all their hard work. They must love it for the work, since the salary is almost insulting.

I imagine this will be discussed over and over in the years to come. Maybe there will even be solid solutions. Until then, I thank RECORD for recognizing that there are people performing this work, not machines.

—Mindy L. Weiss
Granet & Associates
Santa Monica, Calif.

Corrections

In the Timothy Dwight Elementary School feature in our February 2002 Issue, we failed to include TAMS Consultants as the architect of record [page 104]. In our "Small, Medium, and Large" feature in the May 2002 issue [page 190], the architecture and engineering firm HarleyEllis should have been listed as located in Southfield, Michigan. In June 2002 News, in the article entitled "Plans for Pentagon Memorial Competition" [page 37], a Web site's URL should have been listed as <http://pentagonmemorial.nab.usace.army.mil>.

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SPECIAL REPORT



SOM's design may resemble Nouvel's 1988 Tower of Infinity (above, unbuilt).

SOM designs WTC skyscraper for Silverstein

Although Beyer Blinder Belle is developing a World Trade Center (WTC) site master plan for the Port Authority and the Lower Manhattan Development Corporation (see interview, below, and commentary, page 124), WTC leaseholder Larry Silverstein has his own plans to throw in the mix.

The New York office of Skidmore, Owings & Merrill (SOM), led by partner David Childs, FAIA, has been working for Silverstein since last fall and has developed a general land-use plan that includes

a skyscraper that would be comparable in height to the WTC towers.

As RECORD contributing editor Blair Kamin, architecture critic of the *Chicago Tribune*, originally reported in the *Tribune* on June 6, the tower would be approximately 1,300 feet tall (the WTC towers were 1,368 and 1,362 feet tall, respectively) with up to about 70 occupiable floors and another 40 floors of structural skeleton that could be lit from within. The form of the tower would change from rectangular at the base to more

rounded near the top. Childs shared the plans with Kamin this spring.

Childs's design is for a tall landmark that would allow for dramatic lighting at the top yet acknowledges that office space above the 70th floor would be difficult to lease, especially at the WTC site. The concept for the top of the tower would resemble a design by Jean Nouvel (left) for the Tower of Infinity, planned for Paris's La Defense in 1988 but never built. *John E. Czarnecki, Assoc. AIA*

Beyer Blinder Belle partners talk to RECORD about momentous undertaking—the Lower Manhattan plan

A team led by Beyer Blinder Belle with Parsons Brinckerhoff was selected in May to develop a master plan for the World Trade Center site, taking into consideration all of Lower Manhattan, for the Port Authority and the Lower Manhattan Development Corporation (LMDC). The urban design team is releasing six alternative plans this month, and the final master plan will be complete by the end of the year. As they began the planning process in June, Beyer Blinder Belle partners Jack Beyer, FAIA, and John Belle, FAIA, spoke with RECORD news editor John Czarnecki.

ARCHITECTURAL RECORD: In a planning project of this scale and complexity, what models or precedents are you looking at?

JACK BEYER: London and Berlin, devastated by the Second World War, are the two cities that we applaud as inspirational. These two great cities have demonstrated successful recovery and a constructive attitude toward development and

contemporary technology within transportation, planning, and architecture. We feel that there is a lot to learn there because of the nature of the tragedy that they survived.

RECORD: In terms of your firm, are all three of the name partners working on this project?

JOHN BELLE: Yes, Jack is the partner in charge and devoting his full time to it. I'm spearheading the urban design component. Dick (Blinder) is heading up the cultural-institution component of it, even though we're not quite sure what that is yet.

RECORD: How many people on staff are going to work on this project?

BEYER: It's growing. To put a number on it is very hard because it's evolving and changing. Although we have a contract, it's such a fluid, expanding series of tasks that it's hard to say.

RECORD: Your six alternatives may include residential, office, retail, and institutional uses—can you say how much of each use will be proposed?

BELLE: It's unknown.

RECORD: Unknown to the public until alternatives are presented in July, but to what degree has a program of uses been defined at the onset by your client, the Port

Authority and the LMDC?

BELLE: We'll look at a wide range of ideas that will absolutely include a multitude of uses and a variety of quantities of uses.

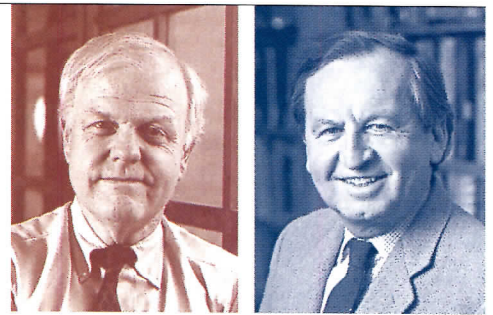
RECORD: SOM has already completed planning work (see story, above) for the site for Larry Silverstein, the leaseholder. How does that work influence what you are doing now?

BELLE: We're going to have a briefing, and we can take it all under advisement.

RECORD: It's simply under advisement?

BELLE: Absolutely.

RECORD: Critics say that your firm, which completed the renovation of Grand Central Terminal, is more experienced in historic preservation



Jack Beyer (left) and John Belle.

work than urban design and planning. How do you respond?

BELLE: It's such a narrow interpretation of what we do. Grand Central happens to be a great civic project that has tremendous complexity. Labels are very convenient, but sometimes they're very inaccurate.

RECORD: Herbert Muschamp, The New York Times architecture critic, wrote a very critical piece about your firm's selection in May.

Terence Riley, chief curator of architecture and design at MoMA, was quoted in a June article in New York Newsday as saying, "Nothing gives me the confidence that the result will be something worthy of New York." Do you have any response to that harsh criticism?

BELLE: Nothing whatsoever.

Record News

OFF THE RECORD

Santiago Calatrava has been selected to design a \$240 million concert hall for the Atlanta Symphony Orchestra. He was chosen in a competition over finalists Bing Thom, of Vancouver, British Columbia, and Schmidt Hammer & Lassen, of Denmark.

New York's Lincoln Center has selected three finalists—**Sir Norman Foster**, **Rafael Moneo**, and the team of **Richard Meier and Arata Isozaki**—for the redesign of Avery Fisher Hall, home of the New York Philharmonic Orchestra. The finalists will develop design proposals and present their schemes in September. They were selected from a field that had included **Christian de Portzamparc**, **Toyo Ito**, **Rem Koolhaas**, **Jean Nouvel**, and **Skidmore, Owings & Merrill**.

Target Store has announced the **Michael Graves Dream House Sweepstakes**. Each couple registered in Target's wedding-gift registry from March 1 to the end of the year is eligible to win a house designed by Graves.

Although it doesn't have a major-league team yet, the Virginia Baseball Stadium Authority has named four finalists for the design of a new ballpark in Northern Virginia—**HKS**, of Dallas; **CDFM 2**, Kansas City, Missouri; **HOK**, Kansas City, Missouri; and **LDA Companies**, Pittsburgh, with **Robert A.M. Stern Architects**, New York.

New York's Whitney Museum of American Art is planning a **John Hejduk** retrospective show, September 21, 2002, to January 5, 2003, and the first American museum show of the work of **Diller + Scofidio**, March 1 to June 1, 2003.

J. Carter Brown, director of the National Gallery of Art in Washington, D.C., from 1969 to 1992, chair of the Commission of Fine Arts for 30 years, and a Pritzker Prize juror, died June 17 at age 67.

Piano addition for Meier's High Museum

Renzo Piano has unveiled his design for a \$130 million expansion of the High Museum of Art and Woodruff Arts Center in Atlanta. The plan adds three new buildings to Richard Meier's 1983 white enamel-panel-clad building, considered one of his signature works. Piano was selected after a brief search, and Meier was not consulted by the museum about the expansion. Completion is planned for 2005.

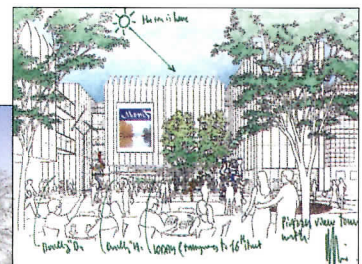
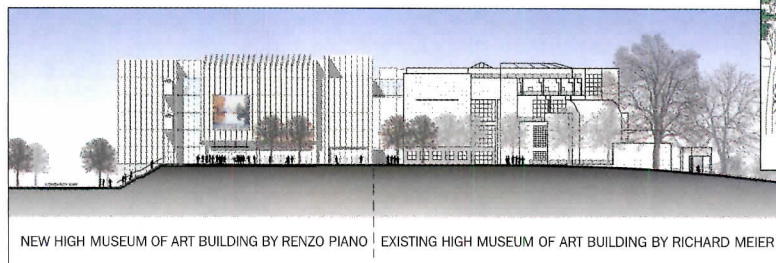
More than doubling the existing museum space, Piano's design encompasses a main pavilion, a special-collections building, and an administrative-office building that will be the same height as the Meier



Meier's High Museum (above) will have a significant addition by Renzo Piano.

building. The main pavilion will feature a light-filled lobby with outdoor terrace, retail shop, coffee bar, and visitor amenities. Glass-enclosed bridges will link the main pavilion to the Meier building at the lobby level and on the top floor, as well as link the second and third floors of the main pavilion and special-collections building. Top-floor galleries in the two buildings will house part of the museum's permanent collection. Temporary exhibitions will be on the main pavilion's second floor.

Clad in Marmorino, a light-colored plaster mixed with marble dust, the addition will form a "village of the arts" surrounding Meier's flagship with a series of piazzas and terraces connecting the buildings. A new residence hall and sculpture building for the Atlanta College of Art, also designed by Piano, are under construction nearby. *William Weathersby, Jr.*



The Piano addition (above) will include an outdoor terrace next to the museum.

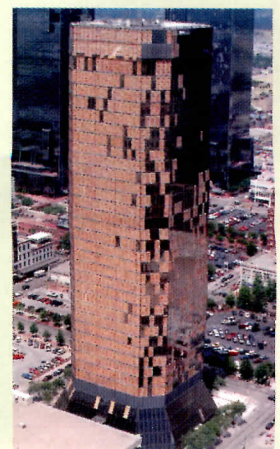
37-story Bank One Tower remains shuttered in Fort Worth

No gem to begin with, the Bank One Tower (as seen in 2001, below) has now become an eyesore, looming over downtown Fort Worth with Darth Vaderish menace. Since being hit by a tornado in March 2000, the 37-story glass skyscraper designed by John Portman has stood boarded up and empty—a truncated rocket without a mission.

Although the tornado blew out most of the tower's windows and interior walls, it did little structural damage. Still, the estimated \$25 million cost of renovation was too steep for the owners, Loutex Fort Worth, who last year sold the tower for \$3.8 million to a real estate partnership controlled by billionaire Ed Bass. Bass's Sundance Square, a collection of themed shops, restaurants, theaters, and clubs, has sparked the revitalization of downtown Fort Worth. To protect this investment, Mr. Bass pledged to demolish the vacant tower within months.

Then came unanticipated asbestos problems, compounded by the reluctance of insurers to cover the demolition of such a large building. Preservationists became alarmed that an implosion would damage neighboring historic buildings, fears that only intensified after September 11. "Implosion was the preferred approach early on," says Bill Boecker, president of Sundance Development Corporation, "but it quickly became a nonoption. We're trying to figure out how to dismantle the tower piece by piece, which will be slow and expensive."

Bank One has since moved into a building across the street, also owned by Bass, who has been pressuring the city to share the costs of deconstruction. In the meantime, the rotting plywood panels are being replaced with metal, which gives the tower a deceptive sparkle. *David Dillon*



Record News

Van Valkenburgh plan for Pennsylvania Avenue selected, awaits Bush approval

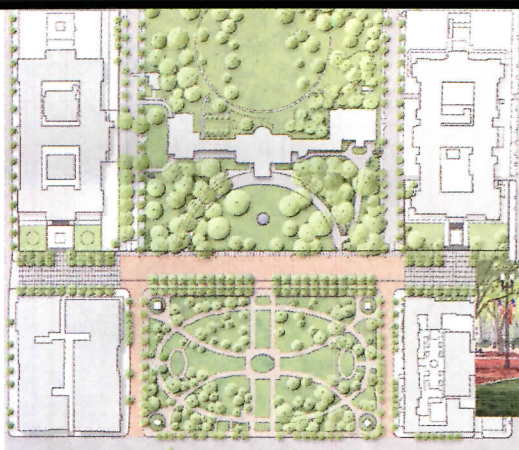
The National Capital Planning Commission (NCPC) voted unanimously in June to select a landscape design by Michael Van Valkenburgh Associates of New York City for a pedestrian adaptation of the part of Pennsylvania Avenue directly in front of the White House.

The NCPC expects to present the plan to President Bush and Congress for approval this fall and have the landscape complete in time for the January 2005 presidential inauguration.

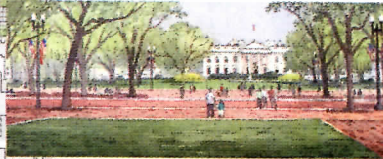
Blocked with Jersey barriers and police cars, the avenue has not been open to vehicular traffic since

President Clinton ordered it closed in 1995 after the Oklahoma City bombing.

Van Valkenburgh's design would turn the two-block stretch of the avenue into a plaza lined with elm trees. It would be paved in granite in the areas in front of the Treasury and Old Executive Office buildings, with granular paving in front of the White House. Steel posts and guardhouses would protect the entrances to the plaza at either end. What was once a six-lane avenue would only have an access lane for emergency vehicles and perhaps a tourist trolley. The



The Van Valkenburgh plan calls for granular paving (seen in red in both images) on Pennsylvania Avenue.

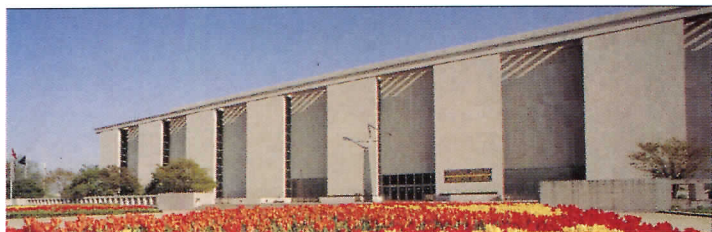


plan allows for the street to be converted, through movable street furniture, from a pedestrian plaza for tourists to a parade route for inaugurations and other major events. The NCPC approval acknowledges that Pennsylvania Avenue, formerly a busy thoroughfare, will not reopen to vehicular traffic in the foreseeable future.

"I have been to Washington a few times since September 11,"

Van Valkenburgh says. "The feeling there is that there has been a loss of civic dignity in this place between the White House and Lafayette Park. For our firm, what was most important was that we reclaim that sense of dignity."

The Van Valkenburgh plan was chosen in an invited competition that included EDAA, Balmori Associates, and Peter Walker and Partners. *Kevin Lerner*



SOM to renovate Museum of American History

The New York office of Skidmore, Owings & Merrill (SOM) has been selected for a renovation of the Smithsonian's National Museum of American History (above) in

Washington, D.C. The 38-year-old, five-story building will undergo a dramatic revamping with a reconfigured central area and exhibition spaces, and upgraded amenities.

SOM, led by partner David Childs, FAIA, will address a series of problems raised by a "pre-concept" study performed by Dahlin Group of San Ramon, California, in 2001. Recommendations include improved visitor circulation, better lighting, and enhanced public facilities, such as rest rooms and restaurants.

The top priority, however, is redesigning the museum's three-story central core, which encompasses the two main entrances on the first and second

floors and the third-level space immediately above the entrances. Also, SOM must create a phased project plan that enables the museum to stay open during construction, and they must provide concepts for the building's new look.

Although design work began in spring, no date has been set for the project's completion, nor has its cost been determined. SOM will develop cost estimates, and the museum will undertake a fundraising campaign in 2003. *Tony Illia*

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Record News

Toledo Museum of Art Center for Glass will be first U.S. building by Sejima and Nishizawa

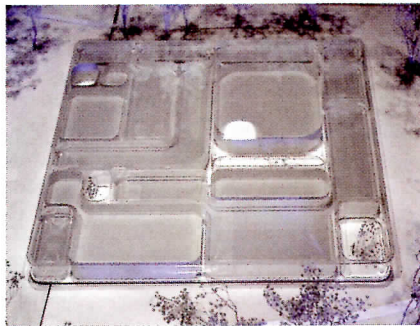


Drawing on its hometown's reputation as the historic Glass Capital of America, the Toledo Museum of Art has announced conceptual plans for a building to house its new Center for Glass. The \$25 million, single-story glazed structure will be the

first American design realized by Tokyo-based firm SANAA, headed by Kazuyo Sejima and Ryue Nishizawa.

The Center for Glass will house the museum's extensive glass collection in a combination of traditional exhibition spaces and

denser, open storage areas that will make between 8,500 and 9,000 objects available for public study and research. A full-scale glass-making facility will also form an integral part of the center. "We put the more dramatic activities on the ground floor so that people can see the glass being made as part of the experience," explains museum



The center (top and above) will be a glazed structure with a glass-making facility.

ARE pass rates increase in three divisions

Candidate pass rates improved in three divisions (denoted in blue) of the Architect Registration Examination (ARE) in each of the past four years. The statistics are for first-time and repeat test takers combined.

ARE PASS RATES BY DIVISION				
	1998	1999	2000	2001
MULTIPLE CHOICE DIVISIONS				
Pre-Design	63%	69%	73%	76%
General Structures	71	74	76	76
Lateral Forces	81	86	88	90
Mechanical and Electrical Systems	80	85	77	73
Materials and Methods	88	89	90	90
Construction Documents & Services	82	84	85	86
GRAPHICS DIVISIONS				
Site Planning	71	72	72	64
Building Planning	70	69	61	62
Building Technology	72	75	78	67

Source: NCARB

director Roger M. Berkowitz.

Consistent with much of Sejima and Nishizawa's previous work, early images of the center depict an almost invisible structure that quietly dissolves into the landscape. A mix of glass types will be utilized in the final design, according to Berkowitz. "Some will be transparent, some will be translucent, some will be opaque," he notes.

The Center for Glass will stand in a wooded park opposite the museum's original 1912

Neoclassical white marble building with a 1992 lead-coated-copper-clad addition by Frank Gehry. This new center extends the museum's strategy of creating an arts campus, which also includes the Art Deco Professional Arts Building and a sculpture garden located along the edge of Toledo's trendy Old West End—an enclave of predominantly Victorian homes built at the turn of the last century.

The center is expected to open in 2004. *Edward Keegan*

when it's up, it's finished. period.

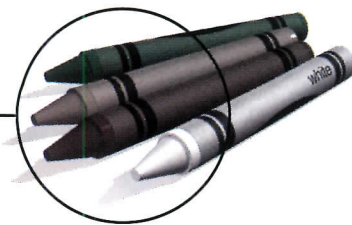
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Record News

Safdie expands Jerusalem Holocaust memorial

A long triangular prism that pierces a Jerusalem mountaintop will serve as the new historical museum of Israel's main Holocaust memorial. Boston-based Moshe Safdie and Associates designed the \$50 million expansion



A prismatic structure will cut through the hillside.

for the Yad Vashem Holocaust Martyrs' and Heroes' Remembrance Authority to accommodate more than two million annual visitors.

Bare, cast-in-place concrete forms the skylit prismatic structure, which is 656 feet long and 59 feet tall and posttensioned to support the cantilever and prevent cracks.

Visitors will pass through the structure, emerging at a winged opening with views of the Jerusalem hills.

Near the end of the museum, the Hall of Names, a conical building, houses the personal records of all

known Holocaust victims. Faces and personal testimonies are printed on the glass lining. A reciprocal underground cone, dug into the bedrock, commemorates those whose names will never be known.

The expansion includes an entrance plaza and reception building, galleries for Holocaust art and temporary exhibitions, and underground parking.

Safdie said he used a "topographic strategy" that "respects the natural

state of the mountainside" yet enables visitors to remain on a horizontal plane as they move around Yad Vashem. Thus, visitors will ascend and descend only once as they visit the main buildings on the 50-acre site.

Construction, which began in 2001, will be completed by January 2004. *Esther Hecht*



Stainless-steel walls will curve up the back of the theaters (top), which share a lobby.



precast-concrete perpendicular walls. The roofs intersect with a curved glass roof covering the foyer, enclosed by an outwardly inclined and curved glass wall.

Visitors will enter the building through a

\$304 million Kansas City performing arts center by Safdie

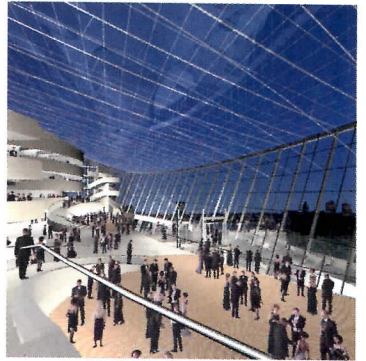
Moshe Safdie, FAIA, unveiled a striking, three-part design in May for the Metropolitan Kansas City Performing Arts Center. Construction on the \$304 million building will begin in spring 2004, with completion by 2007.

The center will include three concert halls—a 2,200-seat ballet and opera house, an 1,800-seat concert hall, and a 500-seat experimental theater. The ballet/opera house and the concert hall are planned for the first phase, but the experimental theater will be part of a future phase of development. Safdie is working with Theatre Projects Consultants and acoustical specialist Artec Consultants.

Located on roughly six hillside blocks bordered by 16th and 17th Streets, Baltimore Avenue and Broadway, the complex will have north-facing reflective stainless-steel roofs (top photo) that are punctuated by acid-etched, limestone-colored

lower lobby and ascend to the main lobby, and to a café and restaurant, via a grand stair or elevator. In the lobby, continuous curved, stacked balconies (below) will be sheathed in beech panels.

Fund-raising for the center officially began in May, but local foundations have already pledged more than \$105 million. The center's board chair, Julia Irene Kauffman, has pledged \$80 million from the Muriel McBrien Kauffman Foundation, which she heads. *J.E.C.*



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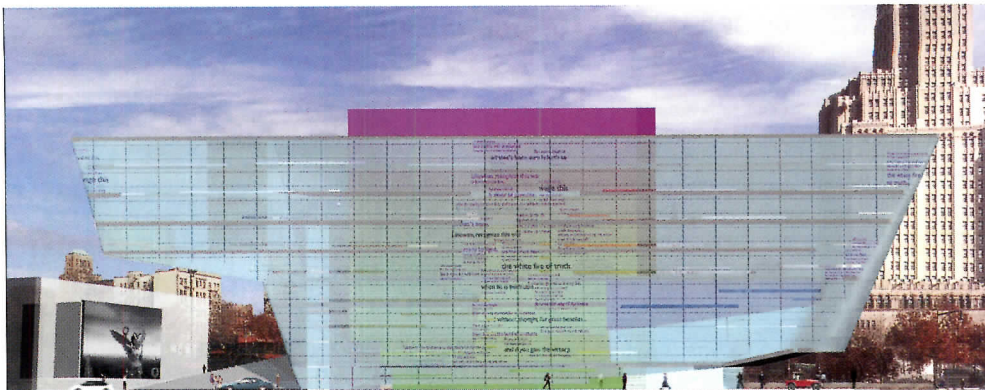
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Record News



Norten's TEN Arquitectos win Brooklyn library competition

Mexican architect Enrique Norten of TEN Arquitectos received his first commission for a building in the United States this spring when he was selected as the winner of an international competition by the Brooklyn Public Library to design its 150,000-square-foot, \$75 million Visual and Performing Arts Library. The triangular site, at a V-shaped crossroads near the intersection of Flatbush and Atlantic avenues in Brooklyn, will be a public anchor in the new Brooklyn cultural district that is being master planned by Rem Koolhaas's OMA and Diller + Scofidio.

The competition was funded by the National Endowment for the Arts New Public Works pro-



Norten's design (top and above) resembles a prow.

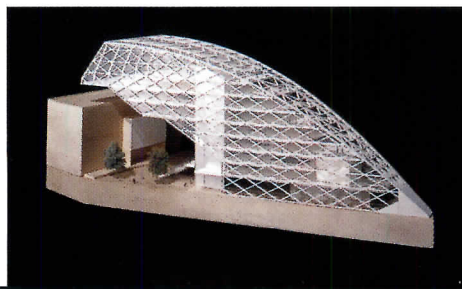
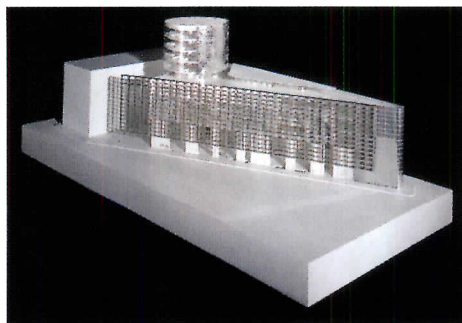
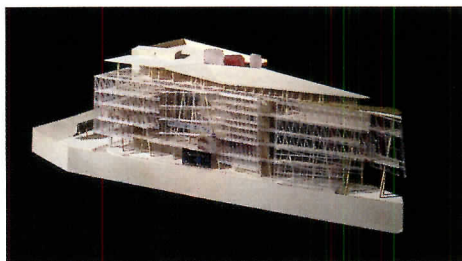
gram, which attempts to foster innovation and quality in public architecture. It attracted submissions from premier architects around the world. Norten was selected from among three other finalists: Jean Nouvel of Paris, Huff + Gooden Architects of Charleston, South Carolina, and Rafael Viñoly Architects of New York. Construction is scheduled to begin in 2005 and finish in 2007.

The competition called for a community resource to house visual and performing arts materials around themes of transparency, permeability, and access. Conceived as a hub for Brooklyn's burgeoning arts scene, the building will hold a media lounge, reference collections, art studios, and spaces for community programming.

When seen from above, Norten's model is shaped like a skewed V that tapers from the roof to create a semisculptural prow. The area nested inside the V-shape will have steps to a plaza and frame views of the Brooklyn Academy of Music.

The walls of the Norten building will essentially be two layers of glass, with louvers between layers to reduce energy consumption and control the amount of light that enters the building. The transparency will allow multiple interior views and create what TEN Arquitectos has called "a spontaneously evolving collage of space." Tess Taylor

Competition finalist schemes by (left, from top): Huff + Gooden, Jean Nouvel, and Rafael Viñoly.





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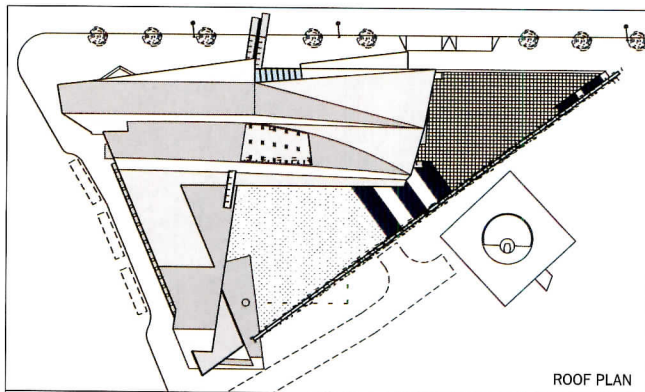
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Record News



A series of folding planes by Morphosis form Los Angeles Children's Museum

The first museum project by Santa Monica-based Morphosis soon may become a reality in downtown Los Angeles. Plans for a \$27 million Los Angeles Children's Museum, to open in 2005, have been approved, although questions remain about the chosen site—an area of the Little Tokyo district adjacent to the Museum of Contemporary Art's Geffen Contemporary and the Japanese-American National Museum.

Destined for a triangular site at the corner of Temple and Judge John Aiso streets, the 100,000-square-foot structure will include five exhibition galleries, a theater, café, store, and a protected playground. The design is in the form of a V, with the axes running along the two streets. A long, low, ivy-covered wall separates an interior courtyard from a planned 3-acre park that also would be accessible from the other two museums in the complex. Emerging from underground parking,

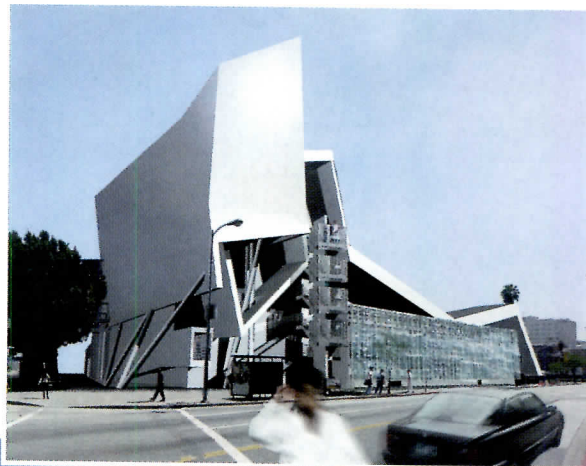
A "V" in plan (above), the museum's exterior resembles a series of folding planes (right and below).

visitors would move from the park to the courtyard to the museum itself.

Morphosis' principal architect, Thom Mayne, conceived the project as a series of folding planes, similar to an origami sculpture. This motif is visible in the subordinate axis with its low, zigzag roofline, as well as in the ridged white metal covering of the principal axis, which is supported by narrow, canted columns.

At the heart of the design is a five-story atrium spanned by a series of long, glassed-in ramps,

parts of which project through the structure and cantilever over the street. According to Mayne, "This helps establish a dialogue between the children and the urban context of the museum." Another unusual feature is a large glass structural wall at street level enclosing the building's cooling system. From the street or from within the gift shop and café, observers can watch water cascade down the interior surface onto a series of coils at the bottom. "I was trying to create a building that was didactic, that participated as part of the exhibits," says Mayne. *David Maurer*



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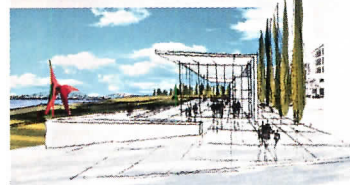
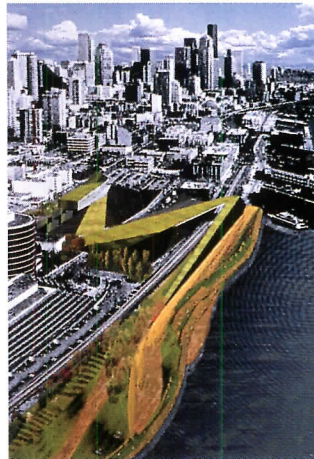
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Record News

Weiss/Manfredi develops plans for Seattle sculpture park

Hailed as a new urban model for sculpture parks, as well as the city's future green heart, the Seattle Art Museum (SAM) unveiled plans by New York's Weiss/Manfredi for the Olympic Sculpture Park. The \$60 million project will be located north of the central business district on Seattle's last undeveloped waterfront property—an 8.5-acre industrial site sliced by train tracks and an arterial road. The design consists of a continuous plane for sculpture that rises over the existing infrastructure to reconnect the urban core to the revitalized waterfront.

The museum will be a welcome addition to Belltown, the city's fastest-growing and most densely populated neighborhood, with the least amount of open space. Plans call for a transparent pavilion for exhibitions, performances, and educational programming at the site's high point. A descending Z-shaped pedestrian route will traverse a 40-foot drop from the city to the water,



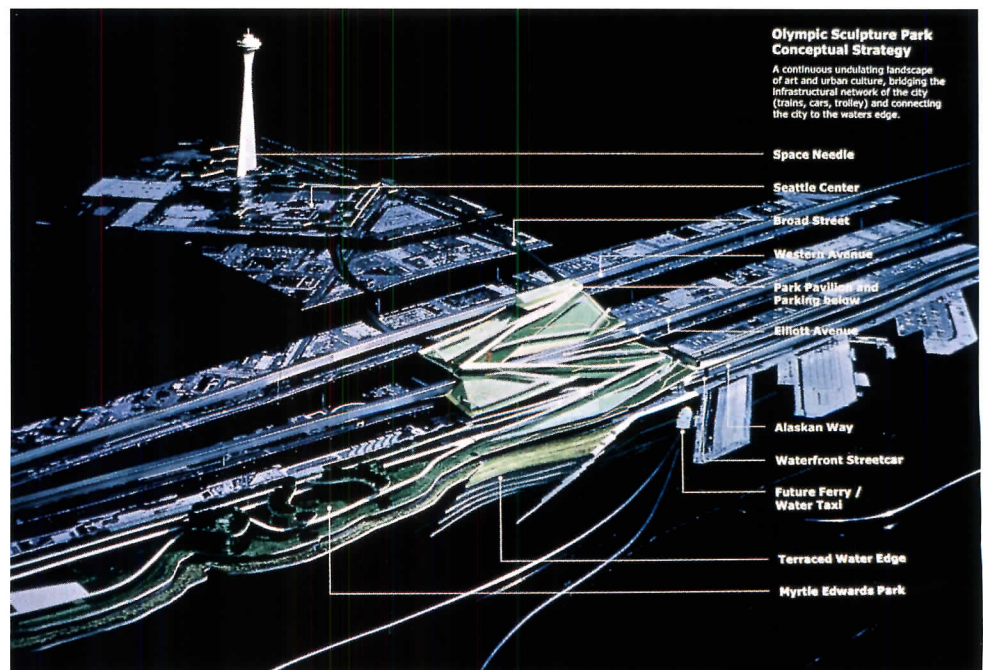
The park (top) will include a pavilion (above) for exhibitions and programs.

capitalizing on views of the skyline and Elliott Bay. The footpath will connect three new gardens that represent archetypal Northwest landscapes: a dense temperate evergreen forest of fir trees, cedars, and ferns; a transitional deciduous forest of oaks, aspens, and maples; and shoreline aquatic terraces of kelp, algae, and underwater grasses to harbor salmon.

The park's grassy slopes will feature rotating works from the museum's collection, specially commissioned pieces, and ephemeral installations that draw on the urban texture and regional environment. "It has long been part of our mission to break down the barriers of the museum walls, and this design has made it a reality," says

Mimi Gates, director of SAM.

The park's completion, expected in 2004, is contingent upon the route chosen (most likely a tunnel under the park) for the replacement of the Alaskan Way Viaduct damaged by the April 2001 Nisqually earthquake. *Sheri Olson, AIA*



Weiss/Manfredi's park design connects the waterfront to key components of the city.

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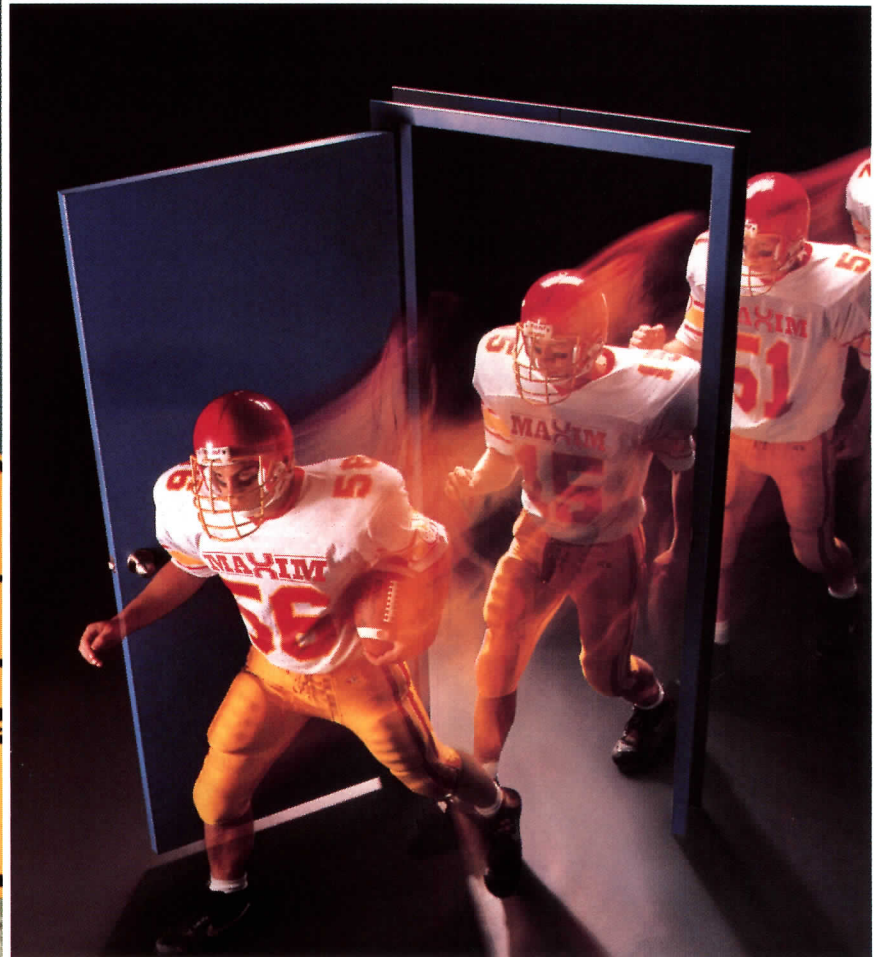


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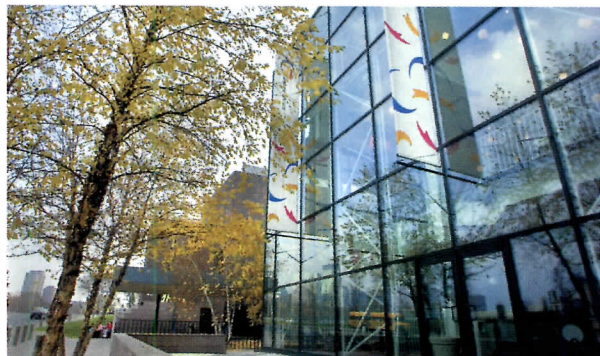
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Record News



Endangered places include (clockwise from top) the Gold Dome Bank, teardowns in historic neighborhoods, the Guthrie Theater, and Pompey's Pillar.



National Trust names 11 most-endangered historic places

The National Trust for Historic Preservation has announced its 2002 list of America's 11 most-endangered historic places. This year's subjects vary widely, from specific structures to entire groups of buildings, such as the designated "Teardowns in Historic Neighborhoods Nationwide" that are included on the list.

The Trust identified more than 100 neighborhoods in 20 states where older houses, from bungalows to 19th-century Victorians, are being replaced by larger, out-of-scale "McMansions." The designation mentions the demolition of such noted houses as Richard Neutra's Maslon House in California [May 2002, page 46], but broadens the scope to include entire historic neighborhoods.

The Guthrie Theater in Minneapolis, designed by Ralph Rapson and built in 1963, made the list because the Walker Arts Center plans to tear it down [March 2002, page 24]. The plans call for the theater, renowned for its acoustics and intimacy, to be replaced with a

parking garage and sculpture garden. Demolition permits were granted in late 2001.

Oklahoma City's Gold Dome Bank, completed in 1958 by local architect Robert B. Roloff, was one of the first examples of the use of a geodesic dome in architecture. The building has always been a bank, and its current owner, Bank One, wants to tear it down and replace it with a boxlike bank and drugstore. Bank One claims the dome needs more than \$1 million in repairs.

The other sites on the list are St. Elizabeth's Hospital in Washington, D.C., the Hackensack Waterworks in New Jersey, Kw'st'an Native American sacred sites in California, the Chesapeake Bay skipjack fleet, Pompey's Pillar in Montana, Missouri River cultural and sacred sites, Rosenwald schools throughout the South, and the historic bridges of Indiana.

Inclusion on the list is not a guarantee that a structure will be saved, since the National Trust offers no legal protection. *K.L.*

Dates & Events

Ongoing Exhibitions

The Nature of Architecture: Photographs by Amy Lamb Washington, D.C.

Through July 26, 2002

In former biologist Amy Lamb's latest exhibition, she unveils the underlying similarities between organic form and the built environment through a series of photographic interpretations that illustrate the relationship between the two. At the Octagon. Call 202/626-7486 for further information.

Museums for the New Millennium: Concepts, Projects, Buildings Milwaukee

Through August 4, 2002

This exhibition presents a cross section of the most significant museum projects designed and built within the past 10 years. Through drawings, photographs, and original models, the show features 25 museums from around the world, including the Milwaukee Art Museum expansion by Santiago Calatrava. At the Milwaukee Art Museum. Contact 414/224-3200.

Idea and Phenomena: Steven Holl Vienna

Through August 10, 2002

For almost three decades, New York architect Steven Holl's work has progressed and developed. As his list of important projects gets bigger and bigger, so does his name in the world of architecture. This exhibition shows his work from various angles, in different mediums, from watercolors to models, all presented in a manner that encourages the viewer to form an independent opinion of it merits. At the Architekturzentrum Wien. Call 43 1 522 31 17.

Transmodernity: Austrian Architects New York City

Through August 12, 2002

Three Austrian architects under the age of 50 are featured in this exhibition. The works of Henke und Schreieck, Jabornegg & Pálffy, and Riegler Riewe are used to explore Modernism and how Austrian architects are dealing with it in the present. At the Austrian Cultural Forum, New York. Call 212/873-3284 for further information.

Three Nomadic Structures: Jean Prouvé and the Maxeville Years

New York City

Through August 15, 2002

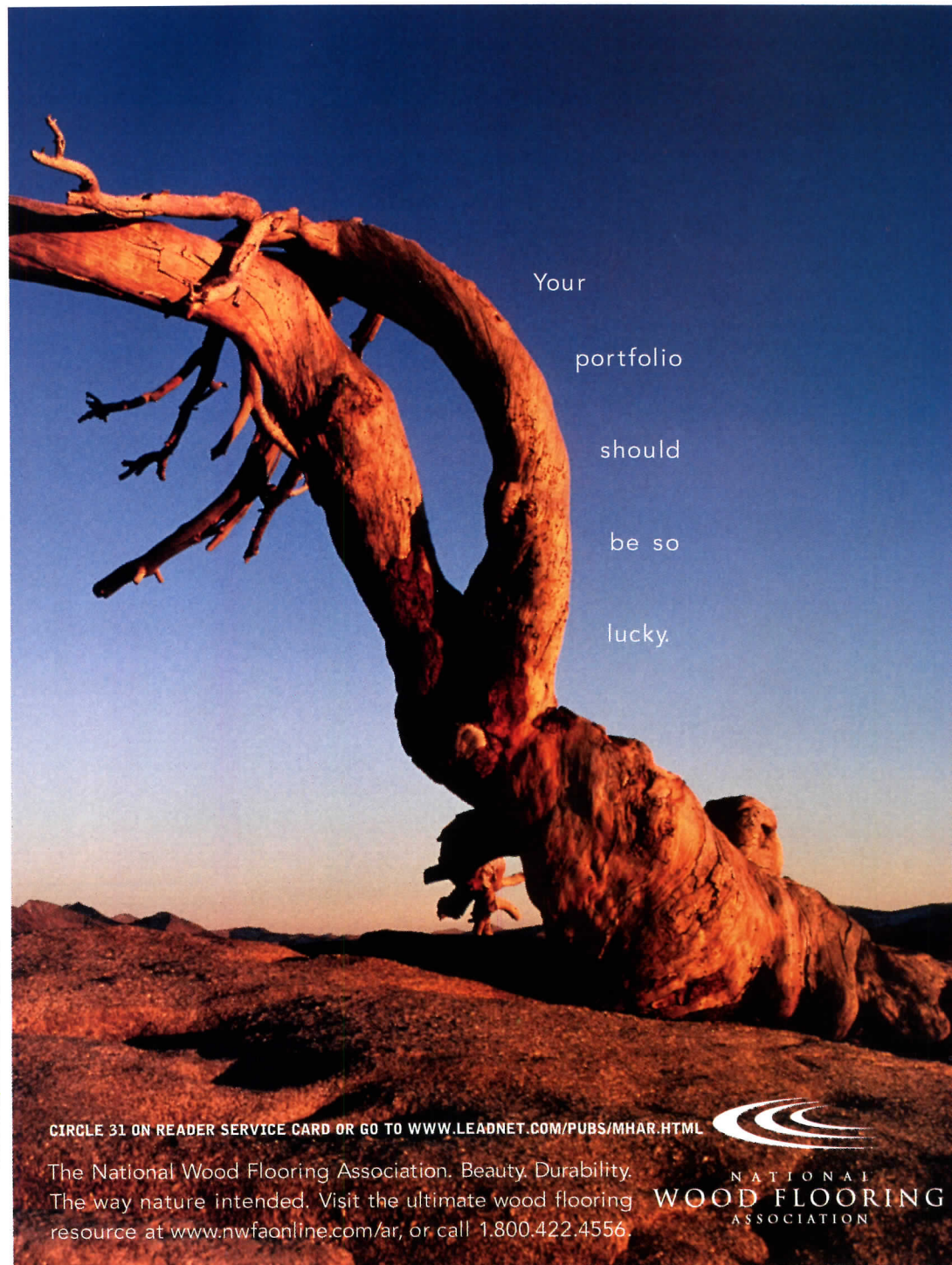
This, the first exhibition of the French architect Jean Prouvé in the U.S., was initially scheduled to run only until May 10, but it has been extended. Prouvé has had something of a revival in recent years, and this exhibition offers a rare opportunity to see his

work. At the Arthur Ross Gallery, Buell Hall, Columbia University. Call 212/751-6126.

Windshield: Richard Neutra's House for the John Brown Family Washington, D.C.

Through August 18, 2002

An in-depth examination of Neutra's first project on the East Coast, completed in 1938. The show docu-



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Artists Imagine Architecture

Boston

Through September 2, 2002

The Institute of Contemporary Art, Boston opens an exhibition exploring the architectural model as sculpture. International artists investigate structure, social interactions, and scale through the examination of Modernist architecture projects. At the Institute of Contemporary Art. Call 617/266-5152.

Living in Motion—Design and Architecture for Flexible Dwelling

Weil am Rhein and Berlin

Vitra Design Museum, Weil am Rhein:

Through September 8, 2002;

Vitra Design Museum, Berlin:

September 21, 2002–January 26, 2003

This exhibition covers furniture and houses that reflect flexibility, multifunctionalism, and mobil-

ity, prime examples being Rietveld's Schroeder House, Shigeru Ban's Naked House, and Steven Holl's Fukuoka Apartments, among others. It covers a wide variety of cultures in its attempt to portray domestic flexibility. At the Vitra Design Museums, Weil am Rhein and Berlin. In the U.S., call 212/539-1900; in Europe, call 49 7621 702 3351.

Gerald Zugmann: Blue Universe West Hollywood, California

Through September 8, 2002

This exhibition illustrates the decade-long collaboration between architectural photographer Gerald Zugmann and avant-garde Austrian architectural firm Coop Himmelb(l)au. At the Mak Center. Contact 323/651-1510.

Skin: Surface, Substance+Design New York City

Through September 15, 2002

This exhibition skims the surface to explore the different ways skin is articulated in design. On display are a variety of objects and artifacts by

such notable designers as Greg Lynn, Petra Blaisse, Ross Lovegrove, and Marcel Wanders, organized into five themes, each delving into questions of beauty, technology, and artificial life. At the Cooper-Hewitt, National Design Museum. Contact 212/849-8400.

Lectures, Symposia, & Conferences

Designing Oakland Pittsburgh

July 9, 2002

This lecture accompanies the exhibition that will be on view from May 31 to September 22. Tracy Myers will be giving the lecture and slide presentation, discussing the history of the Oakland neighborhood's place as the city's cultural, educational, medical, and technology center. At the Library Center, George White Theater, 414 Wood St. Call 412/622-3288.

