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ON THE COVER
Collette Crepell, Tulane University campus architect, from "Big Plans on Campus," page 58. Photo by David Eustace.

THINK OF IT AS A GUT RENOVATION OF THE FIRST FLOOR OF TWO-THIRDS OF THE CAMPUS, BECAUSE THAT MUCH OF THE CAMPUS WAS UNDER WATER.

Collette Crepell, director of campus planning at Tulane University in New Orleans, from "Big Plans on Campus," page 58
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"Beach rocks inspire endless patterns. The Haven design could easily look like a tidal pool or an aerial view of an island."

-Angela Adams-
IT TAKES A LOT TO MAKE ME ANGRY. But a recent article in *The Washington Post* did more than that; it made my ears smoke. On May 27, the paper’s culture critic, Philip Kennicott, reported that Congress is considering the appointment of a non-architect to the vacant post of Architect of the Capitol. This is a bad thing for the profession, from my perspective. Kennicott, who recently inherited the *Post* architecture beat from Benjamin Forgey, sees the matter somewhat differently.

Kennicott thinks that the Architect of the Capitol’s responsibilities should split into administrative functions and more purely architectural ones. He makes a good point. Why should the Architect of the Capitol have to run the congressional cafeteria, as the position currently requires? I can’t think of a single architecture school that includes food service in its curriculum. What does strike me as problematic about Kennicott’s article is his claim that the Architect of the Capitol—and architects in general—have no business functioning as administrators, in any capacity. Here’s how Kennicott summarizes his argument:

Architects—who are part of a relatively new profession—want to be seen as professionals, like doctors, lawyers, and judges. ... But they also expect their members to be visionaries and bean counters, planners and realizers, at all the same time. Which may, except in rare cases, be an unrealistic expectation. Ask anyone who has hired an architect and he or she will tell you that’s what all too many architects are selling: unrealistic expectations. It’s the Achilles’ heel of the profession, and you pick up the bills.

First of all—and I admit this may seem like nitpicking—architecture isn’t a new profession. Not by anyone’s standard. Imhotep, the first architect on record, designed the Step Pyramid for Pharaoh Djoser of Egypt’s 3rd Dynasty, who reigned 2,630–2,611 B.C. Coincidentally, Imhotep is also considered history’s first doctor. Lawyers didn’t emerge for another 2,200 years, in Athens. 

Architecture critics should know the basic history of the profession. Not only did *The Washington Post* neglect to hire a full-time architecture critic to replace Forgey, they handed the beat to a writer with a background in opera and classical music. I typically wouldn’t waste precious ink responding to a solitary newspaper article. But not only is Kennicott getting his facts wrong, he’s doing the profession a massive disservice with biased reportage, couched as criticism, in a paper that’s read religiously by policy-makers in Washington, D.C.

What’s worse, Kennicott hauls out the oldest, rustiest, most gap-toothed saw in the tool box to make his argument. Is it really accurate or useful cultural criticism to claim that architects, as creative types, are disorganized—so caught up in their “Architectural Digest fantasies,” as Kennicott puts it, that they’re somehow incapable of administrative responsibility? Imhotep managed to administer the construction of a pyramid, and present-day architects are sufficiently organized to design and build structures more than 2,000 feet tall and administer 2,000-acre university campuses. Moreover, architects, like doctors and lawyers, are perfectly capable of seeking help where help’s needed—with engineering, construction, and, yes, administration. Kennicott’s argument is hackneyed, nothing more than an insulting cliche.

Kennicott should stick to opera. Criticism like his is an offense to every architect in the United States, and in the pages of *The Washington Post*, it’s a danger to the profession as well.

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**Graphic Dissatisfaction**

Most of “The New Heavy” [June, page 64] dealt with the givens of the book: cost and organization. We have made the investment and have found the book somewhat disappointing in actual use. We have had several instances where information is just not there—and we have had to look it up in earlier editions.

Today’s example is that the new book does not include the dimensions for a common flush-valve toilet (not a tank-type toilet). Admittedly, there are different sizes from different sources—but to not even provide anything?

In lieu of this, there is a lot of information about how toilets work. Although this is informative, my sense is the architects rarely get involved with toilet internals—but frequently need the dimensions.

This is the second such information gap we have encountered in the past two weeks.

**Jeffrey J. Folinus**  
jeffreyfolinus@mac.com

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**Heavy Lifting**

In “The New Heavy” article discussing the pros and cons of the new *Architectural Graphics Standards* (AGS), Edward Keegan states that AGS “uses the new UniFormat classification system.” UniFormat or an elemental-based classification structure has been used in the U.S. since the early 1970s. UniFormat was selected for use in the 11th edition of AGS, precisely because of its popularity by contractors and specifiers in preparing preliminary cost estimates and preliminary project descriptions.

While the older editions of AGS did have “magnificent hand-drawn images,” they lacked consistency in detail and use of terminology. The new graphics have endeavored to resolve these issues and present details that represent good design and construction practices used today.

**Dennis J. Hall**  
Senior Executive Editor  
*Architectural Graphics Standards*  
Hall Architects  
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**Corrections**

In the June Market Intelligence report on Omaha, Neb. [page 34], Cope Linder Architects is the design architect of Midtown Crossing, and Holland Basham Architects is the executive architect. The correct submission date for Rupture: The 2007 “Live” Competition is July 23; the competition has been relisted in this issue (see page 31). In the February article, “Getting the Publicity You Need” [page 37], Claire Whittaker’s name was misspelled.
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Mergers & Acquisitions

Hillier Architecture and RMJM Group Unite
Combination creates top 10 global firm; $15 billion in construction under design

On June 19, U.S. firm Hillier Architecture finalized a merger with RMJM Group of Edinburgh, Scotland, creating a worldwide firm of 1,000 design professionals with more than $15 billion in construction value for buildings currently under design. The combined firm—which will continue to be known as RMJM Group worldwide but whose U.S. component will go by RMJM Hillier—is positioned to be among the top 10 largest global architecture firms.

The merger addresses today’s marketplace, notes RMJM Group CEO Peter Morrison, who will remain chief executive. “Our clients in Asia and the Middle East are increasingly working in all different parts of the world,” he says. Previously, RMJM did not have an office in North America.

RMJM’s experience in the commercial and educational sectors will combine with Hillier’s portfolio of science and education projects. New projects are underway as a result of the merger, including a bid for a science park near RMJM’s Edinburgh headquarters and an initiative in the Middle East for a large educational facility. Morrison says there will be absolutely no consolidation and adds that, in fact, the merger is “about expansion. I feel we will need more people because there is an abundance of projects.”

RMJM was founded by Robert Matthew and Stirrat Johnson-Marshall in 1956; it currently has about 700 people in 11 offices. The firm is divided into geographical groups: RMJM Europe, RMJM Asia, RMJM Middle East, and, now, RMJM Hillier in North America. Morrison and seven principals manage RMJM Group. Current projects include the Abu Dhabi Exhibition Center, the City of York Council Headquarters, and a recently completed laboratory complex at Chinese University, Hong Kong.

Founded in 1966, Hillier Architecture has grown to include about 300 design professionals in Princeton, N.J.; New York, Philadelphia; Washington, D.C.; and Shanghai, China. Thirteen principals manage the firm. Under the merger, RMJM’s Fraser Morrison, Peter’s father, will be the acting CEO of RMJM Hillier, and the principals will remain in their same positions. J. Robert Hillier, who was named Entrepreneur of the Year by Inc. in 1987, will become a deputy CEO of RMJM Group. Current Hillier projects include the East River Science Park in New York and the recently completed Virginia State Capitol renovation and expansion.

Peter Morrison says talk of the merger started about six months ago, when he was lecturing at Harvard and expressed an interest in expanding to New York. “This chap said, ‘Well, you’ve got to talk to Bob Hillier. Bob’s considering where he might like to take his firm over the next few years,’ and we got talking. … It kind of went right from day one.” ANDREW S. WEST

Clips

The AIA’s Architecture Billings Index for April was 52.7 (any score over 50 indicates an increase in billings), and the Inquiries Index was 63.8. By region, the Midwest had the best score, 54.9, followed by the West (54.0), South (52.2), and Northeast (49.3).

