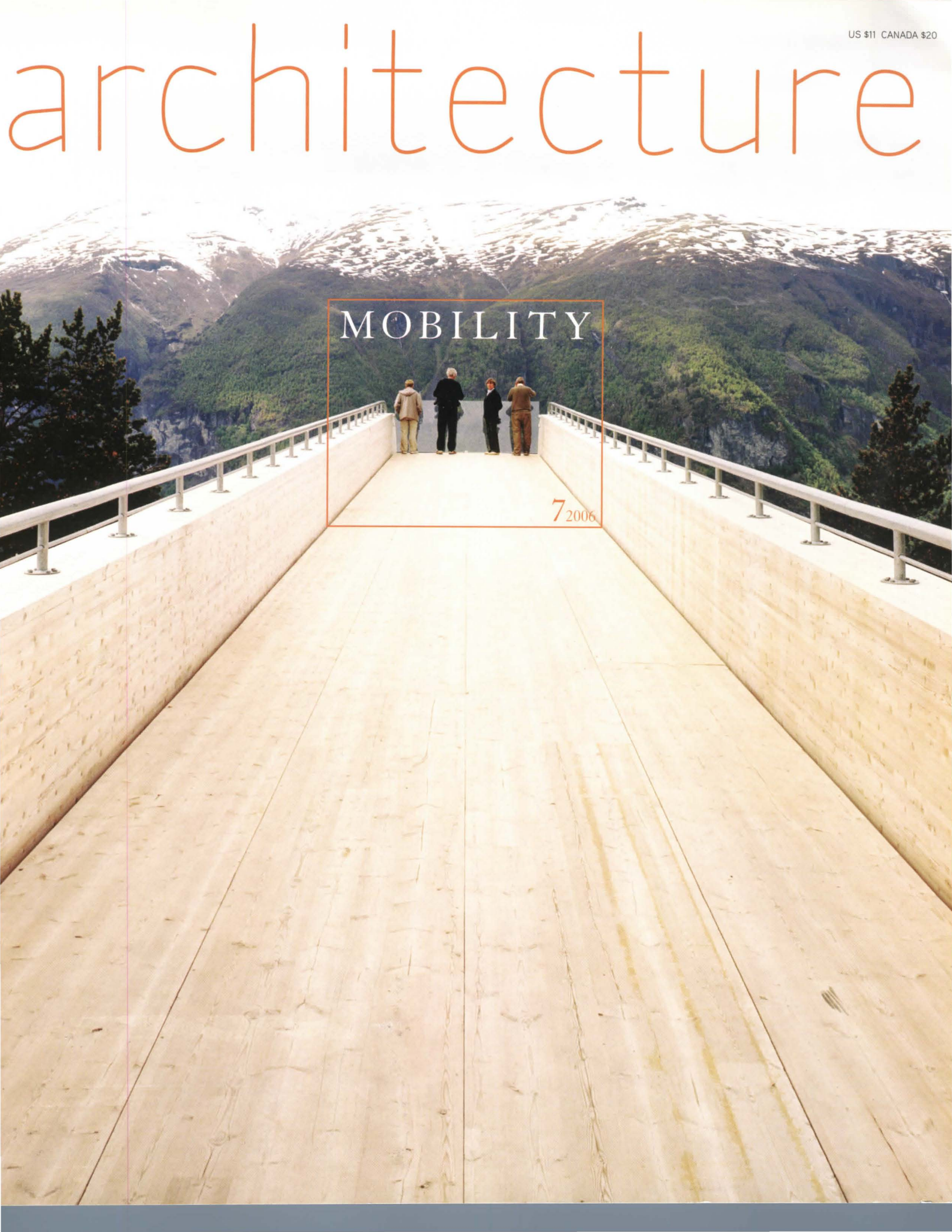


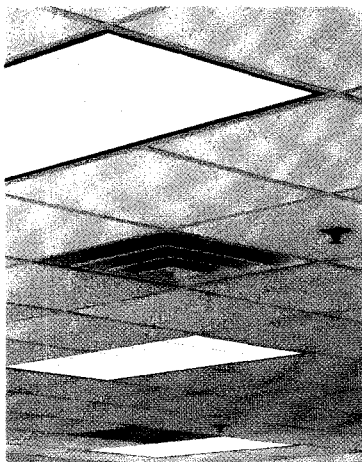
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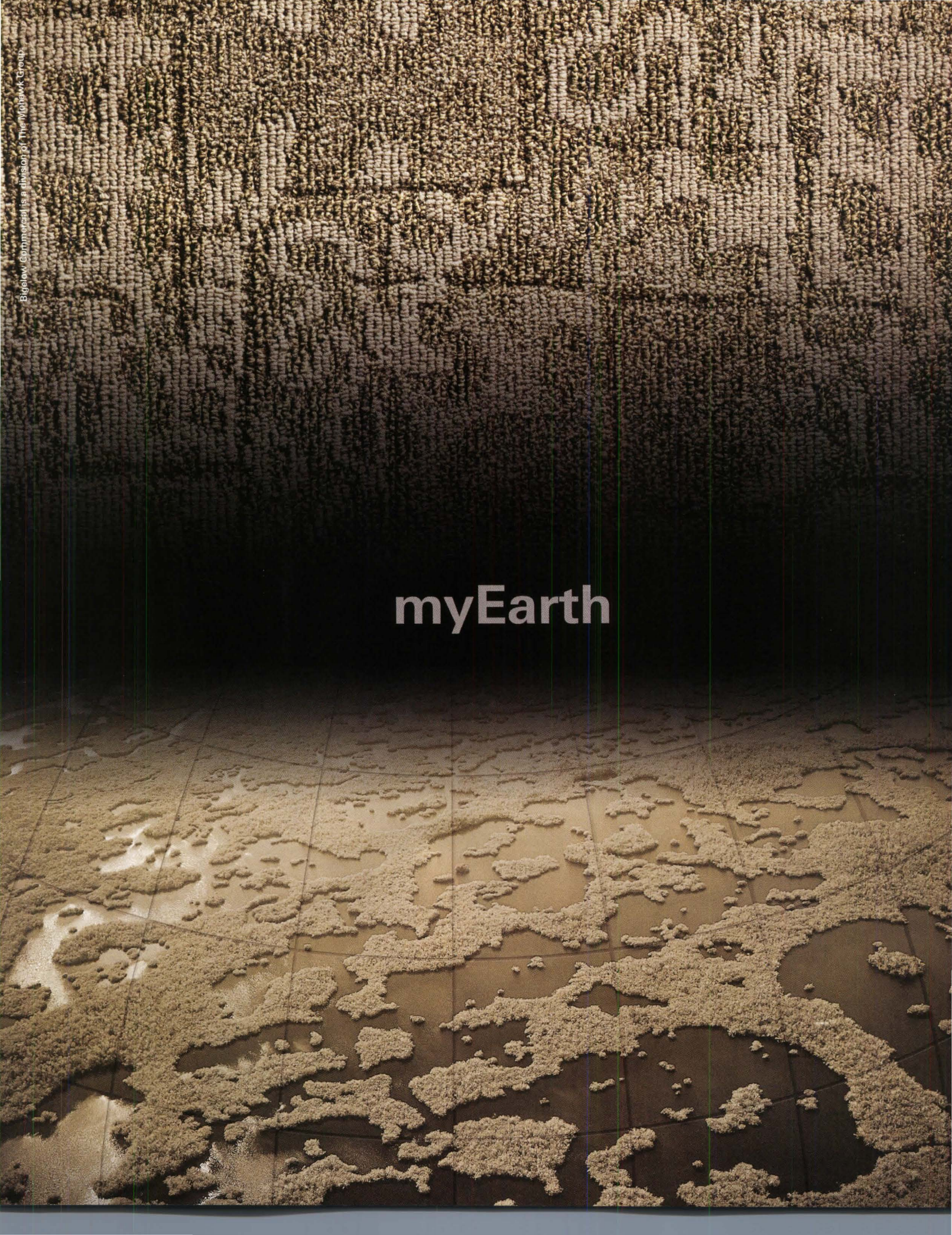


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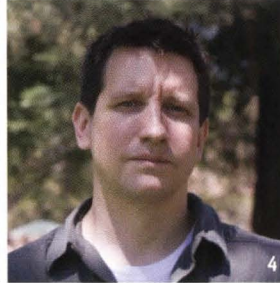
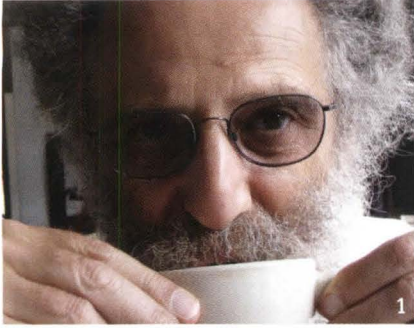
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CONTRIBUTORS



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GROUP EDITOR-IN-CHIEF EMILIE SOMMERHOFF

EDITOR ABBY BUSSEL

ART DIRECTOR CASEY MAHER

SENIOR EDITOR JULIE SINCLAIR EAKIN

SENIOR EDITOR MIMI ZEIGER

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ASSOCIATE EDITOR KATIE GERFEN

ASSISTANT ART DIRECTOR CARRIE JULIAN

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COLUMNISTS

CULTURE JOAN OCKMAN

EDUCATION THOMAS FISHER

HISTORY AND THEORY KAZYS VARNELIS

MATERIALS JOHN E. FERNANDEZ

PUBLIC REALM MAX PAGE

SUSTAINABILITY ANDREW WHALLEY

TECHNOLOGY JEANNE GANG

URBANISM DAVID GRAHAME SHANE

EDITORS-AT-LARGE

AARON BETSKY

BRADFORD MCKEE

CONTRIBUTING WRITER

ANNA HOLTZMAN

CONTRIBUTING EDITORS

JAN OTAKAR FISCHER

RICHARD INGERSOLL

MICHAEL Z. WISE

ELLIS WOODMAN

EDITORIAL INQUIRIES

T 646 654 5766 F 646 654 5817

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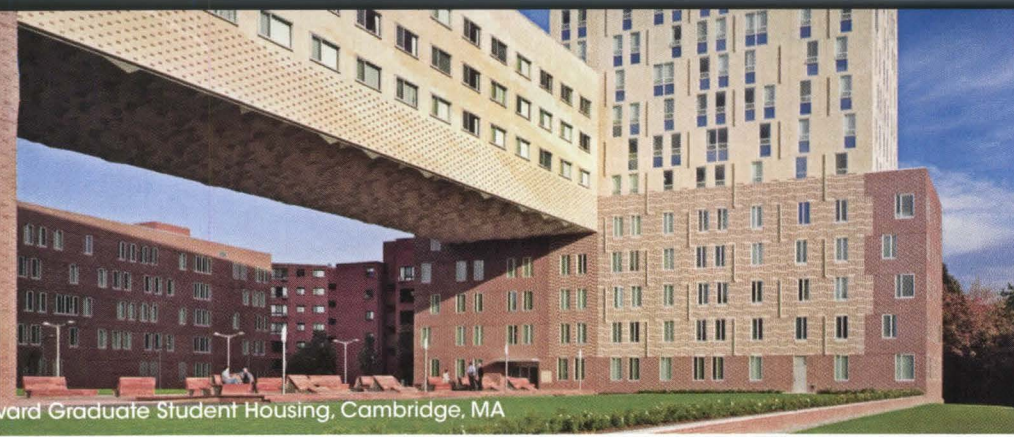
1 DAVID GRAHAME SHANE, PAGE 54 *Architecture's* urbanism columnist David Grahame Shane lectures at the Graduate Urban Design Program at Columbia University, at Cooper Union, and at City College of New York. His book *Recombinant Urbanism: Conceptual Modeling in Architecture, Urban Design and City Theory* (John Wiley & Sons) was published last year.

2 AARON BETSKY, PAGE 42 *Architecture* editor-at-large Aaron Betsky is director of the Netherlands Architecture Institute in Rotterdam, the largest architecture museum in the world and the archive of Dutch architecture. He is the author of *The U.N. Building* (Thames & Hudson, 2005) and the forthcoming *Modernism* (Phaidon, 2007).

3 ANNA HOLTZMAN, PAGE 26 Contributing writer Anna Holtzman is a New York City-based freelance journalist, documentary filmmaker, and former *Architecture* associate editor. Her film *Subway Dreams*, which chronicles the lives of musicians who perform underground, explores the gray area between formal and informal inhabitations of public space. ANNELOO.COM

4 KAZYS VARNELIS, PAGE 55 A senior fellow at the University of Southern California's Annenberg Center for Communication, Kazys Varnelis serves on the faculty at the School of Architecture at the University of Limerick, Ireland. He is founding principal of the conceptual architectural collective AUDC, whose first book will be published this year by ACTAR. Varnelis is *Architecture's* history and theory columnist. VARNELIS.NET

5 JEANNE GANG, PAGE 55 Principal of Studio/Gang/Architects in Chicago, Jeanne Gang's interest in the overlap between culture and technology in architecture is explored through practice, research, and teaching. She is an adjunct faculty member of the Illinois Institute of Technology and has taught design studios at Harvard and Yale Universities. Gang is *Architecture's* technology columnist.



