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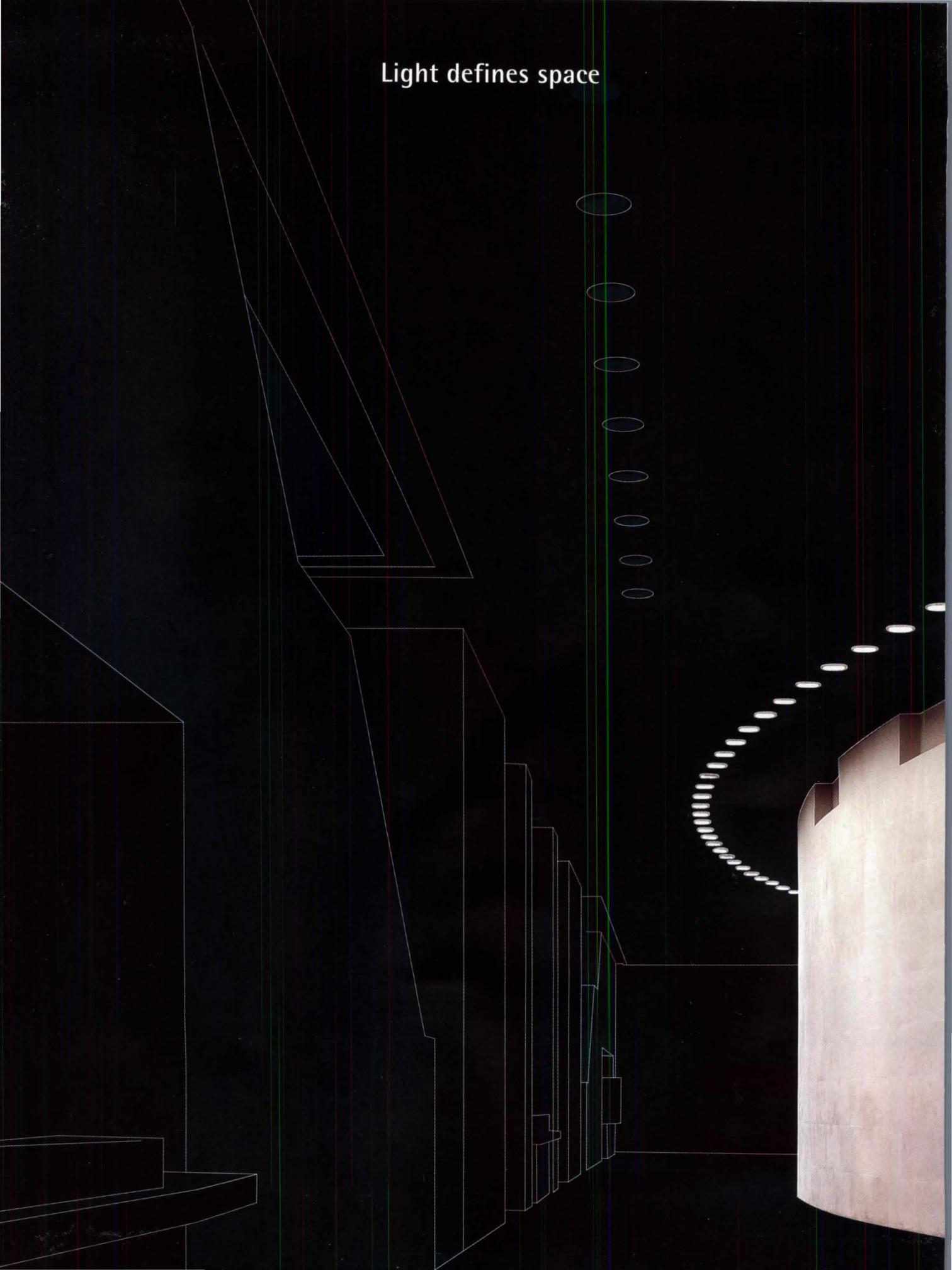
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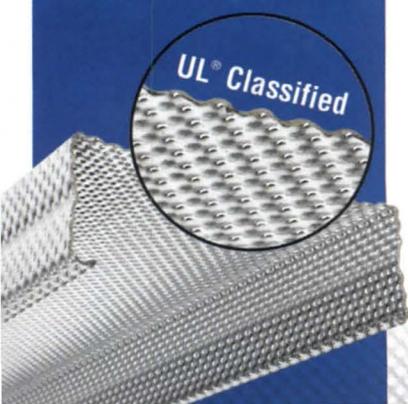
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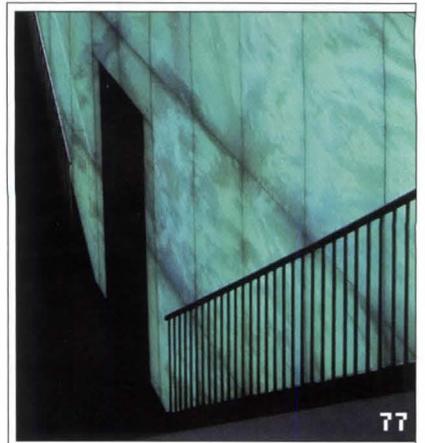
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Caruso St John's Brick House in London (cover and facing page) is an earthbound expression executed in concrete and brick. Images this page (left to right): a slum neighborhood overlooks urban "progress" in Mexico City; Ada Karmi-Melamede's synagogue in Israel; LEDs facilitate a changeable jewelry display.

→ **COMING NEXT MONTH**  
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PHOTOGRAPHS ON COVER: HÉLÈNE BINET; FACING PAGE: IOANA MARINESCU; ABOVE LEFT: DANTE BUSQUETS/URBAN AGE; ABOVE MIDDLE: ARDON BAR-HAMA; ABOVE RIGHT: MICHAEL F. ROHDE.

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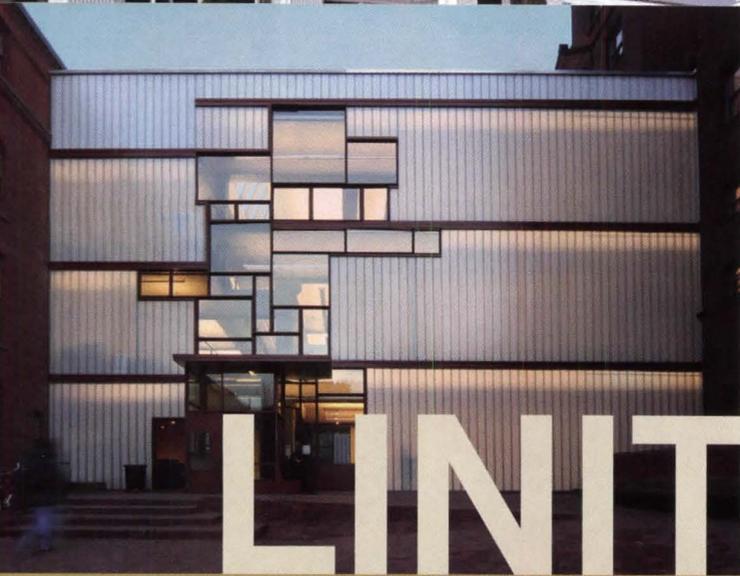
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## letters

### Eminent praise

Thanks go to Emilie Sommerhoff for defending the better aspects of eminent domain [March, 2006, page 13]. It will be a shame if legislators write 50 variations on a clearly national concern. Imagine if designers of the Interstate highway system had been made to contend with state or local transportation details that interfered with uniform expectations. The need for overarching laws is one reason we have NCARB, to keep knee-jerk reactions everywhere from forcing us back to provincial intricacy.

**Harry Compton**

*Bartlesville, Oklahoma*

### Drawing conclusions

Inclusion of Juhani Pallasmaa's book excerpt [March 2006, page 28] was very insightful. His writing is lofty and yet understandable. The subject matter is so important and is rarely captured. There is something that happens in the time it takes to physically draw a line that allows a mental distance from the design and enables the three-dimensional implications to be felt or imagined. Maybe it also involves the tactile feel of the paper or the smell of the lead, not just the image they produce.

**Christy Fleege**

*Worthington, Ohio*

### Midwestern tremors

In your March 2006 issue [page 20] there's a photo of a Morphosis project captioned "University of Cincinnati Recreation Center Reopens." Are you sure that this is the correct photo? It appears to me that a high-rise parking garage has collapsed upon a prefabricated carwash. Was there an earthquake in Cincinnati? Was the campus attacked by architectural terrorists?

**Bill Landis**

*East Petersburg, Pennsylvania*

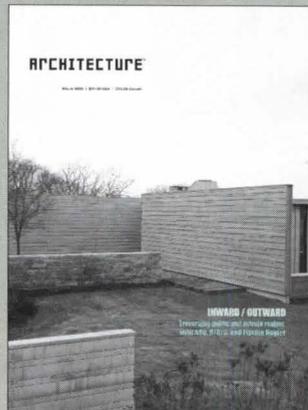
### CORRECTIONS

The web address published for the iT House blog [April 2006, page 62] should have read <http://tk-it-house.blogspot.com>.

The project team for Van TinelGuthrie Studio's warehouse renovation in Detroit [February 2006, page 38] should have included Andrew Eckert, Cory Lavigne, Jeremy Ervin, and Philip Plowright.

### WANTED: YOUR COMMENTS

Please send your letters to Katie Gerfen, associate editor, *Architecture*, 770 Broadway, New York, NY 10003. Or e-mail us at [kgerfen@architecturemag.com](mailto:kgerfen@architecturemag.com).



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## PAULO MENDES DA ROCHA WINS 2006 PRITZKER PRIZE

Seventy-seven-year-old Brazilian architect Paulo Mendes da Rocha has been named the 2006 Pritzker Prize Laureate. Best known for his design of the Brazilian Sculpture Museum (1988) in São Paulo—set partly underground and marked by an imposing oversized concrete beam that divides the site—Mendes da Rocha's 50-year career has seen him interpret a range of building types, including sports stadia, private residences, retail, and religious institutions.

After completing his degree at the Mackenzie Architecture School in 1954, the architect became a leader in São Paulo's avant-garde, a group that is largely credited for spearheading the Paulista brutalist movement. The goal was to emphasize the ethical dimension of design, and to that end was often executed with simple lines, materials, and forms. In his own work, these ideals have been manifested in a sense of responsibility toward the inhabitants of his buildings, as

well as the larger community that interacts with them.

In addition to maintaining his own practice, Mendes da Rocha has been an educator—teaching for many years at the University of São Paulo—and has served as the president of the Institute of Architects of Brazil. His other major works include the Paulistano Athletic Club (1958, above), the Forma Showroom (1987), also in his home city, the Chapel of Saint Peter (1987) in Campos de Jordão, the Brazilian Pavilion for the 1970 International Expo in Osaka, Japan (his first international project) and his own residence (1960, left). In addition to his architectural designs, Mendes da Rocha has also designed furniture, including the Paulistano chair.

The ceremony for the Pritzker Prize will be held in Istanbul, Turkey, on May 30. Mendes da Rocha will receive a bronze medallion and a grant for \$100,000. **Katie Gerfen**



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## SORIANO LANDMARK LOST

In early March, without warning to community leaders, the Boyle Heights section of Los Angeles lost a community landmark: the Raphael Soriano-designed Soto-Michigan Jewish Community Center. The federal government—the leaseholder for the land—tore down the center to make way for a new Social Security office. But the events leading up to the demolition remain a bit of a mystery.

Local Jewish journals report that state and federal officials are blaming one another for the lack of public notice: state officials felt they had no jurisdiction because it was a federal project, and federal officials say that the standard permitting process should have been upheld. But regardless of who is to blame, the fact remains that when the Jewish Historical Society's monthly bus tour of the area stopped at the site, one of its regular visits, the building was gone.

The Soto-Michigan Jewish Community Center—known originally as the Modern Social Center—opened to the public in 1939. The 10,000-square-foot concrete-and-glass structure served as a gathering place for the neighborhood's nearly 40,000



Jewish residents in the pre-World War II era. It was a cultural hub in the 1950s and an example of Soriano's California modern style. The architect's other projects include several private homes, a design for *Art & Architecture* magazine's Case Study House program, and the Lipetz House, which was presented at the 1937 International Architecture Exhibition in Paris. Only a few of his works remain standing.

Councilmember Jose Huizar, whose district includes Boyle Heights, was so disturbed by the event that he introduced a motion on March 22 requiring municipal departments to answer as to how the demolition went forth without the appropriate protocol. The motion also seeks to clarify existing laws to ensure that such an incident is not repeated. **Katie Gerfen**



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## FREE SPEECH MONUMENT CREATES DIALOGUE



When a designer wants to make a statement, the phrase usually operates only metaphorically. The *Community Chalkboard and Podium: A Monument for Free Expression* in Charlottesville, Virginia, has distinguished itself in two ways—its literal reading of the metaphor and its intuitive form, which implores observers, not designers, to exercise their First Amendment rights.

Following years of debate about the idea of the monument, an audience of several hundred gathered before Charlottesville City Hall on April 20 to confront the project itself. Designed for the Thomas Jefferson Center for Free Expression by architect Robert Winstead and landscape architect Pete O'Shea, the 7-foot-high, 55-foot-long slate-clad wall serves as medium and message, as was soon apparent. Formalities over, the crowd chalked up an incongruent mixture of instant messages that quickly filled the blank black slate.

Before receiving the first mark, the Chalkboard had fulfilled its primary intent: generating a fervent exchange of views, both in and out of city council chambers, about free expression and the nature of public space. The monument became the symbol of the debate, as skeptics worried that its unrestrained summons will elicit graffiti, obscenities, profanity, and racist vitriol. Advocates suggest the benefits of a place dedicated to the responsible exercise of free expression can tolerate such genuine risks. In either case, erasing the commentary each Thursday, as the city plans to do, will remind viewers of the temporality of speech, as well as ensuring fresh material for consideration. **Kyle Copas**

[E] World Trade Center site developer Larry Silverstein announced April 25 that he has accepted a deal with the Port Authority of New York and New Jersey (PANYNJ) for the redevelopment of the 16-acre parcel in Lower Manhattan. Silverstein will cede control of one-third of the site, including the SOM-designed Freedom Tower, to PANYNJ in return for retaining the right to build three office towers on the remaining land.

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LOUIS FRY, JR.  
1929-2006

Louis Edwin Fry, Jr., principal of Fry and Welch—the self-identified longest-running African American architecture firm on the East Coast—died in March at 77, of cancer-related complications. The Washington, D.C.-based architect was the second in a three-generation legacy begun by his father, Louis E. Fry, Sr., who founded the firm in 1954; the practice is now led by Louis Jr.'s son, Louis Fry III.

Born in Prairie View, Texas, and raised in Washington, D.C., Fry, Jr. received his master's degree in urban design from Harvard, where he was taught by Walter Gropius, after studying architecture in Delft, the Netherlands, on a Fulbright fellowship. Leaving behind a vast catalog of commercial and institutional projects, Fry is best known for his work on historically black university campuses. His portfolio includes a hotel and convention center for Tuskegee University, as well as buildings for Morgan State University, the University of Maryland Eastern Shore, and Copping State University. These projects build on the work of Fry's father, who helped design the Founders Library and Douglas Hall for Howard University.

**Anna Holtzman**

⇒ The corporate body of the Scottish Parliament (the equivalent of the U.S. Congress) has been forced to meet in another wing of its EMBT/RMJM-designed home (February 2005, page 28) after a beam fell from the ceiling of the debating chamber during session. There were no reported injuries, and permanent repairs on the structure—which has been dogged by controversy since its inception—will be completed during the summer recess. A temporary fix will be in place this month.



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## ALBERT C. MARTIN, JR., 1914-2006



Albert C. Martin, Jr., principal at the three-generation family firm AC Martin Partners, died at 92 on March 30 in his San Luis Obispo, California, home, after sustaining a stroke. Credited with shaping a significant portion of the Los Angeles skyline, the firm was started by the architect's father, Albert C. Martin, Sr. Having joined the practice in 1936 after attending architecture school at the University of Southern California, Albert Jr. added to his father's legacy with a series of

notable projects, most significantly the 1965 Los Angeles Department of Water and Power Building (above). Other works included One Space Park, a science research park in Redondo Beach (1968); Union Bank Square (1967); and St. Basil's Roman Catholic Church (1969), all in Los Angeles. In addition to his built work, Martin was known for his civic participation. He served as chairman of the board of Project Restore, a nonprofit group dedicated to raising funds for the 2002 restoration of Los Angeles City Hall.

