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Symbols of the architectural awards process: submission binders and jurors at work—in this case, Greg Lynn and Mary-Ann Ray (left to right). After 50 years, the P/A Awards program is still going strong. Coverage of this year’s winners starts on page 51. Photographs by Michele Asselin.

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BY C.C. SULLIVAN

THINK GLOBAL, ACT GLOBAL

As architects, we often feel powerless: Our projects are subject to the whims of our clients, the economy, and other forces we struggle to control. Yet, we’re also driven by a desire to make the world—or at least a small part of it—a better place to live. Many of us were drawn to our field by the belief that architecture is an agent of change. (In a recent survey of Architecture’s readers, two-thirds described a top professional goal as “making a positive impact on society.”) So it’s encouraging to hear the stories of architects making a big difference. People like Cameron Sinclair and Stephen Forneris of New York City, and William J. Stanley and Ivenue Love-Stanley of Atlanta are using architecture to help change the fate of the nations and people of Africa.

In Sinclair’s case, the target is AIDS and HIV-related illness. The volunteer group he founded in 1999, Architecture for Humanity, recently sponsored a design competition for a mobile HIV clinic. Of course, AIDS is not solely an African problem—Bill Gates offered $400 million to India to battle the disease, and China is finally acknowledging its own problem—but an astounding three-quarters of the world’s infected are in Africa, a plight magnified by poverty, famine, and civil strife. To help deal with the pandemic and the vast affected geography, Sinclair’s effort resulted in designs for rapidly deployable, inexpensive mobile clinics (page 49) that will be developed into prototypes and, soon, called into action.

Across the Atlantic, work by activist-architect Stephen Forneris to improve ingrained and dangerous building practices in Latin America will soon also benefit African nations. Forneris helped lobby for the promulgation of U.S. building codes in Ecuador (page 22) after witnessing firsthand the devastation by earthquake of entire neighborhoods of unreinforced masonry. While code propagation is foremost a way to save lives, international development banks see better building practices as a way to give humanitarian aid and debt relief a more lasting effect in numerous African countries.

In the case of South Africa, architects from around the world are helping to stimulate the educational and economic prospects of victims of apartheid. Stanley and Love-Stanley, for example, are working with South African architect Peter Malafani on a university in Evaton, the first large project built there with funds from the U.S. Agency for International Development. The school has become a social and psychological nexus, pointing the way to a rebirth of an entire town and emboldening a new generation of citizens.

Every generation of architects finds its own way to unlock the global power of architecture. These four are doing what comes naturally to our profession: using design to effect fundamental change.

P/A AWARDS AT 50

Architecture as an agent of change could aptly describe Architecture’s P/A Awards, now in its 50th year. In this year’s premiated group (page 58), we find a unique mix of potent ideas. Several projects advocate for the rituals and ancestry of a people: the Omaha nation of the U.S. Midwest, the festivals of central Mexico, and the medieval origins of Galicia, Spain. Others radicalize ubiquitous social conditions: our cultural relationship with the digital realm, and how children are absorbed by hyper-realistic entertainment venues. One project quietly condemns banal suburban planning by overlaying a fresh alternative on the zoning map.

After 50 years of the P/A Awards, it’s easy to exalt in the program’s history and influence. But it is also a moment to stand back and critique what it does. Much of the work submitted each year is about taking risks. But to what end? Creative risks are important, but only as means to broader benefits, or a better world. Each P/A Awards submission has a local impact; for the selected projects, the reach must be global.

In the meantime, I thank our esteemed jurors for their time and insights, and our sponsors Turner Construction and Bartco Lighting for making our awards reception and exhibit possible. Most important, I offer a toast to the firms that earned our jury’s praise: May their work be built—soon, and well.
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TRACTS OF MY TEARS
Hats off to Lawrence W. Cheek's "On the Wrong Tract" (November 2002, page 33): "Millions of satisfied customers can't be wrong" is one cliche I could certainly live without, but that's the attitude of off-the-rack homebuyers. Get real, people: Spending time on designing one of the largest investments in your life is well worth it. Do us all a favor; hire an architect.
Duane Shore
Williamston, Michigan

Cheek does not acknowledge the realities of economics. It's not a matter of education about quality; it's a matter of quality versus cost versus square footage. Most people buying $500,000 homes know their options, and they simply aren't ready to spend the same dollars for half the square footage, plus design fees. I suggest a survey on how many architects live in homes custom-designed by architects. I'll bet only a few do, and even fewer in houses that meet your definition of quality.
William J. Stank
Campus Architect
Lafayette College
Easton, Pennsylvania

IRONIC DISCONNECT
Bravo! Cheek's article encompassed the issue of McMansionitis to perfection. If our industry needs Architecture's guidance anywhere, it's in tract housing, but your magazine has ignored this arena to the point of no longer having a connection. The "Homes of the Year" (November 2002, page 49) are a perfect example—inspiring works of architecture that Joe Six-Pack cannot relate to. I'm certain the jury could care less what Joe thinks, but vice versa. Until a dialogue begins, we'll be driving past many more McMansion villages on our way to see those few award-winning homes.
Donald A. Koppy
St. Louis

The irony of the November issue couldn't have had a sharper edge. Cheek's editorial hits its mark and points out the opportunity architects have to improve the suburban landscape. We've all experienced the disappointing developments that he describes. So given the chance, what would architects build? Apparently, a home designed to look like a city bus; an "oyster with a tough shell"; and an island of identically shaped Monopoly pieces. Do we really wonder why architects have been largely shut out of the middle-class home market?
Richard Taylor
Dublin, Ohio

SUBURBS OF THE FUTURE
Precisely how are the vapid, disconnected, self-absorbed suburban objects touted in your Home of the Year awards different from the vapid, disconnected, culturally mainstream suburban tract houses criticized in the same issue—other than that the former subscribes to the narrow, prissy aesthetic of the architectural elite while the latter exploits visceral cultural resonances accessible even to the uninformed? To this apostate, both are repugnant but the former more so because it comes with an extra helping of aesthetic snobbery.
And regarding "Double Dutch" (November 2002, page 68): After 80 disastrous years of modernism ripping apart urban fabrics, you're still in favor of "subverting" conventional housing typologies? Have you actually looked at these places you're depicting and imagined living there? Aside from facile manipulation of skin, what is it that commends these sterile, mono-use environments over suburban Dallas?
Alan Razak
Philadelphia
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> letters

As a residential architect, I was curious to see the Home of the Year picks. I don't know if this is just tongue-in-cheek humor or if you are serious. Let's hope the owners never intend to sell for a profit.
Gayle Berkey
Littleton, Colorado

A (MORE) MODEST PROPOSAL

Your praise for the unnamed Home of the Year juror who said that he or she had convinced a client to reduce plans for an 11,000-square-foot “monster” to a more modest 7,500 square feet (“House Proud,” November 2002, page 11) seems oddly placed. A 7,500-square-foot house is still grossly over-large and has no relevance to 99.9 percent of the world’s population. To nod approvingly at the supposed restraint of an architect blindly servicing a wealthy client was, to this reader at least, sad.
Miltiades Mandros
Oakland, California

TOUCHED

Thanks for the story on the firm Heikkinen-Komonen’s prefabricated “Touch House” (November 2002, page 76). Markku Komonen and Mikko Heikkinen are among the best out there, but they are hardly “personality” architects, and they hate pushing themselves.
Will Morgan
Providence, Rhode Island

OIL AND ARCHITECTURE DON’T MIX

Regarding “Science Fair” (November 2002, page 35), your opinions on the Bush Administration’s energy policy or the possibility of war in Iraq are not factual and have no place in a news article about students and solar design. Early in the Bush presidency an energy policy was put on the table by the vice president, and as I remember, it included a balanced approach of conservation, exploration of nonpolluting technologies such as solar and wind power, fuel cells, and the like, and decreasing foreign oil dependency.
Bob Hawthorne
San Luis Obispo, California

CLARIFICATION

Due to an editing error, information in a news brief on UCLA’s architecture school (November 2002, page 18) was not clearly attributed. The statements are the opinions of a group of students that authored a website referenced in the article. The editors regret the error.

CORRECTIONS

In the review of the Venice Biennale (November 2002, page 45), a photo of the Brazil pavilion should have been credited to View/Paul Raftery. In “Science Fair” (November 2002, page 36), a solar home shown was incorrectly identified as that of third-place Auburn University; it was actually by Tuskegee University, which placed eleventh. The website for Discreet’s 3D Studio Max listed with the article “Model Data” (November 2002, page 26) should have read www.discreet.com. To see the work of Nadia Amoroso on the Internet, visit www.datascapes.org.
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Mockbee Passed Over for AIA Gold

CONTROVERSY  The late architect Samuel Mockbee, whose talents were formidable enough to earn him a MacArthur Foundation “genius” grant in 2000, apparently did not sufficiently impress the directors of the American Institute of Architects, who declined to award him the 2003 Gold Medal on December 6. For the 36th time since 1907, the institute elected not to hand out its highest award to a person of “lasting influence” on architecture.

Mockbee, who died at age 57 on December 30, 2001, became famous as the cofounder of the Rural Studio at Auburn University, where he, his colleagues, and his students built houses and community buildings for poor families in Alabama using found and recycled materials. He was one of two finalists for the Gold Medal; the other was Albert Kahn, who died in 1942.

The Gold Medal selection process begins when a distinguished group of AIA members submits nominees to a preliminary jury, which narrows the list to five candidates eligible for board consideration. This time, the five were Mockbee, Kahn, Renzo Piano, Santiago Calatrava, and Moshe Safdie. The board then votes on three finalists. (Piano was one before his name was withdrawn for unspecified reasons.) Mockbee won the majority of votes over Kahn, but failed to win the final three-fourths approval needed for the medal.

"If the profession is looking for someone to represent it in terms of dedication to the public and contribution to culture and humankind, I can’t think of a better choice," says Daniel Bennett, Auburn’s dean of architecture, even though the AIA awarded the medal to Thomas Jefferson in 1993. "But that is the point, the board should have made that decision before Sambo was nominated. They really do need to rethink the way they handle it.”

"It was a frustrating, infuriating ordeal," says Jamie Aycoc, the Birmingham, Alabama, architect and AIA board member who shepherded Mockbee’s nomination through the process. "The man definitely deserved the Gold Medal.”

Mockbee’s nomination drew letters of support from architects Mack Scogin, Peter Eisenman, and Frank Gehry.

"If the profession is looking for someone to represent it in terms of dedication to the public and contribution to culture and humankind, I can’t think of a better choice," argues Scogin, pointing to the broad impact the late architect had in a career cut short. "The MacArthur people told me that [Mockbee’s] was the best award they’d ever given, that it was definitive. That’s the difference between how the public sees the profession and how the profession sees the profession.”

BRADFORD MCKEE
With McDonough as Guide, China Goes Green

GREEN Is it survival of the fittest? Like a fast-growing vine, William McDonough's influence continues to spread. After bringing eco-enlightenment to a multitude of multinational corporations, he is now preparing to preach the gospel of green business to all of China. This year McDonough became chair of the U.S. Board of Directors for the China-U.S. Center for Sustainable Development, an organization formed in 1999 to bring American technological know-how and economic

Women Get Their Due

LAURELS In an industry where, according to the 2000-2002 AIA Firm Survey, women make up only 13 percent of licensed architects in U.S. firms, Boston's Women in Design Network stands out as one of the few groups coordinating women-only awards programs. The network hosted its yearly conference in November, during the Build Boston convention. The event featured workshops, an awards luncheon, and an exhibit of local work.

Those presented with Awards of Excellence were: Barbara Boylan, director of design for the Massachusetts Bay Transportation Authority; Joan Goody, a principal of Goody, Clancy & Associates; and Sharon Matthews, director for the National Architectural Accrediting Board. A posthumous award was given to Lynda Lloy Hack, who died in 2001.

"The conference evolved out of a desire to have conversations about design and practice among female practitioners," explains Wendy Riggs-Smith, an architect with Wallace Floyd Design Group and conference cochair. She adds that in trade-show environments like Build Boston, where male attendance traditionally outweighs that of women, "you definitely feel like a minority."

In its third year, the event is, according to observers, unique in its scale and concentration. But are gender-specific awards programs necessary? Kell Hagen, chair of the Seattle AIA's Diversity Committee, doesn't think so. "We give a lot of awards to women, and the Seattle AIA board is predominately women," she says. "It's almost reverse discrimination to have women-only awards." EMILIE W. SOMMERHOFF

Death of a Modern Maestro

OBITUARY
Achille Castiglioni, the Italian architect and designer who made his mark on the post-World War II Italian design revolution, died last month at the age of 84. Born in Milan, Castiglioni is best loved for distinctive domestic objects that embody his clever and quirky design sensibilities, often combining familiar elements in surprising new ways. Achille was the last surviving brother of Pier Giacomo Castiglioni. Highlights of Achille's collaborative oeuvre include the Montecatini pavilion at the 1962 Milan trade fair, the Telephono stool, and the Arco lamp.

ANNA HOLTZMAN
My Own Private Italy

> PRESERVATION Rome wasn't built in a day, but it may be for sale if the price is right. Under a law passed last summer by Prime Minister Silvio Berlusconi's administration, an agency was created to inventory all of Italy's cultural properties—everything ranging from small villas to historic ruins—that are owned by the state and could be sold, leased, or used as collateral for loans. Like an Italian Mike Bloomberg, Berlusconi is a billionaire media titan who has been accused of running the country like a business.

Not only is the government strapped for cash and unable to make long-promised infrastructure improvements, but many of its main cultural sites are in decay. According to UNESCO, the UN cultural organization, one out of three of the World Heritage Sites located in Italy is endangered. (Italy is home to 70 percent of such locations worldwide.) "It's expensive to maintain certain sites," says Rosanna Santesso, a spokesperson for UNESCO. The selling of cultural properties "is something the government has been debating for some time."

The government has already begun to sell off villas it owns in Tuscany and Umbria. The fate of larger, more significant venues is still in question, but while the Ministry of Culture declined to comment for this article, one thing is certain from the public debate: The Colosseum will not be for sale. For lease? Perhaps.

ANDREW YANG

BUZZ

The New Museum of Contemporary Art in New York City will build a 60,000-square-foot, $35 million facility in SoHo. An architect will be announced in March.

Case Study House architect Donald Hensman, principal of Pasadena, California-based Buff Smith & Hensman, died last month.

Barbie an architect? A poll on barbie.com asks you to choose the icon doll's next profession. At press time, "architect" was trailing "librarian" by 2 percent. "At this point, "architect" was trailing "librarian" by 2 percent. Alas, according to a Mattel spokesperson, this survey will not actually determine what Barbie's next career will be.

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Mi Casa Es Su Casa

CODES A little-noticed provision in the Foreign Relations Authorization Act signed into law by President Bush late last year aims at improving the safety of buildings in Latin American countries. Known as the Code and Safety for the Americas, or "CASA" Act, the legislation provides funds to update building codes and train inspectors in countries including Ecuador and El Salvador, and it authorizes the U.S. Agency for International Development (USAID) to give grants to improve building safety abroad. Initially, the International Code Council (ICC) International Building Code will be translated into Spanish for the initiative, and other code translations will follow.

The brainchild of New York City architect Stephen Forneris, the new law was inspired by the idea that if earthquake-prone countries build safer structures, fewer lives will be lost and less humanitarian aid will be needed (Architecture, February 2002, page 33). Observers also think that the CASA Act could dramatically change infrastructure funding and debt relief in developing nations. Already the World Bank, International Monetary Fund, and United Nation's Habitat are considering building practices as a part of debt buy-back programs in, for example, African countries.

According to Forneris, the initial appropriation of $3 million, mainly for translation costs, likely will be followed by an open-ended expansion of the program. Other codes and standards groups named in the law, including ASTM and UL, are meeting this month to draft a proposal to USAID for Ecuador and El Salvador. ASTM and the ICC will host a conference this spring in Ecuador, and the Dallas-based group Airlne Ambassadors (www.airlineamb.org) has begun organizing "reconstruction vacations" for volunteers to build housing, clinics, and schools. "The volunteer effort will be a key part of the proposal to USAID, which doesn't have qualified engineers on staff," says Forneris. "We need to provide highly skilled, highly trained people." C.C. SULLIVAN
LOOKS ARE STILL EVERYTHING.

Straddling a near-vertical hillside, the Petersen Events Center brings order to its setting with a beautifully sweeping five-story asymmetrical lobby. Designs like this require all of an architect's ability to handle space and mass. This time, it also required a call to a member of the PPG Certified Fabricator™ Program.

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Tropical Teachings

＞BOOK

"GEOFFREY BAWA: THE COMPLETE WORKS" / BY DAVID ROBSON / THAMES & HUDSON

Claimed by both modernists and traditionalists through the style wars of the last 30 years, Sri Lankan architect Geoffrey Bawa (born 1919) had little interest in labels or signature styles. He was a modernist, a bricoleur, or a postmodern interpreter of vernacular form, depending on the demands of the project; his œuvre includes houses, hotels, religious buildings, and entire university campuses. Today his work is admired for its deeply rooted regionalism, which often relied on local materials and craftsmen, and used water, vegetation, and natural ventilation for cooling. Bawa also nurtured a group of local artists and designers, convincing his clients to commission new works, which he incorporated into his designs from their conception.

As Geoffrey Bawa: The Complete Works, a monumental new book by David Robson, illustrates, Western designers have much to learn from Bawa’s method: His hotels remind us that tourism does not necessarily lead to global blanding; his courtyard and tower houses offer dignified models of urban living; his buildings work with the elements, not against them; he demonstrates that modest materials need not lead to modest expression. Robson’s book reads like a juicy biography of a man, his times, and a unique cultural and physical landscape. Educated as an attorney at Cambridge, Bawa spent his youth on a dilettante’s grand tour. He returned to England in midlife to study at the Architectural Association before settling into a prolific and patient career in Sri Lanka, Mauritis, and southern India. It took decades for Bawa to achieve international recognition. Sadly, it seems such considerable work could easily go unrecognized in today's headline- and image-driven market. ALAN G. BRAKE

Empty, but Full

＞EXHIBITION

"THE PONCHO SERIES: ANTHONY HERNANDEZ" / SEATTLE ART MUSEUM / SEATTLE / THROUGH APRIL 6

Anthony Hernandez is billed as a photographer of empty spaces. Since 1984 he has been shooting photographs of abandoned sites in the United States and Europe. But Hernandez is no bloodless technician: In works like his 1984 series Landscapes for the Homeless (in which he photographed temporary encampments in and around Los Angeles for four years), Hernandez’s images are more like portraiture than straight documentation of place. They suggest a human presence by photographing human absence—jalapeño peppers laid out to dry among a set of boxes and clothes. In his later work, the abstraction of space takes a greater role, but the power of Hernandez’s eye remains. More than just emptiness, it describes abandonment. JACOB WARD
Big Ideals

EXHIBITION
"LATENT UTOPIAS" / JOANNEUM NATIONAL MUSEUM / GRAZ, AUSTRIA / THROUGH MARCH 2

The Zaha Hadid-curated exhibition "Latent Utopias: Experiments in Contemporary Architecture" kicks off a rich lineup of cultural programming in Graz, Austria. Graz was nominated as the European Capital of Culture for 2003, part of an annual program launched by the European Council of Ministers in 1985 to encourage cross-continental cultural exchange.

Looking back to the utopian ideals once posited by Frank Lloyd Wright and Le Corbusier, Hadid and cocurator Patrik Schumacher explore the seeds of such ideas in the work of today's cutting-edge architects. Rising stars (UN Studio, MVRDV, Foreign Office Architects) and deconstructivist and digital architecture luminaries (Coop Himmelblau, Greg Lynn FORM, Asymptote, NOX, dECOi) appear alongside industrial designers (Karim Rashid, Ross Lovegrove) and other emerging international teams. The most exceptional contribution is an installation by New York City-based firm Reiser + Umemoto, in which small fluorescent rods emit visible electromagnetic fields that mediate the metaphysical atmosphere of a room, creating compelling imagery.

Rather than a dry sequence of plans and models, the show offers a colorful overview of contemporary architecture for a mass audience that largely overlooks practical and social concerns, but nevertheless explores the notion of "utopia" in a forward-looking, theoretical context. Ultimately, the show reveals an architectural fairyland that is not fully developed in either reality or Utopia, but which contains some provocative ideas and shimmering visions.

LILLI HOLLEIN

The Future:
4-D CAD?

TECHNOLOGY
ARCHICAD / GRAPHISOFT / WWW.GRAPHISOFT.COM
REVIT / AUTODESK / WWW.AUTODESK.COM

While model-based design software still isn't the norm, two products are advancing the notion of the digital building model. One is the fairly mature ArchiCAD, which offers new ways to track information on building components, as well as a "4-D" integration with scheduling software to model construction sequencing and automate estimating. The second product is the upstart Revit (launched about three years ago), which facilitates work-on relatively compact files—with multiple team members, while automating change management.

Revit's charms are about constancy and teamwork. Project designers share a single database that coordinates all changes, with an automatic text log as a back-up. Users can specify relationships critical to their buildings—for example, that walls always stay seated on floors—and the software maintains the conditions without requiring the user to work in 3-D. Revit also mimics architectural conventions: Dimension strings, for example, feel analogous to their 2-D counterparts. While also highly functional, ArchiCAD dreams of the future. It supports an industry-wide standard for "Interoperable" data, which makes its models ready for sharing with engineering and construction disciplines. ArchiCAD works well with downstream applications such as estimating, code compliance, and simulated production scheduling.

While ArchiCAD and Revit look and feel quite different, both focus on the value of embedded information and the need to work alternately in 2-D and 3-D views. The benefits for designers are easy to visualize.

C.C. SULLIVAN

Corbu Review

BOOK
"LE CORBUSIER: ARCHITECT OF THE TWENTIETH CENTURY" / TEXT BY KENNETH FRAMPTON, PHOTOS BY ROBERTO SCHEZEN / HARRY N. ABRAMS

Le Corbusier, master of modernism, may well be the most written about architect of all time. Yet the pairing of Kenneth Frampton's astute, methodical scholarship with intimate photographs by Roberto Schezen make this new volume, Le Corbusier: Architect of the Twentieth Century, stand out. With spare commentary, Frampton, the consummate academic, describes each structure's floor plan, client, and place in the chronology of Le Corbusier's work. This leaves wide-open spaces for Schezen's photographs to capture interplays of light and shadow and to crop geometrical forms, whether the stark outer blocks of the Cité de Refuge in Paris or the gently curved interior halls of the Millowner's Association Building in Ahmedabad, India. In Schezen's images, many of Corbu's austere spaces are infused with a subtle, almost luminous domesticity, while domestic objects, like a purse left out in the foyer of the Villa Sarabhai, become sculptural, even totemic.

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From Ray to Reality

Architects revise their designs often, and changes in material, form, and finish frequently have to be reflected in presentation renderings. Now there's hope for quickly and accurately coordinating production and presentation. The answer, ironically, could lie in ray-tracing technology, a notoriously slow computer method that mathematically models virtual light rays bouncing off of specified shapes, colors, and textures.

A new ray-tracing rendering software called Brazil makes last-minute changes both quickly and accurately. For a residential project by Messana O'Rorke Architects, the computer-graphics company Hypertecture Studio used Brazil to help keep the computer model's lighting and materiality "constantly updated," says principal Carlos Grande. Artist James Gibbs of New York City-based dbox found that Brazil allowed "eleventh-hour changes" to an animation created for a Diller + Scofidio museum project, and represented diffuse daylight well, a critical effect for describing the gallery spaces. Besides its newfound speed, ray tracing offers super-realistic radiance to even the simplest projects. Plus, CAD data from Autodesk's Viz and Discreet's 3d Max can be imported easily into Brazil.

C.C. SULLIVAN
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EXHIBITIONS

Baltimore
Parallel Tracks: The History of Photography in Two Brief Installments more than 50 works divided into studio and street work, by photographers ranging from Walker Evans to Man Ray, at the Baltimore Museum of Art, through May 25. (410) 396-6310

Barcelona, Spain
Cosmopolis: Borges and Buenos Aires the fourth in a series of installations entitled "Cities and their Writers," this exhibition traces Jorge Luis Borges's relationship with his city through both myth and history, at the Centre de Cultura Contemporània de Barcelona, through February. (34) 93-306-4100

Cambridge, Massachusetts
Shigeru Ban a survey of the contemporary Japanese architect's experiments with materials, structural systems, and methods of construction, at the Harvard Design School, January 27-March 16. (617) 495-4731

Cleveland
Picture Show: James Casebere this artist creates tabletop-sized models of unoccupied architectural spaces, which he then photographs, creating eerily vacant images, at the Museum of Contemporary Art, Cleveland, through February 2. (216) 421-8671

Ghent, Belgium
From Bakelite to Composite this exhibit explores the history of fiber-reinforced composite materials in consumer products, covering a wide range of objects from the 1950s to the present, at the Museum of Decorative Arts and Design, through February 23. (32) 9-267-9999

Los Angeles
Edward Tufte: Escaping Flatland artist Tufte graphically represents abstract ideas, 3-D forms, and statistics in the "flatland" of the two-dimensional page, at the A+D Architecture and Design Museum, through February 13. (323) 871-2877

Mexico City
Louis Barragán: The Quiet Revolution the Vitra Design Museum and the Barragán Foundation have teamed up to present this exhibit on the late Pritzker Prize-winning Mexican architect, at the Palacio de Bellas Artes, through February. (55) 5512-2593-152

Montreal
Peter Eisenman: House IV drawings, photographs, a film, and a model illustrate one of Eisenman's 10 experimental house designs, which he used to develop his theory of conceptual architecture, at the Canadian Centre for Architecture, through February 7. (514) 939-7026

New York City
Outreach: Mobile HIV/AIDS Health Clinic for Africa a presentation of over 125 schemes from 25 countries submitted to Architecture for Humanity's design competition for a mobile HIV clinic, at the Van Alen Institute, through January 31. (212) 924-7000

A Multifaceted View: The work of Antoni Gaudí in Contemporary Catalan Photography, at the City University of New York, through February 7. (212) 817-7170

Building Structures a group exhibition of local and international artists who have co-opted and reimagined the techniques and principles of architecture, at P.S.1, through February. (718) 784-2084

Philadelphia
Intricacy architect, theorist, and champion of architecture's digital revolution, Greg Lynn curates—and contributes to—a collection of works by fellow architects, artists, and designers, linked by the theme of "Intricacy," at the Institute of Contemporary Art, January 18-April 6. (215) 573-9975

Pittsburgh
Out of the Ordinary: The Architecture and Design of Robert Venturi, Denise Scott Brown and Associates the first retrospective of the firm's work in architecture, urban planning, and the decorative arts, at the Carnegie Museum of Art, through February 2. (412) 622-3131

San Francisco
Body Design designers from the fields of fashion, industrial design, furniture, and architecture consider the body as a site for design, with work by Marcel Wanders, Loom, Jürgen Mayer H., IDEO, and others, at the SFMOMA, through March 23. (415) 357-4000

Washington, D.C.
Big and Green: Toward Sustainable Architecture in the Twenty-First Century current and planned environmentally building technologies are explored through some of today's most significant "green" projects and firms, with a special focus on big buildings, at the National Building Museum, January 17-June 22. (202) 272-2448

CONFERENCES

Produced by Sonny Sonnenfield, Architecture, and Architectural Lighting magazines, with Paul Gregory and Jonathan Speirs, Architectural Lighting Master Classes 2003 is a seminar for design professionals on creative lighting use, at John Jay College, New York, February 20-21 (646) 854-4581

The National Low Income Housing Coalition's annual housing policy conference will consist of a day of workshops, followed by a day of lobbying elected government representatives, in Washington, D.C., April 28-29. www.nilhc.org

COMPETITIONS

This year's ACSA/AISC Student Design Competition, sponsored by the American Institute of Steel Construction and the Association of Collegiate Schools of Architecture, invites students to design an experimental performing arts center. Registration deadline February 3. www.acsa-arch.org

The AIA College of Fellows is accepting applications for the 2003 Latrobe Fellowship, awarded in support of research that will lead to significant advances in the architecture profession. Deadline February 21. www.aia.org/institute/fellows/latrobe1.asp

The European Central Bank is hosting a design competition, open to international architects, for a New ECB Premises in Frankfurt am Main, Germany. Deadline May 1. www.ecb.int/press/02/pr201126en.htm
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Historically, Russians have admired American construction technique for its structural soundness and economic efficiency, but they always looked to Europe for aesthetic inspiration. In the 1990s, American firms showed the Russians how to design the architectural tools of capitalism: Class A office space and malls. They were not sharing any high-design secrets.