Notations Face Your World Columbus, Ohio

Through July 16, 2002

Netherland artist Jeanne van Heeswick, of Rotterdam, with the aid of the Wexner Center for the Arts, has developed an interactive project called *Face Your World*, in which children can, using new technology, play with the look of their urban neighborhood. Using digital cameras and a new high-tech computer program, children get the chance to play the role of the urban artist and to interact with their art. The project will be located on a bus that is equipped with six computer stations and will require a "face your world" passport. Three days a week, the bus will bring these children to two Columbus Recreation and Parks centers and the Boys and Girls Clubs Westside Unit. To investigate further, call 614/292-0330 or visit www.wexarts.org.

What Matters Now: 52nd International Design Conference Aspen, Colorado

August 21–24, 2002

Join leaders in architecture, the arts, and science in this year's annual design conference. The 2002 program committee members include Walter Hood, Michael Rotondi, Lorraine Wild, Paola Antonelli, Bran Ferren, Gregg Pasquarelli, and Billie Tsien. Visit www.idca.org or call 800/815-0059 for more information.

Universal versus Individual: The Architecture of the 1960s Jyväskylä, Finland

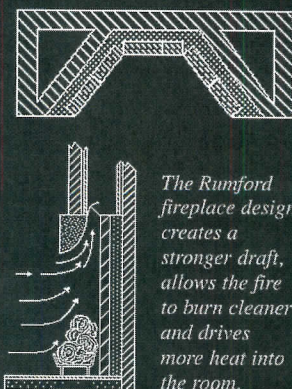
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Dates & Events

the 1960s by illuminating universal currents as well as individual and regional trends. Keynote speakers include Beatriz Colomina, Claes Caldenby, and Dennis Doorman. Sponsored and organized by the Alvar Aalto Academy. For more information, visit www.alvaraalto.fi/conference/universal.

Conventions

XXI World Congress of Architecture Berlin

July 22–26, 2002

The Union Internationale des Architectes invites architects and students from around the world to discuss responsibilities and strategies for environmental and sustainable design within an urban context. At the International Congress Centre, Berlin. Contact 49 30 9012 1314 for more information.

Rail-Volution 2002 Washington, D.C.

October 3–6, 2002

This year's conference focuses on the community's role in making transit and land-use decisions and brings a unique cross section of citizen activists, business leaders, elected officials, and planners to the table to discuss the issues. Rail-Volution features a variety of sessions, including hands-on workshops, case studies, and moderated panel discussions. Contact 800/788-7077.

NOMA International Congress and Exposition Ft. Lauderdale, Florida

October 15–18, 2002

An opportunity provided by the National Organization of Minority Architects to showcase their work and interact with other architects and design professionals. At the Wyndham Bonaventure and Spa. Call 301/941-1065 or e-mail avery@noma.net.

Competitions

11th Annual Unbuilt Design Awards

Deadline: July 15, 2002

The Boston Society of Architects invites architects, educators, and students to submit projects that, to date, remain unbuilt. Both theoretical and client-sponsored projects are eligible. Visit www.architects.org for more information.

Gainesville Eco-History Trail Landscape Design Competition Gainesville, Florida

Deadline: July 19, 2002

Sponsored by the National Endowment for the Arts New Public Works program and the city of Gainesville, this project is open to all architects, landscape architects, and planning firms. The site is a 2-mile-long stretch of trail going through the historic urban core of Gainesville. The winner of the competition receives the right to negotiate a contract for implementation, and prize money will be awarded to the top three entries. The top five designs will be featured in a month-long exhibition. See www.cce.ufl.edu for details.

Waterford North Quays International Competition Waterford, Ireland

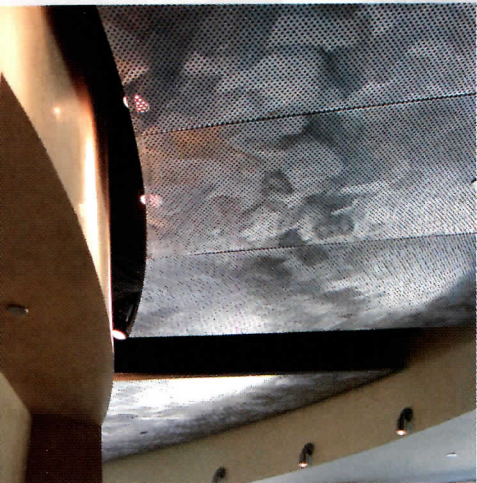
Final Deadline: July 31, 2002

Architects and urban designers are invited to submit a design for a dockland regeneration scheme for Waterford North Quays in Ireland. For more information, visit www.opw.ie/waterfordquays/index.html or e-mail b.mannion@opw.ie.

The Great Egyptian Museum Competition

Deadline: August 10, 2002

An open invitation to architects from around the world to participate in the creative design of this new museum. Located near the Giza pyramids, the museum will house some of Egypt's most ancient monuments and treasures. Visit www.gem.gov.eg.



Dates & Events

Shinkenchiu Residential Design Competition 2002

Deadline: September 2, 2002

This competition, held annually by The Japan Architect, invites architects from around the world to explore the theme "Dwelling Where the Muses are Served/Spared Emptiness." The entire competition will be judged by one architect. The committee this year has selected Daniel Libeskind as judge. Sponsored by the Shinkenchiu-sha Company. Visit www.japan-architect.co.jp.

Pentagon Memorial Design Competition

Deadline: September 11, 2002

An open, two-stage competition to select a design for an outdoor memorial on the grounds of the Pentagon, near the site of impact. The goal is obviously to honor the victims of the attack on the Pentagon on September 11, 2001, and any individual or team may enter. For more information, call Mary Beth Thompson at 410/962-2809.

Events & Programs

Summer Design Institute 2002

New York City

July 15-19, 2002

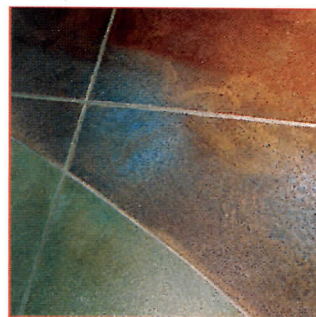
Educators and designers are invited to join a panel of international design educators to discuss strategies for engaging K-12 students in the design process. Hosted by Cooper-Hewitt, National Design Museum and the American Institute of Graphic Arts, this one-week program will feature workshops, studio visits, and keynote presentations by notable designers, including David Kelly, Eames Demetrios, John Maeda, and Eileen Adams. At Cooper-Hewitt, National Design Museum. Contact 212/849-8385.

26th Annual Cooper Source Awards

Deadline: October 25, 2002

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FOR THE EMERGING ARCHITECT

Being at the start of your career means having alternatives, though for many architects starting out, the options seem limited. CAD for firm A, or model-building for firm B? This month, however, **archrecord2** seeks out architects who are creating options for themselves. Whether taking an unconventional path to a conventional career or making up an entirely new job description, the six architects featured this month all **Design, Work, Live, and Talk** from an individual perspective.

DESIGN

Mike Latham: Mentorless Brooklyn

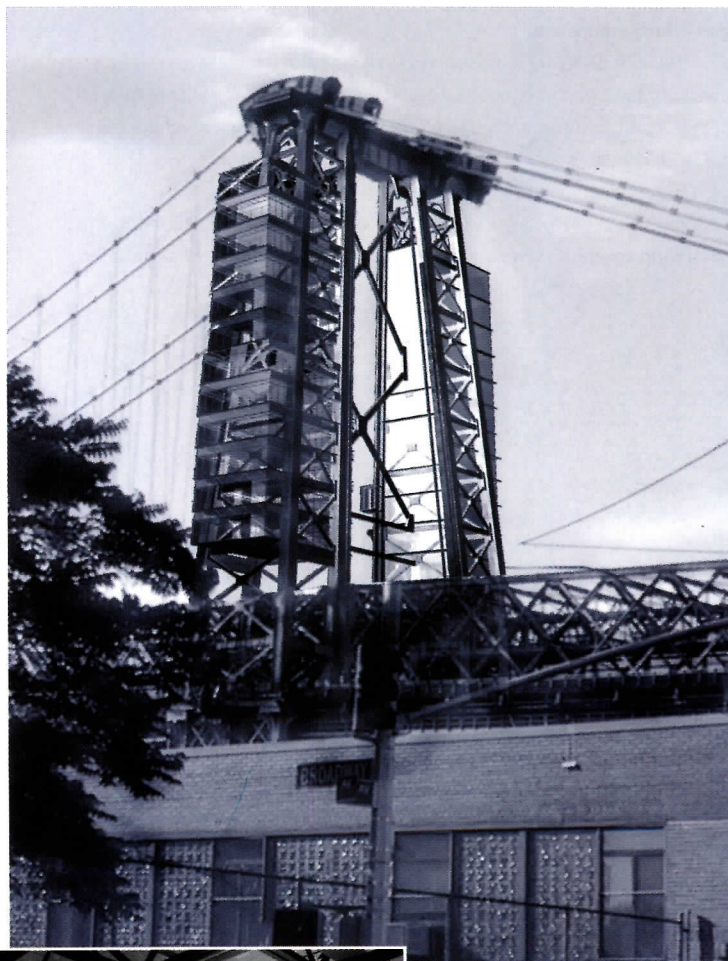


Mike Latham lives and works in a loft in the Williamsburg section of Brooklyn, in a building four or five fish-stinking, not-yet-quite-postindustrial blocks from the rapidly gentrifying main drag, Bedford Avenue. Latham, who calls his practice the(1999)project, designed his own loft, which is defined by huge rolling glass vitrines, one of which contains an entire guest room on wheels. Others store books, a TV, or snowboarding boots. With the exception of a vintage plastic-and-leather sofa, these vitrines *are* the space, which is otherwise the bare concrete essence of an artist's once-industrial loft. A product of his neighborhood, Latham lives and works at an intersection: between funky and yuppie; between industrial and artistic; between his trim gray slacks and his high-design sneakers.

Call it the naive idealism of youth—Latham, who only finished his M.Arch. at Columbia a couple of years ago, is only 26—but he can't see why he and his generation aren't poised to influence the world, or at least the world of architecture, in a palpable way. "I'm not a huge public activist," he says, "but some of my architect friends and I are seriously thinking about doing something to oppose this World Trade Center problem. We're the ones who are going to have to live with it. I don't understand why there isn't a call for an international design competition. It's what would happen in any other city in the world. This is one of the biggest urban design projects of the century, and I don't believe that we're so impotent that we can't do anything about it."

But what sets Latham apart from other young architects who hold on to their ideals is that he has set a path for himself to fulfill them. Instead of working for an established architect right out of school, Latham set up on his own, disregarding established procedure for what, to him, seemed like the more logical path.

"What I've picked up, I've picked up by doing," he says. "It's probably going to make it quite difficult for me to be licensed—though I may get licensed as quickly as the next person—because, although every time I work on a project I collaborate with an architect, mine is not a process that is officially approved of."



Williamsburg Bridge Lofts, Brooklyn, 2000

the(1999)project. Inspired by his own loft's view of the bridge, Latham projected a series of lofts (above and left) stacked on the support towers of the bridge.

(continued from previous page)

Latham has made his atypical career work by looking outside of pure design, to models of business that actually generate business. And he has made work for himself by having a physical product to market. He has found that having built work, even if it's furniture or one of the functional, technological sculptures he makes, has been an invaluable tool for marketing himself.

"That really is the mystery of starting out," he says. "Where do you get clients from? I think you get clients by doing. A lot of people have really good ideas on paper or in the computer, but you really need to get your work made and put it out there."

And then there's the story about him that ran in *The New York Times Magazine's Home Design* supplement. Having your work on the cover of a glossy insert in a major newspaper certainly can't hurt from a client-gathering perspective.

Despite his early success, his slick loft, and his funky sneakers, Latham hasn't become jaded or detached from the real world. In fact, all of this "cool" is wearing on him a bit personally: "I'm sick of all the truck noise," he says. "I need a real apartment." *Kevin Lerner*

Go to architecturalrecord.com/archrecord2 for more on Mike Latham's work, and to learn how to submit your own projects for publication.



Belen Apartment, Brooklyn, 2001
the(1999)project. Latham designed this apartment, based on modular components, for a friend.



1999 Loft, Brooklyn, 2001
the(1999)project. Latham's home and office, an industrial loft on the Brooklyn waterfront, was built for \$15 per square foot.

WORK

Five designers forge hybrid careers

Redefining "architect"

So lately you've begun to wonder about your career in architecture. The economy has taken a turn for the worse, clients are hard to find, and those plumbing details that you spent a good part of last night finishing aren't exactly what you bargained for after three years of grad school. Time for a change?

In this month's Work section, *archrecord2* searches for life beyond the CAD station. We've found five architects who show that a degree in architecture has far more to offer than a working knowledge of construction drawings. They've ventured outside the boundaries of traditional practice, engaged other disciplines, and have resurfaced in the fields of writing, animation, film, and fashion. One architect has even found himself working in outer space.

Some have done so out of necessity. A slow economy often offers no other alternatives, and a job outside the profession is better than no job at all. Others were simply eager to explore new territory and delve into experiences that might, in the end, spark new ideas and perspectives. In a

world where ideas and meanings constantly evolve, and information travels with the click of a button, it is almost impossible to not want to peek your head around the corner and see what else is out there.

We can learn a lot from these stories. Whether their paths were intentional or not, all five designers seem to demonstrate that venturing outside the profession can provide invaluable insight into—and understanding of—what is within it. And who knows what new ideas their experiences might inspire? Through their discoveries we may also find solutions, new perspectives, new challenges, and—if we look hard enough—perhaps even a new direction for the future.

Profiles of these five architects—journal editor Mimi Zeiger; game designer Ed Keller; clothing entrepreneur Joe Day; floral designer Mako Otaki; and NASA architect Garrett Finney—can all be found on *archrecord2's* Web site. Maybe you'll find some ideas for your own career.

Christina V. Rogers

To read the rest of this article, visit architecturalrecord.com/archrecord2.

On the Web, *archrecord2* presents an ongoing dialogue among young architects. The interactive forum addresses topics as diverse as the ARE and what inspired readers to become architects in the first place. Click on TALK at architecturalrecord.com/archrecord2.

Will a new wave of tropical Modernism restore San Juan's luster?

Correspondent's File

By James S. Russell, AIA

With its sparkling beaches, bay, and lagoon, all protected by the brooding mass of the El Morro fortress, San Juan, Puerto Rico, has as blessed a setting and as deep a history as any Caribbean city. But Havana has captured the world's imagination, and Miami's South Beach has become a visitor magnet. San Juan has many of the same ingredients, but somehow seems a little pale and unfocused.

A development site of enormous promise could define a new image for the city. The Hotel Development Corporation and the Government Development Bank of Puerto Rico are negotiating terms of a competition-winning development proposal for what is called "The Condado Trio"—named for the three derelict hulks that occupied this two-block stretch of prime beachfront. One was once the Gran Hotel Condado Vanderbilt, an elegant Spanish Renaissance–revival villa built by New York Central Railroad magnate Cornelius Vanderbilt as the luxury destination in San Juan's steamship era. Completed in 1919 by Vanderbilt's Grand Central Station architects, Warren & Wetmore, its red-tile roofs and elegantly grilled arcades owed more to Santa Barbara than San Juan, but nonetheless opened an era of genteel tourism. Local architect Marvel and Marchand will restore the structure and add two modern wings, augmenting the 93 existing rooms with 160 new ones.

At the eastern end of the site is what could be the real gem of the redevelopment: La Concha, a mas-

terpiece of tropical Modernism. Its original architect, Toro Ferrer Arquitectos, although still in practice is little known on the mainland, but this early work could take its place near the top of the postwar International Modernist heap. Even in its moth-eaten current state, the 1958 structure sails along the beach with enormous International Style panache. With its shutter-clad breezeways, its delicate precast-concrete grillwork, vaulted retail arcade, and curvy pools and waterfalls, La Concha is as suave and sensuous as anything built in the postwar era. "It will be renovated to pretty close to the original design," says principal Thomas Marvel. That will include restoring the fluted, conch-shell-shaped roof of the old supper club that gives the hotel its name. The shell will once again hover over a reflecting pool.

The third building in the "Trio," an unloved convention center (amazingly, also by Toro Ferrer), has been demolished, opening a welcome window to the sea in this high-rise enclave. A new plaza is under design by Andrés Mignucci.

A few years ago, such an encumbered site would not have attracted much interest. Indeed, an earlier \$250 million attempt to redevelop the properties depended

on demolishing La Concha. After a public outcry, preliminary demolition was stopped and a court eventually revoked approval.

In the meantime, Miami's South Beach has solidified itself as a major urban-resort destination built upon its restored Art Moderne

Successful redevelopment of inner San Juan could reestablish a uniquely Puerto Rican architectural and urbanistic identity. This relatively small island now exerts outsized influence in popular music and cuisine. The Museo de Arte de Puerto Rico (with a recently com-



A model for the University of Puerto Rico's new architecture school, by Bermudez and Delgado.

splendor; the boutique-hotel trend has taken off; and Latin American modern architecture—from Brazil to Havana—is fast being rediscovered. Downtown San Juan is now the only Miami alternative for visitors who want the beach, the pool, and the weather within easy reach of big-city shopping, restaurants, nightlife, and cultural events. As a result, the Condado district has attracted renewed investment.

pleted new wing by architect Otto Reyes, added to a restored landmark) makes a persuasive case for local fine artists. Is it architects' turn? It won't be easy: San Juan's urban development tends to follow the generic real estate formulas of the mainland.

But the La Concha controversy came along at a time of rekindled interest in the extraordinary architectural legacy of the 1950s and

Correspondent's File

1960s. The firm of Sierra, Cardona, Ferrer has added a respectful wing to a law school at the University of Puerto Rico originally designed by Henry Klumb, a postwar master of suavely grilled sunscreens and delicate garden courtyards. Davis Fúster, in renovating the Plaza del Mercado, a covered farm market, scraped away years of accretions to expose the handsomely engineered

Rico). The best work deploys the brise-soleils, concrete grillwork, and attention to natural ventilation that were emblems of climate-sensitive international Modernism.

Urbanistically, San Juan has not found a way to exploit its extraordinary setting. With a poor bus system and a local attachment to the automobile that rivals any place on the mainland, traffic is

highly developed highway system carries people from overburdened city streets to clogged new suburban enclaves. (Most observers put little faith in a new high-speed train line, currently under construction, to allay the congestion.)

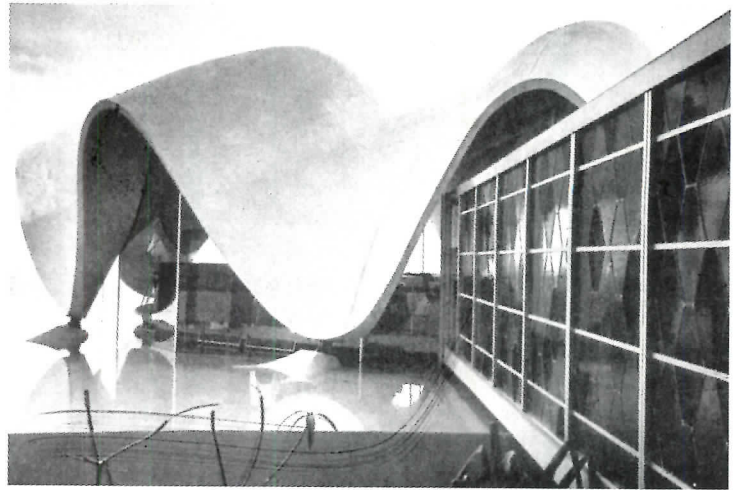
San Juan residents and mainland snowbirds alike, however, are rediscovering the handsome buildings and beautiful settings of such inner-city districts as Miramar and

Santurce. But for every renovated Moderne apartment building and every restored traditional, porch-wrapped house, many more are displaced by generically styled high-rise condos fortified by high gates and fences. A number of landmark-quality hotels have been restored, notably the exuberantly Art Deco Normandie, but shortsighted operators often deprive the structures of much that's distinctive. The hand-

URBANISTICALLY, SAN JUAN HAS NOT FOUND A WAY TO EXPLOIT ITS EXTRAORDINARY SETTING.

concrete vaulting designed by architect Pedro Miranda in 1968. (Other examples of this golden era abound in the book *Ever New San Juan: Architecture and Modernization in the 20th Century*, edited by Enrique Vivoni Farage, published by Archivo de Arquetectura y Construcción, University of Puerto

ghastly. The perilously narrow sidewalks are generally empty, in spite of the temperate climate. Safety concerns, of course, don't make the streets appealing, either, and even the casual visitor will notice the impressive array of grills, walls, and gates that increasingly fortify both homes and businesses. A



The fluted-concrete roof of La Concha's supper club will be restored.

PHOTOGRAPH COURTESY TORO FERRER ARQUITECTOS

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Correspondent's File

some Gropiuslike massing of the 1948 Caribe Hilton remains, for example, but the bravura sweep of the interior of what can only be regarded as one of Toro Ferrer's masterpieces has largely been lost in generic, hotel-chain renovations.

A younger generation of designers is building on this legacy,

better connected to global markets. The island has a hard time attracting and retaining highly skilled construction specialists, which means that quality often suffers. Architecture depends more on the public sector here (as in Europe), which means commissions wax and wane according to

PUERTO RICO HAS STRUGGLED TO MAKE A WORKABLE ECONOMY IN A WORLD WITH BETTER-CONNECTED GLOBAL MARKETS.

taking tropical Modernism in new directions, primarily in houses, like one by Toro Ferrer's younger generation (photo this page). Though the city has a wide architectural talent pool, it's not easy being an architect in San Juan. Like other Caribbean islands, Puerto Rico has struggled to make a workable economy in a world where someplace else is always cheaper or

whether the government in power values the contributions architects can make, and whether money is available for public works. Since being awarded the commission to design the new architecture school at the University of Puerto Rico in 1996, for example, architect Bermudez and Delgado watched the scope go down, then up part-way. "The university went through



A residence in Ocean Park, by Toro Ferrer, updates Puerto Rican Modernism.

two presidents and three chancellors," said principal Eduardo Bermudez, "and the building was moved to a whole new site." After several redesigns, the project is now in construction.

The current governor, Sila Maria Calderón, recently commissioned modest urban revitalization

projects in several cities. Looming in the future is the fate of the island of Vieques. Although the Navy has long used parts of it for bombing practice, much of it remains pristinely natural. Whether it stays that way, or is sensitively developed, will test Puerto Rico's commitment to the future as well as its design talent. ■

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Urbanism is politics: Lessons from a place where the extremes now rule

Critique

By Michael Sorkin

During their recent "incursion" into the West Bank, Israeli forces were sent on a search-and-destroy mission to the Jenin refugee camp. Confronted with a labyrinth of streets far too narrow to permit tanks and armored vehicles, the Israelis elected a house-to-house approach. When a number of Israeli troops were ambushed and killed, bulldozers were introduced, to topple houses and clear the site for safer access.

The destruction of the refugee settlement was, among other things, an act of urbanism, Haussmannization raised to a flash point. Although the consequences of the great boulevardization of Paris in the 19th century were not immediately lethal to those whose houses were destroyed to make way for Napoleon III's grand axialities, the impetus to demolish was motivated in part by military needs. The broad boulevards were meant to expedite troop movements around town and provide clear fields of fire in case of insurrection.

Nowhere today is the political use of urbanism more glaring than in Jerusalem and the West Bank. This is true of the Palestinian suicide attacks on the benign settings of urban conviviality—the murder of Israelis as they sit in cafés or shop in markets—and of the more bureaucratic styles of apartheid and occupation engineered by the Israelis. Both sides clearly understand the relationship of the

Contributing editor Michael Sorkin practices architecture and is the editor of the book After the World Trade Center: Rethinking New York City.

patterns of the city and urban life to the politics of struggle for rights and privilege. And both clearly understand how to make cities into places of fear.

In this supercharged atmosphere, no urbanism can be spoken of outside its political dimension. Here in the U.S., our most pressing urban issue is sprawl, which we largely understand as an environmental question. In Jerusalem, sprawl has a different flavor. Israeli policy to "Judaize" the city has resulted in the construction of a ring of settlements—housing close to 200,000 people—that a more growth-sensitive approach would never countenance. By building beyond the boundaries of the existing conurbation, however, a ring of population has been imposed—like a wall—to both control the city and to thwart any potential division. Sitting in their arrogance on the tops of hills, the settlements represent an almost medieval style of planning, prompted by aggression and machismo.

The suburban sprawl of the West Bank settlements has been produced by the same means that generated our own suburbs. Like the cheap loans for returning veterans, the construction of the Interstates (our erstwhile "National Defense Highway," justified, in part, by the need to redeploy people rapidly in the event of nuclear attack), the accelerated depreciation of suburban commercial development, and the disproportionate subsidies for infrastructure, the Israeli settlements are the direct outgrowth of government policies meant to create a particular environment for particular people. In the settlements,

the tools of planning produce their usual product: benign-looking clusters of Mediterranean-style, whitewashed houses with red-tile roofs, backyards, and pools. Here, too, is the idyllic atmosphere of suburbia, a rankling obliviousness that surely drives Palestinian villagers

cities of urban renewal and ghettoization—urban renewal in the sense of the demolition and devaluation of the original inhabitants, and ghettoizing not only for the Palestinians, but also for the Israelis, electively ensconced in their pleasant but beleaguered settlements.



The view from a building in the Jenin refugee camp is one of turmoil.

below to distraction.

But the picturesque view can only be sustained until the frame is slightly enlarged. This picture shows the barbed wire, soldiers on patrol, and a striking contrast with more indigenous styles of building and of life. In this picture, nearby Palestinian villages and towns come to constitute—in their morphological and economic difference—a kind of dispersed "inner city." The familiar contrast between the city and its suburbs is played out in a tiny territory as the Israelis pursue simultaneous poli-

The political sprawl of the settlements—and the murderous rage of the Palestinians—reflect the impossible physics of a situation in which two hostile populations attempt to occupy the same space at the same time. Even nominally shared space—streets and highways—becomes a battleground. The horrendous bus bombings are both murder clear and simple and an assault on the most fundamental freedom of the city, just as the construction by the Israelis of their private road networks on the West Bank are designed both to

Critique

allow settlers to commute to Israel proper without passing through Palestinian towns and to divide the West Bank into a series of cantonments. Thus the traffic planner's language of convenience and speed takes on an oppressive dimension



A house is destroyed in the Gaza Strip.

that cannot be escaped.

On a visit to the school of architecture at Bir Zeit University outside Ramallah a few years ago, I was wandering the corridor of the civil engineering department when I

came across a plan for a "bypass road" around a village. My immediate thought was that this was a part of the Israeli road network on the West Bank. Closer inspection revealed, however, that it was simply a traffic-management scheme designed to

avoid slow-going in town for Palestinian motorists. The alternative road, in itself, is a somewhat questionable enterprise: Witness the number of American towns that, bypassed by through traffic, have seen their economies wither. While the bypass may be a foolish piece of modernization, it lacks the sinister dimension

of the Israeli network, which has strong parallels with the historic effect of American inner-city highways in isolating and destroying poor communities of color.

The extreme politics of planning

in Israel and Palestine result in a situation that is separate and unequal at many levels. Systems of water supply, sanitation, energy, transportation, green space, and other elements of infrastructure are—despite many decades of pieties on the part of the municipal administration in Jerusalem about equalizing services—totally skewed to Israeli benefit. While Israeli Jerusalem has a reasonably integrated system of transportation, including highways, bus lines, airports, a train to the coast, and a good collective taxi system, the Palestinians are highly constrained in their ability to move, a product both of draconian and humiliating security arrangements that can extend a 20-minute commute to hours and of a fundamental lack of transport services.

To get around, Palestinians must rely either on the Israeli systems—when available to them—or on their own network of cars, buses, and a collective taxi system of great potential efficiency, thwarted only by oppressive security delays. What is

frustrating about all of this from the point of view of planning is that an efficient system for both Israeli and Palestinian Jerusalem is easy to imagine in purely technical terms. Jerusalem is a node on a linear urban system that runs from Nablus in the north through Ramallah, Jerusalem, and Bethlehem, to Hebron in the south—a classic linear city, considered in purely physical terms.

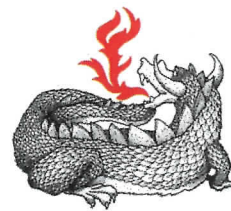
For transportation planners, the logic of a north-south system would seem clear-cut. Given the density of settlement and the relatively small distances, such a system might be both highly efficient and profitable and an instrument of accommodation, convenience, and peace. Unfortunately, politics stands in the way. Still, there are precedents for cooperation. There is one part of the urban infrastructure where all of Jerusalem works together: The municipal sewerage system is joined. Perhaps this is an earthy harbinger of greater possibilities should justice and reason ever prevail. ■

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Practice Matters

By Charles Linn, FAIA

Can a continuing education program enhance a firm's performance and contribute to its bottom line? Senior managers at FreemanWhite, an architecture and engineering firm in Charlotte, North Carolina, believe theirs does. The firm currently invests 4 percent of its gross annual revenue in its expansive education program, the FreemanWhite Academy. This is a considerable sum; by comparison, it is more than many firms its size spend on marketing. "We consider this a minimal investment when compared with the returns we receive from having heightened employee knowledge, improved skills, and enhanced employee satisfaction," says principal Alan Baldwin, AIA.

Don't try to grow without it

The continuing education program was proposed during the mid-1990s as a part of a larger plan to expand and reposition the firm's business. The principals decided to create studios for the design of buildings for government and for senior care in addition to their already flourishing health-care design practice. They also decided to create new consulting groups to provide strategic planning and operational analysis for clients who operate these building types.

The firm's leadership also believed that if they were to expand into these new areas, there would be a need for firmwide education. They felt that unless knowledge about these new building types, as well as advanced project-management techniques, could be shared with

employees, what the firm might gain through expansion could be short-lived. Firms that grow quickly but are unable to maintain their culture and quality while controlling costs often do not survive their success.

The results

FreemanWhite's new business strategy was the right move at the right time. Growth in its chosen sectors, coupled with the active economy of the late 1990s, set the stage for rapid expansion at the firm. Since 1996, the number of its employees has increased from 66 to 232. Members of the firm currently hold 331 licenses in 38 states.

After looking at the stated goals for the academy, one might conclude that some of the firm's leaders aspire to be educators themselves. Among the academy's objectives are providing employees with career-long learning; teaching skills necessary to meet job-performance goals; allowing interdisciplinary learning within the firm's design, strategic planning, and operational analysis groups; and strengthening the profession by offering courses to practitioners who work at other firms.

The academy's growth has been proportional to that of the business—a handful of classes given the first year has been expanded to almost 140 courses,

broken into two groups: core classes, which are not unlike required courses in a college curriculum, and enrichment classes, which function like electives.

All the firm's employees use the program—even its receptionists are required to complete 10 of the firm's continuing education classes. A customized core curriculum has been created for each of FreemanWhite's 43 different staff positions. For example, an employee cannot become a project manager without completing 21 core courses. These include negotiation of contracts and fees, client development,



risk management, quality management, leadership and team building, and public speaking. FreemanWhite is an AIA continuing education provider, and its courses are designed to meet AIA learning objectives and state board requirements. To underscore the importance of the curriculum,

advancement and performance reviews are tied to successful completion of different courses. Employees can get stipends if they choose to take courses not offered in-house.

Using the firm's intranet, employees can view their transcripts, see class schedules, and enroll in classes. They can even order lunch online for lunch-hour courses. Classes are taught in a 32-seat classroom equipped with computers, video, and multimedia-presentation equipment. When an employee enrolls in a course, an entry is automatically inserted into his or her online calendar. When course work is complete, the firm's human resources department forwards certificates of completion to the employee's licensing board and professional associations.

Payback time

Running the program isn't cheap, but, Baldwin notes, "It's really true: Well-educated employees really do add to the bottom line. They are happier and work harder because they see that the firm is investing in their growth. Our turnover has stayed low even as the firm has grown." The firm's surveys show that client satisfaction has improved as its profitability has increased.

Notice of the FreemanWhite Academy's successes has not been limited to the firm's workers and clients. At the AIA Convention in Charlotte this past May, the firm's program won the institute's 2001 Award for Excellence in Continuing Education. ■



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Urbanism gone awry: The ever-morphing cityscapes of Asia, America, and Europe

Books

Japan. Towards Totalscape, by Mariko Terada and Moriko Kira. New York: Distributed Art Publishers, 2001, 332 pages, \$43.

Think of Japanese landscapes, and painstakingly tended gardens and gently tamed panoramas come to mind. Yet in interviews and essays, *Towards Totalscape* describes a people who dislike greenery (hence their shortage of urban parks), and who venture into the countryside not to enjoy nature but "to enjoy the same amenities and lifestyle they left behind." The book characterizes the Japanese as devaluing attachments to place, allergic as they have been since World War II to anything hinting at ultranationalism. "Our identities," writes landscape architect Naoki Takeda, "have become divorced from our landscape. Such a thing would be unthinkable in Europe." We read, moreover, that the Japanese have disconnected design identity from tradition and, because they associate big plans with their imperialist past, have tended to shun planners and their ideas for organizing landscapes and urban spaces.

But change is afoot, according to *Towards Totalscape*, due in large part to a more than decade-long economic and political crisis, the result of outdated economic, cultural, and social structures that emerged after World War II. The crisis has made people suspicious of the prevailing "Tokyo is the best" mentality. They are moving back to smaller cities and towns, and such local regional centers as Fukuoka

are growing in importance. So is local enthusiasm for public projects and urban designs that take their cues from local characteristics and embody a city's ambitions. Such designs are featured among 90 by 56 architects and urban planners shown in this volume; it accompanied a winter 2000 exhibition by the same name at the Netherlands Architecture Institute in Rotterdam.

Towards Totalscape calls for a more contemporary, rational way of organizing the Japanese landscape to reflect indigenous cultures and environments while accommodating a shrinking population with greater mobility and new information technologies. "We have to rethink the city

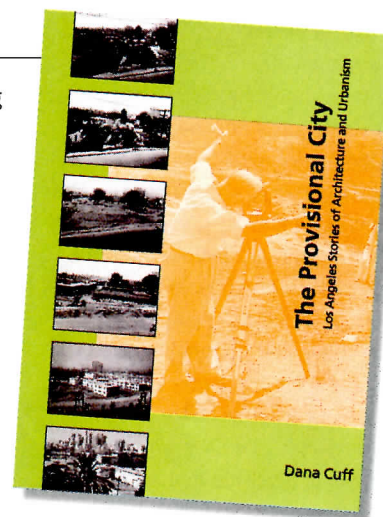
Japan.
Towards
Total
scape

and architecture as something that integrates the various 'scapes,'" writes architect Moriko Kira. "Totalscape," she says, is "accepting things as they are and yet providing some kind of direction for development." The book's greatest weakness is graphic. Built designs are shown in badly reproduced duotones. And the attempt to give an

overall impression of cities, sprawling suburbs, and unspoiled nature by ganging postage stamp-size photos results in a homogenous blur. *Andrea Oppenheimer Dean*

The Provisional City, by Dana Cuff. Cambridge: MIT Press, 2001, 400 pages, \$40.

A remorseless civic hand sweeping away old homes on a hillside; a megadeveloper's dream transforming open fields; the power of a vision to disrupt, change, and hurt; the constant force of money: These are the stories that Dana Cuff tells in *The Provisional City*. Cuff tells tales of bigness, of projects that transform the urban landscape definitively. She locates her saga in Los Angeles, her hometown, which offers plenty of material. Looking back over the past century, Cuff recounts the creation or attempted creation of five predominately residential projects: the Aliso Village, a Modernist public housing project that replaced an old Hispanic downtown neighborhood called The Flats in the 1930s; Rodger Young Village, a Quonset-hut town built as temporary housing for veterans after World War II; Westchester, a West Coast Levittown; Elysian Park Heights, a public-housing project attempted in the 1950s on a semi-populated ravine; and Playa Vista, a present-day proposed New Urbanist city on the old Hughes airfield. The book is well illustrated with period photos, many of them from the ubiquitous chronicler of Los Angeles' architectural journey,



photographer Dick Whittington.

Cuff states that her book is a study of what we've lost, how it was lost, and what has come to take its place in cities. It examines how large-scale urban residential additions come about and what they supplant. The stories Cuff tells are mostly sad. She describes projects that are largely gone now, eaten away by the same financial forces that created them, or by their designer's flawed visions. She shows the rise and fall of the Modernists' rational ideals. She charts the rejection of widespread public housing in favor of subsidies to private developers and buyers. She shows the changing face of civic power.

Cuff blends her case histories with chapters showing where the power for such sweeping change resides. Best is her discussion of the concept and implementation of property rights, which goes back to John Locke's rationales for wresting power from royalty, and in the modern era is usually used by those with more power to take from those with less. The government and courts

Books

support eminent domain to build baseball stadiums, while giving rich homeowners freedom from environmental regulations.

Cuff's book helps the reader understand the forces that make and remake cities. For the most part, her historical research is excellent, although the section on Playa Vista is thinner and more perfunctory than others. The book has other limitations. First, her attempt to distinguish between disruptive and more orderly development is not quite right. Cities originate from invasions and conquests by railway lines, highways, industry, and the military. What appears orderly now often had disorderly beginnings. Secondly, her comments are insightful, but she has few suggestions for a better development framework. She says weakly near the end, "I believe that some large urban projects should be built," but

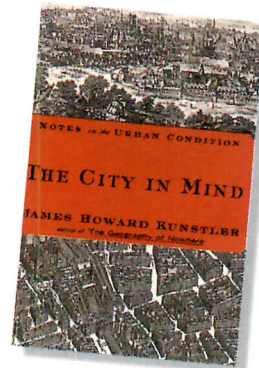
she gives no criteria for their selection. A more general respect for both community and individual rights would be a good place to start. *Alex Marshall*

The City in Mind: Notes on the Urban Condition, by James Howard Kunstler. New York: The Free Press, 2002, 272 pages, \$25.

In *The Geography of Nowhere*, Kunstler depicted an America declining into sprawl. Here he takes on eight cities (Paris, Atlanta, Mexico City, Berlin, Las Vegas, Rome, Boston, and London) and concludes that, for the most part, they and urban life in the West in general have declined appallingly. Starting on a positive note, he describes Baron Haussmann's late-19th-century redo of Paris as proof that "city-making is an art rather than a product of statistical analysis or social-service

casework." But then he marches through Atlanta, finding a "giant hairball of a 13-county demolition derby" whose "only plausible future" is to become significantly depopulated. He describes Mexico City as a "hypertrophied metastasized organism destined to devour itself." And Las Vegas is "the place where America's spirit crawled off to die."

His ideal is the Classical idea, as he explains in his chapter on Rome. He laments that the Modern movement has tossed out the Classical idea, "along with 2,500 years of cultural memory." He finds Berlin in relatively good shape, in large part because "'creativity' and 'genius' [have taken] second place to the ordering principles of traditional urbanism." He singles out Boston as an American model for its in-town living and because it has revived many of its residential neigh-



borhoods. (But what about that back-to-urban-neighborhoods trend we've been reading about?) Our would-be Tocqueville ends in London, where he skewers the City Beautiful movement and Olmsted, in particular, for trying to bring country living to city life.

There are worthy observations in *The City in Mind*, but they tend to be eclipsed by Kunstler's unremitting, too-clever rant. *AOD*

Pioneers of American Landscape Design, by Charles A. Birnbaum and Robin Carson. New York: McGraw-Hill, 2000, 486 pages, \$60.

Who designed America? *Pioneers of American Landscape Design*, without overtly intending to, makes a compelling case that landscape architects were far more important than architects in shaping America's

58

hurricanes*

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* NUMBER OF HURRICANES THAT HIT THE ATLANTIC BASIN FROM 1995 TO 2001.

designed environment. To many architects, a landscape architect is a horticulturalist with attitude. But these pioneers laid out towns, made the National Park System accessible, and designed the limited-access parkways that preceded the grim concrete trenches we call the Interstate Highway System.

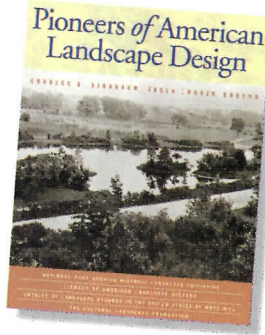
Pioneers of American Landscape Design, though, isn't a tract. It's a useful and eye-opening encyclopedia describing the vision and work of some 160 people who shaped America by designing gardens, parks, and roads, as well as towns and vast multistate territories. Amazingly, it is the first such compendium. Charles Birnbaum is the coordinator of the National Park Service's Historic Landscape Initiative; coeditor Robin Karson is executive director of the Library of American History. They joined forces with Catha Grace Rambusch, the director of the Catalog of Landscape Records in the United States, at Wave Hill, to present material on designers whose efforts are widely

scattered and little known.

Among the book's pioneers are such key figures as Andrew Jackson Downing and Frederick Law Olmsted. But it also includes profiles of conservationists, farmers, foresters, surveyors, educators, planners, engineers—even architects. The book looks at people who changed the way we see the landscape. Benton MacKaye, for example, conceived the Appalachian trail and laid the conceptual groundwork for the vast hydroelectrified landscape created by the Tennessee Valley Authority. The rational yet picturesque plans devised by John Nolen for towns all over the country still inspire New Urbanists. Christopher Tunnard's Modernist bent influenced important post-pioneer generations of landscape designers, including Dan Kiley, Garret Eckbo, and the late Ian McHarg.

We learn who designed the

countless streetcar suburbs and genteel subdivisions that remain many cities' most sought-after addresses. We read how Benjamin Banneker, an African-American surveyor who worked with Pierre L'Enfant, rescued the plan of Washington, D.C. Thanks to a photographic memory, Banneker recreated the plan after George Washington fired L'Enfant, who left town, drawings in hand.



Nor is traditional landscape design neglected. We discover it was Charles Burnap's idea to plant cherry trees along Washington's Tidal Basin. Well-illustrated entries identify designers who famously collaborated with architects on gardens and country houses, parks and museums. Women appear earlier and more frequently than they would in a corresponding volume on architecture. There are female horticulturalists and great garden designers, such as

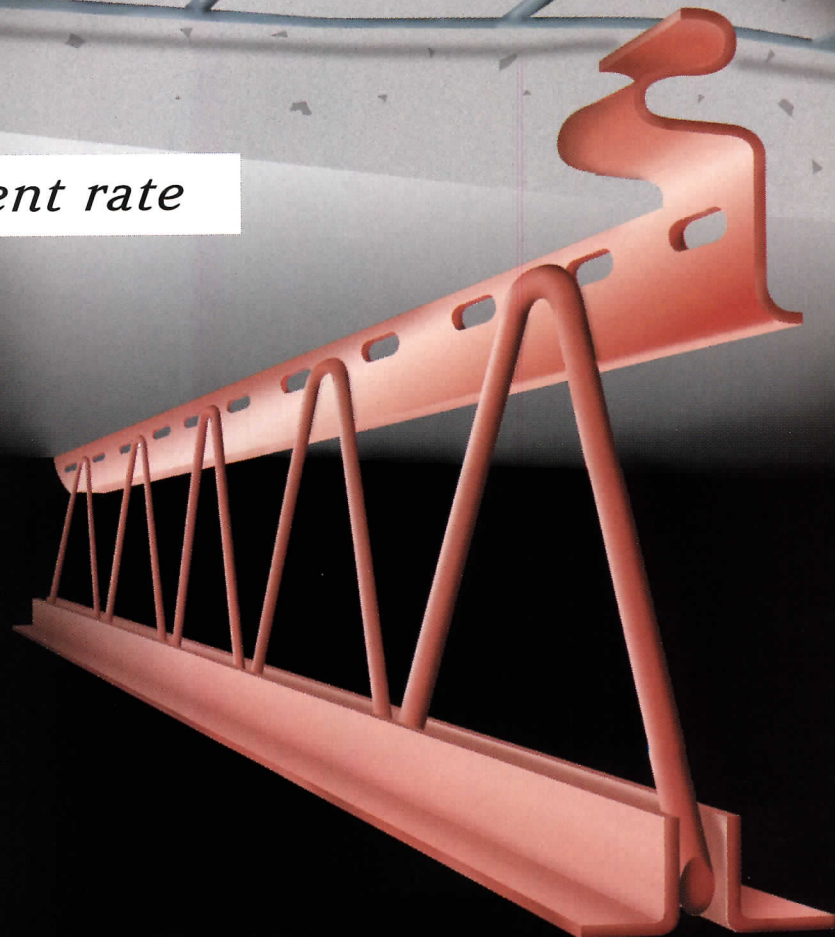
Dumbarton Oaks' Beatrix Farrand, but there is also the architect Hazel Waterman, who preserved and popularized California's Spanish architectural heritage.

Don't be put off by the book's stodgy design; the weird presentation of some images first in black and white, then in bleary color; or by Birnbaum's dry and list-filled introduction. Most of the entries, from dozens of authorities, are readable; many are fascinating. (At the back is a useful list of sites open to the public.) Taken together, the biographies describe an endeavor to which Americans feel closer than to architecture. People occupy buildings and live in cities, but their hearts are often out on the prairie or in the mountains. By poignantly expressing the nation's connection to the land and to its vast and often frightening wilderness, these "cultural landscapes," as Birnbaum calls them, tap into something deep and emotional to which the architect is only occasionally allowed access. *James S. Russell, AIA*

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In cities of the dead, new structures push the limits of above-ground interment

Projects Undertaken

By Sarah Amelar

1. Memorial Park and Columbarium, Seoul, Korea
Kyu Sung Wu Architects
Completion date: 2004

With land-use problems plaguing Korea, its prime method of interment is shifting gradually toward cremation. This repository will house the remains of 50,000 people and accommodate up to 30,000 daily visitors. The extensively glazed structure reinforces connections with nature, while allowing for privacy and diverse practices of mourning and remembrance.

2. New Mausoleum, Mountain View Cemetery, Oakland, Calif.
Alexander Gorlin Architect
Completion date: 2003

Respecting their picturesque setting in a 1863 Frederick Law Olmsted-designed cemetery, this chapel and mausoleum, with crypts, sarcophagi, and a columbarium, recall garden structures. A reflecting pool, framed views, and cypress-edged pathways around the 20,000-square-foot complex offer places for meditation.