In Martin's absence, AC Martin Partners will be carried on by his son David Martin, a design partner since the mid-1990s, as well as Christopher C. Martin, son of Albert's brother J. Edward Martin, a structural engineer and Albert's partner in the family firm. **Anna Holtzman**

## WARREN PLATNER, 1919-2006

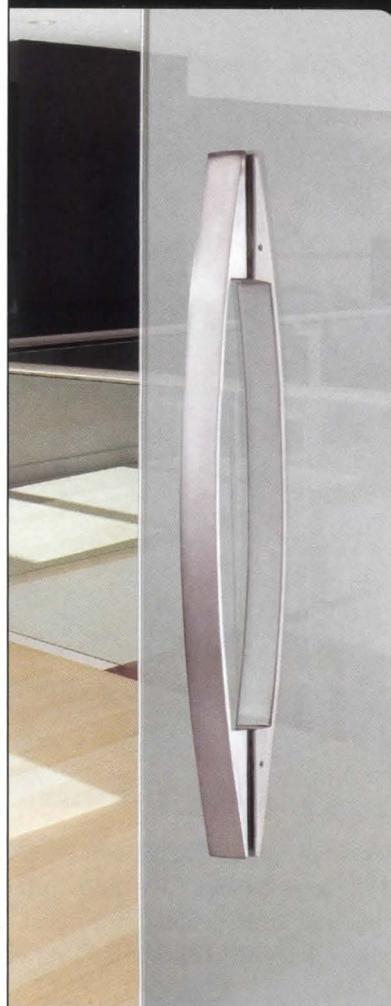


Warren Platner, an architect best known for his detailed interiors, died April 17 of complications resulting from spinal meningitis. He was a graduate of Cornell's School of Architecture (1941) and before falling ill earlier this year was

active as head of Warren Platner Associates in Connecticut, a firm he opened in 1967 after working in the offices of Raymod Loewy, I.M. Pei, and Eero Saarinen. In 1966, Platner designed the form and method of production for "the Platner Collection," manufactured by Knoll: hundreds of nickel-plated rods welded into circular frames that support tables (above), chairs, and ottomans.

Warren Platner Associates designed a wide range of projects at all scales, from master planning and architecture to graphics, artwork, and interior pieces like ergonomic desks with built-in telephones, sofas, lighting, textiles, and dishes. Platner's interiors include designs for Kevin Roche's Ford Foundation (1967), the Georg Jensen Design Center (1968), Windows on the World (1976), Water Tower Place (1976), and the renovation of the Pan Am Building lobby for MetLife (1986). **Nathalie Westervelt**

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Dutch designer Claudy Jongstra's wool felt pieces represented a traditional notion of craft as handmade object.

conference emerged a philosophy of design rooted in community networks, democratic participation, and collaboration. The notions that craft builds community, and that community building is a craft, united a diverse group of speakers. Jane Olson, chair of the board of Human Rights Watch, recalled how knitting became a bond between women in a squalid refugee camp in former Yugoslavia. In the face of ethnic cleansing, "creativity awakened the instinct to survive," she explained.

Author Dave Eggers merged humor with design when he presented 826 Valencia—the network of tutoring and publishing centers that he founded in 2001 for kids. Serving their local communities, the study venues hide behind retail shops selling, for example, affordable pirate supplies in San Francisco or crime fighting gear (capes, masks, secret identities) in Brooklyn. "The storefront is a secret passage to learning," said Eggers.

Discussing a democratic approach to the urban design of Charlottesville, Virginia, Maurice Cox, architect and former Charlottesville mayor, posed several provocative questions: "What if design were used as a tool for civic discourse? What if it created unrest? What if every citizen considered design an inalienable right?" Making his words manifest, Cox is working in the city with citizen groups on a transit corridor linking downtown to the university. Recently, he used grassroots tactics to assist in the redevelopment of the impoverished village of Bayview, Virginia (*Architecture*, September 2004, page 60).

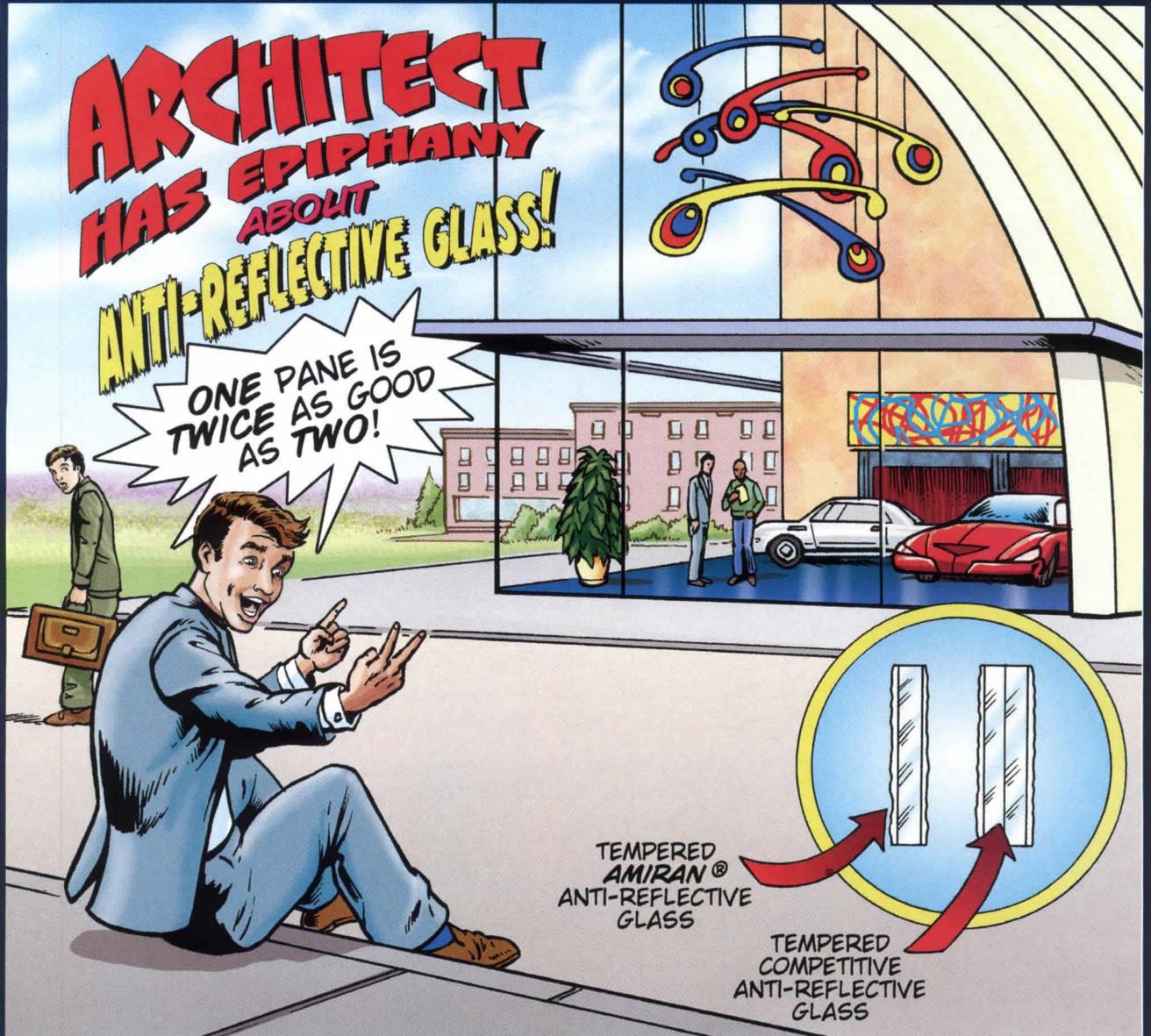
Architect Wolf Prix, of the Vienna- and L.A.-based firm Coop

Himmelb(l)au, advocated a political approach to different ends: "The role of architects in the future—politics. We need to invent strategies to get through permits, and be committed to the building without making compromises." The firm's sculptural forms are ambitious and pose challenges both to architectural norms and the building industry, yet the uncompromising curves of the BMW Welt in Munich, the project Prix presented, seemed the antithesis of Cox's populism.

A highlight of the conference was Pearlman's interview of Jonathan Ive. As Apple's senior vice president of industrial design, Ive determines the look of the company's iconic products. Although a premium is put on Apple's singular aesthetic, he shied away from figurehead status and stressed collaboration and continuous exploration: "As a team we are good at moving these fragile ideas along until they become robust."

Ive's work, like that of many of the other speakers, is based not on a master-craftsman ideology but on communal processes and development. It is about interchange and experimentation. The Art Center Design Conference's cross-disciplinary program was itself a "radical craft" case study. Over two and a half days it showed that radicalism doesn't come from the coolest new design, but from an open-source way of thinking about craft and problem solving.

**Mimi Zeiger is editor of the zine *loud paper*. She teaches at California College of the Arts in San Francisco.**



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## SAN FRANCISCO'S 360

The Bay Area's natural resources—sun and water—will soon transform the utility and identity of the city.

by Paul Fenn and Michael Paulo Kuchkovsky | Illustration by Julian Osti

Over the next three years, San Francisco will invest over a billion dollars in a ubiquitous, decentralized solar power infrastructure placed on hundreds of public and private rooftops, fundamentally changing its urban environment and constituting the largest sustainable energy public works project in history. Following seven years of statutory and financial preparation, the new network will take 360 megawatts (MW) of physical electrical demand off the grid and onto a new solar hydrogen platform, in a community that consumes 650-850 MW on any given day. Within 12 years, if all goes as planned, over half of all power sold in San Francisco will be locally produced alternative energy, far exceeding the 20 percent "green power" generation required that year by California law.

The most dramatic result will be invisible but profound. Electricity production is the single largest cause of greenhouse gas emissions in the United States—and 25 percent of total emissions in San Francisco. Power plants produce two-thirds of the gases that cause our nation's asthma epidemic in urban children and two-thirds of all radioactive materials, not to mention the mercury contamination of virtually every river in the country. Not only is the production of power our core environmental threat, it is also the easiest to change. Weak government control of automobile manufacturing makes the other major cause of climate change (fossil fuels) inherently

slower to transform: Re-powering buildings is the lowest-hanging fruit of climate protection.

For more than 30 years, visionary physicists and economists have posited a solar-hydrogen future. Following the change from burning trees to coal, and from coal to oil and natural gas (and the eradication of nuclear sources), scientists and economists have proposed a third transformation that would liberate our way of life from the vagaries of nineteenth- and twentieth-century behemoths. In the 1970s and 1980s, American environmental groups delivered a first wave of public subsidization of wind and solar power. But politics and money derailed this innovative vision, transforming the United States from technology leader to follower. Supported by federal subsidies under President Jimmy Carter, alternative energy industries that had emerged organically were subsequently dismantled by President Ronald Reagan. The government's disengagement from solar energy continued until California's energy crisis, the Iraq war, Peak Oil, and mounting evidence of an accelerated climate crisis brought sustainable power back to center stage in American politics.

The intensity of these crises has upped the ante of energy politics, leading many city governments to establish solar power initiatives on an unprecedented scale. In 1997 and 2002, respectively, Massachusetts and California passed laws

authorizing municipalities to take over power purchasing from utility corporations, and to develop sustainable energy facilities in the urban cores. Local Power, the Oakland, California-based author of Community Choice and related financing mechanisms, has assisted San Francisco in its development of a local solar-hydrogen economy that is expected to serve as a model for cities nationwide. Using Community Choice to select a new power provider and channel monthly electric bill revenues into a solar infrastructure rather than nuclear and fossil fuel plants, San Francisco will employ its voter-backed Bond Authority to finance construction of the new system. And the Bay Area is not alone: Currently more than 40 California cities plan to use Community Choice to develop solar technologies on an unprecedented scale. The traditional energy lobby is fighting Community Choice and solar power. If architects want to design buildings that incorporate large-scale sustainable technology, then they need to help seek a larger role in purchasing and developing green power. Community Choice is already law in Ohio, New Jersey, and Rhode Island, and legislation has been introduced in Washington, D.C., and other states such as Illinois and Maryland.

In Local Power's model, solar energy is reconceptualized as a classic public works project in which local governments issue municipal revenue bonds that allow capital investments to be paid back over decades—without increasing power prices. In this framework, the solar-hydrogen economy is not historically

unique, but could perhaps become the most transformative infrastructure investment of the twenty-first century.

Combining renewable and fuel-free generation systems with power storage, heat recovery, cogeneration, and hybrid applications, San Francisco's 360 plan will fundamentally change the way its residents get their power. Phase One will result in the installation of 31 MW of photovoltaics throughout the city over three years. This is the equivalent of 200 to 300 supermarket-sized rooftops of solar panels. These facilities will daily provide enough energy to power 31,000 city apartments during the afternoon. Wind turbines, wave power, fuel cells, hydrogen, and other technologies will provide enough power for another 330,000 apartments. Wind turbines designed for dense urban areas could provide the energy production for this in-city component of the plan, as has already occurred in many parts of Europe. Hydrogen electrolysis facilities will be located near the major solar facilities that power them. Indeed, the urban environment will witness a new kind of gas station: hydrogen storage tanks and power generators that emit no smoke whatsoever, only steam. By 2009, San Francisco's new energy infrastructure will transform the urban environment in much the same way that the first municipal water and sewer systems assisted in developing the modern city.

Alternative energy installations follow natural patterns. Solar panels are positioned to maximize sun exposure and match the energy use of residents and businesses closest to them. The

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selection of locations will depend on algorithms as complex as sites chosen for wireless service antennas. Sites will be identified, surveyed, and acquired based on optimal criteria. ("Acquired" may mean customers leasing solar technology, the city leasing private rooftops, and other such arrangements. Residents and businesses are able to choose how to participate in San Francisco's program, ranging from just buying the power, to hosting solar facilities on their rooftops, or even purchasing a local power facility with no-money down, long-term municipal financing.) Not merely investing in renewable resources, San Francisco will re-engineer power itself to reduce the need for centralized transmission systems, massive plants, and imported fuels, replacing the old megaliths with visible, quiet, and clean local power facilities.

Solar facilities on existing buildings will generate the majority of the 360 plan. Since it is typically more expensive and difficult to construct solar panels on existing buildings than new construction, architects will need to devise structurally sound, economical, and aesthetic systems for the program. Brooklyn, New York-based Kiss + Cathcart, for example, have already begun the process with projects such as the Stillwell Terminal (*Architecture*, January 2006, page 55). Designer Michael Jantzen, of MJ Architect, has pioneered a number of digital prototypes called M-vironments that integrate wind-powered generators into elegant open structures that also provide shade and shelter. Many groups, including the International Energy

Association and European Cooperation in the Field of Scientific and Technical Research, have conducted and published extensive findings on solar technology and buildings.

Photovoltaic panels now come in a variety of materials, colors, sizes, and weights, with coatings that protect them from damage. Instead of stiff, thick panels, they are manufactured in flexible sheets that can be fashioned into almost any shape. With time, they will only get thinner, smaller, cheaper, and more efficient. Manufacturers are currently producing panels that not only generate energy, but also function as roofs, awnings, curtain walls, shading devices, and walkways. Apart from photovoltaics and the wind turbines and fuel cells previously mentioned, San Francisco's roll-out will include wave and tidal power systems, conservation systems such as heat recovery, wireless load control systems, and new power storage technologies such as flywheels and solar-electrolysis hydrogen.

Designing as part of the alternative energy production process clarifies the impact that architects have on the larger environment. Over the next decade, solar and other green power technologies will become as much fixtures of San Francisco as the Golden Gate Bridge or Coit Tower.

**Paul Fenn is executive director of Local Power. Michael Paulo Kuchkovsky is architectural advisor to Local Power. This article was adapted from an essay previously published in *Architecture California*.**



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## URBAN AGE CONVENES IN MEXICO CITY

Impassioned debate surrounded issues concerning the growth of urban development at this productive gathering of professionals. by Liane Lefèvre

With 20 million inhabitants, Mexico City is the largest city in the world. It has become synonymous with squalor, endless gridlock, and bad water. Slum neighborhoods like Nezahualcoyotl, or Neza for short, are home to many of the country's kidnapping gangs and drug mafia. As urban economist Professor Dieter Läpple points out, 60 percent of the population live in slums and 60 percent of the city's economy is black market, or, in the parlance of developing world neoliberal guru Hernando de Soto, "informal."

Mexico City today, however, is also a land of opportunity—for a lucky few—and is currently in the midst of a building boom. Lomas de Santa Fe, once the site of the municipal dump (but strategically placed 19 miles from the internation-

al airport) has become a Shanghaillike cluster of newborn high-rises. The upscale residential neighborhoods of Polanco and Condesa, near the historic city center, are teeming with newly built luxury houses and apartment blocks, designer hotels, and fashionable restaurants.

In late February, the city was host to Urban Age—the remarkable brainchild of project director Richard Burdett—organized by the London School of Economics' Cities Program and by Wolfgang Nowak, director of the Alfred Herrhausen Society, which, along with Deutsche Bank, sponsored the conference. A series of six symposia examining the future of mega-cities around the world, the first three were held in London, New York City, and Shanghai; the



**Lomas de Santa Fe, a recent Shanghai-like development, abuts slum housing (previous page); double-decker highways (above) are ill-conceived in their positioning and consequently are used infrequently.**

Mexico City venue was the fourth; and the next two will take place in Johannesburg and Berlin.