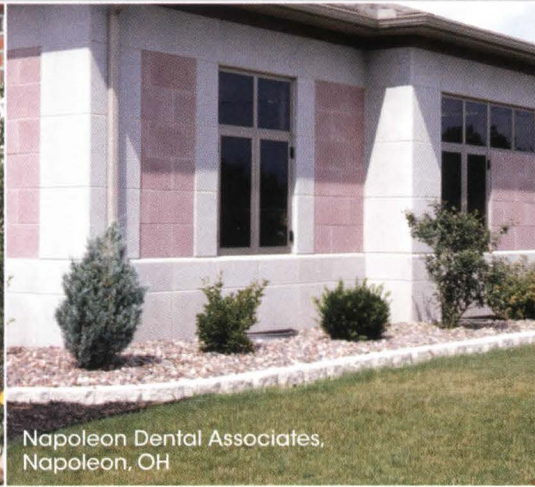
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LISA Y. HANUKA SALES COORDINATOR

LHANUKA@VNUBUSPUBS.COM T 646 654 5754

KEVIN MARTY GROUP MARKETING MANAGER

KMARTY@VNUBUSPUBS.COM T 646 654 7369

VINCE HABICK PRODUCTION MANAGER

VHABICK@VNUBUSPUBS.COM T 646 654 7238

PRODUCTION INQUIRIES

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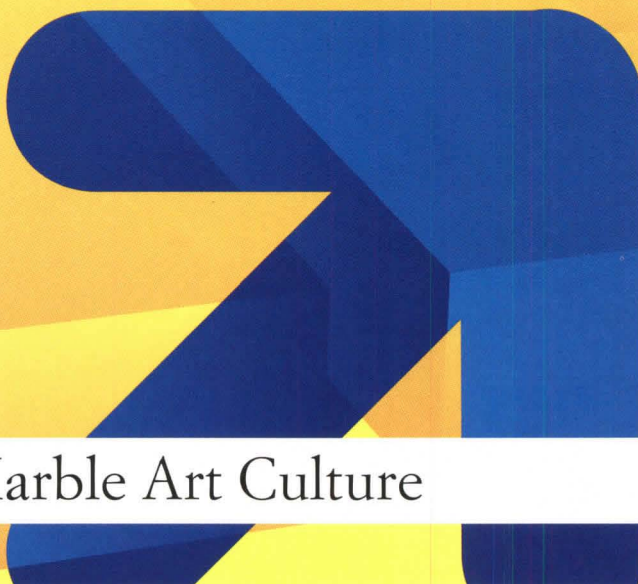
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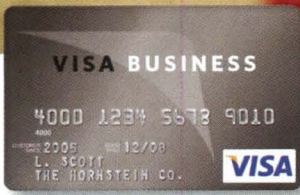
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BORROWERS AND LENDERS

THE NEWEST BANK IN COLUMBUS, INDIANA, LOOKS FORWARD AND BACK SIMULTANEOUSLY.

BY JULIE SINCLAIR EAKIN

PHOTOGRAPH BY CATHERINE TIGHE

Too often, genuine access to capital “A” architecture requires the currency of an upwardly mobile lifestyle. Most visitors to distinguished buildings are on tourist visas, wandering museum galleries for a few hours or straining to keep pace with a docent along the cobblestones of a foreign city. Columbus, Indiana, however, provides a satisfying inversion of that equation. Long an American pilgrimage site for architects from around the world, living among thoughtful buildings consistently produced over the past 60 years is an everyday reality for its nearly 40,000 residents.

The latest addition to the collection of more than 60 architectural masterpieces there by Meier, Pei, Venturi, and company is a prime example of a place designed to serve its own community. The new full-service, drive-through Irwin Bank branch, by New York City architects Deborah Berke & Partners, improves on the local scenery of the town’s outskirts without alienating its Wal-Martian neighbors. (Appropriately, Berke coedited a volume of essays called *Architecture of the Everyday*, published in 1997.)

Sitting above the long, 4,000-square-foot modernist brick-and-Indiana-limestone volume housing the bank’s functions, a light box enclosed by channel glass acts as a sign and orientation device for nearby drivers. A kind of inside out skylight oriented at 90 degrees from the grounded block form, it makes a canopy over car-bound patrons and welcomes daylight into the two-story lobby for employees and walk-in customers. Pneumatic tubes conduct the flow of money from outdoors inside and vice-versa, as well as between tellers and vaults.

Incidentally, the local Irwin Financial Corporation is no stranger to the aforementioned capital “A”; Eero Saarinen was hired by the current chairman and CEO’s father to design the bank’s main Columbus branch in 1954. □



SAARINEN'S BELL LABS THREATENED

Fifty years ago, Eero Saarinen drew up plans for an office complex like no other. Now owned by Lucent Technologies, the Bell Labs research facility in Holmdel, New Jersey, featured innovations including the application of mirrored glass as exterior cladding, according to Yale University School of Architecture assistant professor Eeva-Liisa Pelkonen. Despite its architectural significance, however, the 472-acre site's decline in property value, coupled with rising land taxes, has convinced Lucent and Holmdel Township that the building is more of a burden than a landmark.

Lucent will soon close a deal to sell the site and building to Preferred Real Estate Investments, a company with experience in redeveloping aging office properties. Preferred sees no way to reuse the 2-million-square-foot complex and is likely to tear it down and replace it with smaller offices, as the site is zoned for commercial or laboratory use. The New York Tri-State chapter of DoCoMoMo, an international group that raises awareness of modern architecture, believes the building should be preserved, and will appeal to Preferred this summer. **BY MICHELLE KANG**



MAYA LIN'S RIVER WALK



On April 22, in Washington's Cape Disappointment State Park, overlooking the mouth of the mighty Columbia River, the first phase of Maya Lin's Confluence Project opened to the public. Former Governor Gary Locke presided over the ribbon-cutting, as Chinook Tribal Chairman Gary Johnson stepped up to Lin's sculpture, a several-ton slab of gray basalt (far left), and ceremonially gutted a fish on it. Beyond making an expressive design statement, the installation suggests the surprising range of approaches she has brought to the series of interventions in five state parks in Washington and two in Oregon, commemorating the encounters between native tribes and Lewis and Clark's early-nineteenth-century expedition. The sites, arranged along a 452-mile stretch of the Columbia River and its tributaries, will be transformed in ways both visible and invisible. The most arresting of Cape Disappointment's three installations, which include a viewing platform and a reclaimed cedar grove, the fish-cleaning table is a small part of an ecological restoration that turned a parking lot back into a wetland filled with native grasses and plants recorded in the expedition's journals. Locating a potent space between sculpture, architecture, ecological restoration, and interpretive design, the Confluence Project will bear watching as its six other sites move toward completion over the next two years. **BY ERIC FREDERICKSEN**

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LEWIS DAVIS, 1925-2006

Lewis Davis, cofounder of New York City-based Davis Brody Bond died on May 21. He was 80. In 1943, he joined the U.S. Air Force and upon returning from World War II, completed his bachelor's and master's degrees in architecture at the University of Pennsylvania. In 1952, along with Samuel M. Brody and Chester Wisniewski, he opened Davis, Brody & Wisniewski, which became Davis, Brody & Associates in 1966 before merging with Bond Ryder & Associates in 1990 to become Davis Brody Bond (DBB). Over the years, Davis came to be known for large-scale, mixed-income housing projects including New York City's Riverbend (1968), Waterside Plaza (1974; right), and East Midtown Plaza (1974). Throughout his career, Davis taught at the Cooper Union, Yale University, and his alma mater. Until his death, Davis remained an active consultant for many of DBB's projects, including the renovation of New York Public Library's Map Division, completed last December. The firm is currently the design architect for the World Trade Center Memorial (with Michael Arad and Peter Walker) and the World Trade Center Interpretive Memorial Museum. **BY NATHALIE WESTERVELT**



Iowa has a history of importing architects, and David Chipperfield's second building there, the Public Library of Des Moines, is like many of its non-native predecessors: a tempering of innovative sculptural thinking with a Midwestern sense of propriety.

His library is the first piece of a redevelopment project west of the city center. The architect's provocative massing breaks the city's grid with an irregular form that signals a transition in the urban fabric. Its perimeter wall—a skin of copper mesh laminated between two layers of glass that reduces solar gain and glare—is interrupted only by entrances and a loading dock.

While some bystanders have seen in the library's aircraftlike plan a smirking reference to Iowa as the "flyover state," its precise cladding and green roof point toward the area's progressive, pragmatic traditions, suggesting that the building stands out in ways that fit the culture of the place. **BY THOMAS LESLIE**

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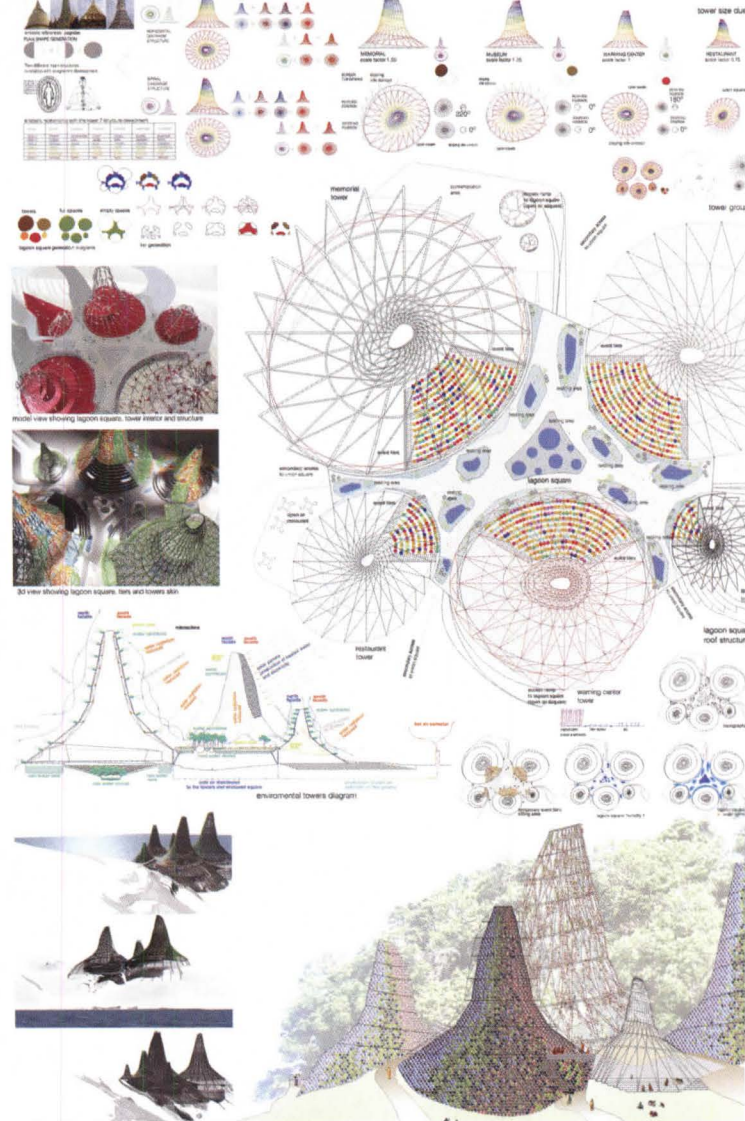
TSUNAMI MEMORIAL
INTERNATIONAL COMPETITION STAGE II, Khao Lak Lamru National Park, Phangnga Province, Thailand.

05 MOUNTAINS OF REMEMBRANCE



TSUNAMI MEMORIAL
INTERNATIONAL COMPETITION STAGE II, Khao Lak Lamru National Park, Phangnga Province, Thailand.

02 MOUNTAINS OF REMEMBRANCE




REINVENTING NATURE

MOUNTAINS OF REMEMBRANCE
DISC-O ARCHITECTURE

Before long, five towering pavilions resembling mountains will emerge from the tropical canopy of Thailand's Khao Lak-Lam Ru National Park. Eighteen months after the disaster that claimed the lives of over 5,000 of its citizens, the government's Tsunami Memorial Design Competition has been won by Disc-O Architecture, a consortium of Spanish architects, with local firm Naga Concepts. Arranged around a multilevel central square, the pavilions house a museum, learning center, restaurant, shops, *amphitheater*, and a memorial that features an artificial mangrove with one branch for each victim. The largest of the pavilions, at 100 feet, is the memorial, and also the only one covered by vegetation growing on an open steel framework. A light in the void under the peak will filter through the plants at night, forming a beacon. The other four structures feature a harlequinlike pattern of colors on their inverted conical roofs. In selecting the winning scheme, the jury commended the designers for creatively integrating an artificial piece of nature into the largely intact park, a relatively safe haven where people may acclimate themselves to the idea of living with unpredictable natural forces—an especially poignant gesture in an area flanked by beachfront that has been stripped down to bare soil by the tsunami. **BY KATIE GERFEN**