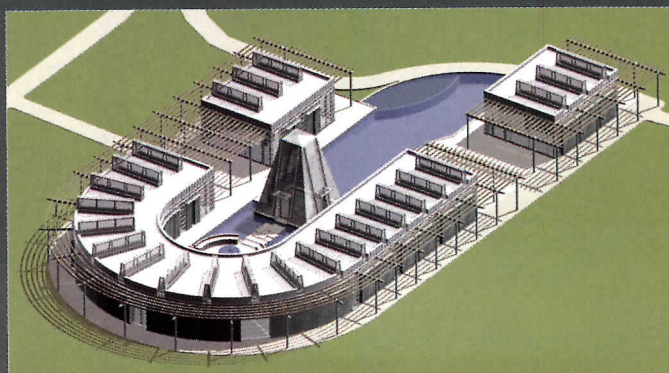
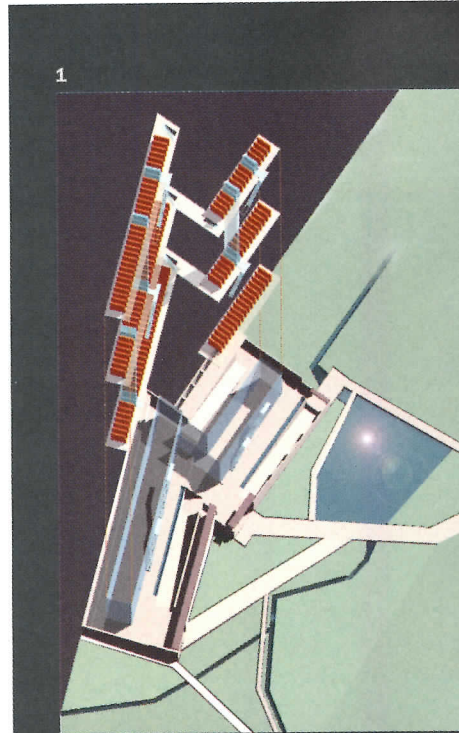
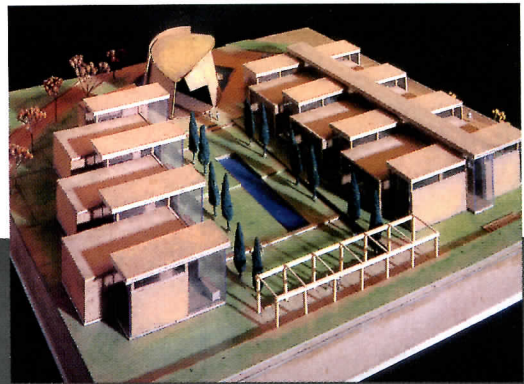
3. Island Cemetery, Venice, Italy
David Chipperfield Architects
Completion dates: 2007 (Phase I), 2013 (Phase II)

Venice faces a crisis as its cemetery island of San Michele pushes its spatial limits. This condition persists despite the city's age-old practice of leasing burial space for a limited number of decades and then moving the remains to an ossuary. Phase I of Chipperfield's plan will expand San Michele Island, and Phase II will create an adjacent new cemetery island.

4. Green-Wood Cemetery Mausoleum Addition
Brooklyn, N.Y.

Platt Byard Dovell Architects
Completion date: 2003

For this 1838 cemetery, a four-story, 20,000-square-foot, above-ground addition to the Hillside Mausoleum will provide much-needed space, with shingled glass atria integrating indoors and out. ■



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Snapshot



The Artcamp tents (this page) are permanent, rentable dwellings at a campground in the Netherlands.



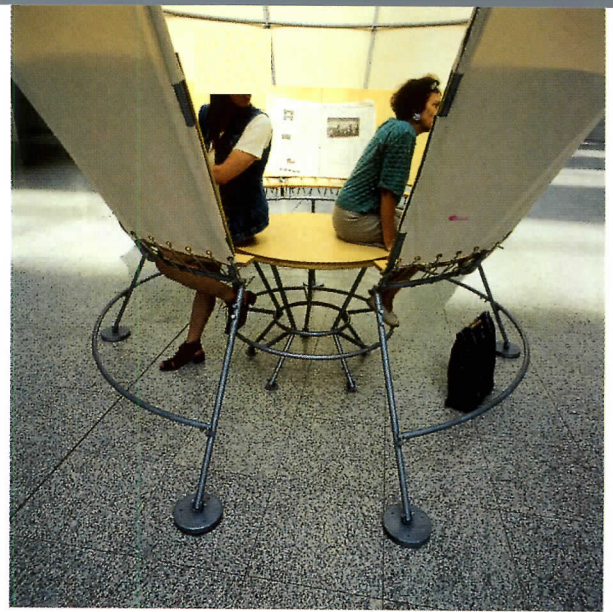
By Ingrid Whitehead

"If there's one thing I don't understand," said artist Dre Wapenaar at last year's Aspen Design Conference, "it's the behavior of people." In an attempt to discover what makes us enigmatic humans tick, Wapenaar changed his work 15 years ago from passive sculptures to interactive, public structures. "I make tents," he says, "and I rely on my tents to help me understand the interaction between people."

Despite the fact that Wapenaar's structures are conceived for mundane activities, which he carefully analyzes (sleeping, drinking beer, selling flowers and newspapers, taking a shower, even birthing and mourning), they are not at all typical of ordinary tents. You can't move most of them without a crane; they don't fold up conveniently; and they are hardly inexpensive, portable dwellings. They are, instead, seductive public sculptures, enclosures that invite people to enter and engage in a physical dialogue. Wapenaar's tents use design without decoration to orchestrate encounters between people and elevate the quality of their experience.

Social sculptures make a statement in canvas

Snapshot



Although many of Wapenaar's projects have been funded as art by the Dutch government and other official sources, some patrons include forward-thinking individuals with enthusiasm for the practical and functional benefits of his work. A pair of Dutch campground owners, Roel and Janneke Selderijk, saw Wapenaar's tents, including his NewspaperKiosk (above) and his FlowerKiosk, and commissioned a group of round, multicolored dwellings, dubbed "Artcamp," which are rented out by the night to travelers. The Selderijks also purchased three of Wapenaar's TreeTents (photo and drawing below) for the camps. The inspiration for the figlike pods came from a group of British environmental activists who call themselves "Road Alert" and live in or around trees in old-growth forests, braving the destructive approach of chain saws as long as possible. Wapenaar wanted to provide these protestors with shelter that could be attached to the trees. Nine feet in diameter, the polyester-

The Newspaper Kiosk (above) was commissioned as art but successfully functioned as an indoor retreat for people to browse and read newspapers—an intimate moment shared with others. The TreeTents (below) sleep four and serve as dwellings for families to rent by the night at a campsite in Holland.





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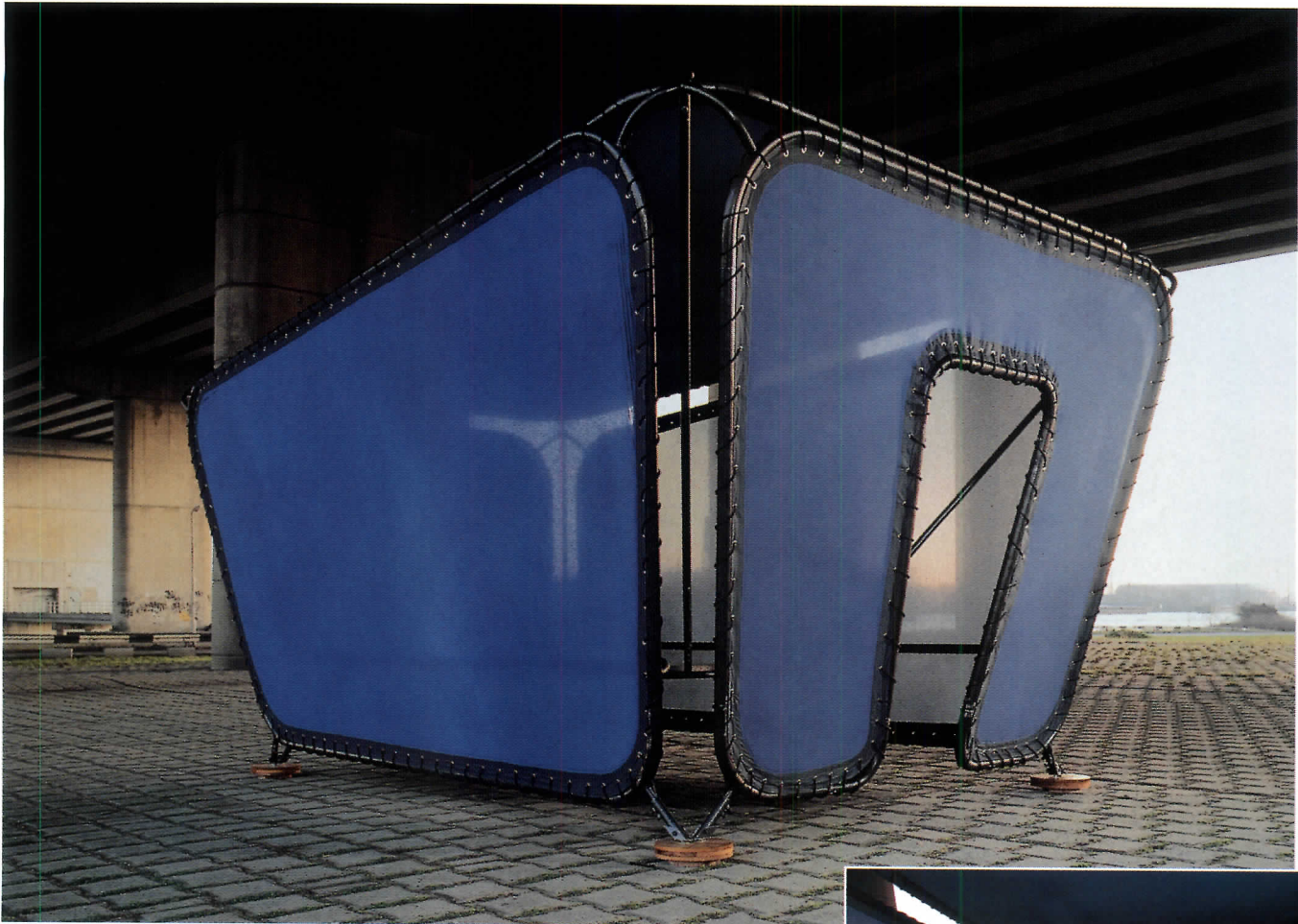


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Snapshot



Wapenaar's DeathBivouac (this page) and BirthingStand (not shown) deal with the more emotional sides of human experience.

canvas tents sleep four people each, and for \$25 per night, delighted campers can climb the 12-foot stepladder and sleep soundly, only threatened by the wind, which may rock the tent gently from side to side.

Wapenaar's newer works, while still focusing on practical experience, have moved more toward the emotional side of human interaction. His DeathBivouac (this page) contains a central, suspended platform for a coffin, while the surrounding semitransparent fabric screens provide a light and private space in which the bereaved can bid goodbye to a deceased loved one. His BirthingStand tent holds a specially designed, hammocklike wheel for the mother to hang in as she gives birth naturally, with the help of gravity.

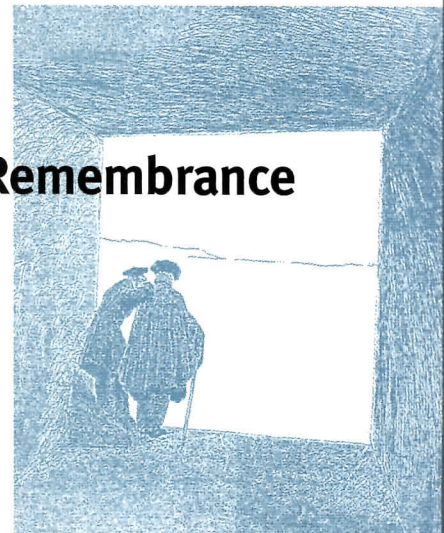
Wapenaar, who sleeps in a tent called WinterBivouac within his Rotterdam loft, continues to explore the creation of alternative spaces in which to experience familiar human events. He uses canvas as a versatile material well suited to the play of light and transparency and to experimentation with volumes. He is currently working on a new tent, a WetnurseTent. "An old idea, the wet nurse," he says, "put into a new jacket. Wasn't this how women did it, a few centuries ago?" ■



Architecture

for Remembrance

HOW DO WE REMEMBER
IN STONE, STEEL, AND GLASS
WHAT IS, BY NATURE, FLEETING?



In the third century B.C., the Greek philosopher Epicurus wrote, “It is possible to provide security against other ills, but as far as death is concerned, we men live in a city without walls.” Reflecting perhaps the impossibility of the task, we repeatedly erect walls to honor the dead and remember their lives. The nature of these structures has changed over time, from stone pyramids to sculpture-encrusted monuments to glass-and-steel constructions. The need to memorialize, though, is eternal.

We at RECORD approached the topic of remembrance with a fair amount of trepidation. In the wake of the September 11 terrorist attacks, engaging the subject brought with it responsibilities not easily met. But neither were these responsibilities easily ignored. Architecture is important because it gives form to what we most deeply value: home, justice, spirituality, honor. This month’s magazine shows how contemporary architects in different countries are wrestling with the profound dilemma of remembering in stone, steel, and glass what is, by nature, fleeting.

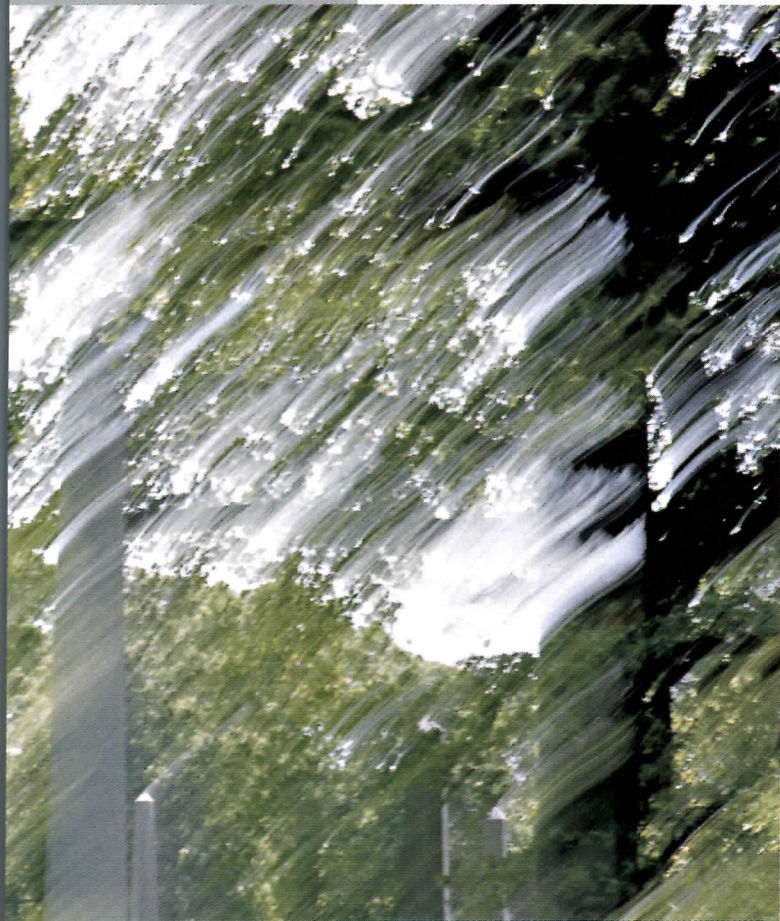
Our special coverage begins with an essay on the design of public monuments, providing some historical perspective on a perennially controversial topic. We then present seven completed projects: a memorial garden, a mortuary, a funeral chapel, several buildings at cemeteries, and a museum that honors the spirit of a young girl who wrote about life in the shadow of death. We close our coverage with two articles that examine America’s responses to the horrific losses at Oklahoma City and the World Trade Center: one an interview with an expert on grieving and the other a critical look at the planning process for *Ground Zero*.

Although we often try to ignore the unpleasant fact of our mortality, the projects in this issue show that architects can create beauty in response to death. *Clifford A. Pearson*



MEMORIALS, monuments, and meaning

by Robert Ivy, FAIA



“Two vast and trunkless legs of stone
Stand in the desert. Near them, on the sand,
Half sunk, a shattered visage lies ...
And on the pedestal, these words appear:
‘My name is Ozymandias, king of kings:
Look on my works, ye Mighty, and despair!’ ”

Ozymandias
Percy Bysshe Shelley

How do we, the living, recall the dead? How do we signal the people or places that altered history? How do we institutionalize pain? How do we signify what matters to our civilization? The questions sound abstract, yet in this fractious, dangerous world, the issues confront and confound us with urgency, and architects find themselves at the center of the debate. Not all solutions are architectural, however.

Society knows that we will remember what we are reminded of; history, whether oral or written, is a structured narrative that reforms the past, interweaving memory and experience into a singular tale, says Craig Barton in his book, *Sites of Memory*. When we build for remembrance’s sake, we recast history—from objects to whole cities. Barton refers to the process as “the codification of memory,” an idea apparent in symbols as obvious as the great St. Louis Gateway Arch, which leaps toward Manifest Destiny and the opening of the American West. Our traditions, our prejudices, and our beliefs flow from such constructions.

Historically, remembrance has been central to architecture. For more than five thousand years, architects have made monuments to the

dead, to glorious battles, and to ideas. Ironically, the earliest and grandest abide. Despite ancient social upheavals, shifts in pharaonic power, unification and dispersal of Upper and Lower kingdoms, Hellenism, Rome, Islam, and the birth of the modern state, Khufu’s monumental pyramid (ca. 2500 B.C.) still stands, a memorial to the god-king and a monument to ancient Egypt’s collective genius. In death, Khufu traveled to other realms; in life, only the stones remain.

Jump to the 20th century. Spoleto Festival, 1997, outside Charleston, South Carolina. At McLeod Plantation, the landscape architect and artist Martha Schwartz hung multiple cotton sheets arrayed near the houses of former slaves. As the day progressed, the fabric scrim altered with changing light; morning and evening breezes animated each piece

MEMORIES SHIFT OVER TIME, MUCH LIKE THE LIGHT AT MCLEOD PLANTATION.

and changed its form. Animate, poetic, Schwartz’s art installation stirred emotions within the viewer and provoked speculation in an unexpected way about slavery—both about the system itself and the contributions of slaves to material culture.

The two illustrations underscore the differentiation between two apparently similar words, monument and memorial. While linguists might debate the distinctions, fundamentally a monument comprises a designed and constructed physical object intended as a commemoration. Memorials that celebrate or grieve may take a more ephemeral form—including the strewing of flowers in memory of the deceased, such as occurred during the Memorial Day/Decoration Day movement of the 19th century or the free-form floral outpouring at the gates of Kensington Palace following the death of Princess Diana. Both involve the physical world, both involve remembrance.

While structures may house ideas, it is people who actually do the remembering, and people vary. The vastly differing populations comprising the early Egyptians and 20th-century museumgoers each carry the baggage of time; location; political, social, and cultural history; and religion that author James Young in *The Texture of Memory* calls “collected memory.” Each person brings to the memorial experience a personal set of expectations—not a reflection of zeitgeist so much as a composite of emotion and recollected thought—that the effective memorial recalls. Those memories shift over time, much like the light at McLeod Plantation.

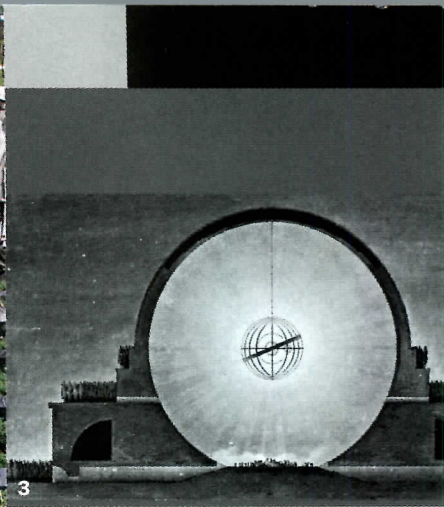
Perfection and placement For millennia, formal perfection and



1

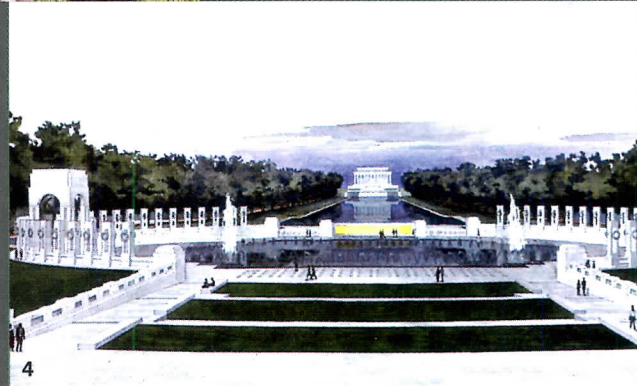


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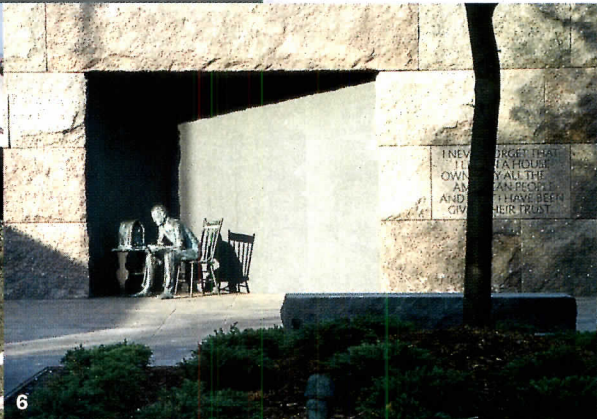
1. Oklahoma City National Memorial, Butzer Design, photo by Timothy Hursley; 2. Korean War Memorial, Maya Lin, photo by Wally McNamee/Corbis; 3. Cenotaph for Newton, photo by Leonard de Selva/Corbis; 4. World War II Memorial, photo by AFP/Corbis; 5. Brion Vega Cemetery, Pugh & Scarpa, photo by L. Scarpa; 6. FDR Memorial, Spacemaker Press, photo by Alan Ward; 7. Civil Rights Memorial, Maya Lin, photo by John O'Hagan/Southern Poverty Law Center; 8. Chikatsu Asuka Museum, photo by Shigeo Ogawa; 9. Cleopatra's Needle, photo from Bettmann/Corbis; 10. Spoleto Festival, photo by Martha Schwartz



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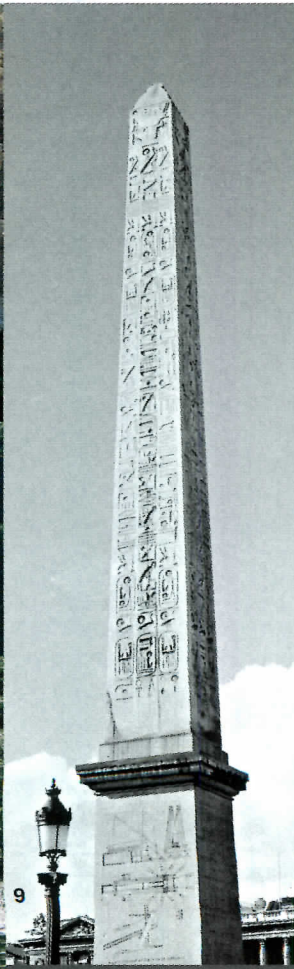
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9

memory have been linked. As at Khufu's pyramid, monumental architects have always relied on ideal forms, such as those derived from Platonic theory in ancient Greece, to mimic heavenly purity. Columns, for example, suggested transcendence. The semiotic messages embedded in Cleopatra's Needle or the Washington Monument offer a Freudian concatenation of meanings: conqueror, marker, phallic symbol, he/she who overcomes gravity, skyscraper, imperial might.

Such formal perfection continues to inspire the designer. Cubes and spheres—as seen, for instance, in Boullée's Cenotaph to Sir Isaac Newton—have attracted generations of admirers, including the architects of the recent Rose Planetarium at New York's Museum of Natural History. Wrapped and lighted from within, Michael Graves's Christo-like renovation robe for the Washington Monument vivified an iconic obelisk. Transformed, we could see the familiar through new eyes.

Perfection demands the perfect site. It was the picturesque movement in the 19th century that placed historicist mausoleums in rolling green parkland. These idealized settings, such as Brooklyn's Greenwood and Boston's Mount Auburn cemeteries, heightened experience for their middle-class visitors and served as precursors of the parks movement. Today, in a world of cryogenics and hegemony of the virtual, as

**“FIXITY IS A FUNCTION OF POWER.”
THOSE WHO “MAINTAIN PLACE ...
ARE POWER BROKERS ...”**

—HOUSTON BAKER

land becomes more scarce, the mausoleum is returning. Today, scientific advances permit hi-tech, on-demand encounters with the loved one, who appears on-screen with a final message for visitors. In the 21st century, love and science conquer all.

Evolution of meaning Memorials shift in meaning as generations change. Time alters understanding and blurs memory; architecture remains. According to James Young (and Shelley), “Monuments that resist transformation risk losing their significance to future generations.” Following the immediacy of loss, when grief has thinned or disappeared, we inevitably begin to appreciate the monument or the memorial for its more abstract qualities. Ultimately, time may blur our collective vision and we may entirely forget the events that generated the memorial, so removed from our lives or so potent has the architecture or the symbol grown. Although few persons might know the historical roots of the Arc de Triomphe as a representation of Napoleonic victories, today everyone identifies the arch with the city of Paris.

Fixed power Monuments may be fixed or temporary. In writing about



the blues (in *Blues Ideology and Afro-American Literature—A Vernacular Theory*), Houston Baker addresses stability. According to Baker, “Fixity is a function of power.” He states that those who “maintain place, who decide what takes place and dictate what has taken place, are power brokers of the traditional.” The rootless, the “placeless,” by contrast, find other, more “fluid” ways of memorializing. To Maya Angelou, as she says in her novel *I Know Why the Caged Bird Sings*, rather than any buildings or monuments, the poetry of preachers and the blues epitomizes African-American memorial making. To Baker, the crossroads becomes the symbol where art and memory conjoin.

Thus, the Vietnam Memorial on the Mall in Washington, a fixed, evocative monument, represents the tragic consequences of war by the nation-state. By contrast, the AIDS quilt, “nomadic, portable, constantly being added to,” formed a temporary installation that was spread on the same Washington soil occupied by the Vietnam Memorial. Both affected the American conscience and consciousness, through two different means. Both resonate today, although only one remains in place.

The resolution of a memorial depends on who tells the story. Monument building, like museum design, can be construed as a political act, controlling the narrative of actual events, determining the sequence of experiences, and interpreting them for subsequent generations. Digital guides and video-speak round out the story, much as guides or interpreters at historic sites like Chartres Cathedral tell us their history and thereby frame our understanding of events. Their narratives reflect controlled authorship and ownership of ideas.

In a democracy like our own, split wide open by the Internet, everyone has a say. Architecture's role becomes one of “repository of our collective and individual cultural history and memory,” says author Craig Barton. Reductivist in nature, architecture compresses and contains history in a single place at one time, while democratizing forces that surround us in cyberspace may call for dispersal across time and space. James Young encourages the search for the “art of public memory,” a process that engages audiences in the making and the viewing, creating a dialogue that transcends the mere appearance of any memorial.

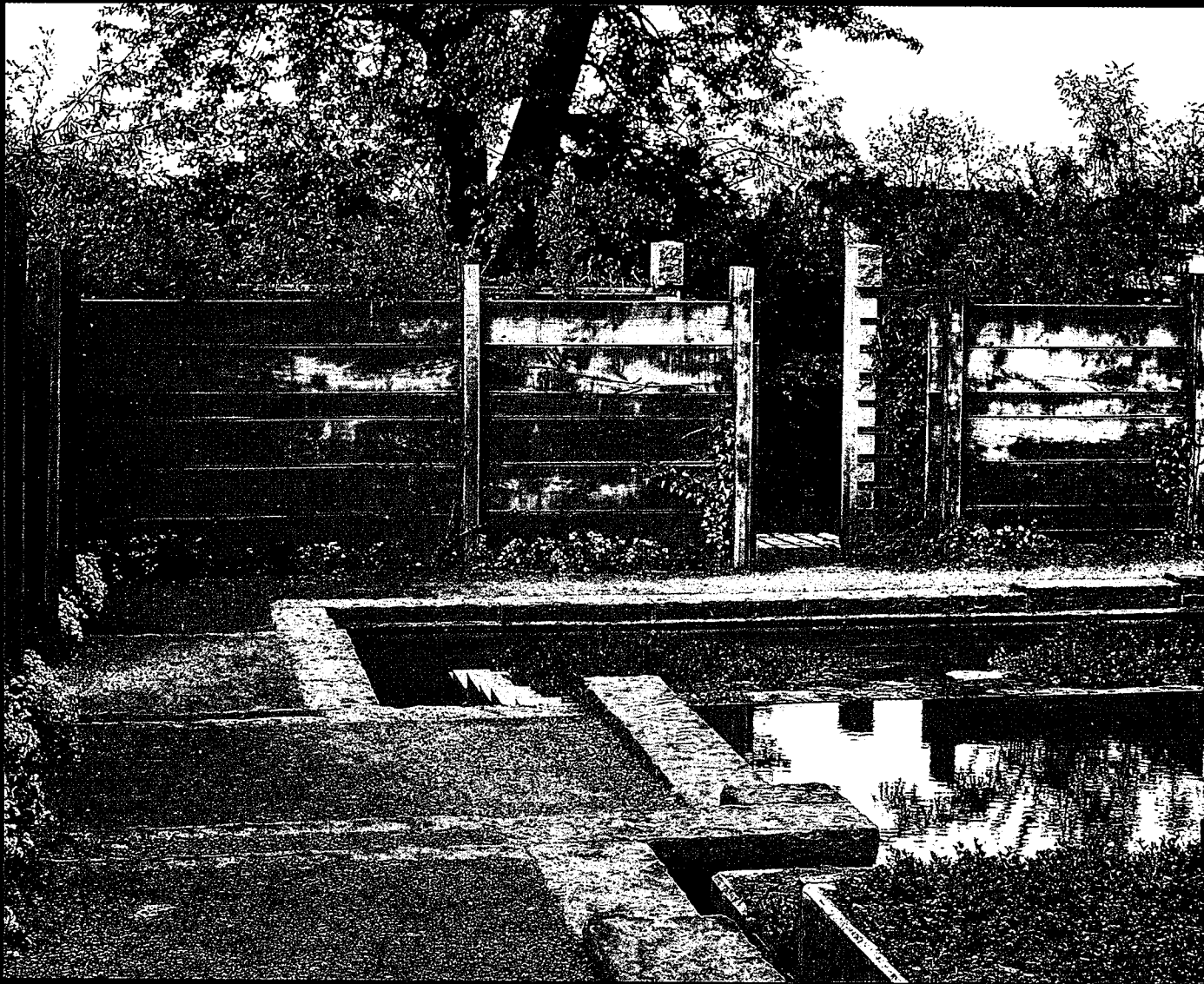
The true cross What is the significance of a real, historic artifact to a memorial? The Van Alen Institute has debated how much actual pieces of the past lend authenticity or “weight” to monuments. Is that shard in fact a remnant of the “True Cross” that animated so much furor in the Crusaders? Isn't a representation of the cross, like the homemade versions planted along America's highways marking a tragedy, equally moving to believers?

Some sites blend media to probe authenticity. In Amsterdam, at the Anne Frank House, the visitor passes by an orchestrated pathway through the actual chambers inhabited by the Frank family from 1942–1944. According to careful design, space after space (continued on page 214)

ARCHITECTURAL CONCEPTS
STUDIO/ARCHITECTURE
MICHAEL SIKKEMA, ARCHITECT
LIZ AND PATRICK
LANDSCAPE DESIGN

A GARDEN for Survivors

PROJECTS



Four openings frame views of the garden, which was designed as one piece in a plan by Liz and Patrick to tie a series of city parks together.



The sound of running water plays like a musical score in the outdoor rooms that form a small memorial garden in Stuttgart. But wherever visitors look they see only still water sitting in pools made of granite, concrete, and roughly textured pieces of cast bronze. Hiding the moving water behind and underneath hard surfaces of stone, metal, and wood, the sculptor and environmental designer Michael Singer creates a subtle tension between sound and sight, which heightens the impact on both senses.

Singer designed the garden in a neglected piece of Killesberg Park as part of an international horticultural exposition hosted by Stuttgart. When the artist first saw the one-acre site at the foot of a hill and the edge of an apple orchard, its main features were two sad streams converging in a ditch. At the time, Singer was working on a sculpture in his studio in Vermont called *Map of Memory*, and he decided to apply some of the motifs



in that piece—including remembrance, enclosure, and layering—to the garden in Germany. After selecting the site, Singer learned that the hill right behind it was created nearly 50 years before from the rubble of buildings destroyed during World War II. Memory seemed an appropriate theme.

The project begins with the two streams flowing into a shallow trough cut into a stone walkway, the only place water is seen moving. The trough leads to a double barrier—a trellis planted with clematis and an adjacent oak wall—which defines the garden proper. Four openings in the wall provide access to the garden, where a set of irregular pools, channels, and steps cut into the ground. “The openings frame possibilities,” says Singer. As he does with many of his sculptures, the artist repeats certain forms and tex-

tures in different materials; for example, casting bronze and concrete from molds of stone or wood pieces used elsewhere on the grounds.

For an inscription on a granite tablet in the garden, Singer selected an early 19th-century poem by the mystical Jewish sage Nachman of Breslow, which was found on a wall in the Warsaw Ghetto in 1945. “The world in its entirety is a narrow bridge, the main thing is not to be afraid,” it reads. Singer calls the garden “a place to remember those who survived,” including but not limiting the memory to people who lived through the Holocaust. Long neglected and pushed up against a hillside made of the detritus of war, “this is a place that itself has survived,” says Singer. *Clifford A. Pearson*



Stilbene cores in the layer of a
compositum bed within east
trunk, showing, from left to right,
and other cores.

BETWEEN EARTH AND SKY *A mortuary under water*

LEÓN TANATORIO
LEÓN, SPAIN
BAAS ARCHITECTS

creates an **OTHERWORLDLY REALM** for mourning



The architects won over neighbors of the mortuary by slipping the 345,000-square-foot building under a large reflecting pool.

By David Cohn

Set on the edge of a new residential development in León, in northwestern Spain, the *tanatorio*, or municipal mortuary, must serve the grieving and the dead without alienating the people living nearby. Indeed, Barcelona architect Jordi Badía won the job to design the mortuary by proposing to bury the building and cover its roof with a reflecting pool. “If there is no built volume, there is no basis for the neighbors’ rejection,” he reasoned. This scheme not only minimizes the impact of the facility but provides a repertoire of formal and tactile strategies that Badía employs to create a respectful, sheltered environment for mourning.

The *tanatorio* combines the functions of a city morgue and public mortuary. Its public functions take place in a chapel and 10 vigil rooms, where family and friends gather for wakes, accompanying the deceased during the hours before the funeral mass. Badía conceived the building as a set of counterbalanced references—to interment and aspiration, earth and sky, weight and lightness, openness and intimacy. These references may seem clichéd, but as visual and sensory presences they are quietly effective. Badía compares the building to a large tomb, or “tomb of tombs,” an allusion to weight that he offsets with the rooftop pool that reflects the sky. The long rectangular tomb is revealed by an excavation along the street, a gentle slope that exposes the concrete slab of the pool floating above a continuous window wall. Angled concrete “fingers” emerging from one end of the pool bring daylight into the chapel and call attention to the building’s entry. Badía compares these elements to an emerging hand, but they read as a more abstract expressive gesture, as in some of the late work of Le Corbusier.

A wood-decked ramp takes visitors below grade to a set of oversize pivoting glass entry doors, silk-screened with images of clouds. “Because the doors are so large, you don’t open them completely, so you have the sensation of slipping behind a screen,” explains the architect. Inside, a large, luminous foyer runs the full length of the building and provides access to the vigil rooms. Furnished with upholstered sofas and armchairs, the foyer serves as a public yet informal space. Large V-shaped pillars, which bear the weight of the water above, assert a muscular presence in contrast to the domestic character of the wood floors and the transparency of the window wall along the entry facade. Opposite this wall, panels of shattered glass mark the entries to the vigil rooms and transmit daylight from six sunken patios.

The vigil rooms are like small suites with sofas, end tables, carpets, and walls finished in quiet tones of off-white and gray. These intimate spaces look into the sunken light courts, which feature small pools of their own. In the chapel, tall light scoops—one of which focuses a dramatic beam on the altar—help distance the space from the everyday world. Like the vigil rooms, administrative offices cluster around a sunken light court.

The furnishings reflect the conflict inherent in moving a private rite into a public space. Sofas, carpets, and lamps recall a hotel lobby rather than a religious setting. Badía’s architecture is curiously timeless, as if the vocabulary of Modernism had remained unchanged since the 1960s. But his overall design overcomes this weakness. By burying the building, he creates an appropriately isolated, otherworldly realm. And by filling this realm with light, he creates a setting that is bright and serene, not heavy or macabre. ■

David Cohn is ARCHITECTURAL RECORD’s Madrid-based correspondent.

Project: León Tanatorio, León, Spain

Architect: BAAS Architects—Jordi Badía, Josep Val, lead architects;

Marcos Catalan, interior designer; Albert Cibiach, Elena Valls, Tirma Balaguer, Lluís Vitori, project team

General contractor: Construcciones Begar

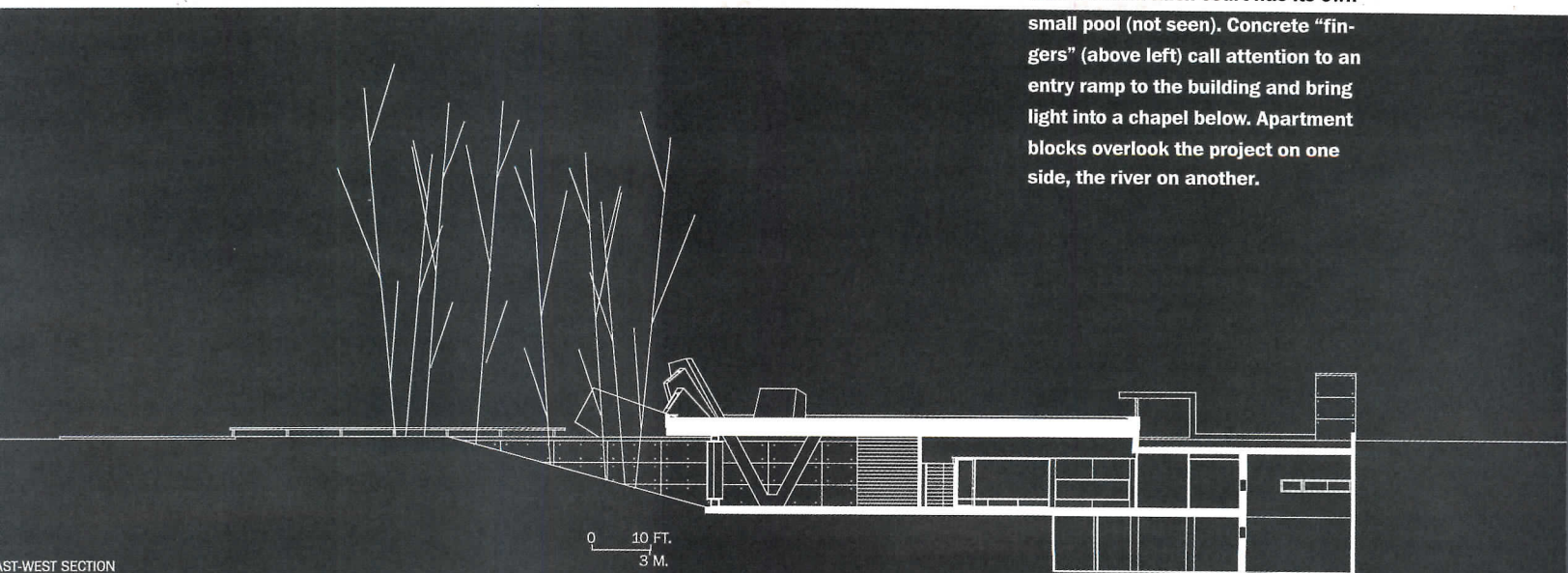
www For more information on this project, go to Projects at architecturalrecord.com.

PHOTOGRAPHY: © EUGENI PONS

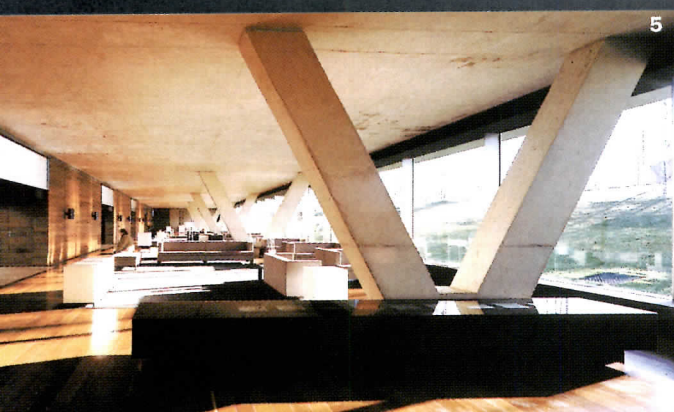




Sunken courts within the reflecting pool (above) bring daylight to vigil rooms below. Each court has its own small pool (not seen). Concrete “fingers” (above left) call attention to an entry ramp to the building and bring light into a chapel below. Apartment blocks overlook the project on one side, the river on another.







The architects used a repertoire of abstract forms and simple materials to give the chapel (above and 4) a quiet spirituality. Concrete chutes bringing sunlight into the space add to the effect. The main foyer (5) runs the length of the building and offers informal places for mourners to sit and gather. All of the vigil rooms look

onto sunken courts (1), a poetic device that allows the mourning spaces to turn inward while still taking advantage of daylight and private views. Vigil rooms (3) are furnished with chairs, sofas, tables, and carpets, which give them an almost domestic—but perhaps slightly dated—feeling.

WINGED SPIRIT In an old Dutch cemetery, an

CHAPEL OF ST. MARY OF THE ANGELS,
CEMETERY OF ST. LAWRENCE
ROTTERDAM, THE NETHERLANDS
MECANOO ARCHITECTEN



ethereal chapel **DRAWS PEOPLE** together

PROJECTS

Set in a cemetery begun in the mid-19th century, the chapel points in a new direction—more ethereal, less earthbound. Materials such as glass and tin-coated copper shingles contribute to this effect.



At 1,300 square feet, the chapel can accommodate both small groups and as many as 100 people. Mourners can also congregate under the roof and hear services. A drawing (opposite) shows the new chapel within the footprint of the original neo-Gothic one.





By Tracy Metz

Angels greet with silent song the visitor who enters the Catholic Cemetery of St. Lawrence in Rotterdam. Look up as you come through the gate, and there among the grays and greens of moss and stone is a flash of gold and royal blue. The colors of kings, and, perhaps, heaven.

When the St. Lawrence cemetery opened in 1860, it was on the edge of town. As Rotterdam grew, the cemetery became a green oasis in a blue-collar neighborhood. In commissioning a new funeral chapel from architect Francine Houben of the firm Mecanoo, parish authorities knew the resulting design would not bow to false traditionalism. The challenge, says Houben, was to create a space in which 10 mourners would not feel lost, but which could also accommodate 100. And for the occasions when there are many more, a gravel-covered space under the roof (with built-in speakers) serves the overflow.

The architect envisioned the chapel as a continuous wall floating beneath a roof. On the outside, it's a broad band of tin-coated copper shingles wrapping around a steel frame; on the inside, it reads as a seamless stretch of bright blue drawing the space together. Circles of polished blue-gray stone in the sanctuary floor mark the places for priest, coffin, and mourners. In the tradition of a true *gesamtkunstwerk*, Mecanoo designed all the furnishings, the backless wooden benches, and the tall metal uplamps. A curving silver screen behind the priest's copper lectern bears a series of intense portraits by the Belgian artist Mark Deconink.

The new chapel crowns a rise where two predecessors had stood: a neo-Gothic one built when the cemetery opened and one from 1963. Each, however, gradually sank into the soggy ground and had to be razed. Mecanoo's chapel is located within the footprint of the 19th-century structure, whose foundations now serve as both a retaining wall and a reminder of what came before. Chimes in the open-metal tower are remnants of the second church. The gold-colored roof with its curling eaves moves from paper-thin at the edges to thick in the middle, accommodating HVAC machinery. The most important contribution to the building's airiness, however, is the glass plinth running all the way around the top and bottom of the single flowing wall, making both the wall and the roof seem to float.

Small though it is, the building has two monumental, 16-foot-tall, pivoting doors, one leading to the sanctuary and one to the cemetery. Indeed, the structure seems to embody the transition from this world to the next. With its flowing form and winged roof, this diminutive chapel is light-handed and serene, joyous and reverential. ■

Tracy Metz is *RECORD's* correspondent in Holland and is the author of the book *Fun! Leisure and Landscape*, to be released in September by NAI Publishers.

Project: Chapel of St. Mary of the Angels, Rotterdam, the Netherlands
Architect: Mecanoo Architecten—Francine Houben, Francesco Veenstra, Ana Rocha, Huib de Jong, Martin Stoop, Natascha Arala Chaves, Judith Egberink, Henk Bouwer, design team
Engineer: Adviesbureau voor Bouwtechniek
General contractor: H& B Bouw

Sources
Copper shingles: KME Benelux
Furniture: Werken van hout
Concrete furniture: Nimis beton
Ambient lighting: BEGA Nederland

www.architecturalrecord.com For more information on this project, go to [Projects at architecturalrecord.com](http://www.architecturalrecord.com).

PHOTOGRAPHY: © CHRISTIAN RICHTERS

A CLEARING IN THE FOREST

Simple forms and a rich

SREBRNICE CEMETERY
NOVO MESTO, SLOVENIA
ALES VODOPIVEC, DESIGN ARCHITECT
ARHITEKTON, EXECUTIVE ARCHITECT



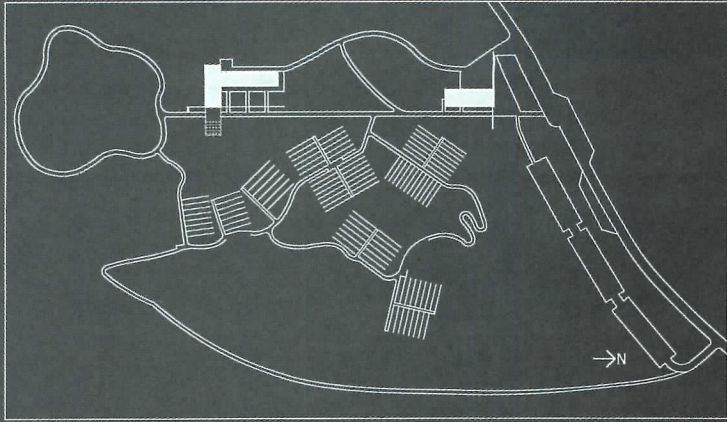
lineage **GIVE RESONANCE** to a cemetery in Slovenia

PROJECTS

The 7,000-square-foot memorial building sits within the 20-acre Srebrnice Cemetery. A 3,200-square-foot entrance pavilion (not shown) greets visitors on the main road.

Integrating Classical and Modern antecedents, the memorial building engages the land (below). Chapels can be reached from patios (opposite, bottom). A service building (opposite, top) sits near the road.