With Eric Owen Moss's commission to design the New Holland Cultural Center in St. Petersburg, Russia, this interplay is taking a new tack. The site is located on New Holland, a triangular island just across the Neva River from the Winter Palace and Palace Square with its monumental Alexander's Column, perhaps the city's most critical node, both physically and culturally. The Winter Palace (now Hermitage Museum) was stormed by workers in October 1917, cementing the Bolsheviks' hold on the Russian Revolution. The cultural center—in fact, a mixed-use development with a significant commercial component—began in conjunction with another project: an addition to St. Peterburg's famous Marinsky Theater. Since its conception, Marinsky has become a federal development, and thus subject to much criticism. Moss's amorphous, turtle-shaped theater was met with considerable controversy. While St. Petersburg may wish to be a cultural metropolis, the city has cold feet about importing American "blobitecture." "There was raucous debate, something you don't get here," says Moss approvingly. To their credit, in November the Russians decided to hold a competition for the Marinsky, inviting such luminaries as Arata Isozaki and Herzog & de Meuron, as well as Moss.

In contrast, New Holland has a better shot at being built because it is largely a private scheme developed by Fred and Laurie Samitaur-Smith, the very two that have been credited with putting Moss on the map in his hometown of Los Angeles. Moss intends to keep a number of the eighteenth-century brick warehouses built for the shipbuilding trade on the New Holland site, weaving them together with new forms, largely made of glass, to create a complex stretching across the entire island. The extant brick structures will house offices, shops, restaurants, classrooms, and workspaces for the arts. At the center of the island, the original dry-dock pool—still connected to canals leading to the river—will remain, but it will be integrated with a new performing arts center: a 30,000-seat outdoor concert area, a 5,000-seat outdoor theater, and a 700-seat, glass-enclosed theater. On the triangle's northern edge, an enormous glass structure—an undulating, mountainous form—will contain a five-star hotel, restaurants, a high-tech exhibition center, and an art museum. A tubular glass arcade will penetrate the expanse, linking circulation throughout New Holland.

To some St. Petersburgians, it may seem as if a UFO has landed in the river, but it is not as if their city is staid. While neoclassical, it is flamboyantly Baroque, and fittingly so for this highly emotive country with a penchant for fantastic forms. "The great thing is that New Holland will bring modern architecture to Russia," says Fred Samitaur-Smith. (Of course, in reality, the Russians invented constructivism nearly a century ago.) In addition to bringing cutting-edge design back home to the Russians, in urban terms, Moss links the axes of New Holland back to Palace Square, integrating it into the fabric of the old city.
rehabilitated warehouse space
2 terraced public plaza
3 theater
4 hotel/conference center/museum

Axonometric view

View of hotel, conference center, and museum complex

Museum interior
on the boards

Kyu Sung Woo Architect / Memorial Park and Columbarium / Seoul, Korea

Generally associated with life, sprawl is also a consequence of traditional burial rituals. Funerary practices consume land, and municipal officials in Seoul, Korea, are investigating cremation as one way to help stabilize development. Yet, the repository for remains—the columbarium—still carries a stigma in Korean society, where most people prefer graveyard interment. To bridge the cultural divide, Cambridge, Massachusetts–based Kyu Sung Woo developed a high-density facility for 50,000 urns using contemporary tectonics and a close association with nature. The solution draws on ideas from the Yi Dynasty’s Chongmyo shrine (1395), rendered in crisp steel framing and curtain wall.

Rather than the white marble, internalized circulation, and centralized geometry associated with columbaria, the architect employs a continuously glazed exterior, perimeter circulation, and a geometry that adjusts to landform. The long, thin buildings have short entombment aisles perpendicular to the primary circulation paths, offering views to the valley outside. Yet, the spaces offer ample privacy for as many as 30,000 mourners a day.

At 61,000 square feet, the project is budgeted at about $9 million.

C.C. Sullivan

Polshek Partnership Architects / Newseum / Washington, D.C.

The First Amendment is getting its own museum. The Newseum, an interactive museum of news set to open its Washington, D.C., home by late 2006, will demonstrate the many ways in which the free press operates, both behind the scenes and in front of the camera, on the printed page, over the airwaves, and through the Internet.

Occupying a site on Pennsylvania Avenue roughly halfway between the White House and the Capitol, the 531,500-square-foot institution, designed by Polshek Partnership with exhibition design by Ralph Appelbaum Associates, places the crucial role of the free press front and center in the nation’s capital. A 4,500-square-foot “window” reveals the contents of the museum to the public, while expressing the elemental transparency provided by an unhindered media. Polshek’s design sets three rectangular bars of varying lengths and heights parallel to the avenue. Each bar is separated by circulation routes and tied together by a series of bridges. The six-level museum is organized by a 90-foot-high atrium.

The building also houses 30,000 square feet of retail space, 100 condominiums, a conference center, and the headquarters of the Freedom Forum, the foundation that funds the museum.
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The Revisionist Olympics: Beijing 2008

By Richard Ingersoll

When the Olympic torch is lit in Beijing in the summer of 2008, it will be an invitation to forget. Nineteen years will have passed since the massacre in Tiananmen Square, when the People's Liberation Army killed an unknown number of pro-democracy protesters. While the "modern" countenance of the city—now a sanitized, high-tech, cosmopolitan capital—will doubtlessly astonish the world, the memory of this critical moment in Beijing's confrontation with modernity will have conveniently vanished. The advent of a flourishing consumer culture (cars, clothing, apartment houses) will further dispel any misgivings about human rights in China.

This wiping away of political history will be paralleled by the wiping away of architectural history. With the increased pace of development for the Olympic Games, the narrow alleys that serve historic courtyard houses face imminent demolition or gentrification.

With the increased pace of development for the Olympic Games, the narrow alleys that serve historic courtyard houses face imminent demolition or gentrification.

This wiping away of political history will be paralleled by the wiping away of architectural history. With the increased pace of development for the Olympic Games, the tightly woven hutongs, narrow alleys that serve the single-story historic courtyard houses surrounding the core of the Forbidden City and the Tian Tan temples, face imminent demolition or gentrification. The former will eradicate the memory of architectural form, while the latter will undermine the local class mix that gives these neighborhoods their vitality. Recently, 25 hutong areas have been declared "protected" zones of historic interest by the municipal planning agency, and allegedly 40 more areas are being studied by the agency for this purpose. With a mere $40 million of Beijing's $2.5 billion Olympic budget allotted to the conservation of historic buildings, however, this effort is spurious at best: Right next to the Forbidden City, for example, in an area that has been identified as protected, bulldozers are demolishing everything in sight, scooping out a huge hole in the ground for a multilevel shopping mall. When one realizes that the tens of thousands of people who participated in the demonstrations that led to the 1989 massacre filtered through the ancient capillaries of the hutongs to fill Tiananmen Square, this form of urban lobotomy does not seem so casual.

The hutongs are the only places left in Beijing that have architectural density and urban vitality. Otherwise, the cityscape—restructured during the past 20 years on a concentric web of ring roads, 10-lane highways, and hundreds of elevated interchanges—is dotted with countless new 15- to 30-story condominiums and office towers. Intense landscaping succeeds to some extent in mitigating the disturbing lapses in scale, style, and color of these new buildings. Amies of gardeners, it seems, have groomed every intersection and highway viaduct.

The district set aside for the "Olympic Green" will be no exception to this program of agoraphobic vegetation, replacing urban fabric with more easily maintained public spaces. Expanding an existing set of sports halls and stadia built for the 1994 Asian Games, the Olympic Green is located in the north of Beijing, directly on axis with the Forbidden City, conforming to the city's historic, grand-cosmological design. The most recently published plan of the district by Sasaki Associates of Watertown, Massachusetts, covers about two square miles (about twice the size of the Forbidden City) and locates a series of five new sports halls to the west of a grand axis, with the new Olympic Stadium to the east. A local monorail has been proposed to connect the major nodes of this vast complex, which will have an Olympic Village in the northwest corner and a linear collection of hotels with mid-rise office buildings in the northeast.

Like the rest of the city, the guiding strategy is to permanently "green" the district. On the north end of the site, a new urban park will complete the axis with a large free-form lake. Mayor and Olympic Committee Chairman Liu Qi says, "Beijing will become a big garden in the coming five years." Undoubtedly beneficial for cleansing Beijing's famously polluted air, the government's greening strategy will also grow over the memory of urban form and the political expression it once supported. R
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Designer Developments

When a developer cares enough to build the very best.

BY PETER SLATIN

REAL ESTATE Does good design sell? During the high-flying 1990s, a number of prominent developers decided to extend their good, generally modern tastes to their local markets. Even in economically staid 2002, this new breed of design-savvy developer is making its mark on cities across the country. Self-appointed tastemaker Colin Kihnke of Chicago, for example, works with local big names like Perkins & Will as well as emerging firms like Brininstool + Lynch on high-end and middle-of-the-market residential projects. Others seem to behave like art collectors: Miami's Craig Robins has commissioned townhomes from high-design New York City firms like Hariri & Hariri and architect Terence Riley, curator of architecture at the Museum of Modern Art. On New York's Long Island, developer Harold Brown is building a neighborhood of homes designed by a who's who of "It" architects, from the late Samuel Mockbee to New York City-based designers Reiser + Umemoto and Lindy Roy.

Still others, like Jim Thomas of Los Angeles and Mark Goodman of Chicago, have taken on an attitude that recalls that of Gerald Hines, the engineer-trained developer whose Houston company has long worked with established designers. The Hines model uses great architecture as part of a formula for attracting other development in large urban projects. (Hines just won a lifetime achievement award from the Urban Land Institute for his "visionary urban development.") Yet, as Thomas and Goodman are finding out, it takes more than an eye for architecture to succeed. A dose of luck, timing, and corporate goodwill are also helpful.

BALANCING OBJECTIVES

In downtown Philadelphia, Jim Thomas is weighing the prospects of attracting a commercial tenant and also of creating a new residential market in a search to find the balance of design, size, and expense that will pencil out. Thomas, who has projects across the country, is considering adding two smaller towers, one office and one residential, to a local portfolio that includes both historic and modern properties on adjacent blocks. In response to a request from Comcast for an office tower, Thomas asked the New York City architecture firm Thomas Phifer and Partners to design a tower to present to company executives, who were exploring relocation options in 2002. Thomas, who was competing for the Comcast deal against several other major developers in Philadelphia, felt that Phifer's minimalist glass prisms
Good Business

When Boeing announced in 2001 that it was moving from Seattle and had chosen to lease a new headquarters office in Chicago, developer Mark Goodman crossed his fingers. He hoped to steer Boeing into his 420,000-square-foot building at 550 West Jackson, a luminous green, reflective-glass and stainless-steel structure then just nearing completion. The 20-story building, designed by Anthony Belluschi Architects, was rising in the relatively undeveloped West Loop, where office expansion is still taking root.

Nice try, Boeing landed elsewhere in Chicago just as the economy peaked, leaving Goodman with an empty building in a falling market. Today, 550 West Jackson is about half full, with tenants such as Guardian Life, Greenwich Capital, and the Federal Drug Administration. Such names reflect something unusual about Goodman's development stance: He is being as selective about his tenant roster as he was about the building's design when he first instructed Belluschi to create something "timeless." Belluschi held up Skidmore, Owings & Merrill's 1957 Inland Steel building, which could be seen from his own office, as his model. "What we did was based on my value system as to how real estate should be approached," says Goodman. "Good architecture is good business."

It is a welcome, and surprising, sentiment from a developer with no significant experience in a downtown setting; the building is Goodman's first major urban project. And, he notes, "in certain markets"—like the current one—you don't get rewarded for practicing that. There's one overriding factor driving tenant concern: the rent. Indeed, Goodman could have built a cheaper building, opened it sooner, and charged less rent, and yet made more money than he has so far. "We had a decision matrix, and we came to a point where we were able to make a choice between saving money and doing something nicer," he says. Goodman and Belluschi agree the project could have been completed nearly a year earlier, putting the developer ahead of the leasing curve before it turned south—and making the building more competitive with newer but less-ambitious buildings in the West Loop area. "The point is, it is all positive for the West Loop," Goodman declares. "Our concern was to have something that would anchor the neighborhood with a better-quality product."

The building's value is not just embodied by first-rate materials and finishes. (The curtain wall and the Minnesota limestone and granite at its base, set it smoothly into the context of its neighbor, Union Station, completed in 1925.) More remarkable is its technical feat: The new façade encases an unremarkable existing four-story building that Goodman wanted to demolish, but was unable to because of a long-term lease held by MCI. Belluschi worked with multinational engineering firm Thornton-Tomasetti to devise a methodology of lightweight structures that enabled Goodman to add 14 stories in a series of setbacks to the building, instead of the eight additional floors it had been designed to support.

"It's a beginning-of-the-new-millennium building," says Belluschi, who is best known for retail entertainment design, adding, "It's the one I'm proudest of."

While both Thomas and Goodman are being hit by the vagaries of the economy, both hold firm in their conviction that good design is a valuable long-term investment. The question is, will these architect-friendly developers survive to influence others?
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Does designing for efficiency and security mean our international face will be soulless?

BY BRADFORD MCKEE

In a conference room at a drab government office building in Arlington, Virginia, Major General Charles E. Williams, the director and chief operating officer of the State Department's Overseas Buildings Operations (OBO) office, ticks off the names of the United States embassies whose opening he will soon oversee. In December, Tunis. In January, Dar es Salaam—Nairobi the day after. Later in 2003, Zagreb, Abu Dhabi, Sofia, São Paulo. Then Yerevan, Abidjan, and Luanda. The list goes on.

Williams worked for the Army Corps of Engineers, then led the rebuilding of Fort Drum, New York, and went on to head the New York City School Construction Authority. He is close to Secretary of State Colin Powell, of whose budget, in fiscal year 2002, he spent $1.5 billion—56 percent more money than he spent the previous year, though he notes that he saved $60 million, too. About $699 million paid for 13 new embassy compounds, all of which meet the latest security criteria: They have 9-foot-high anti-ram walls at their perimeters and a series of metal teeth that come out of the ground to chew enemy cars—plus other covert security devices to protect embassy staff.

Design commissions for new U.S. embassies used to serve as a sort of positive propaganda, with the nation sending its best architects overseas to make progressive statements about American aesthetic values. We had Eero Saarinen's Grosvenor Square embassy in London and another in Oslo. We assigned Walter Gropius to Athens and Edward Durrell Stone to New Delhi.

It would seem a struggle, in Williams's position, to balance the ideals of ambassadorial architecture with the new imperatives of security in the age of terror. But Williams is less concerned with that struggle than with sheer embassy production. There is a new "Standard Embassy Design" at work by the San Francisco-based architecture and engineering firm URS, in which security is a given and architecture is part of a larger civil engineering package. Examples based on the new standard design are under construction in Kabul, Cape Town, Tbilisi, Yaoundé, Conakry, Phnom Penh, and Tashkent.

Before he arrived in early 2001, "It was taking the State Department five years to make an embassy," Williams says. Now, "time is significantly reduced. In fact, cut in half." The reason, Williams contends, is because of the "best practices," "benchmarking," and "performance delivery" he and about 30 managers and 900 employees have implemented at the OBO. "We are in the government, but we run the organization just like a private-sector organization would," says Williams. "The most startling example is that we have managing directors in our organization that have the same responsibilities as a vice president of a business unit, and then we have management cells. Together, all this was done to give us a results-based and performance-based organization."
DESIGN-BUILD WINS

Despite this private-sector ethos, the embassies' designs seem to grow more perfunctory with each iteration. The new regime favors huge, blocky buildings with superficial patterns standing in for articulation. At the OBO, it is a long way from former senator Daniel Patrick Moynihan's 1962 Guiding Principles for Federal Architecture, the tract which has most recently inspired the Design Excellence Program for public buildings over at the General Services Administration (GSA). The GSA has no fewer worries about security than the OBO, yet it has brought the work of rigorous, world-renowned designers such as Richard Meier, Morphosis, and Mehrdad Yazdani of Dowsky Associates into the federal fold.

The comparison between the OBO and the GSA is inevitable if only because many of the images of upcoming embassies resemble the banal cubes that the GSA was content to build from the 1960s through the early 1990s. And architects, worried about shrinking workloads as well as national imagery, are beginning to complain. They say that the embassies might better reflect the range of talents that the United States has to offer if only a few design firms—dominated by a handful of large general contractors in a design-build arrangement—weren't usurping all the diplomatic plums. Of 21 new embassy projects, North Carolina–based contractor J.A. Jones was in charge of 10, Alabama–based Caddell Construction has 3, and B.L. Harbert International—also from Alabama—has 2. With J.A. Jones, architecture firm HOK is designing four embassies—that is, designing the part not premeditated by the stock plan.

The architects of the Standard Embassy Design at URS insist that their specifications are meant only to serve as a prototypical bid package. "The idea is that these are not cookie-cutter," says Gerald Briggs, head of design in URS's Washington office, which developed the standard design in about six months.

"Certain design absolutes are embedded, but it can be made particular to its site. It may take on the character of its region or respond to topography." But architects familiar with the new standard argue otherwise. "Architecture and design are being eliminated from the thought process at the State Department," says one architect, a principal in a large, accomplished firm that works with the OBO, who asked not to be named. "The [standard design] template implies that the embassy is already designed and the contractors go build it."

There has been so much grumbling, from the large–firm captains to the American Institute of Architects, that the AIA's CEO Norman Koonce, Harold Adams of RTKL, and San Francisco architect Gordon H. Chong recently met with Williams to voice the concerns of their industry. "The adoption of standard prototypical designs for building U.S. embassies will not necessarily guarantee a greater level of security," says an AIA spokesperson. "Addressing projects on a case-by-case basis, on the other hand, can sharpen the focus of unique security requirements while incorporating the best in architecture and design."

FORTRESS TOWNS

Williams says he is trying to expand the pool of people working for the OBO. In fiscal year 2001, he points out, his office had four firms interested in its work; a year later, there are 14. "That's excellent," he says, "because when I say 14, I mean the Bechtels, the Parsons, the J.A. Joneses, the Brown & Roots. And Fluor is in it a little bit."

If it sounds more like a roster for building offshore oil platforms, it must be remembered that building an embassy is like building a small town. The typical compound includes a chancery, dormitories, an infirmary, and various support buildings. A small standard embassy is 46,000 square feet for $45 million; a large embassy, at 120,000 square feet, costs $85 million. The budgets have grown wildly as the State Department has begun locating new embassies almost exclusively on 10- to 20-acre virgin sites. The OBO builds self-sufficient infrastructure from scratch, so as not to rely on local utilities, especially the power grids, because anything is possible.

"We have had some horrible things happen to us," Williams says, pointing to Beirut in 1984, Africa in 1998, and the trashing of our embassy in Beijing in 2000 after the accidental bombing of China's embassy in Belgrade. "We can't do things on Main Street any more."

Whereas Williams sees the Standard Embassy Design as the solution to a messy multinational process, others see an oversimplification at work. Many architects say it's one thing to run a government shop like a private firm, but another matter altogether when the design product meets the lowest corporate denominator head-on. Government, some argue, is a public trust that should try to transcend corporate values and focus as much on timelessness as timeliness in its architecture.

"Security is important and fundamental to what they do" at the OBO, says an architect working with the agency. "And you have to work really hard to meet that, but you also have to make it a good design."
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Practice

From the Danish firm KHRAS Architects, first-prize winner Mads Hansen and his team developed a containerlike clinic with the flexibility to add additional units and to have various types of locally made paneling. After a week-long charrette in South Africa, Architecture for Humanity intends to build prototypes of the winning designs.

Mobile Medicine

Competition yields solutions to combat AIDS in Africa.

BY CATHY LANG HO

Competition are a mainstay of the architectural profession, generating some of the most important projects, ideas, and talents of our time. Last month, Architecture for Humanity (AFH), an effective nonprofit that seeks solutions to global social crises, announced the winners of its competition for the design of a mobile HIV/AIDs health clinic for Africa. Architects from 51 countries submitted 530 entries, an impressive response given that AFH is essentially a one-man show, run by its 28-year-old founder, Cameron Sinclair, who until recently had a day job as an architect at Gensler’s New York City office. His longtime interest in housing and poverty, coupled with an appreciation for the work of socially driven architects like the late Samuel Mockbee, fueled his desire to promote architecture’s humanitarian potential.

In Sinclair’s mind, the AIDS epidemic in Africa posed a distinct architectural problem. “The thing I heard most from everyone was how people had no access to medical care, that villagers often had to travel immense distances to get to the closest facility, and that most of these facilities were inadequate anyway,” he says of his travels in Africa. The effect of the crisis on new construction projects in Africa is equally somber: Many architecture offices are kept busy with work on hospitals, orphanages, and even cemeteries. The AFH design competition sought a proactive building type to preempt the need for more of these typologies.

Many submissions proposed containers, trailers, or modular boxes. First prize was awarded to Mads Hansen and associates from the Danish firm KHRAS. At the heart of this simple scheme is a “pavilion/container,” a rectangular frame with walls that can be left open or paneled. These framed units could be arranged to create a variety of spaces, such as enlarged interiors or protected open-air courtyards. The adaptable scheme could allow the weaving in of local elements, like wood slats or textiles, for overhead shades or vertical screens.

“Containers are a familiar form in Africa, used as small shops and restaurants,” says Kenyan architect Reuben Mutiso, a juror. In addition to architects, the jury included medical professionals who valued deployability above all else, eliminating many of the more fanciful architectural explorations before the final rounds. Architects on the jury included Mutiso, Rick Joy, Jennifer Siegal, and Toshiko Mori. “Doctors and architects share a lot of values, actually,” observes Mori. “Doctors and architects share a lot of values, actually.”

Doctors and architects share a lot of values, actually.

The entry of Brendan Harnett and Michelle Myers, students at Rensselaer Polytechnic Institute, earned second place for its keen attention to the needs of a medical staff. Their project is a kit of parts divided among a collection of individual trunks, each plugged into a basic tent structure, filling the walls with an array of functions. Each trunk houses critical contents, such as medical supplies, refrigeration and heating equipment, water storage, and X-ray equipment. Even the building itself, a collapsible system of aluminum rods, fits into a trunk. The clinics, with their discrete, transportable elements, could be quickly loaded into a truck and sent into the field.

Overall there were substantial similarities among the entries, which explored the question of mobility through automotive means (converted vehicles, trailers), prefabrication, lightweight structures like tents, expandable spaces employing ideas like telescoping volumes or collapsible walls, and more fantastical airborne solutions. Many integrated elements of African culture, calling for the use of local forms, symbols, or materials.

Among the submissions, three projects were premiated, and one received special recognition. Funds raised in conjunction with the competition will be used to build prototypes of the winning concepts. Once constructed, it is AFH’s hope that versions will be replicated in Africa and elsewhere.

An exhibition of the winning entries and selected designs is on view at the Van Alen Institute in New York City through January 31.
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The 50th Annual P/A Awards

After some discussion, the jury determined that they would look for nothing but work that could truly be called progressive—for design that represented actual and provable advance, or "points of fresh departure," rather than mere competence, or "points of arrival."

*Progressive Architecture*, January 1955

Walter Gropius, I.M. Pei, Robert Venturi, Richard Rogers, and Rem Koolhaas: All have served as jurors for the P/A Awards, a program that this year celebrates its golden anniversary. Over the years, the competition has introduced new design talents, changed the fortunes of many young firms, and given a push to pioneering projects that otherwise might have stalled for a client's lack of confidence—or money. (Honorees in 1953 included Neutra, Rudolph, Saarinen, and Weese.) Even more critical has been their role in fomenting and solidifying entirely new arenas of architectural discourse. Today, the awards are seen as a bellwether of both design trends and schools of thought.

Still, after five decades of P/A Awards, we should question anew their premise and relevance to the profession. Has the way we honor our colleagues' work kept pace with our needs? Perhaps. Is recognizing unbuilt work vital to improving the built environment? Absolutely: By honoring our most ambitious ideas, we share a place where innovation is reviewed, refined, recognized, and made real.

In this issue: We take in the history of the P/A Awards from one of its greatest champions, we view this year's crop of projects, and we consider why competing is so ingrained in the profession—in the end, a critical self-examination with some thoughtful proposals for the next 50 years of *Architecture*’s P/A Awards.

The next half century will surely bring a more intensive exploitation of both architecture and city planning to satisfy our need for civic beauty and order .... The reward will be a quality of architectural and urban environment that could regenerate our common life.


John Morris Dixon on the history (page 52) / The 50th Annual P/A Awards jury (page 56) / Awards and citations (page 58) / Thomas Fisher on the future (page 82)
P/A Awards at 50: A History of What's Next

Honoring architectural ideas in their purest form is the bane and brilliance of a venerable program. BY JOHN MORRIS DIXON

Originating half a century ago, the P/A Awards almost immediately became an essential institution in the world of architecture. Conceived as a preview of architectural issues and concepts that lay just over the horizon, the awards program soon acquired an influence extending beyond that horizon.

The P/A Awards were born at a time when modern design was basking in its recent victory over entrenched eclecticism. True, the pioneering works of modernism dated back to about 1900, and its principles had been codified by the 1930s, but it wasn't until the postwar resumption of construction in the late 1940s that modernism became the standard for corporate, institutional, and governmental commissions, as well as certain residential ones. It was in the 1950s, too, that governments began to carry out large-scale urban redevelopment based on modernist principles. It was a time of unparalleled optimism about the role modern design would play in the progress of human society.

The five decades since have sharply eroded our faith in technological solutions, in functional design, and in professional expertise versus popular judgment. Most of us no longer see modernism as a product of moral and economic dictates, but rather as today's most effective basis for design.

Year by year, the unfolding of these cultural transitions have been traced in the P/A Awards' winning schemes and jury commentary—in specifics such as exposed ducts, enveloping grilles, shed roofs, four-way symmetry, participatory charrettes, Trombe walls, grid shifts of a few degrees, "slow" curves, and blobs. Demonstrating the influence of the awards, for better or worse, the promising tendencies of one year have often become the tiresome clichés of a year or two later. By providing a concise annual guide to what was "in," the program was sometimes criticized as a promoter of trends. That depended, of course, on how impressionable readers were, or how likely they were to adopt undigested ideas. (I recall being reproached by an educator because her students slavishly emulated the annual awards; my not-so-subtle response was that her faculty members should have more influence on their students than the magazines they read.)

A review of the 50 years shows that social, ecological, and energy concerns have waxed and waned. Preservation and adaptive reuse—not represented in the early years—have settled in for a long run. Postmodernism challenged modern orthodoxy, then disappeared from the program (if not from the American landscape) as modernism adapted and regrouped. The awards reveal the emergence of neotraditional planning, but no resurgence of the clean-sweep planning celebrated in the program's early years.

An Influential Catalyst

The awards were originally intended to protect the integrity of projects in the design-development stage, when they were especially vulnerable to compromise. Success at preserving design intentions was, of course, mixed. In the case of the student housing by Charles Moore and Donlyn Lyndon for Pembroke College (later integrated into Brown University), a project that had been dormant for years proceeded with its long-shelved design because it won a P/A Award in 1970. In a discouraging case, a New Jersey state prison project by Kelly & Gruzen, premiated in the 1963 program, suffered severe design changes after a legislator denounced the idea of award-winning design for convicts.