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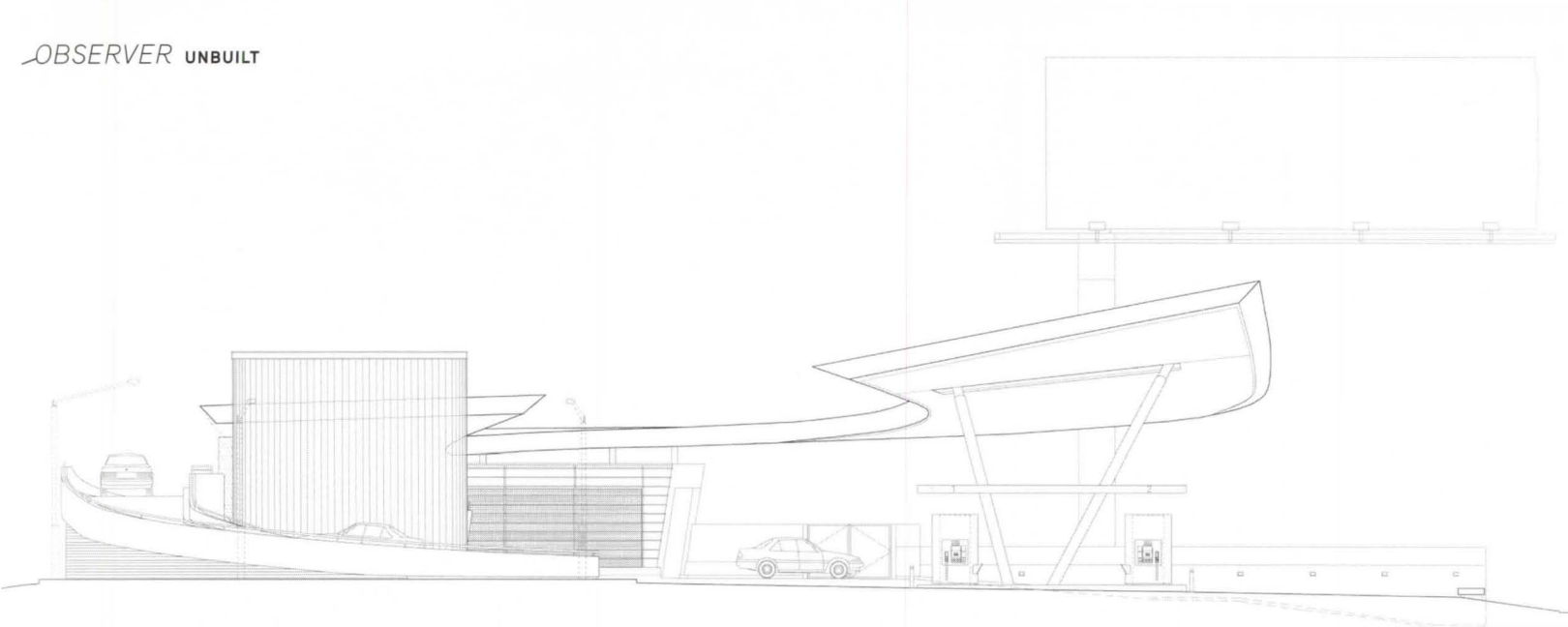
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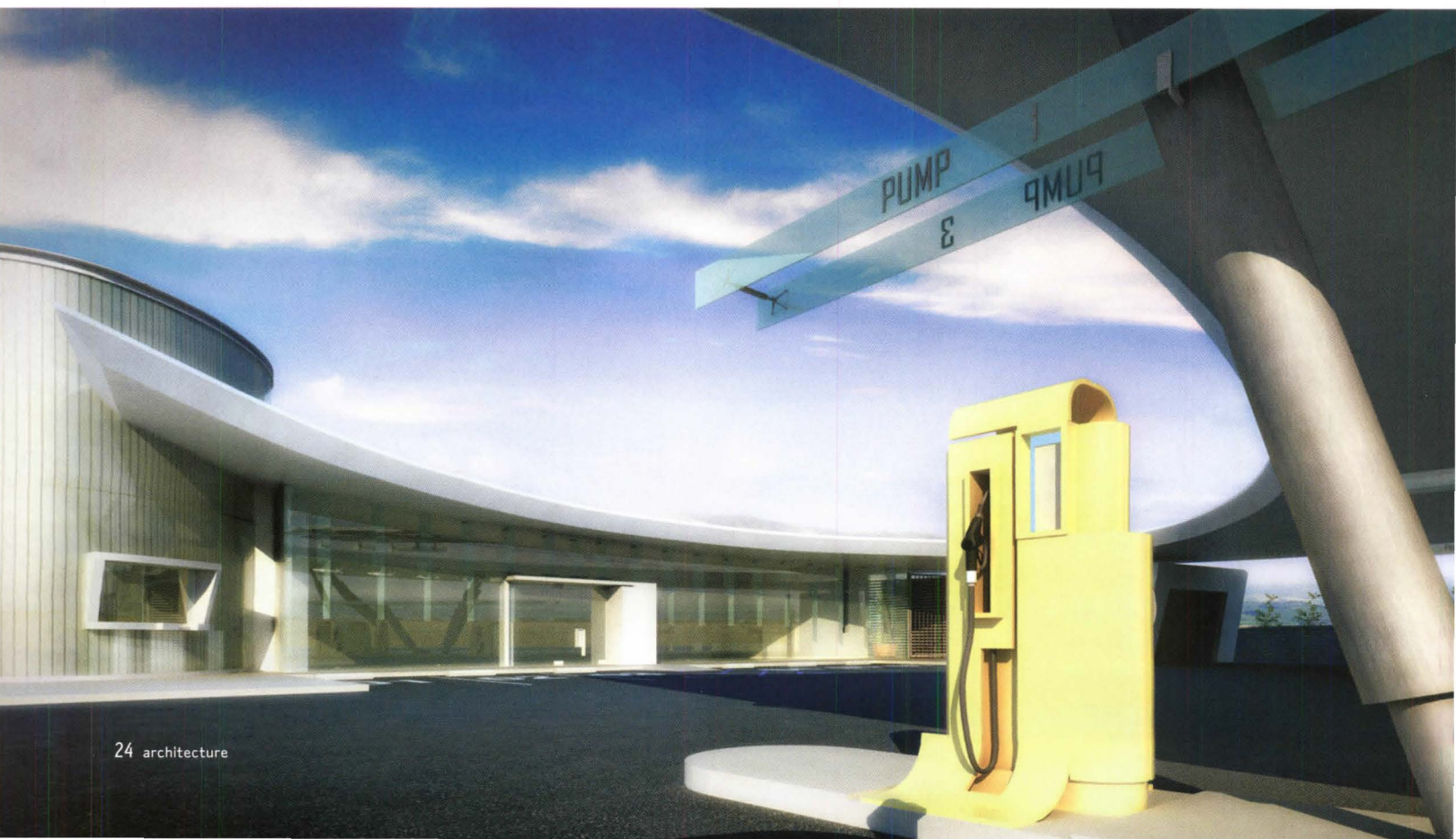


Santa Monica-based Kanner Architects embraces its local heritage with a gas station and car wash that pay homage to car culture. The design's success lies in its graceful mimicry of the concrete freeway interchange ramps informing every Angeleno's daily commute and provides a sense of being in motion by just contemplating it. One generous concrete arc sweeps upward behind a cylindrical glass-enclosed mini-mart (whose shape nods to nearby oil drums) to deposit drivers at the car wash on the 31,270-square-foot lot's opposite edge; another overhead swoop, made of steel, extends from the cashier toward the road to form a 6,800-square-foot canopy above the 12 pumps.

The car wash features a viewing window and is made of tile-clad concrete blocks. Transparent glass walls denote the store and are butt jointed; its interior is painted deep red—a color meant to whet the appetite. Kanner's vibrant effort reminds us of the longstanding connection between road travel and good design. Due to be completed in October, if this prototype spawns more United Oil stations, gassing up in L.A. will soon be as fluid an experience as possible. **BY JULIE SINCLAIR EAKIN**

ROADSIDE ATTRACTION

UNITED OIL GAS STATION
KANNER ARCHITECTS



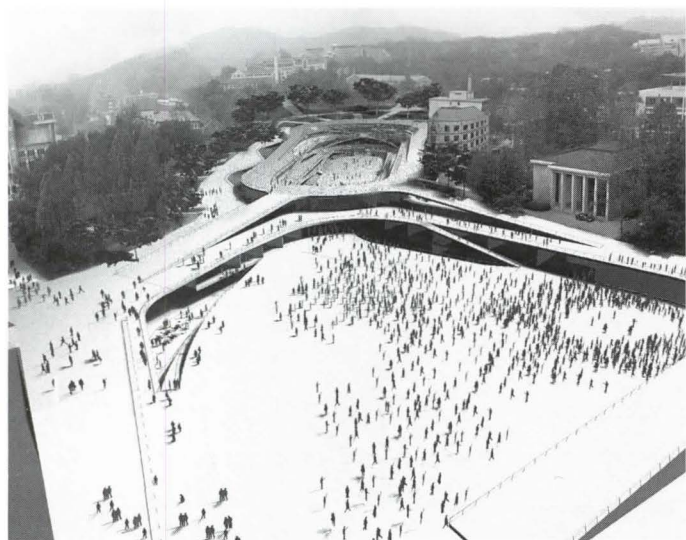
THE BOOKMOBILE

BUCKMINSTER FULLER: DESIGNING FOR MOBILITY

by Michael John Gorman
Skira Editore; 208 pages; \$65

GRONDSCAPES: THE REDISCOVERY OF THE GROUND IN CONTEMPORARY ARCHITECTURE (Land & Scape Series)

by Ilka and Andreas Ruby
Editorial Gustavo Gili; 206 pages; \$34



FOREIGN OFFICE ARCHITECTS'S EWHA WOMEN'S UNIVERSITY CAMPUS CENTER IN SOUTH KOREA (2004) FROM *GRONDSCAPES*.

METROPOLITAN NETWORKS

by Jordi Julià Sort
Editorial Gustavo Gili; 200 pages; \$55

MOBILE COMMUNICATION AND SOCIETY: A GLOBAL PERSPECTIVE

by Manuel Castells, Jack Linchuan Qiu, Mireia Fernández-Ardèvol, and Araba Sey
The MIT Press; 392 pages; \$29.95

THE ONE WEEKEND BOOK SERIES: GRAPHIC TOURISM SINCE TWO THOUSAND AND THREE

by Martin Lorenz
Actar; 300 pages; \$40

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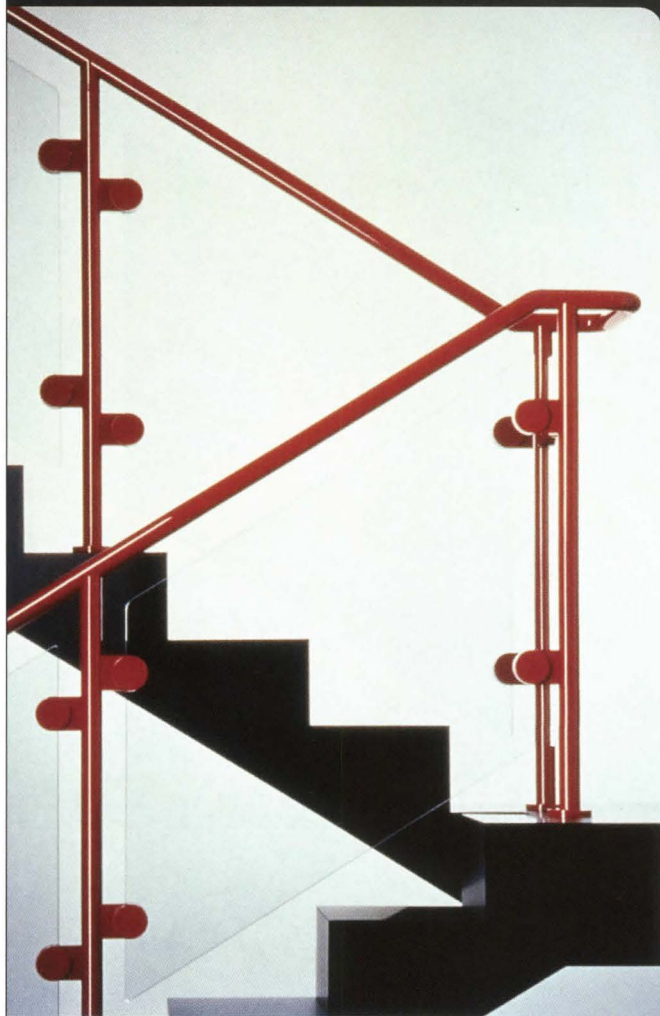
audisseyguides.com: tours of Boston, Chicago, Hollywood, Miami Beach, and Seattle; \$9.95

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DESIGN DIALOG

FULLER AND NOGUCHI ARE TOGETHER AGAIN.

BY ANNA HOLTZMAN PHOTOGRAPH BY ARNOLD EAGLE

The influence of maverick inventor R. Buckminster Fuller—the extreme rationalist who produced such unusual structures as the hexagonal Dymaxion House—finds surprising resonance in the intuitive, poetic sculptures of his friend Isamu Noguchi. In *Best of Friends*, on view at the gemlike garden museum devoted to the latter in Long Island City, New York, the fruits of their unique collaboration include Fuller's 1933 Dymaxion Car, a three-wheeled vehicle that achieved an unheard of 30 miles to the gallon, plus Noguchi's three-dimensional plaster model. Evidence of Fuller's "tensegrity" concept can be seen in two of Noguchi's fanciful sculptures: *Bucky* and *Monument to Heroes* (both 1943). Curated by architect Shoji Sadao—former executive director of the Isamu Noguchi Foundation and a longtime collaborator of both men—the exhibition, which runs through October 15, evokes subtle connections rather than forcing them, engaging visitors' imaginations much as Noguchi's quiet works reveal their secrets through slow contemplation. □

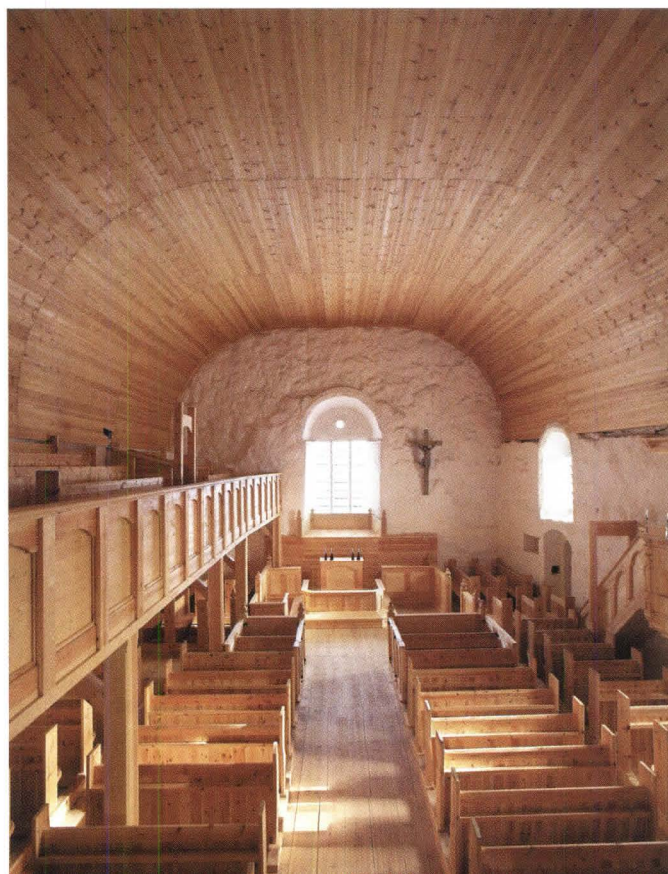
WOOD WORKS

FINLAND'S TIMBER STRUCTURES TAKE CENTER STAGE.