By William J.R. Curtis

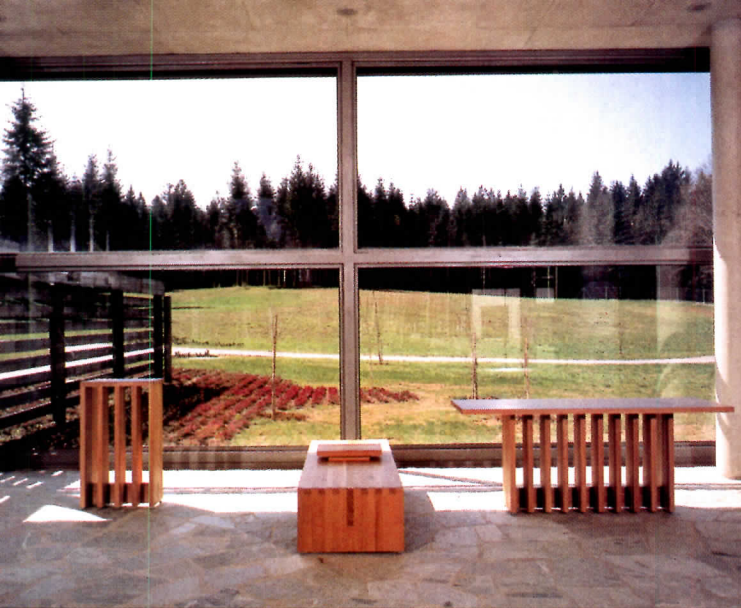
Alles Vodopivec designed Srebrnice Cemetery outside Novo Mesto, Slovenia, around the idea of a procession through the landscape. Starting with an entrance gate and service building, he crafted a view of a long, low portico in the middle distance emerging from a forest of fir trees. Then he created a memorial building with a transparent funeral hall attached to a row of concrete chapels—a composition that draws the visitor up a sloping path. A screen of wooden slats on slender steel supports guides the eye through the portico toward a gentle hill beyond. Visitors can enter the building through openings in the screen, which may be thought of as a funerary “veil.” Using restrained, abstract forms and simple materials such as bare concrete and weathered wood, Vodopivec established a realm of geometrical clarity and measured repose against a backdrop of nature.

A group of 25 tightly spaced columns constructed—like most of the memorial building—of poured-in-place concrete, supports the long portico at its easternmost end. These slender columns evoke a sense of Classical order and imply a place of assembly in the landscape. Although visitors can go directly to the chapels set behind the freestanding wooden screen and looking onto simple patios furnished with benches and abstract sculptures, most people enter the building from the portico into the glazed hall. Rather than a somber place for mourning, this is a luminous room of remembrance. The architect’s intention was to avoid quotations from any particular religious imagery and create a nonsectarian space. Although the current furnishings suggest a Christian church, these are not essential to the architecture. Srebrnice works along a knife-edge between the secular and the sacred. A communal building, it evokes the otherworldly through an idealized architecture of abstraction.

While the hall is clear and bright, Vodopivec modulated and dimmed daylight in the small chapels. Set behind intermediate light courts, the chapels ease the rite of farewell through subtle psychological nuances in the passage from one area to another. The palette of materials is restrained—concrete, weathered wood, glass, and some steel—but is used to strong effect. Never interested in passing architectural fashions, Vodopivec draws on a heritage that emphasizes a “passionate simplicity” and includes Tadao Ando’s churches, Alvaro Siza’s swimming pool at Leça de Palmeira (1960), Sverre Fehn’s Scandinavian Pavilion in Venice (1963), Luis Barragan’s landscape projects of the 1950s in Mexico, and, of course, the Barcelona Pavilion by Mies van der Rohe (1929). Such precedents are

William J.R. Curtis is the author of Modern Architecture Since 1900. In June he published Mental Landscapes, a book of his own paintings and drawings.





not worn like trophies but are absorbed into the body of the design.

This rich architectural heritage is one reason why it is inadequate to refer to Srebrnice in terms of the recent trend of Minimalism. For Vodopivec, simplification is a means for concentrating expression and distilling memories into a higher unity. At Srebrnice, one recognizes echoes of earlier burial grounds involving references to Classicism and ritual movement through landscape—Joze Plecnik's several cemeteries in Slovenia of the 1920s, Edward Ravnikar's extraordinary war memorial in the form of a "field of the dead" on the island of Rab in Croatia from the 1950s, even Asplund and Lewerentz's cemetery and crematorium at Enskede near Stockholm of the 1930s. Vodopivec, who is in his early 50s and teaches in the architectural school of the University of Ljubljana, sees himself as extending a lineage that stretches back through his own mentor, Ravnikar (1907–1993), to earlier formulations for reconciling Modernism and Classicism such as those of Giuseppe Terragni and Le Corbusier.

Limited financial resources and a labor force brought in from Slovakia with little experience in on-site reinforced-concrete construction made building the memorial structure at Srebrnice Cemetery more difficult than it might have been. But out of these limitations, a "noble poverty" has been realized which has nothing to do with the extravagant wastefulness of much recent architectural production. In a recent interview, Vodopivec gave some idea of the ethos behind his architecture, noting, "Our world is full of superficiality, consumerism, and very few things of value. That is why I marvel at the silence of architecture. It happens when the buildings become one with the space ... It is only when architecture loses its temporal dimension that it can come close to art."

Vodopivec understands that architecture should cut across time, communicating with observers of diverse backgrounds over many generations. In an era suffering from a surfeit of virtual images, Srebrnice Cemetery reaffirms a sense of place and insists on the irreplaceable qualities of direct architectural experience. Taking a modest system of construction, Vodopivec endows it with a poetic presence. He pays particular attention to the sense of load and support, and to the proportion between walls, openings, and columns. Through a simple underlying order, the cemetery intensifies the experience of a clearing in the forest. At Srebrnice, a crystalline geometry unites with light, space, and material to heighten the awareness of nature and encourage reflection on the passage from this world to the next. ■



Project: *Srebrnice Cemetery, Novo Mesto, Slovenia*

Design architect: *Ales Vodopivec with Nena Gabrovec*

Executive architect: *Arhitekton*

Engineers: *Anton Berce (structural); Tomas Japelj (mechanical); Vasilij Lombar (electrical)*

Landscape consultants: *Dusan Ogrin; Davorin Gazvoda*

General contractor: *VGP Cestno*

Sources

Concrete: *Begrad; Viaz*

Glazing: *Kristal*

Furniture: *Vidmar*

www For more information on this project, go to Projects at architecturalrecord.com.



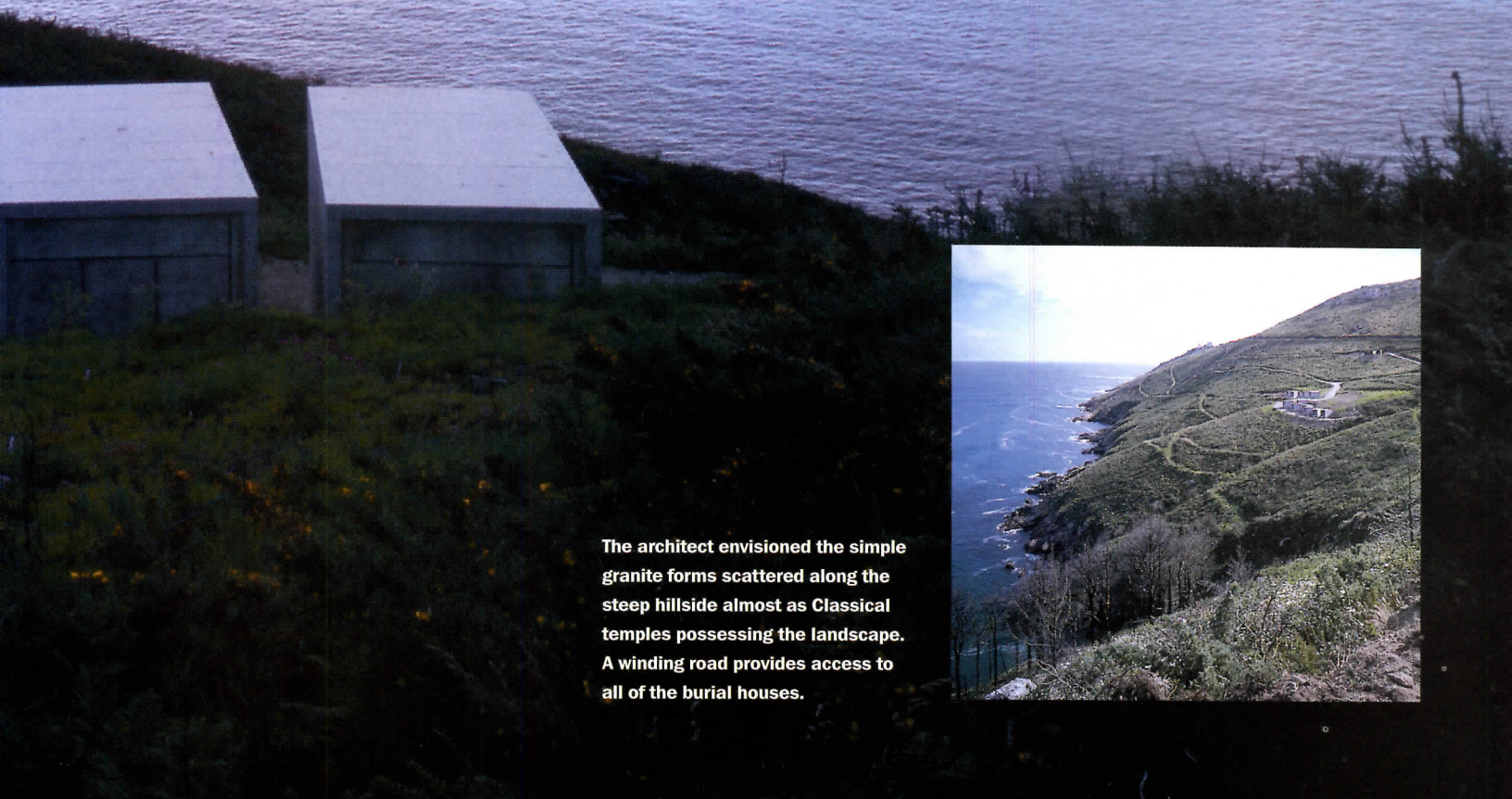
Views are framed both inside and out, as seen from the columned portico (this page), as well as the funeral hall (opposite, top), the corridor to the chapels (opposite, bottom left), and the chapels themselves (opposite, bottom right).

EYES TO THE SEA Burial niches on a hillside created

FISTERRA CEMETERY
LA CORUÑA, SPAIN
CESAR PORTELA, ARCHITECT



a poetic landscape above the **COAST OF GALICIA**



The architect envisioned the simple granite forms scattered along the steep hillside almost as Classical temples possessing the landscape. A winding road provides access to all of the burial houses.





While the stone volumes seem at first glance to be randomly placed on the site, the architect located and angled them so that one does not look directly onto another. Each structure contains 12 burial niches and a bench for mourners.



By David Cohn

They call it Fisterra, “the end of the world.” Located in the Spanish province of Galicia, on a peninsula that juts into the Atlantic at the most extreme western point on the European continent, the place remained on the far edge of the map until Columbus set sail for America. Even today, the people who live in the small fishing village here refer to the area as the Coast of Death for its treacherous currents, violent storms, and frequent shipwrecks. In such a place, a cemetery serves a unique and powerful role in the lives of the people.

Following the tradition of Galician fishing towns, Fisterra built its new cemetery with views of the ocean. “The boats pass it every day when they leave the port,” explains César Portela, the architect for the project. “In the afternoons, the cemetery is full of widows, widowers, parents, children. They care for the graves, talk, and look out over the sea. There is a constant dialogue between the living and the dead here.”

Portela, 65, is a native of Galicia and well known in Spain as a regional architect who takes inspiration in the vernacular culture, local materials, and dramatic landscapes of the area. The Fisterra Cemetery marks a departure from his more historicist vernacular designs of the 1980s and '90s, such as the nearby lighthouse at the head of the peninsula. With the cemetery, he has begun an exploration of more abstract and gestural forms that will continue in upcoming works such as congress centers in Vigo and La Coruña.

Portela designed the cemetery as a series of granite volumes scattered along the steep coast about a mile outside of town. Each volume contains 12 burial niches set within a deep opening or porch and is composed of solid slabs of local granite nearly 8 inches thick. The porches have granite benches and offer protection from the wind and frequent rain. On the slope above the main group of niches, three volumes identical in form to the others but enclosed in Cor-ten steel, contain a chapel, a morgue, and a forensic laboratory.

Portela describes the openings in the volumes as “eyes” that look out to sea but also as “dark depths” that emerge from the mountainside. The apparently casual distribution of the volumes follows the topography, “as if they were boulders that had rolled down the mountain or freight containers from a shipwreck that the waves have thrown onto the shore.” But Portela calculated their arrangement so each porch is shielded from views of the others, and visitors can be alone before the landscape.

When discussing the cemetery, Portela speaks with the emotion and assurance of a poet or storyteller, one who is not averse to a bit of romantic exaggeration: “I had the idea in the beginning that the cemetery would be a spectacle reserved almost exclusively for the dead and the gods. Situated in this magic place, these stone houses, dispersed across the slope like small cubic temples, take possession of the landscape. Like the Greek temples at Delphi, they listen to the infinite echo of the horizon. And at their feet, the waves play indifferently.” The work of the fishermen of Galicia is hard and dangerous, and it is tempting to see their close relation to death in romantic terms. But despite his florid rhetoric, Portela’s architectural vision serves his clients well. In the Fisterra Cemetery, he has created a particularly moving place for mourning that, in his own words, “reaffirms architecture as a sacred space in our relation with the world.” ■

Project: *Fisterra Cemetery, La Coruña, Spain*

Architect: *César Portela—*

César Portela, Juan Mosquera, Fabian Estevez, Serafin Lorenzo, design team

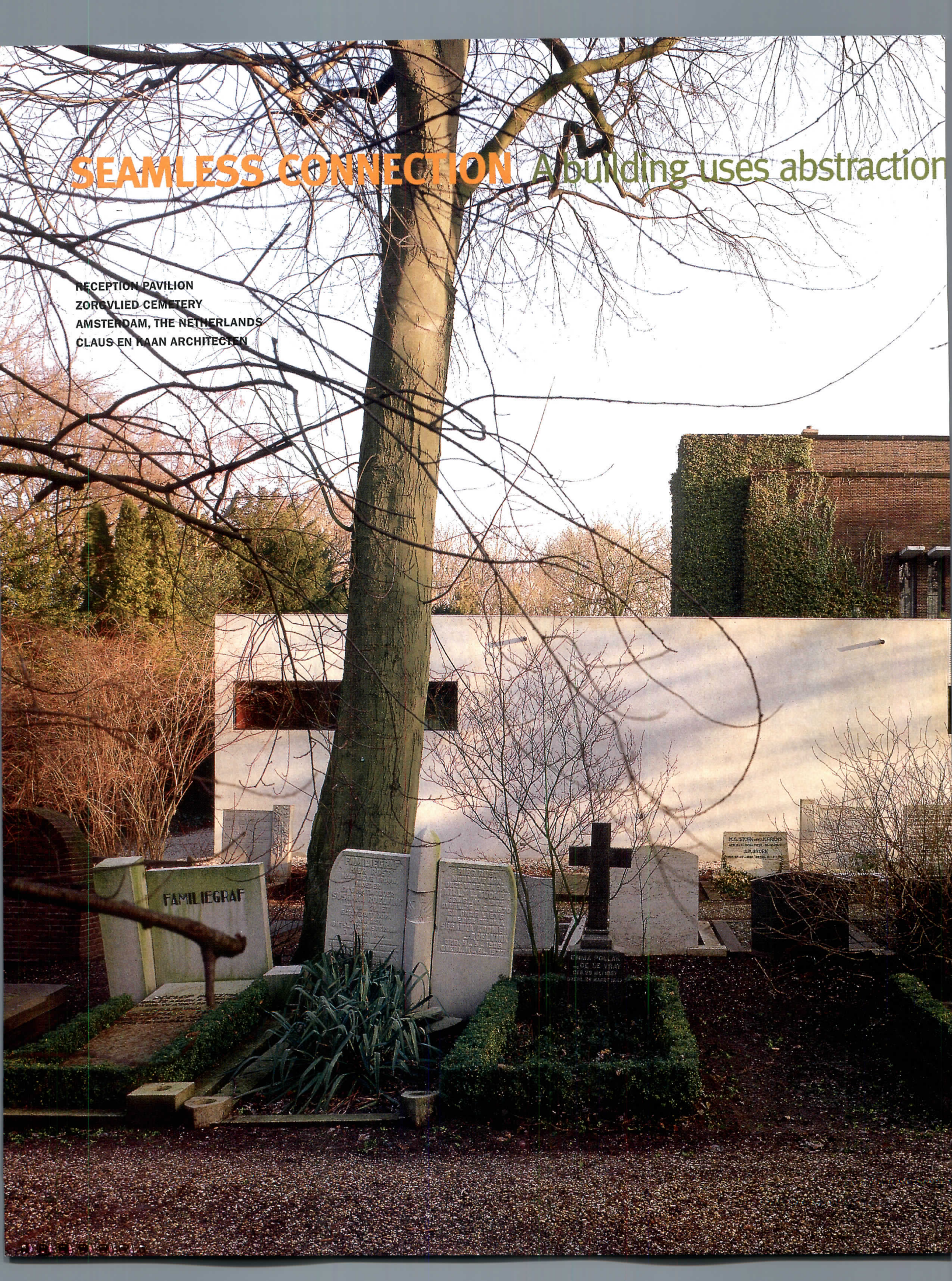
General contractor: *Construcciones Ponciano Nieto Gonzalez*

www For more information on this project, go to Projects at architecturalrecord.com.



SEAMLESS CONNECTION A building uses abstraction

RECEPTION PAVILION
ZORGVLIED CEMETERY
AMSTERDAM, THE NETHERLANDS
CLAUS EN MAAN ARCHITECTEN



to reach out and engage a **HISTORIC SETTING**

PROJECTS



By Clifford A. Pearson

An unseen force seems to draw the two buildings together, creating a space between them that is charged with feeling. Like opposites that attract, a new reception pavilion and its older, larger neighbor at Zorgvlied Cemetery in Amsterdam demonstrate that good architectural relationships aren't necessarily based on both partners saying the same thing. In fact, architect Felix Claus shows how powerful design can be when it complements, rather than imitates, what came before.

Set in a municipal cemetery, the new building serves as a venue for receptions held after burials. Previously, such receptions at Zorgvlied took place in the 1930s-era, redbrick funeral hall next door to the addition. But holding receptions in the same place as funerals limited the number of burials that could be performed, because space in the funeral hall had to remain empty while mourners walked to the grave site and then returned. The new 3,000-square-foot building now provides space for two post-burial gatherings, along with a kitchen, a coatroom, and toilet facilities.

The architects envisioned the building as a “sharply cut object set against the finely detailed mass of the funeral hall,” explains Claus. While establishing “a level of abstraction” that sets it apart, the flat-roofed, steel-framed pavilion extends a handlike gesture to its neighbor. The idea was to create “a continuous room,” stretching from inside the reception building out to the funeral hall. To do this, the architects placed the new building flush with the ground and projected the roof far beyond the glass wall facing the old building. A “carpet” of white gravel runs between the two structures, emphasizing the roomlike quality of the space. “You can *feel* the space between the buildings,” says Claus.

Working with a budget of just \$250,000, the architects used simple materials, such as concrete for floors, plaster on walls, and paneling made of wood salvaged from the building's concrete formwork. They kept the building's exterior plaster unpainted so it would weather and change color. “It's already picking up some green and aging,” reports Claus. Inside the pavilion, he painted walls around the service core cadmium yellow, his favorite color, to provide an “optimistic” accent. The biggest impact, though, comes from the floor-to-ceiling glass running almost uninterrupted on the building's north facade, creating a sense of seamlessness between inside and out, structure and landscape, then and now. ■

Project: *Reception Pavilion, Zorgvlied Cemetery, Amsterdam, the Netherlands*

Architect: *Claus en Kaan Architecten—Felix Claus, Marc van Broekhuijsen, design team*

General contractor: *UBA Bouw*

Sources

Curtain wall: *Barneveld*
Concrete: *Natuurbeton*

www For more information on this project, go to [Projects at architecturalrecord.com](http://Projects.architecturalrecord.com).

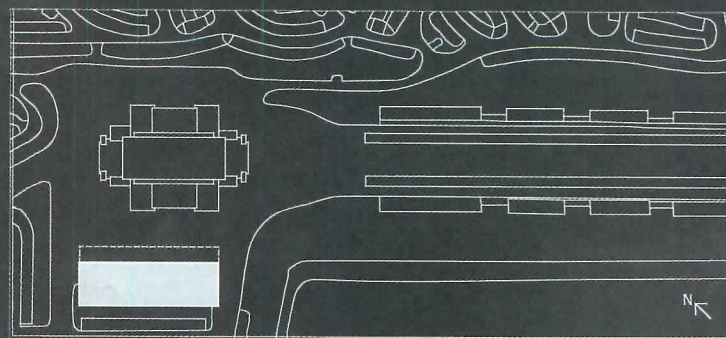


PHOTO: JAMES WATSON © CLIFFORD A. PEARSON

The plaster-faced reception building engages in a dialogue with the ivy-covered funeral hall that changes tone with the seasons (this page and opposite, top and center). Inside the building, color provides a welcome accent (opposite, bottom).



ADDENDUM TO HISTORY A new design vocabulary

ANNE FRANK HOUSE EXPANSION
AMSTERDAM, THE NETHERLANDS
BENTHEM CROUWEL ARCHITEKTEN



lets Anne Frank's house retain **ITS OWN VOICE**

PROJECTS



The addition occupies the corner of the block and provides space for a café and bookshop. The Frank House and an adjacent town house to its left (opposite) are part of the complex.

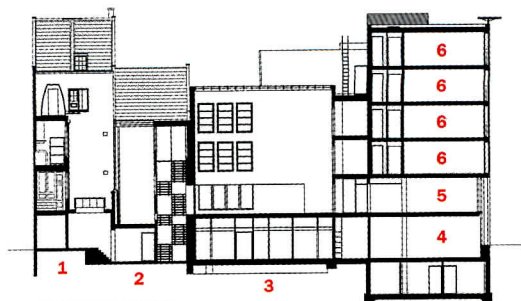




Visitors line up on the canal side of the museum to enter (above). A skylit court brings daylight inside (right). Around the corner, new apartments replace an old dorm (below).

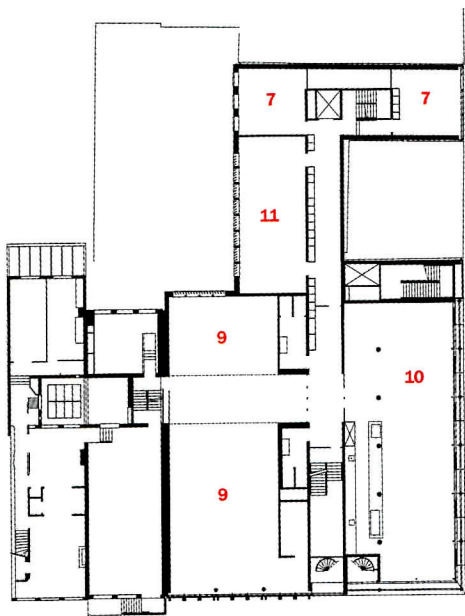


By Tracy Metz



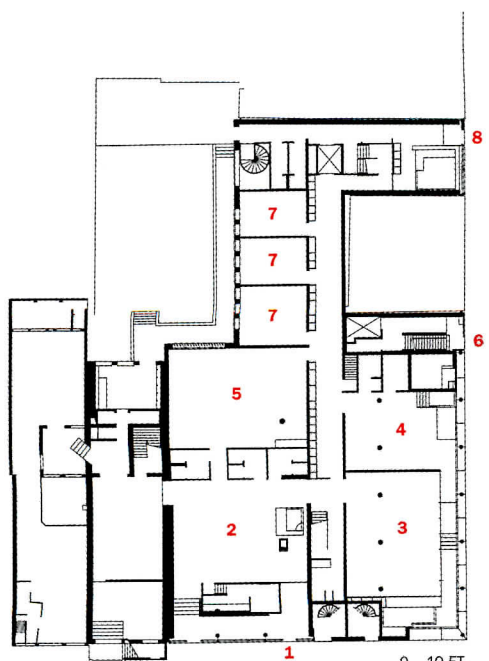
ANNE FRANK HOUSE

- 1. Anne Frank House
- 2. Prinsengracht 265
- 3. Museum
- 4. Bookshop
- 5. Café
- 6. Housing



UPPER LEVEL

- Museum entry
- Museum lobby
- Bookshop
- Storage
- Orientation
- Housing entry
- Office
- Office entry
- Exhibition
- Restaurant
- Media



ENTRY LEVEL

0 10 FT.
3 M.

The tall, thin house on the canal in Amsterdam where Anne Frank wrote her diary has the glow of authenticity, and every year hundreds of thousands of people come here to experience history-on-the-spot. Under the weight of this empathy, however, the building was coming apart. So the Anne Frank Foundation commissioned a team—the Amsterdam architects Benthem Crouwel, restoration architect Cor Bouwstra, professor of historical restoration Coen Temminck Groll from the Technical University of Delft, and interior designer Marijke van der Wijst—to enlarge and modernize the house without jeopardizing its emotional and physical legacy.

To find room for the expansion in Amsterdam’s densely populated historic center, the team razed a university dormitory behind the house, creating space for facilities that had been sorely needed: a separate bookshop, a café, an auditorium, a lobby on the ground floor with orientation displays, and office space. Where the dorm used to be, facing a church on a side street, the architects designed four floors of university apartments above the new museum bookshop and café. With its combination of old and new, the Anne Frank complex now has separate but linked circulation routes—one for the public and one for staff—as well as space for visitors to wait before gaining access to the historic house.

The expansion allows more of the original house to be on view than ever before. For example, the office where Anne’s father Otto Frank and the family’s indispensable helper Miep Gies worked has been meticulously reconstructed, as has the storage room with its brick floor. Upstairs, black netting and closed windows recreate the look of a wartime blackout. The architects hid new necessities such as a fire-alarm system out of sight and tucked a ventilation system in a closet.

The architects did not smooth over distinctions between old and new, and, in fact, accented them by specifying contemporary materials such as glass and stainless steel for important points of transition like doorways, passages, and landings. This shift in materials helps orient visitors as they wind their way from the front of the house on the canal, past the famous bookcase hiding the entrance to the annex, through the family’s tight living quarters, and back to the front and down again. Glass and steel interventions make a statement about the design team’s approach to history and to the story being told. History is not styled or dramatized here; it is merely shown. This simple and direct approach—supplemented, as needed, by unabashedly modern graphics, signage, and displays—gives the house much of its impact and helps provide the background information that most visitors nowadays need to understand the Frank family’s story.

The architects at Benthem Crouwel risked being accused of commercialism by putting the café in the building’s prime spot, on the second level overlooking the canal. But such criticism would be unjust: The café opens the house to the street in a whole new way and, more important, gives visitors a place to reflect on what they have seen before venturing back to the contemporary world. By being honest about what’s new, the Anne Frank House honors the memory of what’s old.

Project: Anne Frank House
Expansion, Amsterdam
Architect: Benthem Crouwel
Architekten—Mels Crouwel, Marcel
Blom, Ton Liemburg, Joost Vos, Erwin
de Bruin, Nico de Waard, Roy van
Rijk, project team
Interior design (old building):

Marijke van der Wijst
Consultants: ABT (construction);
Deerns Raadgevende Ingenieurs
(installations)

www For more information
on this project, go to [Projects at
architecturalrecord.com](http://Projects at architecturalrecord.com).

PHOTOGRAPHY: © JANNES LINDERS

WHO owns grief

WE COME HERE TO REMEMBER
THOSE WHO WERE KILLED, THOSE WHO SURVIVED AND THOSE CHANGED FOREVER.
MAY ALL WHO LEAVE HERE KNOW THE IMPACT OF VIOLENCE.
MAY THIS MEMORIAL OFFER COMFORT, STRENGTH, PEACE, HOPE AND SERENITY.

ONE WAY





Edward T. Linenthal, a professor of religion and American culture at the University of Wisconsin, in Oshkosh, has long studied how America comes to terms with tragic events. In books such as *Preserving Memory: The Struggle to Create America's Holocaust Museum* (Viking, 1995), and, most recently, *The Unfinished Bombing: Oklahoma City in American Memory* (Oxford, 2001), he has also studied the role of architecture and art in commemorating these tragic events. Linenthal recently spoke with *RECORD's* editor at large James S. Russell, AIA.

ARCHITECTURAL RECORD: What do the responses to the Oklahoma City bombing and the terror attacks of September 11 tell us about how we remember and how we commemorate?

EDWARD T. LINENTHAL: The responses were similar in many ways. One of the similarities was the sense that design can almost resolve these horrors for us, can lead us through the horrific mysteries of such an event.

The Oklahoma City experience is not a template, but there are lessons to be learned from the development of an inclusive process. There's an inevitable hierarchy of memorializing that must be sorted out—an appropriate means of locating the voices of family members, rescuers, and so on. They may not come up with the same answers in New York, in Washington, or in Pennsylvania, but Oklahoma City helps us be mindful of how an American city responded to a horrendous act of mass disaster.

AR: But does not the most recent tragedy present us with a much broader and

more complex range of issues, especially in Lower Manhattan? After all, the attacks not only destroyed so many peoples' lives, they targeted the towers as a symbol of America's importance in world finance and crippled the nation's third-largest downtown.

ETL: I think that makes a process like the one in Oklahoma City even more important. What are the agendas? How do you include a variety of voices? You need to be mindful of the hierarchies that exist, to find a way to consider the differences in feeling, in sacrifice, and in grief experienced by survivors or rescuers compared to people who lost, say, business colleagues. I understand that there are a number of different groups with different

"AFTER OKLAHOMA CITY . . . NO ONE SHOULD BE SURPRISED THAT PEOPLE OBJECT TO RUBBLE BEING MADE INTO TOMATO-SOUP CANS."

agendas representing different bereaved communities. You can't act on every group's agendas, but you can understand the web of grief and conviction and concern.

After Oklahoma City, no one should be surprised that these kinds of events bring people together and tear them apart. No one should be surprised that firemen didn't want to leave the site when Mayor Giuliani tried to pull them off. No one should be surprised about concerns that someone got more relief money than someone else. No one should be surprised that some people object to rubble being transformed into tomato-soup cans. Or that the site is regarded as ground too sacred to be built upon.

In Oklahoma City, family members were concerned that an influential person's personal taste would triumph over community conviction or that the process would be hijacked by the powers that be. In New York, many of the bereaved feel similarly, and this must be addressed. Will we see family members chain themselves to bulldozers when they start construction on the site of 7 World Trade Center?

AR: You found much to admire in the way Oklahoma City faced the aftermath of the bombing.

ETL: In the Oklahoma City Memorial process, I found the democratic arts to have been practiced in a majestic kind of way. They didn't start with design, they began by developing a mission statement. Writing that mission statement and developing the criteria for the memorial competition incorporated grieving and mourning as part of the work. It gently moved people over time from the sense of individual ownership of a commemo-

Linenthal admires the process created to design the Oklahoma City Memorial, which commemorates the 1993 bombing of a federal building.

rative idea—that this eternal flame or this cross or this heart is all that can represent my loved one—to a wider vision of what the disaster meant. The memorial expression of that was magnificent. People gained a public voice in the process and felt enfranchised.

AR: *Paul Spreiregen, the first competition adviser, was quite firm in his conviction that the jury judging the memorial-design entries comprise solely professionals and not include family members and other survivors. Did the process prove him wrong?*

ETL: That seemed a moment of truth. The family members had been involved all the way and there was a strong sense that they had to continue to be involved. Design professionals did work with survivors, and they worked together beautifully. Family members didn't try to be designers, but they were able to bring an immediacy to the discussion. It became a great interaction—and I think the memorial is an eloquent statement. With the right process and the right people, there is no reason that family members have to be seen as being too close to make judicious and aesthetically enlightened choices.

AR: *How did the designers selected in Oklahoma City [Hans and Torrey Butzer, with Sven Berg] work with the community?*

ETL: I suspect that the designers found this to be an incredibly important and moving experience. They didn't just do the design and leave. They moved to Oklahoma City and were critical in working through issues with families and survivors. They were sensible and flexible. They were willing to add to their design more of the commemorative fence that was around the site, for example. For many of the families, this was the memorial.

“BEREAVEMENT TRUMPS ALL THE WAYS WE'RE SEPARATE, AS IF TRAGEDY OPENS A WINDOW TO AN IDEAL COMMUNITY.”

Where they and others did firmly say no was to the conviction by some family members that the site was a cemetery and not for memorialization because unrecoverable remains were buried there.

AR: *Can greatness possibly result when so many people are involved?*

ETL: Architects can in effect go off and do their own thing, but the process of selection was done wisely in Oklahoma City, with a plurality of family members. The jury decision on the Oklahoma competition was blind and unanimous, so family members were not going off in one direction while the professionals went in another.

As processes are democratized, though, they become compellingly honest but also problematic. You are dealing with volatile memories and volatile issues, ones that test the durability of the process and the talents of the people involved. If not mindfully and carefully done, such a method could very well not succeed.

AR: *Would you advocate the creation of a mission statement involving all the communities and groups that have a stake in what happened in Lower Manhattan?*

ETL: It doesn't seem to make sense to ghettoize memorialization, so whatever is done and however it is done should fit into a philosophy about the place. What to remember, how to remember, and how it fits into a whole.

AR: *After September 11, people brought flowers, banners, candles, and so on to firehouses and police stations all over New York City. The same thing happened*

“FOR ME, THE MOST PROFOUND AND MINDFUL MEMORIAL WOULD ENGAGE THE STRUGGLE OF COMING TO TERMS WITH THE EVENT.”

in Washington, D.C., and in Pennsylvania. You saw a similar process take place in Oklahoma City. Are these also memorials, ones that are taking new form?

ETL: Even from afar, these offerings seemed very human. It is an example of a kind of democratizing of memorialization. It began when the Vietnam Veterans Memorial was so eloquently transformed by the touching things people left behind. In Oklahoma City, a fence was erected, initially to protect a crime scene, later to protect the footprint of the bomb damage. The fence became a site for memorial creation. Within days, people began sending toys, poems, drawings, letters, flowers, banners, and quilts. It's a way people have of entering into the event, of registering emotion.

AR: *How would you explain this phenomenon?*

ETL: Media enfranchises us to be part of bereavement communities, and that is such a powerful and unifying feeling. People get a sense of what is acceptable and doable. They see prayer cards and teddy bears and so they bring or send those things. It's not new; there's a long history of people leaving things at tragic sites—in African-American history, for example. It has become an accessible, popular way to register emotion and enter the event and imagine oneself as part of a larger bereaved community.

AR: *Does this plethora of imagery, much of it clichéd or naïve, suggest that Americans don't know how to express themselves as a community?*

ETL: There is a spiritual allure to being part of an event, because of the horror, because some people need to connect to people who went through tragedy. A whole range of emotions are involved, from the most heartfelt to the most voyeuristic.

We're united in an almost effervescent feeling and exhilaration. Now something horrible has brought us together. Bereavement may be the only way Americans imagine themselves as one. It trumps all the ways we're separate, as if tragedy opens a window to an ideal community so far from the day-to-day reality. And it may be true in a fleeting kind of way. The harsh reality is that it doesn't last.

AR: *Does this trend suggest that people no longer trust designers to powerfully represent the meaning of such tragedies?*

ETL: I would put it more positively. As social history has restored the importance of ordinary peoples' voices, we pay more attention to survivors and to the testimony of witnesses. It's not a distrust of artists or architects. But hiring someone to create a memorial is inadequate by itself.

At the Oklahoma City Memorial, people dip their hand in the



The poems, photos, and origami birds that hang from the fence at Manhattan's St. Paul's Church have become standard forms of democratized remembrance.

pool and then place it on the gateway, which leaves a handprint on the metal. The designers did not intend this—people just figured it out. They are physically connecting. We often underestimate the power the material world has on us.

AR: *Does our era demand a new kind of expression entirely? Is the monumental commemoration obsolete?*

ETL: No, it can still be eloquent. The discomfort is not just with monumental form, or even singular form. We have seen a trend to what I call activist memorial environments, like the U.S. Holocaust Memorial Museum. It's a museum as well as a commemorative place, and it reaches out. Oklahoma City also includes a museum. Places like this respond to the sense that memorials need to do more than just be placid places to go and remember. They need to have a role in the community. People want these memorials and museums to be rich, transforming civic spaces, where we remember and immerse ourselves in expertly fashioned environments and emerge born-again citizens and act on what we have learned. Maybe memorials are becoming more than just temples because of the poverty of our public life. I wonder about this, but hesitate to suggest it is the case.

AR: *What can memorials do for the bereaved?*

ETL: People can hope for too much. If people expect a memorial to resolve the grief and emotions that they feel, I think they are in for a tremendous disappointment. For me, the most profound and mindful memorial would engage the struggle of coming to terms with the event. It's not about resolving it or coming to "closure." It's about enduring.

AR: *What makes memorials last over generations?*

ETL: Jay Winter, who has written very good stuff about World War II memorials, talks about how some suffer a "trajectory of decomposition." Not all hold their meaning. In some ways, it seems that the erection of a memorial is an implicit admission that the overpoweringly important meaning of a shattering event—one that is at the heart of one generation's life—is not at the heart of another's. The Civil War generation would be stunned if it saw the disrepair and invisibility of so many of its memorials. It's hard for me to imagine the World Trade Center tragedy as forgotten, but in my darker moments I do see that happening, just as I see the September 11 events as transcending the tragedy in Oklahoma. In my worst nightmares, something comes down the road that diminishes the World Trade Center disaster. ■

ARCHITECTS

without architecture at Ground Zero

FEATURES



A Commentary by Suzanne Stephens

The now-cleared 16-acre site of the World Trade Center (WTC), “in the valley of the shadow of business,” to use Lincoln Steffans’s phrase of 1897, awaits a master plan. Sponsored by the Port Authority of New York and New Jersey, owners of the land, and the Lower Manhattan Development Corporation (LMDC), the plan is due at the end of the year. For the time being, architects—but not architecture—are in the forefront of this staggeringly complex planning process. Yet the role of architecture in the future development on the site, and the nature of the memorial for the victims of the September 11 World Trade Center attack, remain unsettlingly elusive. To be sure, at this stage, pragmatic decisions on infrastructure, transportation, and land use must be made. Nevertheless, those with power (state and real estate) are delivering information that’s incomplete and inconsistent. If this process were a building, you would say what’s visible is clouded in smoke and mirrors and what’s really going on is submerged below ground. Right now, our worst fear is that the two components, architecture in general and the memorial in particular, will be overwhelmed by the mediocrity of the development.

Hold the architecture The selection of Beyer Blinder Belle (BBB) along with the engineering firm of Parsons Brinkerhoff by the Port Authority and LMDC (page 23) got much of the architectural community in a stew. In *The New York Times*, Herbert Muschamp blasted BBB’s architectural track record for its lack of design innovation. While acknowledging that much of the firm’s task is limited to planning, not architecture, Muschamp announced that the choice “confirms once again that architecture will play no more than a marginal role in the redevelopment of Lower Manhattan.”

Although Beyer Blinder Belle had reached civic sainthood with its restorations of Grand Central Terminal and Ellis Island, Muschamp has a point. The firm is not as acclaimed for its architecture de novo as its renovation work, nor is its urban design reputation as high profile as some of the other firms around. At the same time, one cannot help feeling that Muschamp was aiming a machine gun at a barrel of goldfish. No doubt, a significant factor in the choice at this early phase was BBB’s engineers, Parsons Brinkerhoff, which has been involved with transportation infrastructure in Battery Park City. Muschamp’s attack helped further splinter the architectural community internally: Instead of the enemy being government bureaucrats or developers, it’s non-avant-garde architects. Peter Samton, FAIA, a member of the one of the six short-listed teams of architects, engineers, planning, landscape, retail, and real estate consultants, expressed the opinion of the pragmatically minded when he wrote to *The New York Times* (not published): “Would a currently fashionable European star architect understand the intricacies of the multiple transportation layers required to bring normal life back to the World Trade Center site? ... At this point in time, downtown needs an internist

... not a dermatologist ...”

Samton’s got a point. But it can be said that Muschamp’s trigger-happy jitters, if premature, come from the fact that innovative architecture (especially in New York) usually gets short shrift. Most of the architects on the six teams that vied for the master-plan selection are part of the establishment. They have solid urban design experience, but their varied architectural reputations promise home cooking, not haute cuisine. Besides BBB, one team was composed of Kohn Pedersen Fox (with engineers Arup and architect Fred Schwartz, AIA, among others); another had Hardy Holzman Pfeiffer, Fox and Fowle, Gruzen Samton (with engineers STV and DMJM + Harris); another, Ehrenkrantz, Ekstut and Kuhn (with engineers URS); a fifth, Robert A.M. Stern Architects (with Earthech/TAMS engineers); and finally, Rem Koolhaas, Davis Brody Bond (with engineers Arup).

Arrogance and the avant-garde Koolhaas is arguably the only avant-garde architect on the list. Behind-the-scenes scuttlebutt has it that Koolhaas and his team didn’t win because he is not considered the type that could build a consensus among the public. As we know, the image or personality of an architect can often attract particular clients, and in a situation with a large, vocal audience, the nice-guy demeanor can carry the day. John Belle, FAIA, and Jack Beyer, FAIA, both have an affable style that makes Santa Claus seem snarky. Koolhaas, on the other hand, is widely

HIGHLY VISIBLE, BUT NOT TRANSPARENT, PLANNING FOR THE WTC SITE RAISES ISSUES ABOUT ARCHITECTURE AND REMEMBRANCE.

considered to be arrogant with a capital A. You pay the price for public life. “This is a process requiring patience,” explains one architect who interviewed for the job. “You’re going to deal with community groups and agencies. You need an architect who knows how to put up with all this stuff.” The persona counts for more when you’re fronting for a faceless Port Authority and LMDC.

Many of the competing architects seem to think that the process for selecting the master-planning team was fair (a feeling not necessarily shared by the young and small firms left out by the Request for Proposal’s experience requirement), even if preparation time for the six short-listed teams was but a few days between notification and presentation. The hour-long presentations and questioning reportedly involved three people on the LMDC, including Alexander Garvin, vice

With little information to go on, it’s hard to take the long view about planning for the World Trade Center site.

president for architecture, planning, and design, and three from the Port Authority, including its chief architect, Robert Davidson, FAIA. In addition, there were about 20 observers. Notably missing in action was Billie Tsien, AIA, of Tod Williams Billie Tsien and Associates, who is the lone outside architect to sit on LMDC's board and a widely acknowledged representative of "high design." Moreover, although Tsien asked some leading questions at the early open board meetings of the LMDC (see www.archrecord.com, May 15, 2002), more recently she has been awfully quiet. Has she been silenced? Some of us suspect she is being treated as a token: Show up, but shut up.

In terms of the selection, some groused that BBB had not taken much part in the voluntary efforts of the coalition of professional and civic groups (including the New York AIA), which prepared analytical reports for public enlightenment, enabling architects to become familiar with the issues. Alas, good deeds are often their own reward—with no guarantee of getting the job. A few architects, however, report that BBB was already in there: It was the lead urban designer in a little-known, task-

THE TWO POWERS SHAPING THE SITE ARE THE STATE AND REAL ESTATE. ARCHITECTS DON'T HAVE POWER—ONLY INFLUENCE.

force study of West Street (the 10-lane highway that splits the site from Battery Park City), which was commissioned by Battery Park City Authority during the winter.

Power of the state All this flap over the choice of BBB to develop the LMDC/Port Authority plan is based on the assumption that architects have power. Yet they really only have influence. As Paul Goldberger spelled out very clearly in his essay "Groundwork" in the May 20 issue of *The New Yorker*, Governor George Pataki controls the Empire State Development Corporation, which is allowed to override local zoning laws, and of which the Lower Manhattan Development Corporation is a newly state-formed subsidiary. The state also oversees the Metropolitan Transportation Authority, the Battery Park City Authority, and, in conjunction with New Jersey, the Port Authority. So where is the city? As Goldberger put it, "The city, astonishingly, has no official role in the planning process, although Daniel Doctoroff, Bloomberg's deputy mayor in charge of economic development, has a function as a kind of city ambassador to the planning effort..." Even though mayoral appointees compose half of LMDC's board, with the other half appointed by Pataki, the president, Louis Tomson, was put there by the governor, as was Joseph Seymour, the executive director of the Port Authority. (New Jersey, the other sibling state behind the Port Authority, has some clout: It seems Governor Jim McGreevey can veto the master plan.) The only thing that could change the power alignment

overnight is for Pataki to lose the gubernatorial election coming up in November. But at this point, you can't find many who will place their money on that happening.

Another question about power has to do with the purse strings, specifically who exactly has the power to disperse the \$21 billion expected to be appropriated from Congress? LMDC now has over \$2.7 billion to dispense, but what about the rest? When LMDC's Garvin was asked about the control over the whole pot at a conference held by the New York City AIA on June 11, he noticeably skirted the question. This is not what you call communicating with the public. The answer, offered by those familiar with the negotiations, is again Pataki, who is expected to get the money and funnel it through the Empire State Development Corporation.

Because LMDC was created only a few months ago, it has no in-house planning staff. Hence, Garvin contracted architects Peterson and Littenberg to provide such services [*ARCHITECTURAL RECORD*, June, page 26]. The firm, which is influenced by the collage-city urbanist theories of critic Colin Rowe (not Leon Krier, as claimed in the *Times*), prepared an urban design study of all Lower Manhattan for Battery Park City Authority and the Port Authority in 1995. While Peterson and Littenberg are also working on proposals for the WTC site—apart from BBB's—they haven't been able to discuss the plan with the press as yet. So the behind-closed-doors efforts add to the mystery.

Power of economics Meanwhile, the Port Authority (PA), as landowner, needs to make money from its leases in order to pay off its bonds. As is well known, the PA leased 10 million square feet of the World Trade Center—not including the parcel for the 24-story Marriott Hotel (formerly Vista International) still leased by Marriott—to Larry Silverstein for commercial office space before the twin towers were attacked. Westfield America, owned by the Australian real estate developer Frank Lowy, took out a lease for 450,000 square feet of retail space and reportedly has an option to expand to 600,000 square feet.

Westfield, king of the suburban megamall, is, according to *The Wall Street Journal*, antipathetic to the idea being bruited about for restoring the city grid of streets that existed before the World Trade Center superblock was created. Ironically, Westfield may find unlikely support from several of the city's more avant-garde architects, such as Michael Sorkin, who claim a grid smacks of retro "new urbanism." But be careful what you wish for: Westfield's megamall approach is not a reassuringly vanguard design.

Adding to this *ragoût amibigu*, demand for commercial real estate has continued to sag in this part of town. Real estate consultant John Alschuler remarks that "Lower Manhattan has been at a competitive disadvantage with midtown for 40 years. You need a realistic first phase of development that can stand alone." Now short "towers" that can be piggy-backed later are being talked up.

Silverstein has already hired David Childs of SOM to design the replacement for the 7 World Trade Center tower at the north end of the site, and has begun construction [*RECORD*, April 2002, page 30]. Childs, considered one of the most adept architects in New York at maintaining the demeanor of the harmless dolphin while swimming with sharks, has come up with his own master plan for the WTC site, as well. A recent scheme leaves the footprints of the towers free for a (*continued on page 213*)

HEALTH CARE

Specialized Wellness

SORRY GUYS, BUT IT'S WOMEN AND CHILDREN ONLY FOR THIS SELECTION OF SPECIALIZED-CARE SETTINGS THAT STAND APART FROM HEALTH-CARE-FACILITY NORMS.

By John E. Czarnecki, Assoc. AIA



1.

Augusta, Georgia

Stanley Beaman & Sears Architecture marry nature and technology, playful forms and trauma-center needs, in this 98-bed children's hospital.



2.

Furukawa, Japan

A women's clinic by Hitoshi Abe questions conventions with a transparent but not exposed, white but not sterile, modern structure.



3.

Orlandia, Brazil

A skillfully crafted dental clinic and laboratory building by MMBB Arquitectos takes lessons from the neighboring Brazilian vernacular.