Like the earlier gatherings, this meeting was intended not simply as an opportunity for academics to theorize about the usual slew of abstract concepts—density, mobility, globalization—but for professionals and local experts to present the reality of the city. The conference provided a complete catalog of the most recent urban planning projects and issues in Mexico City and began, appropriately, with a comprehensive tour by José Castillo, a professor at the local Universidad Iberoamericana. He started at the lively “El Zócalo,” a public plaza in the city’s historic center, then moved on to the high-rises of Santa Fe, which require trucks of water and self-generating power plants because of their lack of connection to the urban grid; the next stop was the old town of Santa Fe where Hannes Meyer, among others, built housing on the notorious Ciudad Neza, and a former illegal landfill still houses people who make a living out of recycling garbage. Finally, we visited Chimalhuacan, an informal settlement not far from the dry lakebed of Texcoco, the site of a future development project.

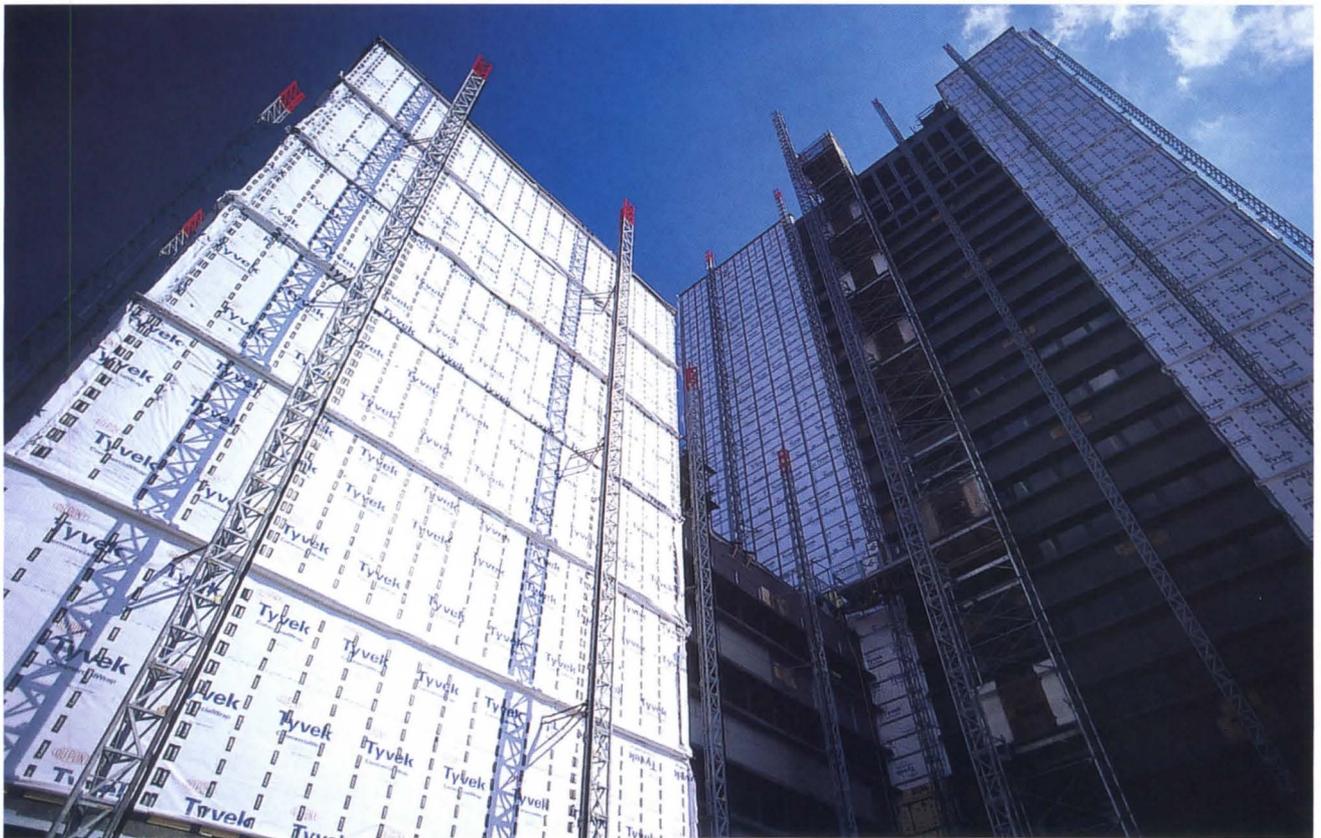
In an impressive feat of organizational logistics, mostly by Burdett himself, 110 of the 150 in attendance were given the opportunity to speak, and many of them did so eloquently. They included no less than Mexican President Vicente Fox, along with the mayor of Mexico City and the governor of the state of Mexico, as well as a Who’s Who

roster of notables from the city’s urban planning community. The organizers took an avalanche of information and neatly packaged and delivered it along with informed commentary by specialists. In attendance were some of the leading planning experts in the United States, who are also members of the steering committee of Urban Age. They included Andy Altmann, former director of the Office of Planning in Washington, D.C.; Lawrence Vale, head of MIT’s department of Urban Studies and Planning; and Amanda Burden, director of New York City’s Department of City Planning. The main focus, however, was on the work of approximately 100 local architects, urban planners, politicians, and academics.

The standouts among the recent local planning projects presented were success stories on par with Jaime Lerner’s plans for Curitiba and Enrique Peñalosa’s for Bogota, both based on top-down planning together with grass roots response. Landscape designer Mario Schjetnan’s rehabilitation of Chapultepec Park, the largest public space in the city and home to all the major museums, boasts almost 16 million visitors a year. Half its budget was raised through contributions from local citizens. Schjetnan also unveiled plans to redesign 11 civic projects that would create sorely needed public space in the megacity. FARO (Fabrica de Artes y Oficios de Oriente) is a vibrant and highly successful popular art center designed by Mexican architect Alberto Kalach, founded in the largest and poorest borough, Iztapalapa, on

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**Impromptu economies in the “informal” sector were the topic of particular unrest among conference attendees, who hotly debated the relative merits of advocating an underclass of local workers.**

the site of an abandoned industrial complex.

At the other end of the spectrum, the duds included such projects as the disastrous double-decker elevated highways, which have left a horrific tangle of roads that, if anything, only serve to slow down already paralyzing gridlock; also cited was the so-called “Bando Dos” policy on the part of the municipal planning office that encouraged housing development in just four isolated areas of the city, rather than sponsoring a more comprehensive program. As Pablo Benlliure, the representative of a group of developers remarked, his company made a 200 percent return on their initial investment after five years. However, even he complained that this was too piecemeal an approach to planning and what was needed was a more holistic scheme for solving the city’s problems.

Underlying this latter position was a quasi-Keynesian view that the solution lies in an integrated approach to urban issues on the regional level. The discussion became especially heated following the presentations about slums entitled “Informality: Problem or Simply a Reality?” Adopting the opposite point of view, and echoing instead the position of de Soto, University of Chicago sociology professor Saskia Sassen raised a few eyebrows with the claim that the informal economy ranked among the most advanced forms of modern capitalism. This position also informed several other presentations: Castillo in his survey of slums in Mexico, and Geetam Tiwari, of the Indian Institute of Technology in Delhi, who referred to attempts to regulate informal neighborhood economies as tantamount to exercising a police state. A more tempered approach was taken by Teddy Cruz, who maintained a hands-on, can-do, agitprop position to slums, involving the kind of *direct participatory* and advocacy

strategies adopted in the late 1960s.

Undoubtedly, the informal sector of the urban economy is, as de Soto has claimed, made up of ingenious entrepreneurs and represents a valuable and necessary part of the economy. But, as Mexican architect and former president of the International Union of Architects Sara Topelson pointed out, most of the population living in the outlying slums have neither the time nor money to be able to return to their own dwellings during the week and often sleep with family or friends in the city, going home only for weekends. Is benign neglect the solution? Will it remove people outside of the mainstream economy from a vicious cycle of exclusion? Will it curb the polarization of Mexico City between rich and poor? Will it create a nascent middle class? Harvard University law professor Gerald Frug remarked that although there are economic benefits to be drawn from the work of this population, it is comprised of extremely vulnerable people without basic legal and human rights, not to mention medical care and social security. The answer undoubtedly lies in the arguments of Altmann and others who favor an integrated approach, bringing together top-down and bottom-up strategies.

In her closing statement, Burden declared that Mexico City had taught her a basic truth: how difficult it is to redress the situation after years of unsustainable growth. Hopefully, it will have had the opposite, constructive effect on perhaps the most significant attendee at the Urban Age conference, Marcelo Ebrard, a politician who is widely expected to win this summer’s mayoral election in Mexico City.

**Liane Lefavre is chair of architectural history and theory at the University of Applied Arts in Vienna.**

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## CALATRAVA CITY

Valencia's native son transforms his hometown with the help of some other heavy hitters. by Edward Keegan

The Turia River once linked Valencia's historic core with the Mediterranean Sea six miles to the east, but periodic flooding made it a less than ideal asset. After a devastating 1957 flood, the waterway was diverted to inoculate the city from nature's wrath. But it wasn't until the 1980s—several years after the end of Franco's reign—that the dried up riverbed was transformed into the Turia Gardens, a vast urban park designed by Spanish architect Ricardo Bofill.

While Valencia has lost some industry in recent years, its status as a major port remains intact due to the region's fertile agricultural lands. Native son Santiago Calatrava, who lived there until he was 23, has been a key figure in the city's renaissance as the designer of the City of Arts and Sciences,

located at the end of the Turia riverbed. Other high-profile architects have been added to the roster, however, as Spain's third largest urban center prepares to host the 32nd America's Cup in 2007.

Begun in 1991, and completed in stages, starting with an eyeball-shaped planetarium in 1998, the City of Arts and Sciences—rendered in white concrete, steel, glass, and ceramic tile—has spurred significant development to the east of the old city center. “You have to step back into the Gothic time in order to see a project in Valencia that has survived continuously during fifteen years,” notes Calatrava, who has worked for four different municipal governments and six project directors over the course of the complex's development.



In each of his four buildings on the 3.8-million-square-foot site, Calatrava deployed his structurally expressive vocabulary in different ways. With its spherical IMAX theater, the planetarium sits in the middle of a large reflecting pool and features immense hydraulically powered glass walls that open and close. The 790-foot-long science museum looks like a prehistoric creature whose progeny might be found in the museum's exhibitions. The final major piece, completed last fall, is the helmet-shaped Palace of the Arts with three performance spaces located under its extravagantly cantilevered prow roof.

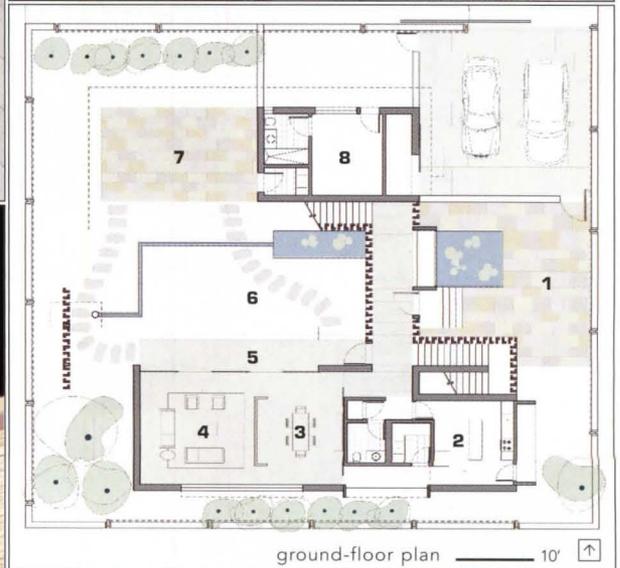
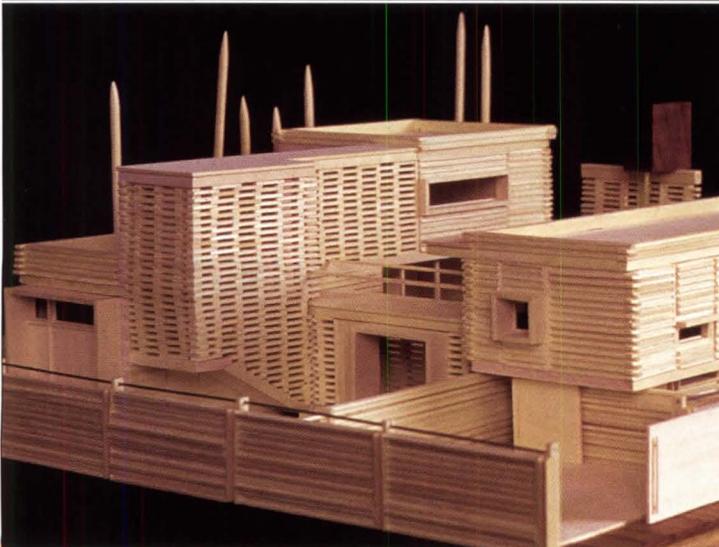
But it's on the south edge of the complex, where the riverbank meets the city's fabric, that Calatrava has provided his most compelling urban space: a soaring arched screen dubbed L'Umbracle (shade) that buffers the main portion of the complex from a busy avenue. The structure is a contemporary variation on Antoni Gaudí's Park Güell in Barcelona that doubles as a grand civic space for strolling and a carefully concealed parking garage.

While Valencia may have relied too heavily on its most celebrated native designer, work done by other luminaries has added to the city's luster. Norman Foster completed the Valencia Congress Centre in 1998, and Felix Candela's L'Oceanografic, an aquarium located within the City of Arts and Sciences, opened in 2003. SANAA is presently adding to the Valencian Institute of Modern Art with a perforated metal skin that will sheath an entire city block, including the institution's existing building.

Next year, Valencia will become the first European city to host the America's Cup in more than a 150 years. Designed with Barcelona's b720 Architects, David Chipperfield's pavilion for the event, now under construction, is one of a series of structures around the inner harbor meant to transform the area and better connect it to the city center.

While Calatrava's presence is momentarily overbearing, other projects underway in Valencia will provide the city with a more heterogeneous identity. ■■■

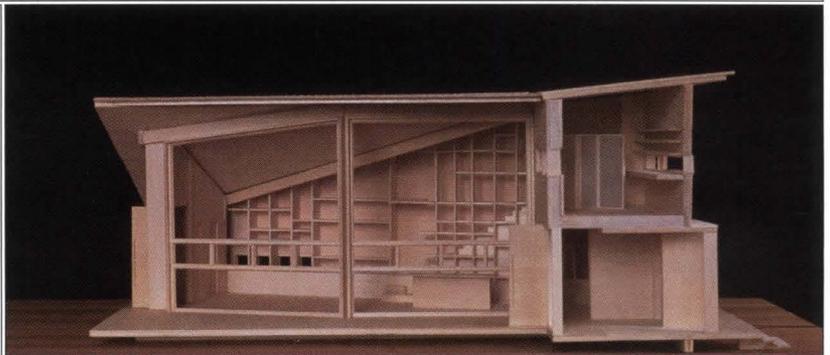
Slated to begin construction in the fall, this residential compound for three generations of a South Indian family is situated in a suburb of Chennai, India, a coastal city on the Bay of Bengal where residents are slowly rebuilding after the 2004 Tsunami. Inspired by the clients' fascination with shadow patterns, the porous scheme weaves textures and plays of light with sensitivity. A continuous water channel links a series of courtyards and gardens fitted around the primary volumes. These elements are interspersed with airy walkways and stairs enclosed in permeable brick walls that permit natural ventilation and sunlight to filter in. Designed to meet a budget of \$120,000, the 2,980-square-foot project utilizes recycled materials such as the concrete utility poles bought as scrap from a local electricity board that are stacked to mark boundary walls. Due to the irregular sizes of the poles, concrete surfaces are slightly offset, providing an opportunity for moss growth, which is supported by the humid climate. Meanwhile, salvaged porcelain tiles cover the roof terraces and balconies to deflect the sun's heat. Due to an unreliable municipal water supply, residents of Chennai must maintain their own water storage tanks. Playing off of the shadow pattern theme, the New Delhi- and Austin-based architects Pankaj Vir Gupta and Christine Mueller Gupta perched a water tank on a western garden wall, from which it casts a sundial shadow on the main courtyard.