Norman C. Fletcher, founding partner of Cambridge, Mass.–based firm The Architects’ Collaborative (TAC), died May 31 at age 89. His most notable project is perhaps the 1972 headquarters for the American Institute of Architects in Washington, D.C., but Fletcher completed significant additions at a number of universities, as well as elementary schools and medical facilities throughout New England. His family intends to establish a scholarship at the Boston Architectural College in his name.

The World Monuments Fund has announced its 2008 list of the 100 most endangered sites. The locations encompass 58 countries and three continents, with the addition of Scott’s Hut in Cape Evans, Antarctica, to the list. The United States tops the list with seven sites, followed closely by Peru, with six, including the Machu Picchu Historic Sanctuary. To see the full list, visit www.wmf.org.

Palo Alto, Calif.–based Hill Glazier Architects has merged with HKS Architects. Hill Glazier, a 40-person boutique hospitality firm, will continue to operate in its current space as HKS Hill Glazier Studio. HKS, one of the world’s largest firms, has offices in 18 countries, and its hospitality group works with clients such as Four Seasons and Ritz-Carlton Hotels and Resorts.

→ continued on page 20
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Next Architect of the Capitol Could Be Architect in Name Only

Frustrations over visitor center have Congress considering nondesigners

ON CAPITOL HILL, the U.S. Senate's Chaplain, Barry Black, is an ordained minister. Adm. John Eisold, the Attending Physician to Congress, is a bona fide medical doctor. But there is a chance that whoever becomes the next Architect of the Capitol won't be an architect at all, though presumably he or she will carry the title.

In May The Washington Post reported that members of Congress are looking to recommend candidates for the Architect of the Capitol job—a presidential appointment—whose managing skills they believe will surpass those of Alan Hantman, the previous Architect, who left in February at the end of his 10-year term. During Hantman's tenure, frustration mounted over delays in completing the new Capitol Visitor Center, designed by RTKL Associates, beneath the building's east front. The center broke ground in 2000 with an expected price of $265 million, which has since risen to about $600 million.

Howard Gantman, staff director of the Senate Rules and Administration Committee, which is helping coordinate the search with aid from recruiting firm Heidrick & Struggles, tells ARCHITECT that a broad range of candidates has surfaced. "Some who have appeared to be good candidates are architects, and some are not," he says. Gantman emphasizes the position's "major management role," which besides actual architecture includes overseeing nearly all functionary aspects of the Capitol complex, from food service to garbage collection.

The person chosen will have a full plate: "The restaurants are losing a million dollars a year," Gantman explains. "There are major concerns related to the power plant. There will be a focus on efforts to make the Capitol complex more environmentally friendly, and there is asbestos in the tunnels."

There are also minds to be read. The visitor center project is over a barrel not just because of post-9/11 security upgrades, but also because, since it began, members of Congress have added as much as 170,000 square feet of meeting rooms and other spaces that have nothing to do with tourists, says Marshall E. Purnell, president-elect of the American Institute of Architects (AIA). But, he says, "without the appropriate funding, you've got to blame somebody."

Blaming the Architect of the Capitol, however, may be a bit like blaming Al Gore for an ice storm. The AIA has recommended four people, all of whom Gantman describes as underwhelming. "The AIA has sought to have input," Gantman says. "Unfortunately, they have not presented us with a wide array of candidates who are architects and who have significant management experience."

Make that significant middle management experience. Given the congressional whims surrounding the visitor center construction (Rep. David Obey, a Wisconsin Democrat, has given the project his "golden drain award"), a better title might be Senior Lackey to Congress.

"We're very happy to have an architect" in the job, Gantman says. "We'd like to do it soon and see it resolved this summer." BRADFORD MCKEE

The Capitol Visitor Center—shown here in a June 12 photo—encompasses 580,000 square feet on three underground levels.
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Designers Envision the Future of Gateway Park
Van Alen Institute, Columbia University, and national parks group hope to spur interest in rehabilitating a dilapidated national recreation area

THE VAN ALEN INSTITUTE, the Columbia University Graduate School of Architecture, Preservation, and Planning, and the National Parks Conservation Association (NPCA) announced on June 5 the winners of "Envisioning Gateway," an international competition to generate ideas about the future of the 26,607-acre Gateway national park in New York and New Jersey, which has not been well maintained. Launched in January, the competition drew 230 entries from 23 countries.

Brooklyn, N.Y.-based designers Ashley Kelly and Rikako Wakabayashi won the $15,000 first prize for "Mapping the Ecotone: Connecting Cities and Nature," a project that calls for a park within a park to bring together the different habitats and landforms of the larger national recreation area. (Part of Kelly and Wakabayashi's proposal is shown on the opposite page.)

Laurel McSherry, Terry Surjan, Rob Holmes, and Paul Keisch from Virginia Tech placed third and received $5,000 for "Marks: Experience Park History."

Established in 1972 as the country's first national recreation area, Gateway spans three boroughs—Queens, Brooklyn, and Staten Island—as well as Sandy Hook in New Jersey. In May, the NPCA rated the park—which contains wildlife habitats, public beaches, and numerous culturally and historically significant structures—the lowest among 28 national parks being assessed.

Learn more about Gateway, the competition, and the winning entries—and vote for your favorite proposal—at www.npca.org/gateway.

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A winning design: Ashley Kelly and Rikako Wakabayashi's proposal for Gateway, "Mapping the Ecotone: Connecting Cities and Nature," emphasizes that the national recreation area is equal parts water and land.

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Van Alen Names Inaugural New York Prize Fellows

THE VAN ALEN INSTITUTE named Hans Ulrich Obrist the recipient of its 2007–2008 Senior Prize Fellowship on May 23. In its inaugural year, the program aims to support advanced independent research and to generate programs that engage architecture in the public realm.

Obrist is currently the co-director of exhibitions and programs and director of international projects at the Serpentine Gallery in London. Previously the curator of the Musée d’Art Moderne de la Ville de Paris, he has overseen more than 150 exhibitions internationally. Famous for his ongoing “Interviews Project,” last summer he convened, in partnership with Rem Koolhaas, two 24-hour interview marathons in the Serpentine pavilion that Koolhaas designed. Van Alen is hoping to conduct a New York version of the “Interviews Project,” which executive director Adi Shamir calls “a remarkable model for the presentation and representation of diverse public practices.”

Van Alen also awarded five resident fellowships. The recipients are Chelina Odbert and Jennifer Toy of Boston-based Kounkuey Design Initiative; Soo-in Yang and David Benjamin, co-founders of architecture firm The Living, in New York; Joerg Stollman and Dirk Hebel, co-founders of architecture and design firm Instant, in Zurich, Switzerland; Ellen Grimes, architect and assistant professor at the University of Illinois at Chicago School of Architecture; and John Stuart, architect and professor at Florida International University’s School of Architecture, in Miami. Work done during the three-month fellowships will investigate the notion of public space and will be presented as exhibitions, symposia, or installations. The program provides a $5,000 stipend and between $2,500 and $10,000 in project support to work on an independent project at the institute’s New York office.

The fellows were selected by a seven-member jury of practitioners, scholars, and artists: Kadambari Baxi, principal, imageMachine and Martin/Baxi Architects; artist Ann Hamilton; Enrique Norten, principal, TEN Arquitectos; designer and architect Gaetano Pesce; Chris Reed, principal, StoSS Landscape Urbanism; Design Museum director Deyan Sudjic; and Sarah Whiting, principal, WW Architecture.

Learn more about the fellowship program and the research projects of this year’s awardees at www.vanalen.org.

The board of trustees of the Frank Lloyd Wright Foundation has approved massive changes to the non-profit’s bylaws and articles of incorporation. Chief among the changes is the fact that the foundation will be henceforth operated as a nonmembership corporation. The Taliesin Fellowship’s veto power has been also removed, reordering the decision-making power in the organization and allowing for more diversity and viewpoints among the ranks. The biggest focus will still be on preserving the varied entities under the foundation’s umbrella. The hope is that the broader base will also improve the financial stability of the organization.

The Washington, D.C., office of Leo A Daly has won recognition from the Maryland/D.C. chapter of the National Association of Industrial and Office Properties for the firm’s building for The Institute for Genomic Research in Rockville, Md. The project was named the best biotech office in the chapter’s five-year-old Awards of Excellence program.