4.

Puyallup, Washington

Fitting into its natural surroundings, a children's health center by Zimmer Gunsul Frasca Partnership physically and metaphorically resembles an ark.

In the managed-care environment of the United States, insured consumers have a wide array of choices for hospitals, physicians, and other care provided in broad networks. Health-care systems, understanding the power of place, are competing for the attention of consumers not just with people and services, but with the physical setting, as well. Architecture is a tool to get health-care clients in the door.

According to the American Hospital Association, there are 4,924 hospitals in the United States, about 1,000 fewer than 20 years ago. Large health-care systems have consolidated and closed some hospitals, but construction continues as those same health-care systems focus resources on select hospitals and vie for consumers—and the best physicians—by adding buildings and sophisticated technology, and by constantly renovating. The number of health-care construction projects in the United States has declined in recent years, but the projects being built are more expensive. According to the annual survey by *Modern Health Care*, investment in health-care facilities has been fairly flat, at about \$17 billion over the past four years, but spending on specialized facilities, such as those for women and children, rose 27 percent last year alone. Existing hospitals keep growing, often adding these specialized facilities—women's health centers, cancer-care centers, and clinics—onto already large campuses.

That was the case with the Medical College of Georgia in Augusta, which hired Stanley Beaman & Sears Architecture to design a children's hospital adjacent to its existing medical buildings. The former children's hospital had been within the larger hospital complex and appeared overbearing and institutional for both children and parents. The campus needed a unique identity for its child medical care and found one in its new Children's Medical Center, which is a fun and playful place for youngsters, yet features the latest care technology in a level-one trauma center.

Stepping away from the hospital campus offers further lessons in how architecture can draw patients. While the Children's Medical Center in Augusta employs color and tactile forms to attract youthful attention, the Mott Children's Center—a stand-alone facility—is more subtle in its appeal to the young, yet more specialized in its services.

But perhaps a look at care settings in other countries, with examples in Japan and Brazil, is necessary to see how even a modest women's clinic or child's dental clinic can be finely crafted based on modern aesthetic sensibilities. Armed with the creative freedom provided by design-savvy clients, the architects for these projects were able to produce settings that are as sophisticated as the clients who commissioned them. A beautiful, inspiring place to give birth or have a dental exam? It's possible, by design. ■

www For additional health-care projects, and more information on the people and products involved in the following projects, go to Building Type Study at architecturalrecord.com.

Children's Medical Center

Augusta, Georgia

I

STANLEY BEAMAN & SEARS FUSE NATURE AND TECHNOLOGY WITH PLAYFUL, CHILDLIKE FORMS TO SERVE THE NEEDS OF A LEVEL-ONE TRAUMA CENTER.

By John E. Czarnecki, Assoc. AIA

Architect: Stanley Beaman & Sears Architecture—Burn Sears, AIA, principal in charge/project manager; Betsy Beaman, AIA, director of design; Kimberly N. Stanley, AIA, director of health-care planning; Veronique Pryor, senior project architect/designer; Karey Cooper, senior interior designer; Portia Gubatan Ellis, junior project architect/designer; Cindy Jaeggens, junior interior designer

Client: Medical College of Georgia

Consultants: Johnson Lashober & Associates (civil/structural); Nottingham, Brook & Pennington (mechanical, electrical, plumbing, and fire protection); Altamira (landscape); Luminance Design (lighting); Lorenc+Yoo Design (graphic design); Facilities Development (medical equipment planning); NBBJ (medical space planning)

Construction manager:

R. W. Allen/Beers

Size: 220,000 square feet

Cost: \$42 million

Completion date: 2000

Sources

Curtain-wall system: Kawneer

Curtain-wall glazing: Viracon

Precast panels with custom pattern: Cut Art Stone and Precast Co.

www For more information about the people and products involved in this project, go to Building Types Study at architecturalrecord.com.

When the Medical College of Georgia hired Atlanta firm Stanley Beaman & Sears Architecture to design a new children's hospital, the goal was for it to become one of the top 10 children's hospitals in the United States within 10 years. With that lofty aim in mind, Stanley Beaman & Sears set out to design the Children's Medical Center in Augusta, Georgia, as a marriage of nature and technology—nature as healer and technology as helper.

Context

The Children's Medical Center is adjacent to existing hospital buildings on the college's campus, and the old children's hospital was within those buildings. The Veterans Affairs Medical Center and the University Hospital are located on blocks immediately surrounding the campus, resulting in an overly sterile, institutional environment. Not surprisingly, the college wanted to create a new building with a unique image—one that did not necessarily look like a hospital.

Early in the process, Stanley Beaman & Sears met with numerous people affiliated with the hospital—120 physicians, nurses, and parents in 23 user groups—to gain input about what they sought in a children's hospital. The consensus was that they wanted a facility that was welcoming to the child and combined the best aspects of nature and technology in an envi-



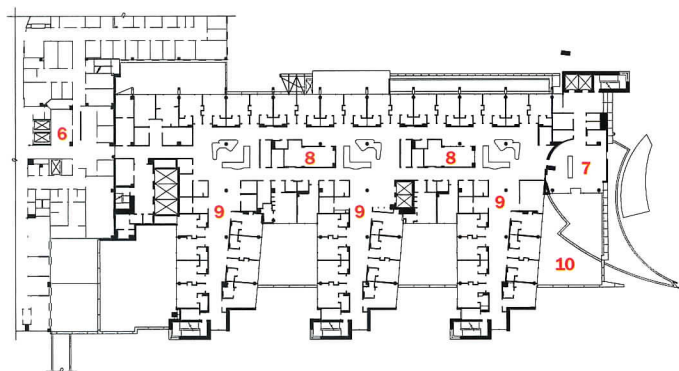
ronment of healing and learning. "It was a special group of really good thinkers," Stanley Beaman & Sears partner Betsy Beaman, AIA, says of the hospital's leadership. "Not everyone believes a building should have an idea, but this client did. They bought into the concept from the beginning, and that helped us achieve more creativity."

Solution

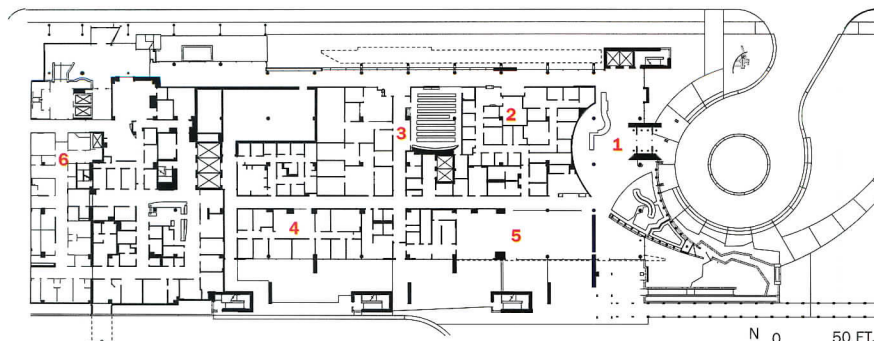
As difficult as it might sound, Stanley Beaman & Sears developed a graceful, five-story, 98-bed children's hospital that is both a level-one trauma center and, according to the firm's design statement, also has a "childlike sense of wonder" and is "playful enough for the toddler, but cool



The entrance (opposite and above left) has a curving form to beckon visitors. A canted wall of glass (above right and below) has enlarged imagery of circuit-board patterns silkscreened on glass.



TYPICAL 4TH AND 5TH FLOORS



FIRST FLOOR

N 0 50 FT.
15 M.

The corridor on the second floor (above), called the “technological arbor,” has ceiling panels that resemble circuit boards, child-height window boxes, and stacks of video monitors showing scenes of nature.

1. Lobby
2. Social services
3. Conference center
4. Administration
5. Café
6. Existing hospital
7. Waiting room
8. Play/activity rooms
9. Patient clusters
10. Family roof garden

enough for the adolescent.”

The design of the entire structure is based on a 5-foot grid in plan, section, and elevation. The exterior is composed of precast-concrete panels that look like oversized Legos, and large forms, such as a red square on the top floors and a blue cube on the northern facade, add playful variety.

At the main entrance, a curving glass-and-steel form appears to reach out and beckon visitors to the lobby. Inside, multiple curving forms are intended to suggest movement, stretching, changing—growth and transformation. Video technology is implemented to give glimpses of nature: A “video aquarium” is a wall of monitors in the lobby that display images of underwater scenes, and vertical stacks of monitors (opposite) showing images of nature enliven the corridor on the second and third floors that the firm calls the “technological arbor,” along the northern portion of the building. The technological arbor has a canted two-story glass wall with enlarged silkscreened circuit-board patterns that give the appearance of organic, foliage-like imagery on the glass panes.

The abstract foliage motif continues inside the technological arbor, where both window boxes and Eterboard walls with indented patterns of dinosaurs and foliage are at child height to enable children to see and touch. There are also plastic and metal panels in the ceiling (opposite) that resemble circuit boards.

The 98 patient rooms on the fourth and fifth floors are all single rooms and have sleeping space for two parents, if needed.

Commentary

The new building is child-friendly while also allowing the Children’s Medical Center to offer innovative programs that will enable it to achieve its goal of becoming one of the top hospitals in its field. “We really love the idea,” Beaman says, “of transforming family and child into a healthy outcome.” ■



The lobby (above) has many curving forms to denote movement and transformation. A palette of green, blue,

red, and yellow makes individual waiting areas (below left) and nurse stations (below right) vibrant.



Sekii Ladies Clinic

Furukawa, Miyagi, Japan

2

A WOMEN'S CLINIC IN JAPAN BY HITOSHI ABE IS A MODERN STUDY IN THE MANIPULATION OF VOLUMES, TRANSPARENCY, AND LIGHT AND SHADOW.

By Naomi Pollock, AIA

Architect: *Atelier Hitoshi Abe—Hitoshi Abe, Katsunori Abe, Takayuki Saito, Noriko Rinno*

Client: *Private doctor*

Consultants: *TIS & Partners (engineering); Masahide Kakudate Lighting Architect & Associates (lighting)*

Contractor: *Takaya Kensetsu*

Size: *16,568 square feet*

Cost: *\$3.4 million*

Completion date: *2001*

Sources

Porcelain tile: *INAX*

Glazing: *YKK*

Flooring in waiting room and examination room: *Tajima*

Tiled carpet in lounge and ward room: *TOLI*

In Japan, where subsidized health care is alive and well, there is no shortage of hospitals or clinics. So when a trio of obstetricians—a father, son, and daughter-in-law—decided to hang out their shingle together, they had to choose their site carefully. Their clinic had to be in an area that was not saturated with maternity centers or so remote that it would fall prey to the country's plummeting birthrate.

Context

With its growing high-tech industry and dearth of birthing clinics, Furukawa, a small city 2½ hours north of Tokyo by bullet train, fit the bill perfectly. For a site a short distance from the town center, the family hired Sendai architect Hitoshi Abe to design a combined birthing center, outpatient clinic, and dual-generation residence for the doctors and their families.

They chose a property on a two-lane highway near fast-food restaurants, car dealers, and gas stations. While this type of garish, car-oriented, neon-lit landscape is a familiar sight outside Japan's major cities, it was "definitely not the kind of place to give birth in," says Abe.

Solution

Despite the incongruity of setting and program, the architect did not want

Naomi Pollock, AIA, is RECORD's Japan-based contributing editor.



to create a fortress that would block out the surroundings completely. Instead, he planned a gradual transition from the real world to a sacred one, suspended from daily life, where mothers could welcome their

new progeny in a relaxed environment. The sequence begins at the ground-floor clinic, organized along a circulation spine that leads from the reception and waiting area to exam and X-ray rooms on one side and medical offices, a play area, and three small gardens on the other. Though open to the sky, the gardens are shielded by ½-inch-thick film-treated glass wrapping the entire first floor. Gardens and glass together edit the view and protect the internal space but maintain an ambiguous



The blocklike volumes of the porcelain-tile-clad second floor appear to float or hover over the mostly transparent first floor.

border between inside and out.

The first floor, in turn, buffers the second floor maternity center by lifting it above street level. In contrast to the clinic, which is open only during the day, the birthing center operates around the clock. A stair leads directly from the ground floor entrance to the maternity center upstairs where

www For more information about the people and products involved in this project, go to Building Types Study at architecturalrecord.com.





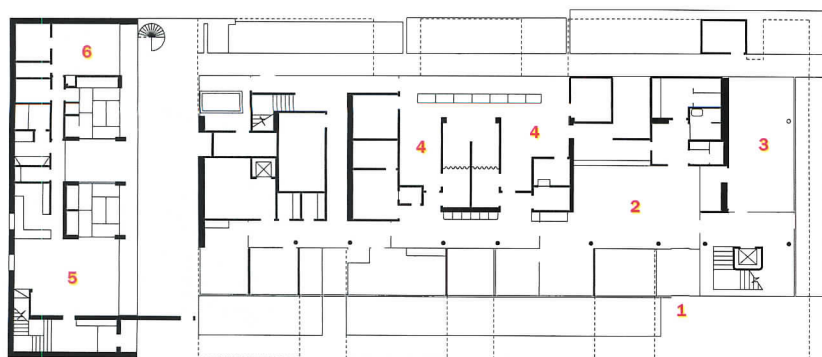
- | | | |
|----------------------|-----------------------|------------------|
| 1. Entrance | 4. Exam rooms | 7. Lounge |
| 2. Lobby | 5. Living/dining room | 8. Delivery room |
| 3. Multipurpose room | 6. Bedroom | 9. Patient rooms |

Abe's design (above) takes visual cues from the work of Le Corbusier. At night,

the building takes on a different character as the first-floor spaces visually dominate.



SECOND FLOOR



FIRST FLOOR

N ← 0 10 FT.
3 M.



spaces for labor, delivery, and a newborn nursery fill one end while 14 patient rooms occupy the rest of the floor. "When we calculated [the square-footage requirements], the second floor came out much larger than the first," says Abe. This discrepancy was handled by cantilevering the building 25 feet on either side. Held up by two rows of steel columns running the length of the building, a series of braces on the second floor support the overhangs and counter lateral forces.

In contrast to the first floor, where the glass wall masks the synopated rhythm of solids and voids, the solids upstairs are clearly articulated but clad with white tile. Bold and blocky, the second floor hovers over and casts such a deep shadow on the ground level that, visually, it almost melts away. "I wanted the quality of a white, floating volume," explains Abe.

Though self-contained and inwardly focused, the maternity clinic is not entirely isolated from its environment. While some patient rooms open directly onto one of two garden terraces, others have windows providing oblique street views. "Looking outside on a diagonal somehow makes you feel separated from the city grid," explains Abe.

Located behind the clinic, the doctors' house is a discrete, two-story volume rooted in the ground and covered with gray tiles. "The young couple said they wanted to commute, so a garden separates the hospital and the house," says Abe. Inside the house are two independent homes—one for the older doctor and his wife and the other for the young couple and their children.

Comment

In Japan, where medical facilities tend to be cold, no-nonsense affairs, this clinic comes as a real surprise. Open but not exposed, white but not sterile, it hardly looks the part. Abe's solution questions conventions and turns adverse conditions into catalysts for invention. His building may not inspire local residents to have more babies, but it will provide a more pleasant experience for those who do. ■



Dental Clinic

Orlandia, Brazil

3

WITH A MINIMAL MODERN STRUCTURE, MMBB ARQUITECTOS THROW OUT CONVENTIONAL WISDOM ABOUT WHAT A DENTAL CLINIC SHOULD LOOK LIKE.

By John E. Czarnecki, Assoc. AIA

Architect: MMBB Arquitectos—*Angelo Bucci, Fernando de Mello Franco, Marta Moreira, Milton Braga, partners on the project; Keila Costa, Sandra Llovet Villa*
Client: João Gomes Pereira and Mariana M. Rodrigues Pereira
Consultants: Ibsen Puleo Uvo (*engineering*)
Contractor: Jean Carlos dos Santos

Size: 1,960 square feet
Cost: \$50,000
Completion date: 2000

Sources

Wood brise-soleil: Fridel
Glass: JV Vidros
Metal doors: Rosseto
Tile: Granilite
Office furniture: Haydee

www For more information about the people and products involved in this project, go to Building Types Study at architecturalrecord.com.

Most of us go to the dentist because we have to, not because the dentist's office is a beautiful place to visit. When conjuring up an image of a dental clinic as a building type, one usually does not think of a finely crafted modern structure. São Paulo-based MMBB Arquitectos has designed such a facility, however, in Orlandia, Brazil, a community of approximately 30,000 people just outside São Paulo.

Context

MMBB, a four-partner, 10-person firm, implements a clean, Minimal modern vocabulary of concrete, natural wood, and tile in many of their projects, including a number of single-family homes and public infrastructure projects such as toll booths and a bus terminal. The 16-year-old firm was hired by a husband-and-wife partnership, in which the wife is a dentist for children and the husband makes dental prosthetic devices, to design the clinic. One of the MMBB partners, Angelo Bucci, is a friend of the client. The architects and the clients are both at similar midcareer points in their lives and share modern aesthetic sensibilities. That relationship made a major difference for this project, in which all four design partners had a role. "The client was supporting our architecture. They trusted us and gave us freedom to do it the best way we could," said MMBB partner Fernando de Mello Franco. "Especially in the



case of a small city like this, where a design like the clinic is not easily understood by everyone, this client was special."

The client chose a corner lot in a residential neighborhood for the clinic. Most of the surrounding single-family homes are about 50 years old, with front verandas and tile roofs.

Solution

While De Mello Franco says, "We are interested in designing the city and not just an object," his firm should be credited for both creating a beautifully detailed object building and maintaining urban scale continuity. MMBB's sophisticated solution picks up on lessons from the neighboring Brazilian vernacular without mimicking the surrounding homes stylistically. It is approximately the same height as they are, maintains

a similar relationship to the street, and is constructed of materials that are consistent with theirs.

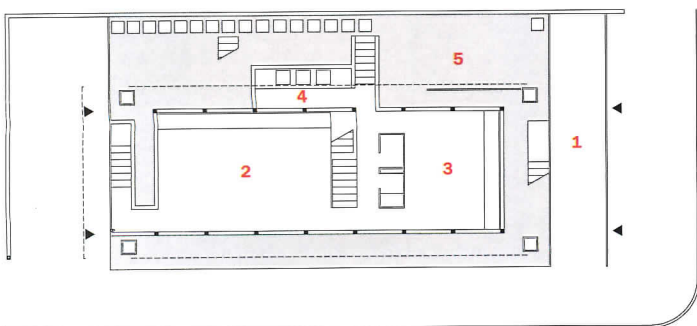
"This project has much to do with the way that people relate to the city and the street," De Mello Franco says. The clinic's inviting covered portico (at far right above and opposite) is a transition space from the public sidewalk to the front door in a manner similar to the verandas of nearby homes that serve as transition spaces between street and house.

Taking a lesson from the neighboring homes built with a lower level, allowing humidity to rise, the clinic is composed of two floors with the lower one partially underground and partially covered by the overhang of the one above. The lower floor is naturally ventilated with operable windows. The upper floor, which from the back of the building appears simply to be a

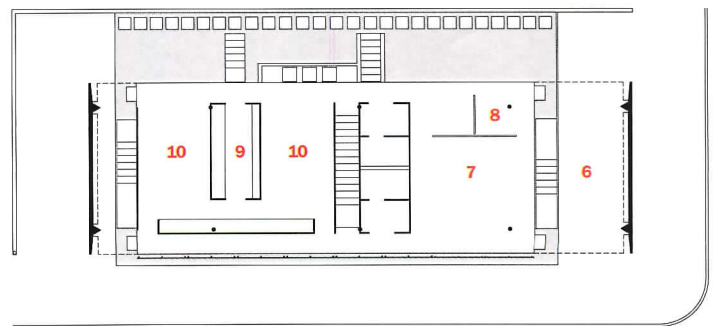


- | | |
|-------------------|------------------|
| 1. Entrance | 6. Entrance |
| 2. Laboratory | 7. Waiting area |
| 3. Administration | 8. Toys |
| 4. Equipment | 9. Sterilization |
| 5. Garden | 10. Office |

With a poured-in-place concrete wall defining a portico entrance on a residential corner (opposite), the building has an imbuia wood brise-soleil across the street-level facade (above) to shade the clinic spaces.

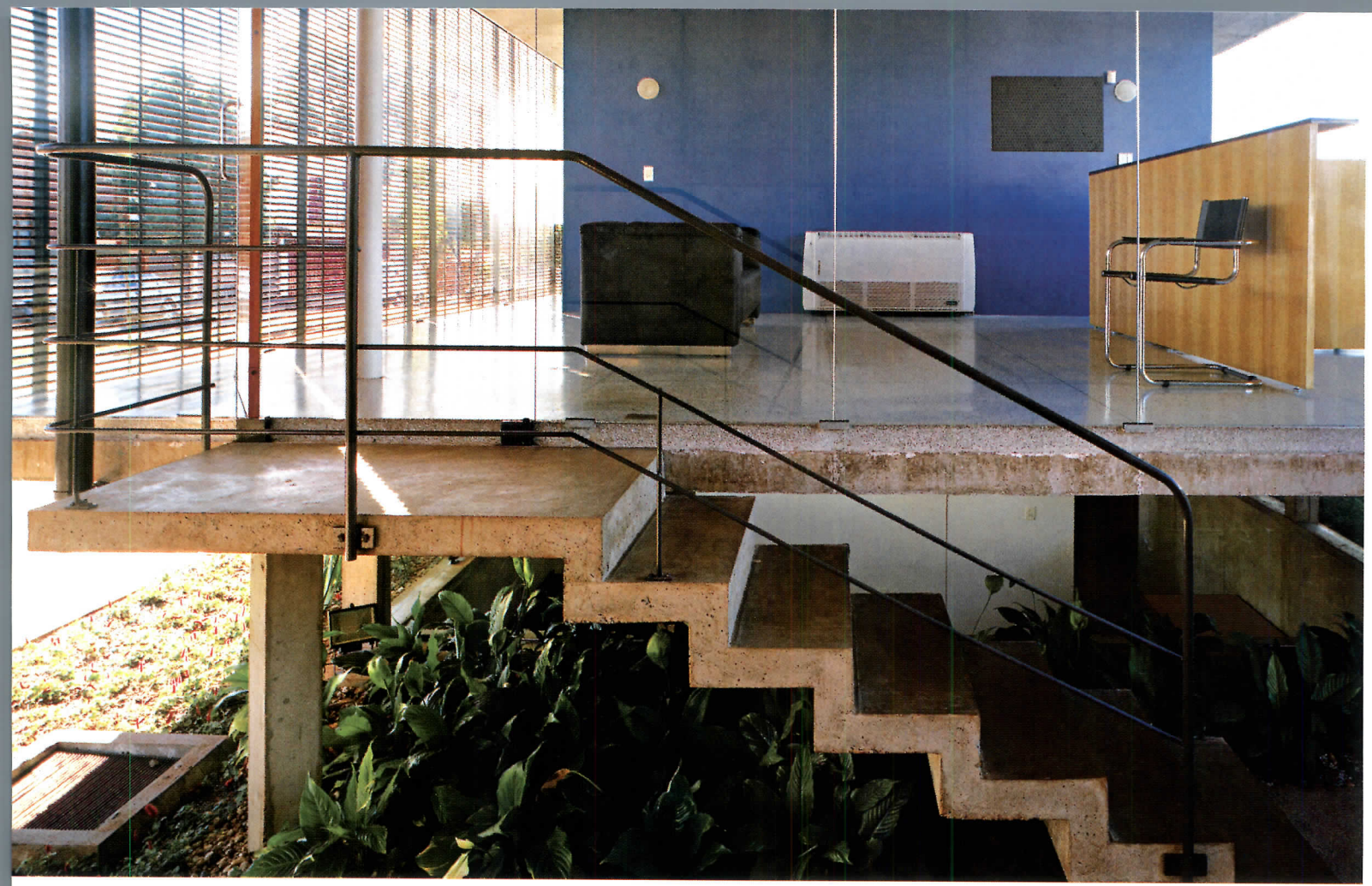


GROUND FLOOR



FIRST FLOOR

0 20 FT.
6 M.



raised, floating platform seven steps above ground level, is air-conditioned with floor-to-ceiling single-pane glazing.

Upon entering the portico, visitors ascend the concrete steps to the upper floor—the only floor that the public has access to—devoted primarily to a reception area and two dental exam offices. The lower level, with a separate, private entrance, has laboratory, equipment, and administration spaces. The street-level north elevation, with an imbuia wood brise-soleil for sunshading, evokes imagery of the older, pile-supported structures of São Paulo. An expressive poured-in-place concrete wall on the western edge of the building, which changes character as sunlight and shadow move across it, separates the street from the portico paved in Portuguese mosaic tile. A grid of steel columns supports the structure, and the single-pane glazing is connected to the floor and ceiling with simple steel brackets. “Everything is very simple—the way that we designed it and the result, as well,” De Mello Franco says.

Commentary

Implementing a modest palette of materials in a beautifully detailed structure, MMBB Arquitectos offer an example of sumptuous spaces for a dental clinic that would make most American dentists drool with envy. Given the differences in climate, construction methods, and construction costs, is a dental clinic like this possible in the United States? Perhaps, but not likely at the low cost—\$50,000, at approximately \$25 per square foot—that it took to complete this building. De Mello Franco explained that labor was cheaper because (1) this project required a fairly simple construction, and (2) it was built outside of São Paulo, where it would have been more expensive. Climate differences and American standards of building construction and accessibility would require variations to a design such as this, but that shouldn't stop architects from reconsidering the impact of physical space in the dental visit. ■



The clinic's lobby (opposite and above), entered from the portico, is transparent, with windows on three walls.

Stairs (below left) are simple concrete, and imbuia wood facing the clinic area (below right) keeps it cool.



Mott Children's Center Puyallup, Washington

4

ZIMMER GUNSUL FRASCA PARTNERSHIP DESIGNS A SETTING FOR CHILDREN WITH NEUROMUSCULAR DISORDERS AND DEVELOPMENTAL DISABILITIES.

By Sheri Olson, AIA

Architect: Zimmer Gunsul Frasca Partnership—Bill LaPatra, AIA, principal in charge; John Mess, AIA, project manager; Erik Mott, Assoc. AIA, senior designer; Jennifer Schiele-Schroeder, interior designer; Elaine Gagnon, Assoc. AIA, Debra Fabricius, Natalia Khouw, Colleen James

Client: Good Samaritan Hospital
Consultants: Chalker Putnam Collins & Scott (structural); David Evans & Associates (civil); Blue Sky Landscaping (landscaping); McMullen Electric (lighting); Michael Yantis Associates (acoustical); Lynn Goodpasture (art); Charles Fitzgerald (art); Michelle Van Slyke (art)

Contractor: Absher Construction

Size: 42,000 square feet

Cost: \$8.6 million

Completion date: 2000

Sources

Metal/glass curtain wall: Efco; ATAS International

Masonry: Trenwyth CMU

Skylights: Evergreen House

Doors: Vancouver (wood); Efco (sliding, entrances); Ceco (metal)

www For more information about the people and products involved in this project, go to Building Types Study at architecturalrecord.com.

Noah's Ark, a rich metaphor for Good Samaritan Hospital's Children's Therapy Unit and Child Development Center in Puyallup, Washington, suggests safe passage through difficult challenges. "The head of fund-raising suggested the theme as a way to appeal to donors, but we didn't want a boat with animals poking out of the windows," recalls William LaPatra, principal at Zimmer Gunsul Frasca Partnership (ZGF), Seattle. The architects sidestepped obvious kitsch to create a distinctive, noninstitutional setting for children with birth defects, neuromuscular disorders, and/or developmental disabilities, many of whom may visit the facility several times a week for years.

Context

The therapy unit had been dispersed among postwar cottages for more than 30 years. Puyallup's recent, rapid transformation from a rural to a suburban community, thanks to its affordability and proximity to Seattle, increased patient volume to more than 600 kids a week and drove the need to construct a new center.

Increasing interdisciplinary collaboration and patient convenience, the new, freestanding facility brings together laboratory, workshop, and

Sheri Olson, AIA, *RECORD's* Seattle-based contributing editor, is author of *Miller/Hull (2001)* and architecture columnist for the Seattle Post-Intelligencer.



therapeutic components, as well as testing and fabrication of prosthetics devices, into one building. One challenge for the architects was the variety of occupancy types with different mechanical and acoustical requirements. For example, the metal grinders that customize wheelchairs, bicycles, and skateboards for disabled children share the facility with a sensitive, state-of-the-art motor-analysis lab. As part of the hospital's mission to increase community outreach, the project also includes a day-care center for disabled children and a multimedia classroom for education programs, training, and presentation of research.

Solution

Like an ark, the bowed wood facade of the 42,000-square-foot children's

center floats in a 3-acre meadow on the edge of the hospital campus. Winding paths of crushed rock, smooth pebbles, and wood chips provide intentional challenges for children as they move from the parking lot to the entry. "The landscape and building are partners in therapy," says director Linda Yates.

Horizontal cedar siding wraps the curved 120-foot-long front wall—an unusual choice for a medical building but vital in establishing the center's noninstitutional ambience. A series of portholes and a short bridge across a shallow moat to the front door evoke a nautical theme.

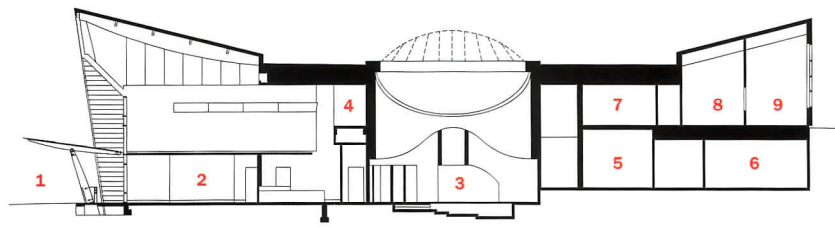
A two-story-tall lobby allows a glimpse of activities on the second floor and provides a generous waiting space for siblings who often accompany patients. From here,



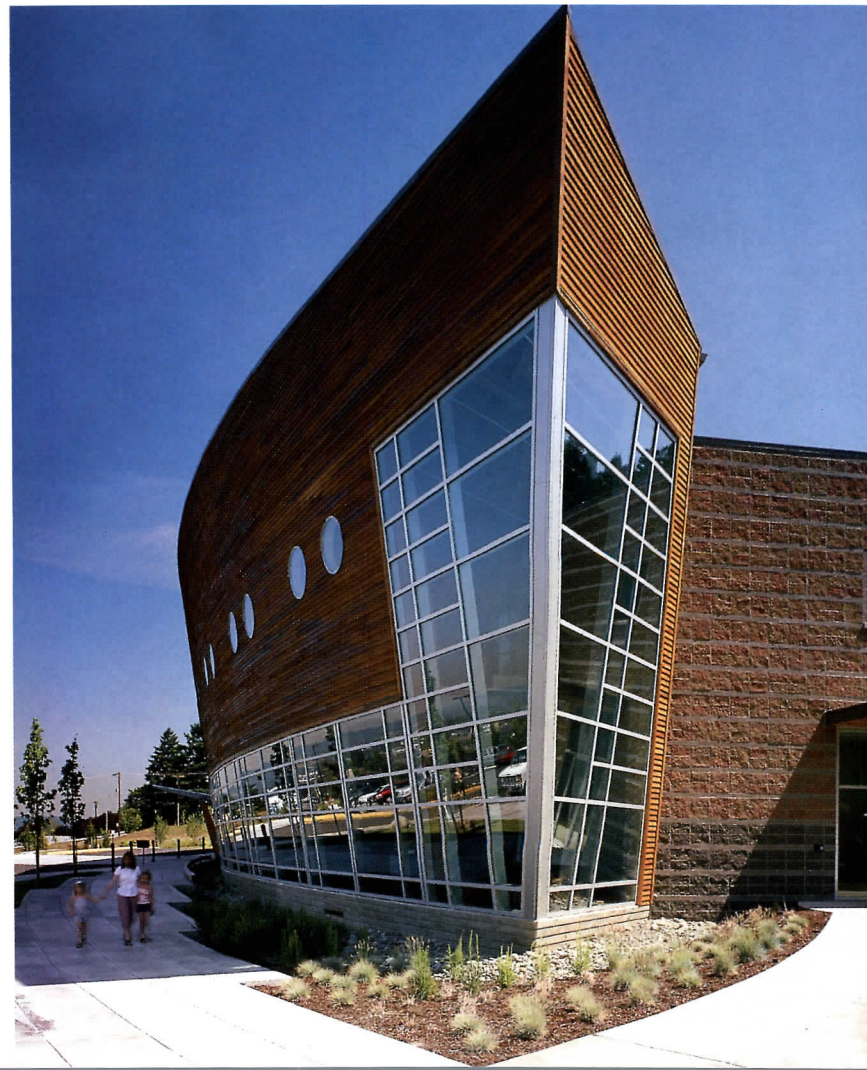
The landscape (above) welcomes children to the entrance (below), which bows and curves to look similar to an ark. A two-story primary treatment room

(opposite) allows views outdoors as well as to second-floor activities. Porthole windows, donated by a marine-salvage company, dot the curved exterior.

1. Entry bridge
2. Lobby/reception
3. Aquatic therapy
4. Bridge
5. Motor lab
6. Research lab
7. Sewing
8. Molding
9. Grinding



SECTION A-A





A second-floor waiting area (above) has views to a ground-floor space (below) adjacent to the hydrotherapy room with its fused-glass wall.



animal tracks sandblasted in the stained-concrete floor help kids navigate the building.

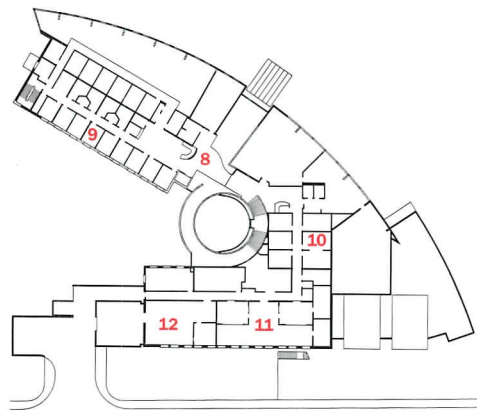
Just beyond the reception desk, a kelp forest rendered in fused glass enlivens the windows of the adjacent two-story-tall cylindrical hydrotherapy room, the centerpiece of the facility and the backbone of its circulation. Along the curved ramp and stairs that wrap the drum, 40 portholes bubble across the surface at child height for views inside of the nautilus-shaped

pool. Within, a 9-foot band of gentle waves and giant seashells in glass-tile mosaic circles the room.

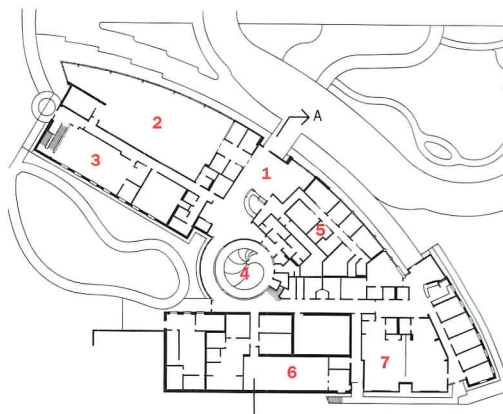
The large treatment room on the main floor contains the strongest ark imagery. Here, curved Glu-Lam beams and columns mimic the timbers of a wooden boat's hull, creating a vaulted, light-filled space. A canted glass window wall that starts at floor level balances the project's sense of refuge and prospect and allows children working on mats or low benches to have sweeping views of Puyallup Valley to the south.

Commentary

ZGF's open-ended approach to the ark theme—neither too literal nor too abstract—has crossover appeal for toddlers and adolescents who will have repeat visits over many years. The design's success lies in its lack of condescension toward its young clients. Rather than hide the center's serious medical purpose, physical therapy spaces are front and center in the project, and the building itself creates challenging experiences that foster independence. ■



SECOND FLOOR



FIRST FLOOR

→N 0 40 FT.
12 M.

1. Reception
2. Primary treatment
3. Classroom
4. Pool
5. Administration
6. Clinical research lab
7. CDC classroom
8. Psych/speech lobby
9. Psych/speech therapy
10. Casting/evaluation
11. Fabrication
12. Workshop

The House of the Future Has Arrived

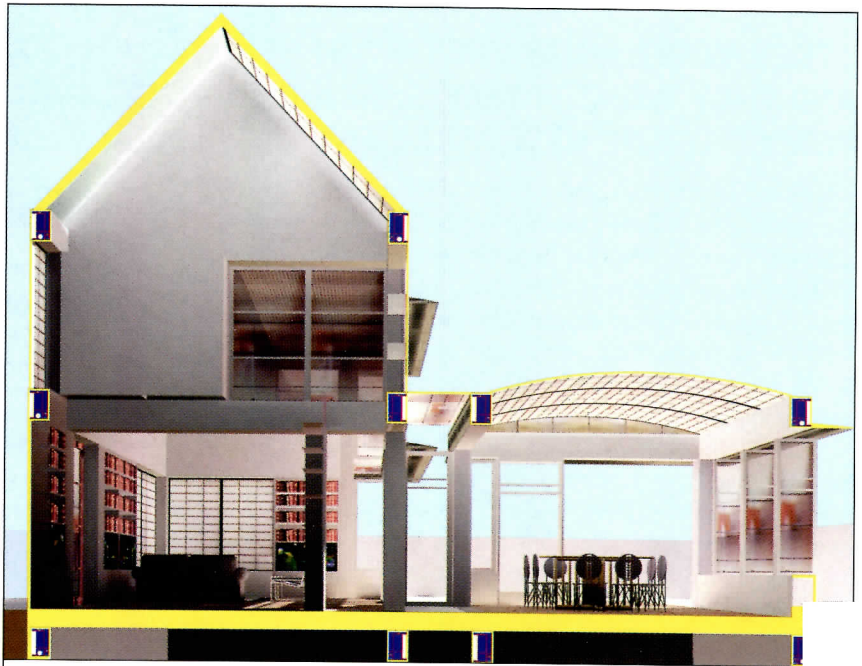
RESEARCHERS AT MIT ARE REVOLUTIONIZING HOUSE DESIGN AND CONSTRUCTION SO THAT AGING BABY BOOMERS CAN GROW OLD AT HOME.

By Sara Hart

Seventy-six million babies were born in North America from 1946 to the end of 1964. Aply called the Baby Boom Generation, those surviving in 2030 will be between the ages of 66 and 84 years old, according to the American Association of Retired Persons (AARP). This will be the largest age-identified demographic since census takers started counting. Surrendering to the inevitable, economic and social prognosticators are predicting gloom for the time when senior baby boomers begin to place an enormous strain on the health-care system, the economy, and many commercial and industrial markets.

There is no doubt that this bad news is a looming crisis for both commodity providers and end users. The housing industry, which, according to industry analysts, has not kept pace with other markets, has been the slowest to acknowledge the challenges it will soon face. Whereas the automotive and electronics industries, pressured by competition from abroad, have reinvented their production processes and business models, residential builders have coasted on time-honored (i.e., unchallenged) practices. The housing industry both benefits from and is hampered by lack of competition from abroad—and home. Most of the industry is locally based, and housing is produced by small construction companies.

This is not to say that there have been no improvements. The industry has responded to the forthcoming shortage by adopting some methods of prefabrication in the controlled factory environment—most commonly, panelized construction (SIPS, etc.) and modular construction. Both systems reduce waste and speed the process, but many operations—HVAC and plumbing systems, window and door installations, and most finishes—still require conventional, on-site construction



Single-family houses. MIT researchers are developing a Chassis and Infill component system (above) to replace conventional or panelized construction. The emphasis is on high-strength, high-performance, and lightweight new materials.

methods. The growing consensus is that these improvements reflect only incremental progress, not the radical innovations needed to transform the industry.

To the reader, this static situation might not seem like the province of architects. After all, 80 percent of so-called manufactured housing (to distinguish it from custom, architect-designed homes) does not enjoy the customized services of a design professional. However, there are growing pockets of institutional, public, and private researchers and analysts who are convinced that the problem is not the population, but rather the enormous gulf between new technologies and the home-building industry, and that indeed it is, or should be, the responsibility of the design professions and construction industry.

So convinced are researchers at the Massachusetts Institute of Technology (MIT) that they began a far-reaching investigation called “Changing Places.” Comprised of a multidisciplinary consortium of university departments and private-sector industries guided by the university’s Department of Architecture and the renowned MIT Media Lab, the research group is developing next-generation systems to close the gap between new technology and housing. “House_n: The MIT Home of the Future” is a research initiative within Changing Places that is currently developing methods to integrate digital and building technologies with architecture.

House_n (the “n” being the unknown, similar to the variable that guides problem-solving in mathematics and science) is fueled by criticism

CONTINUING EDUCATION



Use the following learning objectives to focus your study while reading this month’s ARCHITECTURAL RECORD/AIA Continuing Education article. To receive credit, turn to page 158 and follow the instructions.

LEARNING OBJECTIVES

After reading this article, you should be able to:

1. Explain why the housing industry needs to make changes.
2. Discuss new trends in housing research.
3. Describe innovations in the housing industry.

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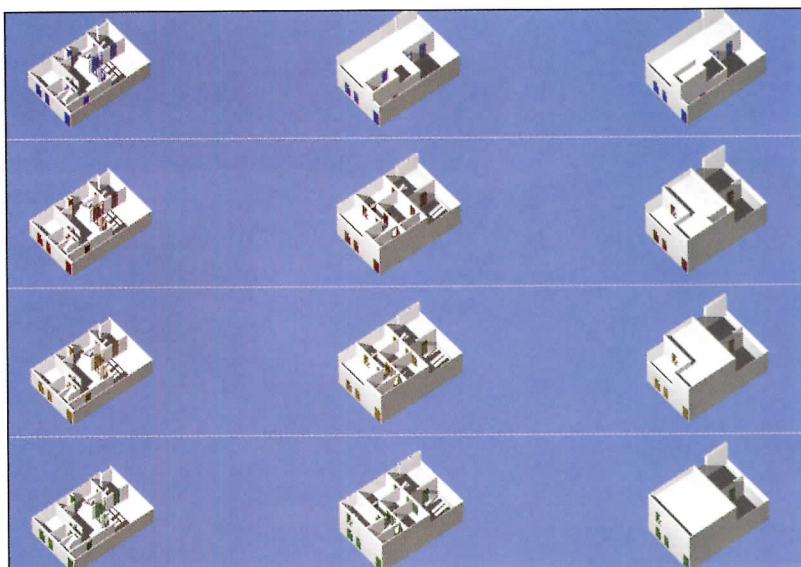
of a housing industry seen as antiquated compared to other industries, an opinion shared by federal housing agencies and some building industry analysts. Critics argue that digital technologies are creating profound changes in the way people live, work, communicate, shop, and manage resources. Most dramatic is evidence that technology is allowing all these activities to happen in the home, with the most important for baby boomers being the ability to receive medical care at home and remain autonomous as they age.

"The current trend to move to retirement communities or progressive-care facilities will slow," says Jane Rohde, AIA, a

"THEY WANT WHAT THEY WANT, AND THEY WANT IT NOW ... AGING IN PLACE" IS THE NEW PARADIGM.

Baltimore-based architect and principal of JSR Associates, a practice specializing in senior housing and health care. Pressure to innovate or perish comes not from the ivory towers of academia but from the baby boomers themselves. Unlike previous generations, boomers are more affluent, educated, and assertive. "They want what they want, and they want it now," says Rohde, adding that "aging in place"—that is, in the home—is the new paradigm.

Professor Kent Larson, principal investigator for House_n, could not agree more, while noting that the current method of home building cannot meet these needs. Larson and the MIT researchers want to overhaul the residential-construction business by moving it away from the labor-intensive, inflexible field-erected tradition. "The construction of a new home in the U.S. typically consists of 80 percent field labor and 20 percent material costs, an extraordinarily high labor component compared with other industries," he says. This is not a good ratio when general contractors consider a shortage of skilled labor to be



Shape grammar. José Duarte, an MIT House_n researcher, has developed a software tool to encode the shape grammar, or design principles, of architect Alvaro Siza. In the 1970s, Siza developed a system (unrealized) to increase user participation in the design of housing in Malagueira, Portugal.

the biggest challenge facing the housing industry today, according to Larson. Labor costs more, so houses cost more, but many agree that the quality has decreased, at least in relation to the costs.

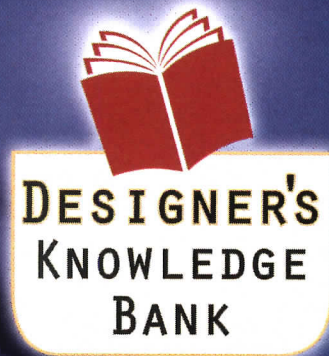
Larson's contentions are supported by both the housing industry and related federal agencies to varying degrees. The National Association of Home Builders (NAHB), a trade association with 200,000 members representing more than 50,000 companies that build greater than 80 percent of all U.S. homes, and the Partnership for Advancing Technology in Housing (PATH), an agency of the



Living laboratory.

This concept rendering shows a possible configuration of the prototype house to be constructed at MIT. The component infrastructure will permit hundreds of sensing components to be installed in nearly every part of the home. These sensors will be used to develop innovative user-interface applications.

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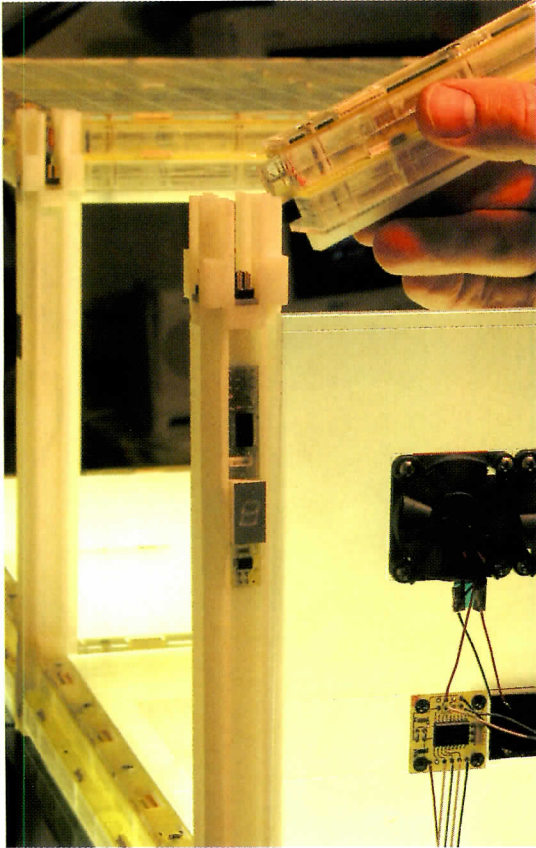
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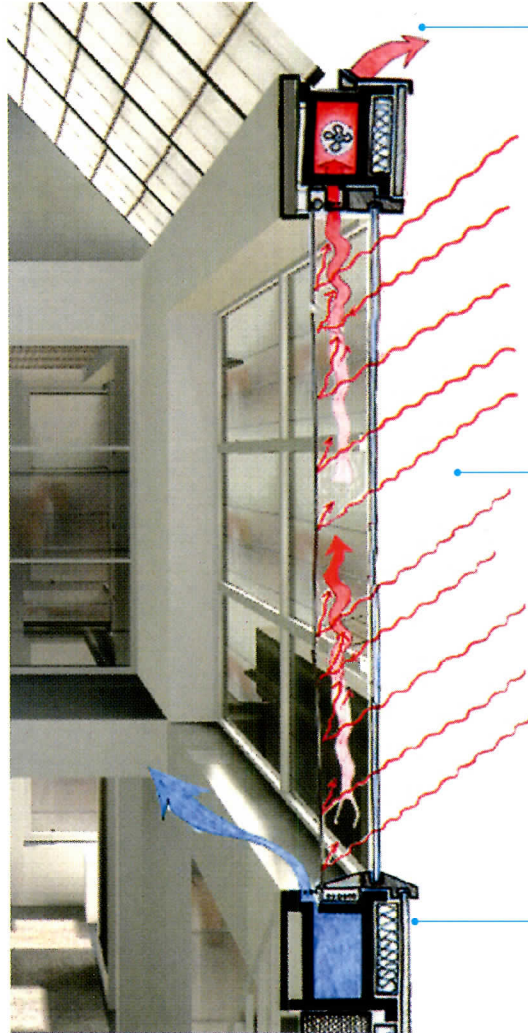


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Connecting anything, anywhere. A model based on the Chassis and Infill system was developed to test distributed-network concepts. Beams, columns, appliances, and other elements will have embedded computational technology whose function will depend on the function of each element and its relationship to the others. This model was developed by House_n graduate students T.J McLeish, Tyson Lawrence, H. Sharkuma, and Deva Seetharam.