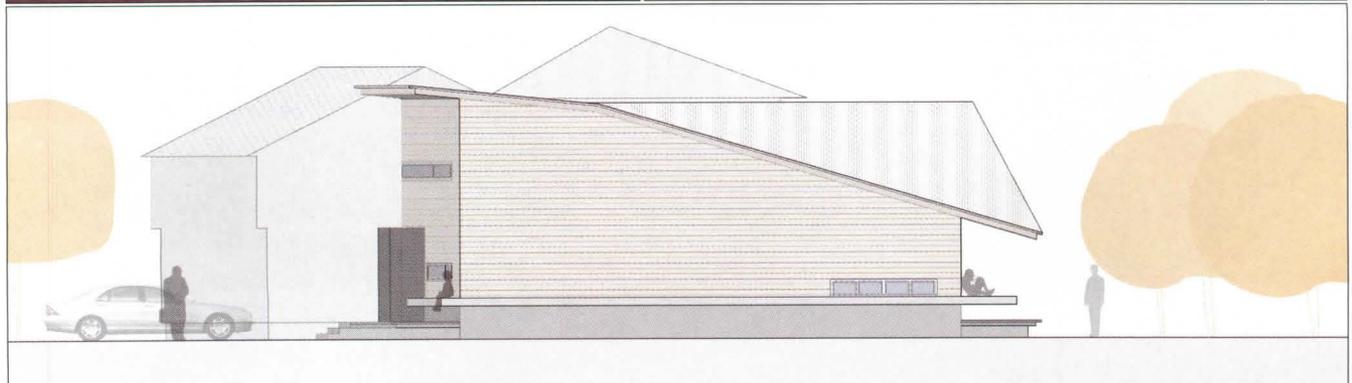
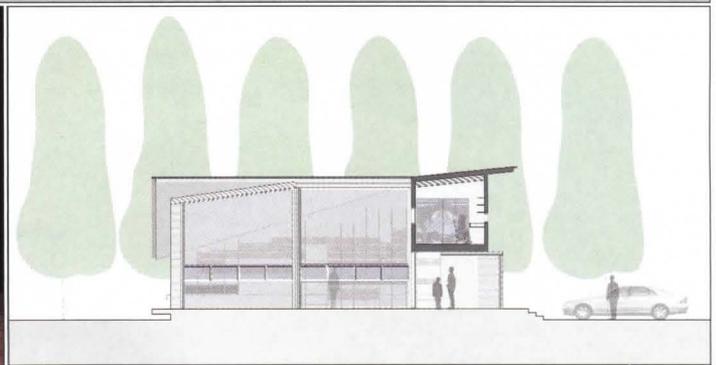
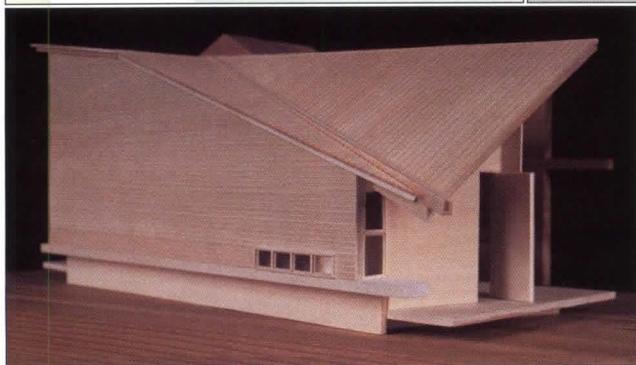
- |               |                   |
|---------------|-------------------|
| 1 entry court | 5 terrace         |
| 2 kitchen     | 6 garden          |
| 3 dining area | 7 covered terrace |
| 4 living room | 8 staff quarters  |

➔ VIR MUELLER ARCHITECTS | LIBRARY FOR PERSIAN MANUSCRIPTS | WELLESLEY, MASSACHUSETTS

The impetus for this 900-square-foot library came when the clients, a pair of Iranian expats living in a quiet suburb of Boston, decided it was time to expose their daughters—now six and nine—to their cultural legacy, in the form of a sizable collection of Persian manuscripts. As the first commission in the United States for Vir Mueller Architects, the project held the peculiar challenge of marrying Middle Eastern heritage with the adjacent 1950s colonial residence. The designers resolved to focus on programmatic requirements. As relative newcomers to New England, the clients wanted to avoid the local custom of snow shoveling in winter, so the architects devised a roof for the library that allows southern light to come in, but also channels rainwater and snowmelt down into a cistern at the rear of the project. The roof height starts at 16 feet and slopes down to eight feet, at which point occupants can touch the valley beam that bears the brunt of the roof load. With a modest budget of \$205,000, the building is crafted from simple materials—cast-in-place concrete, exposed Glulam framing, insulated glass, polished concrete floors, and metal siding and roofing. While intended for semipublic use with access to visiting scholars, the building’s scale maintains a sensitivity to children. Cantilevered concrete benches beneath the eaves provide a sheltered outdoor area where the daughters can watch rainwater cascade off the roof. Completion is scheduled for August.



- 1 main house
- 2 breakfast area
- 3 library/study table
- 4 bookshelf
- 5 stair
- 6 gathering area



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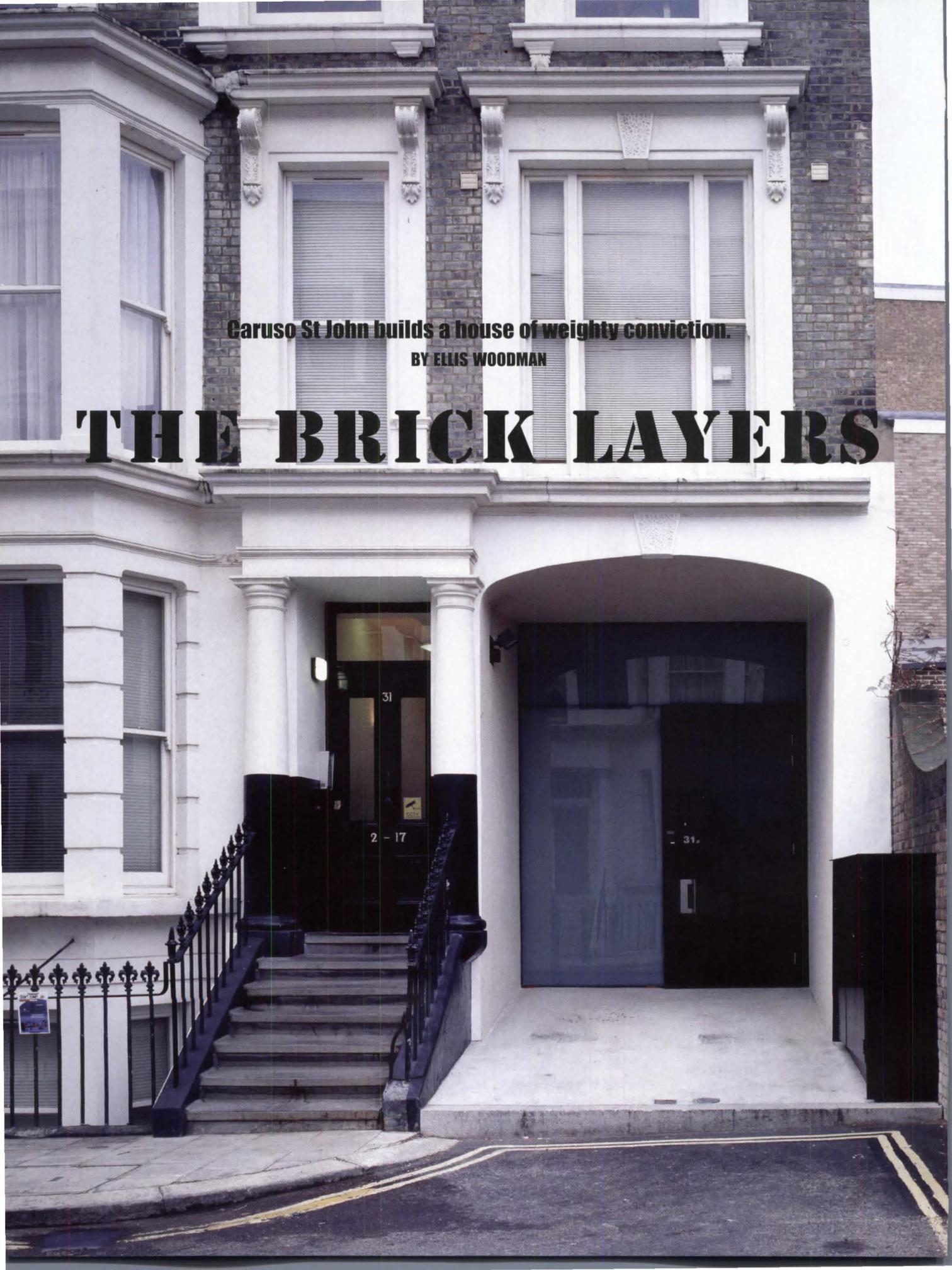
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## On Solid Ground

Transparency. Temporality. Lightness. These are paramount in current efforts to accommodate and reflect the fleeting aspects of contemporary life. Weight. Solidity. Depth. These are seemingly bygone desires—but not for everyone. British architects Adam Caruso and Peter St John embraced the latter three attributes in their design of Brick House, a remarkable dwelling rendered in concrete and brick on an irregular site within a row of West London townhouses. Here, the domestic realm is an internalized entity, its thickened planes offering refuge from the public sphere. “In an age . . . when everything is meant to be ephemeral,” says Caruso, “putting care . . . into construction offers an implicit critique.” Indeed. ■



**Caruso St John builds a house of weighty conviction.**

**BY ELLIS WOODMAN**

# **THE BRICK LAYERS**



Brick House's entrance, tucked into the porte-cochere of the neighboring townhouse (facing page), gives only a subtle clue to passersby of the new dwelling's unconventional character. Residents of adjacent properties have a fuller sense of how Caruso St John slipped the 4,000-square-foot house into the irregular site (above).

The work of the young British firm Caruso St John Architects is distinguished by an interest in the potential of construction to embody thought and to make spaces of extraordinary character. In the commission for a new house in London, they have enjoyed an unprecedented degree of license to explore those concerns free of many of the budgetary and cultural restrictions that ordinarily determine how buildings are made.

This is a house conceived on a very grand scale—a fact reflected in the length of time it has taken to realize. The journey from the architects' first meetings with their clients to the house's completion has spanned a full six years. A year and a half of that period was taken up by the search for a suitable site. The clients' initial aim was to find a central London plot that would allow the construction of a 4,000-square-foot dwelling on one level. This proved too tall an order. However, in the heart of Edwardian West London they did find a site—then occupied by a garage—which would give them the space they were seeking over two stories. The only problem was that it sat deep within its block, accessible only by a narrow alley and hemmed in by other properties on all sides.

From the street the house is barely evident at all. The new entrance unobtrusively closes the porte-cochere of a mansion block. Passing through, one discovers a ramped passage of a breadth, height, and materiality that could comfortably accommodate a rider on horseback. The main living area is situated off-axis from this approach, opening up to one's right-hand side when the top of the ramp is reached. It is an epic space that unquestionably represents a challenge to received notions of domesticity. The wall surfaces, which follow the found lines of the site boundary, are proudly exposed in an unfinished blond brick. The same material is applied to the floor save for a carpet of concrete that lightly describes a kitchen area. The kitchen units—robustly detailed in black-stained spruce—occupy one entire wall surface, while a stand-alone worktable cuts a positively altar-like presence. This curious association is reinforced by the treatment of the ceiling. Comprising a series of faceted concrete planes, it reads as a distorted dome, rising to nearly 16-1/2 feet in height at its apex. The wilfully gawky geometry of this vault is rendered stranger still by two further distortions: First, three deep skylights have been incised into its surface—each associated with the collision of two or more planes. Second, at the far end of the room, the roof has been punched downward—with cheerful disregard for any structural logic—to create a level ceiling over the dining area. This more intimate territory is further distinguished from the adjacent space by its association with the only area of vertical

glazing. Running floor to ceiling and serving as one whole wall, the window offers plentiful light, although other buildings quickly curtail the view out.

Readers concerned by the demands that such a space might impose on family life may be comforted to learn that a more conventionally scaled living area has also been provided on this level. Identified on the plans as a study, it doubles as a television room for the clients and their young children. In the sleeping quarters on the lower floor, however, further concessions to domestic norms are notably scarce.

In order to bring the house's overall height into an acceptable relationship with the neighbouring properties, this lower floor has been excavated nearly three feet below the original ground level. Access is by way of a toplit staircase, which is found off the entrance ramp. Descending, one discovers that the constructional rigor of the upper floor has been pursued here no less tenaciously. Exposed-brick walls enclose the hall at the foot of the stair, the four bedrooms and their associated bathrooms, and the small courtyards that the bedrooms look onto. With ceiling and floor both in concrete, the effect is certainly more severe than many clients would care for. Nonetheless, the evident attention that has gone into every construction detail has generated a series of undeniably character-filled spaces. All doors, windows, cupboards, and shelving units are fabricated in black-stained timber and run the full eight feet from floor to ceiling. A more delicate scale is introduced by the custom lighting system, which comprises a number of branchlike assemblies fabricated from stainless steel tubing and mounted flat against the ceiling. The "bud" of each branch is a light bulb set within a ceramic fitting.

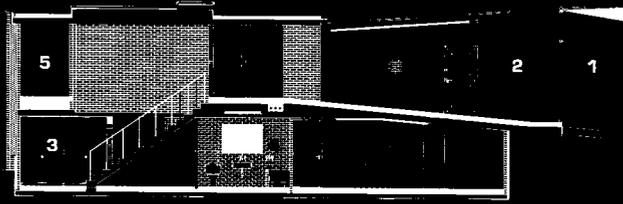
As rarefied an act of patronage as the house may be, for partner Adam Caruso the project still retains an engagement with the outside world. "In an age of globalization, an age when everything is meant to be ephemeral and valueless," he says, "putting care and energy into construction offers an implicit critique. It is a critique that comes from within the discipline of architecture—one of endless formal invention, of the culture of demolition, and of disposable construction." His is a vital message, which the Brick House ably delivers. The main challenge now faced by the architects is to secure a public commission that will enable them to communicate those principles with undiminished conviction.

**Ellis Woodman is an architect and writer living in London. He is architecture critic for *Building Design*.**

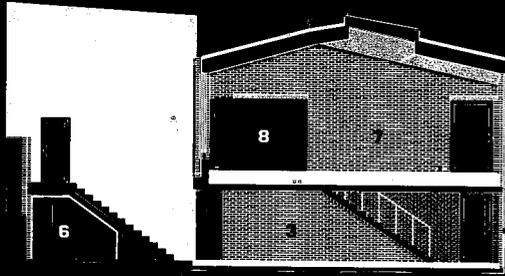


The entrance hall (above), characterized by a concrete ramp, occupies the carriageway of an adjacent Victorian residence. Concrete carries into the living and dining areas (facing page), where it serves as both floor and ceiling, the latter a faceted landscape interrupted by deeply incised skylights.

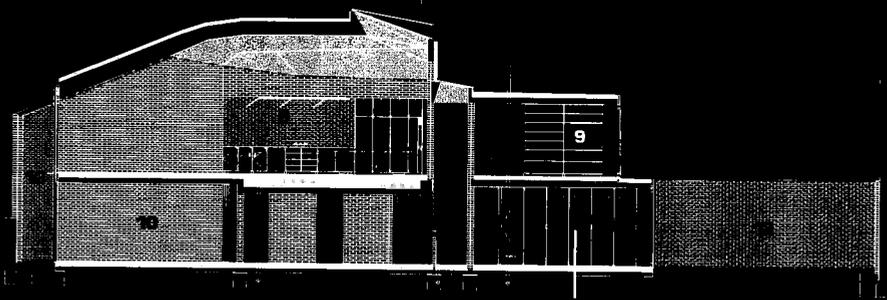




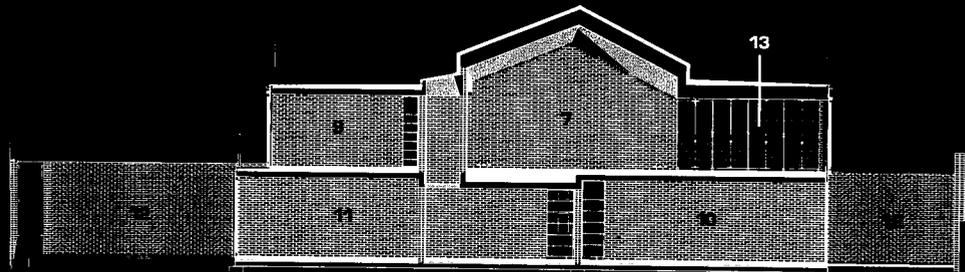
section through main stair



section through external stair



11 west-east section



east-west section 12'

- 1 entrance
- 2 ramp
- 3 hall
- 4 master bathroom
- 5 route to study

- 6 external stair
- 7 living area
- 8 kitchen
- 9 study
- 10 bedroom

- 11 master bedroom
- 12 courtyard
- 13 dining room





upper floor plan



lower floor plan ——— 12' 

- |                  |                |             |
|------------------|----------------|-------------|
| 1 courtyard      | 6 plant        | 11 kitchen  |
| 2 master bedroom | 7 balcony      | 12 ramp     |
| 3 hall           | 8 study        | 13 entrance |
| 4 bedroom        | 9 living area  |             |
| 5 utility        | 10 dining area |             |





- 1 roof trim
- 2 insulating lining board
- 3 aluminum gutter and downpipe
- 4 reinforced structural concrete slab
- 5 channel cast into concrete
- 6 vapor control layer
- 7 fully adhered single-ply membrane
- 8 4-inch-thick rigid insulation
- 9 6-inch semi-rigid batts
- 10 mushroom clip
- 11 preformed cavity tray
- 12 weep holes
- 13 laquered solid section softwood frame
- 14 argon filled double-glazed unit
- 15 3-1/2-inch-thick cement flowing screed
- 16 2-inch-thick rigid insulation
- 17 7-1/4-inch-thick reinforced concrete slab
- 18 4-inch-thick concrete screed
- 19 2 layers 1-1/2-inch thick floor insulation
- 20 6-inch-thick reinforced concrete slab
- 21 sheetsteel
- 22 flexible waterproofing membrane
- 23 mass concrete foundation

**Brick House, London**

**architect:** Caruso St John, London—Adam Caruso, Peter St John (partners); Rod Heyes (project architect); Lorenzo de Chiffre, James Payne, Tim Collett (project team) **engineers:** Price & Myers (structural); Mendick Waring (M/E/P) **consultant:** Jackson Coles (cost) **contractor:** Harris Calnan **subcontractor:** Valley Joinery (woodwork) **area:** 4,000 square feet **cost:** withheld

wall section at kitchen



# OF RITUALS AND LIGHT

Ada Karmi-Melamede Architects brings delicate detailing to a new university synagogue on a campus in Israel.