The effects on winning firms and designers have often been profound. Fledgling firms have gained quick consideration for more ambitious commissions. For established firms, the awards have been crucial in maintaining talented staffs and signing up design-conscious clients. Among the individuals and firms recognized early in their careers through the P/A Awards were Paul Rudolph, Charles Moore, Cesar Pelli, Michael Graves, Arquitectonica, Morphosis, Eric Owen Moss, Steven Holl, and Samuel Mockbee. Winning projects have included such landmarks as I.M. Pei's Society Hill towers in Philadelphia; Philip Johnson's Kline Science Center at Yale in New Haven, Connecticut; Peter Eisenman's Wexner Center for the Arts at Ohio State University in Columbus; Skidmore, Owings & Merrill's Haj Terminal in Jeddah, Saudi Arabia; and Duany & Plater-Zyberk's plan for Seaside, Florida. The full list runs to well over a thousand.

An Accidental Beginning

It is surprising to find that this program, which seems an almost necessary part of American architecture, originated more or less by accident. In the early 1950s, Progressive Architecture magazine was publishing an annual January business survey of firms' anticipated activity, projecting the dollar volume of work for the coming year. In 1950, the editors decided to ask the firms queried for the survey to submit examples of work about to go into construction, and they illustrated these in the January 1951 statistical report.

Realizing that this survey of designs interested readers as much as firm statistics, the editors began to emphasize it. For the January 1952 issue, they enlisted a "jury" (printed with quotation marks) of three outside professionals, with the disclaimer that this "was not a matter of awards and prizes." The 52 published works were presented in categories that included "Defense" and "Industry." The next January, a similar sampling was shown, with a parallel selection of engineering advances.

A History of What's Next

A look back at five decades of architectural awards.
By then, the potential for an awards competition had become apparent. During 1953, the magazine issued an invitation to all U.S. architects to submit work, with award-winning entries to be published in January 1954. The judges for the first jury were architects George Howe, Victor Gruen, and Eero Saarinen, and engineer Fred Severud.

That first jury recognized 57 projects, far more than in later years. In the second jury, Walter Gropius propounded the succinct recommendation that the jurors look for "points of fresh departure" rather than "points of arrival," and the number of winners dropped to 36. For most of the 50 years, juries have selected between 10 and 20 entries that have tended toward the experimental.

Fifty Excellent Juries
What made the P/A Awards program authoritative from the beginning—and kept it so—was the eminence and wisdom of its jurors. Their stature has not only enhanced the value of the awards themselves, but helped elicit the best entries and made recruiting for subsequent juries relatively easy. An invited juror might have a scheduling conflict or decide to enter a favorite project—a possibility ruled out for a juror—but hardly anyone has declined to be a judge.

Though some of the jurors must be widely known, that is not a requisite for all of them. The most prized qualities are knowledge of the field and level-headed judgment. A P/A jury is no place for a zealot with a narrow agenda. Some jurors have failed to meet expectations. I recall one who mainly sulked on the perimeter of jury discussions. Discussions could get heated, especially as the hours wore on. In a memorable case, one unhappy juror bolted from the room. I found him in tears near the elevator and was able to calm him down, eventually reuniting him with the group.

Moving Forward
When *Progressive Architecture* ceased publication at the end of 1995, the future of the P/A Awards seemed momentarily in doubt. But the publication had been purchased by the owners of *Architecture*, which has maintained the awards without interruption. The stature of the program permitted it to outlive the magazine that originated it.

The P/A Awards continue to play a crucial role in revealing exceptional talent, whether in emerging firms or established ones. But the program has even greater value in introducing new ideas. Although ideas and those who generate them are, of course, linked, what the world needs from our architects is not personal statements but effective solutions for the housing of human activities and the organization of communities. Let's hope the awards program long continues as a medium for bringing promising architectural ideas to the world.

John Morris Dixon was the editor-in-chief of *Progressive Architecture* from 1972 to 1996.

"Take Me to the Mountain" (these pages), a 1971 winner, proposed that nothing be built on its Texas site. Following pages: In 1954, the Boston Center was awarded for its mixed-use program and reuse of abandoned center-city land. The brutalist Central Fire Station in New Haven won in 1961 after a heated debate, resulting in the first published jury comments. A postmodern icon, the Fargo-Moorhead Bridge, a 1979 winner, was never built. Five years later, the Battery Park City master plan was cited for bringing neotraditional planning to Manhattan. By 1997, modernism was back, notably in the Diamond Ranch High School in Los Angeles.
The transformation of the topography—how the building becomes part of it.

The topography becomes functional; it becomes the playing fields.

This area was developed very near to this site, and I would love to see something like this built here.

There is an immense amount of work here, an immense amount of investigation. It is done with great rigor. The original idea, which has to do with the building being integrated with the landscape, is tested over and over again with great energy.
RANCH HIGH SCHOOL

Oasis

Located Ranch High School, Diamond

Acres of rolling, steeply graded,

Pomona, California. Existing slopes
drop across the site of 300 feet.

landscape of oak trees and native

at a 380 feet.

rugosas did not allow moving

importing materials to it. Resulting

1000-square-foot public school for grades

football fields, a gymnasium, library,

parking for 750 automobiles.

Marriage of landscape design and

bleachers for playing fields (three soccer,

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the judges

JANE CEE (CHAIR) As a senior designer for Holt Hinshaw Pfau Jones, Cee won five P/A Awards and citations. Today, as principal of Cee Architects, San Francisco, her work focuses on crafting context informed by social, political, and economic conditions. Cee has lectured, exhibited, and published in the United States and abroad, and she joined the faculty of the California College of Arts and Crafts in 1993. Cee’s built work includes office towers, multifamily projects, museums, and community and senior centers. She undertook her first professional projects during her second year of college, redesigning 11 independently owned gas stations (1).

ANGEL FERNÁNDEZ ALBA After studying in Madrid, London, and Philadelphia, Alba established his eponymous practice in Madrid, where he has developed projects in Spain, Sweden, and Finland. Exhibited and published widely, his award-winning work has been divided between civic and diplomatic projects, as well as healthcare and education commissions. Current projects include an open-air auditorium, two music schools, and a collaboration with Juan Navarro Baldeweg on a health-sciences campus. Alba teaches at the Escuela de Arquitectura de Madrid, and has designed exhibitions on several architects (2).

LOUISA HUTTON Hutton is a founding partner of London- and Berlin-based Sauerbruch Hutton Architects, a firm concerned with both architectural and urban design projects. Built works include office and commercial buildings, laboratories, housing, restoration projects, and civic and cultural buildings. The firm has earned national and international prizes for its GSW Headquarters, the Photonics Center, and the Experimental Factory, all in Germany. Hutton has lectured at numerous universities and taught at the Architectural Association and Croydon College of Art, both in London. The firm’s work has been published and exhibited extensively (3).

MARY-ANN RAY Trained as a painter, Ray has worked with Michael Graves, James Turrell, and Richard Meier & Partners. Now principal of Studio Works, Los Angeles, where she designs furniture, buildings, and urban interventions, Ray has earned numerous honors, including the Rome Prize, the 2001 Chrysler Design Award, P/A Awards, and grants from the Graham Foundation and the Ford Foundation. Her work has been exhibited in Paris, New York, and Los Angeles. Ray has written two books and has served on the faculties of SCI-Arc, Rice University, Yale, and Otis College of Art and Design (5).

GREG LYNN Founding principal of the Los Angeles-based firm Greg Lynn FORM, Lynn’s architectural designs have received numerous awards and have been published and exhibited broadly, including at the 2000 Venice Biennale. Writing and lecturing frequently on design and theory, he wrote Animale Form (Princeton Architectural Press) and Folds, Bodies and Blobs: Collected Essays (La Lettre Volee). Lynn teaches at UCLA, Yale, and Vienna’s University of Applied Arts, and he has also taught at Eidgenössische Technische Hochschule in Zurich. Lynn is on one of seven teams that presented plans last month to redevelop the World Trade Center site (4).

EDDIE JONES A founding partner of Jones Studio, Phoenix, Jones represents some 30 years of experience in the design, production, and construction of a range of public and private project types. Developing a body of work that has been published widely, Jones focuses on establishing methodologies, setting design direction, and reviewing projects for quality assurance. Recognized as one of the Southwest’s leading architects, he has received more than 80 local, national, and international design commendations. Jones regularly lectures and presents his firm’s work at colleges, universities, and cultural institutions (6).

PHOTOGRAPHY BY MICHELE ASSELIN
In its 50th year, Architecture’s P/A Awards program speaks once more to a moment in architecture. Today, the jury found, we’re advancing mainly through projects that build upon and clarify the experiments of recent years. In the process, architects are discovering new realms of form, structure, technology, and even historical inquiry—though not equally so in the crucial areas of sustainability, urbanism, and contextualism. While the big bang didn’t happen in 2002, the premiated entries show how we refine and harmonize a robust body of ideas. The jurors found, in this moment, new kinds of growth and reflection. C.C. Sullivan

50th Annual P/A Awards

On Judging Unbuilt Works

Hutton: Excellence doesn’t always need to be something new. Jones: If there’s something pointing in the direction of what’s coming, we may include projects that are not excellent but do a good job of pointing. Hutton: There are cases where we may like the premise and the thoughts behind it, but somehow they don’t seem borne out by the final design. Alba: I’m not very impressed by the way that projects were presented. Cee: I’m interested in representation only in terms of process and that there might be something of value in the way someone’s working. On the Submissions

Jones: There’s not a lot of new territory being staked out, but there are attempts at refining things that have been around for 10 years. Lynn: So right now what’s going on in architecture is working out experiments that were conducted in the 1980s and 1990s—I think that’s a pretty fair assessment of the urban-design submissions. Hutton: But we don’t reinvent the wheel each time; we learn from what’s been done. Jones: I had expectations that we would see experimental work as opposed to refinements. Alba: There are some projects that I would want to support just because there are other people doing similar work. Lynn: There needs to be a venue for experimentation and propagation. Advancing new language is advancing the profession; derivative work teaches and cleans and synthesizes what’s been done. On the Winners

Lynn: We basically rewarded controlled, decisive design moves—even construction moves. Hutton: I think it’s a pity that of the eight schemes awarded or cited, only two—and they’re in the citation group—really throw back a gesture and response to a city. Cee: The projects were about people, and they talked a lot about urbanism and suburbanism. Hutton: I found an amazing lack of concern for sustainability in a very wide sense. Not only how much energy should the building save, but is one using or reusing a ground-fill site, or what is the relationship to the history and memory of the site. Ray: The range of work showed that this is an amazing moment. It’s kind of moving to see the work of Eisenman and Morphosis coming to its maturity. For twenty-first century architecture, there are eight ways to go, at least, and they’re all so different in terms of desires and intent and ways of working and thinking. And that’s really good.
PALENQUE AT CENTRO JVC
Morphosis

SITE: Flat, low-lying farmland bound to the east by the ring highway encircling Guadalajara, Mexico, and to the west by the hills of a forest.

PROGRAM: A 6,250-seat, multiple-use, open-air arena that doubles as a gateway to a cultural and business center.

SOLUTION: The traditional venue for gallos de pelea, a cockfighting festival, a palenque must also accommodate boxing matches, public assemblies, and musica ranchera for the annual, month-long spectacle. In this case, the palenque becomes a venue for an expanded program of bigger events throughout the year, as well as a gateway to a large commercial complex.

The architects discipline the project with three layers of structure, each governed by a different geometry. The arena is a bowl organized on a radial system of concrete and steel rakers. A cast-in-place concrete "wafer" of ancillary program—bathrooms, concession, storage—hovers between the mezzanine level and the upper tier, supported by concrete columns set on an orthogonal grid. Steel rakers rise from grid points to hold an upper tier of stadium seating, and six large concrete rakers support three main trusses of a folded roof form. Seating areas extend with the roof, producing eccentricities in plan; modulations in the roofline echo the profile of a nearby mountain range.

Three discrete transformations allow the arena to host diverse event types. For the traditional palenque, the central seating area is carved out of the earth in an intimate formation befitting the scale and spatial arrangement of the gallos ritual. In a second setup, a sports floor is supported on a lightweight steel frame above the sunken area. A third configuration employs hydraulic lifts to raise a portion of the mezzanine to create a concert stage with seating atop the sports floor; the exposed structure of the tilted mezzanine supports backdrops, and above the concert stage, an ellipsoid area of roof trusses wrapped with tensile fabric serves as an armature to hang lights.

In part to promote the flow of cool air off an adjacent lake and to frame views of nearby fairgrounds and mountains, the architects sought transparency and openness in the project's expression. Clad in galvanized aluminum, the roof appears to float above the arena.

GREG LYNN: This one uses event programming, and having two or three functions makes a tension in the project. It's also one of the only schemes that really exposes and gets mileage out of the structure.

LOUISA HUTTON: Spatially it's not fully investigated, I feel, but structurally it seems very well conceptualized and worked out. The perception of the object to the landscape is not shown, which I think is a pity, but I would still give it a prize.

ANGEL FERNANDEZ ALBA: When you deal with something that is somewhere between sculpture and architecture, it has to move from sculpture to architecture and from architecture to sculpture. And this one is solely architecture. But I think it's one of the best projects we have.

JANEE HILL: It kind of alludes to but doesn't mention anything about the Maya or Aztec, yet it has a sort of resonance.

PALENQUE AT CENTRO JVC, ZAPOPAN, JALISCO, MEXICO

CLIENT: Omnitrition de Mexico—Jorge Vergara (president) ARCHITECT: Morphosis, Santa Monica, California—Thom Mayne (principal); Daynard Tullis (project manager); David Rindlaub, Patrick Tighe (project architects); Simon Demeuse, Andreas Froesch, Maria Guest, Ung Joo Scott Lee, Eric Nulman, Jean Oei (project team); Marcos de Andres, Ben Damron, Patricia Schneider, John Skillern (project assistants) CONSULTING ARCHITECT: Estudio Esteban Cervantes ENGINEERS: Arup (structural, M/E/P); Colinas de Buen (structural, M/E/P) AREA: 215,000 square feet cost: $20 million

The open-air arena combines three structural idioms: A series of folding planes define the roof geometry, which sits atop large concrete and steel rakers that penetrate a flat, rectangular "wafer" of support facilities and concessions (above). Shown without the roof trusses and planes, the seating areas are supported on a radial system of rakers or dug out of a sunken central area (facing page, bottom and middle). Views from the southeast and east reveal a plaza, the concession level, and the roofline (facing page, top left and right).
Ground-floor plan

Third-floor plan showing convertible seating/stage area

Partial axonometric showing concrete and steel rakers
Detail section showing convertible seating/stage area with hydraulic lift
SITE: A sandstone bluff 270 feet above the Missouri River on the Omaha Indian Reservation in Macy, Nebraska. The site has a view of the river and eastward to the Iowa prairies.

PROGRAM: An expressive, energy-efficient structure to accommodate various Omaha cultural activities and to house and display more than 1,300 ancestral objects, including an artifact called Umonhonti, also known as the “Sacred Pole” or “Venerable Man”—a focal point for the Omaha that was recently returned to the tribe by a museum. The building required multipurpose rooms for tribal events, classrooms, a library, a restaurant, and offices. Finally, it had to allow for independent operating hours of various community programs.

SOLUTION: The 45,000-square-foot center responds to the pragmatic and spiritual needs of the tribe in a partially buried structure animated with references to the Omaha tradition: The conical centerpiece takes its shape from the teepee, the huthuga (camp circle), and the headdress. A collection of central figural elements resonate with mythical and celestial influences. (Numerical relationships significant to the tribe inform ratios within the design. For example, the proportions of the observation deck honor the “Seven Sacred Pipes” and the number of Omaha chiefs.) The plan also emphasizes the sacredness of the landscape and the tribe’s focus on duality. Deference to north, south, east, and west is paid in the orientation of the building and its details. For instance, the length of the structure runs along the north-south axis, while a window element at the top of the central cone faces west in memory of those who died from smallpox.

The more pragmatic issues of construction, access, and energy efficiency are served without compromising these subtle references. As a teepee can be unrolled and flattened, the figural elements were “unrolled” during the design process into two-dimensional forms in order to explore and develop their complex geometric relationships—both for their magical numerical qualities and to facilitate construction. The main structural system for the center is poured-in-place concrete, augmented with steel beams and columns. Even the curved figural elements, designed as “developed shapes,” can be constructed from the same concrete system or with a framework of linear steel elements. Exterior surfaces combine exposed concrete, stone cladding, and slate tiles.

Entering from the west, visitors are fed into the rotunda of the conical centerpiece, which acts as the hub of a wheel. The building’s many functions are located off this hub, simplifying access control. Its insulated subterranean positioning answers energy concerns.

EDDIE JONES: It’s very confident and respectful. In a sense it’s a conventional building with other kinds of shapes. What I appreciate is the level of study and the attempt to understand religion and history and express that architecturally. Those shapes have precedents in the history.

GREG LYNN: It’s got the fullest scope of any submission. It has an interesting balance and sophisticated use of geometry and complex form. It’s also an interesting project because it starts with a compass and ends with a computer.

LOUISA HUTTON: They really put everything together in quite a personal way. And their representation is fantastic, especially the sectional models.

OMAHA CULTURAL AND INTERPRETIVE CENTER, MACY, NEBRASKA
CLIENT: The Omaha Tribe of Nebraska—Doran Morris (tribal chairman); Dennis Hastings (project director)
ARCHITECT: Vincent Snyder, Architect, Austin, Texas—Vincent Snyder (principal); Jon Geib (design assistant); Matt Ames, Michael Neveu, Tim Whitehall, Aaron Taylor (project assistants)
AREA: 45,000 square feet COST: $23 million PHOTOGRAPHY: Courtesy Nebraska State Historical Society

Model views of the Omaha Cultural and Interpretive Center with the site removed (above and facing page, center) reveal the building’s knotty arrangement of forms. This irregular geometry is actually highly ordered, influenced by Omaha philosophical, mythical, and celestial beliefs. The tribe’s reverence for the land, for example, is expressed in the smooth integration of the building with its surrounding landscape (facing page, top and bottom).

An extensive process informed the design (following page). The architect researched the Omaha tradition of dress and housing, both of which influence the building’s central conical form. Hand, compass, and computer played equal roles in exploring figural elements.
Pencil studies for obliques

Sketches for "developed shapes"

Unrolled developed shapes
SITE: A hillside site in a Los Angeles neighborhood rich in historic modern houses. The site comprises three wooded, contiguous parcels. The owner's 1940s Usonian-style house is on the uppermost lot with views of the downtown skyline.

PROGRAM: A 4,025-square-foot, two-bedroom residence with a courtyard that creates a dialogue with the existing house; the existing house will be used for entertaining, guests, and offices.

SOLUTION: The L shape of the new house, in conjunction with the linear form of the existing house, defines a large southeast-facing courtyard open to the adjacent valley. The L, which steps down the hillside, is conceived as a plastic element, bent and distorted to respond to the existing house, the street, and the land. The lower level of the house, which sits parallel to the existing building, is dedicated to public functions (living room, dining room, study, and garage), while the upper level holds private spaces (bedrooms and a family room).

Visual and physical connections between old house and new, and between interior and exterior, guide both siting and circulation. On the north side of the courtyard, for example, a glass-enclosed stair connects the upper and lower levels of the new house. The glass enclosure begins as a window on the upper level of the new house and appears to "delaminate" as it becomes a staircase and entry foyer at the lower level. As the glass links upper and lower levels, horizontally oriented strips of copper cladding link the roof and exterior walls.

ANGEL FERNÁNDEZ ALBA: The relationship between the existing building and the new building is very good, especially for domestic architecture.

GREG LYNN: The thing I like about it is its abstractness; it works well with the existing building.

LOUISA HUTTON: I think the presentation is fantastic. The use of models and interior shots is exemplary in terms of quality of light. We're not told much about the materials on the inside, but I think the materiality is less important than the spatiality of the light in the house.

JANE CEE: Spatially, there's a lively entry into the lower-level spaces that connect and are an integral part of the glazed elements.

The bi-level plan steps and turns as it moves down the hillside site (above, left and right, and below). The link between the two levels is a fully glazed stair and entrance hall (facing page, middle). Glazed walls in the kitchen (facing page, top) and family room (facing page, bottom) connect the house to the landscape.
CITY OF CULTURE GALICIA
Eisenman Architects

SITE: A 173-acre plot on Monte Gaiás, an undeveloped hilltop two miles east of and overlooking the historic medieval center of Santiago de Compostela, capital of the province of Galicia, Spain.

PROGRAM: A cultural center for Galicia comprising a museum of local history, a new technologies center, a national library, a newspaper archive, a 1,500-seat music hall equipped to accommodate full opera productions, and an administrative center, all totaling 810,000 square feet.

SOLUTION: The architects superimposed three layers of information to blend the history and future of this medieval city: First is a map of the old city center transposed onto the hilltop; second is a Cartesian grid; and third is the naturally occurring topography of the hillside itself, which is pushed up through the first two layers. The hillside distorts the two flat geometries, "generating a topological surface that superposes old and new in a simultaneous matrix."

The resulting composition provides the formal basis for a complex of six undulating structures incised into the hilltop and clad in native stone to resemble geological formations more than buildings. A vast plaza, also carved into the hill's contours, cuts through the complex like a dry streambed. Underlying the project is an attempt to blur the distinction between figure and ground by merging geological formations, street plan, and buildings into a unified, nonhierarchical system.

LOUISA HUTTON: What is very clear in this project is the pure statement of the wider architectural aim, not limited to this project itself. And the presentation really corroborated the statement. The materiality was missing, but I don't think that's crucial at this stage.

GREG LYNN: I think it's one of the strongest projects. The difficult thing is to take it out of the P/A Awards and into reality. If this award would help them do it, I think it would be very nice.

MARY-ANN RAY: The thing that attracts me is the sense that the medieval past is not forsaken—it tries to resuscitate it.

ÁNGEL FERNÁNDEZ ALBA: I think it's quite different than what most people are doing.

CITY OF CULTURE GALICIA, SANTIAGO DE COMPOSTELA, SPAIN
CLIENT: Fundación Cidade da Cultura de Galicia ARCHITECT: Eisenman Architects—Peter Eisenman (senior partner and principal); Richard Rosson (partner in charge); Sandra Hemingway (project associate); Jennifer Mujat-Kearns (senior project architect) CONSULTANTS: Buro Happold (structural and mechanical); Theater Projects (theater); Jaffee Holden Scarborough (acoustics); Olin Partnership (landscape) ENGINEERS: Soluziona Ingenieria S.A (civil); Unitec Tecnicas Unidas (structural) ASSOCIATE ARCHITECTS: Seoane Architects (service gallery)

AREA: 810,000 square feet COST: $140 million PHOTOGRAPHY: Courtesy Fundación Cidade da Cultura de Galicia

Footprints for six future buildings are excavated into the Monte Gaiás hillside (above). A 3-D rendering shows deformation lines, generated by a shift in the Cartesian grid, which imprint both the interior and exterior surfaces of the buildings (facing page, top). Interior renderings offer glimpses of the library and exhibition space in the visitors center (facing page, center left and right), as well as the music theater lobby and auditorium (facing page, bottom left and right).
DALKI THEME PARK
Cho Slade Architecture | Ga.A Architects

SITE: A marshy valley nestled in mountains north of Seoul, Korea. Bound by roads to the north and west, the site is part of a parcel being developed into the Heyri Art Valley, an arts community projected as a major center for creativity, commerce, and arts tourism.

PROGRAM: An interactive activity center for children focused on Dalki, a Korean cartoon character. Dalki, whose name means "strawberry" in Korean, lives with her friends in a fruit patch of giant strawberries. The 14,000-square-foot theme park will offer a children's book café, a fast-food restaurant, performance space, offices, and activity and play areas, including a child-sized recreation of Dalki's home.

SOLUTION: The project called for a larger-than-life physical realization of Dalki's world. To allow the fantasy to remain vivid, the design team attempted to create an architectural bridge between the imaginary world of Dalki and the physical reality of the theme park.

The oversized, artificial cuteness of Dalki's garden is relegated to the lower level of the building and a corresponding natural garden sits on the roof. A mezzanine space contains elements of both worlds. The concrete slab and steel-beam construction allows for floor-to-ceiling curtain wall at the mezzanine level that connects the artificial and natural landscapes. On the lower level, metal half-spheres create a ceiling plane that supports an amorphous metal mesh skin.

The architects also explored ideas about children's play and Korean culture to create fluid movement and multiple routes between real and cartoon domains. Easy traversal between fantasy and reality will, in theory, allow the interface between the two to blur, inviting children to step closer to Dalki's world.

EDDIE JONES: It's a crowd pleaser. We enjoyed the cartoons and sense of humor. The actual structure is really extravagant, just overstimulated.

LOUISA HUTTON: The central argument on this representation at the beginning was very good and then I thought it definitely fell down in the architecture and didn't live up to its promise.

GREGYNN: It is the one unrigorous project on our list, but it also, in a certain way, is the freshest.

MARY-ANN RAY: Going through the progression, I got to the actual building, the technical things, and I wanted to see those characters in the space—that's where it was playing with you. You are moving through a kind of hyperspace that's actually physical, these scenarios are quite fantastic—the physical and the virtual and the imagined.

ANGEL FERNANDEZ ALBA: There's a whole Barcelona school of people doing this kind of work. This isn't as sophisticated but has that same feel, techno and kinetic.

HUTTON: My only misgiving is it may be better on paper than it is in reality.

RAY: But it's a theme park; they might actually be able to build it.

DALKI THEME PARK, PAJU, KYONGGI SOUTH KOREA
CLIENT: Ssamzie-Hokyun Chun (president) ARCHITECTS: Cho Slade Architecture, New York City—Minsuk Cho, James Slade (principals); Jungwon Lee (project architect); Iya Korolev, Francisco Pardo, Sungpil Won (project team); Ga.A Architects, Seoul, Korea—Moongyu Choi (president); Jeonghui Kim, Kwangho Cha (project architects); In-Chul Kang, Daegon Koh, Bong-Ki Song, Teekwon Yun (project team); Jae-Yong Kang, Jong-Seo Kim (project assistants) ENGINEERS: Shin Structural Eng. (structural); Han On Eng., Dong-Ho Eng. (M/E/P); Kyoung-In Eng. (civil) GENERAL CONTRACTOR: Hanool Construction
AREA: 14,000 square feet COST: Withheld

The green-roofed building provides both visual and material connection with the landscape (above, left and right), while ramps provide fluid movement between floors and worlds (below). The design team had fun dreaming up Dalki's world using collages and diagrams (facing page, top left and right). The building sits on the edge of the Heyri Art Valley (facing page, bottom).
The boundaries between real and imagined are culturally defined and learned. There are indigenous cultures that do not have a separation between the real and the imagined. Physical events and imagined ones are equally real and have equal value. Small children have not established boundaries for the real and unreal. They easily enter and occupy the imaginary world.

"Play as organizational model" Adults learn to categorize activities. Activities are "different" based on this categorization. For children there is initially no difference between play and work, play and learning, play and shopping etc. Play is everything and everything is play. It is through play that children begin to understand the world and society. Can this building reflect the most primary form of play with its continuous/smooth understanding of program and activity, creating a promiscuous zone with no boundaries between commercial, recreational and pedagogical activities. Is it possible to mix these definitions with this more traditional understanding of program areas and functions (to allow someone to enter and leave for example).

CIRCULATION STRATEGY: "BAPSANG SEQUENCE" In Korean, "Bapsang" every dish appears at the same time at the table. Each person chooses the sequence and combination of items to be eaten as they please. In western meals each course is designed with a specific combination of items and served in a specific sequence. The "Bapsang" system seems more close to the idea of open play as described above. The circulation strategy of the building areas for both "Bapsang" systems should exist at the space. You can go directly to a store and buy something or jump from area to area in any sequence desired viewing, shopping, playing and eating as well as small medium and large spaces. Areas can be experienced discreetly or short circuits can happen between them accommodating different user types.
SITE: A light-industrial, urban infill lot in the burgeoning Chelsea art gallery district of New York City.

PROGRAM: A 90,000-square-foot museum providing flexible theater, education, production, and gallery space for a nonprofit cultural and educational organization dedicated to the digital arts.