Mansilla + Tuñón founders Luis Mansilla and Emilio Tuñón have won the 2007 European Union Prize for Contemporary Architecture—Mies van der Rohe Award for MUSAC—Contemporary Art Museum of Castilla and León, in León, Spain. The biennial award program’s Emerging Architect Special Mention went to Matija Bevk and Vasa J. Perović, founders of Bevk Perović Arhitekti, for their Faculty of Mathematics building, located in Ljubljana, Slovenia.
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Professional Status

Illinois Pulls Walter Netsch’s License Over CEUs
State cites former SOM architect’s failure to comply with requirements and denies medical waiver

ARCHITECTURAL DESIGNER
Walter Netsch cannot practice architecture nor even refer to himself as an architect without risk of criminal prosecution by the state of Illinois.

Originally issued on Feb. 25, 1948, Netsch’s license is listed by the state’s Department of Professional Regulation as “Not Renewed.” The 87-year-old Netsch has failed to comply with Illinois’ continuing education requirements for at least four years. He was granted a medical waiver in 2005 after filing suit against the regulators, but the state informed Netsch on March 26 of this year that it would no longer offer him this option. Netsch is in failing health and confined to a wheelchair due to partial amputations on both of his legs. A spokesperson for the state cites the fact that continuing education requirements for license renewal can now be accomplished online as a factor in declining to issue another medical waiver.

Netsch was a design partner for Skidmore, Owings & Merrill, where he worked from 1947 until 1979. He designed the Colorado Springs campus of the Air Force Academy, including its acclaimed tetrahedron-based chapel, and produced the design concept for Chicago’s innovative stainless steel and glass Inland Steel Building.

Netsch lives in an art-filled cubic townhouse on Chicago’s North Side that he built in 1974 according to his Field Theory principals. The geometrically rigorous, if spatially confused, methodology produced little-loved buildings for many Midwestern campuses, including Northwestern, the University of Illinois at Chicago, and the University of Chicago.

Although Netsch has no plans to practice architecture again, he has again filed suit to recover the professional status he held for almost six decades. EDWARD KEEGAN

Clips

The Palos Verdes Art Center has not selected where it will build a new facility, but it has chosen Los Angeles—based Frederick Fisher & Partners to design it.

The Vatican is embracing green energy alternatives. The rooftop of the Paul VI auditorium will be renovated next year to replace existing cement panels with photovoltaic panels to reach the goal of taking the 6,900-seat auditorium—which is used for the pope’s general audiences on Wednesdays and for other activities in inclement weather—off the grid. When the auditorium is not in use, the energy generated will be cycled into the Vatican’s power grid to power other facilities.

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Proposed Development

A Skyscraper for Southern Florida?

THREE DISTINCT BUILDING proposals are in the running for the last undeveloped land in downtown West Palm Beach, Fla. The most notable is developer High Point Group’s West Palm Beach Observatory, which at 1,550 feet would be the fourth tallest building in the United States, including the proposed Freedom Tower and Chicago Spire. (The Sears Tower is the only existing building that surpasses it—and only if one includes the antenna.)

A curving glass enclosure with a spire reaching 495 feet high is the Palm Beach Financial Center LLC Group’s bid. The third proposal, from Crocker Partners, is for a more traditional mixed-use tower. All three buildings include a hotel, office, and retail space.

High Point Group founder Luis D’Agostino says of his proposed tower, “We have to do something spectacular here.”

The next public meeting to discuss the proposals is scheduled for later this month.

“We can’t complain about not having a choice,” says Peter Robbins, spokesperson for the city. “We have three very unique projects that certainly will be investigated as to all their pros and cons.”

Robbins says a final decision will likely not be made for at least six months. ANDREW S. WEST & KATIE GERFEN

Three architecture firms, three visions: (clockwise from far right) a 1,550-foot-high tower by Rodriguez Design Group, a glassy spire by Zeidler Partnership Architects, and a more traditional design by Smallwood, Reynolds, Stewart, Stewart.

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Recognition

Cooper-Hewitt Announces National Design Awards
Antoine Predock, Denise Scott Brown and Robert Venturi, and Office dA among winners

IN ONE OF THE MOST ANTICIPATED announcements of the design calendar, the Cooper-Hewitt National Design Museum unveiled the winners of the eighth annual National Design Awards on May 15. Chosen for a designer’s body of work and not for a single project, the awards are a coveted mark of professional achievement.

Covering a broad spectrum of disciplines—including architecture, communications, and fashion—the winners will be honored in a black-tie ceremony at the museum during National Design Week this October. In praising the winners, award juror Michael Gabellini, founder of architecture firm Gabellini Sheppard Associates, calls them “an unprecedented group of designers whose bodies of work represent an innovation and excellence that expands the qualitative value of design.” Also on the jury were industrial designer Stephen Burks of Readymade Projects, Flickr co-founder Caterina Fake, Liz Claiborne Inc. creative director Tim Gunn, Cranbrook Academy director-designate Reed Kroloff, fashion designer Yeohlee Teng, and architecture firm SITE founder James Wines.

Winning the architecture design category was Boston-based Office dA, whose principals, Nader Tehrani and Monica Ponce de Leon, are also professors at Harvard’s Graduate School of Design. Calling the recognition a “great honor,” Tehrani says the majority of his firm’s work “has been done under extreme conditions of budget or time” and “is not accustomed to the scale of this award.” The pair’s work has been accumulating awards of late, including a P/A Award for Villa Moda in January and an American Institute of Architects/American Library Association award in April for the Fleet Library at the Rhode Island School of Design.

Other National Design Award recipients this year from the world of architecture include Antoine Predock for lifetime achievement, Denise Scott Brown and Robert Venturi for “design mind,” Lewis.Tsurumaki.Lewis for interior design, and Peter Walker and Partners Landscape Architects for landscape design.

Cooper-Hewitt also gave awards to Adobe Systems Inc., book designer Chip Kidd, fashion designer Rick Owens, product designer Jonathan Ive, and design patron Maharam. A special jury commendation was given to architect Frank Ching for his writing and illustrations, which, the jury noted, have “influenced a generation of designers.” More information on all winners and finalists and some examples of their work can be found at www.nationaldesignawards.org.
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Historic Building

Illinois' Teeple Barn Destroyed

The only 16-sided barn in the state, 122 years old, is leveled by high winds

TWO DAYS OF STRONG WINDS toppled the historic Teeple Barn in Elgin, Ill., on May 25. Designed in 1885 by locally prominent architect W. Wright Abell, the 13,500-square-foot dairy barn utilized X-bracing to maintain the stability of its 80-foot tall structure. The building's unusual 16-sided configuration is thought to be a product of simple practicality—the lumber that original owner Lester Teeple had on hand wasn't long enough to construct an 85-foot diameter structure with the then-typical eight sides.

A nonprofit group named AgTech was formed in 1996 to renovate the structure and develop it as an educational facility focusing on the role of technology in agriculture. The group oversaw a $100,000 restoration of the building's cupola in 1999.

The Teeple Barn was listed on the National Register of Historic Places in 1979 and drew additional attention when the White House and National Geographic magazine listed it in a 2000 preservation awareness project called "Saving America's Treasures." Although grants of more than $300,000 were invested in repairs during recent years, it was estimated that as much as $1 million was needed to fully restore the building and safeguard its structural integrity.