BY DANIEL AZERRAD | PHOTOGRAPHS BY ARDON BAR-HAMA

**Judaism is a religion of ceremonies**, a belief system that finds expression in everyday rituals. So when architects have an opportunity to design a synagogue, they find new interpretations of Jewish law and ceremony in order to simultaneously express a sense of community and create an unmediated and individual dialogue with God.

Since ancient times, the synagogue has been an integral part of community life, both sacred and secular. Typically situated near a *yeshiva* and the local ritual bathing facilities (*mikve*), the synagogue has historically fit seamlessly within the urban fabric, and is rarely separated out as a monolithic icon on a town square, as is often the vernacular in other religions.

These precedents informed Israeli architect Ada Karmi-Melamede's process when designing a small synagogue for The Open University campus in the Tel Aviv suburb of Raanana. The university has a new urban campus, also designed by Karmi-Melamede, which encloses an internal courtyard with an exposed concrete portico emphasizing the public realm. By implanting the synagogue at the heart of the campus, Karmi-Melamede created an intimate connection between the realms of the sacred and that of knowledge (the adjacent library). This was achieved by running the outer skin of the library, a stone wall, beyond that building's footprint to also envelop the wedge-shaped concrete synagogue. A small patio was created between both structures, constituting a meeting point between those who come to pray and to learn.

On entering the synagogue lobby, one is greeted by an exposed concrete wall leading to the main sanctuary, while a beautifully detailed staircase rises to the mezzanine, where women sit. Circular movement characterizes many Jewish ceremonies, such as the Torah procession around the synagogue. In a passage from the profane to the sacred, Karmi-Melamede introduces a space that invites men and women to perform a ceremonial entrance that completes a circle around the Holy Ark at its center. The prayer temple is a closed space illuminated by a skylight, giving the impression that the atmosphere inside is governed by heaven.

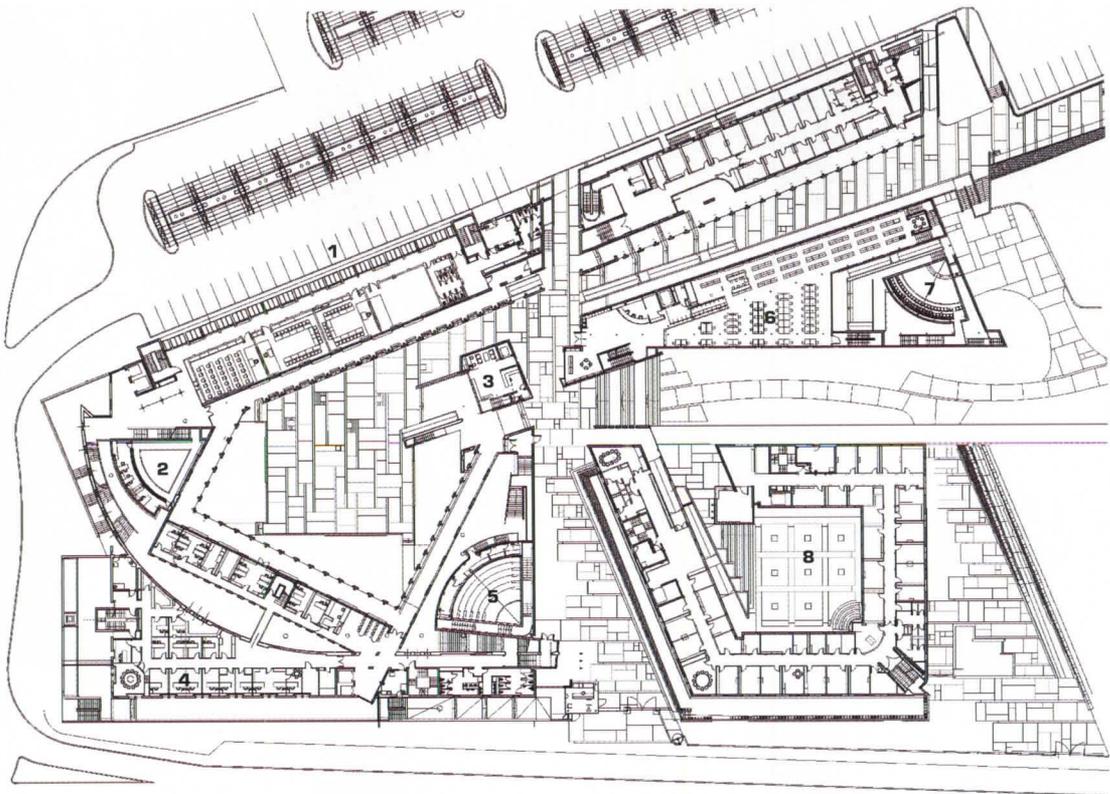
Configured as a large fan, the Ark stands as the synagogue's focal point. It begins as a series of beechwood slats that form a column. These slats continue to the top of the double-height sanctuary, where they fan out to form the ceiling over the auditorium, and finally envelop the rear wall. Far from the outside world, light streams in, creating a continuously changing mood. During summertime, the sun touches the fan's wood slats, marking the white walls with dramatic patterns. On winter days, the sun hits the skylight wall, bathing the space in soft light. Delicate woodwork completes the fan's presence, and defines the desk where the Torah is read, the furniture on the ground level, and the women's gallery above.

Karmi-Melamede's work recalls the great masters of modern architecture, with allusions to the work of Alvar Aalto in particular. She exhibits, on the one hand, the talent to deal philosophically with a complex university project in a context with no preexisting identity, and on the other hand, a great sensitivity to physical details such as where the worshipper will sit, put down the prayer book, and prepare himself for a spiritual event.

**Daniel Azerrad is a partner at STAV Architects in Tel Aviv. He combines private practice with academic work in Israel and abroad.**

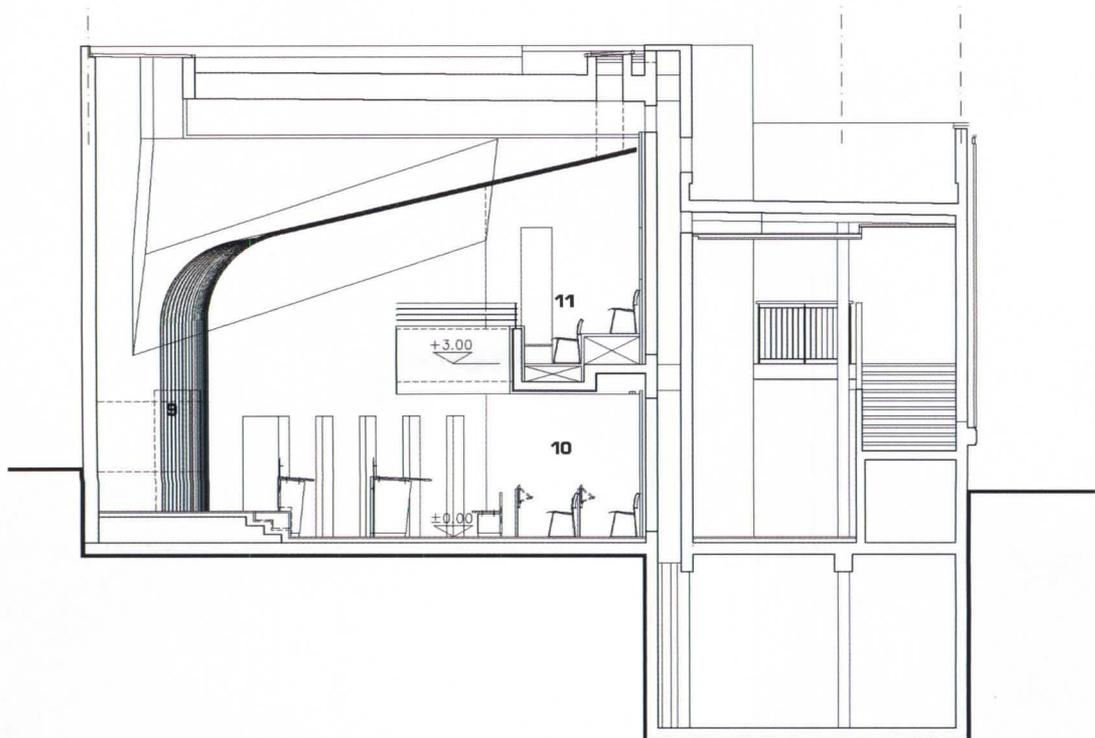




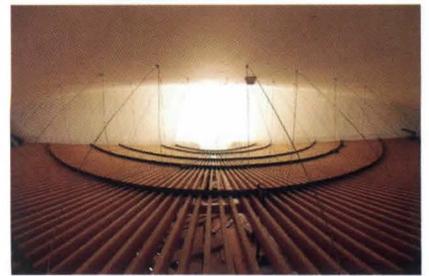


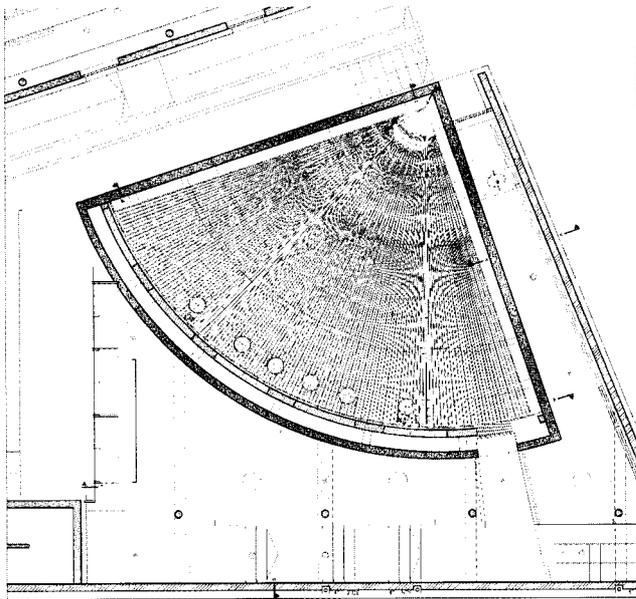
site plan ——— 41' 

- |                      |                   |                    |
|----------------------|-------------------|--------------------|
| 1 parking            | 5 auditorium      | 9 Holy Ark         |
| 2 bookstore          | 6 library         | 10 men's seating   |
| 3 visitor's center   | 7 synagogue       | 11 women's gallery |
| 4 admissions offices | 8 faculty offices |                    |

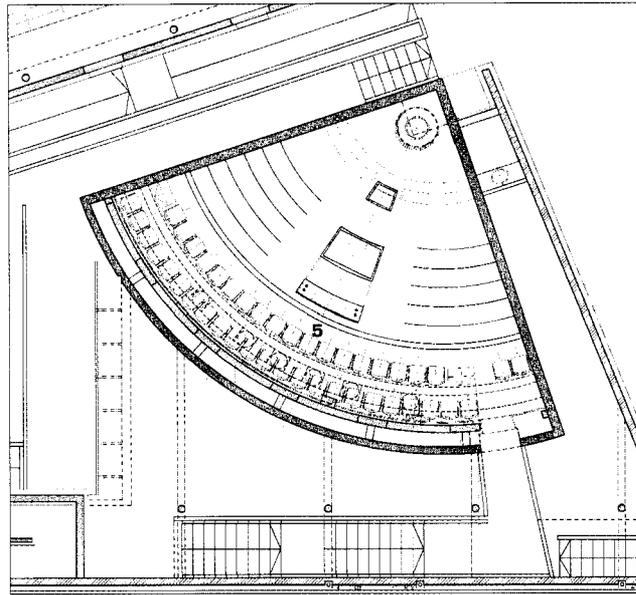


east-west section ——— 4.5'



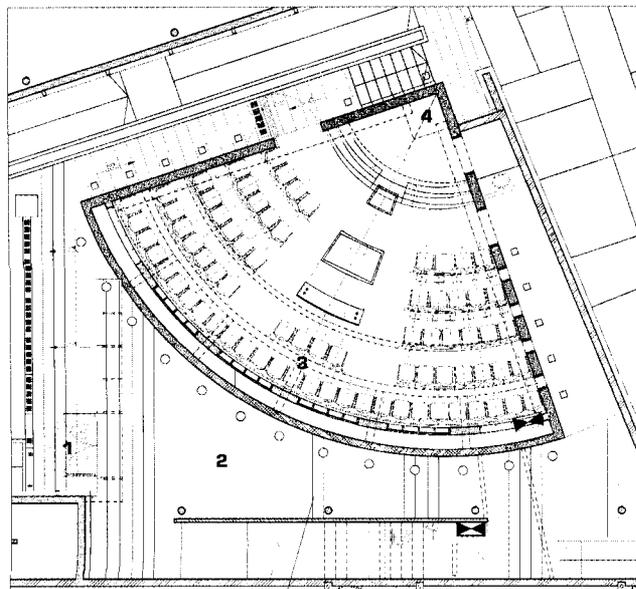


ceiling plan



second-floor plan

- 1 entry
- 2 lobby
- 3 men's seating
- 4 Holy Ark
- 5 women's gallery



ground-floor plan ——— 8' ←



**The Synagogue of The Open University Campus, Raanana, Israel**

**client:** The Open University **architect:** Ada Karmi-Melamede Architects, Tel Aviv, Israel—Ada Karmi-Melamede (principal); Amit Nemlich (project architect) **structural engineer:** Tzahar, Miller, Shnabel **general contractor:** Avi Arenson **subcontractors/suppliers:** Gideon Segal (woodwork); Alumeir (glass façades) **construction manager:** E.D. Rahat Engineering **landscape architect:** Dan Zur & Associates **lighting designer:** Coditel **consultants:** Yossef Landman (aluminum); H.R.V.A.C. (HVAC) **area:** 3,329 square feet



# DISTILLING TIME

**A Toronto photography gallery focuses its lens backward to help define its contemporary mission.**

**BY BETH KAPUSTA**

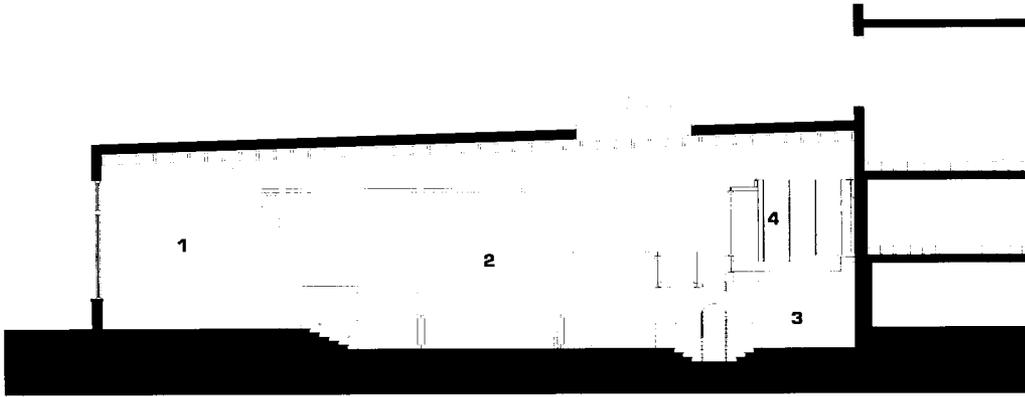
The recent transformation of Toronto's Gooderham and Warts Distillery saw the interiors of several magnificent Victorian industrial buildings open to the public as the 13-acre site was developed into a pedestrian village of arts and entertainment, beginning in 2003. Spaces originally customized for making whiskey attracted galleries, restaurants, and retail to the raw power of their lofty volumes, still intact after more than 150 years of continuous production.