SOLUTION: The hybrid nature of the project, both museum and production and education facility, prompted the design team to support the cross-programming through spatial interweaving. A pliable ribbon partitions the program in two, with production spaces to one side and presentation spaces to the other. The ribbon undulates vertically as it climbs from the street: floor folds into wall as wall folds into ceiling. With each change of direction and level, the ribbon alternately enfolds a production or presentation space. The museum culminates in a rooftop cinema and restaurant.

The building's primary structure comprises steel-frame cores spanning by Vierendeel trusses. A secondary structure has steel beams that span between the large trusses supporting floors made of concrete and fiberglass-faced honeycomb panels. Common walls between production and presentation spaces are made of liquid crystal, creating wall-sized interactive computer screens. Flexible flooring is intended to accommodate the building's intense digital needs, as well as future technologies.

GREG LYNN: It has architectural excellence and an integration of technology and graphic design and interactivity. It's the most sophisticated project I've seen that thinks about what an active building would look like—a building that is modulating itself electronically. If we're going to support research, there is more research per inch in this project than in any other.

EDDIE JONES: I am amazed at how the form is working toward the program.

LYNN: The fact that it is a folded noodle like in every airport lounge in Europe is sad, but I don't think it should kill the project.

CLIENT: Eyebeam
ARCHITECT: Diller + Scofidio, New York City—Elizabeth Diller, Ricardo Scofidio (principals); Charles Renfro, Deane Simpson, Dirk Hebel (project leaders); Joshua Bolchover, Alex Haw, Reto Geiser, Gabriele Heindel, David Huang, Matthew Johnson (project team)

ASSOCIATE ARCHITECT: Heifetz and Myerberg Guggenheimer
ENGINEER: Arup—Markus Schulte, Mahadev Ramen, Nigel Tonks (structural and M/E/P)
CONSULTANTS: Ben Rubin, Tom Igoe, Joe Paradiso (media)

AREA: 90,000 square feet COST: $90 million

A camera-carrying, heat-seeking robot traverses the building's façade (above, left), transmitting images to the mediatheque (above, bottom right). Passersby can watch performances in the theater (top right). In section (facing page, top), the structure undulates like a ribbon, dividing production and presentation spaces as it climbs through the building. The designers have allowed ample space for the cable conduits and other devices needed to support the museum's extensive media systems (facing page, bottom).
SITE: Party-wall condition on a 100-by-30-foot corner parcel at the intersection of Hubbard Street and Broadway in downtown Green Bay, Wisconsin.

PROGRAM: A 6,000-square-foot, two-story arts building with a gallery, a café, and design studios. Part of a larger master plan for the rejuvenation of downtown, the building serves as a critical element in the reconnection of residential neighborhoods to the Fox River.

SOLUTION: To take part in the revival of this once-thriving urban center, the arts building operates on multiple levels: as urban generator, infill fabric, civic edifice, and contextual respondent. Its three facades must attend to both symbolic and functional needs. The south-facing Broadway side, fronting a strictly enforced historic district, has load-bearing walls, punched windows, and a faceted storefront. The opposite end, which faces a parking grove, has a ribbon window and a ribbed surface. In contrast, the longest facade, along Hubbard Street, a once-essential link between downtown and the Old Fort Howard neighborhood (a link to be reinstated as part of the city's master plan), is more animated. Brick, common to downtown buildings, is the unifying element in these divergent "urban scenarios." Employing a composite curtain-wall masonry construction, the system is manipulated to read as thick or thin, light or heavy, static or dynamic.

Fitting the program into the narrow site was complicated by the need to fulfill code requirements for two forms of egress, driving both the dynamism of the Hubbard facade and the organization of the plan. An exception to the code allows for a single staircase if a balcony is provided on the second floor, no more than 15 feet off the ground. This "loophole" became an open-air staircase with a balcony—a crevasse carved into the brick wall—that literally opens the building to the public realm of Hubbard Street.

Seamless integration of street and wall and public and private is echoed in programmatic integration. Captured in a two-story shaft in the middle of the building, the mechanical core grows out of the ground-floor plane, where wood flooring lifts upward to clad the shaft walls—a geologic eruption. Inversely, two skylights enclosed within crystalline shafts descend from the roof, entering, but terminating short of, the ground floor.

LOUISA HUTTON: What I like is the sincerity with which the architects are looking at every street edge and designing a building that's not overwhelming the public space. It has a kind of civic duty.

GREG GILLEN: I think that what's going on with the masonry in this project makes a significant contribution to the field. If you do a brick building, you'd have to reference this kind of a technique.

WITTE ARTS BUILDING, GREEN BAY, WISCONSIN

CLIENT: Urban Fray Development Company—Jeff J. Witte (principal)
ARCHITECT: Office dA, Boston—Mónica Ponce de León and Nader Tehrani (project design); Jeff Asanza (project coordinator); Timothy Clark, Hansy Luz Better, Ben Karty, Tali Buchler, Chris Arner, Christine Mueller, Hamad Al-Sultan, Kristen Giannattasio (project team)
ENGINEER: Bill Bishop (structural)

AREA: 6,000 square feet COST: $840,000

Recalling geologic forms sculpted in brick, the arts building façades change as each attends to a different urban condition; Hubbard Street (above and facing page, center left), for example, is cut and carved to engage the public realm. The enclosure that wraps the stair and balcony (facing page, bottom right) peels from the Hubbard Street wall, while the ground floor climbs the wall of the mechanical shaft (facing page, bottom right).
First-floor plan

1 café
2 gallery

Second-floor plan

3 design studio
4 skylight

Site plan

Skylight core

architecture 01.03
SITE: A 220-acre parcel of farmland and rolling woodland, surrounded by traditional residential suburban developments, in Rochester, Minnesota, home of the world-famous Mayo Clinic’s midwestern branch.

PROGRAM: A 120-dwelling residential community commissioned by the Mayo family. The architects were presented with a site that had already been plotted according to conventional subdivision requirements, and all infrastructure, including lots, setbacks, roads, right-of-ways, and easements, was predetermined.

SOLUTION: With the simple space-delineating elements of trees, tallgrass prairie, and fences, the architects subverted the traditional, generic suburban plan, giving the site a sense of place, tying it to its regional history, and dividing the development into several neighborhoods, each with its own unique character.

Starting with the formulaic engineer’s plat, the architects first divided the site into three regions according to existing vegetation conditions: “edge,” a flat area bordered by woods and a road, “forest,” and “meadow.” Next, they covered the site with a native, 5-foot-high tallgrass prairie that evokes the cornfields of the area’s agricultural past, with mowed yard cutouts to ground individual lots. Finally, the site was striated with rows of pines and fences, stone walls (also a nod to prior farmlands), and wood screens, which further mark distinct neighborhoods. The gridding set up by these linear elements also counters the randomness of the standard web of winding streets, and “orients people to the land.” The simple, modernist houses, in three neighborhood-specific typologies, are co-designed by Altus Architecture and Salmela Architect.

EDDIE JONES: The architects were stuck with the realities of the plan and they very creatively overlaid that, and I think potentially it will turn into an imaginative landscape. When you get to the house part of it, which I think has the least to it, it’s not convincing.

MARY-ANN RAY: They really took a plan and, with a developer’s formula, they’ve respatialized it and resocialized it away from the coldness.

LOUISA HUTTON: The whole presentation is sort of dry; the passion is gone somehow. It’s trying to be too logical all the time.

GREG GYNN: There’s a Minnesotan picturesque that’s underlying the thing, a conscious aesthetic. I don’t really think it’s coldly organizational.

JANE GEE: Would it help the nature of planning suburbia?

JONES: I feel so. It’s got a social consciousness about it. For this to get recognition—that you can creatively construct a neighborhood within existing zoning ordinances—seems like an excellent message to send out.
**Honorable Intentions**

**Are awards programs good for the profession?**

**BY THOMAS FISHER**

“Lawyers don’t judge other lawyers’ work and give themselves awards,” observes Tom Buresh, chair of the architecture program at the University of Michigan, “which makes what we do as architects strange.” Awards programs may be considered strange in other professions, but not in the arts, where such programs abound. What sets architecture apart are the number and variety of awards we give each other, and the extent to which we criticize them. In addition to the two major U.S. design award vehicles—Architecture’s P/A awards and AIA’s Honor Awards—and the many local AIA programs, we now give awards for using certain building materials, for satisfying clients’ business needs, and simply for being a young architect, a good teacher, a prominent firm, or a well-preserved building. Yet, even as these awards programs flourish, we like to find their flaws.

**WHAT WE AWARD**

Comments by P/A Awards juries over the years reveal the three most common criticisms. One argues that design awards are about taste. Jury decisions, said 1991 juror Rem Koolhaas, “are based on a frame of reference that is moralistic and aesthetically judgmental.” Another asserts that awards breed conformity. “Ten thousand people,” said 1985 juror Eric Owen Moss, “are now dipping into four lexicons.” A third claims that the process of visual evaluation precludes nonvisual innovations. As Koolhaas said of several projects that didn’t get awarded: “If you judge them as architecture, they have a lot of flaws. If you analyze them on their program, they may be some of the most amazing things that have ever happened.”

The sponsors of awards programs have responded to such criticism in various ways. The P/A and AIA juries have become more diverse, although classicists from the right wing and social activists from the left wing of the profession still rarely serve. The number of awards for unbuilt work has grown, even though there still remain very few venues for purely speculative work. And the number of awards in “nonvisual” areas such as practice or research has increased, even though whole realms of architectural production, from strategic planning and programming to building detailing and delivery, hardly ever get recognized.

**WHY WE AWARD**

Such flaws in the process have led some to question whether we should have awards programs at all. Architecture would no doubt continue without them, but that would leave the marketplace as the primary arbiter of value, something that our profession suffers from too much already. Awards programs, whatever their limitations, have the advantage of offering an alternative reward system, based not on money, but on the achievement of excellence.

Not that awards juries have agreed on how to define excellence. As 2001 P/A juror Mark Robbins asked, “Are the P/A Awards about innovation or what’s going on now?” Whether juries see their task as pragmatic or polemical, about the present or the future, the reason for awards programs remains the same: identifying the best new ideas. As such, they remind us that we are a discipline and profession and not just a collection of small businesses.

Awards programs also remind us that we have a responsibility to nurture new talent, recognizing promise even if the marketplace does not. The P/A Awards have done that well, with no lack of daring on the part of entrants or jurors. The deficit has occurred elsewhere: in the depth of coverage the awards get after the fact. All too often, award winners get scant mention in the popular media, and even in the architectural press, limited space sometimes makes it difficult for readers to decipher projects or to determine what the jurors saw in them. While juror comments have begun to have a more prominent role in the P/A Awards, a more permanent solution may lie with in-depth publication of the projects on the Web.

**HOW WE AWARD**

Improved coverage will demand that we also improve how we submit to such programs. Realistic computer renderings of projects, for example, have become common among award submissions, and yet they have the effect of homogenizing the entries and making it difficult to understand them. As 1999 juror Mehrdad Yazdani remarked, “realistic computer images take away from the mystery of a project.” But computers could do just the opposite: help jurors grasp nonvisual innovations in projects through the visualization of data, and highlight the concepts behind the work through the visualization of the thought process. To make that happen, submission requirements have only to ask for it.

Making such requests can change not only the presentation of the work, but the work itself. Canadian Architect magazine’s design awards, for example, began asking for fairly extensive information about the environmental aspects of each submitted project, and in due course the amount and quality of the sustainability strategies in the submitted work increased. Whether or not the submission requirements affected that change, requesting such information does have the power to raise awareness about critical issues and to make it a criterion for judgment.

How we talk about what we award can also bring about change in public perceptions. As Michigan’s Buresh noted at a recent awards presentation, “Proceedings like these should not be a place to pat ourselves on the back, but to increase conversation .... We should use awards programs to make our ideas more public.” Some local AIA competitions have the jurors explain their thinking about the premiated projects before a large audience, and every awards program needs to find some way to do that, viewing the dialogue of jurors not as the final word, but as the beginning of a public and professional discourse about the meaning of the work.

There is hunger in the profession for such discourse. A practice such as architecture, notes the philosopher Alasdair MacIntyre, operates by applying paradigms to particular patterns of living, programs, and sites. Awards juries do just the opposite: They elicit from the particulars of the submitted projects new paradigms that become the basis for future patterns of living and future work. We may have enough awards programs, but we need more depth within them, more diversity among them, and more debate from them. With that, we’d all be rewarded.
Case in point.

The University Library at Case Western Reserve University didn't have a problem putting the extra space to good use. With Spacesaver's high-density mobile storage system, they were able to double their shelving capacity in the same amount of space. And they were pretty pleased with the results...a beautiful, efficient design. Not to mention economical, too. When limited storage space presents a design challenge, look to the experts at The Spacesaver Group to be your partner in innovative thinking. We have the know-how and the product solutions to help you get it right. Give us a call at 800-492-3434. We're up to the challenge.
During the glassy-eyed technology euphoria of the late 1990s, HALO Industries began planning its new headquarters building in Niles, Illinois. A promotional products company, HALO wanted a "jewel box" to show off to clients what it could do for their brands. The resultant structure, designed by Chicago-based Murphy/Jahn Architects, is an enlarged showcase, transparent and luminous—gemlike in its own right.

This is not just a pretty face, though. Its crystalline appearance actually works within a larger context of integrated, efficient materials and systems. The building’s glass façade provides an abundance of natural light, the presence and absence of which modulates other environmental systems. A 10-foot clear ceiling height—achieved within the 12-foot floor-to-floor height by organizing power and data cabling and displacement air systems under a raised floor—enabled suspended lighting fixtures with both uplight and downlight components. Motion and daylight sensors control the artificial lighting. Sensors located on the roof also control a mechanized shading system of 4-inch-deep, perforated aluminum blinds, automatically adjusting the shades depending on the amount of natural light available.

**GLAZING STRATEGY**

Increased sunlight and decreased artificial light come at a certain price, however: heat gain. For the typical glass façade, which covers most of the building, the architects specified clear glass with a low-e coating on the number-two surface. At the portal points of the structure and for the two-story skylighted showroom at the top of the building, a low-iron white glass was chosen to distinguish and enhance these
FORMER HALO HEADQUARTERS, NILES, ILLINOIS
CLIENT: CenterPoint Properties  TENANT: HALO Industries  ARCHITECT:
Murphy/Jahn Architects, Chicago—Helmut Jahn (principal), Sam Scaccia
(director of production), Gordon Beckman (principal architect), Dan Cubric
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SPECIAL GLASS STRUCTURES AND SKYLIGHT—Advanced Structures

The corner of Touhy and Lehigh Avenues presented a difficult site in terms of placemaking. Surrounded by a typical suburban strip-mall environment, the building required
details that "created an urban building on a suburban strip," says architect Gordon Beckman. A galvanized-steel, gridded canopy extends from the roof to enclose the lobby
entryway and arrival court; a perforated-aluminum screen wall also helps define space, and has the capability to display projected images to passersby.

spaces. (Iron in glass causes a
green tint; reducing the metallic ele-
ment increases transparency.)

Attaching the glazing on the typ-
ical facade system is a four-sided,
silicone-supported matrix, with no
exterior mullion; instead, an interior
member with a very small profile was
used "to maximize transparency," says Gordon Beckman, principal
architect, Murphy/Jahn. He also
notes that the silicone compound
helps control heat gain. "There is no
metal on the outside to conduct heat
through the wall."

Throughout the structure, floor-
to-ceiling glazing minimizes the
number of building components,
which eased construction. At the
entryways, however, the structural
glazing is two stories high, which
meant that the glass mullions (used
here instead of metal members to
further enhance transparency) could
not be installed in one piece. "The
whole issue is that if glass bends, it
breaks," explains Beckman, "so the
load characteristics have to be such
that the glass remains neutral."
Patch fittings were used both at the
entryways and on the skylight; for
the latter location, Beckman found
the patch-fitted glazing offered
cost-savings over the normal bolted
fittings. "This is insulated glass, so
you would have had two times the
number of holes." The skylight is a
combination of steel trusses and
alternating steel and glass purlins.
Here, Beckman identified another
opportunity for cost efficiency:
Rather than the cast-stainless-steel
spiders normally used to connect the
glass, the team developed a system
of extruded aluminum parts.
The components work together
to create not just the jewel box
HALO wanted, but a coherent
arrangement of materials and sys-
tems. "For us, it is an integration of
all these techniques that makes
sense," notes Beckman. "This is not
something incredibly break-
through—these technologies are
used a lot in our European proj-
ects—but it's a smart way to put a
building together."

The logic of its architecture
helped save the building from pro-
longed vacancy. HALO had only
occupied its headquarters for about
nine months before filing Chapter 11
over a bad Internet startup invest-
ment. The 267,000-square-foot
facility, however, found a new
owner almost immediately. Shure, a
microphone and audio-electronics
manufacturer that caters to the
entertainment industry, liked the
building's "flashy" appeal, but as
Beckman points out, "the simplicity,
spatial aspects, abundance of
daylight, and efficiency of building
systems" are integral parts of the
pretty package.

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2 SLATED FOR APPEARANCE
Color and weathering characteristics make natural slate a distinctive, refined specification for houses of worship, schools, and residences. The palette from a Canadian source, North Country Slate (www.ncslate.com), includes purple, gray, gray/block, weathering sea green, mottled purple and green, and unfading green and black. When weight or cost are concerns, a simulated slate shingle from Owens Corning (pictured) offers the illusion of hand-chiseled bluestone that, under the right light, might fool the untrained eye.

3 SOLAR POWER
For high-profile sustainability, this modular photovoltaic roofing system (pictured) is built into a lapped system of metal panels. Ideal for roof pitches of 10 degrees to 75 degrees, the Solar PV system from Rheinzink adds an engaging pattern of hexagonal photovoltaic glass panels to the surface. Pre-engineered retractable skylights from Structures Unlimited (www.sky-lightinfo.com) comprise rigid aluminum box-beam structures framing insulated translucent panels from Kalwall (www.kalwall.com). A thermally broken design improves energy efficiency and limits condensation.

For information on these components and systems, circle 240 on the information card on page 97.
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> specifications roofing

1 TPO ON TOP
When cold weather hits, mechanical attachments for single-ply systems are effective for construction. For the gray expanses of a new middle school in Columbia Falls, Montana (pictured), Architects Northwest specified a 45-mil sheet of thermoplastic polyolefin (TPO) by Johns Manville (www.jm.com). Underneath the custom-colored TPO is a metal deck, a fire-barrier board, a polyethylene vapor retarder, and 3 inches of polyiso. Where rooftop traffic and abuse are issues, a thicker TPO membrane is available from Stevens Roofing Systems (www.stevensroofing.com). The 80-mil (2 mm) sheets are ideal for reroofing and where durability is a concern.

2 PRISON GRAY
For the staged completion of Illinois' first maximum-security prison since the 1920s, the firm DMJM specified a sturdy, cost-effective ribbed metal roof over the four wings of cell houses that taper toward their ends to improve sightlines for guards. From Petersen Aluminum (www.pac-clad.com), the 24-gauge Galvalume panels were expressed in an apt custom color, a prison gray.

3 INVERTED PARABOLA
For an office furniture headquarters in Wichita, Kansas, local firm Wilson Darnell Mann designed the roof structure as an inverted parabola (pictured). For the complicated geometry the designer specified a modified-bitumen roofing system from Johns Manville, comprising a sandwich of insulation, substrate board, and fiberglass felt. Another curved roofline spans the length of Freedom Center, a 300-foot-long vaulted structure housing three large printing presses for the local newspaper in Omaha. "Stretched and clipped" corners designed by HDR Architecture for the green, snap-on panels by Petersen Aluminum were intended to mitigate the large building's visual impact.

For information on these new materials, circle 240 on page 97.
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1 COOL SHADES
Don't be uncoordinated: New keypads for the Sivoia motorized window shades (A) have screwless wallplates and coordinated accessories in a range of matched colors and architectural finishes. The keypads and switches with raise/lower buttons come in the same profiles and colors as lighting controls from Lutron (www.lutron.com). The mechanical shade system is manufactured by Vimco (www.vimco.com). A new line of 12 "satin colors" is also available for Lutron's residential dimmers (B), which coordinate with the company's residential dimming system, RadioRA.

2 NIGHT VISION
This dimmer can see in the dark. For locations where preset light levels are desired, the dimmer allows light levels to be adjusted at master or remote locations before the lights are turned on. Built-in microprocessors raise or lower light levels. From Cooper Wiring Devices (www.cooperwiringdevices.com).

3 QUICK LEARNER
Some occupancy sensors "learn" end-user behavior patterns over time, but SuperSwitch 2 by Novitas (www.novitas.com) adjusts sensitivity and time delay automatically in response to occupant behavior. The combined switch and sensor helps cut energy use by means of sliding lens blinders that prevent false activation from corridors.

4 MAKE THE SWITCH
Looking for an easy replacement? A compact passive-infrared occupancy sensor fits into standard single wall-switch boxes, making it ideal for retrofiting. The energy-saving units from SensorSwitch (www.sensorswitch.com) are made to switch two lighting loads (A). For infrequently used spaces in residential settings, the WR motion sensor from Watt Stopper (www.wattstopper.com) also uses a passive-infrared device (in this case, with a time delay) and can replace ordinary switch boxes (B).
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PLAY CITY

The late Dutch modernist architect Aldo van Eyck is internationally renowned for buildings like his Amsterdam Orphanage (1960), but few are aware of his significant contribution to the city plan of Amsterdam: its playgrounds. In 1998, one year before the architect's death, architectural critic and historian Liane Lefevre approached van Eyck to discuss these long-overlooked projects. The resulting exhibition (at Amsterdam's Stedelijk Museum last year) and the new book, Aldo van Eyck: The Playgrounds and the City, bring into focus the immense impact that the architect's urban play spaces had not only on postwar Amsterdam, but on Dutch town planning at large.

Van Eyck's 700-plus playgrounds, commissioned by Amsterdam's Public Works Department and executed between 1947 and 1978, are evidence of a widespread post–World War II preoccupation with children and play. Lefevre traces van Eyck's influences to the work of the northern European artist collective Cobra (with which he had both social and professional ties), as well as to the writings of Dutch historian Johan Huizinga, whose book Homo Ludens (1938) perpetuated the belief that play underlies every aspect of human culture.

The playgrounds comprise a vast web of interstitial spaces—squares, street corners, vacant lots, courtyards—which van Eyck animated with simple, geometrical gestures in the form of sandboxers, play structures, and graphics. His approach, radical for its time, was to let the existing, irregularly shaped lots dictate his plans, subtly but effectively overlaying an infrastructure of play onto existing everyday city infrastructures.

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WHEN CONSTRUCTION STARTED, THEY THREW YOU OUT OF THE PLANE.

Giuseppe Lignano, from "LOT-EK Goes to China," page 86
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One of Gregory Crewdson's large-scale photographs of small-town America.

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→ A gallery of cities of the future
→ Audio from Edward Keegan's interview with Indiana gubernatorial candidate Jim Schellinger
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WE'RE IN A RECESSION, RIGHT? So how come our second annual Salary Survey says that architects' incomes are healthy, even growing? Our partners at the Greenway Group gathered data from 135 firms with more than 250 offices and 17,000 employees—so rest assured that the conclusions are backed by thorough research. Still, it's hard to believe that pay rates are solid amid so much uncertainty.

Jim Cramer—chairman and CEO of the Greenway Group and former executive vice president of the AIA—offers a smart analysis of the disconnect between architects' relatively healthy salaries and our particularly scary economy ("Salaries Are Rising?" on page 61). Among the many reasons he gives, including solid markets in healthcare, education, and high-end hospitality, two factors really grabbed my attention. They suggest a tremendous shift in architecture culture—changes that are long overdue.

No. 1: Celebrity. That's right, celebrity. Ever since Herbert Muschamp compared Frank Gehry's Guggenheim Museum Bilbao to Marilyn Monroe's famously fluttering hemline, a small group of international architects has been subject to a nonstop media lovefest. While it's fashionable (and understandable) to be suspicious of the profession's complicity with the star system, it's also one of the key reasons that major developers and governmental bodies are buying into the idea that design adds tremendous, measurable value to raw construction. This is a good change, after years of unconstructive finger-pointing over the perceived failure of Modernism.

No. 2: Professionalism. If architecture's high media profile has an upside, it also has a downside: the stereotype of the architect as diva. Think of the Kohler TV ad, with the arrogant, accented architect showing his office to a couple of young prospective clients (if you didn't catch it, search "Kohler architect" on YouTube). Clichés of intellectual snobbery, brutish management, and indifference to business and construction may apply accurately to some well-known architects and wannabes, but there's no value in such attitudes, and, according to the Greenway Group, the profession as a whole knows better. Who has time for hissy fits?

Here's the proof: Jim Cramer (no relation, by the way) reports an increase in firm profitability, which itself is a miracle in a time of recession. His explanation: "Professional practices today tend to be much better managed and better led than they used to be." Thank heaven. When firms are well managed, profits rise. When profits rise, so do salaries. Divas, take a bow and exit stage left.

So keep that temper in check; treat your co-workers fairly; listen carefully to the business manager, contractors, and marketing staff; and join me in praying for a quick end to the recession. Then we can really count the cash.

Ned Cramer
Editor in Chief
Gilani High School, designated as one of 100 “Outstanding High Schools” in the United States by U.S. News and World Report, recently decided to build a new school to solve overcrowding issues. The principle, Ron Tesch, had a strong feeling for academics and wanted to do an academy model that included four academic wings that are off of a main corridor, with each wing focused on a particular area of education,” said Katie Pedersen, Project Manager for Perkins + Will.

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Contributors

1. William Anthony
   Annual Salary Survey • p. 58
   Photographer William Anthony whizzed through nine cities over 11 days to photograph the architects and career consultants profiled in our annual salary survey. Anthony (shown here in an overly serious moment with Pamela Sunnarborg, his trusty production manager and fiancée) jokes that he should have ordered custom T-shirts that said “Architect 2008 U.S. Tour.” “We made it out alive!” Anthony marvels. “No lost luggage. No weather delays or cancellations. No horribly uncooperative people, barring a few airline employees.” Anthony’s photographs have appeared in Rolling Stone, Seattle Metropolitan, Vanity Fair, and other publications.

2. Elizabeth Evitts Dickinson
   L.A.'s Learning Curve • p. 70
   Journalist Elizabeth Evitts Dickinson spent several days crisscrossing the Los Angeles area by car, meeting architects and school district officials and touring schools built as part of the district’s massive $20 billion construction initiative, the largest public-works project in the country right now. “I was heartened to see so many architects, community members, and district leaders taking public education seriously,” Dickinson says. “I would love to see this type of commitment spread to other school districts.” Dickinson, a freelance writer and former editor in chief of Urbanite magazine, lives in Baltimore. As a contributing editor for ARCHITECT, she has covered trends in movie-theater and healthcare design.

3. Hannah McCann
   Construction Toys Make Better Boys • p. 78
   Our managing editor Hannah McCann visited the secure storage area that houses the National Building Museum’s recently acquired toy collection, but she didn’t get to touch any of the toys. Still, she understands what collector George Wetzel means when he says collecting is “a physical thing ... [that] gets in your blood.”

   The daughter of an architect who collects 19th century coffins and Mennonite bed linens, among other items, McCann herself used to own an antiques business before swearing off the hunt for the old and rare. Her last feature for ARCHITECT, “0.27%,” about the status of black women in the profession, appeared in March 2007.
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FOURTEEN YEARS after Edward Feiner made the U.S. General Services Administration (GSA) a driver of design excellence in civic architecture, a new office aims to make federal facilities greener as well. The GSA, the federal government’s real estate agency, has established the Office of Federal High-Performance Green Buildings (OFHPGB) to ensure compliance with the requirements of the Energy Independence and Security Act.