Nut-processing company John B. Sanfilippo & Son Inc., which owns the barn, will work with AgTech to salvage as much of the structure as possible. "We're working together to see if we can save the cupola and any other lumber that is worth preserving," AgTech president Bill Collins told the Chicago Tribune several days after the collapse. EDWARD KEEGAN

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Deadlines
Competitions and more

July 23
Rupture: The 2007 "Live" Architecture Competition
ArtCity, Calgary's festival of art, design, and architecture, presents a competition that focuses on change and metonymy. Entrants are asked to develop a design for the Center of Metaphysical Techniques. The "prize" is creating a "live" architectural object, based on the winning proposal, at the ArtCity festival in September.
www.art-city.ca

July 25
The Environmental Zoo
The notion of the zoo is undergoing changes, and Japan's Central Glass Co. is soliciting architects worldwide to rethink what an environmental zoo might look like. Such a zoo requires more than just a design for animal shelters or a collection of all kinds of animals. To achieve a sustainable global environment, consideration should be given to a symbiotic environment that includes the activities of humans with animals.
www.cgco.co.jp/english/environmental_zoo.html

July 31
Lifestyling '07
LumiSource is sponsoring a design contest for designers, students, professionals, and anyone with a passion for lighting and home decor. The goal of this project is to generate new ideas that align with the LumiSource philosophy of "lifestyling" product design. Categories include contemporary furniture, contemporary lighting, and home decor and accessories.
www.lumisource.com

July 31
Muji Award
Muji announces its second annual design competition. The theme for 2007 is RE, which stands for the reinvention of everyday life. Muji asks designers submitting projects to focus on reality, in which people are both part of the environment and create the environment.
www.muji.net/award/index.html#en

July 31
New York 2007
Presented by Arquitectum, this international competition invites proposals for the construction of a 100-meter-tall monument and museum—sited at the end of a Battery Park pier—to the urban, cosmopolitan, and global character of New York City.
www.arquitectum.com

Aug. 1
Registration Deadline—Re:Route
How can you give people a new kind of experience as they travel through an urban space? Re:Route is looking for ideas that rethink what it means to move to and through a city block. More than just changing the direction of transportation, it's about changing the expectations of what it means to be transported. Submission deadline: Aug. 15.
www.urbanrevision.com

Aug. 15
Poto:Type
This competition seeks to generate alternatives to the podium-and-tower ("poto:type") architectural typology prevalent in the city of Vancouver. Though it has been successful at increasing density and meeting city planning goals and developers' business plans, it has drawn little from the city's architectural talent and arguably has achieved little in terms of architectural innovation.
www.poto.ca

www.vinylroofs.org
Circle no. 77 or http://architect.hotims.com
April 2007

Construction Spending
From the U.S. Census Bureau’s monthly report on the value of construction put in place

TOTAL CONSTRUCTION (SEASONALLY ADJUSTED)

<table>
<thead>
<tr>
<th>Months</th>
<th>April '06</th>
<th>December '06</th>
<th>January '07</th>
<th>February '07</th>
<th>March '07</th>
<th>April '07</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Construction</td>
<td>1,214,449</td>
<td>1,173,917</td>
<td>1,181,129</td>
<td>1,188,941</td>
<td>1,189,975</td>
<td></td>
</tr>
<tr>
<td>Residential</td>
<td>667,288</td>
<td>586,945</td>
<td>573,670</td>
<td>583,544</td>
<td>578,467</td>
<td>573,068</td>
</tr>
<tr>
<td>Nonresidential</td>
<td>547,161</td>
<td>586,972</td>
<td>593,459</td>
<td>597,971</td>
<td>610,474</td>
<td>616,907</td>
</tr>
</tbody>
</table>

Percent Change From:

- March '07: 0.1%
- April '06: -2.0%
- March '07: 0.9%
- April '06: -14.1%
- April '07: 1.1%

SELECT NONRESIDENTIAL CONSTRUCTION (SEASONALLY ADJUSTED)

<table>
<thead>
<tr>
<th>Category (April '07 Total)</th>
<th>Millions of Dollars</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lodging (29,870)</td>
<td>325,000</td>
</tr>
<tr>
<td>Office (65,886)</td>
<td>350,000</td>
</tr>
<tr>
<td>Commercial (89,481)</td>
<td>375,000</td>
</tr>
<tr>
<td>Health care (46,555)</td>
<td>300,000</td>
</tr>
<tr>
<td>Educational (92,331)</td>
<td>325,000</td>
</tr>
<tr>
<td>Religious (7,979)</td>
<td>250,000</td>
</tr>
<tr>
<td>Public safety (13,021)</td>
<td>275,000</td>
</tr>
<tr>
<td>Amusement and recreation (23,322)</td>
<td>300,000</td>
</tr>
<tr>
<td>Transportation (31,379)</td>
<td>325,000</td>
</tr>
</tbody>
</table>
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Portland, Maine

Development won't change the age-old charm of this New England city

Portland lost many of its buildings to an 1866 fire, which is why Victorian-style architecture dominates the city.

ONE OF THE FEW WORKING WATERFRONTS left in the United States, Portland, Maine, is expanding beyond its seafaring tradition.

"Portland is still a port city on the bay, still feels that way, and still sees itself that way in relation to the world," explains Scott Simons, founder of Scott Simons Architects, which calls the city home. "We feel we can develop any product and get that product to anyone else in the world with ease. It's culturally very alive and accessible."

This may explain why the city consistently shows up as part of various "best places" lists. It's on *Kiplinger's Personal Finance* magazine's 2007 list of best cities for midlevel professionals, and last year *Inc.* put Portland on its list of hot cities for entrepreneurs.

"I rarely meet anyone who moved to Portland for a job transfer," admits Jim Brady, CEO of Olympia Development, a local real estate firm. "But I often meet very interesting, grounded, smart people who say they loved Portland and figured out a way to live where they wanted and figured out a career in a place where they wanted to live."

That mentality is part of what's driving development in the city, including an ambitious mixed-use development on the city's eastern waterfront. "In the coming decade, Portland's skyline and density will change, but I am certain its character will not," Simons asserts. "It's a place well rooted and clear about its purpose." MARGOT CARMICHAEL LESTER

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**POPULATION/GROWTH**

Nearly 64,000 people live in Portland. Since 2002, job growth has been 8 percent.

**OFFICE MARKET**

Combined Class A and Class B vacancy has decreased, from 7.63 percent last year to 5.98 percent in 2007, according to Grubb & Ellis Co. This is the first such decrease for the city in five years.

**RESIDENTIAL MARKET**

Large homes in the historic areas of the peninsula start at $600,000. Farther out, smaller homes typically cost from $250,000 to $350,000.

**MARKET STRENGTHS**

- Financial, business, and cultural center for northern New England
- Strong transportation infrastructure
- Educated workforce

**MARKET CONCERNS**

- Large and rapidly growing older population
- High personal and business tax rates
- Challenging local government bureaucracy

**FORECAST**

"Portland—and Maine in general—has to balance our wish for more development and more prosperity with the values that make us an attractive tourist state and a great place to live," explains Susan Ransom, marketing director and associate at PDT Architects.

"A greater emphasis on supporting and developing local small business, instead of trying to attract generic businesses from out of state, would feed the local flavor that is part of our state's 'brand,' increase jobs, and keep our money—and the tourists—from flowing south and west."

continued on page 36
DIMENSIONS

PATTERNS AND PROFILES COMBINED TO CREATE UNIQUE DIMENSIONAL DESIGNS IN FLOORING

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NOTABLE PROJECTS

With 720 spaces, the $20 million, 185,000-square-foot Ocean Gateway Garage, which broke ground in April, will help offset parking demand. Designed by Scott Simons Architects; developed by Ocean Gateway Garage.

Walker Terrace, a $5.4 million, 56-unit mixed-income housing development, was completed in 2006. Designed by Archetype; developed by Maine Workforce Housing.

The $10 million, 120-room Hilton Garden Inn opened in June 2003, when investments in Portland tourism were scarce. Designed by SMRT; developed by Olympia Development.

KEY DEVELOPERS AND BUILDERS

OLYMPIA DEVELOPMENT
Major project: A proposed a $30 million redevelopment of the Maine State Pier (above), a project that would include several local architectural and engineering firms.
The developer’s parent company, Olympia Equity Investments, was named the Maine Economic Developer of the Year in 2004.

RIVERWALK LLC
Major project: A $90 million, 2.9-acre, mixed-use project. Codeveloped with Boston-based Intercontinental Real Estate Corp.
Partner Fred Forsley founded and co-owns The Shipyard Brewing Co., Maine’s largest brewery and a leader in the U.S. craft-brew industry.

THEODORE WEST/ATLANTIC BAYSIDE TRUST
Major project: The $5.4 million, 27,800-square-foot Gorham Savings Bank building, completed in January.
West won Downtown Portland Corp.’s 2006 Economic Development Achievement Award.