Situated among such enigmatically named edifices as "The Denaturing Room" and "The Cooperage," the Corkin

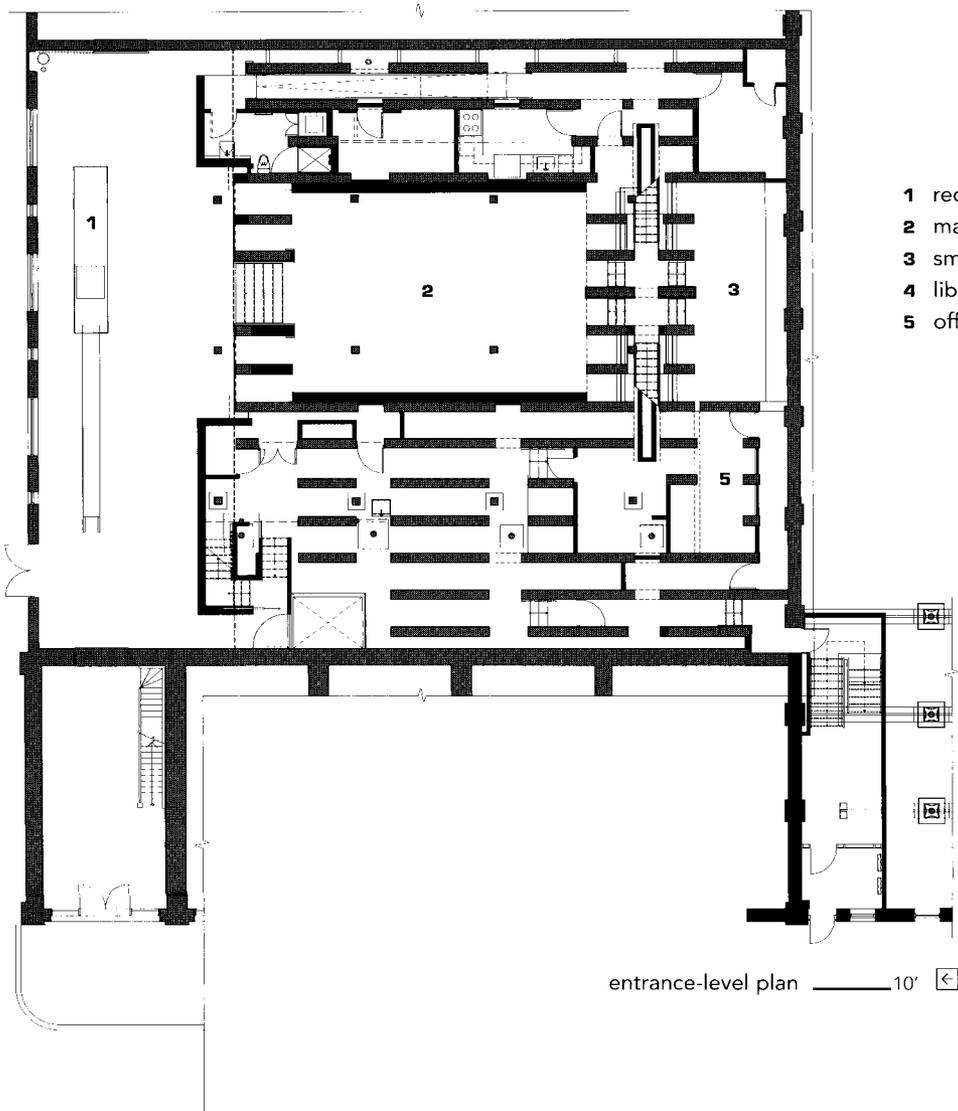
Shopland photography gallery is located inside the "Pure Spirits" building. Although many of the structures went through a brief afterlife as film sets, their industrial character remained largely unchanged, as was the case when Brigitte Shim and Howard Sutcliffe, of Shim-Sutcliffe Architects, first visited the site with their clients, finding a soaring 20-foot-high, skylighted space, its floor a linear honeycomb of brick walls that once supported huge copper distilling barrels. Their renovation of the space imparts the excitement they felt crawling between those brick walls to discover a deeply

THIS PAGE: STEVEN EVANS; FACING PAGE: JAMES DOWY



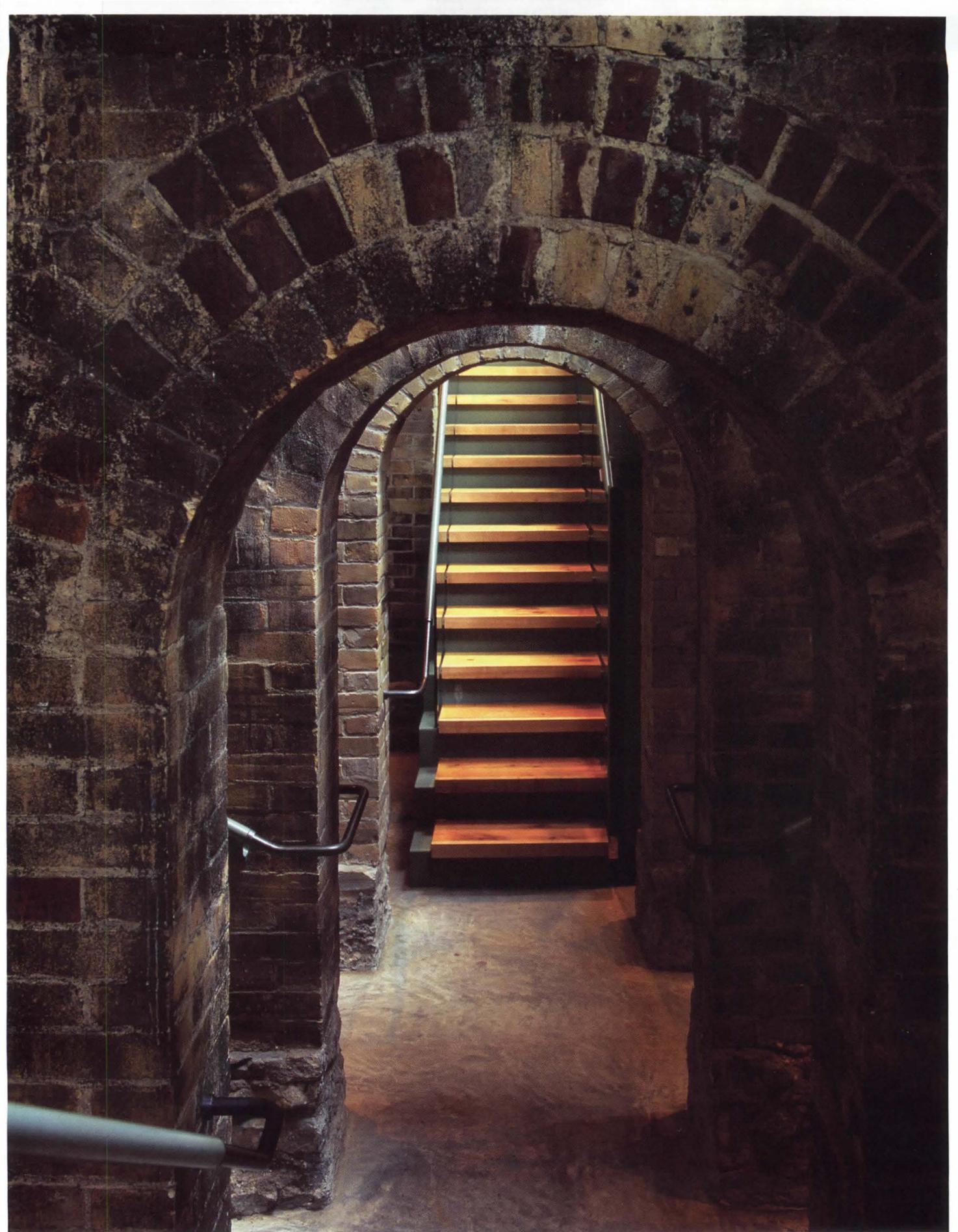


north-south section



- 1 reception
- 2 main gallery
- 3 small works gallery
- 4 library
- 5 office

entrance-level plan 10' ↙



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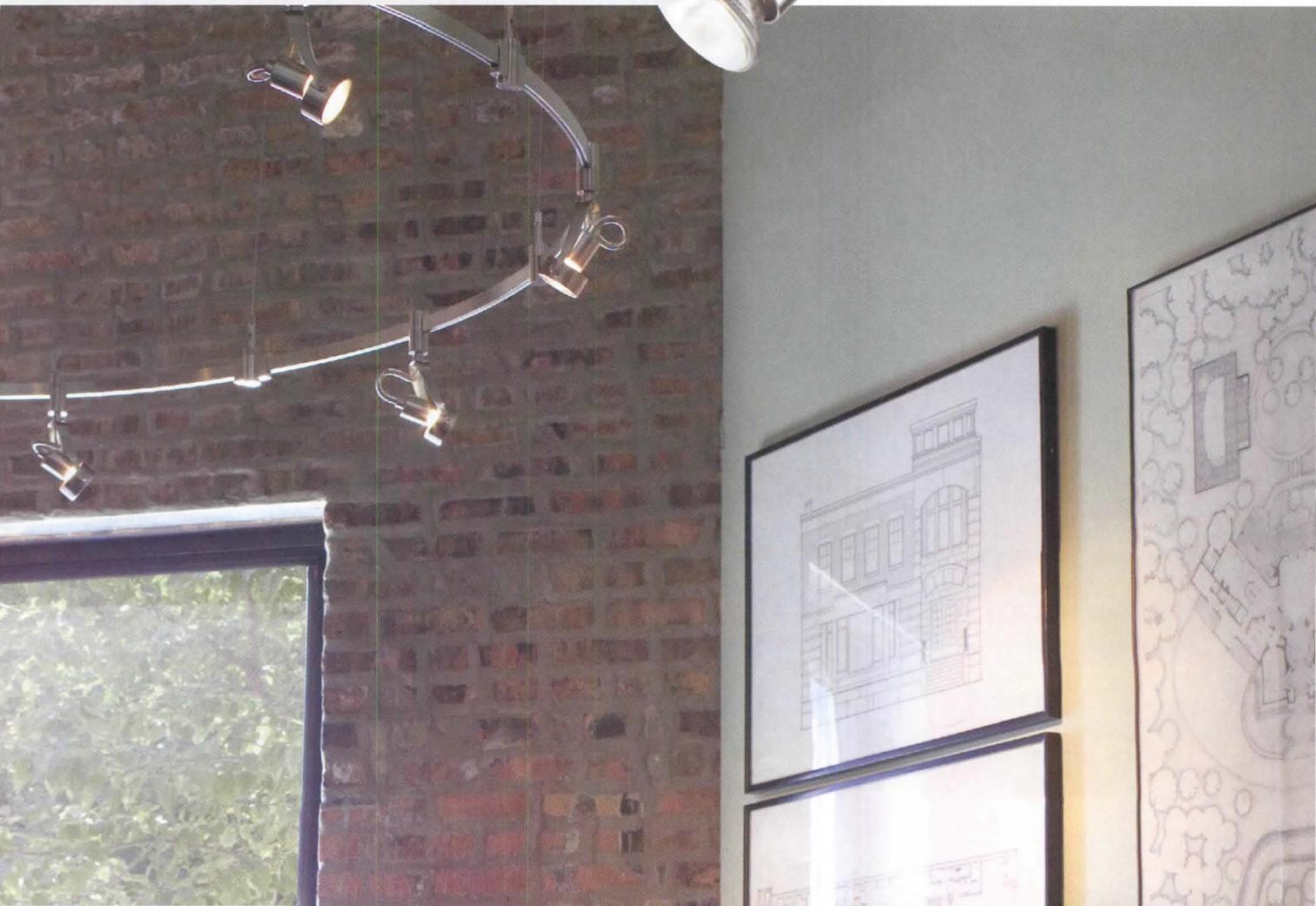


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## DETAILED NEGOTIATIONS

**A dialogue between micro and macro conditions informs the work of a Japanese architect.**

by Hiroshi Naito | photographs by Taku Hata

*In his new monograph, Hiroshi Naito: Innerscape, the Japanese architect ruminates on his own process of shifting from building detail to landscape and back again. The recently completed Shimane Arts Center in Masuda, Japan, offers a case study of this approach.*

Building design ordinarily begins with the development of a concept. On this basis, the building's overall figure takes form, and as a natural extension of this labor, the designer progressively moves toward the finer aspects of the design. At the end of this process await the details. In my own approach to design, however, a detail may come to determine the overall figure of the building, or the treatment of a

detail may sometimes result in a fundamental change in the building's appearance. Throughout the design process I continually shift my attention back and forth between the building as a whole and its details. In many cases, the more often I shift back and forth the more refined the building and its spaces will be. As such, whether simple or complex, the details are what I pour my thoughts and energy into, and I tend to see them as underpinning the most important aspects of a building's design.

We can also see it this way: the building can itself come to mediate between the landscape and the detail, as a terminal for this process of shifting between macro and micro. Thus, the ideal figure of a building as a link between landscape and detail comes into view. At this stage, the building may be able to transcend its concrete existence to attain an existence in a highly abstract dimension—a medium linking man with nature and arbitrating between man's inner realm and the outer world.

Masuda is a core city in Iwami, the westernmost region of Shimane Prefecture. Two rivers flowing into the Japan Sea, the Takatsu and Masuda, form the deltalike area where this city lies. The building site is in the inland portion of this area. A flourishing community until medieval times, Masuda seem-



ingly slept through the centuries that followed. A great period of the community's time has been lost to history. A building was sought that would reflect in its design the city's unrecorded past and its aspirations for the future.

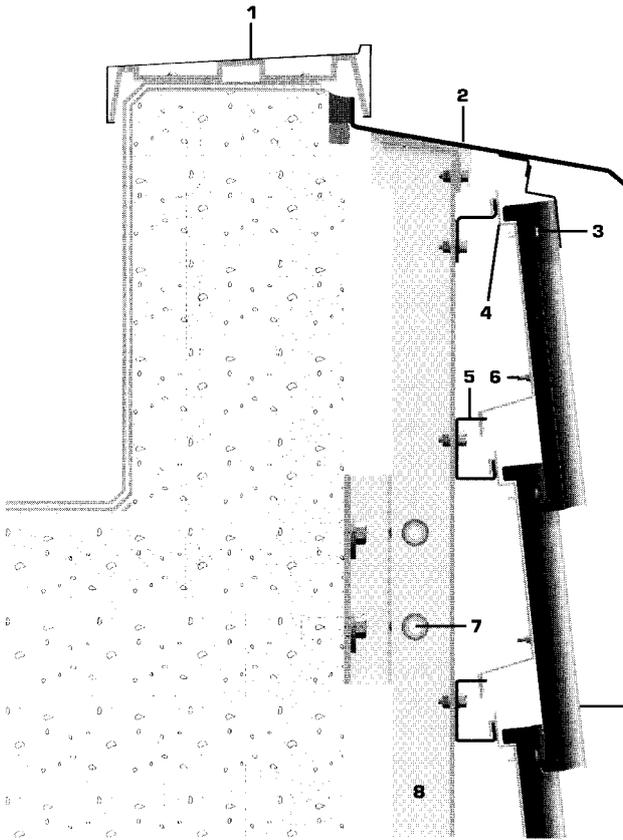
In program, the building houses integrated art museum and theatre functions, employing a complex composition that combines large spaces with minor functions. In order to accommodate these given conditions, we relied on concrete in constructing the building frame. To express the rustic honesty of the Iwami landscape, the concrete was poured using formworks of Japanese cedar planks, so as to texture its surface. Our desire was to introduce the simple warmth of concrete into the interior spaces. In the large hall, reinforced concrete walls of folded platelike form support the building while also producing a superior acoustic environment. In order to pour concrete walls of such complex form, we undertook concrete tests at actual size several times, repeatedly improving the cedar-plank formworks and bar arrangements.

The region is known for its traditionally crafted red Sekishu roofing tiles. The tiles are fired at 1,300 degrees Celcius [2,372 degrees Fahrenheit], so as to produce a tough glasslike coating on their surface, enabling them to resist even the harmful effects of snow. With increasing industrial

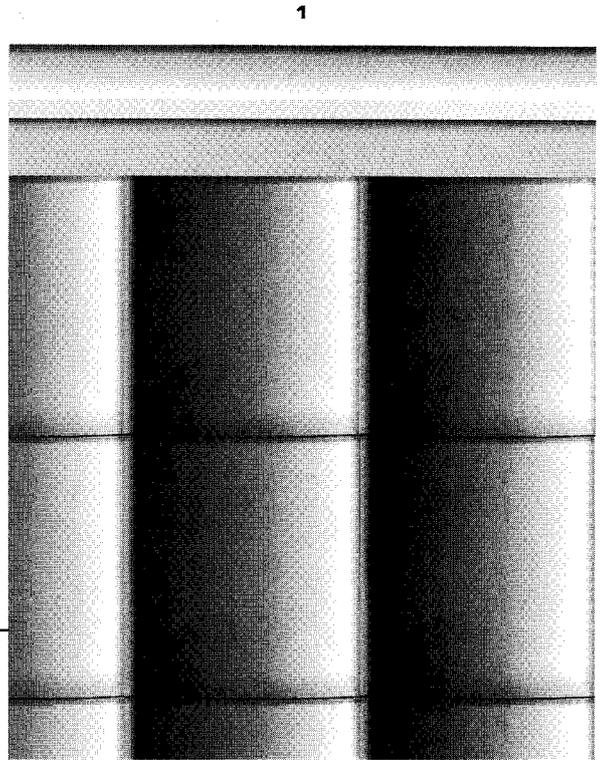
modernization on the Chinese mainland, this region of Japan has become subject to acid rains. Modern building materials are not durable enough to protect a building against these rains, through the long passage of time. Impressed by their durability and high performance, we have employed these red tiles deeply familiar to local people on the outer walls as well as the building roof. This is the first time in the region's long history the tiles have been used on walls.