This measure, which became law in December 2007, initially drew attention chiefly for raising vehicular fuel-economy standards. The building sector’s role in national energy consumption, however, implies that the act may accomplish more by promoting sustainable construction. Goals of the law’s Title IV, which covers buildings and industry, include a 30 percent cut in total energy use in federal buildings by 2015 (relative to 2005 levels) and a 55 percent drop in fossil-fuel use in new and renovated federal buildings by 2030, with complete elimination by 2050.

Housed within the GSA’s Public Buildings Service and initially headed by director of expert services Kevin Kampschroer, the OFHPGB will coordinate with a parallel Office of Commercial High-Performance Green Buildings within the Department of Energy (DOE) to implement standards for federal and private-sector buildings, respectively. Kampschroer, who has been with GSA since 1975 and calls himself a “huge admirer” of Feiner’s 1994 Design Excellence Program, notes that both offices’ directors will be career civil servants, not political appointees, bringing relative immunity from partisan pressures.

Kira L. Gould, director of communications for William McDonough + Partners and 2007 chair of the AIA Committee on the Environment, describes the GSA as “a key player in the market transformation that has occurred in the past several years.” The agency has aided the U.S. Green Building Council, she notes, by funding “a thorough research study of rating systems, which offered really meaningful conclusions about the benefits [and] attributes of five specific programs.” However, the new office’s stated goals strike Gould as “both lofty and not enough. ... One of the big challenges very soon will be for us to realize how, while getting to 55 percent reductions of fuel consumption will be important, getting far past that—quickly—is imperative. Energy is the hot topic now, but as we aim for progress around that, we would do well to think much more holistically. I would hope that GSA could help lead that, demonstrating that energy issues coexist with others, such as water and mobility, and that all have a social dimension.”

This integrated approach aligns well with Kampschroer’s priorities. The OFHPGB will address new, renovated, and leased buildings’ life-cycle costs and operating procedures as well as design and construction. Despite the act’s title, Kampschroer says, “there’s an understanding that these buildings go much more broadly than that, and that if you’re really talking about the high performance of a building, you must consider how it affects the people who work in the building.”

Kevin Kampschroer likens many federal buildings to commercial owner-occupied buildings, where the initial green premium is more an investment in long-range value than an obstacle. “When we build new buildings, we don’t build very many of them, but we build them for the long term,” he says. “We don’t build buildings to last 30 years and then be taken down.” He also notes that green costs are dropping, citing one Virginia developer’s claim that it can provide LEED Gold quality at market rates and the 2004 Davis Langdon report (Costing Green: A Comprehensive Cost Database and Costing Methodology), which found that nongreen factors have more of an influence on building costs.

“Americans are an extraordinarily inventive people, and I think that there’s going to be a lot of push to make these kinds of initiatives effective,” Kampschroer speculates. “There are certainly some groups that believe, as the book [Apollo’s Fire: Igniting America’s Clean Energy Economy, 2007] lays out, that this is a real economic opportunity for the U.S. Certainly, what we’ve seen in the last 10 years is that the capability within the marketplace to deliver higher-performing buildings than in the past has grown exponentially. ... I think we’ll see both technological breakthroughs and process breakthroughs that make us wonder why we weren’t more hopeful in 2008.”

BILL MILLARD
CNU Names Winners of 2008 Charter Awards

SINCE 2001, THE CONGRESS FOR THE NEW URBANISM (CNU) has honored the best of new urbanist projects with its annual Charter Awards. For the program’s 2008 iteration, 14 professional and one academic project have been recognized, four of which are in countries other than the United States: the Bahamas, India, Saudi Arabia, and Scotland. The awards will be presented on April 5 during the CNU’s 16th congress, which is being held this year in Austin, Texas. The members of this year’s awards jury: Andrés Duany (chair), principal, Duany Plater-Zyberk & Co.; Ben Bolgar, director of design theory and networks, the Prince’s Foundation for the Built Environment; Victor Dover, principal, Dover, Kohl & Partners; Geoffrey Dyer, director, Placemakers, and principal and urban designer, T-Six Urbanists; Katharine Kelley, president, Green Street Properties; Peter Park, manager of community planning and development, city and county of Denver; Karen Parolek, principal, Opticos Design; and Stefanos Polyzoides, principal, Moule & Polyzoides. Learn more about the award-winning projects at cnu.org/awards2008.

2008 Charter Award Winners

METROPOLIS, CITY, AND TOWN
Louisiana Speaks Regional Plan
State of Louisiana
Calthorpe Associates
A Civic Vision for the Riverfront
Philadelphia
WRT Design

1 → Vedanta University
Orissa, India
Ayers/Saint/Gross
King Abdullah University of Science and Technology
Thuwal, Saudi Arabia
HOK

NEIGHBORHOOD, DISTRICT, AND CORRIDOR
Woodstock Downtown
Woodstock, Ga.
Tunnell-Spangler-Walsh & Associates

2 → Oakwood Shores
Chicago
FitzGerald Associates Architects

Rockville Town Square
Rockville, Md.
WDG Architecture

Mixson Avenue
North Charleston, S.C.
I’On Group

Masterplan for Western Harbour
Leith, Edinburgh, Scotland
Robert Adam Architects

BLOCK, STREET, AND BUILDING
The Vision for Marion Square
Charleston, S.C.
Fairfax & Sammons

3 → Atlantic & Pacific Development
Montgomery, Ala.
City Loft Corp.

Almeria Row
Coral Gables, Fla.
de la Guardia Victoria Architects & Urbanists

A Pattern Book for Neighborly Houses
United States
Urban Design Associates

A Living Tradition: Architecture of the Bahamas
Bahamas
Mouzon Design

4 → STUDENT AWARD
The North End Plan
Michigan City, Ind.
Andrews University School of Architecture

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NYC’s Storefront for Art and Architecture Goes Abroad
Temporary galleries in L.A. and outside U.S. will help engender a ‘flow of ideas,’ says director Joseph Grima

FOR MORE THAN A QUARTER CENTURY, New Yorkers have been introduced to innovation at the Storefront for Art and Architecture. By presenting the provocative work of emerging architectural practitioners including Diller and Scofidio (1987) and artist-designers such as Lebbeus Woods (1984, 1988, and 1994), the Manhattan gallery has focused a laser beam on groundbreaking ideas while also blurring the line between architecture and art.

Now, the Storefront concept is going on the road.

On April 11, the first in a series of temporary “Pop-Up Storefront” galleries will open in Los Angeles. An exhibition of Cold War architecture from the Soviet Union photographed by Frédéric Chaubin, which debuted a year ago in the Manhattan Storefront, will be on display for five weeks. After the photographs come down in mid-May, the Sunset Boulevard space will revert to its former incarnation: a print shop press room. But the pop-up show will go on. With exhibits tailored to each venue, Storefronts will open in Milan in April, in London in July, and in Yokohama, Japan, in September. The Milan exhibition will feature the ring dome of hula hoops and zip ties designed by South Korean architect Minsuk Cho and constructed last fall in Manhattan to celebrate Storefront’s 25th anniversary.

“There are so many other cities we’d like to reach out to,” says director Joseph Grima, who took the helm of the nonprofit gallery in January 2007. “We hope to generate new exhibits in Los Angeles and bring them to New York, to have a flow of ideas and exchanges.” A former staff editor for the Italian architecture and design journal Domus, he has a portfolio that includes a video portrait of Pyongyang, North Korea, and a survey of new architecture in Asia.

“Globalism is hugely important today. Our institution has to adapt to the changing cultural context,” says Grima, pointing out that Storefront is not so much a place as an idea.

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Recognition

Green Advocate Wins Jefferson Medal

The winners of the University of Virginia's Thomas Jefferson Foundation Medal in Architecture aren’t always architects. In addition to Alvar Aalto, Marcel Breuer, and Ludwig Mies van der Rohe, past winners include critics Lewis Mumford and Jane Jacobs, artist James Turrell, and politician Daniel Patrick Moynihan. This year’s winner, Gro Harlem Brundtland, boasts perhaps the most dynamic résumé of all.

A physician by training, Brundtland served as prime minister of Norway for 10 years, the youngest person and first woman ever to hold that position. Much of Brundtland's career has been dedicated to advocacy of environmental and social sustainability in her positions as Norwegian minister of environment, chair of the U.N.'s World Commission on Environment and Development, and director general of the World Health Organization.

While Brundtland was at the United Nations, her commission published the report Our Common Future. Also known as the "Brundtland Report," the document advocated a broad, multidimensional understanding of sustainability, encompassing energy and food consumption, industrial and economic practices, human health and resources, species and ecosystems, and international cooperation and decision-making systems. The report's recommendations led to the 1992 Earth Summit in Rio de Janeiro and the U.N. Framework Convention on Climate Change, the precursor to the Kyoto Protocol.

"In honoring Dr. Brundtland, we celebrate her legendary leadership in global sustainability and the stewardship of our environment," says U.Va. architecture school dean Karen Van Lengen.

10 Fastest-Growing U.S. Metro Areas

By Rate of Growth, July 1, 2006–July 1, 2007

1. Palm Coast, Fla. 7.2%
2. St. George, Utah 5.1%
3. Raleigh/Cary, N.C. 4.7%
4. Gainesville, Ga. 4.5%
5. Austin/Round Rock, Texas 4.3%
6. Myrtle Beach/Conway/North Myrtle Beach, S.C. 4.2%
7. Charlotte/Gastonia/Concord, N.C. 4.0%
8. New Orleans/Metairie/Kenner, La. 3.8%
9. Grand Junction, Colo. 3.7%
10. Clarksville, Tenn. 3.7%

Source: U.S. Census Bureau
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RMJM Founds Business-Focused Program at GSD

ON MARCH 17, the Harvard Graduate School of Design (GSD) announced a $1.5 million gift from U.K.-based architecture firm RMJM to support a new integrated design program at the school. The RMJM Program for Research and Education in Integrated Design Practice will emphasize business management principles and a thorough understanding of the construction process to round out students' design skills.

Speaking to attendees of Harvard's Design Firm Leadership Conference, who filled the GSD's Piper Auditorium, dean Mohsen Mostafavi said, "We believe very strongly in the role of transdisciplinary research. We believe it's the future of design education."

RMJM CEO Peter Morrison told the crowd that "architects must regain the status of master-builder" and that to do so, they must learn "to generate proper reward for the value [they've] created."

GSD professor Spiro Pollalis told the audience that although the details have not been worked out yet, the program will entail collaboration between the GSD and the Harvard Business School.

AMANDA KOLSON HURLEY

Percentage of A/E firm leaders who believe the economy will worsen in 2008.

SOURCE: ZWIESCHWHITE
LIKE JEWELS, LIGHT SPLASHES OFF THESE TANTALIZING TEXTURES AND SAYS, "THIS SPACE IS IMPORTANT."
GBI and Energy Star Team Up

The Nonprofit Green Building Initiative (GBI) and Energy Star, the voluntary energy efficiency labeling program of the U.S. Environmental Protection Agency and the U.S. Department of Energy, recently established a partnership to share resources and tools, promote each other’s programs, and develop training in energy-efficient and sustainable building design and management for the commercial, institutional, and industrial construction markets.

The organizations’ overlapping goals make the alliance a natural step, says Vicki Woiden, vice president of commercial programs and product development for the GBI, which is based in Portland, Ore. “Our goal is to continue to build our system and our program to back up the work of the government.”

As part of the partnership, the GBI will encourage its members to join Energy Star and enter the Energy Star Challenge, which urges reductions in building energy consumption of 10 percent or more. The organization also will enhance elements of its own green-rating program and management system with direct online links to Energy Star’s Target Finder and Portfolio Manager tools to track and share relevant data on energy use.

“One guy, an architect, turned up with blueprints for his new nose. Full-scale drawings, done from different angles and planned to the last millimetre.”

—London surgeon Alex Karidis, as quoted in a March 16 Sunday Times article about men seeking plastic surgery
Gensler founder and chairman M. Arthur Gensler Jr. has been named the recipient of the Construction Specifications Institute's 2008 Michelangelo Award. For an individual who has given distinguished and innovative service to the built environment, the award will be presented at CSI's trade show (formerly known as the CSI Convention, now rebranded as Construct2008, owned by ARCHITECT parent company Hanley Wood, and taking place June 3–6 in Las Vegas).

The World Monuments Fund has awarded $50,000 to the Grosse Point Library to help efforts to save the midcentury Michigan building, currently slated for demolition. Designed by Marcel Breuer and opened in 1953, the library was placed on the WMF's 2008 watch list of the 100 Most Endangered Sites.

The short list of finalists for the position of dean of Georgia Tech's College of Architecture has been announced: Alan Balfour, from Rensselaer Polytechnic Institute; Yehuda E. Kalay, from the University of California, Berkeley; Brenda Case Scheer, from the University of Utah; and Bruce Stiftel, from Florida State University.

Anne T. Sullivan joins structural engineering and design firm Thornton Tomasetti as vice president in charge of establishing a historic preservation practice sector in the company's Chicago office. Sullivan is familiar with the firm's strategies: She has been involved in a number of Thornton Tomasetti projects over the last 15 years, including at her most recent post as a senior associate with Johnson Lasky Architects in Chicago.

Baton Rouge, La.'s Trahan Architects has been selected to design a new museum in Natchitoches, La. The planned 27,500-square-foot museum, part of the state museum system, will house the North Louisiana Regional History Museum and the Louisiana Sports Hall of Fame. The firm expects to complete the design phase by the end of the year.

Princeton University has created the Center for Architecture, Urbanism, and Infrastructure at the School of Architecture. Led by professor Mario Gandelsonas, the center will support collective research and hold symposia, conferences, working sessions, and public dialogues.

April has been dubbed "National Landscape Architecture Month" by the American Society of Landscape Architects. The organization will mark the occasion with activities directed as vice president in charge of establishing a historic preservation practice sector in the company's Chicago office. Sullivan is familiar with the firm's strategies: She has been involved in a number of Thornton Tomasetti projects over the last 15 years, including at her most recent post as a senior associate with Johnson Lasky Architects in Chicago.

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Baton Rouge, La.'s Trahan Architects has been selected to design a new museum in Natchitoches, La. The planned 27,500-square-foot museum, part of the state museum system, will house the North Louisiana Regional History Museum and the Louisiana Sports Hall of Fame. The firm expects to complete the design phase by the end of the year.

Princeton University has created the Center for Architecture, Urbanism, and Infrastructure at the School of Architecture. Led by professor Mario Gandelsonas, the center will support collective research and hold symposia, conferences, working sessions, and public dialogues.

April has been dubbed "National Landscape Architecture Month" by the American Society of Landscape Architects. The organization will mark the occasion with activities directed as vice president in charge of establishing a historic preservation practice sector in the company's Chicago office. Sullivan is familiar with the firm's strategies: She has been involved in a number of Thornton Tomasetti projects over the last 15 years, including at her most recent post as a senior associate with Johnson Lasky Architects in Chicago.
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Martin Pawley, 69, Dies

BRITISH ARCHITECTURE CRITIC Martin Pawley died March 9 at the age of 69. As a young man, Pawley studied architecture at the Oxford School of Architecture, Paris' École des Beaux Arts, and London's Architectural Association. He began his prolific career as a journalist in the 1970s and held positions at Architectural Design, Building Design, World Architecture, and The Architect's Journal; he also served for seven years as the architecture critic for The Guardian. His writings included several books, among them Terminal Architecture (1998) and Theory and Design in the Second Machine Age (1990). These works were joined late last year by an anthology of his work—edited by David Jenkins and prefaced by Norman Foster—entitled The Strange Death of Architectural Criticism: Martin Pawley Collected Writings (Black Dog Publishing). KATIE GERFEN
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### CALENDAR
**APRIL, MAY, JUNE**

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<td><strong>LECTURE</strong> Discover the Renaissance link between the human body, buildings, and the cosmos at the Institute of Classical Architecture's Air, Wind, Spirit, Soul. classicist.org</td>
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<td><strong>LECTURE</strong> Thomas Kamm goes retro in D.C. with Sustainable Architecture, using traditional building methods. philipscollection.org</td>
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<td><strong>LECTURE</strong> O'Hare Airport is going green. O'Hare Modernization Program aims to write the book on green civil projects. architecture.org</td>
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<td><strong>LECTURE</strong> The Morgan Library kicks off its Medieval Costume Lectures by Anne Van Buren. (Keep clear of the pointy shoes.) themorgan.org</td>
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### Open House: The National Concrete Masonry Association in Herndon, Va. celebrates 50 years of keeping your buildings vertical. ncma.org

### Open House: The National Concrete Masonry Association in Herndon, Va. celebrates 50 years of keeping your buildings vertical. ncma.org

### Lecture: The New School presents sculptor Kiki Smith. newschool.edu

### Deadlines: The Larvik Harbour Competition in Norway needs a few good architects. jarl.tore.mehl@larvik.kommune.no

### Lecture: The PCI Total Precast Design Challenge puts students and their designs for a new middle school to the LEED test. pci.org

### Looking Ahead:

**BEST:** Building Enclosure Science and Technology: Minneapolis; June 10–12; thebestconference.org

**FESTIVAL:** LOOK3: Festival of the Photograph: Charlottesville, Va.; June 12–14; festivalofthephotograph.com

**TRADE SHOW:** NeoCon: Chicago, June 9–11; neocon.com

**CONFERENCE:** CIB Wyo: Facilities Management: Edinburgh, Scotland; June 16–18; fmresearch.co.uk
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NATURE AND NURTURE
It’s debatable where our passion for door control began. Second-grade geometry. Fifth-grade physics. Or Mom’s constant nagging. Whether we were letting flies in or cold air out, it was instilled early that an open door is a useless door. That’s why we commit every possible gene to developing controllers that not only keep doors closed, but also keep them from wearing out. It’s just another way the natural-born closers at LCN protect both your front line and your bottom line.

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5. Eclipse attachment for ExpansRail infill  
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Ten Tallest Buildings Completed in 2007

1. Rose Rotana Tower (U.A.E.) • Khail & Alami • 1,093 ft
2. New York Times Tower (U.S.) • Arad • 1,008 ft
3. Dual Towers (U.A.E.) • Arad • 1,008 ft
4. Al Khil & Alami • 1,008 ft
5. Rose Rotana Tower (U.A.E.) • Khail & Alami • 1,008 ft
6. Rose Rotana Tower (U.A.E.) • Khail & Alami • 1,008 ft
7. Al Khil & Alami • 1,008 ft
8. Al Khil & Alami • 1,008 ft
9. Rose Rotana Tower (U.A.E.) • Khail & Alami • 1,008 ft
10. Rose Rotana Tower (U.A.E.) • Khail & Alami • 1,008 ft

Ten Tallest Buildings in 2020

1. A! Burj (U.A.E.) • Woods Bagot • 3,104 ft
2. Burj Mubarak al-Kabir (Kuwait) • Enc Kuhne Associates • 3,268 ft
3. Burj Dubai (U.A.E.) • SOM • 2,717 ft
4. Dual Towers (South Korea) • John Portman & Associates • 2,026 ft
5. Russia Tower (Russia) • Foster + Partners • 2,008 ft
6. Chicago Spire (U.S.) • Santiago Calatrava/Perkins+Will • 2,000 ft
7. Shanghai Center (China) • SOM • 1,903 ft
8. China 117 Tower (China) • Arup • 1,870 ft
9. Millennium Tower (South Korea) • Arup • 1,837 ft
10. Jeddah Tower (Saudi Arabia) • SOM • 1,821 ft

SOURCE: COUNCIL ON TALL BUILDINGS AND URBAN HABITAT

Who's Tall Now?

YOU'D THINK IT WOULD BE TOUGH to cloak a nearly 1,900-foot-tall building in secrecy, yet that's exactly what's happening with the proposed China 117 Tower in Tianjin, China, and many other skyscrapers still in the proposal or early building phases. Which is why Philip Oldfield, a research coordinator at the Chicago-based Council on Tall Buildings and Urban Habitat, compiled a "Tallest 20 in 2020" list last November as well as a list of the 50 tallest proposed buildings in January, unveiling some of the mysteries for a greater collective understanding.

"We used strict criteria on real proposals that are moving forward," says Oldfield. The Chicago Spire and 1 World Trade Center, both under way, are the only North American buildings on the 2020 list. "If you made this list 30 years ago, you'd have predicted the majority of the buildings would be steel office buildings in North America," Oldfield says, adding that today's tallest buildings are primarily residential or mixed-use, made of concrete, and located in Asia and the Middle East.

Carol Willis, founder and director of the Skyscraper Museum in New York City, cites cultural differences as a deciding factor in where tall buildings go up. Zoning laws and building codes are cultural, not economic, she says.

Driven by a desire to create icons in a given city, the tall trend shows no signs of slowing down—at least overseas. But North America's lock on tall design is coming to an end. "It's not that we have a lack of ambition or money [in the United States]—that's not it," Willis says. "There's a limited amount of space you can exploit in the sky. Whether by democratic process or not, it's been decided that the public owns a piece of the sky here."
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Residential Market
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Market Strengths
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• Reasonable taxes

Market Concerns
• Threat of suburban sprawl
• Housing affordability
• Limited-growth areas

Forecast
"The current planners appreciate the vision put in place over two decades ago to create a vibrant and centered community," says Ed Linville, principal of Madison's Linville Architects. "I see more emphasis on smart growth and a newfound interest in green design and protection of natural resources. I see footprints that are more concentrated."

IT SHOULDN'T BE TOO SURPRISING that Middleton, Wis., topped Money magazine's 2007 list of the 100 best places to live in the United States. In addition to its abundant natural charms, two decades ago the city, just west of state capital Madison, adopted a new urbanist approach to development. (The Middleton Hills neighborhood, north of downtown, is the only project in Wisconsin designed by Andres Duany and Elizabeth Plater-Zyberk.)

The result is a city that still feels manageable and friendly even as it spreads outward. "The city planning department is excellent to work with," comments Melissa Destree, president of Madison-based Destree Design Architects. "They promote density and progressive design solutions."

But, in recent days, the Good Neighbor City has been struggling a bit to stay true to its motto in the face of big developments like T. Wall Properties' proposed $250 million, 28-acre mixed-use Tribeca Village project—scheduled to begin in 2009—that, until recently, was slated to include a Wal-Mart. At press time, public opposition had turned away the big-box retailer.

Still, Van Nutt, executive director of the Middleton Chamber of Commerce, is hopeful for Middleton's legacy and says he'd like to look back someday and be able to say, "The community used its remaining land resources well, maintaining balance between commercial growth, residential growth, and green space." But, he adds, "It will take ongoing strong leadership and cooperation to make this a reality."
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Since 2002, amateur historian Ethan McElroy has been archiving photographs and stories of Kirkbride asylums, which were based on the theories of a 19th century doctor.

ETHAN McELROY TRAVELS THE COUNTRY documenting crumbling Victorian insane asylums, then posts their haunting pictures and stories at kirkbridebuildings.com. But he studies only those structures based on the theories of Dr. Thomas Story Kirkbride (1809–1883), a Quaker humanitarian who regarded the insane as treatable sufferers rather than as public menaces. Kirkbride persuaded dozens of hospital administrators and architects to create secluded, freestanding asylums with long "batwing" wards flanking central offices to maximize staffs' observation opportunities and patients' access to fresh air and sunlight.

McElroy, 33, is a freelance web designer in Framingham, Mass. Two abandoned Kirkbride asylums near his home—in Danvers and Worcester—inspired him to start the site in 2002. "They're otherworldly places," he explains. "I'm fascinated by their size and shapes, the dramatic scale, the quality of the architecture and craftsmanship, and Kirkbride's whole idea that a building could help cure people."

On his travels, McElroy trains his Olympus C-8080 on the masonry exteriors, which are mostly turreted and studded with bay windows; he also accesses interiors (if they're not too dangerous), shooting dusty gurneys in corridors or paint peeling from carved woodwork. About 5,000 people visit his site each month, and McElroy receives up to 50 e-mails a week. "The most common are from people thinking I could get them a job at one of these places," he says. "Some people want to tell me about their memories of working there or being incarcerated there. And some are just a little weird, asking about paranormal experiences I've had or tortures that might have happened at these places."

McElroy hopes that sites like his will help inspire preservationists and developers to save more Kirkbrides. He admits, though, that "it's difficult to find new uses for the layouts." Happily, McElroy reports that an asylum in Traverse City, Mich., has become the mixed-use Village at Grand Traverse Commons. But at least six buildings have been devastated by fire or razed. The Worcester asylum has been condemned, and only a small, turreted portion remains of the Danvers hospital, as the centerpiece of a rental-apartment complex called Avalon Danvers. Its street address: 1101 Kirkbride Drive.

LINKS

sitephocus.com

rand.org/publications/classics /building.html

lcacalculator.com

treehugger.com/files/2008/03 /masdar-roundtable.php

Created for architects, planners, and others involved in construction and development, Sitephocus is a photo database of building typologies and urban and suburban spaces from around the world. Subscribers can customize image boards to share or use photos in proposals and reports.

In December 1950, as the RAND Corp. was planning to erect its very own building, Mathematics Division chief John Williams circulated an informal memo with his notions of what kind of office layout would benefit the research group most. Read his analysis here.

Do you know what the carbon footprint or embodied energy of a particular product might be? The Industrial Design Consultancy recently released the Life Cycle Assessment Calculator, which the firm claims will help determine the environmental impact of any product.

Shortly after work began on Masdar City—Foster + Partners’ $22 billion carbon-neutral development in Abu Dhabi—the eco-blog TreeHugger convened a panel to separate hype from reality. Learn what EDAW's Christopher Choa and others think of the massively ambitious project.
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SO, HOW AM I DOING?

Mark Gundacker once worked at an insurance company, where he taught classes on how to conduct performance reviews—without ever being reviewed himself. His boss at the time assumed that managers didn't need pointers, says Gundacker, who knows better.

These days, Gundacker plans and oversees performance reviews as global director of human resources for EDAW. The San Francisco–based landscape and environmental design firm has doubled in size over the last five years—it now has 1,700 employees in 35 offices around the world—and continues to grow. For the firm to be effective at recruitment and retention, it needs to maintain its reputation for helping employees achieve their goals, says Gundacker, who joined in 2004. One way to do that is to hold periodic meetings to discuss those goals. Although they're known as performance reviews, the meetings offer opportunities to talk about much more than the past, Gundacker says. And though employees are sometimes nervous about being evaluated, they should emerge from a review psyched about the future.

Think about next year.
"Too many people use the performance review as a backward-looking, rather than a forward-looking, tool," says Gundacker. "Sure, it's an opportunity for the employee to get feedback on past performance. But even more important is that managers ask employees questions like 'Where are you hoping to go? What do you need to do to get there?' At EDAW, we use the annual review to talk about goals for the next year. Then we do a midyear follow-up to see if the employee is meeting those goals."

Do it in the fall.
Some companies conduct performance reviews on the employee's anniversary, which could be any time of year. Gundacker prefers to hold them in September or October. That way, people can get a sense of how they're doing before end-of-year bonuses and raises are announced. Reviews are more effective when they're linked to tangible results.

Get more than one opinion.
In design firms, people don't typically work for one person for an entire year. So it's important for the person conducting the review to solicit views from other managers. "This is especially important at a firm where creativity is valued," says Gundacker, since creativity isn't something that lends itself to objective measure.

Evaluation forms should guide the manager...
At EDAW, managers fill out forms rating employees on five criteria: communication, quality of work, productivity, innovation, and teamwork. The last two are especially important at a design firm, Gundacker says. For managers, there are additional criteria like leadership and financial effectiveness. No EDAW employee—not even a top manager—is exempt from the process.

...and the employee.
Before the review at EDAW, the employee is asked to complete a self-evaluation. The manager can use the employee's own observations to start the conversation rolling. "It's a good icebreaker," says Gundacker. But keep the forms simple: "If the paperwork is too complex," he says, "the process becomes about filling out the forms."

Schedule enough time.
"I tell managers to allow at least an hour, with no interruptions," says Gundacker. "If in the course of a year you can't block off an hour to have a meeting with an employee, that sends the employee a message."

Use the form as a guide, not a script.
A manager should go beyond just reading the evaluation to the employee. The purpose is to have a two-way conversation.