Roof Infill Component A
 - 2 5/8" composite luminous ceiling (Kalwall)
 - aerogel translucent insulation (+/-R20)
 - semitransparent photovoltaics
 - electrochromic layer (variable translucency)
 - 1/2 day site assembly

Wall Infill Component A
 - 1" clear glazing
 - operable reflective blind to create cavity
 - perimeter exhaust at head to vent heat
 - cool-air supply at sill

Chassis (Beam)
 fiberglass pultrusion section with integrated structure, ventilation, power/signal raceways, insulation, mechanical attachments, finish, linear diffusions, flashing, sensors

CHASSIS + INFILL COMPONENT SYSTEM: VENTILATED ACTIVE FACADE

Department of Housing and Urban Development (HUD), are involved in their own research.

A report issued two years ago by HUD acknowledges the crisis in the housing industry. Prepared by the Center for Housing Research at Virginia Polytechnic Institute and State University, "Industrializing the Residential Construction Site" recommends that builders industrialize production by following the example of other manufacturing industries.

THE SUCCESS OF ANY RESEARCH DEPENDS ON HOW CLOSE IT COMES TO REALITY — TESTING AT FULL SCALE IN REAL TIME.

Faced with global competition, many have adopted organizational strategies called Enterprise Resource Planning (ERP) systems. Such a system includes Just-In-Time (JIT) supply, a manufacturing strategy that eliminates waste by providing the right part at the right place at the right time. Design for Manufacture and Assembly (DFMA), another strategy, reduces costs and improves quality by developing a design based on how all the parts will be assembled or manufactured. ERPs coordinate all these strategies with databases that can translate a broad range of formats.

Larson's main criticism with these tepid improvements is that "all result in environments that are difficult and disruptive to change over time. They do not easily accommodate new and rapidly evolving technologies or customization demanded by the baby boomers. They also do not easily accommodate the many new products being developed by building companies that are trying to make the transition from commodity suppliers to providers of systems and services. Panelized and modular methods of construction are only suited for new construction, and not for the important renovation and interior fit-out market."

Living lab

The success of any research depends on how close it comes to reality—testing at full scale in real time. For its research house, the House_n group has designed a single-family dwelling to be built near the MIT campus. House_n will be a multidisciplinary "living laboratory," inhabited by volunteers whose activities will be monitored by the researchers. This is not reality TV, but the scientific endeavor to answer questions such as: Can the proper integration of technology and architectural design motivate life-extending behavioral changes? Can natural resources be conserved by better monitoring?



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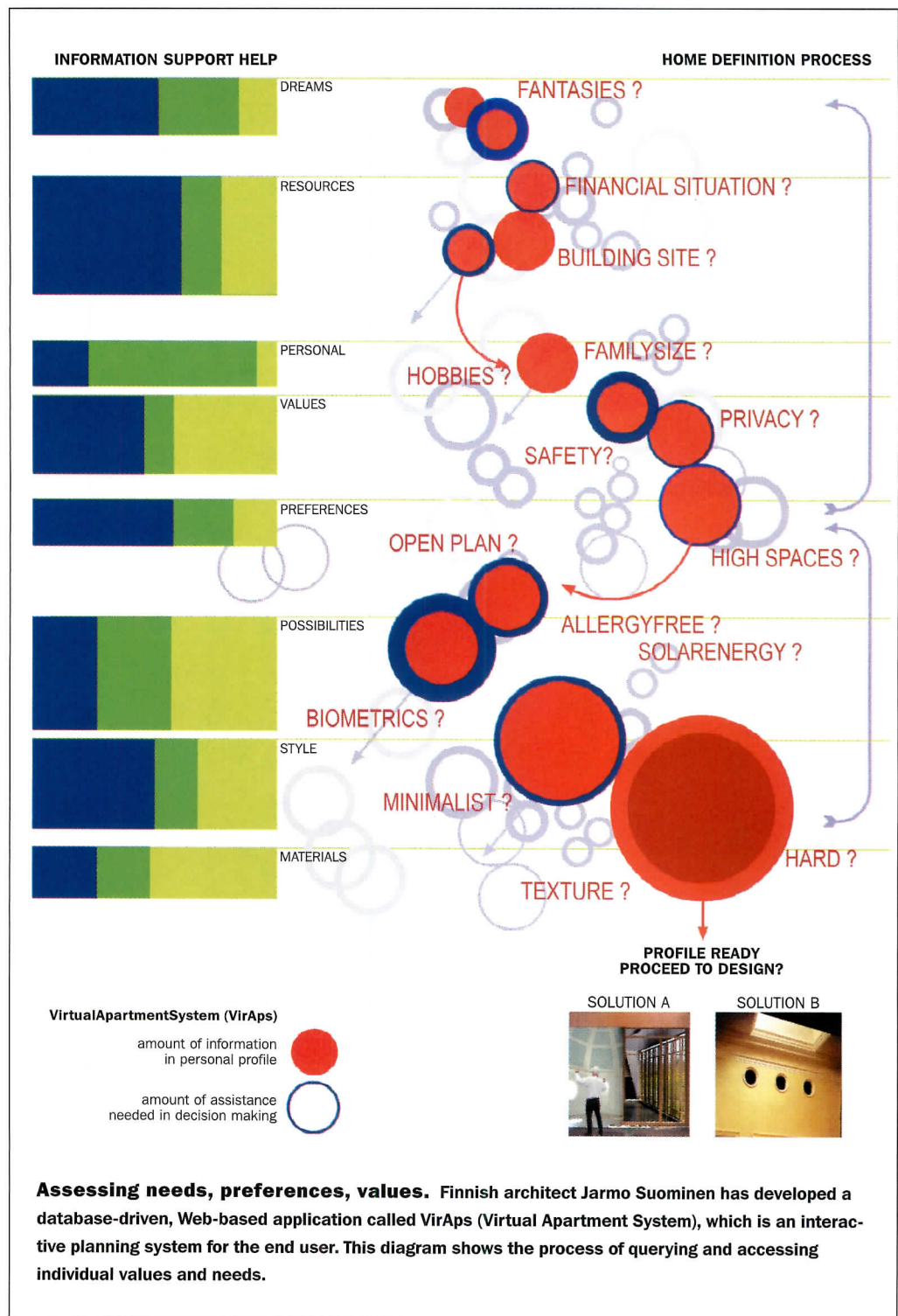
From a building-science perspective, the research house will test a new component-based building system, or Chassis and Infill, as the researchers have termed it. This is a determined effort to produce a method of construction that will result in a more flexible house, reversing the ratio of field labor to materials. As the name implies, Chassis and Infill borrows from the automotive industry's method of rapidly installing integrated parts. The Living Lab will be an integrated assembly. Under its provisions, the chassis will be composed of protrusion glass-fiber composite beams and columns that will provide structure, insulation, sensors arrays, lighting, signal and power-cable raceways, and ductwork. The infill components will include integrated wall/floor assemblies, specialty millwork, display systems, and networked appliances and devices. The theory goes that the infill components can be replaced or upgraded without disruption to the chassis. Of course, integration will require that industry standards be developed so that connections of different brands of materials can be easily interchangeable.

Ultimately, Chassis and Infill represents "mass customization," the latest buzz phrase in academia and commercial building. The MIT investigators have developed their own ERP system, in which Larson identifies three elements necessary to mass customization.

The first is front-end software called a "preference engine"—a computational system that mimics the architect's initial client interview, which sets the program and aesthetic values and guides the conceptual stage of the design process. Whereas this Web-based system would not replace the processes used in a tiny percentage of architect-designed residential commissions, it would allow companies currently developing new residential technologies and building techniques to gather information about consumer needs.

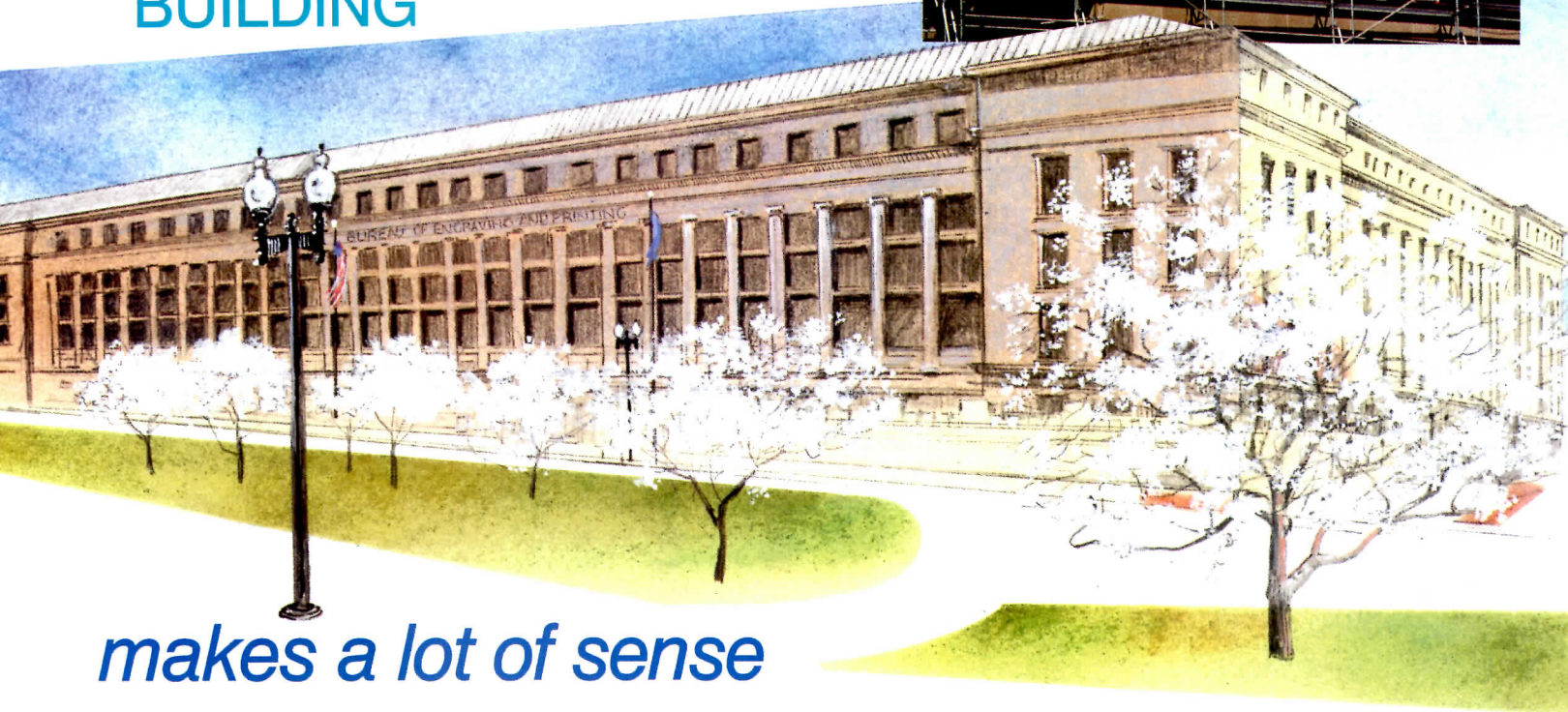
Secondly, a "design engine" incorporates the shape grammar of the designer or architect. Shape grammar is a set of rules used to create coherent spaces. But this database would also encode other considerations, from universal design standards to energy conservation strategies.

The third and probably most essential engine is a production system to fabricate components for easy assembly on-site. Computerized Numerically Controlled (CNC) machines, already in use in large millwork and metal plants, allow for custom parts to be produced as fast as identical ones. If this technology can make it to the residential-construction market, Larson sees new materials, such as polymers, composites, and special-purpose metals, coming into residential use.



Meanwhile, there is another version of Chassis and Infill housing that appears to have been created with the baby boomer in mind. Finnish architect Jarmo Suominen, a visiting researcher at MIT, has created VirAps (Virtual Apartment System), which may make customization of multifamily housing easy for builders. The system is a database-driven, Web-based application (using the AutoDesk MapGuide server, Oracle, and Inews by Noitatietto), which allows consumers to participate in the design of their homes. In other words, they plan the chassis infill. The VirAps system is divided into two sections: business-to-business and business-to-consumer. Its database gathers information from architects, materials manufacturers, developers, and

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others, and stores it in the business-to-business section. This can be retrieved by consumers, who can search for areas and buildings and then design their apartments. The consumers are not completely on their own: Guided by an extensive Design/Help tool, an integrated cost manager calculates the implication of their choices. The completed plan is then sent back to the developer, and the apartment is built according to the specifications given. Several apartments have been planned in Helsinki that will use VirAps.

Home is where the heart (monitor) is

Sure, there are gadgets galore that will turn on your oven or air conditioner or feed the dog an hour before you arrive home. Home-security systems proliferate with ever more sophisticated motion sensors, alarms, and other detection devices and third-party alerts. The MIT investigators

THE MIT INVESTIGATORS ARE LESS INTERESTED IN GADGETRY THAN THEY ARE IN WHAT CAN BE INTEGRATED.

are less interested in what gadgetry can be applied than they are in what technology can be integrated.

An integrated-component approach to building will allow for far more sophisticated, responsive environments to be created through the integration of low-cost sensing and communication media. The problem, again, is the difficulty of incorporating these complex and fragile technologies into environments with conventional stick-built construction. Technology companies developing products and services for home-based health care, work, commerce, play, energy conservation, and communication will require a sophisticated, agile, upgradable infrastructure in the home.

Opportunities for architects

Although this strangely egalitarian approach to design will make many architects and designers blanch, the larger point is not to replace the architect. The point of Chassis and Infill and VirAps approaches is to

Preventive measures. Graduate student Joseph Su used probabilistic reasoning to generate context-sensitive questions that supplement weight and blood-pressure data to judge whether the occupant is at risk for congestive heart failure.

Visual monitoring. This research explores the future of preventive medicine in the home. Biometric data alone is insufficient for early detection of many conditions. In the House_n lab, a computer-vision system identifies the location and activity of occupants. In the house of the future, the technology will be embedded in the environment.

A. person enters B. person near chair C. person and chair
 D. person releasing chair E. person moves away F. person exits



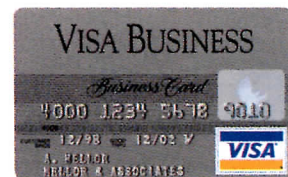
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bring excellence into the design of those homes in which architects have never been strong collaborators. Larson thinks that digital tools and Web-based databases could make it possible for well-known residential architects to license their brands for mass marketing in the same way they do with furniture and other home accessories.

“Architects could play a major role and have a significant impact if they approach the problem at a higher level by developing strategies that allow for thousands of houses—rather than one—to be produced in line with a particular vision by creating ‘design engines,’” insists Larson. The MIT team sees all of this digital technology becoming a reality with

TECHNOLOGY COMPANIES WILL REQUIRE A SOPHISTICATED, AGILE, UPGRADABLE INFRASTRUCTURE IN THE HOME.

sweeping ramifications for the home. Larson writes about the year 2015, in which “savvy, well-capitalized companies from outside the housing industry have taken over the market, and speculative developers have all but vanished. Behind the scenes, software agents have already negotiated with lenders, installers, and energy and service providers.” The buyer will calculate monthly costs ahead of time, buy a 20-year warranty, and purchase upgrading and maintenance packages.

“The shrink-wrapped, digitally tagged house components arrive on the site four weeks after ordering, and three installers connect



Students Byron Stigge and Tyron Yang made a horizontal-display prototype to help home occupants monitor and plan energy conservation.

the pieces together using conductive, industrial Velcro Fasteners,” imagines Larson. The owners move in two weeks later.

Far-fetched? Hardly. Already, the electronics, automotive, materials, and other industries are replacing their commodity-based model by selling services, systems, and experiences. The house is next. ■



AIA/ARCHITECTURAL RECORD CONTINUING EDUCATION

INSTRUCTIONS

- ◆ Read the article “The House of the Future Has Arrived” using the learning objectives provided.
- ◆ Complete the questions below, then fill in your answers (page 212).
- ◆ Fill out and submit the AIA/CES education reporting form (page 212) or download the form at www.architecturalrecord.com to receive one AIA learning unit.

QUESTIONS

1. The housing industry has not kept pace with other markets for all except what reason?
 - a. no competition from abroad
 - b. lack of competition at home
 - c. use of time-honored practices
 - d. existing methods are cost-effective
2. Prefabrication methods include which?
 - a. panelized construction
 - b. window and door installations
 - c. finish construction
 - d. plumbing systems
3. Where will medical care be delivered to aging baby boomers?
 - a. in retirement communities
 - b. in their home
 - c. in progressive-care facilities
 - d. in nursing homes
4. How are baby boomers different from previous generations?
 - a. they are less educated
 - b. they are more affluent
 - c. they are less assertive
 - d. they are more patient
5. The construction of a new home in the U.S. typically consists of what percent material costs?
 - a. 50%
 - b. 40%
 - c. 30%
 - d. 20%
6. What is the main drawback of the ERP organizational strategies?
 - a. they are more costly
 - b. they do not accommodate changes
 - c. they copy other industries
 - d. parts must be ordered in large quantities
7. The theory behind Chassis and Infill building systems is which?
 - a. the chassis and infill are completely independent of each other
 - b. all infill components are completely interchangeable
 - c. infill components can be replaced without disrupting the chassis
 - d. the chassis will determine the wall/floor assemblies
8. Which is an example of mass customization?
 - a. panelized construction
 - b. modular construction
 - c. Chassis and Infill
 - d. Just-In-Time
9. Which is not one of the three elements essential to mass customization?
 - a. preference engine
 - b. VirAps
 - c. production system
 - d. design engine
10. How will more responsive, sophisticated environments be created?
 - a. by skilled craft construction workers
 - b. by computer design programs
 - c. by architects designing for their clients
 - d. by integrating sensing and communication media in building

Digital tools for age-smart housing

By Alan Joch

In the days of segregation, the Ryan School was the only high school in rural Nelson County, Virginia, that accepted African-American students. Abandoned years later, the 30,000-square-foot building began to crumble, along with its legacy. Today, however, the Ryan School is being reincarnated. This summer, a local community-service agency will solicit bids for turning the old school into a refurbished, 31-unit independent-living residence for low-income people aged 55 and older. In itself, that's a worthy goal, but the Charlottesville-based Jefferson Area Board for Aging (JABA) has even loftier plans. JABA and its team of architects are developing a scheme that could make the Ryan School a model for future high-tech assisted-care facilities throughout the country.

They plan to turn the structure into an "age-smart building" that uses electronic monitoring and data-analysis technologies to help keep its seniors healthier and safer than if they lived without any type of supervision. "These technologies offer great hope, especially for our population," says Gordon Walker, JABA's C.E.O. "In rural areas, people move to nursing homes an average of two years earlier than in urban areas. The longer we can delay

nursing-home admissions, the more everybody wins." The facility is slated to open in 2004.

Early warning system

Hidden throughout the Ryan School's apartments will be a digital lifeline for residents. The core components—motion detectors, PCs, and data-analysis software—aren't unusual in and of themselves; each is widely used in conventional building security and retail applications. Rather, it's how these technologies are being used (and some fear misused) that makes the project noteworthy.

Rather than watching for intruders or studying shoppers' habits, the monitors will be placed near key areas of the apartments, including around stovetops and medicine cabinets. The goal is for caregivers to receive early warning signals if a resident leaves the stove on or neglects to open a cabinet where daily medications are stored, says Hunter Greene, AIA, director of architecture for LMW, a Roanoke-based engineering and architecture firm working on the project.

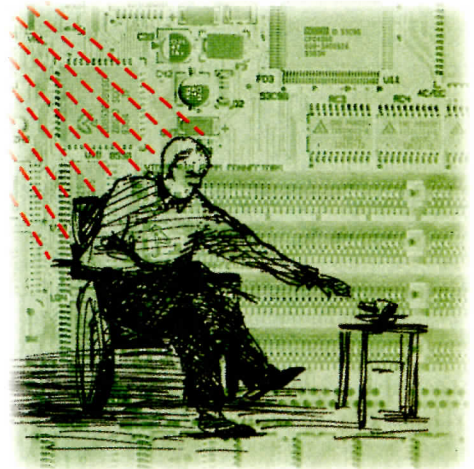
JABA is developing the elder-care monitoring system with the help of the University of Virginia's Medical Automation Research Center (MARC). The researchers at MARC expect that by monitoring mundane activities like shower usage and how often the refrigerator door is opened, the system can develop a daily activity profile for each resident. If a normal activity isn't undertaken for a day, a resident manager, family member, or rescue squad may be alerted.

According to Dr. Majd Alwan,

MARC's director of elder-care technologies, the key to success will be using ubiquitous but nonintrusive sensors. "We don't use any cameras or microphones—anything that would be perceived as invasive," he says. One prototype places motion detectors in floor mats to track a resident's activity level.

Alwan says privacy considerations are guiding his research. MARC uses standard encryption techniques borrowed from business applications to scramble the data collected about individuals to ensure that personal information doesn't become available to prying eyes.

MARC's is one of several university research projects across the country that target new uses of computer technology for elderly housing. In May, the Massachusetts Institute of Technology established the "Changing Places" consortium, a joint effort of its Media Laboratory and Department of Architecture, to study sensing technologies for proactive health care, among other topics. The Georgia Institute of Technology operates the Aware Home, a test bed for unobtrusive monitoring devices [RECORD, March 2002, page 165]. One device embeds sensors in a picture frame to record movement in a room and develop activity patterns for residents. If these patterns change significantly, custom-designed analysis software issues an alert to appropriate recipients. Dr. Gregory Abowd, associate professor at



Georgia Tech's College of Computing, calls the sensors "technologies of awareness." "This could give people the option of staying in their own homes longer," he says. He adds that large technology companies, including chip-making giant Intel, are becoming interested in the commercial potential of digital devices for senior citizens.

Not all of the residential monitors for the elderly are test-bed prototypes, however. Residents of Oatfield Estates in Portland, Oregon, now wear badges that send activity data via infrared or radio-frequency signals to detectors installed in walls and ceilings. The information then travels to a central computer, where staff members can track the location and movement of each resident throughout the day. Other sensors record each person's weight when they lie in bed, or use infrared instruments to take vital signs, such as temperature and blood pressure.

The badges are off-the-shelf security devices. Oatfield's four-person software-development staff wrote custom assisted-living programs. The data collected about residents are archived in a central

Alan Joch is a business and technology writer based in New England.

Contact him at ajoch@monad.net.

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Digital Architect

computer, and Oatfield is now considering giving each of its staff members handheld organizers that would allow them to view residents' data remotely.

Sound design

Unlike Oatfield Estates, the Ryan School project is still in its start-up phase. Although monitoring systems will be an important element in helping its residents live independently, C.E.O. Walker says, "Technology can't do it all." The facility will have a residential manager on-site, and a nurse will make routine visits each week to assess blood-pressure and blood-sugar levels of residents.

The renovation of the Ryan School will save the building's outside structure as well as its interior support walls. Former classrooms will become apartments ranging from 350-square-foot studios to 1,400-square-foot, two-bedroom

units. Perhaps the biggest reminder that this used to be a high school will be the spacious hallways, which will remain 9 feet wide. Architects consulting for the project say the underlying monitoring technologies will cause few problems in terms of design and construction, except for one area: the web of wiring needed to connect the scores of sensors with computers. Solutions to this problem, including the use of wireless networks, is a research priority in university test beds.

The monitoring system's sensors, wiring, hardware, and software will add about \$2,500 to the cost of a one-bedroom apartment, Kessler estimates. If similar monitoring systems become commonplace in assisted-care facilities, the added cost could drop to \$1,000 or less, he believes.

In a nod to privacy, each resident will have the choice to "opt

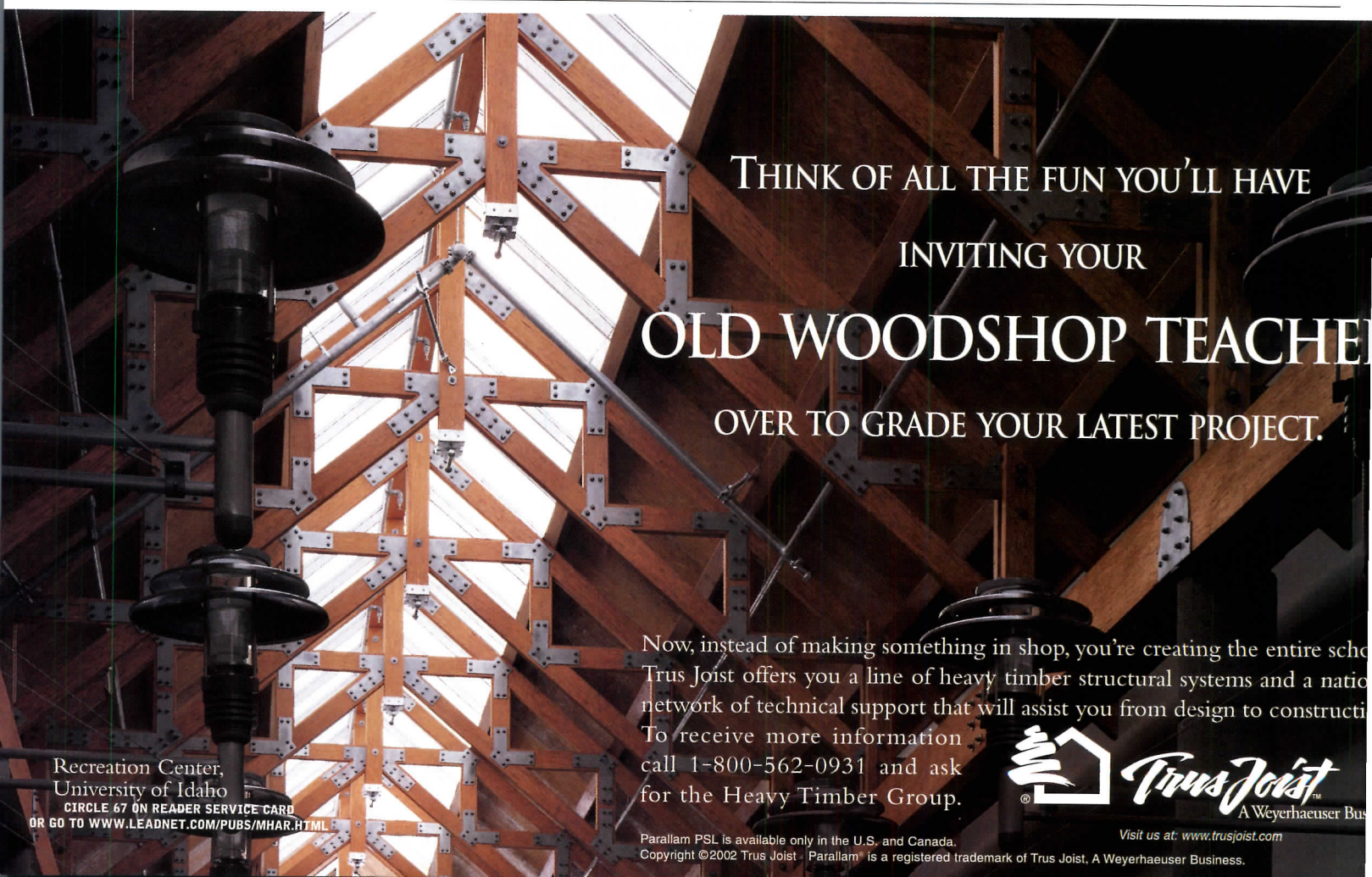
out" of monitoring, says JABA's Walker. "We'll wire each of the apartments, but if anyone feels it's too intrusive, we'll shut it off," he says. Focus groups show that some prospective residents are leery about being monitored, especially because most don't use any digital devices. "At first, they ask, 'Will this be like having a bunch of Peeping Toms?'" Walker says. "But the more we describe this as a supplement to their care, the greater confidence they have." He adds that the system appeals to family members who seek assurances that an elderly relative will quickly receive care in an emergency.

Aside from Big Brother fears, developers of elder-monitoring systems grapple with another problem—information overload. How can anyone make sense of the data when the tiniest details of every individual within an apartment complex are recorded 24 hours a day? MARC's Alwan says his group is attacking the problem by devising analysis programs that use data-

mining and pattern-recognition techniques pioneered by corporations and the military to spot trends and glean meaning from mounds of statistics. "Our intention is for the system to do the analyses and give the results to caregivers," he says.

More than bingo

Walker hopes that if the Ryan School project succeeds, ubiquitous-monitoring technologies will eventually defer nursing-home admissions for millions of aging Americans whose physical and mental health allow them some degree of independence. Although there is no guarantee that around-the-clock monitoring will ever be accepted as the norm, one thing is clear—architects are looking for new models that help them address the graying of baby boomers. "It's not enough to just have bingo and grab bars anymore," Kessler says about housing for the elderly. The question is, does installing dozens of "senior cams" throughout a building cross the line from not enough to too much? ■



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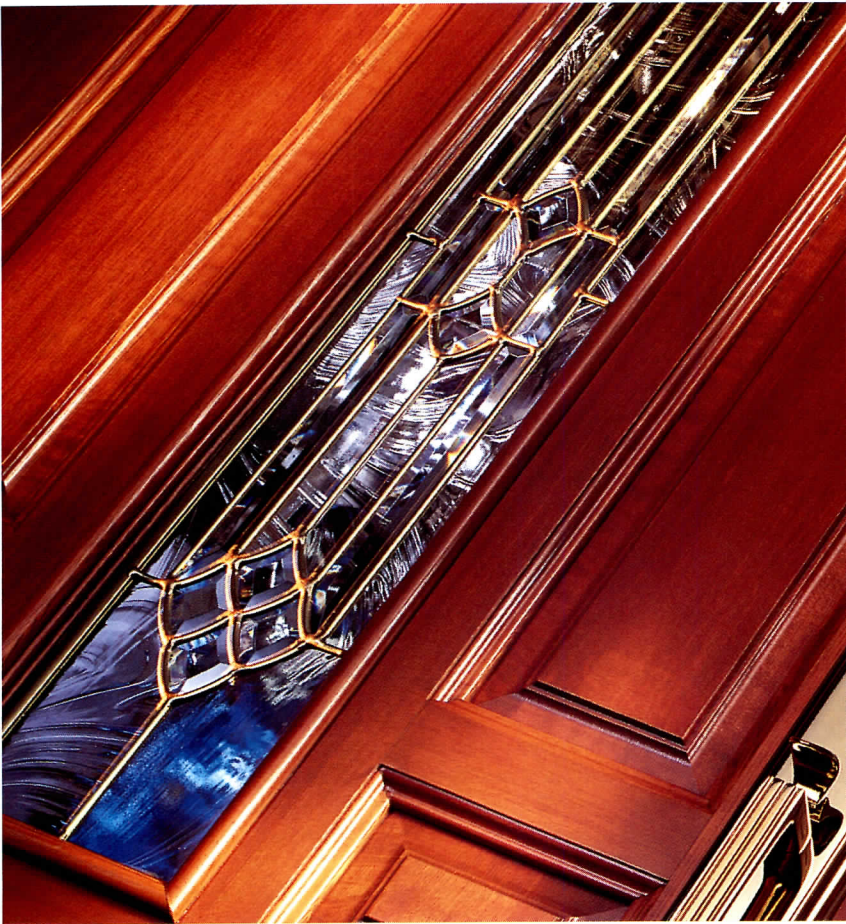


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Sustainability, sound control, energy efficiency, code compliance—areas to consider when selecting an entryway.

FSC Rated Entry Door

The following article is intended to give architects and specifiers a better understanding of the technology through which door manufacturers are addressing sustainability, sound control, energy efficiency and code compliance. A distinctive entry system increases “curb appeal”—and ultimately the value—of a home to a degree that no other single building element can match. Doors today are more energy-efficient, code-specific and resistant to weather than they were just a few years ago. For example, newly designed construction methods such as triple-laminated,

AIA/ARCHITECTURAL RECORD CONTINUING EDUCATION Series

Use the learning objectives below to focus your study as you read **Want Drama? Need Solutions? Think Doors!** To earn one AIA/CES Learning Unit including one hour of health safety welfare credit, answer the questions on page 169, then follow the reporting instructions on page 214 or use the Continuing Education reporting form located at architecturalrecord.com.

Learning Objectives

- Understand how sustainability relates to specifying doors
- Learn how “green” materials are manufactured and meeting code compliance
- Choose the appropriate door for varying exposure conditions
- Glimpse new manufacturing innovations that offer solutions to age-old problems
- Look briefly at tomorrow’s doors: sound-proof, self-cleaning, indestructible
- Learn how to select energy-efficient windows, doors and patio doors

vener-lumber stiles for moisture resistance and stability allow manufacturers to produce beveled mirror showcase doors.

When It Comes to Sustainability and Code Compliance, Door Manufacturers Are Ahead of the Game

Driven by code changes, shifts in customer preference, and a growing drive toward sustainable building, U.S. door manufacturers are altering products and, perhaps more importantly, practices. And those manufacturers whose products already use sustainable components are standing up to be recognized. The following section examines the availability of “green”

materials and the processes by which they are created.

The trend in revision of energy codes in nearly every state is toward incorporation of building energy performance into the code. A growing dedication to conservation has driven the nation’s utilities to add green power to portfolios and forward-thinking public agencies to demand green in both construction practice and materials purchase.

A new generation of impact-resistant glass is becoming a common code requirement in coastal communities across the South and the Atlantic Coast. In 1992, Hurricane Andrew was more than a disaster; it was a wake-up call for safety officials and local building inspectors.

Choosing an appropriate entry door requires more than just specifying one that looks pleasing, especially when building in extreme environments. Choosing the right entry door can be a challenge; the options vary from wood, fiberglass or steel to exterior molded doors.

Many homeowners and building professionals prefer the look of wood doors, but often a home’s architecture, site orientation or the region’s climate increases the maintenance of a wood door.

“Most homeowners want a genuine wood entry door. It is, after all, what the other alternative materials are trying to emulate,” says one West Coast door manufacturer product marketing manager. “Real wood offers natural beauty and design flexibility,” but in certain climates, architectural openings can increase the maintenance of wood entry systems.

One has only to look to the City of Seattle’s building program to realize how far the issues of energy performance, sustainability, and product exposure to damp climates have evolved.

The city currently has under construction 13 city-owned projects totaling 2.75 million sq ft of space—all being built under Leadership in Energy and Environmental Design program guidelines. The LEED program was developed by the U.S. Green Building Council (USGBC), whose membership now includes nearly 600 architectural firms across the country. General LEED membership includes over 1,500 government agencies, institutions, design professionals, builders, and others.

Advertising supplement provided by **Jeld-Wen, inc.**

The 363,000-sq-ft Rem Koolhaas-designed Seattle Central Library, being built by Portland-based Hoffman Construction, will contain a minimum of 50% recycled content. To lessen the energy impact of transporting materials, 20% of its new material must come from local sources (within 500 miles).

The city's new city hall and justice center, a performing arts center and a new 275-million-gallon-per-day water treatment plant all are being built under LEED guidelines with stringent green requirements for doors, windows, wainscoting, and even office equipment.

Half the central library's wood products, including temporary material used for framework, must be from sources certified by the Forest Stewardship Council (FSC), a third-party system for certifying forest products as having come from well-managed forests.

The FSC is an independent, international, non-profit organization representing environmental, business and social interests whose intent is to support timber production on a sustained, ecologically sensitive basis and to ensure that forestry practices contribute to social stability in timber-dependent communities.

Certain U.S. door manufacturers are responding to the conservation call with product lines "certified" to address not only the direct issue of sustainability, but also environmental and social concerns surrounding timber harvest worldwide.

"We are finding that a lot of larger cities are now adopting the same kinds of requirements, and we are providing products that accommodate that demand," says the product-marketing manager for a West Coast door manufacturer.

Specifying sustainable forest products is often a confusing process. The Certified Forest Products Council (CFPC), a North American market development organization assisting the FSC industry, offers the following suggestions to architects and specifiers in writing specifications for certified forest products. (A comprehensive "Project Toolkit" is available online in the Specification section of www.certifiedwood.org, the CFPC website):

- Engage certified suppliers early in the design process to ensure that certified forest products are available and project-appropriate. Providing bidders with a resource list will help assure that the specifications are fulfilled.
- Successful projects generally employ a line-item strategy. Sample specification language is available at www.certifiedwood.org.



Molded Wood Fiber Door

- Certified supply is limited and all products may not be available in all markets. Bidding alternatives is prudent. Specify certified products in the primary bid and non-certified materials as alternatives. The strategy typically produces more competitive pricing and requires due diligence to submit a responsive bid. In some cases, sole-source specifications must be written.
- Use of bid compliance forms (available in the "Project Toolkit") in each sub-section will help assure due diligence by bidders.
- Conduct a thorough project documentation for LEED projects.

Although certified product lines are expanding, specifiers may find that certified products are not available from a contractor's normal suppliers. As a result, costs may be higher than expected and lead times may be longer than usual.

It is, therefore, prudent to check availability of certified products early in the design. CFPC maintains intelligence on the FSC industry in North America and has a regular program in place to assist design professionals. They can be reached at 503-224-2205.

FSC door manufacturers, who have become increasingly reliant upon hybrid materials for door assembly, have turned to plantation-grown poplar, for example, and many are now growing their own forests in order to comply with certification requirements. "There is not as much material available as we would like," says a West Coast manufacturer. "We have our own (FSC-certified) poplar plantation. But we also buy from Malaysia and South America."



Molded Wood Fiber Doors

Molded wood fiber doors are a smart choice due to their SCS (Scientific Certification Systems) rating, affordable price, and wide range of options and styles.

In the manufacture of molded facings, various Ponderosa pine and poplar sawmill waste is reduced to wood chips, then screened for size uniformity. The chips are softened with steam in a digester and further reduced to wood fibers in a disc refiner.

They are then blown through a dryer. The wood fibers are mixed with resin and wax and metered out in a continuous mat of uniform thickness and density. The continuous mat is cut into individual sheets and loaded into a hot press where they are compressed under intense heat and pressure.

After pressing, individual door facings are trimmed to size, humidified, primed, and stretch-wrapped (to protect from humidity). A door facing comes out of the process with a low moisture content. It is critical that moisture be reintroduced to the door facing so that its moisture content is as close as possible to the environment where it will be used. Door manufacturers pay particular attention to such detail in markets where weather can be an issue.

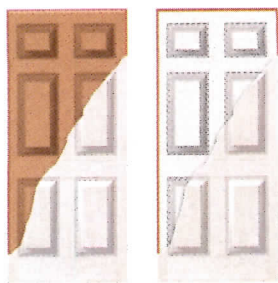
Solid Core Doors: Sound Reduction

Molded wood fiber doors are offered with engineered cores of various materials that not only incorporate materials grown on a sustainable basis, but which result in lower sound transmission and ease of maintenance while duplicating to an extraordinary degree the look of classical wood doors.

Below are the STC ratings for hollow core and solid core doors:

6-panel door	1 3/8" x 36" x 80"	Hollow core	STC 26
6-panel door	1 3/8" x 36" x 80"	Solid particle board core	STC 31
6-panel door with 90-minute fire rating	1 3/4" x 36" x 80"	Solid mineral core	STC 30
6-panel door with 20-minute fire rating	1 3/4" x 36" x 80"	Solid particle board core	STC 31
6-panel door with 20-minute fire rating	1 3/4" x 36" x 80"	Solid particle board core	STC 31

Solid core doors are on average 50% quieter than hollow core doors. The higher the STC rating, the less sound travels through the door. Solid cores are also necessary for fire-rating.



Particle Board & Mineral Core Doors

Energy-Efficient Doors

California, as part of its energy conservation reforms, now requires a National Fenestration Rating Council (NFRC) certification for all doors and windows, and other states are expected to follow suit.

The NFRC procedure takes into account whole-product performance, allowing builders and architects to directly compare products



with different construction details and attributes. This prevents information about a single door component, such as its core material, from being compared in a misleading way to the actual performance of the entire door product.

Using this method, a comparison of the U-value results for brands published in the NFRC Certified Products Directory, reveals a negligible variance of less than .03 (equivalent to an R-value of 1.12). U-values for the most efficient steel-faced doors range from .18 to .15 (equivalent to R-values of 5.55 to 6.67). Architects, manufacturers say, typically—and mistakenly—rely upon R-values in specifying doors and windows. U-value is the actual measurement of heat flow. Some door manufacturers, capitalizing on the confusion, claim an R-15 rating for some exterior door products. “It is impossible for a door to achieve that kind of rating,” says one manufacturer.

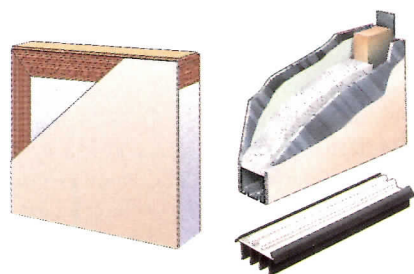
Many states are adopting the International Energy Conservation Code as part of their statewide building code. The move demands doors meet specific U-factors, which resist solar heat gain. Exterior molded doors respond well to both requirements.

Some manufacturers have turned to polystyrene as a replacement to polyurethane cores to create a product that delivers an R-value that not only exceeds current energy codes, but also has other important characteristics: “Polyurethane, over a period of as little as three years, will, because of off-gassing, lose a portion of its thermal resistance,” says one manufacturer. “At that point, they will also begin to absorb some moisture, causing the door to rust

from the inside out, especially in wet, coastal environments.”

One-piece polystyrene cores provide a custom fit, eliminate core voids, deliver long-lasting insulation and are excellent for residential passageways such as utility rooms and garages that require a 20-minute fire rating.

Steel-edge doors also are available with a 90-minute fire-rating for use in multi-family buildings, offices and light commercial applications, and are manufactured with a continuous edge that resists moisture infiltration, increases thermal resistance and offers increased safety and durability.



Polystyrene Core

Self-Cleaning Glass Is Now a Component

Two distinctly different self-cleaning glasses have been developed. One type is designed to reduce particles' ability to adhere to the glass and the other type is a chemical coating that breaks down particles if they come in contact with the glass.

To inhibit adherence of dust particles or other grime on the glass surface, one manufacturer has reduced the porosity of the surface. There are no chemicals involved and should be as effective one year as the next. If minute amounts of particles do adhere to the surface, they are easily cleaned with a quick spray of water.

The other innovations in exterior glazing materials is a coated glass with both photocatalytic and hydrophilic properties that, in combination, result in exterior glazing that is easier to clean.

A durable, transparent coating of titanium oxide is applied during the manufacturing process, resulting in a glass whose UV transmittance is reduced



Custom Wood Windows

by about 40%, but whose outward appearance is actually slightly brighter than ordinary glass. The solar heat gain coefficient of the first generation of self-cleaning glass is improved about 0.05 over ordinary, un-coated glass.

The photocatalytic properties of self-cleaning coatings are energized by UV rays to help slowly break down and loosen organic dirt. Hydrophilic properties cause water to sheet evenly over the glass surface, instead of beading. The sheeting action helps to flush the surface clean and to accelerate drying, leaving glass with minimal spotting and streaking.

Self-cleaning glass now is available in standard and energy-saving low-E windows.

Impact Resistance Also Part of New Code Compliance

The new impact-resistant glass, developed specifically for the Southeast—that region of the U.S. most vulnerable to hurricanes—has recently become, or soon will become, a dictate of local codes in coastal regions from Texas to Virginia. Manufacturers are finding architects specifying it in Kansas and Iowa to help combat tornado disasters. It is also finding markets elsewhere because of its acoustical and UV-resistant properties.

“This is the next big market,” says a manufacturer. “Code changes are under consideration in coastal cities in several states, and it is likely we will see this glass become a code standard within a prescribed distance of the shoreline everywhere.”

Impact-resistant glass is, in most cases today, a laminated five-layer sandwich of glass, resin and mylar. Resin applied to the interior surface of two pressed sheets of float glass strengthens when cooled and hardens like safety glass. A sandwiched sheet of mylar prevents the glass from shattering. It acts to ensure that nothing penetrates the fenestration of a building. Upon impact, glass pieces adhere to the plastic inner layer, remain in the opening and preserve the building envelope.

Hurricane-force winds create tremendous pressures on a building. A 140-mph wind generating 80 pound per-sq-ft (psf) of wind load on a 4-X-8-ft window translates into a total load of 2,560 pounds of pressure on doors and windows. When glazed openings fail, the same pressure inside the building is almost immediate, causing tremendous lift on the roof.

To insure impact resistance, Dade County (Fla.) developed the now widely used test in which a nine-pound two-by-four is fired from an air cannon at a speed

of 34 mph to simulate the force of a piece of flying debris in a hurricane.

The State of Florida has segregated the state into several wind zones. Peak winds in immediate coastal areas are on the order of 150 mph, and doors and windows must be designed to withstand a three-second gust. The new Florida code is derived from ASCE 7-98. "Anybody with a new code book will see references to those codes," says a manufacturer's representative, "and each individual door line must be certified. That takes considerable testing, research and development to develop products that comply."

The tests requires three identical product prototypes, and at least two must pass the exam. All parts of the test specimen, including glazing and structural framing, must be full-size, using the same materials, glass type, details and methods of construction and fastening as proposed for actual use. The test specimen must consist of the manufacturer's entire assembled door or window unit.

Other tests are administered in other regions. Other tests administered in the U.S. are based upon Design Pressure (DP) ratings. These refer to the Air and Water structural ratings of a door or window based on positive and negative

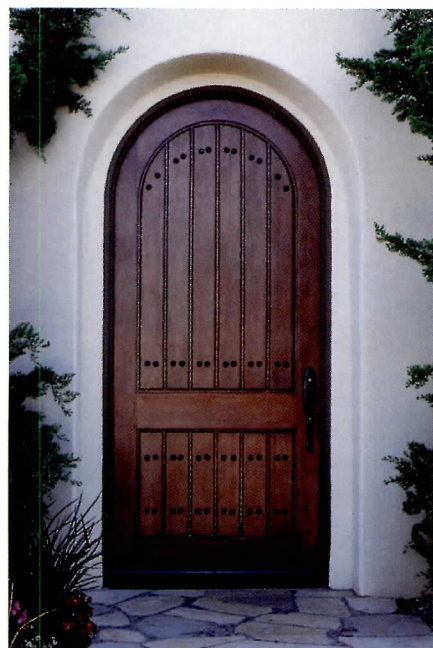
pressures, measured in pounds of pressure per sq ft. Minimum requirements vary from region to region. For some states, the required DP rating is as low as +15 to -15 DP. Parts of the Oregon coast require +30 to -30 DP. In Florida, due to the new 2001 building codes, DP ratings have increased an average of up to 20%.