Distinctive in color and luster, the tiles, through their use on building roofs, produce a basic tone in the landscape of this region. By using them as wall materials, however, we have made more apparent their sparkle and the richness of their color tones—qualities that have gone unnoticed in their use as a roofing material. These qualities have engendered a tile wall of profound expression, unlike anything seen before. Reflecting the color of the sky, the tiles change in appearance with each increment of passing time. We have been able to produce, I feel, architectural expression that is new in character while deeply rooted in the region's history and culture.

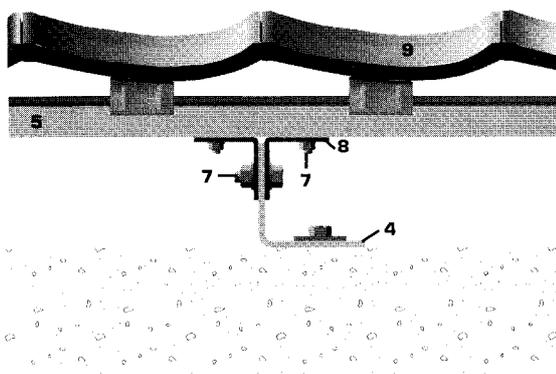
**Text excerpted from *Hiroshi Naito: Innerscape* (Birkhäuser, 2006), with permission from the publisher.**



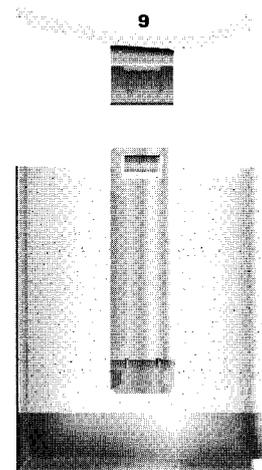
wall tile detail at parapet ——— 3.3”



wall tile and parapet detail



wall tile joint detail ——— 3.3”



wall tile metal fittings detail

1 aluminum coping

2 bent corrosion-resistant plate

3 rivet bolt

4 extruded plate

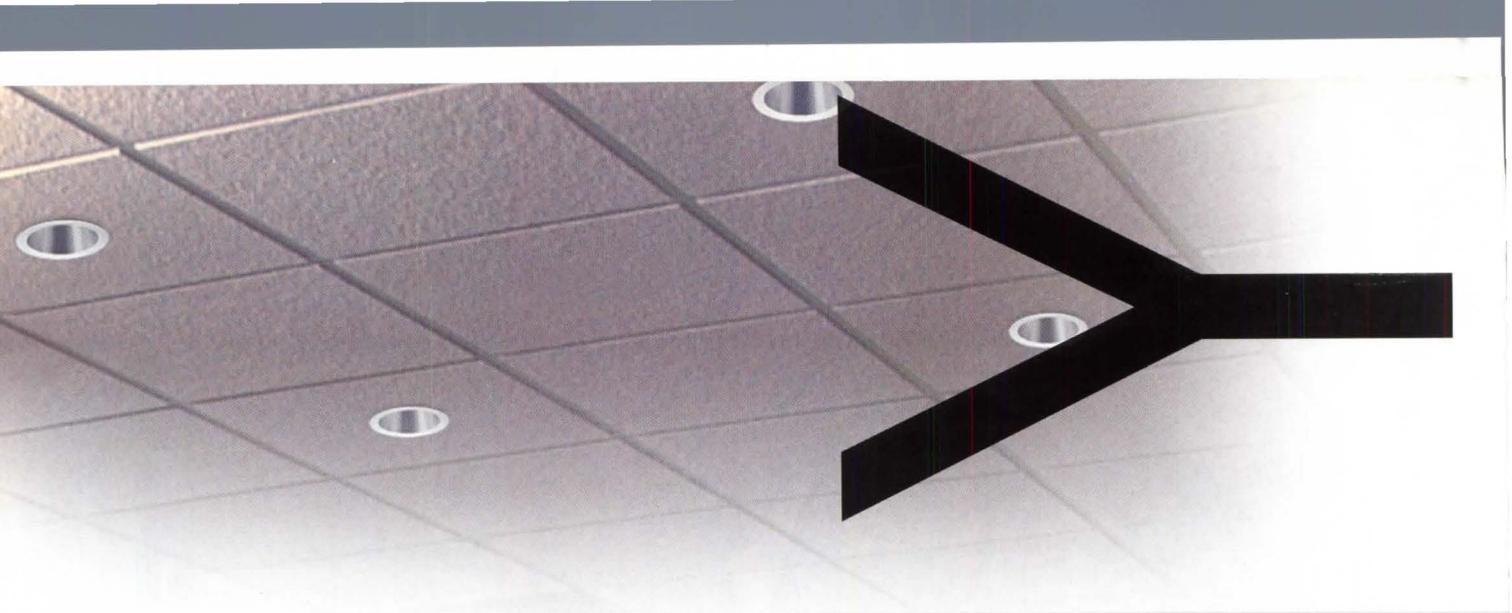
5 lateral furring strips

6 S-rivet

7 stainless steel bolt

8 vertical furring strips

9 clay tile



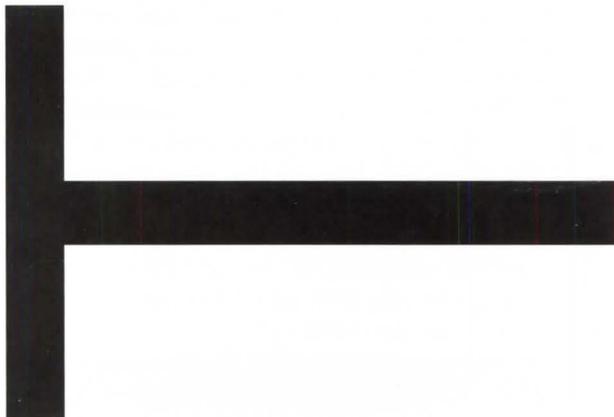
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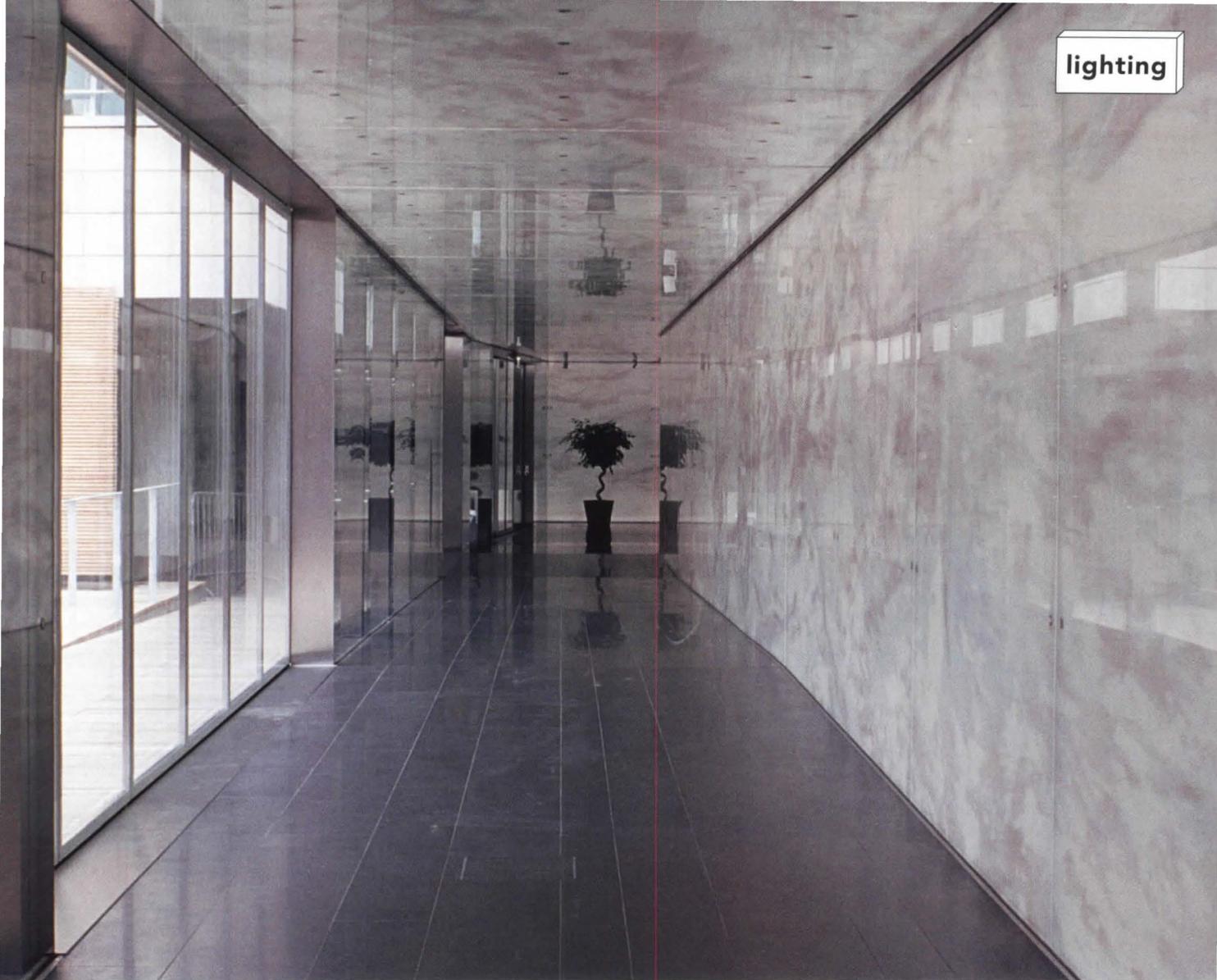


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## LIGHT ON THE WATER

**LED technology and color loops help reinvent Germany's jewelry capital.**

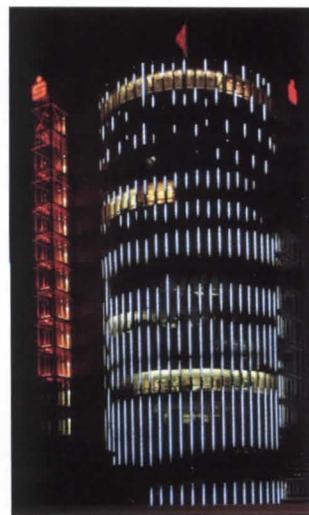
by Aaron Seward | photographs by Dirk Altenkirch

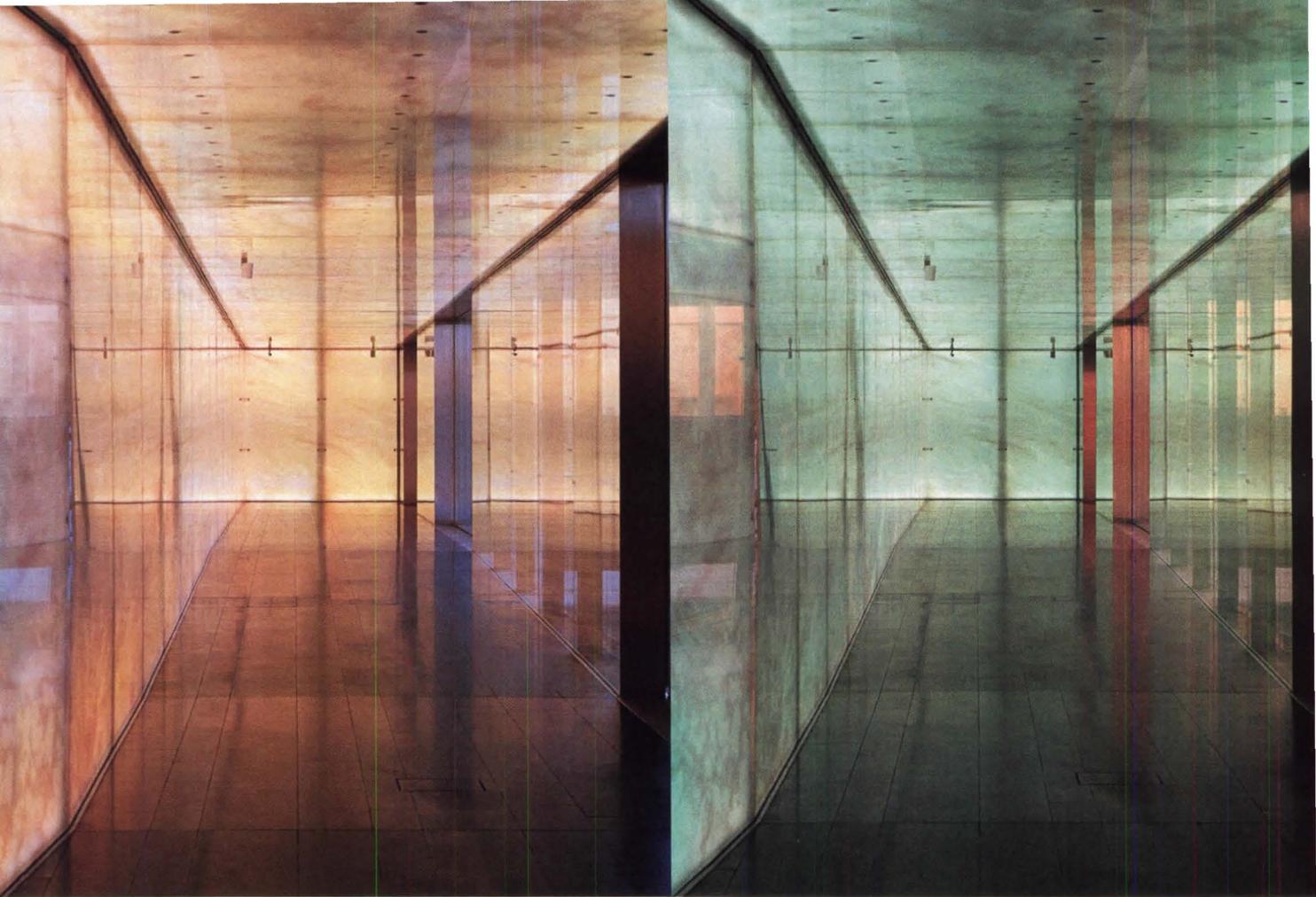
Germany's jewelry capital, Pforzheim, some 100 miles south of Frankfurt, is heir to a restrained, if not downright conservative architectural palette. The most obvious exception is the Sparkasse Pforzheim Calw Tower. At 16 stories, the glass-clad tubular savings bank building, designed by archis Architekten + Ingenieure, is the only high-rise in town. Situated in a courtyard to diminish its presence, the tower nonetheless flaunts its modernity above the low-rise cityscape, and stirred up controversy when it was completed in 2001. But Sparkasse, which owns several other buildings on the block and has been developing the site since the mid-1990s, wasn't cowed by the reaction. When planning the World of Jewelry—an interior bazaar of sorts that wends its

way through the block's perimeter buildings, skirting the tower—the client decided to push the design envelope even further, creating a jewelry museum and retail gallery to match the city's reputation, with a startling street presence to attract visitors.

### COLOR PERFECT

To realize this ambition, Sparkasse called on French light artist Yann Kersalé and Berlin-based lighting designers L-Plan. The team had worked together on the Deutsche Post Tower in Bonn, a 41-story skyscraper whose façade is illuminated at night with colored neon tubes. In that project, the lights alternated every minute—red to blue to yellow—in a continuous preprogrammed loop. The designers took a simi-





When the Sparkasse savings bank in Pforzheim, Germany, set out to create a jewelry museum worthy of its hometown, the client called on French light artist Yann Kersalé and Berlin-based lighting design firm L-Plan. The team, which had worked together previously on the Deutsche Post Tower in Bonn, Germany, employed backlit glass walls with a surface texture that is evocative of flowing water, in reference to the city's three rivers. The ambient glow is generated by LEDs that cycle through a series of colors, morphing seamlessly from ambers to greens to blues.







**In the World of Jewelry—a retail corridor and museum that snakes through the buildings surrounding the Sparkasse tower—LEDs generate colored light.**

lar approach at the World of Jewelry, which opened last year, though with a different articulation. For this project, Kersalé gathered inspiration from the three rivers—the Enz, the Nagold, and the Würm—that converge at the center of Pforzheim. “An integral part of the urban landscape,” says Liane Langhans, an L-Plan project manager, “they are as much a part of Pforzheim’s identity as the jewelry industry, and Kersalé wanted them to be central to the project.”