KEY ARCHITECTS

SCOTT SIMONS ARCHITECTS
Major project: The $6.5 million, 44,000-square-foot Waynflete School Arts Center. Phase 1 finished in the summer of 2002; Phase 2 is scheduled for completion in the fall of 2008. Developed by Waynflete School.
Founded in 1995, the 12-person firm reported billings of $1.9 million in 2006.

STEPHEN BLATT ARCHITECTS
Major project: Completed with LEED Silver certification in May 2006, the $1 million, 70,600-square-foot East End Community School received a merit award from the AIA New Hampshire Environmental Guild and the Jordan Institute in October 2006 as part of the Excellence in Sustainable Design and Development Awards Program.
Founded in 1976, the 19-person firm reported billings of $2.5 million in 2006.

PDT ARCHITECTS
Major project: The firm’s $4 million, 42,000-square-foot rehabilitation of 50 Sewall Street, finished in 2006, created the state’s first LEED-certified private building. Developed by Olympia Development.
Founded in 1977 as Portland Design Team, the 20-employee firm reported $3 million in 2006 billings.
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www.informedesign.umn.edu

A clearinghouse of design-related academic research

Informedesign's three ways to learn about research: (clockwise from top) webcasts, suitable for CEU credits; summaries of academic articles; and newsletters that cover one design topic each month.

**IN DESIGN, AS IN MANY PROFESSIONS, practice and research exist in mostly separate worlds.** Caren Martin has lived in both—the former during her 20 years as an interior designer at Minneapolis architecture firms, the latter at the University of Minnesota's College of Design, where she earned a Ph.D. and has taught since 1995—and she understands that academics and nonacademics have different priorities and use different jargon. Martin also knows this capital "D" in the website's name does double duty: It underscores Informedesign's serious, objective mission. "Our goal is to publish all research," she says. "We do not make value judgments."

When the website launched, it held just 100 summaries. These days, there are more than 1,700 available, and staff search for new academic articles all year long. Informedesign also offers other content, posting webcasts and publishing **Implications**, a newsletter that focuses on one design-related topic each month. All of the site's content can be accessed for free.

Informedesign now references more than 170 academic journals. And the list continues to grow, thanks in part to user suggestions. Sources have also surfaced because of random requests. "We had someone e-mail us and say, 'I design funeral homes. Is there anything out on one design-related topic each month. All of the site's content can be accessed for free.

Informedesign's main product is research summaries, which distill design and human behavior research articles from academic, peer-reviewed journals into language and concepts practitioners can understand. But this isn't research lite, and findings are not skewed in any way. UMinn is a top research institution, and "it's important that the university owns the site," says Martin, because it underscores Informedesign's serious, objective mission. "Our goal is to publish all research," she says. "We do not make value judgments."

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Informedesign now references more than 170 academic journals. And the list continues to grow, thanks in part to user suggestions. Sources have also surfaced because of random requests. "We had someone e-mail us and say, 'I design funeral homes. Is there anything out there for me?','" says Martin. "So we looked and looked and found Death Studies, a journal for morticians, by morticians. There's not much in there we use, but every once in a while there's a great article that's useful for people designing that kind of space."

**BRAULIO AGNESE**

Why does the Brooklyn row house at 323 Prospect Place (above, left) sit at such an odd angle to the street? Josh Jackson, who also writes the blog Built Environment (builtenvironmentblog.blogspot.com), does a little sleuthing and learns something about the development of Flatbush Avenue. From the April 2007 issue of Lost Magazine, a web-only publication devoted to "claiming those things that the world has passed by."

**MEASUREMENT**


Created by Nikon for the education section of its corporate website, Universcale is a delightful interactive page that compares objects on a scale starting at 10^-9 meters (unbelievably small) and ending at 10^27 meters (larger than the observable universe). Examples of size along the journey from the femtometer to the light year include a carbon nanotube, a blue whale, various man-made structures such as the Arc de Triomphe (above), Ayers Rock in Australia, and the Orion Nebula.
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INVESTMENT ADVISER DEAN KOHMANN OUTLINES THE HOWS AND WHYS OF RETIREMENT PLANNING. Text Fred A. Bernstein Photo Eric Wagner

ACTIVE RETIREMENT

Define your contribution.
Once upon a time, your employer might have offered a defined benefit plan, which meant that if you stayed with the company for a certain number of years, you'd receive a fixed amount each month when you retired. That kind of pension has gone the way of dial telephones. "Many defined benefit plans are being terminated, or they're being frozen, so the people in them today will continue to earn benefits, but new employees are not covered," says Kohmann. The replacement, in many cases, is a defined contribution plan, in which the employee agrees to contribute specific amounts—which the employer may decide to match. Then, of course, someone has to decide how the funds should be invested. In the past, if the employer invested the employee's contribution and the investment tanked, the employee might have had grounds for a lawsuit.

Enter Congress.
The Pension Protection Act of 2006 was designed to pave the way for employers to be more proactive in creating retirement plans and investing the funds. Now, the employer can automatically enroll new employees and put money into a variety of investments, without as much possibility of being liable for a downturn, Kohmann says. Under the new law, a favorite investment vehicle is the target-date retirement fund, also called a life-cycle fund, which is designed to maximize the payout on your projected retirement date. The fund automatically becomes more conservative as your retirement nears, to reduce risk.

You have to be in to win.
Even with automatic enrollment, employees are allowed to opt out of company plans. But there is no good reason to opt out, since investments in a 401(k) or Simple earn interest and dividends tax-free. It's true that the tax advantage is merely a deferral—you have to pay taxes when you make withdrawals from your account, beginning no later than age 70½. But you will probably be in a lower tax bracket then.

Up the ante.
Employers may want to include a provision that automatically increases each employee's contribution once a year, or whenever the employee gets a raise. Such provisions are helpful, Kohmann says, because when it comes to putting money away, "inertia is very powerful." When Schwab sends representatives to speak with employees about their retirement planning, "they typically double their contributions," says Kohmann, "which is pretty amazing, given how hard it is to change people's behavior."

If you're an employee ...
You'll probably do better with a managed fund, particularly a life-cycle fund, than if you choose your own investments, Kohmann says. But if you feel you must make your own investment choices, diversify.

If you're an employer ...
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A CRITIC RETURNS TO HER HOMETOWN, WHERE STEVEN HOLL'S UNORTHODOX VISION FOR A BELOVED ART MUSEUM SPARKED YEARS OF DEBATE.

Text Linda Hales

LETTER FROM KANSAS CITY

AS A MODERN METAPHOR for an art museum, light—which speaks to human perception and spiritual awakening, as well as intellectual enlightenment—seems beyond reproach. That's why, after the fashion for explosive angles and look-at-me architecture has faded, Steven Holl's audacious $200 million expansion of the Nelson-Atkins Museum of Art in Kansas City, Mo., will still look like a brilliant idea.

The sheer drama of the architecture is clearest at night, when five translucent glass pavilions glow like Noguchi lamps on the museum's sloping lawn, an 840-foot procession of luminous boxes that is Holl's ode to clarity.

When the project began in 1999, the Nelson-Atkins' longtime director, Marc F. Wilson, had promised a "magical" addition to complement the museum's beloved neoclassical temple, which has presided over Kansas City's cultural life since 1933 from its 22-acre pedestal of grass. The 165,000-square-foot Bloch Building, which opened in June on the eastern edge of the property, took eight years to complete, long enough for drive-by critics in my hometown to register their heartfelt misgivings.

At night, the opaque glass exterior glows. In daylight, it reads dull and green. So, from the moment the volumes began to rise above the construction fences, residents began to vent to The Kansas City Star. In a city proud of its Frank Lloyd Wright Community Christian Church and J.C. Nichols-designed Country Club Plaza, residents gave as good as they are getting. "Critics Cast Verbal Stones at Nelson's Glass House," the Star noted as readers complained of a "monstrosity" instead of a masterpiece. The structures looked like factory-built "Butler buildings," one griped, not ethereal lanterns. A Star writer devoted 9,000 words to the custom glass—costly, experimental, sandblasted, low-iron, tempered panels from Bavaria—only to have a columnist deride them as fancy "board and
VT DOORS. Everything you could want in a door.
by massive bronze doors. But the illusion of separateness allows the Nelson building to remain a formidable bastion of art, with hushed halls and leather floors. The Bloch Building stands out as the architectural equivalent of the iPod.