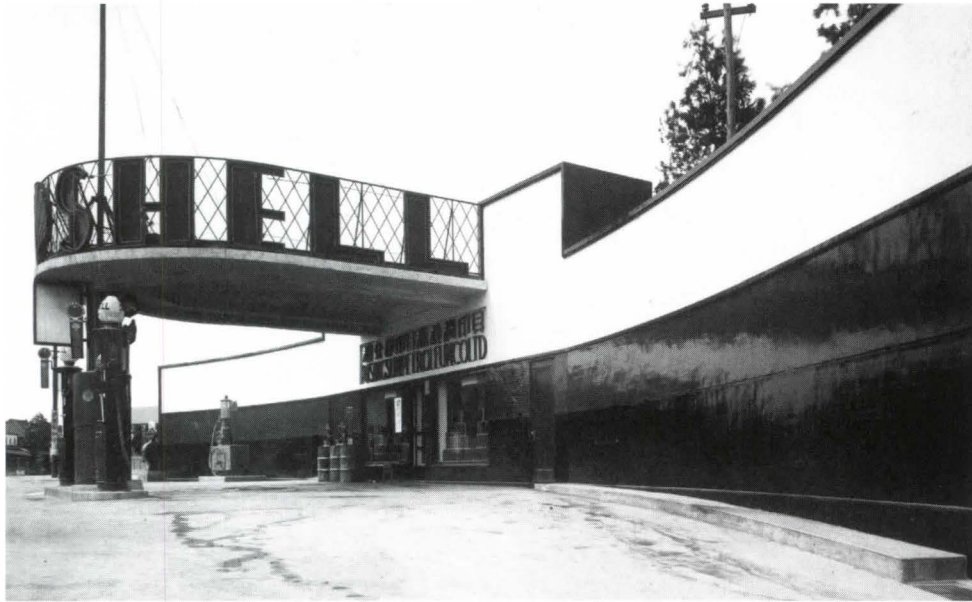
BY KATIE GERFEN PHOTOGRAPH BY KIMMO RÄISÄNEN

From Wood to Architecture: Recent Designs from Finland, at New York City's Scandinavia House through August 25, celebrates 17 intricately detailed designs that showcase their native country's largest export. The walls are dominated by 3-foot-by-4-foot photographs, including an arresting image by Jussi Tiainen of an 883-square-foot lookout tower on Korkeasaari Island, a bulbous shell of woven timber strips designed by architect Ville Hara in 2002. Each rib was steamed on site to achieve the desired curvature and to determine the precise location of the more than 600 connection joints. But the exhibition doesn't just focus on airy modern constructions, it also nods to the weightier traditions of Finland's long architectural history: Across the gallery from Hara's project is a photo of the interior of St. Olaf's Church in Vammala (right), a serene space respectfully reenvisioned by Ulla Rahola in 2003, six years after the original medieval building burned.

The fact that wood is not just another building material but an economic force in Finland lends gravity to the exhibition; the graceful wooden structures displayed are not only feats of design, but also part of the arctic country's livelihood. □



OUT AND ABOUT



EXHIBITIONS

PHILADELPHIA

CRAFTING A MODERN WORLD: THE ARCHITECTURE AND DESIGN OF ANTONIN AND NOÉMI RAYMOND

More than 200 works by the Frank Lloyd Wright disciples who focused extensively on Japan and the Delaware Valley during their 60-year careers (above). **THE MEYERSON GALLERIES** upenn.edu **THROUGH SEPTEMBER 24**

NEW YORK CITY

THE EAMES LOUNGE CHAIR: AN ICON OF MODERN DESIGN

The impact of Charles and Ray Eames's experiment in molded plywood, 50 years after its creation. **MUSEUM OF ARTS & DESIGN** madmuseum.org **THROUGH SEPTEMBER 3**

WEIL AM RHEIN, GERMANY

JOE COLOMBO: INVENTING THE FUTURE

A retrospective of the late Italian designer's innovations from the 1960s, including early prototypes of some of his most acclaimed furniture. **VITRA DESIGN MUSEUM** design-museum.de **THROUGH SEPTEMBER 10**

EVENTS

PASADENA, CALIFORNIA

SURFACING URBANISMS: RECENT APPROACHES TO METROPOLITAN DESIGN

A conference examining recent urban design theories in Los Angeles and how these myriad schools of thought interact within the city. **WOODBURY UNIVERSITY** acaa-arch.org **OCTOBER 12-15**

VENICE, ITALY

VENICE BIENNALE

Curated by Richard Burdett—founding director of the London School of Economics's Cities Program—the 10th International Architecture Exhibition looks at cities, architecture, and society. **VARIOUS LOCATIONS** labiennale.org **SEPTEMBER 10-NOVEMBER 19**

COMPETITIONS

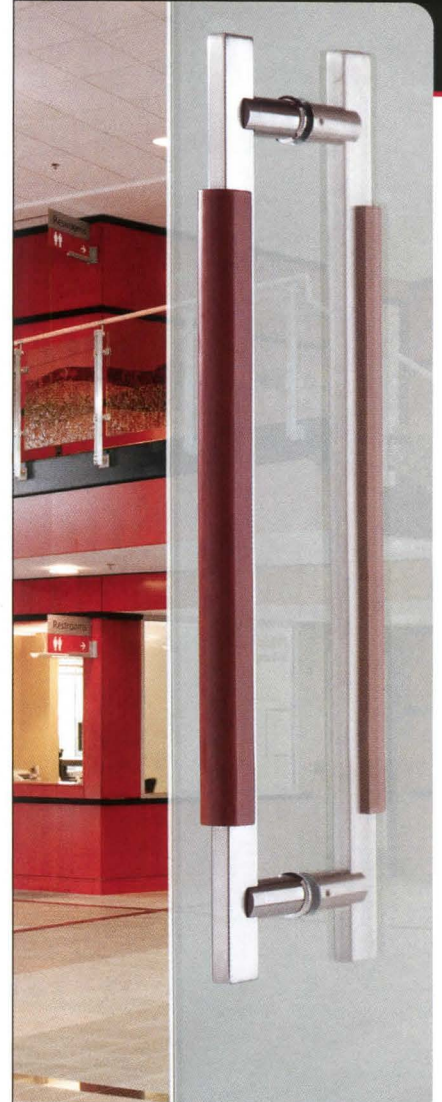
54TH ANNUAL P/A AWARDS

Architecture's awards program (see page 30) for unbuilt commissioned work. **architecturemag.com** **SUBMISSION DEADLINE: SEPTEMBER 8; LATE ENTRY: SEPTEMBER 12 (ADDITIONAL FEE REQUIRED)**

STOCKHOLM PUBLIC LIBRARY

The city of Stockholm's competition for a scheme to expand the 75-year-old Gunnar Asplund building. **arkitekt.se/asplund** **STAGE ONE SUBMISSION DEADLINE: OCTOBER 27**

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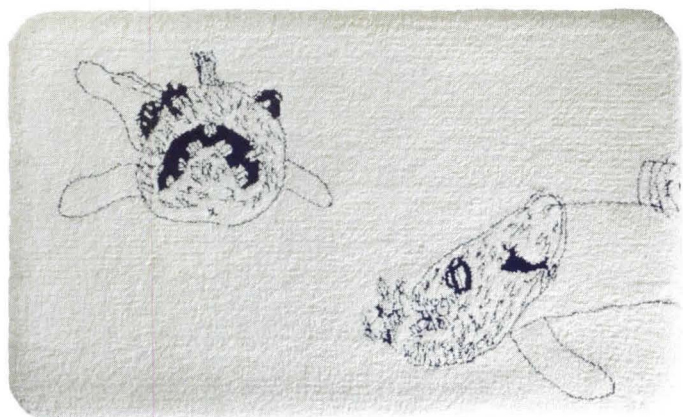
WHAT'S AFOOT WITH WARP AND WEFT?

DOWN UNDER

BY JULIE SINCLAIR EAKIN



CFARR.CO.UK



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In her new collection, *The Depths*, rug designer Vicki Simon introduces a compelling repertoire of undersea creatures. *Angry Fish*, *Food Chain* (inset, left), and *Dunkleosteus* owe their naive line quality to her eight-year-old son, Tate, who originally drew them with markers. At New York City's ICFF in late May, where Simon's rugs were displayed, other carpets also featured hand-drawn motifs: Glasgow's *Timorous Beasties* (the rising rock stars of the international interiors world), contributed *Thistle* (inset, facing page), a Gothic-inspired black botanical exploding across a blood-red field, for Christopher Farr.

Simon notes the emergence of more organic-looking rugs this season, implicating in her assessment their materials and methods (undyed wool and Tibetan manufacturing, for example), as well as the designs: Representations of trees, flowers, and other natural subjects are ubiquitous.

The innocence conveyed by *The Depths* belies its complex creation: Drawings are transferred to monk's cloth using an overhead projector so the image is correctly oriented. The cotton fabric is stretched and nailed to a vertical rack. In a considerably rigorous exercise, hand-held tufting guns fasten plied and felted yarn into the fabric's holes from the back until the expanse is covered. Cutting and shearing then occurs on the opposite side. These rugs are kept one inch thick, a luxury marking them for residences rather than contract use, and inviting their users (potentially including children) to sit on them. Latex is applied to the back of the pliable textile as a stabilizer and a polypropylene mesh tops that to form a secondary backing. The rug's edges are clipped, folded, and secured with binding.

Merida's *Metropolitan Collection* (background images) also exploits the felted process, yielding a denser, softer product and employs clumped yarn pieces (1/8 inch in diameter) rather than thinner spun plies. The company's offerings—some recently added to MoMA's design collection—are looped or cut, with both versions resembling yet another type of organic style: carefully cultivated dreadlocks. □

P/A AWARDS

54TH ANNUAL

CALL FOR SUBMISSION

ENTRY FORM AND GUIDELINES AT ARCHITECTUREMAG.COM

DEADLINE
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HONORING OUTSTANDING UNBUILT WORK

P/A Awards recognize unbuilt projects demonstrating overall design excellence and innovation. All entries must be commissioned by paying fees for execution. Judging will take place in October 2006. Winning projects will be notified in November 2006 and published in the January issue of *Architecture*.

ADLINE 09 08 2006

P/A AWARDS

PLEASE COMPLETE AND SUBMIT ALL MATERIALS INTACT WITH EACH ENTRY (SEE NO. 15 FOR INSTRUCTIONS). Photocopies of this form may be used.

Entrant _____
Contact Name _____
Address _____
Phone Number _____
Fax Number _____
E-mail Address _____
Project Name _____
Project Location _____
Client _____
Client Phone Number _____
Entry Number (for ARCHITECTURE use only) _____

FEE (check one)

- SUBSCRIBER \$150
 ENTRY PLUS ONE-YEAR SUBSCRIPTION \$185
 EACH ADDITIONAL ENTRY \$125
 LATE FEE (\$50 PER ENTRY)

CATEGORY (check one)

- AR** APPLIED RESEARCH
 CM COMMERCIAL
 CU CULTURAL
 ED EDUCATIONAL
 GV GOVERNMENTAL
 HM MULTIFAMILY HOUSING
 HR HEALTH-RELATED
 HS SINGLE-FAMILY HOUSE
 ID INDUSTRIAL
 RC RECREATIONAL
 RL RELIGIOUS
 UD URBAN DESIGN

I certify that the parties credited executed the submitted project and that it meets all eligibility requirements (Nos. 1-6), and that I am authorized to represent those credited. I understand that *Architecture* may disqualify any entry that fails to meet submission requirements (Nos. 9-20). If this entry wins an award or citation in the 54th Annual P/A Awards, I grant *Architecture* sole first publication rights to the project when under construction or fully complete, the choice of which is at *Architecture's* sole discretion.

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1 WHO CAN ENTER Architects and other design professionals practicing in the U.S., Canada, or Mexico may enter one or more submissions. Proposals may be for any location, but work must have been directed—and substantially executed—in offices in those three countries.

2 REAL PROJECTS ONLY All entries must have been commissioned for compensation by clients with the intention and the authority to carry out the submitted proposal. A project entered in a design competition is eligible only if it is a proposal the competition's sponsor intends to build.

3 ARCHITECTURAL AND URBAN DESIGN ENTRIES Architectural design entries may only include works of architecture scheduled to be completed after January 1, 2007. Urban design entries must have been accepted by a client who intends to base future development on them; please include an implementation timeline.