Sign off.
At the end of the meeting, the manager and the employee should both sign the form. That signals that there's agreement, not only about what the employee has done but also about what the employee plans to do—which is what really matters.
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Text Amanda Kolson Hurley

WALK THIS WAY

WHEN THE MILITARY ADVANCED TRAINING CENTER (MATC) at Walter Reed Army Medical Center in Washington, D.C., opened last September, it met a longstanding clinical need that has become increasingly urgent: the need for an integrated facility to rehabilitate returning soldiers who had lost limbs, suffered impaired limb function, or sustained brain injuries in Iraq and Afghanistan. The two-story, 31,000-square-foot center includes offices for counselors; a family lounge and kitchen; prosthetics fitting rooms; a climbing wall; and a ceiling-mounted exercise track that lets patients, wearing a harness, walk or run without being tethered to a therapist. The MATC even has an immersive virtual environment where patients, standing on an interactive platform, can test their reflexes.

Besides showcasing the latest technology, the MATC gathers into one place treatment areas that previously had been scattered around the hospital. One of these areas was the Center for Performance and Clinical Research, known as the Gait Lab, where physical therapists and biomechanical engineers study patients' motions as they walk to gauge how rehab could help them and ensure they're using the right prosthetic device with a good fit.

The old Gait Lab was a retrofitted square room, 28 feet by 28 feet, with eight special motion-capture cameras mounted on the walls and staff desks in the corners. There, the actual walkway for patients was about 25 feet long "at best," says Brian Baum, a Gait Lab biomechanist. Patients in the later stages of rehab, able to take fairly large, quick steps, had to stop short. There were other drawbacks, says Baum: "We did struggle with vibration problems ... we were next to prosthetics, where they use their big machines to fabricate prostheses. There was tons of sawing."
Motion-capture cameras used in the Gait Lab have strobes of LED lights that flash 120 times per second, capturing the positions of reflective markers placed on patients' bodies. Software turns this data into a composite 3-D view. The lab's computer also registers weight on the force plates under the floor. So when Congress approved $10 million for the project in 2004 and—after a false start by another firm, whose design came in over budget—the project was awarded the following year as a design/build to Turner Construction Co. and Ellerbe Becket, Baum and his colleagues had the chance to draw up a wish list for their new lab. They wanted the lab to sit on an isolated slab of concrete, so that vibrations from surrounding rooms wouldn't affect their patients' motions (or how they calibrated them). They wanted more space, so patients could walk briskly, even run. They wanted a higher ceiling, so cameras could be mounted higher up to give a bird's-eye view. And, last but not least, they wanted better equipment.

Pouring the isolated slab was the crucial first step. "We designed a special floating slab for the [virtual environment] area and the Gait Lab, dropped down about 6 feet," says Tom Anglim, director of government services at Ellerbe Becket, who served as its project director on MATC. The extra space was needed for the six force plates that were installed in the floor to register how patients carry their weight as they walk, as well as for a treadmill with two more plates (the old lab had only two in total). This floating slab "does have a soft gasket material around the edge to keep it from contacting the rest of the concrete," Anglim notes. The dimensions of the new room were set at 48 feet 10 inches by 34 feet 5 inches, with an 18-foot ceiling, says Baum. "Size and ceiling height are, from an architectural standpoint, basic things, but they afford us so much more flexibility," he says.

When it came to specifying the new cameras, computer hardware and software, and force plates, the Gait Lab technicians were in the driver's seat from the beginning, says Elihu Hirsch, who was the project manager for the U.S. Army Corps of Engineers, which partnered with Turner and Ellerbe Becket on the center. "Brian and Barri Schnall [a Gait Lab physical therapist] would sit in on our design reviews and comment on what they needed," Hirsch recalls. "[They] had been shopping around for cameras and technical equipment. They told us what the requirements would be as far as control wiring and wiring to cameras and computer monitors—they were able to communicate that to us with a sketch." It was not just desirable that the Gait Lab be planned around the equipment, says Hirsch; it was essential, or it wouldn't perform effectively: "It was very, very critical that when the equipment was set in place, we didn't have any change in elevation. If someone is running to where the force plates are, it's very important they don't experience any tactile difference. We had to make sure the equipment would be integrated into the final construction."

The 23 cameras in the new lab are, unlike their eight predecessors in the old lab, mounted to an aluminum truss system that can be adjusted up or down (though "moving them is not the easiest thing in the world," admits Baum). Baum and his colleagues chose motion-capture cameras of a type commonly used in medical applications and also in the movie industry for animation. The model used in the Gait Lab is the Vicon MX-F40. "Each camera has a strobe of LED lights around it that flash a particular frequency," explains Baum. "Every time they flash out, the flash hits a marker [on the patient's body] that's covered in special reflective tape. If the strobe flashes out 120 times per second, we can get the position of a marker in that camera view every 1/120th of a second." With 4-megapixel as opposed to 1.3-megapixel resolution, the new cameras are a big upgrade from those they replaced. "They allow us to see the same-sized marker farther away or use much smaller markers at the same distance—we can model motion in a lot more detail," Baum says.

Each camera has a cable that leads to an area with three hardware boxes where the cameras plug in, eight per box. (The 24th plug is the one that connects the force plates.) Those boxes share one connection to the control computer. That computer uses a software program, also made by Vicon and called Nexus, to capture the 2-D views from the 23 cameras and turn them into a single, composite, 3-D image of
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STYLE THAT WILL LEAVE YOU FLOORED.
The Gait Lab sits on a sunken, isolated slab (see section, right) so that its data will not be affected by outside vibrations. The floor is raised to accommodate eight force plates, including two in the treadmill.
THE GAIT LAB

Did the technical requirements for such detailed motion capture make it an especially difficult project? Not really, says Anglim. "There did have to be inserts in the walls and structural supports" for the truss system, he says, and there was a lot of cabling. But it didn't drive up costs very much, and besides, he says, "Our staff really enjoyed working on it because of some of the complexities."

Baum is excited about the new lab's research potential. "We're in the process right now of collecting both our patients' data and uninjured control [group] data," he says. With the longer walkway, people walk faster, Baum has found: "We get a better sense of what a truly comfortable pace is."

Specs
Cameras: 23 Vicon high-speed digital motion-capture cameras, model MX-F40, vicon.com
Software: Nexus, manufactured by Vicon and touted as "the first Life Science-specific motion capture software on the market," vicon.com
Hardware: The Gait Lab staff use two PCs. The primary PC runs the Nexus 1.3 software that controls the motion-capture system. This PC has two Intel Xeon 5130 processors running at 2.0 GHz, with 2.5 GB of RAM and an NVIDIA GeForce 7600 GT graphics card with 256 MB RAM. The other PC is dedicated to the lab's two high-speed digital video cameras (different from the motion-capture cameras). It has an Intel Core2Duoc processor running at 2.4 GHz with 2 GB of RAM and an NVIDIA GeForce 7600 GT graphics card with 256 MB of RAM.

Aluminum truss system provided by LA ProPoint: lapropoint.com
Force plates and treadmill provided by AMTI Engineering Services: amti-es.biz

Project Credits
Owner: Walter Reed Army Medical Center, Washington, D.C.
Owner's rep: U.S. Army Corps of Engineers Department of the Army
Architect: Ellerbe Becket
Engineering services: Dynamic Corp.
Geotechnical engineer: Hailey & Aldrich
Structural engineer: Weidlinger Associates
General contractor: Turner Construction Co.
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AND THE FUTURE BELONGS TO ...  

Vertical algae farms (above) will produce hydrogen atoms that will power Iwamoto Scott Architecture's scheme for San Francisco circa 2108.


San Francisco • Iwamoto Scott Architecture
To prepare participants, the History channel sent DVDs of its program Cities of the Underworld. San Francisco–based Iwamoto Scott Architecture took the material so seriously that its proposal is largely below grade, in a vast array of habitable, infrastructural tentacles dubbed "Hydro-Net." Built by robots and lined with carbon nanotubes, the structure will store hydrogen atoms to power the city. Hydrogen will come from vertical algae farms in new high-rise residential structures around the bay.

The underground system, with its intricate and densely packed design, blooms periodically above the surface to form the high-rise algae farms and two other types of infrastructural landmarks, which Lisa Iwamoto and her partner Craig Scott have dubbed "fog flowers" and "geothermal mushrooms." "San Francisco is very mired in its past—architecturally and urbanistically," Iwamoto says. "It's tempting to think through visions for the future in a city like this."
**Washington, D.C. • Beyer Blinder Belle**

Hany Hassan, a principal at Beyer Blinder Belle, found inspiration in a ring of 69 forts that once protected the nation's capital. His team appropriated about half of these locales as sites for a new series of icons—towers that will produce power and food for inhabitants. "What once protected the city brings new life in a sustainable manner," Hassan says.

The towers connect to the L'Enfant plan at Washington's core by falling within the viewshed of its radiating avenues. But Beyer Blinder Belle revises L'Enfant's logic by establishing the diagonal boulevards as new linear, urban parks. The orthogonal streets are retained for some kind of personal transit. Although the team refused to speculate exactly how people will get around in 2108, it certainly won't be by Metro, as the scheme retasks Harry Weese's iconic stations and tunnels as an underground network for the delivery of goods.

The Capitol building remains at the center of the city, with a new greensward connecting it eastward to the Anacostia River. The National Mall is filled with water from the Potomac, in a radical revision of the monumental core.

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**Atlanta • EDAW/Praxis3/BNIM/Metcalf & Eddy**

Atlanta's winning team—a consortium of four firms—proposed a vision, called "The City in the Forest," that's deeply rooted in EDAW's extensive work with underground infrastructure in the sprawling metropolitan area. "You could do a simple thing and create a chain of events that make Atlanta very sustainable," says EDAW senior associate Eric Bishop. The underlying idea is to overturn the logic of existing infrastructure—with its extensive and overtaxed underground storm drainage—allowing stormwater to resurface naturally as streams and rivers, and concentrate building development on the resulting natural ridges rather than in an artificial gridiron. By creating the conditions for nature to reassert its presence, the winning proposal rethinks the form of a city in a rolling piedmont region. The drawings are almost bereft of buildings—stressing how the forest, too, would reclaim large swaths of land. Unlike the winning schemes in the other cities, the Atlanta proposal isn't an architectural fantasy. "If you had the money and the political will, you could do it right now," Bishop says.
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Buffalo and Erie County Naval and Military Park

The Challenge
The Buffalo and Erie County Naval & Military Park, home to several decommissioned U.S. Naval vessels, is located in an area as weather-beaten as the ships it serves in Buffalo, New York. Sited on the western edge of the Erie Canal Harbor, the two structures that make up this complex were built as part of a broader renovation. The development of the Park required a look that would complement the military theme depicted in the museum's design and exhibits, and stand up to the vicious weather blowing off Lake Erie.

The Solution
Flynn Battaglia Architects, who was tasked with designing the Park, were already considering the Sika Sarnafil Décor Roof System for another project. When they learned that the nearby Erie Intermodal Transportation Center had benefited from the Décor Roof System ("Sika Sarnafil 2008 Décor Design Awards," January 2008, page 5-34), they realized that it would address the needs of their new project as well.

Grove Roofing Services installed the Décor Roof System that consisted of a layer of gypsum board followed by a vapor barrier, two layers of 2.5 inch polyisocyanurate insulation board and a final layer of Dens-Deck Prime. The Sika Sarnafil feltback membrane was adhered to the Dens-Deck and the battens were welded to the membrane.

“This roof gave us the look of a batten seam metal roof,” explains Michael Meyer, project architect at Flynn Battaglia Architects, PC. “It satisfied the historic contextual design we were looking for, while helping to stay in line with the project budget.”

It is fortunate the architect specified such a straightforward roof system, considering the additional challenges that the Lake Erie waterfront posed. At one point, strong winds actually blew the mason's scaffolding into the canal below, forcing the roofing subcontractor to complete the installation with aerial lifts.

The Performance
The structure has already welcomed many admiring visitors, just as the architect is now an admirer of the Sika Sarnafil Décor Roof System. “Design-wise it is a pretty straightforward roof system,” notes Meyer. "If the opportunity presents itself, we would certainly work with the Décor Roof System again."

Why We Love It
The lead gray membrane fits perfectly with the gunmetal gray of the cruiser, submarine, and destroyer docked nearby. The battens replicate the look of batten seam metal to further enhance the militaristic theme of the exhibits. And because of its durability, the Sika Sarnafil Décor Roof System is a good choice to keep out the harsh weather of the Lake Erie waterfront.

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SALARY SURVEY 2008

DESPITE A SHAKY ECONOMY, ARCHITECTS ARE MAKING MORE MONEY.
MIDCAREER CHOICES

Between the enthusiasm of internship and the expectation of retirement, there lies the great expanse of midcareer. We define “midcareer” as the period between, roughly, the early 30s and the late 40s, a time of life when architects are starting to make career choices akin to crossing the Rubicon: strategizing how to make partner; leaving behind familiar colleagues and routines to launch a solo practice; finding ways to reconcile growing work responsibilities with the work of raising a family. Stay put? Stay nimble? Get out? These are the pressing questions. To give some perspective, ARCHITECT asked nine midcareer architects from around the country to describe how they’re finding fulfillment (and paying the mortgage).

26 YEARS AT ONE FIRM

NAME: Lynn Befu
TITLE: Associate principal and director of interior architecture, Anshen + Allen
LOCATION: San Francisco
AGE: 47
ANNUAL SALARY: “Anshen + Allen would prefer I did not release my compensation. I’m happy to say that I’m paid a living wage, but monetary compensation is not what motivates me.”

LYNN BEFU DESCRIBES HERSELF as a homebody—which may help explain her willingness to spend her entire career so far in the comfort zone of the same firm and focused primarily on the same building type: healthcare facilities. “I think I was really lucky,” says Befu. In 1982, shortly after she graduated with an architecture degree from the University of California, Berkeley, she joined the then regional firm’s small interior design department. Her good fortune, she says, stems from the fact that the firm grew and matured on a parallel track to her own development. “As I needed opportunity, the firm was able to offer me new things to do,” she explains.

Now Befu heads a department of 25 people working on healthcare and educational projects worldwide. Over the past two and a half decades, her responsibilities have evolved from choosing colors and finishes for a single obstetrical unit to overseeing the full scope of interiors for the 1.2-million-square-foot Intermountain Medical Center in Salt Lake City, Utah, completed last year.

At the same time, Befu has helped reshape the role of interior designers for healthcare environments, broadening the emphasis on creating environments in which patient comfort is a top priority. And for a designer who developed a sense of social responsibility as a student at Berkeley, this mission suits Befu just fine.
WHAT YOU’RE MAKING (OR SHOULD BE) IN ’08

MEDIAN BASE SALARIES (GREEN BAR=MEDIAN SALARY RANGE, LOW TO HIGH; RED LINE=MEDIAN DOLLAR FIGURE)

Interns

YEAR 1 INTERN | $37,803
YEAR 2 INTERN | $41,866
YEAR 3 INTERN | $46,493

5–9 Years’ Experience

ARCHITECT | $60,301
PROJECT MANAGER | $52,974
INTERIOR DESIGNER | $58,247
LANDSCAPE ARCHITECT | $52,821
GRAPHIC DESIGNER | $56,034
MEP ENGINEER | $66,620
STRUCTURAL ENGINEER | $66,917

SALARIES ARE RISING?
ARCHITECTURE’S TOP BUSINESS STRATEGIST GIVES THE BACK STORY ON COMPENSATION

MORE AND MORE, as architecture commands ever higher visibility, architects at all levels are finding that the profession can pay well and offer wealth-generating business opportunities, too. Entry-level and midcareer professionals are increasingly respectably paid. And firm owners on the whole are doing very well—especially those with entrepreneurial flair.

Every year, the Greenway Group, a management consultancy, conducts comprehensive research and analysis to track trends in salaries, benefits, and executive compensation at architecture firms nationwide. This survey is conducted in January and February and published in the March/April issue of DesignIntelligence. This year’s research includes data from 135 firms with more than 250 office locations that, together, employ more than 17,000 people. The research and analysis staff at Greenway slices and dices the information to create digestible data that can be used for career and business planning.

As an increasing number of consumer publications and other outlets enhance their coverage of architecture and design, architects have become media darlings, both for their artistic solutions and especially now for their capacity to improve communities and the environment. Appreciation for architectural design as a career remains high, with the American public consistently ranking architecture as one of the most prestigious occupations. Appreciation is growing too for the profession’s expertise in human health, safety, and welfare, as collective awareness of these issues grows in the face of environmental degradation and uncertainty across the globe. In this context, the architect plays an increasingly important role.

THE SCRAMBLE FOR (NOT JUST DESIGN) TALENT
There are at least two reasons why architects are better paid than in the past: a talent shortage and performance improvement. Evidence of the talent shortage has been revealed repeatedly in AIA Large Firm Roundtable discussions as well as in meetings of the Design Futures Council executive board.

Even as the economy softens, architects’ client base is broader geographically, more generous monetarily, and hungrier for real design talent. Notwithstanding frequent downward pressure on architects’ fees, the Greenway Group’s research reveals that project fees for almost all building types are fair, as are firm profits. It is not unusual for a private practice to achieve a pretax, pre-bonus-distribution profit of 13.5 percent, and for top-performing firms to reach beyond 18
FIRM OWNER, DEVELOPER-FRIENDLY

NAME: Christopher Pfaeffle
TITLE: Founder of Parameter Inc.
LOCATION: Baltimore
AGE: 44
ANNUAL SALARY: "I'm making the salary I'd like to be making, although I haven't had a raise in a couple of years."

Christopher Pfaeffle met Baltimore developer Patrick Turner for the first time. Pfaeffle was doing consulting and laying low after being in the business for 15 years. When Pat called, Pfaeffle said, "Let me just warn you: I am a one-man show, I'm very happy, and I'm working out of my basement."

It's nearly a decade later, and Pfaeffle's practice, Parameter Inc., is no longer headquartered in his family's row house. Now with a staff of 10, the Parameter office sits in the shadow of one of the firm's most ambitious endeavors, the Silo Point condominiums, which will go on sale this summer. Turner hired Pfaeffle to transform a 300-foot-tall 1920s grain elevator and silo complex on 15 acres of prime Baltimore waterfront into a sleek mixed-use condominium development.

Parameter has earned a reputation in Baltimore for successfully navigating complex adaptive-reuse projects, and Pfaeffle is in the position of choosing the kind of work that fits the firm's philosophy. While he could make the leap and grow his staff, he has decided to keep Parameter small for now. "Architecture firms should be a combination of learning, exploration, study, and knowing how to get things built," he says. "I'm more interested in trying to find appropriate projects than in just getting bigger."

TEACHING PAYS THE BILLS

NAME: Sarah Dunn and Martin Felsen
TITLE: Principals, UrbanLab, and directors, Archeworks
LOCATION: Chicago
AGE: 40 (Dunn) and 39 (Felsen)
ANNUAL SALARY: About $3,000 per credit hour from part-time teaching gigs at UIC and IIT

Sarah Dunn and Martin Felsen are on a roll. Last year, their five-person firm, UrbanLab, won the History channel's "City of the Future" competition. Then, in December, Felsen received the Young Architect Award from AIA Chicago. And this January they were appointed co-directors of Chicago's alternative design school, Archeworks. Somewhere amid this string of achievements, Dunn gave birth to their first child.

The couple met while graduate students at Columbia. After graduation, he moved to Chicago to teach at IIT while she went to work for Rem Koolhaas in Rotterdam. In a sense, Koolhaas also brought the pair back together: Dunn made numerous trips between Europe and Chicago as project architect for OMA's IIT campus center before joining Felsen full time in 1999.

They designed and built a live-work structure for themselves, sited halfway between their income-producing gigs at IIT (Felsen) and UIC (Dunn). Grants and project fees help keep the shop operating. "We put every penny towards the employees," says Felsen, calling their fees fair and competitive. Says Dunn, "We've always thought, 'We'll do our best and see what happens.'" So far, the approach seems to be working out.

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percent. There is even an upper stratum of consistent performance above 25 percent. There are exceptions, of course—and sometimes these get the loudest complaints at professional meetings—but scrutiny of project after project and firm after firm tells a story of healthy client-to-architect business and professional relationships. The dynamic economy does not ignore the importance of design talent; in fact, the situation is just the opposite.

Additionally, professional practices today tend to be much better managed and better led than they used to be. The culture of architecture firms increasingly (yet not consistently) leans toward high performance. Because many firms aspire to be top performers in the industry, firm leaders now often emphasize communication skills, maturity, managerial judgment, and collaboration, not just design skills.

According to the Greenway Group’s LEAP diagnostic (a cultural analysis of leadership, empowerment, accountability, and processes), it is not unusual for a surveyed firm to perform at best-in-class levels in four to six of 14 standardized assessment categories. This best-of-class status puts them in the company of the top 15 percent of all firms. What this means in terms of architects’ compensation is that there is a noticeable increase in meritocratic rewards, and less patience with lower-performing staff. Lower-performing staff (sometimes referred to as “sliders” or “designosaurs”) do not fit for the long term in firms that are moving forward. And forward is where the profession is going: According to one recent study by DesignIntelligence, the productivity of surveyed firms will have increased 100 percent between 1999 and 2009.

Yes, there are leading corporate and star architects who can and do make more than $2 million, or 1 million pounds, or, for that matter, 7 million yuan. But what is more common is for architects to find a professional practice role that brings admirable compensation and a sense of fairness. Of course, architects can play the pauper if they choose to, but, frankly, this stance represents a self-limiting belief system.

Some architects will find themselves at the low end of the scale, including those who teach architecture in the academy, those with relatively low-level government positions, and those who work in less-than-successful practices. Naturally, architects in the lower quartile—indeed, in the lower half of the profession—are more vocal and less satisfied with their status than their peers are.

**RECESSION RAISES: EXPLAINING THE PARADOX**

Pay hikes look likely this year, even though perhaps 24 percent of firms will likely reduce staff due to economic...

...ANALYSIS CONTINUED...
MAKING IT AS AN ARTIST

NAME: Laurel Porcari
TITLE: Architectural glass sculptor
LOCATION: New Orleans
AGE: 43
ANNUAL SALARY: $60,000–$70,000

“*I WAS NEVER AN ARCHITECT’S ARCHITECT.* I’m too impatient. I just can’t wait around for years for a building to get built,” says New Orleans sculptor Laurel Porcari. Her preferred medium, kiln-formed glass, is hot, heavy, and dirty, but immediate—a far cry from CAD drawings. Nevertheless, her pieces, cast so that the material flows and warps to take on textures or resemble landscapes, capture an architect’s sensibility.

After receiving her M.Arch. from Columbia in 1993, Porcari headed for Australia, where she taught design in both Perth and Melbourne. She was also working in plastic, hand-printing abstract maps on acrylic sheets to create art installations. Returning to the States, she landed in New Orleans to study in the architecture Ph.D. program at Tulane University.

When she discovered Tulane’s glass foundry, she switched to the fine arts department. “I realized that the material held a lot more potential to build something big, environmental, and site-specific.” She earned an M.F.A. in 2003. If Porcari is nostalgic for anything in the architecture profession, it’s neatness: “Some days I miss going to work and being clean,” she jokes.

These days, Porcari casts glass in her OKNO Studio for new architectural commissions and develops proposals for public art installations. She also teaches glass fabrication at Tulane. In the wake of Hurricane Katrina, she banded together with local artists to establish the New Orleans Creative Glass Institute. The nonprofit provides studio space and a focal point for the city’s glass arts community. MIMI ZEIGER

THE YOUNGEST PRINCIPAL AT HKS

NAME: Eddie Abeyta
TITLE: Principal designer
LOCATION: Dallas
AGE: 38
ANNUAL SALARY: $250,000–$350,000

EDDIE ABEYTA IS NEVER FAR from a sketchbook. On airplanes he doodles abstract towers. As a kid growing up in El Paso, Tex., he drew tricked-out race cars. In a high school drafting class, Abeyta (then still thinking he’d make a career designing Ferraris) discovered architecture: “I latched onto the fact that architecture revolved around space,” he recalls.

Since then, Abeyta’s path has been straightforward. While attending Texas A&M, he began interning at HKS—where his uncle, Nunzio De Santis, is an executive principal—and then joined the firm on graduation. Fourteen years later, he heads a team of six to eight designers at HKS. Add in the project managers, production staff, and consultants who report to him, and the number swells to almost 30.

Even with a stream of high-profile projects to design—like the W Dallas Victory Hotel and Residences and the Aladdin Music Hotel and Casino in Las Vegas—Abeyta is restless. He believes that HKS, with strong project managers and code experts and a full-blown model shop, has the resources to handle bigger, more interesting jobs. It just needs stronger designs. Abeyta is trying to recruit young talent to a corporate firm, which isn’t always easy. “I am trying to push the envelope and expand ideas,” he explains. “When I go places, I keep asking myself, ‘What can I do to make this better?’” MIMI ZEIGER
IF ARCHITECTS ARE EITHER IDEA PEOPLE or tectonic people, Mark Pasnik falls into the former camp. In addition to a 10-year stint at Boston’s Machado and Silvetti Associates writing proposals, making presentations, and generally helping out with “the intellectual ends of the office,” as Pasnik puts it, he also published three books, taught, and was on the editorial staff of Assemblage. “I’ve done all these things that interested me personally but were on the periphery of practicing architecture,” says Pasnik, who received a B.Arch. from Cornell in 1994 and a Master in Design Studies from Harvard in 1995.

Pasnik’s decision to leave Machado and Silvetti (where his salary was in the mid-50s) in 2004 and found the multidisciplinary Boston firm over,under with three co-workers suggests he’s still following his bliss. (He and co-principal Chris Grimley have also established a design-focused gallery, Pink Comma, as an “extra component” to over,under.) In 2007, over,under’s first year of real practice, half of the firm’s billings came from graphic identity work. None of the principals is a licensed architect, but that will change soon: Pasnik is pursuing his license because the Wentworth Institute of Technology, where he teaches, requires it for professors to achieve the equivalent of tenure. But it will also mean that over,under can go after planning and building work stateside.

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... ANALYSIS CONTINUED

pressures and due to improved performance arising from technology and better project management systems. Savvy firms strategically downsize staff in order to stay financially healthy as the economy softens; however, these firms are likely to keep compensation packages strong for the retained talent. The old industry standard of $110,000 of revenue per full-time equivalent (FTE) is history. Productivity is now approaching $130,000 per FTE and is much higher in successful firms. Correspondingly, staff in these organizations are also earning more.

Architect payrolls can be brought into better focus by a review of supply-and-demand economics. Without doubt, there is a talent shortage in every major category of the profession, ranging from the short list for architect of the Capitol to healthcare facility architects to cemetery architects (yes, one of hundreds of niches). Greenway Group forecasts increasing demand—not a hockey-stick curve, but a steady, gradual incline—for architects in every building type, each category of professional service, and every leadership position industrywide.

The pending (or current) economic slide will have little short-term impact (i.e., over the next six months) on most architecture firms, but it will have noticeable midterm impact. Still, most firms will not experience cash-flow difficulty until about six to 12 months from now (based on Greenway interviews), and they will note backlog slippage of around three to four months by year end. Looking forward 24 months, strong practices in healthcare, education, and luxury hospitality will be the most resilient. Average to below-average design organizations will be the most adversely affected by the downturn. This recessionlike period appears to be entering markets like a slow-moving fog and will probably exit the same way. Professional practices ought to put in place programs to weather the soft economic conditions. New opportunities will soon arise from this period of uncertainty.

Projections by the Brookings Institution of real-estate development growth in urban areas remind us that, notwithstanding short-term peaks and valleys in the economy, the built environment in the United States ought to experience dramatic growth from now through 2025. This will place a huge responsibility on the shoulders of a relatively small—but not fledgling—architecture profession.