While every other architect proposed some kind of addition that would have obscured the north façade of the Beaux Arts building, Holl says that with all of its façades equally detailed, “you could just not add on.” So he proposed to go underground, trailing seven glass boxes down the side of the lawn. “It’s not the building as iconic object,” he says. “It’s a field.” Only five boxes were built, to save money and keep the group from looking like “a shantytown,” Wilson remarks—a critique that had escaped even the most creative letter writer.

The project says as much about the commitment and wealth of the donors as about the power of architecture. When the price tag leapfrogged over the initial projection of $83 million to $196.3 million, by Wilson’s last count, trustees simply passed the hat and doubled that amount. Between toasts at the March party, Morton I. Sosland, a chief fundraiser, put the total figure raised at $400 million. Bloch puts the figure at $300 million, a third of which will endow the new building.

Whatever the challenge and despite the criticism, “they didn’t cringe or back away,” Holl says.

A VISIT TO THE MUSEUM begins and ends with views of the stippled channel glass exterior. The panels were developed for Holl by a 120-year-old Bavarian manufacturer, Lamberts Glasfabrik. The project called for 6,000 planks of 17 specific types of glass for the exterior and the interior. The original design envisioned 22-inch-long planks, each 16 inches wide, to minimize seams. But after sandblasting to get the lighting effect, the glass failed the stress test.

With 90 percent of the construction drawings complete, the Star reported, the boxes had to be redesigned with shorter panels. Testing the glass added a year to the timeline.

“We had some doubts about it early on,” Bloch says. “It was a very complicated building to build, but looking back, it was well worth it,” if only to experience the interior. “Our inside is just very, very beautiful,” he says.

The new entrance, in the largest of the glass boxes, propels visitors into a sunlit atrium with a better view of the original temple than one has from the outdoors. Overhead, a 70-foot-long steel truss slashes the space like a warning: no straight paths ahead, but plenty of angles that play off the symmetry of the original building. Holl also meant to honor “the individualism” of contemporary artists such as Franz Kline, whose scrawl of lines and arcs in the painting Turin helped inspire his design.

For all its glamour, the building is still a learning experience. White plaster walls are so polished, they could bounce daylight to the heavens—if cautious curators hadn’t dropped the electronic shades to safeguard the artworks. The glass stopped a bullet in tests, but curators aren’t convinced it will block UV rays. Holl is clearly annoyed.

McVoy opens a 34-foot-tall door to show off a chapel-size gallery installed with works by Sol LeWitt. The main feature on this occasion, however, is not the art, which is still under wraps. It’s the view through a panel of transparent glass. The hilltop temple—where debutantes still bow to society in the great hall, and which everyone had worried, quite rightly, would never be the same—is perfectly framed.

“You see,” Holl says triumphantly, “it defers.”
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ISN’T IT TIME TO MOVE BEYOND STUDS AND DRYWALL?

Text Lance Hosey

DEVISING WALLS

Modular wall systems such as Haworth’s LifeSPACE offer environmentally intelligent alternatives to the traditional stud wall.

CONSTRUCTION HAS BEEN CALLED a “dynamically conservative industry”—it works hard to stay in the same place. Nowhere is this more evident than in the basic module of both residential and commercial building: the stud wall.

Contemporary 2x4 wood construction barely improves on its sources, 19th century balloon and platform frames. Drywall may have been an innovative alternative to plaster and lath when it appeared in 1916, but that was nearly a century ago. Today, partition assembly still suffers from gross inefficiencies, as much of the metal, wood, and drywall is discarded during production and installation. The results can be imprecise, flimsy, and nearly impossible to disassemble and recycle. Stud wall construction is a mess.

Recent efforts to “green” walls are noble but uninspired. Recycled steel or sustainably harvested wood, synthetic gypsum, and less-toxic paint advance the content of partitions but not their form. In commercial office space, churn—modifications driven by personnel changes—averages around 40 percent per year and...
Two Approaches to an 8-Foot Wall Section

A wall built with 2x4 or 2x6 lumber (right) will cost and weigh more than a wall that uses Dorsy's plywood system (far right)—and because plywood is rotary sawn, it wastes less wood than dimensioned lumber.

<table>
<thead>
<tr>
<th>Dimensioned Lumber</th>
<th>Plywood Prototype</th>
</tr>
</thead>
<tbody>
<tr>
<td>Using 16&quot; o.c. 2x4 = $55.89 (245 lbs.)</td>
<td>Using 4' x 8' 1/2&quot; ply = $51.89 (138 lbs.*)</td>
</tr>
<tr>
<td>Using 16&quot; o.c. 2x6 = $94.07 (368 lbs.)</td>
<td>Using 4' x 8' 3/4&quot; ply = $65.64 (207 lbs.*)</td>
</tr>
</tbody>
</table>

*Weight of three uncut sheets of plywood.

Demountable walls can be reused again and again, a strategic advantage for interior construction. The bread and butter of commercial interior design is tenant lease space, and lease lengths can average as low as a handful of years. No matter how efficiently we use materials, how responsible have we been if they end up in a landfill half a decade later? Even if a wrecking crew is careful enough to decompose the walls for “downcycling” (through, say, pulverized drywall), the return rate is low. Reusing a product is smarter than recycling its materials.

Another option is to rethink conventional framing altogether, and many young designers are experimenting with digital fabrication technology to produce more intelligent alternatives. Sean Dorsy, a recent architecture graduate of The Catholic University of America, developed an expandable wall system inspired by both Japanese paper cutting and cardboard pizza boxes (see sidebar). Such ingenuity demonstrates that the demise of the demising wall is long overdue.
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FOR FIVE DAYS IN APRIL, the population of Milan, Italy, swelled by 20 percent, as over 270,000 people gathered from far and wide to see the offerings at the Salone Internazionale del Mobile, aka the Milan Furniture Fair. Ensconced for the second year at the new fairgrounds—Fiera Milano at Rho, designed by Rome-based Massimiliano Fuksas—the show encompassed 24 football-field-sized halls under an undulating glass-and-steel canopy. Nearly 2,000 companies exhibited new furnishings and accessories in over 2.2 million square feet of space.

The new products featured the sleek lines and lush fabrics we have come to expect from modern European furniture, but another undeniable trend this year was the influence of nature. At every scale, images from land and sea were on display, be it in Edra’s large lobby banquette that was formed by two sea stars on top of each other, with seats and armrests being defined by the various legs, or in nanimarquina’s Little Field of Flowers area rug (page 54), which features freestanding small floral cutouts anchored to a mesh base. The organic was out in full force.

Also garnering a great deal of interest were the six out of 24 halls devoted to the Euroluce International Lighting Fair on display every two years, with this being the first year at the new fairgrounds. Attendance by both exhibiting companies and specifiers was markedly up, even after a record show in 2005. Euroluce showcases 463 manufacturers’ new lighting fixtures, an increasing number of which are slated for application for UL listing, which would make them available in the United States. This year’s exhibition focused on the relationship between man and light and featured lighting from all categories: indoor, outdoor, decorative, commercial, task, industrial, and theatrical, to name a few.