4 RESEARCH ENTRIES Applied research projects and prototypes must be accepted by a client for implementation or undertaken by the entrant with intention to market and/or publish results. Explain basis of eligibility on Project Facts Page (see No. 10).

5 VERIFICATION OF CLIENT Awards and citations are contingent upon *Architecture's* verification that selected projects meet all eligibility requirements, including *Architecture's* direct contact with clients. *Architecture* reserves final decision on eligibility and accepts no liability in that regard.

6 PROVIDING ADDITIONAL MATERIALS Entrants whose submissions are selected for awards or citations agree to make available further information and publication-quality graphic materials as needed by *Architecture*.

7 PUBLICATION Winners of P/A design awards or citations grant *Architecture* first publication rights for their winning projects while under construction or when complete or substantially complete (at *Architecture's* discretion). Publication may not coincide with building completion, but *Architecture* retains first publication rights to the project for up to one year of building completion.

8 AWARD P/A design award and citation winners will be announced first at a celebration in New York City in January 2007. Winning projects will be exhibited at that event. Winners will submit a summary presentation for exhibition purposes.

9 BINDERS Entries must consist of legibly reproduced graphic material accompanied by adequate explanatory text in English. All entry material must be firmly bound in binders no larger than 9 by 12 inches. Binders made of recyclable materials are preferred. Avoid fragile or sharp binders. Videocassettes, CD-ROMs, models, and any unbound material will not be considered.

10 PROJECT FACTS PAGE The first page of each entry binder must list project facts under the following headings: Location, Site Characteristics, Zoning Constraints, Type of Client, Program, Construction Systems, Funding, and Schedule. This information must include square footage, cost, and specific materials.

11 PROCESS DOCUMENTATION Entries should document the design process, as well as its result. Include information on software, hardware, and hand media employed. *Architecture* encourages entrants to include copies of preliminary sketches, alternative preliminary schemes, information on context, precedents for the design, and excerpts from working drawings.

12 PROJECT RESEARCH Include records of any research performed in support of an architecture or urban design project.

13 NO ORIGINAL DRAWINGS Do not send original drawings; *Architecture* accepts no liability for submittals.

14 ANONYMITY To maintain anonymity in judging, no names of entrants or collaborating parties may appear on any submission materials except the entry forms. Do not, however, conceal the identity or location of projects.

15 ENTRY FORMS Each submission must be accompanied by a completed and signed entry form. (Reproductions are acceptable.) Submit the form in an unsealed envelope attached to the submission binder's back cover.

16 PHOTOCOPY Please enclose one bound or stapled set of 8-1/2-by-11-inch photocopies of your entry. The first two pages should be copies of the entry form and the project facts page, in that order. Secure the photocopies inside the back cover of the binder.

17 ENTRY CATEGORIES Identify each submission on its entry form by type (see entry form). Mixed-use facilities should be classified by the largest function. There is no "miscellaneous" category.

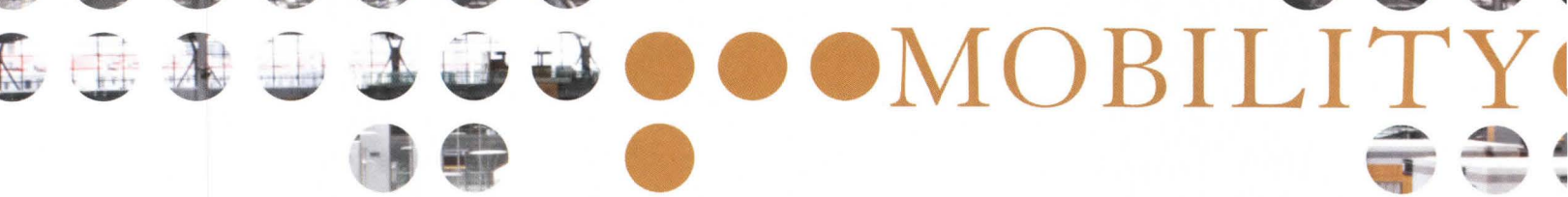
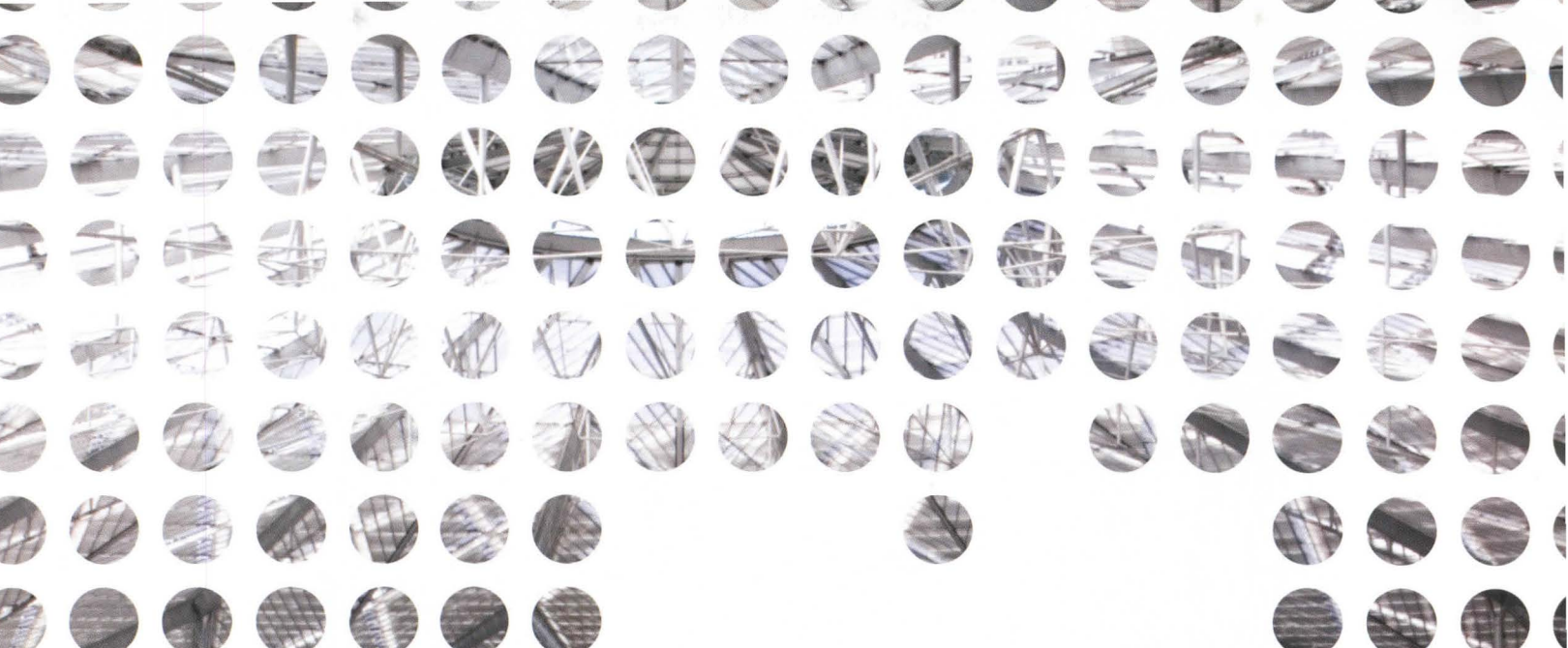
18 ENTRY FEES An entry fee must accompany each submission. The fee is \$150 for *Architecture* subscribers; nonsubscribers can submit an entry for \$185, which includes a one-year subscription to *Architecture*. Each entry after the initial entry is \$125. Make check or money order payable to *Architecture*. Canadian and Mexican entrants must send drafts in U.S. dollars. Fee must be inserted in an unsealed envelope with the entry form (see No. 15). **OPTIONAL:** For an additional \$50 fee per submission, late entries may be postmarked by September 12, 2006.

19 RETURN OF ENTRIES *Architecture* will return only those entries accompanied by a self-addressed, Priority Mail or courier envelope. *Architecture* assumes no liability for loss or damage.

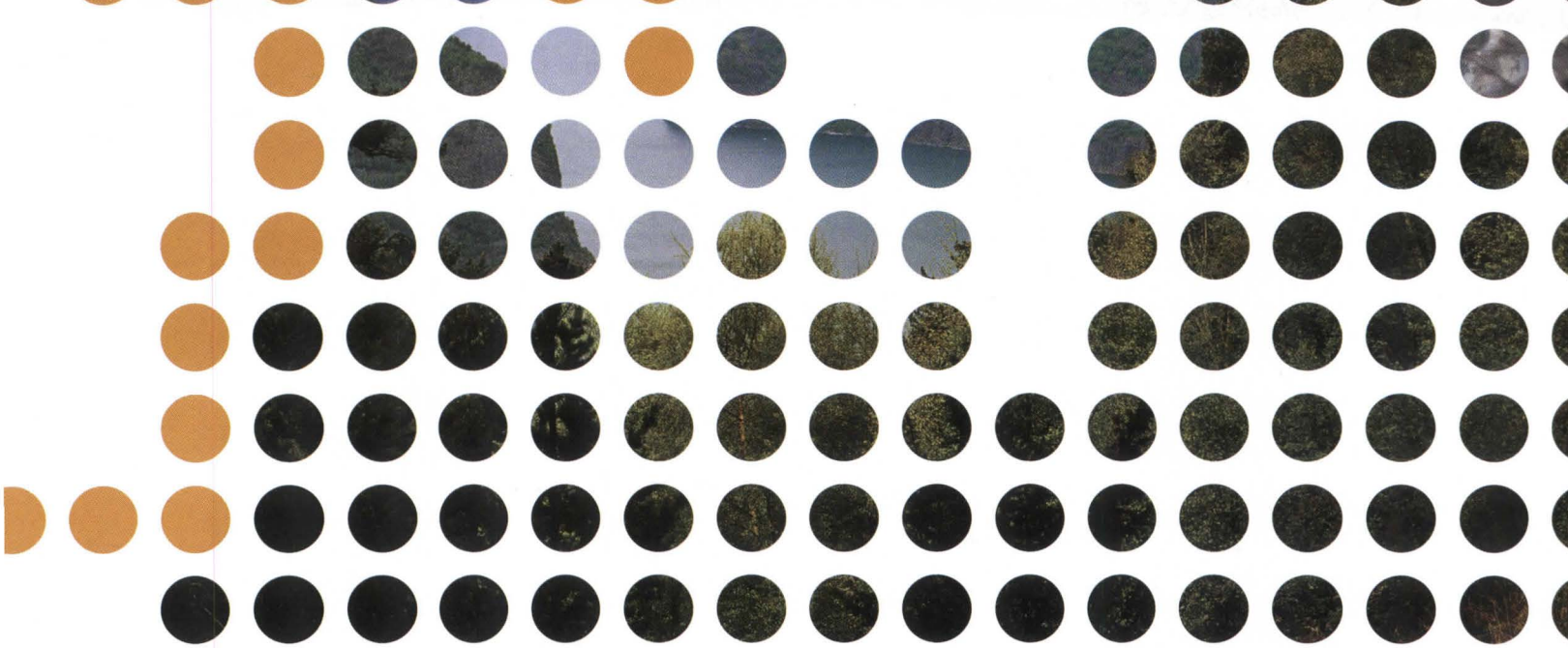
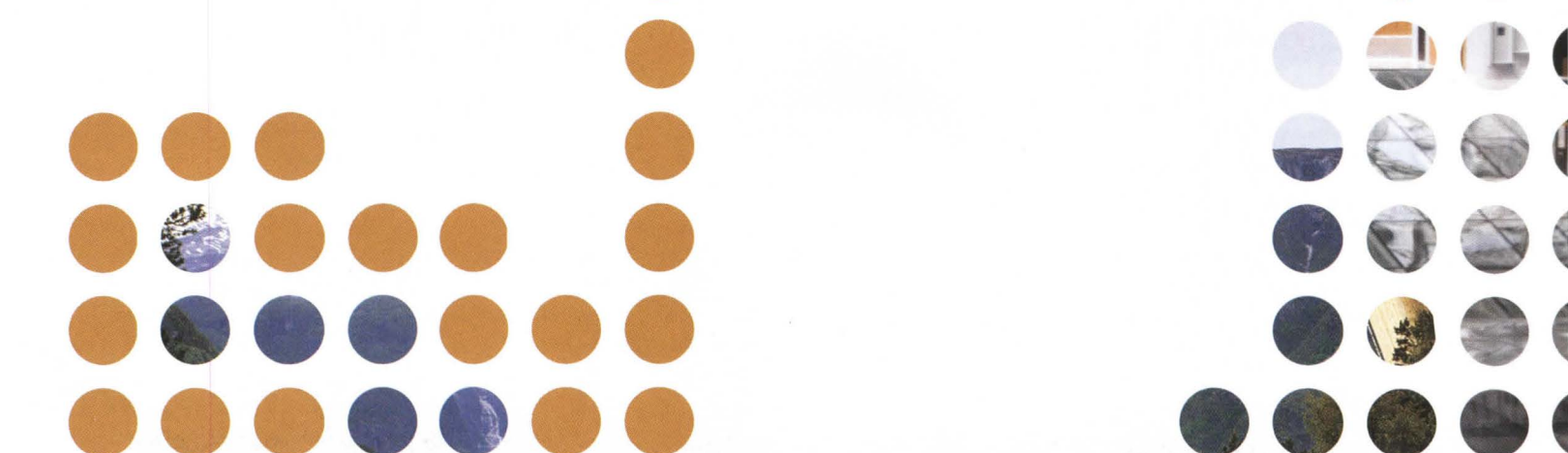
20 ENTRY DEADLINE Deadline for sending entries is September 8, 2006. All entries must be postmarked by September 8, 2006, or by September 12, 2006, if accompanied by a late fee. Hand-delivered entries must arrive by 5 p.m. EDT on September 8.