DON’T PITY THE INTERNS
Salaries for intern architects have increased, although pay scales vary according to geography and discipline. We define interns as those enrolled in the NCARB Intern Development Program. There are three levels,
FROM COOPER UNION TO CONSTRUCTION

NAME: Darren Guyer
TITLE: Site supervisor, Taocon Construction Management
LOCATION: New York
AGE: 31
ANNUAL SALARY: "60 to 70 percent" more than his last job in architecture

THE DUST-COVERED JOBSITE is a far cry from the studio Darren Guyer left behind when he switched from junior designer in an architecture firm to a site supervisor for a construction company, but the 31-year-old isn't looking back. Guyer got his architecture degree in 2000 from the Cooper Union and worked at two small New York firms before decamping for construction in spring 2005.

Guyer made the switch for several reasons: frustration with the long hours of architecture (though he says his former employers were "very fair"); the feeling that he had learned all he could at a small firm; and low compensation. "I am making 60 to 70 percent again now what I was making in architecture," he says.

Construction has its own drawbacks. "There's a lot more stress involved in terms of having to deal with crises like fires, God forbid, and accidents," Guyer notes. But he thinks the benefits outweigh the concerns: "Not a lot becomes standard or boring." Guyer's not letting his design training languish, either; he's actively pursuing his license through the ARE testing process. "In construction, it would be an untouchable qualification." KATIE GERFEN

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Executive Staff

<table>
<thead>
<tr>
<th>Position</th>
<th>Salary Range</th>
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<tr>
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LANDSCAPE ARCHITECTS $60,480 / 22,130
ARCHITECTURE PROFESSORS $67,390 / 5,820
FASHION DESIGNERS $69,270 / 15,670
ARCHITECTS EXCEPT LANDSCAPE & NAVAL $69,760 / 107,010
FOR THE GREATER GOOD


FOR MANY YOUNG COLLEGE GRADUATES, the opportunity to travel abroad means fun and frolic. But for Amit Price Patel, the experience was a life-changing dose of reality. After graduate study at the University of California, Berkeley, Patel moved to South Africa in 2003. “The vestiges of apartheid were still very apparent,” says Patel, who worked for Noero Wolff Architects on a low-income housing prototype and the winning competition entry for the Apartheid Museum.

The work in South Africa stirred a lasting interest in housing design, which has become the focus of Patel’s career. While working at Goody Clancy in Boston, he won top honors in a 2004 competition for a sustainable mixed-use project in Portland, Ore. The next year he tied for first place in San Francisco’s Octavia Boulevard Housing Design Competition.

The Octavia competition introduced Patel to architect David Baker, one of the judges and a specialist in affordable housing. The chance to work for Baker lured Patel back to the Bay Area in late 2005. Currently, he is project manager on a 120-unit complex for former homeless people, just the kind of public project that feeds his interest in the political dimension of architecture. “It’s not an easy process,” he says. “But affordable housing is a great area of practice because it is an essential building type.” VERNON MAYS

Support Staff

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<tr>
<td>Administrative Assistant</td>
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each representing a year of internship. The most noticeable development is that interns in New York City are now among the better paid in the United States. For a period in the early part of this decade, New York City interns were paid below national averages due to business conditions of firms there and the fact that so many NAAB-accredited architecture school graduates applied to work in New York firms. Supply-and-demand economics lowered intern compensation in New York City then, but not today.

There is another factor giving a bump to U.S. intern salaries, and that is the importation of services. Dozens of foreign-owned firms have moved into New York City and elsewhere in the United States. This has driven up salaries, thanks in part to currency exchange rates: The softening U.S. dollar valuation has had a positive effect on intern salaries in New York; Washington, D.C.; Boston; Seattle; and San Francisco.

How much do intern architects make? The median is $37,803 in year one and $46,495 in year three. Our survey reveals that the top performers can earn more than $70,000 (including overtime) the year prior to taking the Architectural Registration Examination. Immediately upon passing the exam, newly minted architects will see their compensation increase by about 5 percent to 9 percent.

MIDCAREER RISKS AND REWARDS

At midcareer, many architects are launching their own firms, and this represents a time of both risk and rewards. There can be significant pay increases, along with a greater burden of responsibility. However, some midcareer professionals get caught in traps that limit their growth and compensation. Some become “CAD monkeys” rather than project leaders, with self-imposed blinders focusing them on project details rather than the big picture. They can become so absorbed in details that they neglect their own career growth and financial success. This happens slowly and invisibly but very easily, especially to young professionals without mentorship. It is the “invisible obvious” in the profession, and it is preventing the rich unfolding of high-achieving leadership talent.

The DesignIntelligence survey for 2008 conducted numerous analyses of midcareer architects along with mature professionals and firm owners. Midcareer architects who own their own firms can earn six figures, and it would not be unusual for an owner of a 200-person firm to receive a bonus equal to his or her salary. (A full examination of executive compensation can be found in the DesignIntelligence report.) A midcareer employee architect, with 10 to 14 years’ experience and without an ownership stake in the firm,
CAREER COUNSELING
EXPERT ADVICE ON LANDING THAT DREAM JOB—OR HOLDING ON TO YOUR TOP TALENT

NAME/TITLE: Judy Wert, cofounder of executive search firm Wert & Co.

New York–based Wert & Co. matches mid to senior-level executives in architecture, industrial design, fashion, and other creative disciplines with companies in search of leaders. Judy Wert describes her role as "a little bit of a psychologist, a little bit of an administrator, a little bit of a trend marketer, and a little bit of a mother hen."

• The war for talent between organizations and across the economy has become far more aggressive. Design is no longer a backseat driver. **Design has become respected:** Look at the iPhone.

• [A strong candidate in today’s market:] Results-oriented; business perspective; global awareness; good, sound business judgment.

• Education does matter—that’s the foundation of how somebody thinks and grows their knowledge. In architecture, **credentials do speak loudly.**

• A résumé is a document; that’s all it is. Be clear, concise, and **do spell check.** The portfolio work is what will speak to the talent.

• You need to think of a little bit of theater when you’re putting together your portfolio. **Are you telling a story?** Have you thought through the pacing? Can someone see the heart of the work? Separate what you think is interesting from what’s going to be interesting to someone who may have limited time.

• Sometimes people need to **make hard decisions** about what their priorities are. Money? A potential mentor? A project? What are their most important criteria? I ask that question from the get-go. It’s never been my experience that architects make decisions on money [alone], because they probably wouldn’t have picked architecture.

FOR THE FIRM LEADER

NAME/TITLE: Gay Herron, management consultant, Eureka! Learning Tools

Herron is currently working with HOK at its headquarters in St. Louis, Mo., on an employee retention and development initiative. She also helped create a formal mentoring program for HOK. Herron has taught at Washington University in St. Louis and worked with clients including the FBI and numerous Fortune 100 companies.

• HOK was my first time working with architects. My biggest revelation was that, as people move through their [architectural] careers, they still are involved with the actual project work of the firm. In a corporation, satisfaction comes from the more people you manage, more visibility in the organization—that kind of thing.

• On the other hand, all employees have some very basic questions they want answered. **What do you want me to do?** How well am I doing it? What do I get out of it?

• About five years ago, each of the HOK offices developed a mentoring program, and interested people in the office were matched up with mentees. They had to set goals, and at the midpoint and the end, we did a check-in as to how well it was going. People responded to it very well. But **time is always the enemy of mentoring.**

• I think the recognized leaders are those [for whom] **coaching and mentoring are equally important** as providing architectural expertise.

• For people who are in their 50s, there was really no expectation of support. Many worked with the same company all their lives. [The thinking was,] ‘If I do a great job and am loyal, my employer takes care of me.’ Now employees are responsible for developing themselves. They naturally **gravitate toward [workplaces that have] a support system.**

CONSTRUCTION MANAGERS
$82,760 / 207,630

PHARMACISTS
$93,500 / 239,920

MARKETING MANAGERS
$107,810 / 159,950

AIR TRAFFIC CONTROLLERS
$110,270 / 23,240
Benefits Offered to Employees and Partners/Owners

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<td>401(k) or IRA</td>
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<td>Association Dues</td>
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<td>ESOP</td>
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<td>Pension</td>
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<td>Health Club Reimbursement</td>
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<td>Cell Phone</td>
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What Services Are Offered by Your Organization?

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<th>Percentage</th>
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<tbody>
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<tr>
<td>Planning and Urban Design</td>
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<tr>
<td>Interior Design</td>
<td>43%</td>
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<td>Design-Build</td>
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<tr>
<td>Engineering, MEP</td>
<td>15%</td>
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<tr>
<td>Landscape Architecture</td>
<td>18%</td>
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<tr>
<td>Engineering, Structural</td>
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<tr>
<td>Environmental Graphic Design</td>
<td>13%</td>
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<tr>
<td>Industrial/Product Design</td>
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What The Future Holds

We now know more about real architect compensation than ever before. It is a story filled with promise. Entry-level, midcareer, and senior-level salaries are competitive in the AEC economies of the world. Moreover, architects are increasingly valued, with an acknowledged economic return on investment. The popularity of architecture as a career is not new. But it is accelerating as a respectably paid and satisfying career option. And especially for partner owners, it can be a highly compensated profession.

We expect further growth of salaries and corresponding benefit plans in 2008, fueled by continued public and client interest in the art of architecture; the brand strength of leading firms and their financial muscle; the new attention being paid to how form and space affect health and welfare; and, of course, the creative professional lifestyle that is sought by members of Generation Y (and those of us wishing we were members).

James P. Cramer is chairman and chief executive officer of the Greenway Group and founding editor of DesignIntelligence. He is co-chair of the Design Futures Council and a Fellow of the Western Behavioral Sciences Institute. Cramer has authored or co-authored three books, including How Firms Succeed: A Field Guide to Design Management and The Next Architect: A New Twist on the Future of Design. He is a former executive vice president and chief executive officer of the American Institute of Architects.

About the survey

Data presented here is preliminary and may reflect slight differences from the report to be published in DesignIntelligence. A complete, unabridged report on the 2008 compensation and benefits survey from which the article is drawn is published in the March/April issue of DesignIntelligence. It includes salary ranges and medians by region as well as additional data, such as bonuses, projected increases, hours worked, and more. In addition, the March/April issue contains in-depth analyses of emerging trends in recruitment, retention, and employment from leading AEC human resources professionals. To subscribe or purchase single issues of DesignIntelligence, the Design Futures Council's bimonthly report, go to di.net or call (678) 879-0929.

Data provided by DesignIntelligence®
Challenge: How does one district build 132 new schools—and update some 800 more—without sacrificing design quality?
(Hint: Get architects involved at the beginning.)

ELEVEN YEARS AGO, the Los Angeles Unified School District (LAUSD)—the country's second largest public school system—won a major political coup: $2.4 billion in bond dollars for a school modernization and construction initiative. For the first time in 30 years, the LAUSD would have the funds to build new schools and to ease the overcrowding and crumbling infrastructure that plagued the district. The administration set the bar high: Over a period of 15 years, more than 100 new schools would be erected, while more than 800 existing schools would be updated and expanded.

The Belmont Learning Complex was supposed to usher in this new era. Belmont was meant to be an architectural statement of the future of public education in L.A. Placed on a prominent lot in the heart of downtown, the school would brush shoulders with the LAUSD's own high-rise headquarters on South Beaudry Avenue. The construction site was visible from the famously busy state 110 Freeway, so thousands of commuters could watch daily as the public school began to take shape in the distance.
A student studies by his locker at the Miguel Contreras Learning Complex, a high school in west central Los Angeles that opened its doors in September 2006. Designed by Johnson Fain as an "urban village" surrounding a central courtyard, the school has 2,500 students, many of whom had previously been bused to schools outside their neighborhoods because of systemwide overcrowding.
Then contractors found noxious gases. In 1999, workers unearthed a toxic brew where the playing fields would go. Construction stopped, and the LAUSD embarked on an expensive series of tests to see if the gases could be contained. And that's when they found the earthquake fault line.

The press and the community went on the attack, calling the LAUSD incompetent and incapable of managing the public's money effectively. With the cost to complete the school rising to a reported $300 million, Belmont was fast becoming the most expensive public school in the United States. Add to that the news that the district couldn't pay its contractors and design firms on time, and the LAUSD was not only gaining a bad reputation in the public's eye, but architects saw it as an inefficient and frustrating client. The country's most ambitious school-building program couldn't have gotten off to a worse start.

Today, Guy Mehula, the chief facilities executive for the district, can see Belmont from his office on the 23rd floor of the LAUSD building. The school, sited differently with a revised design, will finally open its doors later this year and, in an effort to put the past to rest, the district has renamed it Vista Hermosa, or "Beautiful View." From where Mehula is standing, the view truly is spectacular. The crystalline February day affords a panorama of the Los Angeles basin with the Hollywood Hills rising in the distance. Mehula points to several major school projects already completed or under way, including a new arts-focused high school designed by Viennese firm Coop Himmelb(l)au.

The LAUSD's New Construction and Modernization Program hit the $20.3 billion mark this year, making it the largest public infrastructure project in the United States, surpassing even Boston's Big Dig. Since 2000, 530 acres of land have been acquired throughout Los Angeles and the surrounding counties. Sixty-nine new schools have been completed, with 63 more on line, for a total of some 165,000 new student seats. Despite the initial skepticism and ridicule, the LAUSD has racked up an impressive list of AIA design awards; in 2006, the Urban Land Institute honored the district with its annual Award for Excellence.

"That," Mehula says, looking down at Belmont, "that is all behind us."

A BUMPY PHASE ONE

The district regards its building program as nothing less than an effort to reinvigorate public education in the city and, by extension, the city itself. From the outset, officials recognized the pivotal role that architects would play in realizing this vision. "We didn't want cookie-cutter schools," Mehula says. "We wanted to do something that fit into each community." Over the past decade, the LAUSD has hired more than 105 architecture firms, including high-profile and award-winning ones like Morphosis, Perkins+Will, Johnson Fain, and Gensler. It established a Design Advisory Council composed of top-tier architects to support the design process. And it finally figured out how to pay on time.

To appreciate the significance of these steps, especially the last one, it helps to understand the realities of public education in L.A. The LAUSD is second only to New York City in the number of students it serves. The district is spread thin over 700 square miles of sprawl and encompasses a wide range of socioeconomic and racial demographics. It also has 26 different cities under its purview, which means a host of city councils to lobby and mollify.

As in many public school systems in the United States, high teacher turnover and dropout rates beleaguer the LAUSD, which is known for overcrowding and poor facilities. For years, budget constraints prevented construction from keeping pace with population growth, and, as a result, thousands of students must board buses at dawn and ride an hour or more to a school in a distant neighborhood.
Once there, they may sit in a temporary trailer because the main school can’t accommodate them. In some areas, the district adopted a year-round calendar to alleviate the overflow.

By 1997, with nearly 700,000 students already in the system, officials predicted a shortage of 200,000 classroom seats in the near future. The L.A. school board, advancing the cause in the political arena, pushed to provide a sustainable school in each community, with a seat for every student, and to return to a traditional two-semester school calendar.

One year after that first bond bill passed, the LAUSD promised 78,000 new classroom seats within six years (that was later adjusted to 65,000 seats by 2007, a goal they subsequently met). In order to get matching funds from the state, they had to get designs on the boards immediately. The New School Construction Program began at a breakneck speed, one reason for the problems in phase one.

"They went out, they engaged 70-plus architects, and they had 70 designs without all of the design guidelines in place," Mehula says today. "To get $700 million in applications before the state as quickly as they did was a phenomenal task, but look at the daily news at the time. LAUSD had published the plan that they would deliver 65,000 seats by 2007 and the nicest quote was: 'It's probably unrealistic.' Even school district officials were testifying to the school board and saying, 'It can't be done.'"

Many of the first-phase architecture firms had never navigated a school through review and regulations in Los Angeles, let alone in the state of California (where the complex design review process takes an average of nine months). Nick Seierup oversees the L.A. office of Perkins+Will, one of the first firms to win a contract for a new high school. Seierup witnessed the challenges faced by younger firms.

"The manual from the LAUSD is like War and Peace. The codes are like Anna Karenina. And then you have the state regulations on top of that. It really makes it easy to snow under a small firm."

The district bogged down the process further by simply promoting construction managers to oversee the projects. "In the first phase, they took the construction managers and said, 'Congratulations! You are in charge of everything!' But working with architects requires a different skill set," Mehula says.

A NEW ROLE FOR ARCHITECTS

Things began to change in 2001 when Roy Romer, a former governor of Colorado and a past chairman of the Democratic National Committee, became the superintendent of schools in L.A. Romer used his weekly public-access television show to interview architects and to introduce the public to the design concepts behind the LAUSD master plan. At its core, the plan promoted the belief that a good neighborhood school could enhance more than education. Each school would be individualized to the specific needs of the area and would work to fit in aesthetically.

The schools would embrace multiple uses, becoming centers for the whole community. The LAUSD partnered with the Boys & Girls Clubs of America to bring in after-school programming. It aligned with affordable housing advocacy groups to create mixed-use developments. It forged an alliance with the city’s Department of Recreation and Parks for more green space, and it positioned schools near public transit. In the case of the $44 million Morphosis-designed Science Center School, which opened in 2004, architects designed a school and a resource center within the campus of the California Science Center at Exposition Park.

Several years ago, the LAUSD created the Design Advisory Council, composed of area architects to help bridge the communication gap between the design teams, the district, and the community. Stephen Kanner, of Santa Monica—based Kanner Architects, has chaired the council for about a year. "The LAUSD requires each architect to present at least three planning options for a site. Our role is to look at school designs from the inception, which is really great, because you can help shape the environment," Kanner says.

Forming the council "has been a very positive move," says Armando Gonzalez, whose firm, Gonzalez/Goodale Architects, has worked with the LAUSD since the late 1980s and is currently completing a $570 million school complex on the former site of the Ambassador Hotel in the Mid-Wilshire neighborhood. Gonzalez says there was a palpable shift in the way schools got built when Romer and Mehula (who joined the LAUSD a year after Romer) came on board.

"I know some architects who said that they wouldn’t work for the district after that first phase," Gonzalez says. "When they brought in new leadership, they now had people who understood how projects go together. They set up their own accounting department, and that really helped, because they understood the whole notion of invoicing."
The unintended consequence of the LAUSD not having firm design standards in place at the outset was that architects literally helped rewrite the rules. They began challenging the district to consider new building materials and floor plans. "We went after a lot of design standards thinking that they were wrong," Gonzalez says. "We had some really wonderful people at the project level [at LAUSD] who worked for us. We moved a lot of design guidelines into major firsts."

With tight budgets and rising construction costs, the district needed to be creative, but there was some hesitation. "It all comes down to dollars," Kanner says. "We try to explain that there are ways to deal with design that aren't exotic." Perkins+Will employed its own staff, engineers, and energy modelers to make a case for a diversity of materials and layouts. "Corrugated metal, for example, wasn't something they initially accepted," Seierup says. "It was a big departure from stucco."

HYBRID BUILDINGS
The push for aesthetic change arose also from working in a dense setting. A school that might sit on 48 acres elsewhere is afforded a quarter of that space in L.A. In the case of Helen Bernstein High School in Hollywood, Perkins+Will had to design a facility with 2,600 seats on a mere 12.4 acres. The site, the former home of Metromedia Fox Studio, is bordered by the Hollywood Freeway on one side and an urban neighborhood on the other. After a school district employee saw neighborhood kids playing soccer in a cemetery, the architects were asked to provide green space for an entire community that lacked it.

Perkins+Will developed a four-story design very different from the two-story rectangles of traditional L.A. area schools. "Principals were nervous about the density and having a building over two stories," says Wendell Vaughn, a principal at Perkins+Will and the head of its K-12 education division. But the idea of small learning communities changed administrators' minds. Rather than create mammoth schools, architects proposed carving the buildings into small communities of students with the administration dispersed throughout. This way classrooms stayed intimate while the school still accommodated a large student body.

Architects also developed clever solutions for balancing the public and private faces of the schools, to allow for openness while protecting the students' safety. Helen Bernstein, which will be completed this summer, has a car drop-off on the east side of the site, facing the U.S. 101 Freeway. Fritted-glass windows mimic the striation of the exterior corrugated-metal cladding and make a striking architectural statement as cars whiz by. Fencing pivots open to create a welcoming entryway that can easily lock when access needs to be restricted to the courtyard beyond. The west side of the school connects to the community via a processional lined with trees; a central plaza incorporates a grand stairway that can double as an outdoor auditorium.

Inside, the architects paid close attention to the student experience. Windows at each end of the hallway mean that you are always walking toward the light. Bump-outs in corridors offer space for students to stop and talk or to work on a laptop. Balconies offer the kind of views that fetch top dollar in nearby condo developments. From one art studio you can look out on the Hollywood sign and the domes of the Griffith Observatory.

The architects are quick to point out that the school not only gives the students a grand perspective on their world but also offers the public a view into the education system. "We wanted to make student activities transparent," Vaughn says. "It's important for people to see public education in action." The LAUSD
wanted the school to have a symbolic value, agrees Seierup: "This school district had not built much for a good stretch of time, and they were really looking forward to creating symbols for education in Los Angeles. That became a part of their mission as well."

Accordingly, several of the LAUSD's most symbolic new schools are on prominent sites visible from main roads. Coop Himmelb(l)au's $209 million High School 9, set to open later this year, sits across Grand Avenue from the Cathedral of Our Lady of the Angels and joins the nearby Los Angeles Music Center, Museum of Contemporary Art, and Walt Disney Concert Hall. This is the wonder of L.A.'s evolving downtown, where Frank Gehry and Arata Isozaki are sprinkled among the ubiquitous fast food joints, strip malls, and office towers.

"For us, it was very important to make a statement," says Wolf D. Prix, principal of Coop Himmelb(l)au. (HMC Architecture is the executive architect on the project.) "First, we had the chance to contribute to the rising image of downtown. Second was the content. This is the wonder of L.A.'s evolving downtown, where Frank Gehry and Arata Isozaki are sprinkled among the ubiquitous fast food joints, strip malls, and office towers.

On a recent winter afternoon, Prix, fresh in town from Vienna, leads a tour of the construction site. He heads for the location where parents will drop off their kids and stands at the base of a sweeping staircase, looking up onto a courtyard above. The late afternoon sun honeycombs the sky and reflects in the steel wrapping the cone-shaped library. "This is my favorite view."

In an era of No Child Left Behind bureaucracy and limited arts curriculums, High School 9 feels monumental, not just for its design, but also for the respect it offers the future student body. "This school will produce artists who will exhibit in the museum and musicians who will play in Disney Hall," Prix says. "The architecture has an important effect."

The school's small site (9.8 acres) and limited square footage (230,000) meant Coop Himmelb(l)au had to find creative interior solutions. Hallways have bump-outs, allowing for sculpture displays. A grassy field includes removable goal posts, so it can also serve as a gathering spot. "We call it hybrid building," Prix says. "Increasingly, you have to invent double functions. [This] will be the future of architecture in big metropolitan areas."

THE HOME STRETCH

The future of school construction in L.A., though, will be one of even more squeezed resources. Just as the LAUSD began construction on first-phase schools, Los Angeles was entering a major building boom, and today, despite the dragging economy, union-wage labor remains scarce and expensive, and the cost of construction materials is on the rise. Also, the district's small-site plans often require expensive components like underground parking.

Last year, the per-classroom cost to build a new school peaked at an average $600 square foot (this includes soft costs).

As it passes the halfway mark of the building program, the district is working to find solutions. It created an outreach program with unions to get new workers into building jobs, and it is trying to educate small construction firms on how to bid on public projects. It even initiated an architecture internship program for high school students: Juniors and seniors who complete a Saturday course on design and construction are eligible for paid summer internships at local firms. Last year, 157 students went through the program.

On the heels of such successes, Guy Mehula has added lecturing to his busy schedule. He travels the country talking to other school districts about the building program in Los Angeles. His favorite presentation is a riff on MasterCard commercials. He has a slide show that opens with clips of the negative press coverage from the early days.

BUILT IN 1913 FOR JOEL HURT, an early Atlanta developer, the Hurt Building is a cornerstone of the city’s downtown. Architect J.E.R. Carpenter’s grand design is sited on a broad, triangular parcel, and, at the time of its construction, it was one of the largest office buildings in the world. But for Frank Dellaert, associate professor in the College of Computing at the Georgia Institute of Technology in Atlanta, this isn’t why the structure is important. It’s the height. At 17 stories, the building’s roof offered a sweeping perspective of the city. Over the years, photographers routinely lugged their equipment to the parapet and captured Atlanta on film.

Dellaert and his research team—which includes Grant Schindler and Sing Bing Kang of Microsoft Research—are at work on “4D Cities.” The project adds time as a variable to 3-D urban models, creating an image database that shows a city’s evolution. Like a kind of virtual time-lapse film, it’s an interactive way of accessing historical image archives.

To illustrate their software developments, the team has built a 4-D model of Atlanta using contemporary digital data and historical documents taken from the Atlanta History Center’s archive. Dellaert calls it “photographic archaeology.” The photographic record is used to shape the model, a process called “spatio-temporal reconstruction.” The team fed some 200 images into the system to build the sample model. Determining the camera lens position is just as important as the subject matter it captured. Each locus gives the computer a vantage point from which it can identify where the buildings are in space.

The Hurt Building is one such spot, as is the 44-story Wachovia Bank of Georgia, which lured shutterbugs up to the top when it was erected in 1966. Inspiration for the project came in 2003 and is equal parts Google Earth and “re-photography.” “I came across the book *Atlanta: Then and Now*, by Michael Rose, executive director of the Atlanta History Center,” recalls Dellaert. “In it he had photos from the archives and photos from approximately the same spot in 2000–2001. My research is in 3-D reconstruction of images, [and] it hit me that we could add a time aspect. We could virtually revisit the neighborhoods.” Today, the project is supported in part by the National Science Foundation and by a gift from Microsoft Research.

Surprisingly, it is not crucial to know when a photograph was snapped. Because the 4-D model is derived from multiple points of view, the program can “see” when new structures enter into the frame. The computer then analyzes what landmarks are in the view and can seamlessly file the photograph into the city’s time line. It is precisely this fourth dimension—time—that separates the Georgia Tech group’s work from other 3-D modeling projects built from image collections, such as Microsoft’s Photosynth (although the root technology for both programs is similar).

4D Cities is essentially an engineering project. “There’s a lot of math behind the scenes,” says Schindler, translating the computational analysis and computer programming into layperson terms. The number crunching begins once the photographs are scanned into the system. The program then outlines each structure in the frame with identification points. It also determines the camera position in space and focal length. These steps give a rough 3-D understanding of the scene. Combined with other photographs, a “point cloud” is formed, and it becomes possible to flesh out the full spatial picture.

To add time into the model, the programmers derived a classification system for each of the points. While the entire point cloud appears in every image, each point can take on one of four characteristics: observed, missing (corresponding to buildings that don’t exist at the time of the photograph), out of view, and occluded. It is this “visibility matrix” (the programmers’ term), formed out of these points, that ultimately determines the chronological order. Or, more basically, the passage of time is understood by whether you can see the landmark or not.

Although 4D Cities is still in the research stage, with no immediate plans for a product release, Dellaert predicts wide application of the program. It can be used by museums and historic preservation societies to access collections and by city planners and municipalities to track urban growth. Schindler, an Atlanta native, has a personal connection to the project: He’s watched the city change over his lifetime. He’s also tasked with documenting contemporary Atlanta for the database—but it’s a race to keep up with the pace of development. A building about to be razed isn’t necessarily obvious, says Schindler. “It’s hard to notice and photograph [it] before it is torn down.”