Not to be outdone, the historic city center of Milan served as a backdrop for a variety of lighting and art displays to celebrate the fair, from open houses at company showrooms, to outdoor parties and events, to weeklong lighting installations designed to catch the eye and intrigue the viewer to investigate new products and product options. On the following pages are just a few highlighted products on offer from companies at the Salone Internazionale del Mobile and Euroluce that should be making their way to the U.S. market in the coming months.
1. Antibodi
Moroso
www.moroso.it
Stainless steel frame covered by lightly padded petals of fabric • Reversible fabric combinations include leather and felt backed by wool fabric • Cover can be applied with petals facing up or down • Designed by Patricia Urquiola

2. Little Field of Flowers
nanimarquina
www.nanimarquina.es
Finished area rugs; can be applied to vertical surfaces • Flower- and leaf-shaped felt cutouts • Available in red, green, or purple, in either 6.5 feet by 10 feet or 5.5 feet by 8 feet • Designed by Studio Tord Boontje

3. Kubico Collection
i4Mariani
www.i4marianiusa.com
A variety of seating options and marble-, leather-, or glass-topped coffee tables • Armchair available on a swirl pedestal base • Removable foam cushions • Over 50 leather and 200 fabric options • Designed by Mauro Lipparini

4. Flake
Woodnotes
www.woodnotes.fi
Flake elements are six-pointed, star-shaped cutouts made of Tyvek • Pieces fit together with no glue or adhesive • Completed panels can be used as drapery or room dividers • Designed by Mia Cullen

5. Plissé
LucePlan
www.luceplanusa.com
Suspension lamp • Pleated shade can be extended from 23 inches to 63 inches via a special frame • Takes seven 60-watt incandescent, halogen, or fluorescent lamps • Dimmable wall controls • Designed by Inga Sempe
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2. **Latva**
   Covo
   [www.covo.it](http://www.covo.it)
   Can be used individually as a coat rack or combined with others to create a room divider • Steel branch-shaped body • Available in black, green, or white • Designed by Mikko Laakkonen

3. **Ivory**
   Fontana Arte
   [www.fontanaarte.it](http://www.fontanaarte.it)
   Wall-mounted light and shelf • Structure finished with polished aluminum • Top and bottom glass panels available in extra-clear or acid-etched finishes • Power supply housed in base • Uses fluorescent lamps • Designed by Matteo Nunziati

4. **Thalya**
   Kartell
   [www.kartell.it](http://www.kartell.it)
   Polycarbonate side chair • Available in clear; slated to be produced in translucent dyed polycarbonate in purple, yellow, green, and smoke • A grid etched onto the back of the seat and backrest adds texture to the surface • Designed by Patrick Jouin

5. **Nebula**
   Flos
   [www.flos.com](http://www.flos.com)
   Suspended fixture • Die-cast aluminum body with blown glass cones • Fixture requires either 100-watt incandescent or 75-watt halogen lamps • Designed by Joris Laarman
In an attempt to meet demands of easy color selection on choice floor products, FLEXCO stepped up to offer Distinct Designs Rubber Tile & Tread. Distinct Designs gives you the choice to choose any rubber tile and rubber tread and then select from any of our color groups for your final selection. With the FlexOne pricing system and the addition of our Distinct Designs color-program, the "CHOICE" just became easier.
BIG PLANS ON CAMPUS

Four architects chart ambitious courses for universities old and new.

COLLEGIATE GOTHIC FACADES and manicured quadrangles may suggest otherwise, but change is always afoot in the halls of academe. Political pressures, technological advances, shifts in the economy, and relationships with surrounding communities create an array of constantly moving targets at which higher education administrators take aim. The strategic goals of institutions have a direct impact on facilities planning and design—a responsibility that falls squarely in the lap of the university architect.

In researching these profiles of four leading campus architects, ARCHITECT discovered common ground shared by many universities. Without question, sustainability is a key area of focus for institutions that pride themselves on being intellectual and social leaders, to the degree that many have appointed the equivalent of sustainability czars. Likewise, recruiting highly qualified students and faculty remains an important factor in deciding what to build and when. Public and private institutions alike struggle with the legacy of substandard, unloved midcentury modern facilities (Princeton, for example, is leveling its 1960s-era Butler College, long known by students as “the Butt”). And as grant money becomes an increasingly vital source of revenue, huge investments of capital are being channeled into new research facilities for science, technology, and medicine.

Yet despite such similarities, every campus is unique, and so too is the job of every campus architect. The four architects profiled here have earned the respect of their peers for bringing energy, talent, and foresight to bear on the future of their institutions.
JON HLAFTER  
University Architect, Princeton University

AS THE CHIEF STEWARD of Princeton University's buildings and grounds for nearly four decades, architect Jon Hlafter has overseen changes both great and small on one of America's most hallowed campuses. Just how far back does his perspective reach? Shortly after joining the staff in 1968, Hlafter was immersed in a revolutionary change at tradition-bound Princeton: the shift to coeducation.

When Hlafter, a Princeton graduate, returned to his alma mater as director of physical planning following a brief stint working in Boston, the 400-acre campus in a historic New Jersey town already was undergoing massive transformation. "The place had changed dramatically from when I arrived as a student," says Hlafter, noting that the physical plant nearly doubled in size during the '60s. Most dramatic was the change in architectural style: The old Collegiate Gothic campus had been peppered with stark, cheaply built Modernist buildings erected hastily during a boom in enrollment and the Cold War-driven rush to upgrade facilities.

The decision to admit women beginning in 1969 generated early projects for Hlafter. But much of the work was utilitarian—"appropriate toilet facilities for the young women"—and rather low-budget. Not until the gravy days of the 1980s did capital budgets rebound. "For the first time, money was available to do more interesting things," he says. At the same time, Princeton adopted a new residential college system, which opened the door to repairing some of the qualitative damage done in the 1960s and gave him the chance to hire top talent. Facilities such as Gordon Wu Hall, a 1983 dining hall designed by Venturi, Scott Brown and Associates, "made all the buildings around them better," Hlafter says.

By the early 1990s, university trustees had embarked on a new master plan, resulting in three buildings—the Carl Icahn Laboratory by Rafael Viñoly, dormitories by Machado and Silvetti and by Michael Dennis—that create an elliptical edge on the campus' southern end. Two new, high-profile projects, a 250,000-square-foot residence hall by Demetri Porphyrios and a science library by Frank Gehry, are now moving ahead.

The volume of recent work has transformed Hlafter's office, which mushroomed to nearly 50 people after hovering for years at about 15 staff. The department also was restructured a few years ago, when Hlafter was given the title of university architect and his operation separated from Princeton's Office of Design and Construction, now directed by Anne St. Mauro.

An updated comprehensive plan led by Beyer Blinder Belle Architects & Planners is now nearing completion. Among other goals—such as a greater commitment to the arts and to technology research—the new plan emphasizes the value of a pedestrian-oriented campus and Princeton's parklike character.

Staying that course requires a delicate balance, Hlafter says, and an appreciation for what makes Princeton, which has about 6,500 students, special. "We are one-tenth the size of major universities like Ohio State," he observes. "So we are trying to preserve that sense of being a small, intimate liberal arts college."
TWO SUMMERS AGO, Collette Creppell was steering an expansive design and construction program at Tulane University, which included an ambitious slate of capital projects, fundraising campaigns, and plans for satellite campuses. "We were planning to take over a high-rise in downtown for our health sciences center and had begun to realize a 10-year housing plan," she remembers.

That, of course, was before the nightmare of Hurricane Katrina. What followed after Aug. 29, 2005, is a testament to the resourcefulness and flexibility of a university community that could easily have been paralyzed by natural disaster. Decisive action was instead the course, and many of the key responses relied on the ability of Creppell and her colleagues to deliver under extraordinary duress.

Long-established institutional plans were shelved as the staff moved into recovery mode. Work on a $42 million student center, a law school expansion, and a baseball stadium was put on hold. Instead, Creppell focused on reclaiming what the university already owned: "Think of it as a gut renovation of the first floor of two-thirds of the campus, because that much of the campus was under water."

Mitigation crews numbering up to 400 workers arrived in October to clean up. To get housing back on line, Tulane chartered a cruise ship with 1,000 beds and built modular housing—the so-called "Mod Quad"—on a campus parking lot. In December 2005, Tulane president Scott Cowen announced a plan to reorganize the university, placing greater emphasis on undergraduate education. "We have gone into a very different scenario," says Creppell, who was formerly the director of city planning for New Orleans. "It's not about capital projects, but about recovery, mitigation, and a renewal plan that is focused on different outcomes."

We have redefined ourselves as a result of Katrina.

Reshaping Tulane into seven new entities, ranging from the Newcomb-Tulane Undergraduate College to a new Center for Public Service, placed a sudden burden on Creppell’s office. Working with Christner, a St. Louis-based consulting firm, Creppell seized the president’s mandate and launched a comprehensive planning process for how to rebuild and reassign space—all compressed into six months.

Now, almost two years later, the pace is beginning to normalize. Although not everything is back up to speed (the library, for instance, still runs on temporary HVAC), there are many success stories. The Wall Residential College, a dormitory designed by Wayne Troyer/Lloyd Bray that opened two days before Katrina hit, was refurbished in time for students to move in by January 2006. And the much-anticipated Lavin-Bernick Center for University Life, designed by Vincent James Associates Architects, opened in March.