Even in our age of digital everything, in which mobility has taken on additional meanings, we still need efficient and enjoyable ways to move from point A to point B. And so we begin this issue with a project that fulfills a common desire: to see from a previously unavailable vantage. Lookout Point's 100-foot-long roadside platform delivers visitors to a precipice 2,100 feet above the fjords of Aurland, Norway. It's an experience about slowing down, rather than speeding up. Our second story, on elevator technologies, takes the idea of mobility indoors. In tandem with the compulsion to build higher and higher, elevator engineers are developing faster means and more advanced methods of vertical transportation. Covering horizontal distances in an efficient manner is the subject of our third feature story, which assesses a new generation of mass transit infrastructure in post-Apartheid Johannesburg. Pairing infrastructure with marketplaces—where goods are bought and sold from individual stalls—a developing modern architecture is mobilizing a formerly confined citizenry. In Shanghai, residents are benefiting from a new intermodal hub, South Station, covered in the next feature, that links rail lines, subways, buses, and taxis. Our final story this month offers a critique of the National Oceanic & Atmospheric Administration in Maryland, where, thanks to a rooftop full of satellites, scientists in subterranean quarters can see the world. □





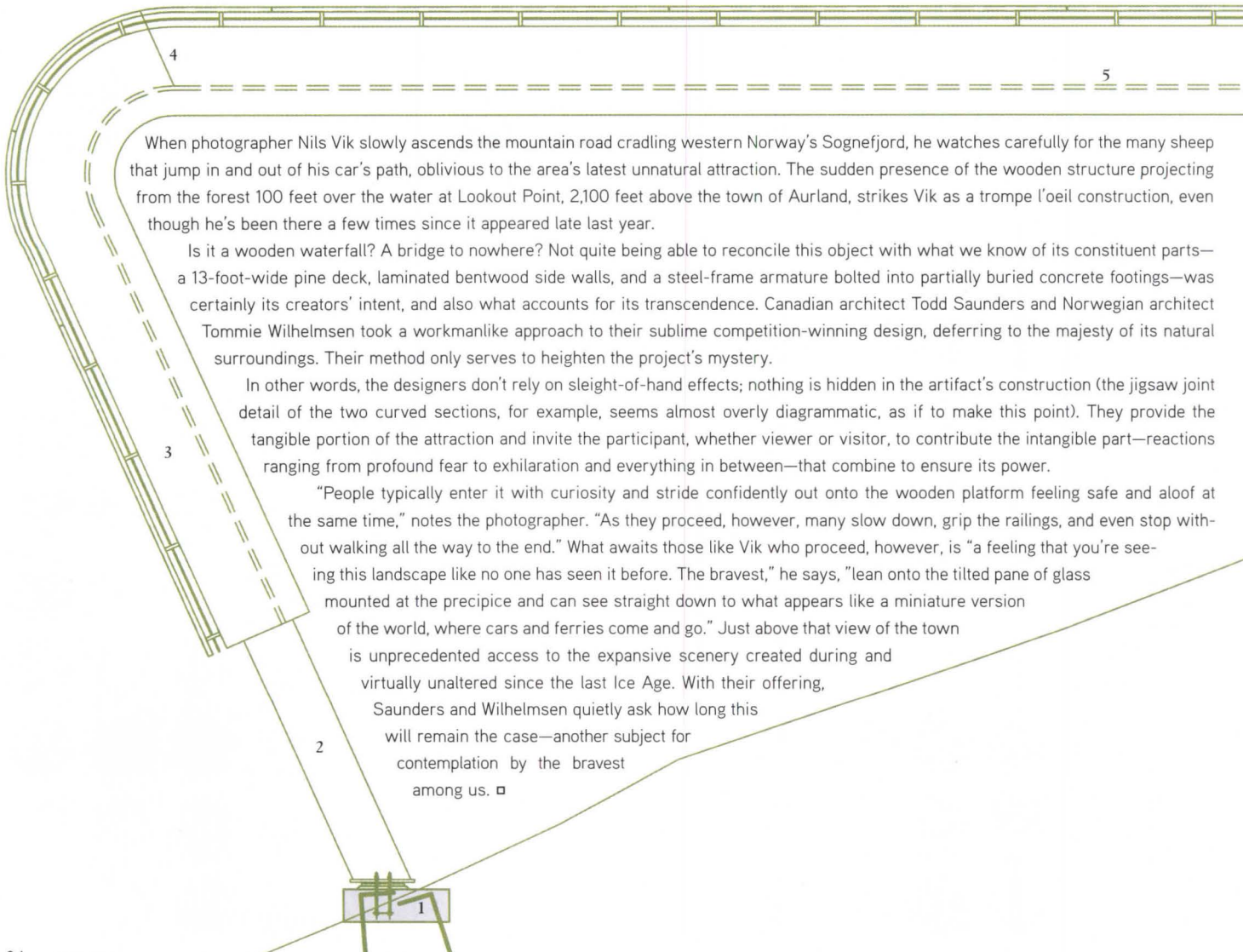
● ● ● MOBILITY ●



Imaginative Leap

Nature and culture are bridged over Norway's fjords.

by Julie Sinclair Eakin *photographs by Nils Vik*



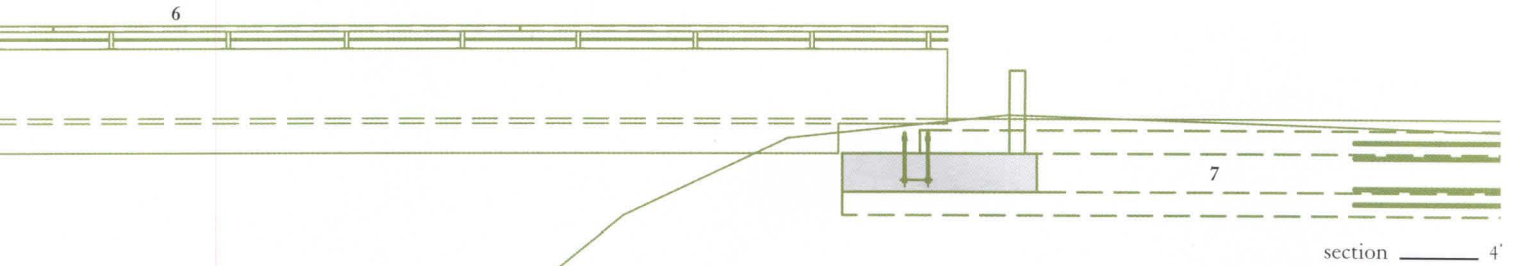
When photographer Nils Vik slowly ascends the mountain road cradling western Norway's Sognefjord, he watches carefully for the many sheep that jump in and out of his car's path, oblivious to the area's latest unnatural attraction. The sudden presence of the wooden structure projecting from the forest 100 feet over the water at Lookout Point, 2,100 feet above the town of Aurland, strikes Vik as a trompe l'oeil construction, even though he's been there a few times since it appeared late last year.

Is it a wooden waterfall? A bridge to nowhere? Not quite being able to reconcile this object with what we know of its constituent parts—a 13-foot-wide pine deck, laminated bentwood side walls, and a steel-frame armature bolted into partially buried concrete footings—was certainly its creators' intent, and also what accounts for its transcendence. Canadian architect Todd Saunders and Norwegian architect Tommie Wilhelmsen took a workmanlike approach to their sublime competition-winning design, deferring to the majesty of its natural surroundings. Their method only serves to heighten the project's mystery.

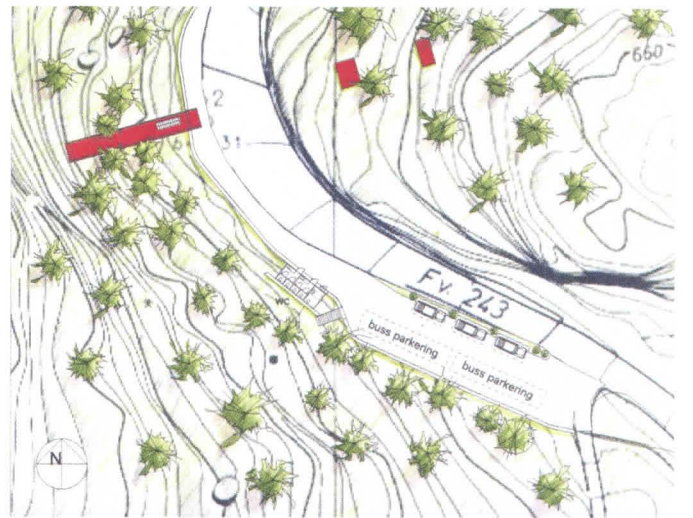
In other words, the designers don't rely on sleight-of-hand effects; nothing is hidden in the artifact's construction (the jigsaw joint detail of the two curved sections, for example, seems almost overly diagrammatic, as if to make this point). They provide the tangible portion of the attraction and invite the participant, whether viewer or visitor, to contribute the intangible part—reactions ranging from profound fear to exhilaration and everything in between—that combine to ensure its power.

"People typically enter it with curiosity and stride confidently out onto the wooden platform feeling safe and aloof at the same time," notes the photographer. "As they proceed, however, many slow down, grip the railings, and even stop without walking all the way to the end." What awaits those like Vik who proceed, however, is "a feeling that you're seeing this landscape like no one has seen it before. The bravest," he says, "lean onto the tilted pane of glass mounted at the precipice and can see straight down to what appears like a miniature version of the world, where cars and ferries come and go." Just above that view of the town is unprecedented access to the expansive scenery created during and virtually unaltered since the last Ice Age. With their offering, Saunders and Wilhelmsen quietly ask how long this will remain the case—another subject for contemplation by the bravest among us. □

- | | | | |
|---|------------------|---|---------------------------|
| 1 | concrete footing | 5 | wood planking |
| 2 | steel leg | 6 | galvanized metal handrail |
| 3 | laminated beam | 7 | roadbed |
| 4 | glass plate | | |

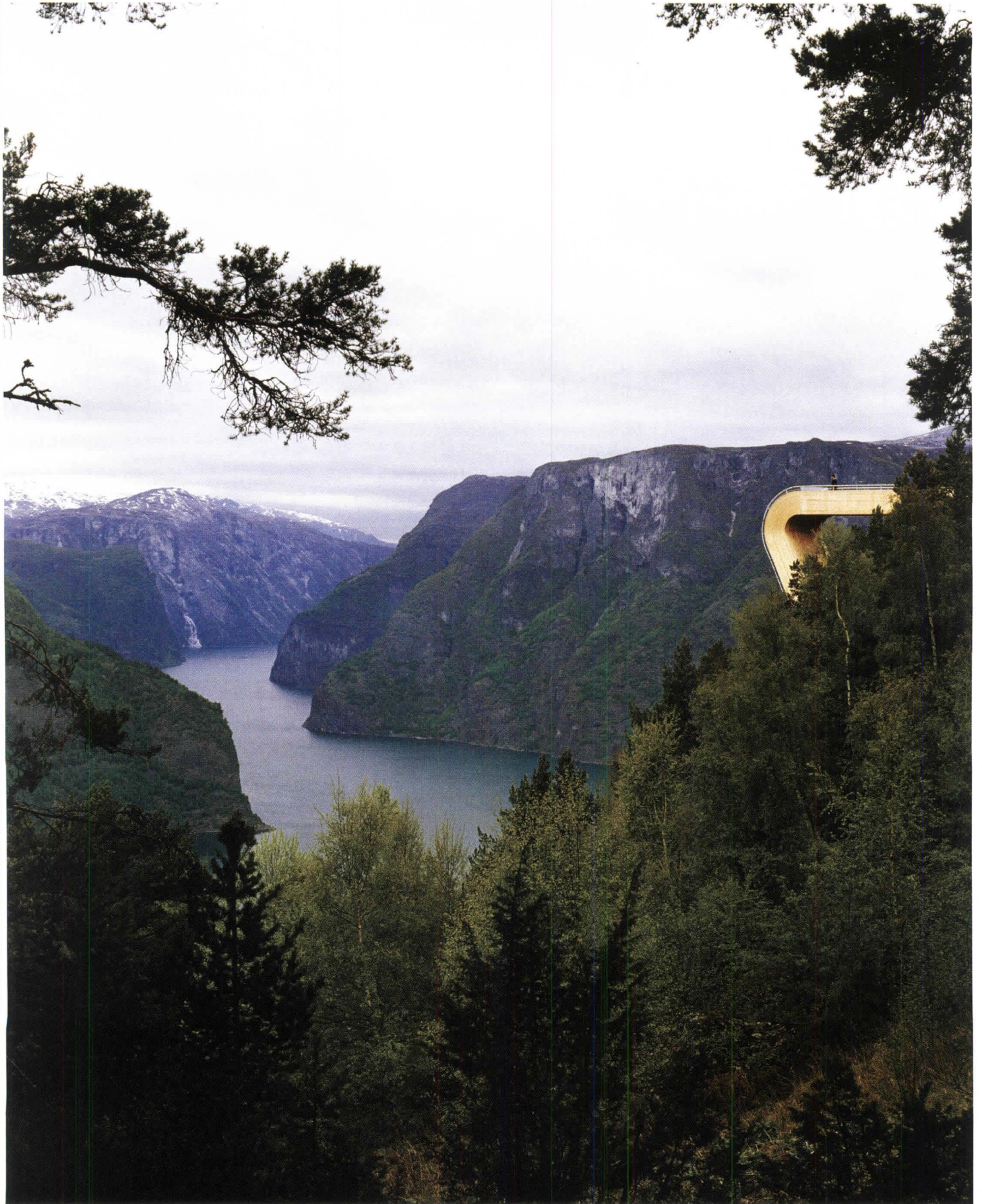


section _____ 4'



site plan _____ 55'