A backlit wall of safety glass announces the entrance to the World of Jewelry on Museumstraße, at the west end of the site. A water motif coats the glass, designed by Kersalé to create a pattern akin to that of a gently flowing river disturbed by wind. Penetrating light, generated by LEDs, cycles through a

series of colors, one bleeding into the next, like the façade of the Deutsche Post Tower. Different hues represent varying light conditions on water, from dark to pale blues and greens of day and night, to purple, red, and golden colors seen at sunrise and sunset. The wall is set back from the street beneath an overhang. While this gesture seems at first like a concession to the sober surroundings, its purpose is to create enough shadow for the color changes in the glass to be visible during the day.

This treatment of backlit safety glass continues throughout the interior, illuminating some 3,300 square feet of space with approximately 86,000 LEDs: first in the ceiling of the “forum,” a public area with a stage for presentations and jewelry fashion shows; next in the ceiling of the gallery, where a historic jewelry collection is on display; again in the wall and ceiling of a long corridor known as the “light gallery”; and finally in a wall that backs two staircases at the far end of the site. In these spaces, the entire environment takes on the given color. One cycle takes five minutes to complete and a central computer controls the system. Required ambient illumination of 465 foot-candles was met by imbedding approximately 3,000 T5 fluorescent lamps behind the glass with the LEDs, and the visual integrity of the jewelry, locked away in display cases, was ensured with tungsten halogen lamps.

#### CHALLENGES AND SOLUTIONS

“The greatest challenge of this lighting solution,” says Langhans, “was getting everything to fit in a recess depth that was generally under eight inches. That and to achieve a uniform luminescence between color and basic light sources.” LEDs were chosen for their small size and because they are capable of reproducing luminous colors within a precise spectrum without the use of filters. By aligning the LEDs parallel to the glass in places where fluorescent lamps weren’t needed for ambient illumination—such as in the entrance wall, the wall that backs the staircases, and in the light gallery—the designers were able to meet a recess depth of under four inches.

Kersalé’s treatment of the Sparkasse tower makes it clear that he also had something pristine and peaceful in mind for Pforzheim. Fifty-two vertical light axes—outfitted with a total of 13,312 white LEDs with a 6,300K color temperature—were attached in evenly spaced intervals around the entire height of the façade. At night, a sparkling light display runs up and down the tower, inspired by the flashes of light reflected off a rippling body of water. Standing back and watching this building imitate water flow brings Kersalé’s intentions into clearer focus than the kaleidoscopic colors of the interior. The project thereby draws a poetic link between nature and industry. ■

#### World of Jewelry, Sparkasse Tower, Pforzheim, Germany

**client:** Sparkasse Pforzheim, Industriehaus Pforzheim **architect:** archis Architekten + Ingenieure, Karlsruhe, Germany **lighting design:** L-Plan Lichtplanung, Berlin, with Yann Kersalé **light art:** AIK-Expéditions lumière **project manager:** Drees & Sommer

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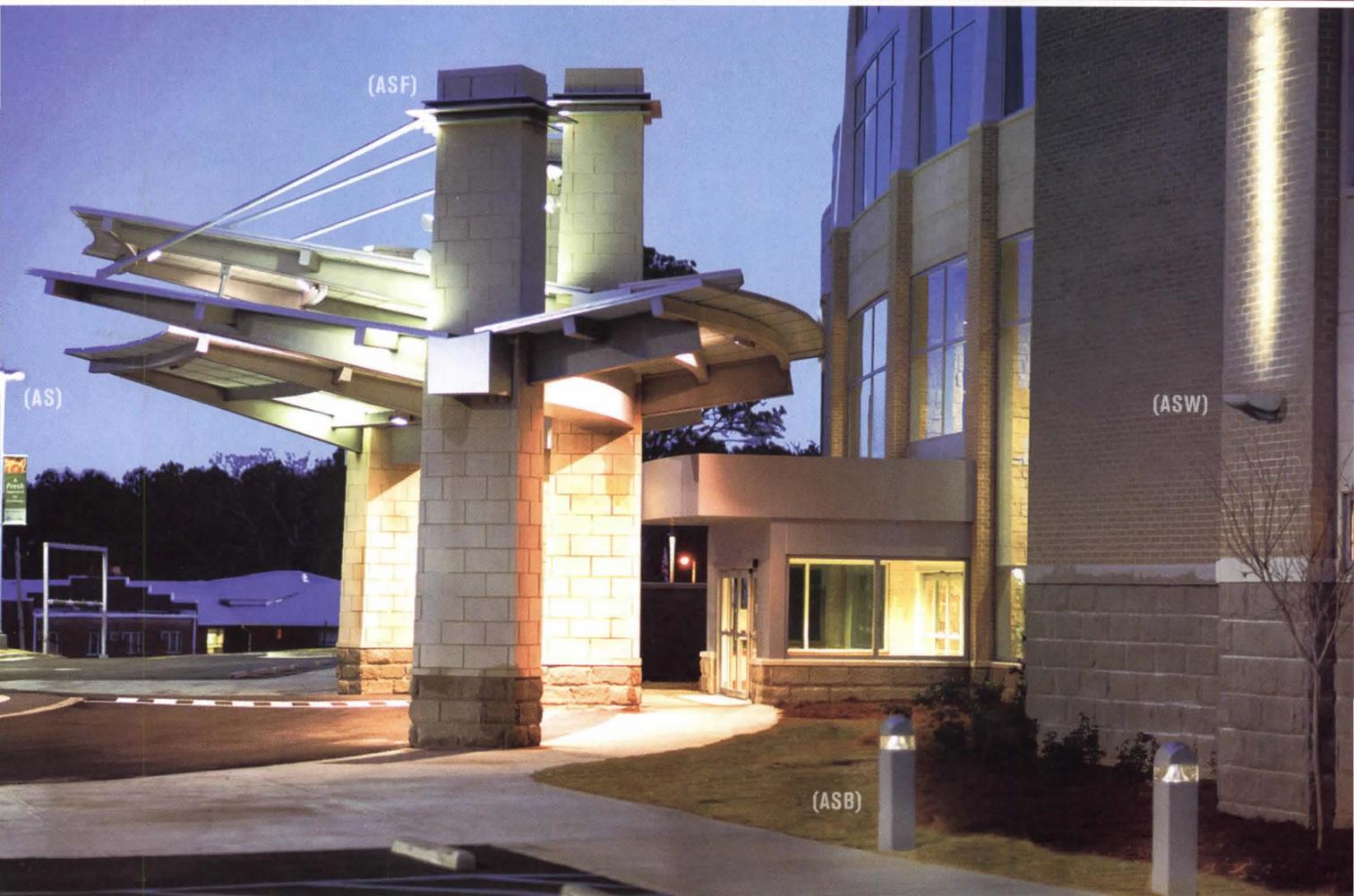
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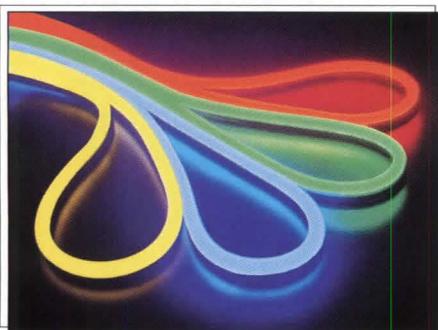
 **LITHONIA LIGHTING**  
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product: **Koshi Sconce**  
 manufacturer: **Axo Light**  
 web: **axolight.it**



Italian designer Manuel Vivan created the Koshi wall sconce with Japanese influences in mind. Offered as part of a collection that also includes pendants of varying shapes and sizes, a surface mounted ceiling fixture, a desktop model, and a floor lamp, the wall sconce is constructed from slim, horizontally oriented bamboo rods. Slender metal columns that reinforce the corners compliment the curves of the blown-glass globe.

product: **LED-ColorFLEX**  
 manufacturer: **Mule Lighting**  
 web: **mulelighting.com**



As an energy efficient and versatile alternative to neon, LED-ColorFLEX is a system of durable UV-protected tubes lined with LED lamps that contain dyes to enhance color brightness in red, blue, green, yellow, and orange. Suitable for both interior and exterior applications, the system gives off minimal heat, and may thus be used in areas where it may come into contact with people.

product: **Watt**  
 manufacturer: **Resolute**  
 web: **resoluteusa.com**

The Watt lighting series offers a pendant, measuring 6-3/4 inches tall, with an 8-inch diameter and a drop of up to 6 feet; a standard ceiling fixture that features the same measurements, but drops only eight inches from its mount; and a standard wall fixture (right), which has an overall height of 10-1/2 inches and a depth of 9 inches. Glass color choices include clear, aqua, chartrreuse, gold, cobalt, and red.

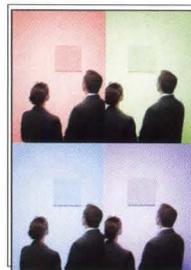


product: **Zoe**  
 manufacturer: **La Murrina**  
 web: **lamurrina.com**



Manufactured by La Murrina—an Italian family-owned-and-operated manufacturer of Murano blown-glass products—the Zoe suspension fixture is a modular lighting piece designed by Sandro Santantonio. Available in a variety of sizes and configurations, with single or multiple tiers, the Zoe is offered in black, red, or white. The single module is 16 inches high and has a diameter of 26 inches.

product: **Color FX**  
 manufacturer: **Entertainment Technology**  
 web: **etdimming.com**



The Color FX cyan-yellow-magenta (CYM) color mixing system employs dichroic glass filters, providing a virtually unlimited spectrum of hues. With a higher output of lumens per watt than typical LED-based color changing fixtures, Color FX boasts a 12,000-hour lamp life and can provide 8,500 lumens of 3,000-degrees-Kelvin white light. Available in a 40-degree downlight and a spread lens wall wash—both in either 120V or 277V—all fixtures are fitted with Lightolier trims.

FOR MORE INFORMATION ON LIGHTING, CIRCLE 123 ON PAGE 105.

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product: **Soffione**  
 manufacturer: **Minital Lux**  
 web: [artedimurano.us](http://artedimurano.us)



Inspired by the limbs of a tree, the Soffione Collection is constructed from metal wire that can be molded by the user into any number of configurations. Available in ceiling mount, wall mount, table and floor lamps, each fixture style is available with a range of bulb quantities in either a copper or chrome finish.

product: **Brookhaven**  
 manufacturer: **Lite Brite Neon Studio**  
 web: [litebriteneon.com](http://litebriteneon.com)



Lite Brite Neon Studio offers the Brookhaven neon chandelier, consisting of 0.30-inch cold cathode tubes that are easily dimmed with existing incandescent dimmers and work off of small electronic power supplies that fit snugly into the canopies of the chandeliers. Measuring 24-by-24-by-35 inches, the chandelier is also available in custom sizes. Whites range from 2,800 to 8,500 degrees Kelvin.

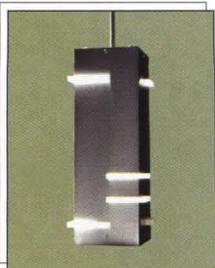
product: **Translucent Daylighting Systems**  
 manufacturer: **Duo-Gard**  
 web: [duo-gard.com](http://duo-gard.com)

Duo-Gard's new translucent daylighting system for commercial and custom residential applications combines multiwall polycarbonates with Nanogel aerogel, an ultra-lightweight insulating material. The "Meditation Room"—designed by the Virginia Tech School of Architecture Team for ABC's "Extreme Makeover: Home



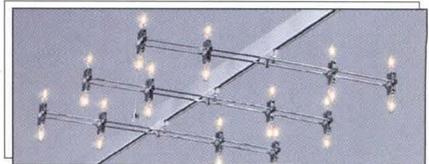
Edition"—integrates exterior and interior walls of 0.80-inch triple-wall polycarbonate in aluminum framing. Translucent Nanogel particles from Cabot Corporation fill the walls to create an R-value of 10 and high quality diffused light of 20 percent.

product: **Piolet Pendant**  
 manufacturer: **eleek**  
 web: [eleekinc.com](http://eleekinc.com)



Named after an ice ax due to its clean, sharp profile, the Piolet Pendant is constructed of brushed stainless steel and glass blocks and measures 7 inches wide, 7 inches deep, and 18 inches high. Offered with 40 watt incandescent or 26 watt fluorescent lamping, and with a voltage of 120-277, the Piolet is ideal for general room lighting, mood lighting, and retail and hospitality applications. Used singly or in multiples, the Piolet is recommended for projects in which a sleek, modern aesthetic is required.

product: **Star/Crown**  
 manufacturer: **LightLight by Buschfeld**  
 web: [inter-lux.com](http://inter-lux.com)



The Star/Crown system luminaire features decorative chandelier elements with chrome finish and exposed low-voltage halogen lamps. The Star system hangs vertically and can be used with ceiling mounted track, while the Crown system is oriented horizontally. Both the Star and Crown systems can be rotated 360 degrees.

FOR MORE INFORMATION ON LIGHTING, CIRCLE 123 ON PAGE 105.

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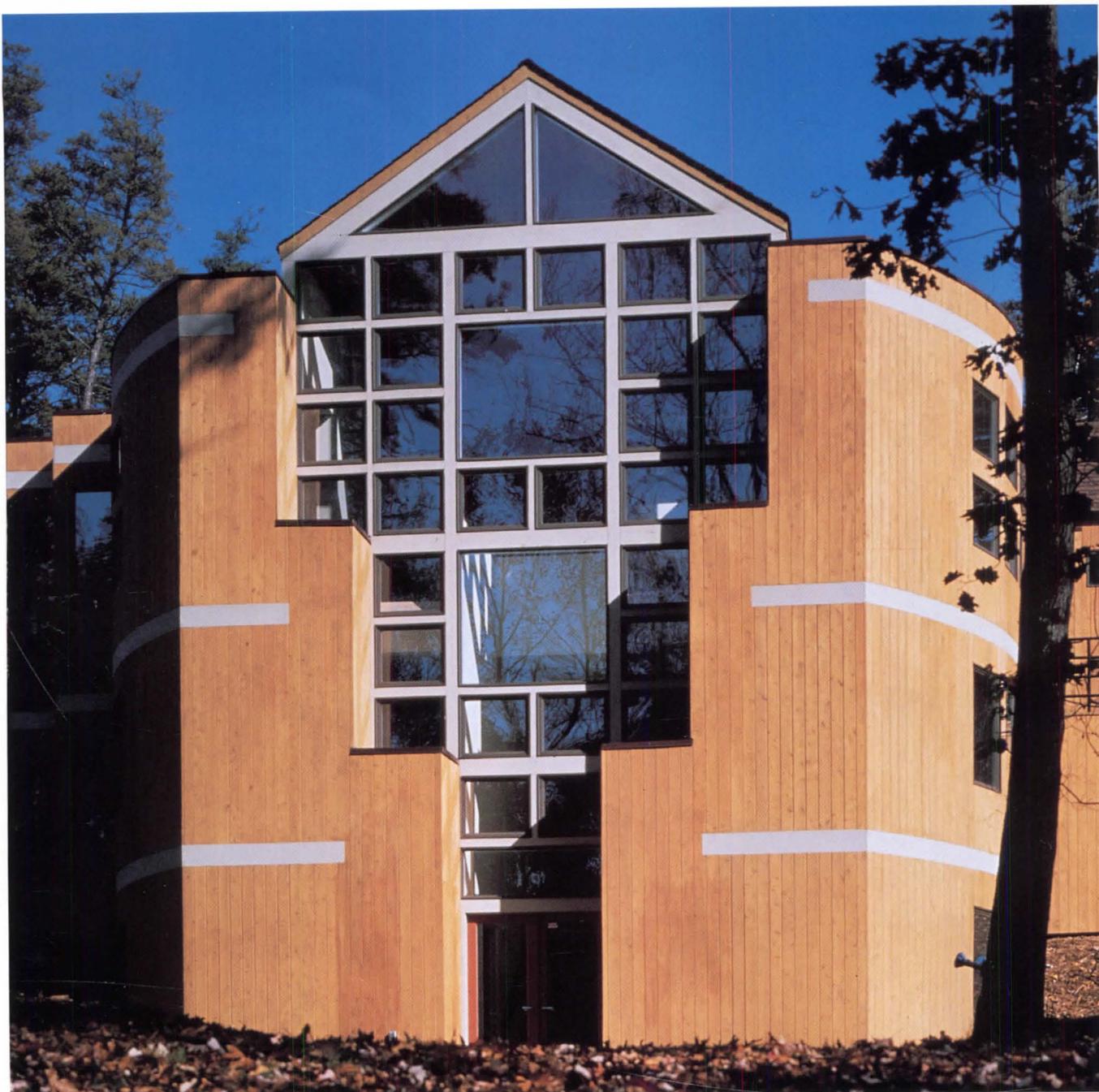
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