To see how Atlanta has changed over the past century and a half, experience the still-in-development 4D Cities Viewer at 4d-cities.cc.gatech.edu/atlanta.
Collage City: Frank Dellaert and his fellow researchers at Georgia Tech are using archival images to build a computer model of Atlanta’s growth from the mid-1800s to the present day. Screen shots (top) demonstrate the programmers’ layered “spatio-temporal reconstruction” technique, in which they use the old photographs to establish a sequence of fixed points in space and time. When the model is complete, it will be possible to scroll chronologically through the photographs and view wire-frame overlays from various periods in the city’s development. By approaching the city as palimpsest, the model—many of whose photos have been combined into the single image above—shows how Atlanta’s skyline has been drawn and redrawn over the years.
TOY: The Constructioneer Metal Building Set No. 4
YEAR: 1947
MANUFACTURER: The Urbana Manufacturing Co., Urbana, Ohio
MATERIAL: Metal
INFO: Bearing the motto "Construction Toys Make Better Boys," this building set is made of heavy-gauge steel with nickel-plate finish and includes rubber wheels. An electric motor could be purchased separately.
Day after day, in a locked and sealed room on the third floor of the National Building Museum in Washington, D.C., two volunteers in white cotton gloves are quietly and methodically dissecting the question of how we play with form. They're examining building toys—more than 2,000 of them spanning a century from the 1860s to the 1970s. Wooden blocks, Lincoln Logs, Tinkertoys, Erector sets, LEGO, and many one-hit wonders, all holding the same promise that curator Chrysanthe Broikos neatly sums up: "You can create a whole other world."

One man, George Wetzel, collected these toys in his attic in Peotone, Ill., for the last 25 years. In 2006, the Building Museum acquired Wetzel's collection—thought to be the largest of its kind in public trust—and the museum is cataloging the toys now. It's a process that is slow and precise, painstakingly so given the high fun quotient of the material at hand.

You'll have to wait, kids. Since it takes an average of four hours to catalog each toy, look for the first exhibits of this collection around 2013. In the meantime, here's a peek at what the Building Museum has in store.

Text Hannah McCann Photos Mike Morgan
CATALOGING TIMELINE

TIMELINE KEY:

- GREATER STAFFING ➔
- PRECATALOGING
- WOOD TOYS
- STONE TOYS
- METAL TOYS
- PLASTIC TOYS
- CARDBOARD TOYS
- MISC. TOYS

Cataloging will proceed in the order the collection is shelved, by material, at an average of four hours per toy. The time frame for finishing depends entirely on the Building Museum being able to raise money for a full-time staff person next year. Currently, the work is done by two part-time volunteers.

September 2005 Retired schoolteacher George Wetzel calls the National Building Museum in Washington, D.C., to inquire about donating his collection of vintage building toys. He estimates his collection, amassed over 25 years and stored in his attic, to number around 1,400. Chase Rynd, the museum's executive director, agrees to visit Wetzel's home in Peotone, Ill. Rynd has been faced with the challenge of collecting for a museum whose core subject—buildings—is essentially uncollectible. Arriving in Peotone, Rynd is astonished to see the size and scope of the toy collection. As a bonus, he recalls, "I got to play with them."

July 10, 2006 Four staff people from the Building Museum arrive in Peotone and begin to empty the Wetzel attic, inventoning, tagging, and packing the collection in the family's living room. Each night, art transporters pick up the bins filled that day, usually three to five boxes weighing 200 to 300 pounds each.

MEET THE COLLECTOR

Why did you decide to part with the collection?
It was just sitting on shelves gathering dust. I was so frustrated seeing it myself and not being able to share it with the world.

What can people learn from the toys?
These things are so realistic and authentic, I feel like I've got a little piece of history in my hand. You learn cultural history and social history. And you see all the trends and the developments in architecture from one decade to the next. I feel like an archaeologist.

Why did you start collecting?
When my kids were young, I thought, "Boy, they don't make toys the way they did when I was a kid." There was nothing that would challenge your imagination or stimulate any creativity. ... [My sons] liked slot cars and Transformers. So somehow this became my hobby. Why am I drawn to these things? It's actually kind of a physical thing. Building with them, working with them ... it gets in your blood.

How did you acquire these, pre-internet?
It meant a lot of chasing around, going to antique shows and antique shops around the country. I would write letters. I would make a point to go visit people and see their collections firsthand. When you pick [the toys] up in your hand and you touch them, it changes your focus.

For 25 years you collected these toys. What are you doing with your time now?
I've decided I'm going to do it again. I'm focusing on the Chicago toys—Lincoln Logs, Tinkertoys, American Bricks (an early competitor of LEGO), Bilt-E-Z. ... Many of the best, most popular toys were made right here in Chicago.
July 31, 2006  With the inventory complete, the Building Museum can attach a dollar figure to the toys as objects (over $500,000) but not to Wetzel's time and knowledge in building the collection (priceless).

The museum buys the bulk of the collection for an undisclosed sum, and Wetzel agrees to donate the rest.

August 9, 2006  Two air-ride, climate-controlled tractor trailers deliver the collection to the National Building Museum in Washington, D.C. Fifty-five bins of toys are unloaded in the museum's Great Hall.

November 2006  An empty gallery space on the third floor of the museum is transformed into a permanent storage and cataloging space for the toy collection, which on closer inspection seems to number closer to 2,000 than Wetzel's original estimate of 1,400. Baked-enamel steel shelving provides 1,053 linear feet of open-view storage, which not only helps catalogers see what they're doing but also helps the museum's fundraising by bringing visitors behind the scenes to see the work in progress. To protect the toys, a hydrothermograph regulates the climate at 50 percent relative humidity and 70 degrees Fahrenheit. UV sleeves cover the overhead fluorescent lights.

TOY: Erector Set No. 10 ½
YEAR: Circa 1951
MATERIAL: Metal
INFO: The "Giant Power Plant Model" incorporates an electric engine and features a steam cylinder "with valve action," according to the toy's manual; a tower platform with boilers that "represent compressors in the original Corliss engine," the steam engine that powered the 1876 Centennial Exposition in Philadelphia; and a flywheel built from eight wheel segments.
May 22, 2007 Cataloging begins with object 2006.5.001, alphabet blocks, manufacturer unknown. Wooden ABC blocks are among the earliest forms of building toys—both in terms of history and the way children learn to play. Pictured here, object 2006.5.37, Big Letter ABC Blocks, copyright 1889 by McLoughlin Bros., New York. The hand-stitched repair along the sides of the box make this one of registrar Dana Twersky's favorite items in the collection.

August 7, 2007 Item 2006.5.97, architectural wooden blocks from The Embossing Co. There is no date on the toy, but the box top shows two people in Victorian style clothing, suggesting that the toy is from the late 1800s.

PROCESS

UNTIL MORE FUNDING COMES IN, cataloging is done by two specially trained volunteers rather than salaried staff. The work requires patience, attention to detail, and the ability to work for long periods in isolation. All handling of the toys is done with white cotton gloves. "You have to be a little OCD," says museum senior registrar Dana Twersky. Pictured here are volunteers Mary Purcell (1) and Joyce Arsnow (2). Purcell, who studied industrial design at RISD, was introduced to the collection when she helped to unpack it. Arsnow is new to the project; a retired preschool teacher, she sees her work cataloging the toys as the "last hurrah" of her teaching career. "This will be used to develop children's minds, and I don't have to deal with potty training," she says. Toys are catalogued one at a time in the order they're shelved in the museum's archives, which is based on the organizing system George Wetzel developed in his attic. Next up is object number 2006.5.140, a set of Lincoln Logs in an 18-inch-high cardboard tube. Lincoln Logs were patented in 1920 by Frank Lloyd Wright's son John Lloyd Wright. Guessing from "Daniel, Christmas 1955," the handwritten inscription on the side of the container, this set probably dates to the mid-1950s.

1. Photograph • The first step: documenting the toy in the condition it was received from the collector. Using no flash, Purcell photographs the closed container first, then the open container with its contents displayed around it. The object number is clearly displayed on a label.
February 14, 2008 One of many sets of Lincoln Logs, object number 2006.5.140, circa 1955.

Forecast: October 2009 With a full-timer on staff, catalogers could reach the shelves of Froebels wooden blocks next fall. Frank Lloyd Wright had a set as a child and would later recall, "The smooth shapely maple blocks with which to build, the sense of which never afterwards leaves the fingers: so form became feeling."

2. Measure • With a cloth tape, Arsnow measures the height, width, and depth of all the toy's parts. It can be a tedious process, but "it's worth it to do it the right way up front," says Twersky. The information will help in planning future exhibits.

3. Clean • Arsnow uses a natural-bristle brush, which has the handle's edges taped off to prevent scratching, to gently remove dust, grease, insect casings, or other dirt that might degrade the toy. A small portable vacuum, typically used for cleaning toner dust from electronics, removes 0.3 micron-sized dust. Catalogers only clean preventively now; later, conservators will spend hours cleaning toys that are chosen for display.

4. Label • Each toy is assigned an object ID number in sequence after "2006 5," which indicates that the item is from the fifth collection the museum acquired in the year 2006. The number is recorded on worksheets and on the toy itself, using a 6B pencil (on a scale up to 9B, it's close to the softest pencil made). If the toy is metal or plastic, volunteers paint the number on it with acrylic paint.

5. Catalog • Purcell enters a report on object number 2006.5.140, the "Daniel, Christmas 1955" set of Lincoln Logs, in a database using PastPerfect software. Eventually, researchers worldwide will be able to access images and information about the toys from the database.
Forecast: December 2009  Heavy in their wooden boxes are "stone" block sets, such as the Richter's Anchor Blocks shown here. The German stacking blocks feel like real stone but are made from compressed and dyed sand, chalk, and linseed-oil varnish. The popular early 20th century toys came with guides illustrating possible designs. Richter blocks fall into the category collectors call "Sunday toys"—treasured items children played with once a week.

Forecast: July 2010  The collection includes 531 metal toys, of which 108 are Erector sets. Knockoffs include the Ezy-Bilt, an Australian toy that claims to be "Creative Constructive Instructive Absorbing 1001 Toys from One!"

TOY: Gilbert Skyscraper Erector Set
YEAR: Circa 1935
MATERIAL: Cardboard with metal girders
INFO: A Gilbert Skyscraper Erector Set included up to seven different types of cardboard panels with names such as "Main Entrance," "Garage Entrance," "Office Entrance," and "Upper Story." Each panel is color-lithographed on both faces, offering a choice of two façades: concrete (shown here) or brick. Cardboard panels are fastened to metal girders with either machine screws or snap rivets.
LEGOs aren't the only plastic building toys. Predating LEGO is the Tri-State Brick Town, advertised as "Professional! Instructional! Authentic!"

Forecast: September 2011

Ninety cardboard toys make up a small section of the collection. Mostly produced during the Depression and World War II, cardboard toys haven't survived the test of time as well as other materials.

Forecast: April 2012

Dominoes, puzzles, and assorted parts are grouped under the miscellaneous category, which the museum plans to catalog last.

Forecast: July 2012

SHELVING USAGE  A sampling from the 1,053 linear feet of storage

18 ft  WOOD: ASSEMBLY SETS
18 ft  WOOD: LINCOLN LOGS
138 ft  WOOD: BUILDING BLOCKS
33 ft  WOOD: CONSTRUCTION SETS
6 ft  WOOD: TINKERTOYS
75 ft  STONE: RICHTER BLOCKS
33 ft  METAL: A.C. GILBERT ERECTOR SETS POST-WWII
48 ft  METAL: A.C. GILBERT ERECTOR SETS PRE-WWII
138 ft  METAL: OTHER CONSTRUCTION SETS
24 ft  PLASTIC: GIRDER AND PANEL SETS
27 ft  PLASTIC: BRICK SETS
42 ft  CARDBOARD: ALL
Text Bradford McKee  Photos Shuhe Architectural Photography Studio (except where noted)
It was one of those rare projects that came unbidden—and from half a world away. One day in May 2005, Ada Tolla and Giuseppe Lignano, architects and partners in the New York firm LOT-EK, received an e-mail from Kengo Kuma, the Japanese architect well known for his material wizardry, though neither Tolla nor Lignano knew him personally.

He asked:

Would they like to design a building in Beijing?
Actually, not the entire building. They would design around a four-story rectangular concrete frame. Kuma had shaped the massing for this and several other buildings as he master planned the larger site, a 7,000-acre office and shopping complex called Sanlitun North (there is also a Sanlitun South). The property lies in Beijing’s Chaoyang District, a cosmopolitan area of embassies and nightlife that also holds the Olympic Park and venues for this summer’s games. Kuma was designing a hotel and four freestanding boutiques. On behalf of his client, Guo Feng Development, he was looking for architects abroad to design three other buildings.

"It came out of the blue," Tolla says. Having lived and worked in New York together for 18 years, 15 of them as LOT-EK, the Italian-born architects had long wanted to design an actual building, something beyond the installation-scale work that had made their names known as much in the art world as among architects. Strictly speaking, the Sanlitun North job was not a whole building, but, at 97,000 square feet, it came close enough. Kuma also solicited proposals from SHoP Architects in New York and Beijing Matsubara & Architect, a Japanese firm that had relocated to Beijing. "It was generous, courageous, adventurous of Kuma to call on younger offices rather than established offices," Tolla adds. But having a younger office of 10 people made it difficult for LOT-EK to trek across the globe for a modest-sized building. At times, the client made sure they felt exquisitely engaged, embraced for their design almost as heroes. Yet when the major design phases ended, so too did their roles as architects, and without much warning. "When construction started," Lignano says, "they threw you out of the plane."

THE WORK BEGAN in July 2005. Guo Feng, the developer and builder, held a weeklong charrette in Beijing. All the invited architects were asked to propose designs for Sanlitun North. "They had already decided who would be working on what," Tolla says. "so that it was not many people working against each other." Presiding were Wei Chun Xian, the owner of Guo Feng; his chief engineer, Jin Long Lin; and Vincent Chan, Guo Feng’s marketing and sales director. Wei spoke only Mandarin, so Jin translated into Japanese. The senior designers for LOT-EK and SHoP are Japanese (both with the surname Keisuke) and helped Tolla and Lignano to understand what was going on in English. "Fortunately," Tolla says, "we had our Keisukes."

During that first trip, Tolla and Lignano began to take measure of the mammoth changes rolling through Beijing in the run-up to this summer’s Olympic Games. "They’re tearing down entire parts of town," Lignano says. "I went there in October two years ago and everything [on the site] was still up. I came back in November and not only was everything down, but they had excavated 20 feet." On every drive to Guo Feng’s headquarters, "you’d see another Rockefeller Center being started," he says. "This is not a mall outside Atlanta. This is the city of Beijing."

On the Sanlitun site, Guo Feng gave each team a concrete structure with a set grid, height, and number of floors. The only functional mandates were to provide open spaces for stores and the ability to divide the interior vertically or horizontally into multiple configurations. Around the buildings’ frames, the architects were given a 3-meter margin in which to elaborate. "So it was not a skin job," Lignano says. "it allowed you to really change the volume of the building."

LOT-EK’s concept was to wrap the base building in a lightweight outer frame, like scaffolding, and drape it in blue mesh to resemble a building under construction. Some of the windows spanning the structural bays remain flush with the building, obscured behind the mesh. Other windows punch outward through the mesh, encased in satiny steel frames that look like gigantic ducts, and become articulated billboards.

The idea is surprising only if you’ve never seen LOT-EK’s portfolio, which includes a proposal for a library to be built out of old Boeing 737 fuselages and clothing
stores built inside shipping containers. They like to reuse familiar but ignored industrial items as architectural modules. "The base of our work is to work with [or, in this case, be influenced by] already existing objects and systems," Lignano says.

He explains that he and Tolla love "accumulating objects" such asvent shafts or fire escapes or ductwork, because they transform a building unintentionally. "They come out of it, they overlap, they attach some way," he says. "They aggressively change the building and create a complexity that we're fascinated by."

Yet, true to their name, LOT-EK's way of assembling is simple and straightforward. "Ada and I were building with our hands 15 years ago," Lignano says. "It still reflects that."

**ONCE THE CONTRACTS WERE SIGNED**

The meetings in Beijing grew steadily larger. "There was a big component of just learning how to do something like that in China—for everybody," Tolla says. The first meetings included the local architects, the code consultants, and the structural and mechanical engineers. "Then they brought in even more people," Tolla says, such as the curtain wall company and other manufacturers. "A lot of the stuff we were designing was tested immediately. Not always with the best results.

When it came to supplying materials, Guo Feng was very DIY. When Tolla and Lignano described the coated stainless-steel mesh made in Germany that they wanted for the building's outer screen, the client asked for a sample. "And then they would make it," Tolla says. "They would make the same thing."

Yet as Beijing globalizes, a group of eccentric American architects confers a fashionable status on a project. "They go crazy with celebrity because they don't know it at all," Lignano observes. "They put up posters with faces—they understand that part of it." But, he says, they don't know how to use the architects completely.

Lignano and Tolla were unprepared for their work to end abruptly after design development, once their drawings were turned over to local architects to become a full set of construction documents. In the course of designing the building, they had gone through elaborate meetings in concert with the client, the consultants, and the other architects, where details would be translated to local standards and the architects would present their respective designs as they evolved. Despite certain quizzical moments, Tolla says, "they made a genuine effort to try to do the right thing and do it well."

However, there would be practically no role for LOT-EK in overseeing construction, which Tolla and Lignano quickly learned not to take personally. They arranged to have Judith Tse, a LOT-EK staff member leaving the firm to move home to Hong Kong, check in on the project on a contract basis. "But before long," Tolla says, "she could not talk to anybody. It became this crazy thing." Eventually, Tse stopped going. But in early 2007, pictures began...

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The Sanlitun North site is part of a massive building boom in Beijing to prepare for the 2008 Olympic Games (above middle). A 7,000-acre site was cleared to make way for the development (opposite, far left), which includes buildings by Kengo Kuma, New York firm SHoP Architects, and Beijing Matsubara & Architect in addition to the LOT-EK building.

The architects were asked to design around a predeter­mined concrete shell, with a three-foot zone around the frame into which they could expand. The LOT-EK team took advantage of this zone by creating extruded window frames (above left), which will serve as billboards for the stores housed within once the interior is fully complete.

Construction on the exterior is complete. During the con­struction phase (above right), it was encased in precarious-looking bamboo scaffolding that looked substantially different from that used in the United States.
At times as LOT-EK designed the Sanlitun North project, the familiar became strange, and, after a while, Tolla and Lignano could be forgiven for not quite knowing what to expect. Here is how the firm dealt with the practical side of things day to day:

**Communication**
Communication was the hardest part, Tolla says. She and Lignano probably saw the client and their fellow architects on the project in Beijing as much as they talked on the phone. Language differences made phone communication hard. "From the client side, there was only one person who spoke English, but he actually was the marketing person!" Tolla says. Usually calls were made to clarify details of the last meeting. Plus there's the time difference of 12 to 13 hours. "We usually called them at the end of the day here—morning in China."

**Software**
LOT-EK used 3Ds Max for all rendering, plus Adobe CS for presentation drawings and AutoCAD for drafting. Transfer of files to Beijing occurred via e-mail with no problems. When Tolla and Lignano visited the client in person, they brought full-size prints of their work: one vellum and three bond-paper copies.

**Contract**
Rather than sign a contract with the developer client, LOT-EK had its contract with architect Kengo Kuma's office in Japan. Tolla is not sure whether the contract was based on Japanese or Chinese boilerplate. "Given the large scope of the projects, the contract was extremely simple compared to American standards," she says. "It was literally a couple of pages—no smaller text or legal details!"

**Liability**
Tolla found nothing in the contract addressing liability head-on, but LOT-EK's liability insurance covers overseas projects. "Also, the construction package was issued by a Chinese firm," she says, "and that definitely shifts the issues of liability."

**Payments**
Because the contract was with Kuma, LOT-EK was paid by Kuma's office at the end of each phase of work. "In terms of fee, there was very little negotiation," Tolla recalls. "The client offered a number—which was quite limited—but they (and we) knew that they were offering it with a great opportunity, and we accepted it." They have no regrets. "We would definitely do it again."
The floor plan of each of the four levels is roughly the same, allowing for expansion horizontally or vertically between the retail spaces. But because of the way LOT-EK was cut out of the loop after construction began, not even the design team knows how the interior is being divided.

Exterior elements such as the egress staircase (opposite) and extruded and canted window frames (far right and bottom) were informed by the phenomenon of add-on elements that Lignano and Tolla noticed on buildings around Beijing. Unlike the stateside renovation strategy of imbedding HVAC systems within walls or floors, the Chinese apply new ductwork, vents, and air returns directly to building exteriors (right).
PROJECT: Sanlitun North
DEVELOPER: Guo Feng Development, Beijing
ARCHITECT: LOT-EK, New York—Ada Tolla, Giuseppe Lignano (principals in charge); Keisuke Nibe (project manager and project architect); Koki Hashimoto, Judith Tse (project architects)
MASTER ARCHITECT AND PLANNER: Kengo Kuma, Tokyo (north site); Oval Partnership, Hong Kong (south site)
ARCHITECT OF RECORD/ENGINEER: Beijing Architectural & Engineering Design Company
SIZE: 97,000 square feet
COMPLETION DATE (INCLUDING INTERIOR): August 2008
Cutting-edge design meets innovative precast technology in the award-winning Rosenthal Center for Contemporary Arts in Cincinnati, Ohio. Architects chose High to execute the expressive, black and white, sculptural precast concrete facade because they knew High precast would be most effective in enhancing the dramatic play of light and shadow on the jigsaw puzzle-like facade. Using a blend of aggregates and a combination of innovative, high-range, water-reducing, and viscosity-modifying admixtures, structural needs were met and the finished product is stunning. High’s unparalleled commitment to new technology and innovation at their PCI-certified plants has led to solutions like this and advancements including carbon fiber C-GRID® reinforced CarbonCast™—precast that’s stronger, lighter, better insulating, and more durable, allowing a virtually unlimited selection of colors, textures, and finishes. And High’s exclusive 15’ and 16’-wide MEGA-Tee deck systems enable wider spans and more open plans with shallower tees in precast-framed buildings and parking garages. With expert technical assistance in all phases of a project, from design to erection, High gives architects and engineers the flexibility to explore unique solutions while ensuring a job is completed on schedule and on budget. Call High Concrete to learn more about the Art of Precast.
CULTURE
BOOKS, EXHIBITS, OBJECT

OBJECT LESSON
Original Wiener Werkstätte jewelry (such as the bracelet, shown here) commands six-figure prices on the rare occasions that it comes to market. Some 40 pieces are on display at New York's Neue Galerie this spring, and the museum's design shop is celebrating the occasion by commissioning a small collection of reproductions from Viennese artisans, in editions of five per year. A single brooch can take 180 hours to complete, which explains the limited availability.

Wiener Werkstätte–inspired jewelry • 2008 • $275–$8,300

AT THE TURN OF THE LAST CENTURY, Vienna was a hotbed of progressive art and design. Nowhere was the spirit more in evidence than at the Wiener Werkstätte, the Vienna workshop co-founded by Josef Hoffmann. The architect applied his revolutionary vision to large-scale projects but also to finely crafted jewelry. Banishing the swirling shackles of Art Nouveau, he designed silver bracelets and brooches in orderly geometries studded with colorful semi-precious stones. These modern baubles spoke a new language of decoration, and their distinctive hallmark, the Werkstätte's double W in a square, remains a graphic reminder of the impact architects and artists can have when they join forces to change their world.

At the Werkstätte, there was little pretense of making affordable objects for the masses. Beautifully crafted and functional furniture, ceramics, metalwork, and fashions exuded an avant-garde spirit for a rarefied clientele.

Hoffmann's strict geometric impulses gave way to flamboyance in the hands of later Werkstätte members, such as Dagobert Peche. The whole dazzling experiment petered out amid materials shortages after the first World War.

Today, New York's Neue Galerie preserves the excitement of Hoffman's era at a museum dedicated to the arts of Austria and Germany from 1890 to 1940. Through June 30, the spotlight is on Wiener Werkstätte jewelry. LINDA HALES
CULTURE

BOOK
The Wrong House: The Architecture of Alfred Hitchcock • By Steven Jacobs • Hitchcock worked as a set designer in the 1920s, and architecture plays a major role in his movies. Jacobs, an art historian, analyzes the director’s use of cinematic space, providing fascinating architectural plans of fictional film landmarks such as Manderlay, the country house in Rebecca; the Jeffries apartment from Rear Window; and, of course, the Bates Motel and house from Psycho. oto Publishers; €29.50

EXHIBIT
Southern Exposure: Contemporary Regional Architecture • Virginia Center for Architecture, Richmond, Va. • Through June 8 • In this group show, ARCHITECT editor at large Vernon Mays assembles projects by the best progressive architects working south of the Mason-Dixon: Frank Harmon, Marlon Blackwell, W.G. Clark, Mack Scogin and Merrill Elam, Lake/Flato (whose World Birding Center is shown here), and the Rural Studio. virginiaarchitecture.org

BOOK
Otto Neurath: The Language of the Global Polis • By Nader Vossoughian • Cross-pollinate infographics guru Edward Tufte, sociologist Richard Florida, and planner Jaime Lerner, and you might capture the significance of Otto Neurath (1882–1945). The German philosopher, sociologist, curator, and urbanist collaborated with such giants of modernism as Le Corbusier and Adolf Loos, but Neurath’s spectacular graphics alone should earn him a place in history. NAI Publishers; €47.50

EXHIBIT
Gregory Crewdson • Luhring Augustine, New York • Through May 3 • Artist Gregory Crewdson brings a novelist’s sense of drama to his large-scale photographs. Typically set on the fringes of American towns and cities, in suburban homes and along small-town streets, the monumental photographs read like a latter-day equivalent of Edward Hopper’s lonely realist paintings. luhringaugustine.com
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Interview Edward Keegan  Photo John Bragg

AGE 47
TITLE PRESIDENT
FIRM CSO ARCHITECTS, INDIANAPOLIS
OTHER THE SOUTH BEND, IND., NATIVE

It's assumed today that politicians were trained as lawyers. What in your background made you consider the jump from architect to politician?

I grew up the sixth of eight kids in a working-class family with parents that taught us the importance of caring about other people. I worked my way through college on the second shift at a tool and die shop, grinding steel to help pay for my college education. I have built a successful architectural business. These experiences, understanding what the challenges are growing a small business, led me to the conclusion Indiana can and should be doing better.

What inspired you to become an architect?

When I was young, I was constantly drawing buildings, and I was always curious about spatial relationships. You grow up with four brothers sharing the same bedroom, you become aware of the importance of how to organize space.

What brought you to Indianapolis after you graduated from Notre Dame?

I got a job at Cole Associates, in South Bend, and they transferred me to Indianapolis. My first assignment was running blue lines for six months. Eventually, I learned of an opportunity at CSO.

Governor seems a pretty high entry-level position into politics, particularly since it would be only your third career move. Did you consider school board or something more modest first?

No. Being a governor of a state or mayor of a city is very similar to being the president of a company. The guiding principles that have led our firm to success will be the same that will lead our state to success. When I became president of CSO Architects in 1996, I worked hard to give everybody a seat at the table. We do that as architects. We work with very diverse groups of people: site engineers, structural engineers and mechanical engineers and electrical engineers, and people that specialize in technology or life safety. We bring them together; we work toward the good of the whole to make sure that the end product is representative of everybody's expertise, knowledge, and input.

If you become governor of Indiana in November, do you expect to remain involved in your architecture firm?

No. It will be a full-time job being governor of Indiana. When I win the primary, I am going to take a leave of absence. Then, when I win in November, I would sever ties with the firm.

There are a few pockets of architectural interest in the Hoosier state. Columbus and New Harmony come immediately to mind. Unlike neighboring Ohio, where many avant-garde practitioners have built in recent decades, Indiana seems pretty mainstream. Will that change if you become governor?

My influence from the governor's office is going to be trying to improve education, to stand up for the rights of working men and women, to help grow and preserve our working families, and to create jobs throughout our state, to resolve our property tax crisis, to work hard to get health insurance for the 800,000 Hoosiers who do not have it, and to protect our environment. Our firm is one of the leading firms in Indiana in terms of having LEED accredited professionals on our staff. The architects in our state do a fine job, and I will be there to support them when I can.

Do you think more architects should become politically involved?

Architects are specially equipped to combine the left brain with the right brain and to bring people together. That gives us a unique ability to look at things from all sides. For architects that have good communication skills, we bring people together with different views toward a better solution. We need good government because government is the one entity that makes sure no one gets left behind. My involvement — because I was raising a family and building a business — was to support good people. Slowly, I became involved in things and gained respect for my leadership skills outside of architecture.