PROJECT: Lookout Point, Aurland, Norway CLIENT: Norwegian Transport Department ARCHITECTS AND LANDSCAPE DESIGNERS: Todd Saunders and Tommie Wilhelmsen ENGINEERS: Node (structural, mechanical, and electrical); Asplan Viak (road) CONTRACTOR: Veidekke AREA: 1,720 square feet COST: \$2.95 million SPECIFICATIONS: page 63





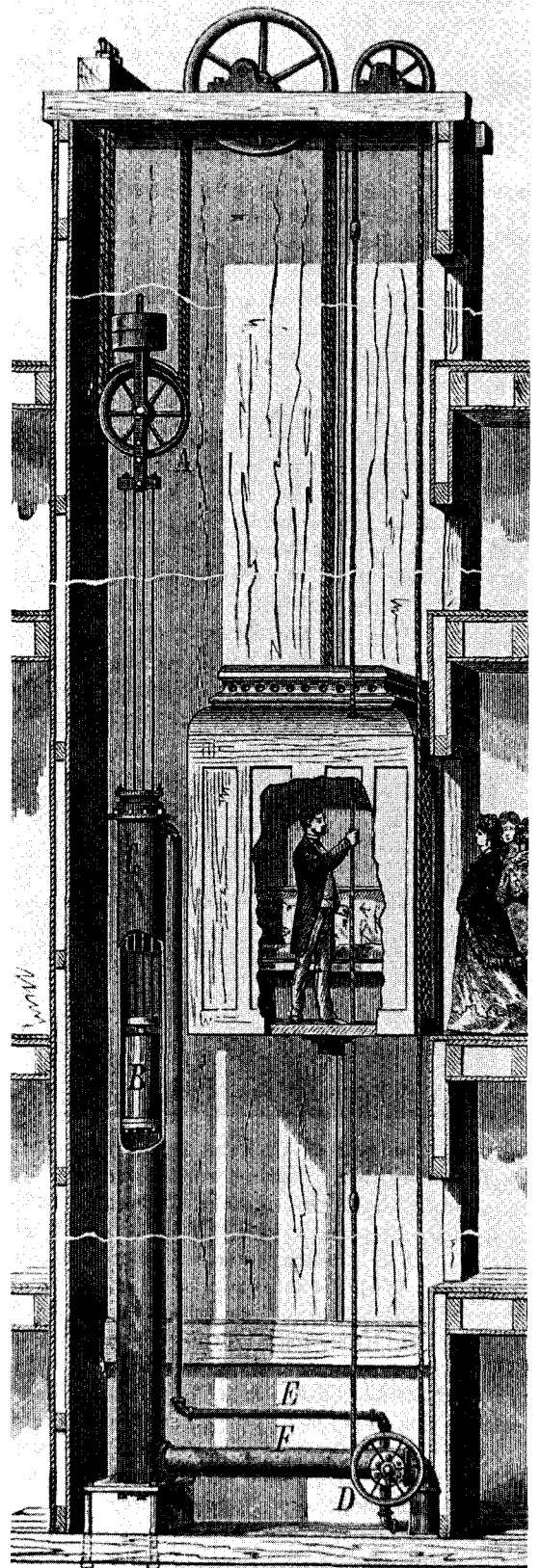




the
ups
and
downs
of
elevator
technology

by Alan G. Brake

*Vertical transportation systems
cater increasingly to the individual.*



Elevators and skyscrapers have always had a codependent relationship. As buildings around the world get ever taller—and are filled with more complex mixed-use programs—architects and consultants must work to design more efficient systems for moving the maximum number of people while consuming the smallest amount of floorplate. Four trends in elevator engineering and design are helping developers reach for the sky, both at harrowing super heights and in everyday high-rises: destination dispatch, private-entry elevators, double-decker cars, and increased speed.

With a destination dispatch system, passengers must register their floor request with a guard or computer in the lobby. These smart programs are especially important in mixed-use buildings, which have complicated circulation patterns. Hotels, for example, have much less consistent circulation arteries than office buildings. “All the towers that are grabbing headlines, the ones competing for the title of world’s tallest, have residential or hotel components,” says Carol Willis, director of the Skyscraper Museum in Lower Manhattan. With destination dispatch, the digital technology determines the closest car and assigns the passenger to a specific elevator, reducing the number of elevators responding to each individual call. The technology also calculates the fewest stops required to pick up the largest number of passengers. “Destination dispatch makes the most use of space,” says Willis. It also trims wait times by letting passengers know which elevator to stand before. “It helps cut down the psychology of impatience,” she says. Several major elevator companies, including Otis, Schindler, KONE, and ThyssenKrupp, offer such dispatching systems.

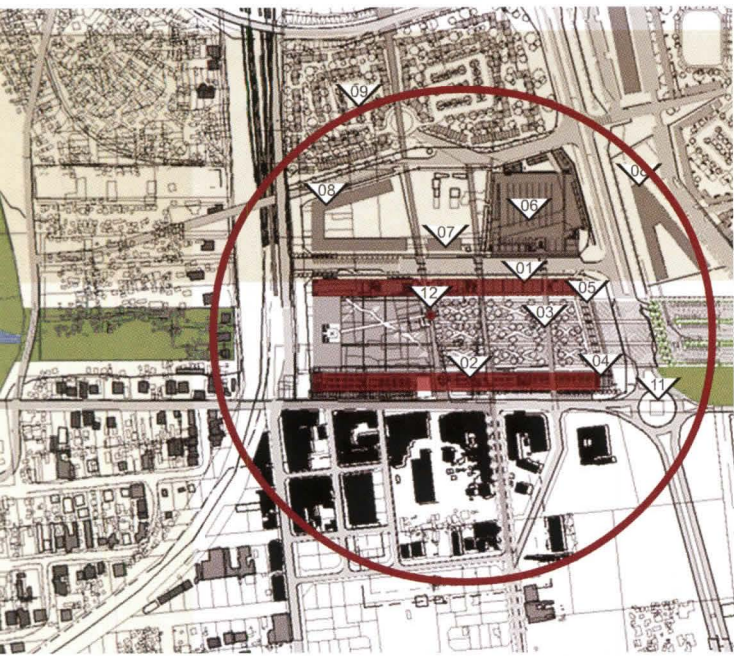
Private-entry elevators are not a new technology, but they had largely been confined to highly urban centers like New York City and Paris. In private-entry elevator buildings, each apartment has a lift that opens directly into it, which means more elevators and more core space but fewer hallways, so while there may be more upfront cost, there is also more usable space. Robert Swedroe, principal of Robert M. Swedroe Architects and Planners of Miami Beach, has designed medium and high-rise residential buildings with private-entry elevators in Florida, Las Vegas, and New Jersey. Swedroe estimates that by eliminating hallways, he creates 10 percent more salable space. Circulation is organized vertically rather than vertically *and* horizontally, allowing for “floor through units” or “sunrise, sunset units.” Eliminating space and contact between units, such as cooking smells, creates a sense of privacy and exclusivity. This can also help bring down maintenance-related costs because there are no hallways to heat, cool, clean, light, or furnish.

Double-decker elevators have stacked cars, which reduce core space by doubling capacity within a single volume. According to Jim Fortune, principal of Fortune Elevator Consultants of Boulder, Colorado, this configuration can save up to 40 percent of core space. Buildings with double-decker systems typically have two-story lobbies connected by an escalator, one level for odd floors and one for even. In buildings that combine double-decker cars with destination dispatch, passengers are assigned to specific cars, maximizing efficiency. One limitation of double-decker cars, is that they require consistent ceiling heights throughout the building, but this is being overcome as well. Kohn Pedersen Fox’s 54-story Roppongi Hills tower in Tokyo is one of the first buildings to use articulated double-decker cars, where the upper car can be raised or lowered from the lower car to reach floors of varied heights.

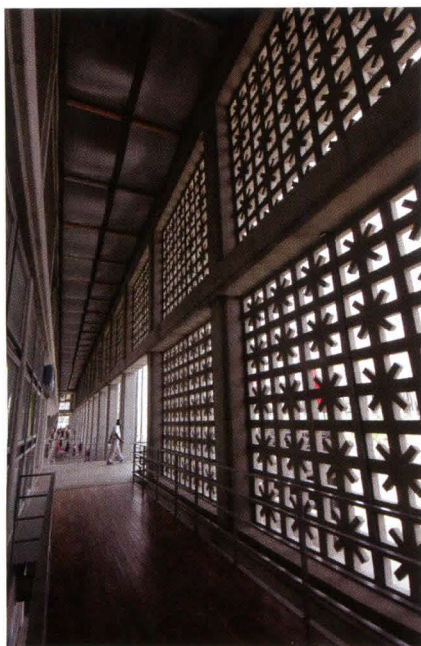
Another essential element in reaching skyward is elevator speed. The current limitations tend to be physiological as well as technological. According to Fortune, the C.Y. Lee & Partners-designed 101-story Taipei 101 tower in Taiwan has one of the world’s fastest elevator systems, at 3,300 feet per minute. It begins to accelerate at 3 to 4 feet per second and takes about 35 seconds to reach its maximum velocity. This gradual acceleration helps eliminate the “stomach drop” feeling that can make some elevator rides unpleasant. The ride down is slower, to avoid ear popping, descending at about 2,000 feet per minute. Further mitigating the physiological impact of descent, the elevator cars are depressurized with ceiling-mounted blowers, similar to depressurization systems on airplanes.

In addition to pressure and acceleration limitations, current hoist rope technology—steel cables with steel cores—has a maximum length of about 1,800 feet. (The height problem can be bypassed somewhat inconveniently with sky lobbies where passengers switch to new cars.) The world’s tallest buildings—such as the mixed-use Burj Dubai, rumored to be topped out at more than 160 stories—are nearing that height limit. Designed by SOM Chicago and now under construction, it will have 58 Otis elevators, including 20 machine-roomless units and two double-deckers.

If present-day elevators have aeronautic traits, tomorrow’s elevators will be more like trains—bullet trains. Set on tracks with self-powered linear induction motors sans hoist ropes, the next generation of technology—still some 20 years out—may allow buildings to reach 250 stories or more. “Everyone is looking for monumentality,” Fortune says, “Technology will continue to make that possible.” □



STUDIOMAS'S WALTER SISULU SQUARE OF DEDICATION (THESE PAGES) IN THE KLIPHTOWN AREA OF SOWETO INCORPORATES TAXI AND BUS SERVICES AND A MARKETPLACE INTO A LARGER PUBLIC SPACE, WHICH IS ORGANIZED AS TWO SQUARES FLANKED BY TWO BAR BUILDINGS: ONE REPRESENTING THE APARTHEID ERA AND THE OTHER CELEBRATING THE POST-APARTHEID, DEMOCRATIC SOUTH AFRICA. A CONICAL-SHAPED TOWER, THE FREEDOM CHARTER MONUMENT, SITS BETWEEN THE TWO SQUARES. THE NORTH BUILDING ACCOMMODATES SEVERAL FUNCTIONS, INCLUDING BANKING FACILITIES, TRAINING ROOMS, A RESTAURANT, AND OFFICES. THE SOUTH BUILDING HOUSES A COVERED MARKET FOR MORE THAN 700 EMERGING INFORMAL BUSINESSES.



MARIO

Apartheid, the repressive system by which a white minority ruled South Africa for most of the twentieth century, literally means “separateness.” Its legacy is still evident today in the structure of the country’s major cities, whose suburban sprawl has the particular characteristic of being made up not of office and residential nodes around a central business district, but of distinct towns developed for different races. To enforce separation, the former white regime purposefully did not develop an adequate transportation infrastructure other than one serving factories. Now cities such as Johannesburg, Durham, and Cape Town are creating multimodal transportation structures to accommodate a newly mobile population. Along the way, they are encouraging the emergence of new types and styles of architecture that are providing a collective image for a resurgent South Africa.

The prime mode of transportation for most black South Africans is the minibus taxi. Tens of thousands of these small vans transport commuters from outlying “townships,” such as Soweto, to downtown Johannesburg, where the drivers wait all day before making the return trip in the evening. The Johannesburg Development Agency has used this daily migration as the engine for the revitalization and intensification of neighborhoods at both ends of the commute. In Soweto, the Baragwanath Public Transport Interchange and Traders Market links a parking/pick-up area for 650 taxis and 22 buses with 500 market stalls along an almost-mile-long stretch of Old Potchefstroom Road. Designed by Urban Solutions, this concrete arcade is contoured to the sloping terrain, folding down to provide places to sit, and up to shelter its inhabitants from rain and sun. Brick infill panels and site-specific artwork help anchor the structure to its immediate context, while providing clear focal points in the landscape.

The interchange’s pendant in Johannesburg is the Metro Mall Transport Facility and Traders Mart, designed by the same architects using similar concrete and brick elements. The scale here is larger, but also more compact, as the facility is the cornerstone for the redevelopment of the busy Bree Street corridor on the city’s south side. The 2,000 taxis and 25 buses park behind and above the street, leaving the frontage open for “formal” stores, while informal market stalls occupy the zone between the two. The facility reuses several existing structures and combines them into a composite form with a scale that, given the building’s function and the street’s jumble, appears heroic.