Doors and windows are actually tested at 1.5 times the required DP to allow for a safety factor. When they have passed, windows are labeled with the appropriate DP rating.

Make sure you look!

Appropriate Exposure: Building for Any Extreme

Alternative materials provide options. Consider quality steel, fiberglass or molded wood fiber doors. Careful selection of



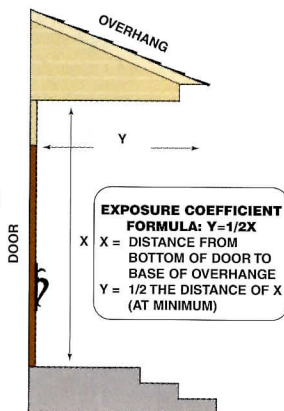
Fiberglass Door

the entrance system makes life easier for contractors and homeowners while still providing architects the desired appearance. Careful selection ensures long-term performance and homeowner satisfaction.

The placement of a wood door is a major factor in its maintenance and longevity. To adequately protect a wooden door and extend its life, factoring must be done. Take into account the climate, as well as the direction the door will be facing. From there, you have to determine the amount of overhang and the height of the entrance in relation to the base of the door. There are some situations where the exposure can be too extreme for a wood door, so to address this need, composite doors are now being manufactured as specialty lines specifically designed to withstand even the harshest of elements in the most extreme conditions.

The Exposure Coefficient

To help you figure out the correct overhang required for your door, there's a simple formula to follow: $Y=1/2X$ in most cases. So for example, if the measurement from the base of the door to the bottom of the overhang is ten feet, then the overhang should be a minimum of five feet deep. The following illustration and chart should help in factoring the appropriate exposure for the door.



Other Variables

Take into account the variables specific to a region. Consult the chart below, and adjust the exposure coefficient formula accordingly.

CLIMATE	DIRECTION THE DOOR FACES			
	NORTH	SOUTH	EAST	WEST
DESERT	$Y=1/2X$	$Y=2X$	$Y=1/2X$	$Y=2X$
OCEAN	$Y=1/2X$	$Y=X$	$Y=1/2X$	$Y=X$
WET	$Y=X$	$Y=X$	$Y=X$	$Y=X$
MILD	$Y=1/2X$	$Y=X$	$Y=1/2X$	$Y=X$

Without correct overhangs, hardwood doors with a South, Southwest, Southeast or West exposure will require maintenance. With the proper overhangs, hardwood doors may face any direction (north, south, east or west). Doors installed in these types of applications still require finish maintenance. They may need to be refinished every two to five years.

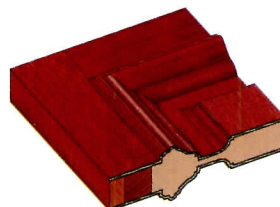
A consideration in the use of steel-faced exterior doors is whether or not a storm door will be used in concert with the door. The doors will work fine in winter, but heat build-up between the doors in summer can cause distortion of the steel surfaces, and oil-canning or warping can occur because steel expands with heat.

Because the degree of absorption of ultraviolet rays varies according to color, it is critical that designers be aware that painted doors dark in color can be severely affected by heat. In 110-degree ambient heat, the temperature of a white door will gain 10 to 15 degrees; a dark brown or forest green door of the same material, 70 degrees.

Beauty, durability and innovation are the hallmarks of fiberglass doors, which by new manufacturing processes remarkably resemble classical hardwood doors. The result: beautiful doors specifically engineered to withstand harsh elements. To create these maintenance-free doors, molds are created from true hardwood doors, which give the fiberglass product a grain structure indistinguishable from hardwood.

Fiberglass skins are created by multiple layers of tinted resins, base colors and reinforcing materials. The skins are then removed from the molds and permanently bonded to engineered-wood frames edged in hardwood. To create a solid feel to the doors, a specially formulated core material is used which laminates to the skins. The core material becomes an integral part of the door. The result is a denser, more solid feel resembling the weight of a solid hardwood door.

The surface of the door is then finished with a multi-layer prefinishing system beginning with a specially formulated grain filler, and a UV-protective stain coat is then added. The door is encapsulated in a final protective topcoat originally designed for use in the aerospace industry for equipment exposed to extreme environments. The end result is a door that can withstand sun, rain, coastal salt spray, and extreme temperatures. ■



Fiberglass Door

Click for Additional Online Reading

As part of this learning activity, you are required to read the following additional material:

How to Select an Energy-Efficient Window:

To access the materials online go to www.efficientwindows.org/benefits.html

A Short Course on Energy-Efficient Windows and Patio Doors:

To access the material online go to www.drpane.com/windows101.html

To request a faxed copy of the online material, contact lindamo@jeld-wen.com

Additional Resources (non-required):

Websites Containing Building and Energy Code Updates:

To access the materials online go to www.jeld-wenresearch.com and www.bcap-energy.org

Learning Objectives

- Understand how sustainability relates to specifying doors
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- Choose the appropriate door for varying exposure conditions
- Glimpse new manufacturing innovations that offer solutions to age-old problems
- Look briefly at tomorrow’s doors: sound-proof, self-cleaning, indestructible
- Learn how to select energy-efficient windows, doors and patio doors

Instructions

Refer to the learning objectives above. Complete the questions below. Go to the self-report form on page 214. Follow the reporting instructions, answer the test questions and submit the form. Or use the Continuing Education self-report form on *Record's* website—architecturalrecord.com—to receive one AIA/CES Learning Unit including one hour of health safety welfare credit.

Questions

- Q: 1. True or False: According to the Forest Stewardship Council (FSC), the supply of certified wood is abundant and availability should not affect lead time.
A: a. True
 b. False
- Q: 2. The benefits of the engineered cores of molded wood fiber doors includes all but which of the following:
A: a. Materials grown on a sustainable basis
 b. Manufactured with a high moisture content
c. Lower sound transmission
d. Replicating the look of classical hardwood doors
- Q: 3. Which is the correct measurement of heat flow to consider when specifying doors and windows:
A: a. R-Values
 b. U-Values
- Q: 4. Some manufacturers have turned to polystyrene as a replacement to polyurethane cores because polyurethane over time:
A: a. Provides a 90-minute fire rating
 b. Loses a portion of its thermal resistance
c. Eliminates core voids
d. Resists moisture infiltration
- Q: 5. It is the photocatalytic properties of the self-cleaning glazing that:
A: a. Causes water to sheet evenly over the glass instead of beading
b. Reduces the UV transmittance by about 40%
 c. Breaks down and loosens organic dirt
- Q: 6. Impact-resistant glass is, in most cases today, a laminated five-layer sandwich that includes all but which of the following:
A: a. Titanium oxide
b. Glass
c. Resin
d. Mylar
- Q: 7. In most cases, the simple formula to help figure out the correct overhang required for a door is:
A: a. $Y = X$
 b. $Y = 1/2X$
c. $Y = 2X$
- Q: 8. According to the Efficient Windows Collaborative, four steps are needed to select energy-efficient window: 1) look for Energy Star-qualified products, 2) look for energy-efficient window properties on the NFRC label, 3) Compare annual energy costs for a typical house and 4) customize energy use calculations for a specific house.
A: a. True
 b. False
- Q: 9. A good U-Factor to look for is:
A: a. 0.15 or lower
b. 0.35 or lower
c. 0.50 or lower
- Q: 10. The Visible Transmittance (VT) number a window or patio door has is a direct percentage of available light coming through: the higher the number, the more light. A good percentage is about?
A: a. 45%
b. 70%
c. 55%

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RESIDENTIAL

A waterfront home is a cherished refuge in uncertain times

Statistics tell us that in this generally cool and uncertain economy, vacation homes are selling at a hearty pace. This may not surprise you, given the security of investing in real estate compared to the current high level of uncertainty in the stock market. Also, since September 11 a nesting instinct has been evident, with families more often choosing to vacation on land within commuting distance rather than seeking high adventure abroad. Foremost within the category of vacation homes is the highly desirable house by the water—a luxury many of us can only dream of.

Water comes in many forms, as do the homes that derive much of their character and beauty from their relationship to it. The Ocean Beach House sits at the Pacific edge of our continent, mitigating a foggy nautical boundary between humanity and the changing sea. Altogether different is the Van Sweden House, which floats in a marsh at the brink of Chesapeake Bay, a tamer, gentler waterway. These contrast with the Bohlin residence, a country compound of restored small buildings assembled around the tranquil focus of a man-made pond, which organizes the disparate elements of the complex. The summer cabin in southern Norway is built on the site of a 1950s fisherman's hut. Designed to appear like the wooden-hulled boats of the area, it hovers lightly above the grassy ground at the edge of a fjord. While these houses are all modest in size and scope, they convey an aura of opulence. Who but the luckiest among us can have the midsummer night's dream of a house by the water? *Jane F. Kolleeny*

RESIDENTIAL BRIEFS

"The economy is on the road to recovery," said David Seiders, V.P. and chief economist for the [National Association of Home Builders \(NAHB\)](#) and moderator of their recent Construction Forecast Conference in Washington, D.C. He cautioned: "Residential construction hasn't crashed the way nonresidential has, but there are a lot of potholes on the road to recovery."

A prototype house of the future is on display at [Microsoft's Redmond, Washington](#), headquarters featuring technology five to eight years away. An iris scanner enables residents to enter; a computer sets the lights, blinds, temperature, music, and TV on command; a soothing automated voice recites a recipe as one cooks in the kitchen; telephone and e-mail messages can be retrieved, read, or heard aloud through control

panels, TVs, and PCs placed throughout the house.

[Windshield](#), Richard Neutra's famous beach house, is the subject of a new exhibition at the National Building Museum, Washington, D.C., through August 18 (202/272-2448). It will be at the Carnegie Museum of Art, in Pittsburgh, March 1 through May 25, 2003 (412/622-3131).

Information released by the [Census Bureau](#) in June shows that commuting times are increasing across the country, with more people spending longer hours driving their cars. Yet, a new study from the [National Resources Defense Council](#) offers empirical evidence that smart growth works. People who live in intelligently located communities are less dependent on cars, and their communities have better air, cleaner water, and more protected open space.

CONTENTS

- 172 PIA Awards**
- 174 Bohlin Residence**
Bohlin Cywinski Jackson
- 178 Summer Cabin**
Jarmund/Vigsnæs
- 182 Ocean Beach House**
Nick Noyes Architecture
- 188 Van Sweden House**
Sorg Associates
- 193 Kitchen & Bath Portfolio**
- 201 Residential Products**

Residential News

The American Institute of Architects Announces the 2002 Housing Professional Interest Area (PIA) Award Winners

SINGLE-FAMILY HOUSING



Project: *Newman Residence*
Location: *New York City*
Architect: *Cooper, Robertson & Partners*
Client: *Scott Newman*

An adaptive reuse of a small 19th-century commercial building in New York City. "The architect showed discernment in the basic geometry of



the building and used historic elements to create a very elegant reconstruction."

INNOVATION IN HOUSING DESIGN



Project: *House at Santa Barbara*
Location: *Montecito, Calif.*
Architect: *Barton Myers Associates*
Client: *Victoria Myers*



Located in a secluded mountain canyon in California with panoramic views of the ocean, the Channel Islands, and mountain peaks, one juror called it "a seamless insertion in the landscape similar to a steel tent."

MULTIFAMILY HOUSING

Project: *Radford Court Apartments*
Location: *Seattle*
Architect: *Mithun*
Client: *Lorig Associates*

This 400-unit, affordable student-housing development sited on a steep hillside replaced unsightly, dilapidated housing. One juror appreciated "the colors, shapes, materials, and modest, cozy scale."

Project: *Victoria Townhomes*
Location: *Seattle*
Architect: *Mithun*
Client: *Lorig Associates*

Here the architect rehabilitated a turn-of-the-last-century apartment building with evident sensitivity to the historic neighborhood. "This well-modulated and comfortable urban infill, with its whimsical, steeply pitched roofs, makes great use of materials and color."



The single most important message the AIA Housing PIA delivers through its annual awards program is that good design matters. This is true whether a project is an upscale urban infill or subsidized, low-income housing. This year, there were eight winners among 66 submissions in four design categories. The jury rewarded projects that succeeded in resolving issues of scale, definition of public and private spaces, best use of materials, and responsiveness to design intent in housing proposals. According to Diane Georgopoulos of the Massachusetts Housing Finance Agency, who chaired the jury, "What we must not fail to appreciate is the significant role housing plays in simply setting the stage for the dialogue between what we need to live and how we'd like to see ourselves living."

COMMUNITY DESIGN



Project: *Howard University, LeDroit Park Revitalization Initiative*
Location: *Washington, D.C.*
Architect: *Sorg and Associates*
Client: *Howard University/Fannie Mae Corporation*

Restoring the historic fabric of this neglected inner-city neighborhood was accomplished with such finesse that one juror described it as "a rebirth out of death, accomplished far above the rare."



Project: *WaterColor*
Location: *WaterColor, Fla.*
Architect: *Cooper, Robertson & Partners; Associate Architect: Looney Ricks Kiss*
Client: *Arvida (The St. Joe Company)*

This planned development demonstrates the virtues of the new urbanism. "A fully integrated community; very elegant and well thought-out."



Project: *Park West Condominiums*
Location: *Charlotte, N.C.*
Architect: *David Furman Architecture*
Client: *The Boulevard Company*

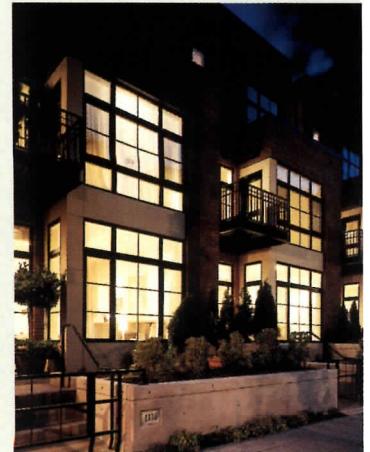
but your typical garden apartment. The jury liked the privacy, exterior places, parking, and scale of the unit plans."

housing sited near a major traffic corridor that offers a refined aesthetic with wood siding, unique window shapes, m, and canopies. "Anything



Project: *Johnson Street Townhomes*
Location: *Portland, Ore.*
Architect: *Mithun*
Client: *Hoyt Street Properties*

An urban brownfield, a former railroad switching yard in a historic warehouse quarter north of downtown, is the location of this "wholly original design—a great platform from which to watch the world."



PHOTOGRAPHY: © TOP ROW, NEWMAN RESIDENCE (SCOTT NEWMAN, LEFT, BRET MORGAN, RIGHT); HOUSE AT SANTA BARBARA (GRANT MUDFORD); HOWARD UNIVERSITY (HOACHLANDER DAVIS PHOTOGRAPHY); WATERCOLOR (ARVIDA, TOP, PAUL MILANA, BOTTOM); BOTTOM ROW, RADFORD (WWW.DOUGSCOTT.COM); VICTORIA (ROBERT PISANO); PARK WEST (TIM BUCHMAN); JOHNSON STREET (ECKERT & ECKERT)



A large pond anchors Peter Bohlin's rustic country ensemble of enchanting indoor and outdoor spaces

By Raul A. Barreneche

Peter and Sally Bohlin's small family compound near Scranton, Pennsylvania, boasts a bit of the mountain—or, in this case, the water—coming to Mohammed. This is because the large pond that extends through the rural site is artificial, constructed by Bohlin, the principal of Bohlin Cywinski Jackson, for the reason that it “seemed like an obvious thing to do,” he says, given the site’s tendency toward muddiness. But the pond is much more than an exercise in civil engineering; it’s a believably natural landscape that organizes the compound’s disparate elements, gives a tranquil focus to the rural retreat, and imparts some unexpected magic to every corner of the property.

Sally Bohlin originally owned the main house. Two years ago, she and Peter purchased the modest shingled house next door—built in the 1840s by a runaway slave protected by the Underground Railroad—for use as a guesthouse. As often happens, the purchase snowballed into a much larger construction project.

Raul A. Barreneche, a New York–based architecture writer and critic, is a contributing editor to Metropolitan Home and Travel + Leisure and has written for Dwell, I.D., Wallpaper, Interior Design, and The New York Times, among others. He is coauthor of House: American Houses for the New Century (Universe, 2001).

Soon, the Bohlins were renovating the guesthouse and their own house, building the artificial pond, and developing a broad landscape plan, including the construction of dry-laid walls of local blue stone along the road and deeper inside the property. Last summer, they completed the complex with the addition of a concrete lap pool, a wooden pool house, and a tiny stone well house concealing the aeration equipment for the pond.

Each structure has its own character, but all work together as a serene ensemble that always relates to the pond. To link the main house and guesthouse, Bohlin added a stone walkway between a crushed-stone-covered parking court and the southern edge of the pond. Parallel to the stone walkway, a wooden pergola marches from the house directly into the water, reinforcing the east-west connection between the two structures.

The Bohlin complex is composed of a main house, a modest shingled house next door, a concrete lap pool, wooden pool house, and tiny stone shed.

From the outside, the shingled guesthouse appears quite ordinary. But its makeshift, ad hoc structure—built by the escaped slave with flimsy wood-plank walls within timber posts at the corners of the rooms—makes for an unexpectedly tactile interior. (The walls still shudder when the doors are shut, never mind slammed.) Bohlin exposed many of the timber beams and





The eat-in kitchen in the guesthouse is a decidedly modern space (top). Bohlin exposed many of the timber beams and much of the planking in these guest quarters (right). An elevated fireplace with a hearth of black Vermont slate, walls of wooden bookshelves that seem to float, and a wall of cabinets in the dining room are features of the main house (opposite).





much of the planking, still bearing remnants of pasted-on newspaper insulation, and added crisp planes of drywall to create a contrast of textures. Marble countertops in the kitchen and bath further the tension between rustic and refined surfaces. The eat-in kitchen at the rear of the guesthouse is a decidedly modern space, centered on a floor-to-ceiling picture window facing the pond. Bohlin pulled the north facade several feet forward from the house and extended it another few feet in length at either end, inserting full-height strips of glass between the relocated wall and the original boundary of the house. Through architectural sleight of hand, sunlight bounces against the whitewashed, south-facing wall extensions, through the vertical slots of glass, and into the north-facing kitchen.

In the main house, the architect replaced existing doors and windows, rebuilt a crumbling chimney, and reorganized the flow of rooms and closets to create what sounds like an oxymoron: a modern cottage. Bohlin also designed custom elements that draw on both the modern and the traditional: an elevated fireplace with a hearth of dark gray Vermont slate perched on cantilevered I-beams, walls of painted wood bookshelves that seem to float within the living room, and a freestanding wall of cabinets in the dining room. The airy dining room is itself a new addition at the western end of the house and feels like a big, breezy porch overlooking a newly planted birch grove. At every turn, Bohlin playfully projects interior walls beyond where one would expect them to meet a corner, revealing their planar quality and layered construction.

Bohlin describes the design of his home as a game of adding and subtracting. He invoked architectural memories by distilling tradi-

tional cottage detailing and embracing the “rinky-dink” quality of existing elements, creating a modernism that’s neither hard-nosed nor sentimental. His architecture bears the strong imprint of Sigurd Lewerentz and Gunnar Asplund’s pared-down proto-Modernist country houses, as well as the work of William Wurster, Joseph Esherick, and other California Bay Area pioneers. Beyond its stylistic and philosophical similarities, Bohlin’s design evokes the unpretentiousness and wholehearted respect for place embodied by these humanist Modernists. “I think [the house] is an exercise in modest thinking,” says Bohlin. “It’s sly, not a big deal. And if you made it a big deal, it would be a mistake.”

Indeed, Bohlin’s country getaway doesn’t make a big fuss, but it adds up to an intelligent, profoundly pleasing whole—a place that, as the architect himself might say, just feels right. These days, that is a big deal. ■

Project: *Bohlin Residence*

Location: *Waverly, Pa.*

Owner: *Peter and Sally Bohlin*

Architect: *Bohlin Cywinski Jackson*

Consultants: *Kalinosky Landscaping (landscape architect)*

General contractor: *Ike Vipond Construction (main house); Warren Bragg Construction (guesthouse and pool house)*

Sources

Hardware: *Schlage “Plymouth”*

Interior finishes: *Mountain Lumber (first floor); Vermont Structural Slate Company (master bedroom); Balent Design Marble (kitchen)*

www For more information on the people and products involved in this project, go to Projects at architecturalrecord.com.



The cabin's single gable (above) plays against the inverted form of the butterfly roof over a storage shed (below) at the house's east end. At its west end, a stretched-canvas roof shades a patio (opposite).



Between fjord and forest, architects Jarmund/Vignæs anchor an arklike summer cabin in Norway

By S.A. Miller

The idea in Norway is to make the coast publicly accessible—always,” explains Oslo architect Einar Jarmund, a partner in the 11-person firm of Jarmund/Vignæs. “Even if you own land at a beach,” he adds, “it’s restricted, and it’s unlikely that you’ll get to build right by the water.” But the rare opportunity to erect a house directly on a fjord came to Jarmund/Vignæs with the commission to design a small summer cabin on an estate in southern Norway. Here, on a vast tract of land dotted with several buildings, including stables, an extended family from Oslo raises horses and gathers for vacations. The new cabin was commissioned for the owners’ daughter, the mother of two young children, and—by a stroke of good fortune—the existence of a 1950s fisherman’s hut on the site enabled the architects to build on the coast.

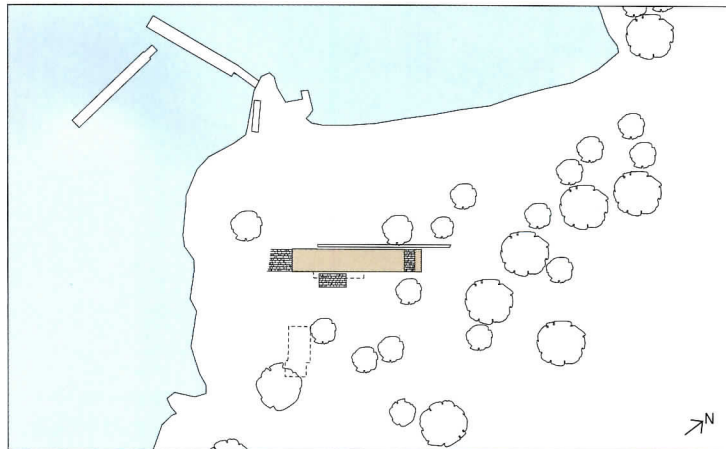
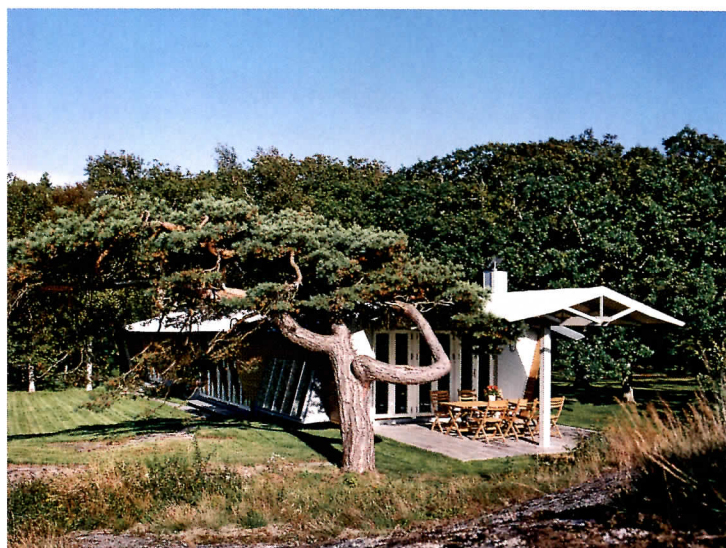
Ideally situated for fishing and boating, the old hut was an unsightly, tall, bright red structure, according to Jarmund. His firm could thus make a strong argument for demolishing it and replacing it with a lower, far more subtle structure—grandfathered by the presence of the earlier building at this location.

“But the site was so incredibly beautiful—like a Nordic summer dream,” recalls Jarmund, “that it was difficult to do anything at all.” Where the beach meets a great oak forest, however, the architects saw a chance to provide a zone of transition while accentuating the contrast in landscapes. Their solution would be a narrow, relatively open house, offering an experience, from the interior, of two natural conditions simultaneously.

Formal inspiration also came from local wooden-hull boats, as well as a deep-seated fear held by the client and a fond childhood memory treasured by the architects. Because the owners’ daughter was terrified of spiders, the architects decided to raise the structure off the ground on blocks—creating a perceived distance between the living areas and the region’s (hardly abundant) arachnids. And when Jarmund and his partner, Håkon Vignæs, thought back on their own youthful days at the shore, they happily recalled Norway’s standardized 1950s ice-cream stands with canted walls, clad in narrow pine panels. Influenced by these old beach stalls, they tilted the cabin’s outer walls and sheathed its vertical end planes in “railroad” panels reminiscent of the ice-cream pavilions. For the cabin’s exterior side walls, the architects used oiled oak strips with a band of zinc panels at the base.

Inside, the 1,200-square-foot house is organized from east to west, from sleeping through dining and living areas, following the path of the sun. “The sun is so important in Norway, because we have so little of it [most of the year],” says Jarmund. “In Norse myth, hell is a very cold place.” The linear three-bedroom cabin spans only one room in width (or occasionally one room plus a corridor), offering an immediate experience of the site’s dual character. Light and airy, the interior seems to merge with its spectacular setting—most strikingly in the dining room, where glazed doors, lining the entire north and south walls, open it to cross-

S.A. Miller is a journalist specializing in architecture and design.



ventilation and views of both forest and fjord. An even breezier dining venue can be found at the cabin’s west end, where the living area extends into an open-air room: a patio beneath a stretched-canvas roof.

The roof over the interior quarters is a single, zinc-clad gable with a slope perpendicular to the canted walls. Pitched roofs, which shed water effectively, are typical in Norway. In a playful gesture, however, the architects covered the small storage shed, aligned with the building’s east end, with an inverted gable, or butterfly roof. Similarly, the house’s windows, projecting like saddlebags (albeit prismatic ones), play against the

Project: Summer house on the coast of Norway

Architects: Jarmund/Vignæs—Einar Jarmund and Håkon Vignæs,

partners in charge; Alessandra Kosberg, project architect

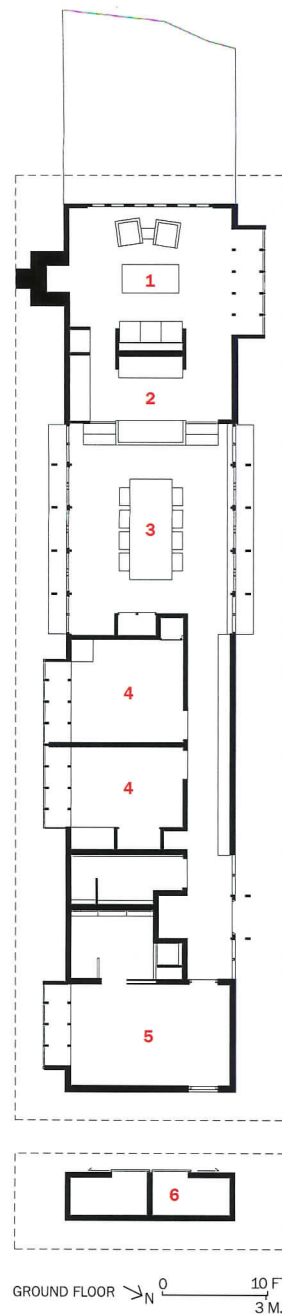
Engineer: Walter Jacobsen

General contractor: ABV-Bygsteam



Windows, made from industrial skylights, project like saddlebags from the cabin's canted walls (far left). The house and storage shed are detached (left).

1. Living
2. Kitchen
3. Dining
4. Bedroom
5. Master bedroom
6. Storage



Hung canvas softens the overhead illumination in the dining room (above). Zinc panels, echoing the cladding on the roof and at the base of the house, surround the fireplace (left).

angled exterior walls. Thin-mullioned, industrial aluminum skylights serve as the tilting side windows—echoing the practicality that underlies much of the house's aesthetic.

Lying low, but hovering gently above the grassy ground plane, the long, slender cabin suits its site remarkably well. The earthy but neutral tones of its richly oiled oak and zinc panels fit with the lush oak forest and calm salty water. Be it a dry-docked ark, a spider-free refuge, or a distant, enlightened cousin of an ice-cream hut, this cabin seems to belong right where it is, "moored" beside a Norwegian fjord. ■

Sources

Zinc cladding: Rheinzink
Windows: Vitral (aluminum)
Lighting: Glasshütte Limburg (ambient); Mainlighting (downlights, custom designed by Jarmund/Vignæs)

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The blue-gray and pale yellow horizontal striping of the front facade lightens the demeanor of the building, making it playful.



Placed at the edge of the continent, **Nick Noyes'** tranquil seaside cabin responds superbly to light and fog

By Lisa Findley

Blocks and blocks of row houses at the westernmost edge of San Francisco make up the district called the Sunset. The grid of the city, famous for draping right over the hills, ends abruptly where this often fog-enshrouded neighborhood meets the Pacific. At the very edge, shoulder to shoulder with its neighbors and overlooking the windswept beach and the horizon, San Francisco architect Nick Noyes designed a serene house. "This house is on a serious site, right on the edge of the continent and simultaneously on the edge of the Pacific Rim," says Noyes. "Yet, it is also in the 'anything goes' relaxed context of beach living." The project, completed with a modest budget, carefully balances and contrasts these extremes.

The clients, two doctors, one an avid surfer, brought Noyes on board to radically transform a previously undistinguished two-story row house. The architects modified the original first two floors to accommodate a generous entry, garage, study, bedrooms, and bathrooms. The stair winds tightly up through these floors, emerging onto the new, light-filled third floor. Here, a wide span creates an open room the length of the house for all the activities of family life. The front windows allow unobstructed views over the sand dunes and roadway to the beach, surf, and sunset beyond. At the back, windows with almost equally inspiring views of the city open onto an east-facing porch.

The large windows on the east and west ends of the room, combined with a few small windows on the south side and generous skylights above the stair, turn the house into a kind of sundial. While light spills into the room throughout the day, its angle and quality is constantly shifting.

Contributing editor Lisa Findley practices architecture in Oakland and teaches at the California College of Arts and Crafts. She is currently writing a book, Constructing Culture: Architecture, Memory, Politics, and Hope.



Although clearly rendered in modern language and materials, the house keeps a family resemblance to its neighbors by holding the street edge and retaining the balance of openings, with a large picture window pushed out over the garage door and smaller windows over the front door. Noyes transformed the picture window into a bay window, a type so common in San Francisco, where it is valued for its ageless ability to multiply light and expand views.

One of the costs of living on the edge of the continent is the rapid wear and tear on building materials that face the nonstop weather fronts that charge eastward across the Pacific. Salt-laden air and gale-force winds influenced the architect's selection of materials and methods of detailing. The exterior of the building is kept taut so the wind cannot tear at it. It is clad in pre-painted cementitious shingles—a material Noyes discovered in his canvassing of neighborhood buildings that

Project: Ocean Beach Residence

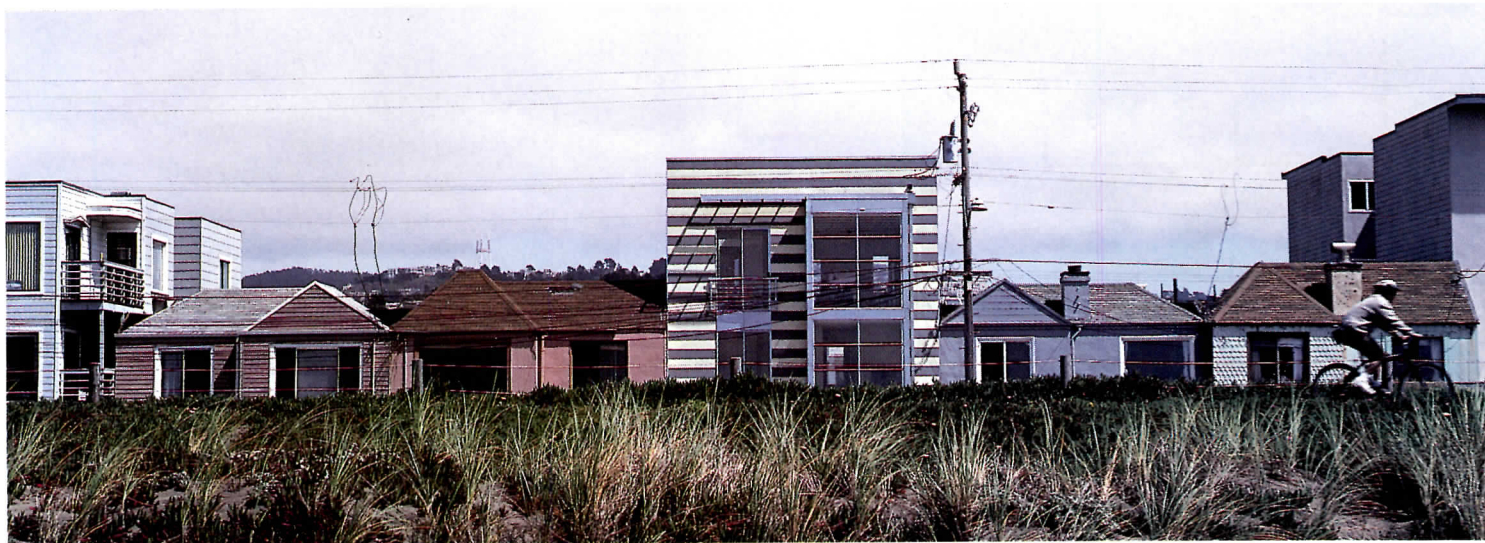
Location: San Francisco

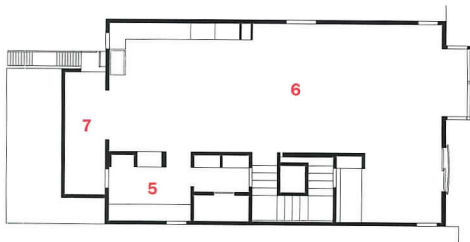
Architect: Nick Noyes Architecture—
Nick Noyes, principal; Scott
Baltimore, Stacy Eisenman, Sarah

Willmer

Engineer: Gregory Paul Wallace

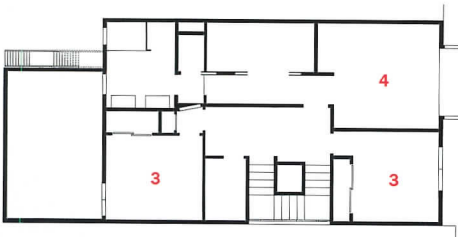
General contractor: Stapleton
Construction





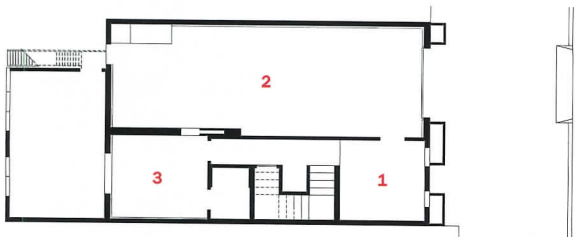
THIRD FLOOR

The front windows allow unobstructed views to the beach and horizon beyond (top). Small windows and generous skylights allow light to spill into the third floor (right).



SECOND FLOOR

1. Entry
2. Garage
3. Bedroom
4. Master bedroom
5. Office
6. Living/dining
7. Deck



FIRST FLOOR

0 20 FT.
6 M.



seemed to be holding their own against the sea air. While the shingles are no longer factory painted, Noyes located a cache of pre-painted ones in a warehouse. Although this drastically limited his color choices, Noyes decided the material was worth using. Similar thinking guided the selection of cement board panels for the cladding of the lower story and anodized aluminum for the bay window and sunscreen.

At first, the blue-gray and pale yellow horizontal striping of the front facade seems at odds with Noyes's reputation as an avowed Modernist. On closer inspection, however, it accomplishes two things. It lightens the demeanor of the building, making it a playful, more "living-at-the-beach" place than it otherwise would be. Of far greater importance,



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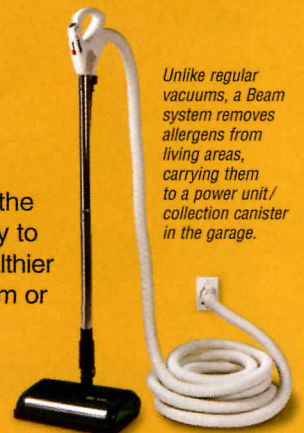
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A wide span on the new, light-filled third floor creates an open room the length of the house for all the activities of family life.



however, is the way the stripes make the house actually appear lighter in weight. In a microclimate of fog and shifting illumination, the stripes blur the edges of the house in certain light. On foggy days, the yellow disappears, leaving the blue-gray to hold its own. On clear afternoons, when the California sunlight brightens the yellow stripes, the blue-gray color blends with the deep blue sky beyond. This ethereal, variant quality adds a poetic subtlety to a deceptively straightforward project.

Noyes's sensitive approach to the issues involved in building on a remote site and pioneering its development perhaps betrays the fact that he also teaches at the California College of Arts and Crafts near his office. He has the thoughtful, rigorous style of one associated with the academy, a quality reflected in his design. This project demonstrates an admirable restraint combined with an obvious delight and skill in making architecture. It sets a high standard for the projects that continuing San Francisco real estate pressures are sure to bring to this neighborhood on the edge of the continent. ■

Sources

Exterior cladding: *Eternit Eflex Panels (cement board); Fiber GAF Weatherside (cement shingles)*

Aluminum windows: *Bonelli Windows and Doors*

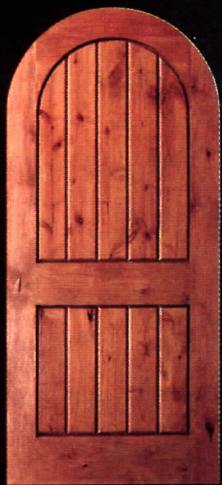
Skylights: *O'Keefe's*

Entrance doors: *Bonelli Windows*

and Doors

Wood doors: *Andersen*

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The buildings appear to float over the meadow, an informal and spontaneous garden of grasses and shrubs with a swampy pond visited by neighborly egrets and herons.



Suman Sorg's house conducts a seasonal symphony with the instruments of water, sky, and marsh

By Jane F. Kolleeny

My hands have a brain of their own," says Architect Suman Sorg, a New Delhi native whose firm, Sorg Associates, is based in Washington, D.C. She refers to her original rendering of the design of the Van Sweden Bay House and how its low-slung, compoundlike arrangement resembles traditional homes in India familiar to her since childhood.

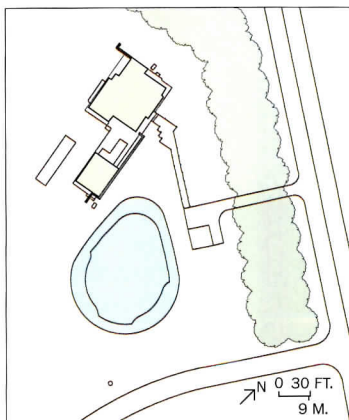
The assembly of main house, guest house, and the spaces encircling them may have emerged unintentionally and intuitively from deep within Sorg's mind, but there is no mistaking the similarity of her plan to India's multiple small dwellings with outdoor activity areas scattered around them. "What happens outdoors between buildings is important," Sorg emphasizes, and so it is at the Van Sweden house, a project defined from without rather than within. The property is located in remote Sherwood, Maryland, overlooking Chesapeake Bay, with a wall of 25-foot-tall windows on the east side of the house revealing the dizzying expanse of the bay.

It's not surprising that the house is so closely knit to the landscape, since client James van Sweden is a preeminent landscape architect known worldwide. His firm, Oehme, van Sweden & Associates, has influenced American garden and landscape design through its use of richly layered landscapes featuring grasses and perennial flowers in bold, sweeping patterns. Known as the "new American garden" style, it has the low-maintenance, relaxed character of a meadow like the one surrounding Van Sweden's country retreat.

Inside, furniture and art mix modern and country metaphors in a sensitively arranged composition of color and form. Several pieces of furniture are designed by Van Sweden's friend Ben Forgey, Jr., son of the architecture critic for *The Washington Post*.

Forgey designed chairs, a table, a bed, and a fantastic mirror frame, all of which are molded from discarded and contorted driftwood, bringing an air of maritime wildness into the house. With movable walls for separation and privacy, the living room, dining area, and bedroom face the bay in an open, loftlike space that Van Sweden says he favors because "I always wanted to live in a loft in New York City."

Countering this openness is the western side of the house, where the modestly scaled kitchen, den, and bathroom—intimate, private, and cozy—are located. The west front faces a meadow of Van Sweden's design, an informal and spontaneous garden of grasses and shrubs with a swampy pond visited by neighboring egrets and herons. The lines of the



house are clear, its sleek proportions complementing the simple materials of plywood and cinder block. The 4,000-square-foot property is utilitarian—low-scaled, basic, and oriented to the landscape.

Van Sweden and Sorg are friends and have worked together before; you get the feeling that their collaboration was playful. Indeed, Sorg's own house is going up next door. They both rallied around the idea of using a 140-foot cinder-block "garden wall" as the defining feature of the house. This wall undulates through the interior, forming the spine of the complex, and bookmarks the outer edges of it, extending into the landscape.

It seemed fitting that a garden wall should define a house for a landscape architect—and the wall, being an architectural element, unifies the building with the garden. It's as if the entire complex were simply hung off of it. The wall delimits a courtyard between the buildings, becoming a backdrop for climbing viney that promises to take over in the near future. It then maneuvers further to embrace the guest

Project: *The Van Sweden Bay House*

Location: Sherwood, Md.

Owner: James van Sweden

Architect: Sorg and Associates

Engineer: Ehlert/Bryan (structural)

Consultants: James van Sweden (landscape); Deborah Gilmore (lighting)

General contractor: Coleman-Meredith

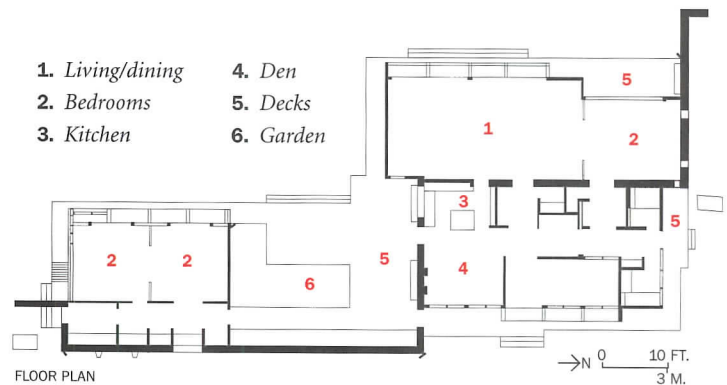


The living room, dining area, and bedroom face the bay in an open, loftlike space, where furniture and

art mix modern and country metaphors in a sensitively designed composition of color and form.



1. Living/dining
2. Bedrooms
3. Kitchen
4. Den
5. Decks
6. Garden



house, ending in a flourish in the untamed meadow in which the houses appear to float.

Sorg is practical—she did not want to put a strain on the human and material resources available in this distant part of Maryland, where contractors aren't sophisticated and product availability is limited. "I am an imperfectionist," she says, referring to the buildings' roughness—as she acknowledges nicks, cracks, and flaws—and her need to open the design to the influences of time and use. In this imperfect world of light, water, sentient life, and greenery, a flavor of India emerges from the wild landscape. ■

Sources

Windows: Andersen

Doors: Andersen

Hardware: Andersen

Cabinetwork and custom woodwork: Coleman-Meredith

Paint: Benjamin-Moore

Custom-made wooden furniture: B&B Italia and Ben Forgey

Interior ambient lighting: Delray; LSI; FLO; Ingo Maurer

Downlights: Kurt Versen

Controls: Lutron

Toilets: TOTO

Sinks: Kohler

Faucets: Delta

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Kitchen & Bath Portfolio

Whether used as public or private space, these **kitchens and baths** are defined by each client's personality. The following projects were created for those with a **particular appreciation for design**, including an industrial designer whose kitchen is showcased below. *Rita F. Catinella*

Kitchen scaffolding suits a designer's flexible work/live environment

When industrial designer Scott Summit commissioned Sand Studios to redesign his Bay-area condominium loft, his primary requirement was for it to function integrally as a space in which both to work and live.

The Sand Studios team (formerly known as South Park Fabricators) needed to create an adaptable environment for Summit. For the kitchen, the challenge was to create a space that "wasn't too much of a kitchen," according to principal Larissa Sand, who worked along with Michel Ramirez on the project. Sand knows the constraints of working and living in the same space—her machine shop, design studio, and home all share one address.

To create the modularity needed, the kitchen shelving works as a height-adjustable "wall of elements" that recalls scaffolding. Featuring an interlocking system of steel, wood, glass, and stone, the units allow the client the flexibility to cook, eat, and work in the space.

A sliding door hangs on a track system designed and machined at the Sand Studios shop in San Francisco. The door features blue integral-color etched Bendheim glass and hot-rolled black sheet steel to both hide a pantry space and serve as a sculptural focal point.

Although the appliances and some cabinets were already in place, the new and old materials work

well together. The material palette includes both traditional and untraditional choices: maple, hot-rolled black sheet steel, stainless steel, Brazilian honed slate, and etched glass. The designers chose maple and glass particularly because



"they give dimension without being heavy," says Sand.

No detail was overlooked in the space—the firm even designed and fabricated a test-tube spice-rack holder out of sheet steel to integrate with the sink area.

Architect: *Sand Studios, San Francisco*

Sources: *South Park Fabricators (metalwork, stools); Pacassa Studios (woodwork); Mark Kahn Hamilton (stonework); Bendheim West (glass); 100watt Network (lighting, designed by Larissa Sand); Franke (sink); Grohe (faucet)*



Interlocking maple and glass are just two parts of the kitchen's flexible shelving system (above left). The kitchen opens up into the living area (above). A glass-and-steel pantry door hangs on a track but is supported from below (left).

Kitchen & Bath Portfolio

Colorful cabinetry at the heart of a family's suburban kitchen

Architect, designer, and artist Harley Swedler designed the JAM House in Woodbury, New York, for his most important client to date—his own family. Swedler designed the home along with his physician-wife to share with their three young children; the name of the project is an acronym formed from the first letters of their names.

According to Swedler, the design of the five-color Formica kitchen had to address a number of issues, including expense, ease of fabrication, and durability. "We seem constantly to have 50 people in the house, and this solution allowed us to do something fun, interesting, and practical," says Swedler. The architect has worked with the millworker on several projects besides the JAM House, says Swedler, and he was "an incredible craftsman who we knew could carry it

off." All kitchen millwork is Formica laminate over plywood/MDF with maple edges. The exposed steel I-beam structure in the kitchen is raw steel with a polyurethane coat.