Such grandeur is appropriate to the Walter Sisulu Square of Dedication, a facility honoring a prominent figure in the anti-apartheid movement. Located in Kliptown, a suburb in Soweto, Johannesburg’s oldest township, the square, designed by StudioMAS, combines taxi and bus facilities not only with a market, but also with a public square that marks the place of the 1955 signing of the Freedom Charter, on which resistance to apartheid was based. The architects created a large, formal plaza split into two parts: The western area, where the signing took place, is open and somewhat bare, while the eastern area is a lush acacia forest. Meant to evoke the variety of the South African landscape, it also distinguishes between a site of memory and a more prosaic place of shelter, while maintaining a sense of spatial continuity.

These interchanges are all carried out in concrete and brick. But another project, Albonico Sack Mzumara + MMA’s Faraday Market and Transport Interchange in Johannesburg, is also a railroad station, characterized by a collection of undulating and angled shed roofs sheltering a more open and

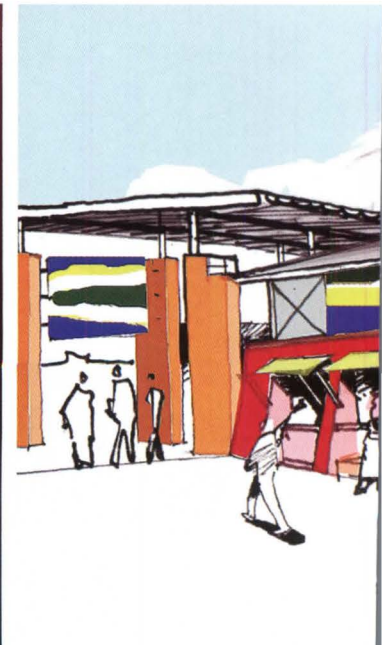
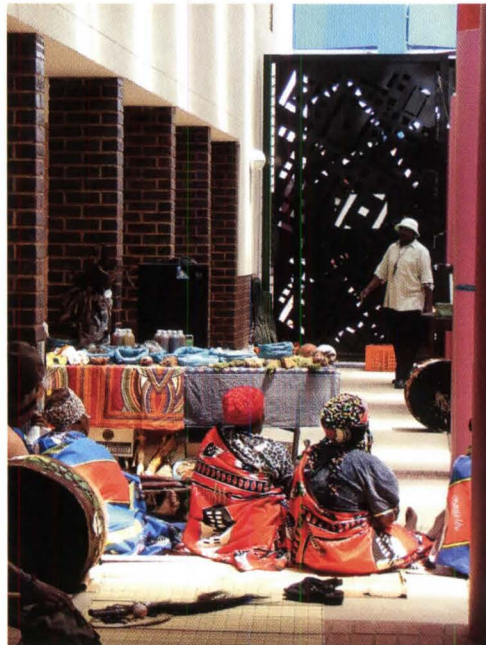
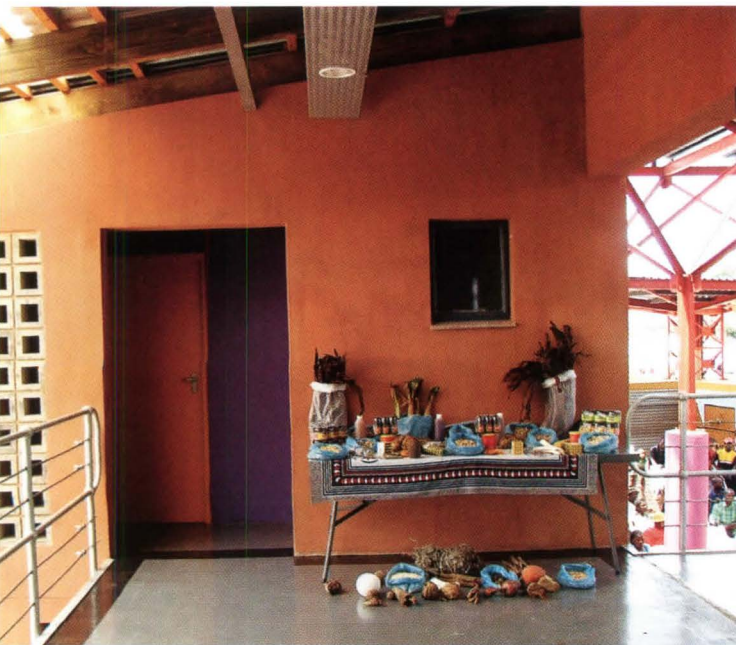
ACCESSIBLE CITY

In Johannesburg, an infrastructure program provides vital connections for a long-disenfranchised commuter population. by Aaron Betsky





THE FARADAY MARKET AND TRANSPORT INTERCHANGE (THESE PAGES) BY ALBONICO SACK MZUMARA + MMA BELONGS TO A NEW GENERATION OF MIXED-USE INFRASTRUCTURE PROJECTS IN JOHANNESBURG. THE COMPLEX CONNECTS PRIVATE TAXI SERVICES AND AN EXISTING TRANSIT SYSTEM. IT ALSO PROVIDES IMPROVED FACILITIES FOR THE LOCAL TRADE IN TRADITIONAL MEDICINE, INCORPORATING A HEALERS' HERB MARKET. THE PROJECT, SAY THE ARCHITECTS, "ELEVATES A PREVIOUSLY INFORMAL MARKET TO A POSITION IN THE CITY WHERE SURVIVING TRADITIONS MAY BE CELEBRATED" THROUGH THE APPLICATION OF HANDCRAFTED ELEMENTS SUCH AS WOVEN WIRE SUNSCREENS, AMONG OTHERS.



WIM BOTHA

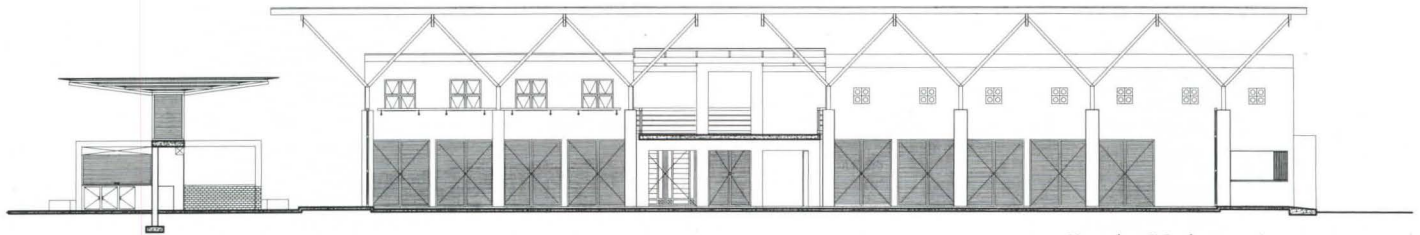
expansive marketplace. Here, the market has a “theme,” as it is dedicated to traditional healers and herbalists.

Similar structures are now going up in other South African cities as well. The Inner City and Thekwini Regeneration and Urban Management Programme (iTrump) in Durban aims to use its interchange to anchor the extensive remodeling of an area of canals, factory buildings, and Victorian houses. In Cape Town, the Philippi Public Transport Interchange, by Du Toit and Perrin, is a simple set of blocks that brings order to the sprawling township 10 miles from the downtown area.

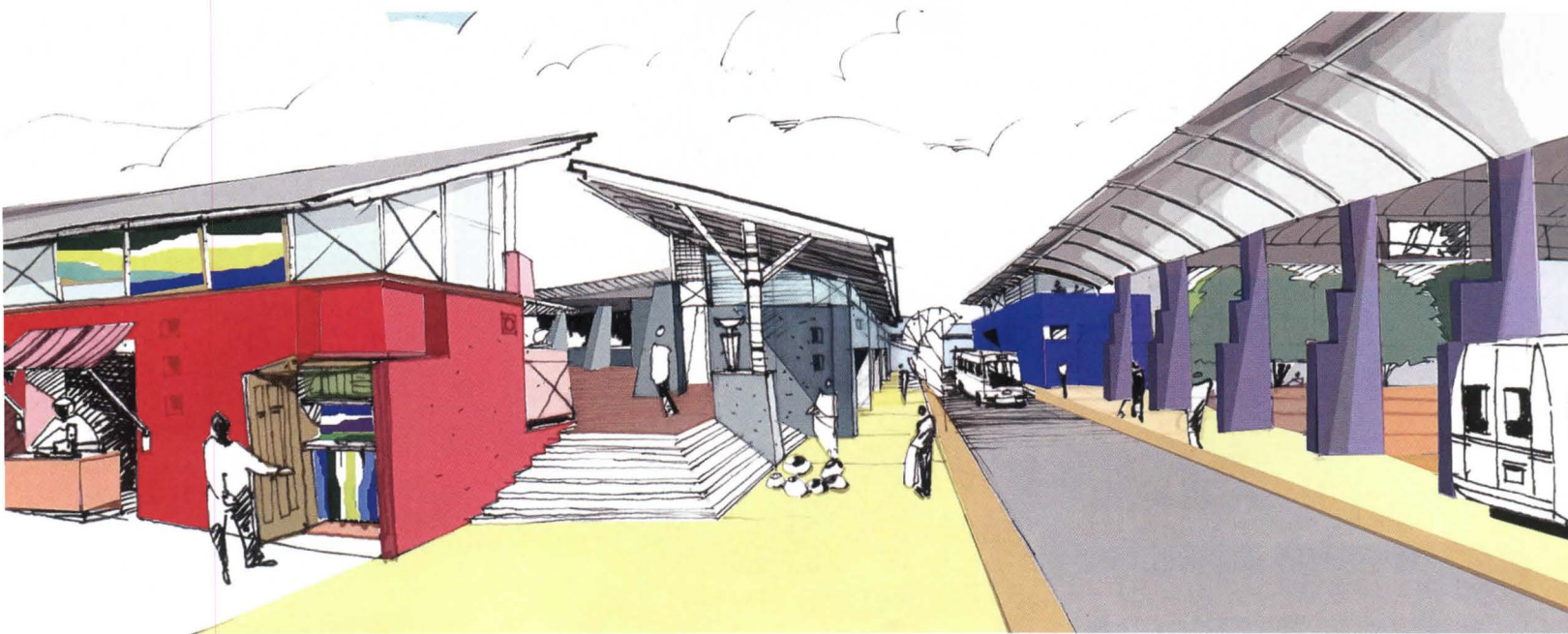
In all these cases, the architecture provides the most essential elements of a new collective identity for this renascent, multiethnic country: a shared space that is used daily. The forms in which this usable identity appears are basic, simple, and cheap, but also powerful because of their stripped-down quality. South Africa is developing a modern vernacular of concrete frames and brick infill panels, of thin shed structures and open spaces, and of compound forms that look back to the historical roots of both African and European structures, including farm sheds and village groupings. Local architects are combining these with an industrial heritage to develop a civic scale and formal language. Somewhere between the slightly ruinous shapes of the industrial and civic structures and the residential prototypes, they are finding a common ground on which and out of which to build. It is both the fact and the appearance of the country’s new collective architecture that increases hope for the future of this once tortured land. ▣

PROJECT: Faraday Market and Transport Interchange, Johannesburg CLIENT: Johannesburg Development Agency ARCHITECT: Albonico Sack Mzumara Architects and Urban Designers with MMA Architects and Urban Designers, Johannesburg—Monica Albonico (urban designer); Nicolas Sack, Mphethi Morojele (project architects); Walter Ludwig, Ben Magelepo (project team) ENGINEERS: DeLeuw Cather (structural, civil); Karabo Engineering (M/E/P) GENERAL CONTRACTOR: Nare Construction LIGHTING DESIGNER: Stewart Scott International

PROJECT: Walter Sisulu Square of Dedication, Kliptown, Soweto, Johannesburg CLIENT: Johannesburg Development Agency ARCHITECT: StudioMAS, Johannesburg—Pierre Swanepoel, Precious Makwe (project team) ENGINEERS: Arcus Gibb (structural, civil); Palace Engineering (M/E/P) QUANTITY SURVEYORS: MNL PROJECT MANAGERS: DP & BFH GENERAL CONTRACTOR: Grinaker-LTA LANDSCAPE ARCHITECT: African Environmental Design COST: \$25.8 million



Faraday Market section ——— 10'



Big Wheel Keep On Turning

A massive intermodal station helps mobilize Shanghai's burgeoning population.

by Abby Bussel photographs by Tristan Chapuis



In the age of megacities—those defined by the United Nations Human Settlements Programme (UN-Habitat) as having 10 million or more residents—mass transit solutions are quickly becoming a defining characteristic of the contemporary urban condition. For a thriving metropolis like Shanghai, transportation infrastructure is a critical component for sustained growth. The latest addition to the transitscape there is Shanghai South Station, a 624,000-square-foot facility, which has a waiting room capacity of 10,000 people. Granted, this will only accommodate a small portion of the local population, which, according to UN-Habitat, will reach 14.6 million residents by 2015. By any standard, however, South Station is big.

Beyond size, the complex also offers a formal departure from the many wavy-roofed transportation hubs that have risen of late in cities around the world. A competition-winning design by Paris-based firm AREP and the East China Architectural Design and Research Institute, the station, which opened last month, looks a bit like a giant hubcap, a somewhat ironic symbol for a mass transit facility that serves rail lines (local, regional, and long distance), buses, taxis, and subways. Measuring 837 feet in diameter, the roof (a three-layer system of external sunshades, transparent polycarbonate sheets, and perforated metal) shelters an amphitheaterlike main hall, where unobstructed views offer a clear picture of the station's circulation, and gives the building its identity. □







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