The family is currently in the process of furnishing the home with custom pieces, including a Naugahyde banquette in the family room in the same colors as the kitchen's Formica palette.

Architect: *Harley Swedler Architects, Woodbury, N.Y.*

General contractor: *Rastu Construction*

Sources: *Traulsen (refrigerator); Sub-Zero (undercounter freezer); Elkay (double sink); KWC (faucet); Viking (gas range, dishwasher); Vent-a-Hood (range hood); Asko (washer/dryer); Kitchen Aid (stand mixer); Fabio Salvatori (Formica laminate millwork)*



Glass jewel box unfolds into a fully functional Parisian kitchen

Anne-Françoise Jumeau and Louis Paillard, partners in the Parisian firm Périphériques, have designed a variety of space-saving, box-shaped elements for their clients. Recent projects include a "wood box" that makes up a kitchen and a bathroom and another that contains a bathroom, stair, storage spaces,

and a sleeping room.

For the renovation of a 2,690-square-foot Parisian apartment, the firm designed a "glass kitchen" interpreted in aluminum, frosted glass, and colored glass. Everything the client needs, including drawers, shelving, a double-basin sink, and appliances, are included in the

glass kitchen, which takes up a total floor space of 23 feet long x 9 feet wide. The designers extended the box through the apartment's dining-room wall, where it hides a wall oven, microwave, refrigerator, and a washer/dryer from the view of dinner guests seated in the dining room.

Architect: *Anne-Françoise Jumeau and Louis Paillard Architectes; S. Razafindralambo, R. Schnebelin, A. Rodrigues, assistants*

Structural engineer: *Mathieu David*

Sources: *Vola (plumbing fixtures)*



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Kitchen & Bath Portfolio

A couple of lofty kitchen and bath renovations in New York's SoHo

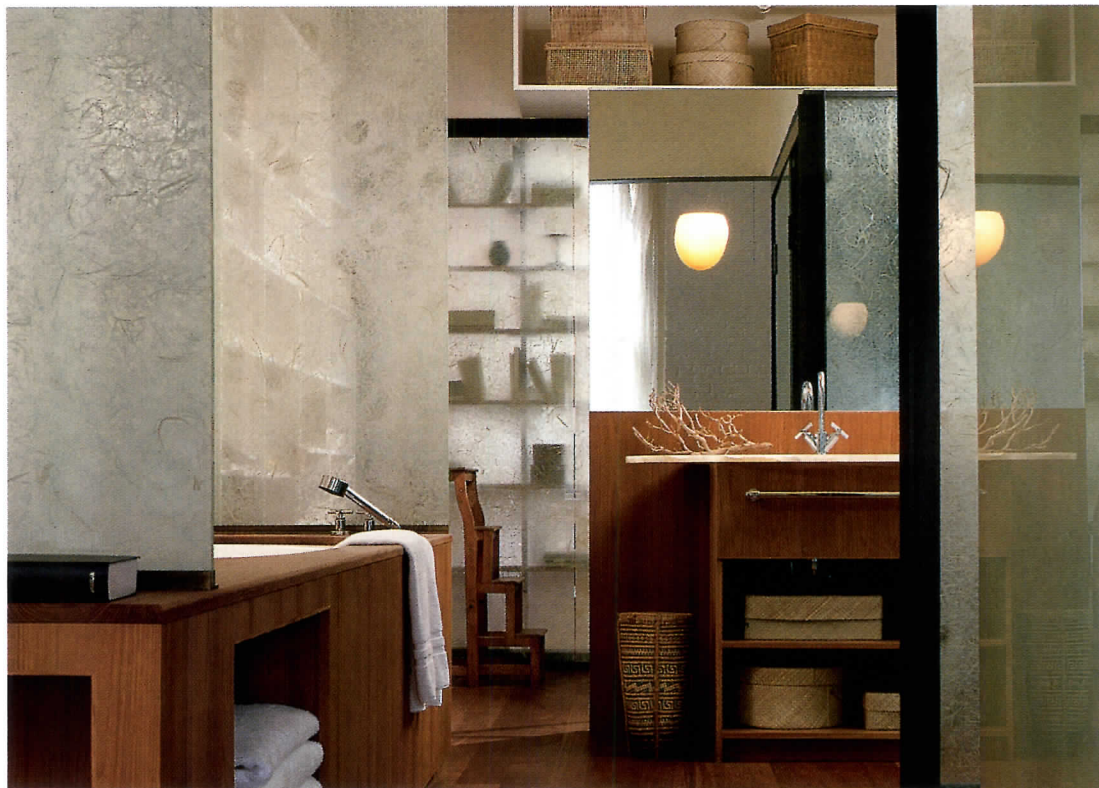
For a 2,500-square-foot-loft renovation on New York City's Prince Street, Hut Sachs Studio partners Thomas Hut and Jane Sachs focused on the use of rich materials in a simple plan with minimal detailing. The master bathroom was designed as an extension of the master bedroom, with no door between them. To allow natural light to filter through the loft, all the walls consist of custom-laminated-glass panels with handmade paper set in blackened steel frames. The bathroom sink, vanity, and tub surrounds are teak; the vanity countertop is polished onyx. As throughout the rest of the space, the flooring is 5-inch-wide Brazilian cherry.

For the Divney loft residence, also in SoHo, Hut Sachs was asked to create a modern, warm, and open space plan for its client. Given the visibility of the kitchen and its proximity to the living room, the team designed the custom cherry millwork cabinets with sculpted handles as though they were living-room furniture. They also contrasted the cherry cabinetry with maple butcher-block countertops (which also complement the maple floors). The stainless-steel appliances were integrated into the kitchen with a stainless-steel backsplash.

Architect: *Hut Sachs Studio, New York City*

Sources: *Divney Residence kitchen—Sub-Zero (refrigerator); Viking (stove, cooktop fan); Bosch (dishwasher)*

Prince Street Residence bathroom—Leucos (lighting); Dornbracht (bathroom fittings); Kohler (bathtub); Artist Kisa Makee (handmade paper); Winn Manufacturing (custom glass lamination)



PRINCE STREET RESIDENCE: Custom laminated glass was used to allow natural light to travel throughout the loft.



DIVNEY RESIDENCE: The client's affection for hand craftsmanship is evidenced in the detailing of materials in the space, including the pattern of cherry-wood handles on clear cherry cabinet fronts (above right).

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Kitchen & Bath Portfolio

Modernist master bath for an interior-design-savvy client

The Steinhardt Residence, located in the villagelike town of Birmingham, Michigan, was designed by the local firm of

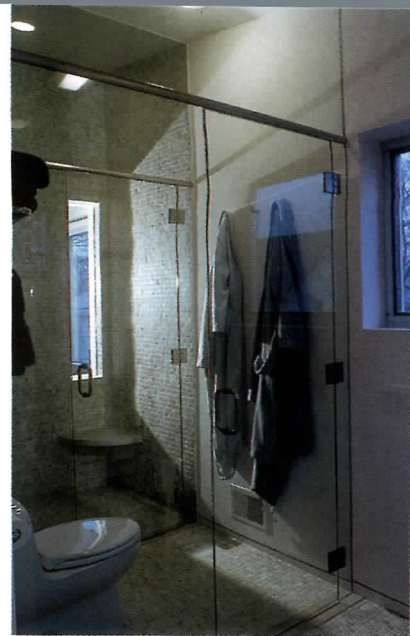


McIntosh Poris Associates. Created for Janice Steinhardt, the three-level, 3,500-square-foot contemporary home is steel-framed, features concrete floors with radiant heat (maple on the second floor), soapstone counters, and aluminum-framed windows. The architects, Michael Poris, AIA, and Doug McIntosh, worked with the client, an interior designer, to integrate all the materials, interior finishes, and furnishings.

The residence's master bedroom is located on the second floor. Here, vanity cabinets feature white matte lacquer with white opaque glass, and a stainless-steel cabinet on casters



slides under the Botticino marble countertop. Broken, tumbled Botticino marble is also used on the shower and bathroom floor. The toilet and shower are each separated from the rest of the bathroom by clear glass enclosures. Details such as a skylight, freestanding tub, Italian accessories and lighting, and wet/dry-area flooring all define the space.



Architect: McIntosh Poris Associates, Birmingham, Mich.

Sources: Flos, Boffi (lighting); Kohler (tub, sink); Hansgrohe (bathtub faucet, shower hardware); Vola (sink faucet); Artcraft (cabinetry); Botticino marble (countertop, shower and bathroom floor); Duravit (toilet); Agape (mirror, bathrobe hooks)

Sculptural concrete bathrooms for a West Coast artist

For the Katselas residence in West Hollywood, California, LCMK Architecture completely remodeled a 1920s bungalow and designed a 4,000-square-foot addition with a studio space, music room, guest quarters, pool house, and garages. Although surrounded by two- and three-story apartment buildings, the one-story house manages to have a lot of fenestration yet retain privacy.

According to architect Leonardo Chalupowicz, AIA, who designed the space with artist/design partner and the home's owner Milton Katselas, the goal of the project was to exploit the irregular and intimate quality of handmade things and natural materials. Influenced by Carlo Scarpa, the designers favored materials such as cast-in-place

concrete, steel, and wood. The master bathroom incorporates a large poured-in-place concrete bathtub, Japanese soaking tub, sauna, custom-designed glass shower with steam, and screens that can be raised or lowered to regulate the light. The guest bathroom/powder room is an open-top, cast-in-place-concrete cylinder enclosing a sink and shower. The

unit projects into the adjacent studio, where it does double duty as a piece of sculpture.

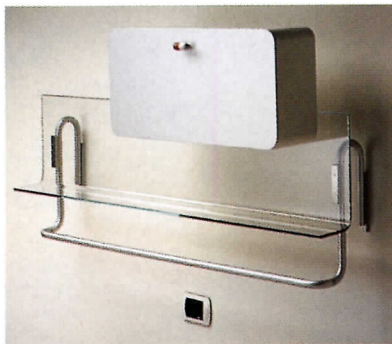
Architect: LCMK Architecture, Los Angeles
General contractor: Pier Construction
Sources: Dornbracht, Vola (faucets); Mr. Steam (steam/sauna); Rex (lighting); Spiral III Design (built-ins, soaking tub, stone sink, wood and fabric shades); Sony (television)



Master bathroom (left two); guest bathroom/powder room (right two).

Residential Products

Kitchen/Bath Industry Show Review



▲ Bathing beauties

Dornbracht continues its Interiors Collection this year with a second edition of furnishings for the bath by such international designers as Christophe Pillet and architect Claudio Silvestrin. Rodolfo Dordoni contributed several designs, including a pair of wall-shelf systems. Each is composed of a shelf and towel bar but can be individualized with added amenities such as a mirror or medicine chest. Light Drop, designed by Jean Marie Massaud, is a multitiered towel rail that also incorporates a mirror. 800/774-1181. Dornbracht USA, Duluth, Ga. **CIRCLE 200**

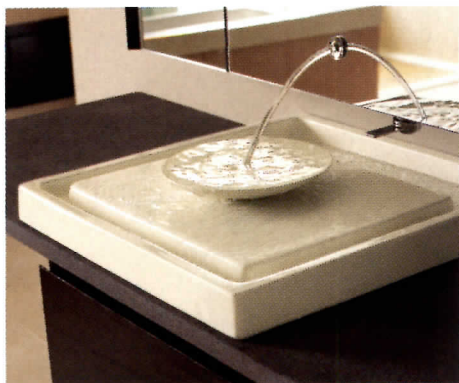


► A sinking feeling

The new Oceanview floor sink makes tasks such as washing the dog or rinsing muddy car mats easier and more convenient. While designed to be installed flush with the floor, it can also be installed in many standard cabinets. Dimensions are 48" x 25" x 7". Kohler's Purist Suite Collection is the first coordinated home-spa collection for the bath. Celebrating the grace of flowing water and natural materials, Purist Suite features such elements as natural lava-stone countertops, wet-surface lavatories, and



laminar-flow faucets integrated within mirrored storage, as seen here in the Purist Wet Panel Lavatory with bowl. Dimensions for the mirrored cabinet with faucet are 24" wide x 36" high, and the lavatory is 24" wide x 23 $\frac{1}{2}$ " long. 920/457-4441. Kohler, Wis. **CIRCLE 203**



▲ Spa cuisine at home

The ED 220 is a steam-and-convection combination oven that makes healthful cooking quick and convenient. The dual-oven system combines the dry heat of a

convection oven with non-pressurized steam in precisely calibrated proportions. The steam generator produces four different degrees of humidity in the oven, with a mist button providing an extra burst of steam at critical moments. The 0 percent humidity setting allows the convection mode to give bread a crispy

crust or poultry a golden brown finish. Available with a white-tinted, anthracite-tinted, or aluminum-backed glass front. 800/828-9165. Gaggenau, Huntington Beach, Calif. **CIRCLE 201**

► Lofty aspirations

For Loft is a new kitchen and bath collection by Kallista. Designed by Michael Smith to blend into contemporary environments, including industrial, loftlike apartments and homes, the centerpiece of the collection is a full-size kitchen island with adjustable poles reaching all the way to the ceiling. A smooth carrara marble countertop surrounds an oversize, undercounter-mounted fireclay kitchen sink. 920/457-4441.

Kohler, Kohler, Wis.

CIRCLE 202



◀ A peek inside the fridge

Sub-Zero introduces a new refrigerator for residential use that features a commercial-look glass door. Electronic controls offer accurate temperature adjustment and the glass door offers a variety of interior lighting options, ranging from a soft glow (door shut) to full illumination (door open). The refrigerator also features extra interior storage (19.9 cubic feet) to compensate for no on-door shelving. The fridge comes in a stainless-steel finish with several overlay options. 800/532-7820. Sub-Zero, Madison, Wis. **CIRCLE 204**



Residential Products

Kitchen/Bath Industry Show Review



▲ Bathing takes center stage

La Scala by Jacuzzi is a whirlpool bath for two that includes a built-in entertainment center. The second addition to Jacuzzi's Private Collection, La Scala features a 42" high-definition plasma screen, DVD, CD, AM/FM stereo, sophisticated surround-sound system, and a floating remote control. It also offers a full-body massage with 10 fully adjustable hydrotherapy jets. Available in white, black, and high-luster platinum, La Scala measures 82½" long x 72½" wide. Available in limited production. 925/938-7070. Jacuzzi, Walnut Creek, Calif. **CIRCLE 205**

► Burnin' up

The RGSC-305 by DCS (Dynamic Cooking Systems) is the first 30" five-burner gas range designed for residential use. The self-cleaning range features a center burner rated at 17,500 BTU and four 16,000 BTU external burners capable of producing quicker boiling times and faster meal preparation. The recipient of the Kitchen and Bath Business Product Innovator Award, it also features true gas convection and ideal simmer settings. 800/433-8466. DCS, Huntington Beach, Calif. **CIRCLE 206**



◀ Island topping

The Best by Broan IS502 island range hood combines glass and stainless-steel design and a high-efficiency exhaust system with 450 CFM of power. Multilevel halogen lighting provides bright cooktop illumination and a low nighttime setting. Measuring 27½" x 39", it includes a 6" round duct connector with a built-in back-draft damper. 262/673-4340. Broan, Hartford, Wis. **CIRCLE 207**

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The industry's premier forum for innovative designs in furniture hardware is once again seeking entries. The year 2002 marks the "17th Annual Doug Mockett & Company Design Contest". The competition is strictly limited to furniture components of any sort including hardware, accessories, and computer furniture components.

Entries close September 1, 2002 and the winner(s) will be announced about December 1. First Place consists of \$1,000, an engraved achievement award and a royalty based upon sales. All entries must arrive FEDEX® or Registered, Return Receipt mail. For further information please contact us.



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▼ Spray the right way

The Ladylux Café pull-out spray kitchen faucet by Grohe now features a dual-spray trigger-type control that allows convenient switching between regular flow and a spray flow. Grohe's new Taron shower system brings the luxury of a multihead shower to almost any shower enclosure. Taron includes a cylindrical showerhead, a dual-spray hand shower, four body sprays, a thermostatic valve, and a concealed shampoo/accessory tray. 630/582-7711. Grohe, Bloomingdale, Ill. **CIRCLE 208**



collection. The line is available in a range of colors and finishes, including copper, nickel, stainless, chrome, satin or polished brass, and features hand-selected materials, including steel plate and walnut and oak woods. Specialty furniture pieces of fine wood fitted

▲ Country kitchens

La Cornue introduced a new line of cabinetry designed to match the porcelain enamels and metal trims of its stove

with basketry, chopping blocks, and buffets may be seamlessly integrated or stand alone. 800/892-4040. Purcell Murray, Brisbane, Calif. **CIRCLE 209**

► Monsoon warning

Interaktiv by Hansgrohe is a new line of kitchen and bathroom faucets and accessories in five handle styles. Suitable for new construction but ideal for bath renovation projects, Interaktiv shower panels like Monsoon, pictured here, are delivered preplumbed and pre-assembled and are made of durable, easy-to-clean aluminum. 770/360-9880. Hansgrohe, Alpharetta, Ga. **CIRCLE 210**



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New Products

The designer and the fabricator of **signage and graphics** each need to find the right partner. The dual goal is to integrate the project's interior, exterior, and site while defining a clear identity for the client. This can be accomplished by exploring combinations of materials and new technologies, such as a **photo engraving process** that replicates photos on backlit Corian, described on these pages. *Rita F. Catinella*

Creating a new entertainment brand—inside and out

Rave Motion Pictures, a recently formulated entertainment company in Hickory Creek, Texas, won four awards last year—two specifically for graphics and signage. Dallas-based dsgn associates assisted Rave with the total design development of their complex, from providing a concept name and corporate logo and stationary package to designing a state-of-the-art cinema, including all interior and exterior signage.

The 9.9-acre site lies between a suburban retail center to the north along a major roadway and a low-density suburban region to the west and south. The program was for a 57,126-square-foot, 3,108-seat cinema with 16 stadium auditoriums, three concession stands, an arcade, regional offices, and parking.

The firm layered opaque, translucent, and transparent materials to reinforce the new brand's vocabulary, both on the exterior and inside. Light is filtered into the lobby, courtyard, and media tower through

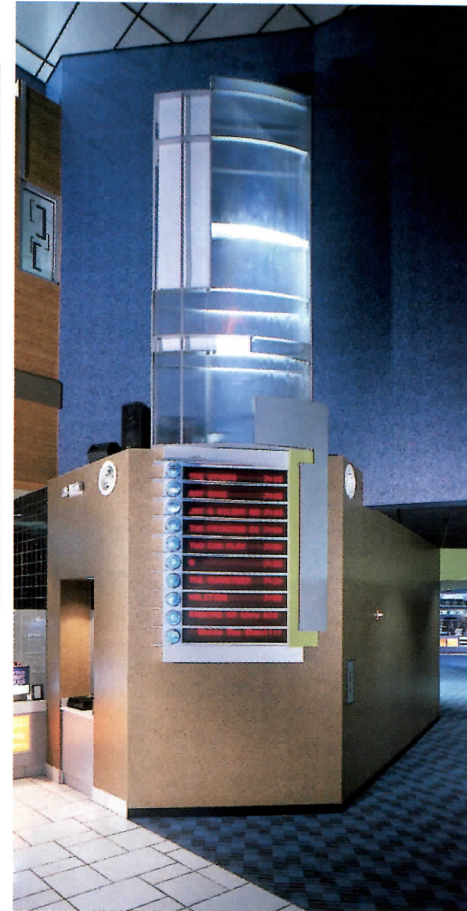
tinted glass, clear glass, and aluminum screens. This layering is carried through into the lobby, secondary lobbies, auditoriums, and rest rooms by video collage and print mediums. These graphic devices appear above translucent plastic ceilings, behind the translucent concessions and ticket-box graphic panels, embedded in logos in the limestone floor, and previewed on plasma screens and video monitors.

Custom signage, including an exterior vertical steel, aluminum, and glass media tower; theater marquees; menu boards; concession graphics; and wall sconces, carries the corporate brand throughout the theater. The dsgn group worked closely with Dimensional Innovations on the inte-



The Rave Motion Pictures identity extends from a glass media tower (top) to interior directories (right).

rior signage and with Chandler Signs on the exterior signage of the project. 913/384-3488. Dimensional Innovations, Overland Park, Kansas. **CIRCLE 211** 210/349-3804. Chandler Signs, San Antonio. **CIRCLE 212**



Seattle firm helps define a variety of corporate identities



Safeco's illuminated site identifier, left. Boeing's Seattle headquarters sign, top.

Trade-Marx Sign & Display Corporation designed five double-sided primary site identifiers throughout the Safeco corporate campus in Redmond, Oregon. Working with Zimmer•Gunsul•Frasca Partnership and graphics consultant Mayer/Reed, Trade-Marx fabricated sign cabinets from 12-gauge stainless-steel with hydro-cut reverse text. The sign houses fluorescent fixtures illuminating the white, translucent acrylic, push-through letters. The logo is acid-etched with paint infill, and the cabinet top, base, spine, lens holder, and letters are copper. A concrete base is clad in sandstone.

In 1987, Trade-Marx was given a contract to provide Boeing with signage worldwide. At that time, there were more than 60 variations on the Boeing identity. After several years, Boeing and Rick Eiber Design simplified them to just a couple of designs with strict usage guidelines. The sign for the Seattle headquarters is fabricated from aluminum sheet formed and welded into pan channel letters with neon tube lamps in the channel to provide reflected illumination. The letters are 31" high, and the logo is 23'11" long. 206/623-7676. Trade-Marx Sign & Display Corporation, Seattle. **CIRCLE 213**

New Products



► Deliver a strong presence

Roland Gebhardt Design's signage for UPS has been installed in Philadelphia, Chicago (shown), and now Memphis. Roland Gebhardt is the first designer to be entrusted to deal with the famous logo—originally created by Paul Rand—in a three-dimensional form. In Chicago, the firm worked with Poblacki & Sons to produce a monolithic marker that projects toward the Tri-State Tollway and signals the front of the facility. 212/925-4110. Roland Gebhardt Design, New York City. **CIRCLE 214**

► Photographic relief

A photo-engraving process exclusively produced for DuPont Corian by Backlight Images was used to etch this intricate picture of a Victoria's Secret model. The process permanently preserves 3D photographic images on Corian solid surfaces. The 3D effect is achieved by a relief process that communicates a variation between shades of light and dark. Shown above is the sign with and without backlighting. 800/4-CORIAN. DuPont Corian, Wilmington, Del. **CIRCLE 216**

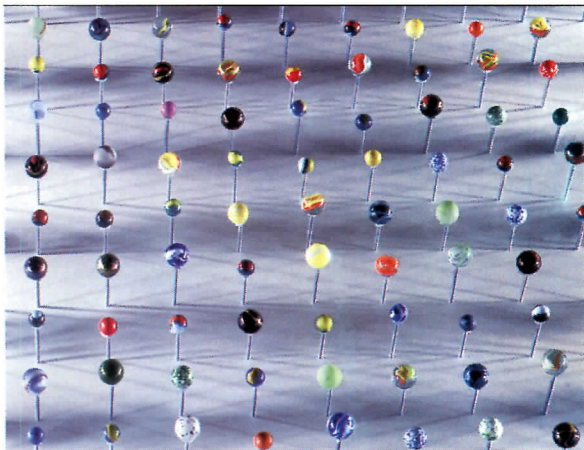


▲ Timely signs

ESI Design has created an extensive exterior signage program for the Reuters Building at 3 Times Square using its client's unique core content, global news and financial-markets information, as the focus. ESI Design developed 12 display templates for the new signs, including a 13-story vertical screen. With the exception of the entry-way, all signs are Mitsubishi LED screens. 212/989-3993. ESI Design, New York City. **CIRCLE 217**

▼ Theatrical signage

The Stadium Promenade retail area in Ventura, California, is identified by a pylon sign made of glazed tile, fabricated metal, and neon designed by Graphic Solutions. The firm also provided design services for the interior and exterior signage of the Promenade's Century Theaters entertainment complex. The complete program for the theater included entrance and tower landmark signs, lobby, snack-bar, arcade, coffee-shop, and retail signage. 619/239-1335. Graphic Solutions, San Diego. **CIRCLE 215**



▲ Rainbow of materials

For the children's cafeteria at the American Museum of Natural History, Dale L. Travis worked with Paula Scher of Pentagram on an unusual signage job including a vitrine with 10,000 marbles and others with fabricated lizards, snakes, and fish. For the marbles vitrine, the firm researched and tested the best materials to use under the museum's unusual conditions, then hand glued each of the marbles to create the look of thousands of planets. Travis also placed 128 hand-cast glass tiles at kids' eye level on eight columns throughout the room. For the American Folk Art Museum, the firm designed a donor wall of colorful recycled wooden plaques. 212/243-8373. Dale L. Travis Associates, New York City. **CIRCLE 218**



▼ Fresh breath

A new addition to 1500 Broadway in New York's Times Square, the Wrigley Company's spectacular WRIGLEY sign, designed by Clear Channel Spectacolor, incorporates a 20' x 30' Multimedia LED video display, a 32" high red LED ticker, and a backlit flex-face static ID box. 800/888-3007. Multimedia, Rancho Cordova, Calif. **CIRCLE 219**



Product Briefs



▲ Intercontinental coating

Lumiflon, the architectural coating that protects Japan's Akashi Strait Big Bridge, the Fuji TV headquarters office, the NEC

building, and All Nippon Airlines airplanes, is being adopted by American architects and fabricators across the country. Recent U.S. projects using Lumiflon include the new Experience Music Project in Seattle, the Connecticut Children's Medical Center in Hartford, and the Nascar Café in Orlando. PPG manufactures a Lumiflon coating that is

available in bright colors and a high gloss for architectural building projects. 704/329-7614. AGA Chemicals, Charlotte. **CIRCLE 220**

► Historical reroofing

The oldest lighthouse in Maine, Portland Head Light, has been guiding maritime traffic through the harbor since the end of the 18th century. When the light's roof needed repair, Rainbow Construction recommended CertainTeed's Hatteras Shingle in Lighthouse Red. The oversize 18" x 36" shingle, with its deep shadow lines, gives the lighthouse roof an authentic appearance. 610/341-7000. CertainTeed Corporation, Valley Forge, Pa. **CIRCLE 222**



▼ Lighter than air

Alias offers the Frame seating series designed by Italian Modernist Alberto Meda. Frame consists of an extruded aluminum profile and die-cast attachments in stove-enameled or polished aluminum; seats and backs are available in a palette of polyester meshes and black leather. The series includes Floatingframe, a beam-mounted version with multiple seating designed for airports and other public spaces. 631/549-1302. Alias USA, Huntington Station, N.Y. **CIRCLE 224**



Product of the Month WallFurnishings

New England Classic introduces WallFurnishings, a line of pre-cut, nail-free, factory-finished kits that offer the look of custom millwork at half the cost. Arriving ready to install on-site, WallFurnishings panel kits are available in traditional to modern styles, in a wide assortment of sizes, and in a variety of wood types, including oak, maple, cherry, and paint-grade. New England Classic partnered with Velcro to create WallFurnishings' pressure-sensitive, proprietary hidden fastening system, MagicStrip, which makes nail-free installation possible. 888/460-6324. New England Classic, South Portland, Maine. **CIRCLE 221**



◀ Could be wood, but isn't

ICORE has an extruded synthetic core that is impervious to moisture and incorporates sound-dampening chambers for a quieter sound underfoot. ICORE features 10 hardwood visuals with a textured wood plank design and can be installed over almost any existing floor. 800/241-2262. Mannington Commercial, Calhoun, Ga. **CIRCLE 223**

▼ Cooler skylights

The Velux Exterior Heatblock Awning is now available for new Velux manual venting skylights and fixed skylights. Introduced at the 2002 International Builders' Show, Velux claims that the patented Heatblock Awning is the first and only electrically controlled, exterior skylight awning for the residential market. The exterior awning can reduce solar heat gain up to 40 percent more than the already energy-efficient Comfort

Glazing that comes standard with all Velux skylights. 919/844-0064. Velux, Raleigh. **CIRCLE 225**





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Product Literature

Enclosed luminaires

Enclosed Primalume luminaires are detailed in a new brochure offered by Holophane. A balance of uplight and downlight makes enclosed Primalume luminaires appropriate for industrial, educational, retail, and commercial applications. 740/345-9631. Holophane, Newark, Ohio. **CIRCLE 226**

Lighting finish palette

Starfire Lighting offers *The Palette*, a brochure depicting the company's complete new line of product finishes. The four-page brochure features actual swatches of Starfire's range of "standard" and specialty finishes for all the company's custom and industrially produced interior finish designs. 800/443-8823. Starfire Lighting, Wood-Ridge, N.J. **CIRCLE 227**

Updated environmental CD

BuildingGreen Inc., publisher of *Environmental Building News*, has just released an updated and expanded version of the *EBN Archives* CD-ROM, a compendium of all back issues of their newsletter. With more than 1,350 pages of green-building information, the *Archives* are fully searchable and pro-

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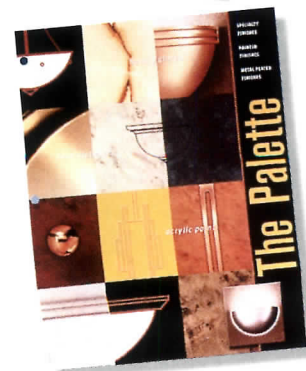
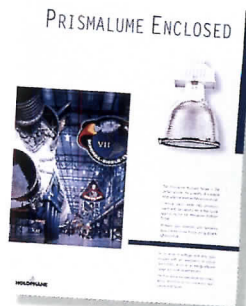
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vide instant access to every article, diagram, and photo as they appeared in print—from the first issue in 1992 through the end of 2001. 800/861-0954. Building Green Inc., Brattleboro, Vt. **CIRCLE 228**

Lighting design ideas

Prescolite has announced the availability of the third issue of *illum*, the company's magazine devoted to architectural lighting design ideas. 510/562-3500. Prescolite, San Leandro, Calif. **CIRCLE 229**



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Composite material guide

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Window/patio-door catalog

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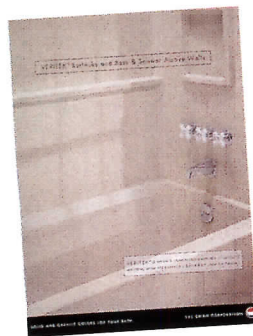
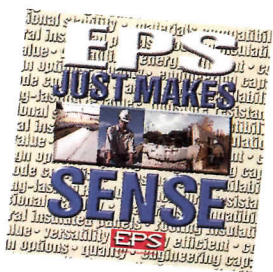
additional information about the construction, weatherproofing, and options for each product in an easy-to-read format. 800/2BE-HURD. Hurd Millwork Company, Medford, Wis. **CIRCLE 232**

Steel-locker catalog

Penco's new steel-locker catalog includes photos and specifications for steel lockers and accessories. Available in a variety of colors and styles, Penco lockers are ideal for use in school corridors, school and recreational locker rooms, and any business and industrial environment where clothes and other articles need to be stored. 800/562-1000. Penco Products, Oaks, Pa. **CIRCLE 233**

Colored-concrete market

Master Builders has released a new literature packet that provides detailed information on the company's entry into the colored-concrete market. Working together with alliance partner L.M. Scofield Company, Master Builders now provides expertise in both chemical-admixture and colored-concrete technologies. 216/839-7071. Master Builders, Cleveland. **CIRCLE 234**



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Program title: **The House of the Future Has Arrived, Architectural Record (07/02, page 149).**

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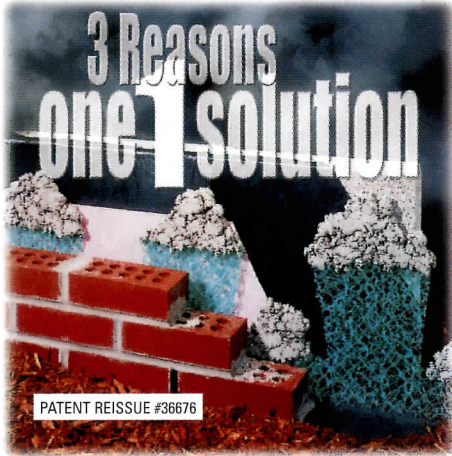
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ROUND ZERO (continued from page 126)

memorial zone (leaving the exact nature of that to be determined). It shows a compromise planning solution with two of the three pre-WTC east-west streets going through the site, although not necessarily open to cars, and it reinstates the north-south Greenwich Street. Childs is also floating a proposal for a skyscraper with an uninhabited top that rivals the height of one of the World Trade Center towers (page 23)—just in case the “bring back the skyline” sentiment increases.

According to *The Wall Street Journal*, Childs’s master plan will be one of the six schemes to be presented to the public on July 20. This is a confusing piece of news for some of us, and it must be to John Belle, who talks about the six schemes his own firm is whipping up for the public meeting. We’ll soon find out. Someone involved on the state side says, off the record, “The best ideas will be integrated in up to six plans for the public discussion.” After public input, three schemes are supposed to be presented by BBB in September, with the final scheme adopted by the end of the year.

If there appear to be a lot of proposals out there, just wait. John Zuccotti, a former chair of the New York City Planning Commission and former deputy mayor, who is now head of Brookfield Financial Properties, which owns the World Financial Center adjacent to the WTC site, has also hired Cooper Robertson to draw up a plan for the 16-acre site. Zuccotti may not have governmental power or be a leaseholder of the WTC property, but he does control 8 million square feet next door. He has been concerned that his tenants would feel left out in the world unless he, too, comes up with a scheme. Alex Cooper notes his firm’s proposal has been making the rounds of the power gang, too. Whether or not it is part of the July 20 assortment, Cooper claims not to care. “In the end, no one person’s plan will emerge—it’s going to be a blend,” he postulates.

So what happens to the final scheme at the end of the year? Do Silverstein and Westfield have to accept it? What if there are things they don’t like about it? The Port Authority and LMDC say that the plan will reflect the input of these lessees. As one close to the situation points out, the lease allows Silverstein to rebuild exactly what was there. But since that doesn’t make sense for several reasons (low demand for office space and perceived fear of renting offices more than 60 stories high, for example), the negotiations between the various parties on amending the lease and arriving at a mutually satisfying master plan will continue.

Certainly, the Port Authority wants Silverstein to keep paying rent and is trying to help recoup his insurance for both buildings. Yet, as Albert Butzel, a lawyer and consultant, notes, “If the final scheme is well received and Silverstein and Westfield still don’t like it, the Port Authority probably could terminate the lease and look for another developer.”

Influence is all we have If the architecture community has any effect on the WTC site, it won’t be through institutionalized power. It will only come through influence. All the coalitions that include architects and planners—such as the Regional Plan Association, leader of the Civic Alliance; the Municipal Arts Society with its survey of people’s preferences “Imagining New York”; or the American Institute of Architects and the Architectural League, two of the key forces behind the planning analyses of the New York New Visions coalition—are closely eyeballing the

process. There have never been so many watchdogs on a public process. So far, the groups are highly optimistic that their voluntary analyses are influencing the thinking of the LMDC and perhaps the Port Authority. But architect Margaret Helfand, FAIA, cochair of the executive committee for New York New Visions, brings up a significant issue: “The big vision will come after the pragmatic phase. But we need to think of the process that will take us from the master plan to the architecture phase.”

Another New York group hoping to influence the quality of architecture at the WTC site is the Architectural History Foundation. Spearheaded by its president, Victoria Newhouse, the AHF has enlisted the advisory services of a number of disinterested parties, such as architectural historians Marvin Trachtenberg and Jean-Louis Cohen, Cooper Union architecture dean Anthony Vidler, and theorist Beatriz Colomina, to help shape its agenda for making sure architecture is present at Ground Zero. The problem is determining how and when architecture can happen.

Memorialization and the families of 9/11 As for the memorial, so far its size, nature, and design process remain vague. Most architects and planners talk of leaving the footprints of the two towers clear for a memo-

HELFAND SAYS: “WE NEED A PROCESS THAT WILL TAKE US FROM THE MASTER PLAN TO THE ARCHITECTURE PHASE.”

rial—whether that takes the shape of a building, a garden, a large sculpture, or some other form. This approach defers to the various groups representing the families of the victims of the tragedy. But they too have no official power, only a very strong (if it can be unified) voice. As Nikki Stern, a communications consultant for architects who lost her husband on September 11, puts it, “We have to make this a beautiful place where the architecture is great and life-affirming.”

There are no guarantees. And the process, which state officials claim is so “public” or “accessible,” is hardly transparent. These officials attend meetings and exclaim how democratic the process is, but at the same time they try hard to wriggle out of concrete answers to specific questions. The “multiuse” programming of the site remains a question. For those who advocate housing, they should know that the Port Authority’s Allen Morrison states, “The PA doesn’t have authorization to build housing or to cause its lessees to build housing on that particular parcel.” As for the city’s role, who knows? Amanda Burden, New York’s chair of city planning, emphasizes, “The sharing of information is most important over the next few months.” We agree. But so far facts are fungible and obfuscation reigns. The architectural community must stay on guard and keep applying pressure. Michael Sorkin complains, “That puts us in the whiny resistance mode.” But this is New York. It might work. ■

Remembrance (continued from page 87)

reveals the mundane artifacts of daily life—toys, games, a sink—for a particular Jewish family hidden from German authorities in a high attic. By clustering around strategically placed monitors, gaggles of people from all over the world can hear Anne's own words from her diary and view the video testimony of her childhood friend or of Miep Gies, the secretary who helped keep the Frank family alive. Anne's house museum memorializes a family's struggles, and for a brief moment, brings them vividly to life.

Abstractions How abstract should a memorial be? The response varies with the proximity to the event. Survivors of a tragedy often raise potent arguments for realistic monuments that appropriately memori-

“WHEN WE ... DON'T COME TO TERMS WITH THE MEANINGS OF EVENTS, THOSE MEANINGS GO UNDERGROUND.”—VICTOR IANNUZI

alize their lost loved ones. They belong to the camp that views the memorial as a “witness and reminder,” says Young. A review of recent monument making in Washington, D.C., however, raises questions about the literal. The Korean Monument, for example, depicts a squad of soldiers in bronze, but their representation, unfortunately, makes them appear lost, and the meaning of the war becomes compromised as we confront the limitations of the objects themselves. The words and spaces and elementary materials at Washington's FDR Memorial seem more potent than the sculptural figures meant to recall Depression hardship. Imagination trumps the literal.

Touch and feelings Memory and the locus of emotions can be unlocked by the senses. Tactility, for example. How many of us have reached the Vietnam Memorial Wall to rub the names of lost friends with our own hands? Water, in particular, represents the mythic veil between the real and spiritual realms. Fire, such as the eternal flame at John Kennedy's simple grave on the Arlington hillside, or *present in Hindu* cremation, conjures up transformation. Moving water moves the hearing, which affects the mind: calming in a fountain, or churning as it falls with a cavernous, preternatural force in Tadao Ando's work at the Sayamaike Historical Museum near Osaka.

From Ground Zero Since September 11, the process of memorial making has already shifted from the individual to the institution. While countless little altars, handmade signs, poems mounted to fences, and photographs once sprang up across the city—at Union Square, at Brooklyn's Promenade, at Grand Central—the fire from a thousand candles is beginning to be extinguished. Even the number of poignant obituaries of the deceased in *The New York Times* is diminishing with each week.

With the removal of the last structural column from the devastated site, we are entering a new phase, searching for an appropriate memorial for a cataclysmic event that tore at the heart of a city, took almost 3,000 lives, and wrenched New York's optimistic spirit. How will the city respond? With monument or memorial? With literal interpretation of events? With knowledge of and accommodation to change?

Victor Iannuzi, an interpersonal psychoanalyst, warns that whatever happens, we must reconcile with the meaning of the event. If not, “those meanings go underground—they go into our unconscious, where they wreak havoc.” The answer will depend on who tells the story, and how responsive those in power prove to an event larger than themselves. ■



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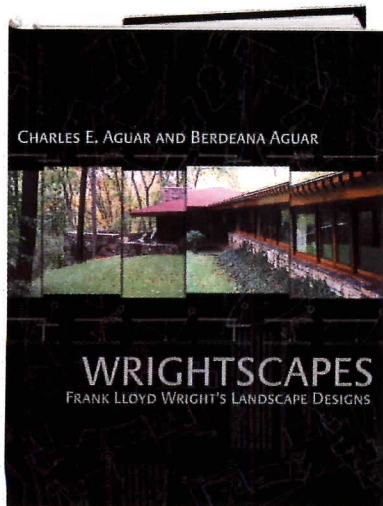
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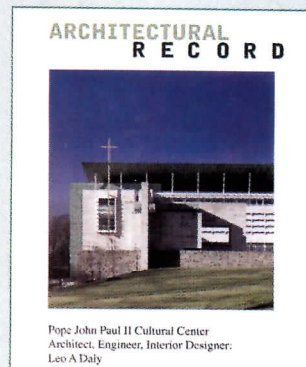


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Frank “Chip” Briscoe: Texan, preservationist, activist

Interviewed by Deborah Snoonian, P.E.

Frank “Chip” Briscoe has politics in his blood and preservation on his mind. Born to a Texas political dynasty—his father was a district attorney, his cousin a governor—he got his feet wet last spring by challenging the congressional seat held by House majority whip Tom DeLay (he lost the Democratic primary by a razor-thin margin). In April, he visited Pakistan, where he has been working with an international team to uncover a 4,500-year-old city. All this while working for veteran Houston builders W.S. Bellows, which built the Live Oak Friends Meeting House (above). Trained in historic preservation at Cornell, Briscoe and his wife live near Houston in a family farmhouse he’s restored himself.

Q: *What are the goals of your work in Pakistan?*
My primary role is to work with the Pakistanis, through UNESCO [United Nations Educational, Scientific and Cultural Organization] to assist with the conservation of the ruins of Moenjodaro. Moenjodaro is one of the capitals of the Indus Civilization, in the valley of the Indus River. I've been going there since 1995. It's an enormously important place in the history of civilization. It's the oldest planned city in the world and the largest Bronze Age city that we know of. Its water distribution system was the most advanced of its time and included indoor plumbing and one of the first uses of wells. We believe Moenjodaro and its sister capital, Harappa, are the first places in the world where baked industrial brick was used.

Only about 10 percent of the site has been excavated, and there's a prohibition on further excavation until the exposed ruins are stabilized. We still have a lot to learn about the way the city was planned. For instance, we haven't found definitive evidence of any kind of defense structure, which is interesting, because the Indus River was a transportation corridor.

What was your latest visit like, given recent events?
People here thought I was crazy to go. But I've known the team working there for quite some time now, and I've always been very warmly received. My relationship with them hasn't changed. It's very satisfying to be involved in this project. I hope to stay involved if the political situation allows it.

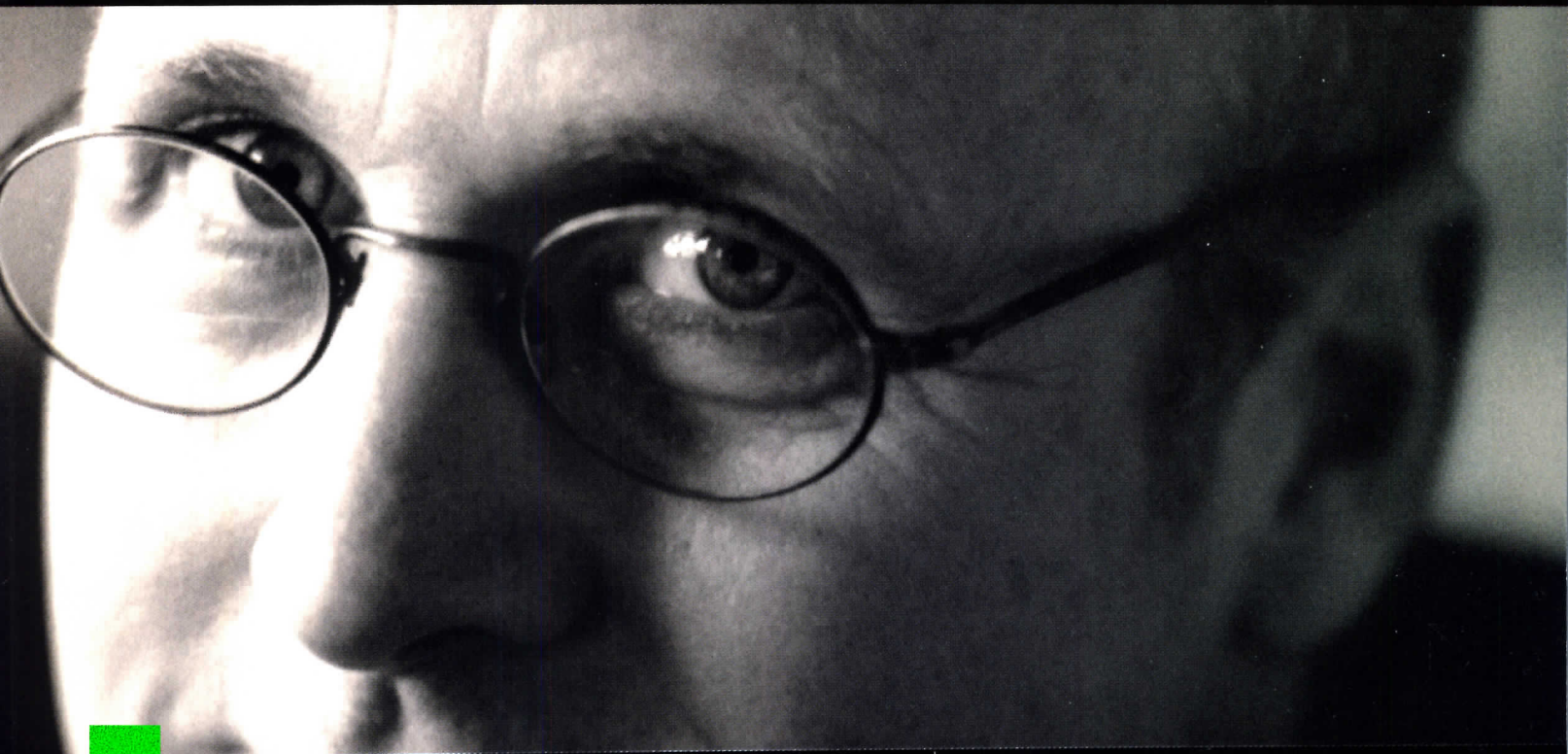
Why did you decide to run for Congress?
I ran primarily to promote a smart-growth agenda for my district. We've got to be among the worst offenders in terms of the way resources are used here. It's deplorable that we're not even beginning to work toward sustainable growth. Traffic congestion and sprawl have gotten terrible. For instance, there's a proposed expansion of the Katy Freeway that connects Houston to its western suburbs. It's now about 13 lanes wide; the plan is to almost double it, with all passenger vehicles, no plans for public transportation. There's growing opposition to the lack of transit options, and it's supported in part by air-quality standards that have to be considered when you widen freeways.

We also need to be much more considerate of the environment when we design and build things. I'm looking forward to being part of the move toward sustainable design in my job as a builder.

Would you run for office again?
I would consider it, although I don't have any plans to. Running for office was a wonderful experience. I met a lot of people doing very important work. Politics was always a very personal thing to me growing up, because of my family's involvement. What pushed me to run was that I was really riled up after September 11, among other things. I hope it doesn't take something like that to make me try it again. ■

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