Tulane’s renewal plan also lowered the cap on the student population to 11,000 from a high of 13,000. Says Creppell: "There’s a sense of wanting to get it to be the right size. Now we have more of an opportunity to create a pedestrian-oriented central campus."
Robert R. Smith
Director of Facilities Design and Construction, University of Arizona

With a 10-year building program totaling more than $1 billion, the rapidly growing University of Arizona has challenged its campus architect, Robert R. Smith, to reinvent the way he does business. But factors such as reduced state funding, greater competition for students, and the hunt for top-notch researchers put added pressure on Smith as he strives to produce striking new facilities while keeping a tight rein on the bottom line. "Most state universities are in a similar boat," he says matter-of-factly.

Smith, an Arizona alum, returned to Tucson 12 years ago after spending more than two decades in San Diego, first in private practice and then at the University of California, San Diego, where he oversaw the development of a new hospital complex. At Arizona, in charge of a staff of 35, Smith has discovered that the best way to construct buildings is to test alternative delivery methods. "As cost and schedule pressures grew, new means of managing projects were needed," he says. "The traditional low-bid construction approach for public projects did not allow for fast-tracking or contractor involvement and coordination during the design phase."

Smith broke new ground in the state of Arizona in 1998, when he initiated a 400,000-square-foot student union as a design/build pilot project. The successful outcome gave momentum to state legislation that broadened Arizona’s public procurement laws. But while design/build was beneficial in shifting accountability to a single source—namely, the contractor—Smith says one drawback was the loss of direct connection to the architect (in this case, MHTN Architects of Salt Lake City).

He has since gravitated toward a Construction Manager at Risk (CM at Risk) model, which allows for qualifications-based selection of the construction team but also authorizes the university to contract separately with the architect. As material and energy costs have become more volatile, Smith says, CM at Risk has improved his ability to weather an unpredictable marketplace.

The importance of campus facilities as recruiting tools for students (Arizona’s currently number around 39,000) and for faculty also has raised the bar for good design. So in addition to erecting student facilities such as a new freshman center, a fitness center, and a dance theater, the university also has built leading-edge lab facilities to attract top scientists. Last year alone, four major labs opened on campus.

Although the traditional center of the 356-acre campus—located in central Tucson and organized around a grassy mall hemmed by red-brick buildings—is sacred, in 2003 Arizona adopted a master plan by Ayers/Saint/Gross that calls for doubling its square footage without resorting to drastically taller buildings or greater density. A key feature of the plan is a new pedestrian mall that links to the medical campus—"and it creates some new high-profile building sites," Smith notes.

He adds: "It’s important that we build a high-quality environment here. After investing in our students, we want to keep them."
HAVING TO DEAL with campus traditions can be both a blessing and a curse. But that’s an issue Boone Hellmann never confronts at the University of California, San Diego (UCSD), which has yet to turn 50 years old. So instead of perpetuating long-established architectural styles, Hellmann is the keeper of an eclectic modern building stock. It’s the compelling landscape—high on a mesa overlooking the Pacific Ocean—that holds the pieces of his 1,200-acre campus together. “So at the end of the day,” he says, “I am very interested in creating place.”

In truth, Hellmann functions much like a parent, nurturing the young-but-blossoming institution. Many still identify the campus with its signature eucalyptus groves and dramatic canyons. But Hellmann is quick to point out the differences from 20 years ago, when the student population was about 9,000. Now enrollment is at 26,000. “Each time we do something, it is a building block,” he says of physical changes to the campus. “We are gaining acclaim as a quality environment.”

Hellmann arrived at UCSD in 1985 after nearly a decade in architectural practice in Reno, Nev. He moved to San Diego intending to go to law school, but took a job at the university as a project manager in the interim. Three years later, he was named campus architect. Today, he manages a department of 60 people that oversees everything from planning studies to construction administration.

Although Hellmann has shepherded new buildings by leading architects from around the country, none has yet eclipsed the landmark Geisel Library (1970) by William L. Pereira and Associates. “There’s nothing that I call ‘shout-out, look-at-me’ buildings. We’ve been hesitant to do that, and our donors have not been about making headline statements,” he explains. One recent project of note is the Jacobs School of Engineering Academic Courtyard, a complex of three complementary buildings—one each by Bohlin Cywinski Jackson, CO Architects, and NBBJ—that enclose a large quadrangle punctuated by a monumental stone teddy bear by sculptor Tim Hawkinson.

Other capital improvements have been driven by demographics, or “Tidal Wave II”—the children of the baby boomers. But on top of catering to a flood of students with additional housing, recreation facilities, and an enlarged student union, the university has put a high priority on facilities for science and medical research. UCSD already had a billion dollars of expansion in the works when it got approval this spring to move forward with $750 million in additional projects, including a hospital expansion and five major housing initiatives.

As part of a systemwide University of California mandate, UCSD adheres to aggressive standards for green building design and clean energy. All new buildings must outperform state requirements for energy efficiency by 20 percent and must, at a minimum, be eligible for LEED certification. The university completed $1.3 million in energy retrofit and retro-commission projects in 2005.

Hellmann admits that it’s a struggle to provide stewardship in institutions that are rife with competing interests. But he thinks he’s lucky, because his job allows him to have a lasting impact on the environment. “And because it’s all in one place, you get to see the fruits of your labor.”
Float Glass

MOUNDS OF SAND AND RECYCLED "CULLET" ARE MELTED TO A CARAMEL-LIKE GOO BEFORE EMERGING AS A UBQUITOUS BUILDING MATERIAL.

Text Bradford McKee Photos Tim Hursley

PICK YOUR ANALOGY: Milky Way bars (but not Snickers), molasses, maple syrup, ice cream. Food is the handiest way Edward M. Kapura knows to explain the finer points of making glass—in his case, mass-producing the big sheets of glass that architects specify for the windows or walls of buildings.

Kapura is the senior engineer of manufacturing programs at PPG Industries' Works No. 6 factory near Carlisle, Pa. PPG is one of eight makers of flat or "float" glass (often imprecisely called "plate" glass) in North America; the company has six float-glass facilities in North America operating 10 glassmaking lines. The Carlisle plant alone makes 350 million square feet of float glass per year. A typical commercial building has about 10,000 square feet of float glass per floor, so Carlisle's yearly output is enough for 3,500 double-glazed, 10-story office buildings. (This article was reported from Carlisle. Owing to technical concerns, however, the photographs were taken at PPG's Works No. 4 in Wichita Falls, Texas, which has nearly identical processes.)

Glass first gave us the advantage of being able to see outside without feeling the elements. Today, with new low-emissivity coatings, it can help reduce a building's heat loss and gain, making it crucial for improving energy efficiency.

Glass is believed to have first been made by humans more than 4,000 years ago. The materials, their mixtures, and the types of labor evolved through the late 19th century, when mass-production techniques first took hold. In 1902, Emile Fourcalt, a Belgian, patented a breakthrough machine for making flat glass by drawing a continuous sheet of it upward from a tank of molten material. A modified form of Fourcalt's process, called the Pennvern process, was introduced by PPG (then known as Pittsburgh Plate Glass) in the mid-1920s.

At Carlisle, that's all pretty much history. The float-glass process that PPG uses today is a modified form of the one invented by Sir James Pilkington in Great Britain and patented in 1962.

Pilkington's process and others like it have proved to be something of a holy grail in making architectural glass because, as Kapura says, it is fast, continuous, and suitable for high-volume production. The huge, infernal tanks in which the glass is made are shut down only once every 10 to 12 years for major maintenance. "There is no off button," Kapura explains. "No Christmas. No New Year's."
Broken glass to be recycled piles up at the mixing or "batching" end of PPG’s float-glass factory in Wichita Falls, Texas. Conveyors in the background carry sand and other materials from storage to the plant’s furnaces.
Raw Materials

Batching begins when raw materials are combined on a conveyor belt (top) to be weighed, blended, and carried to storage silos (above), from where they travel, by a different conveyor belt, to the main factory building (the gray structure visible in the background), then enter the melter.

Batching

At Carlisle, two identical glassmaking lines unfold side by side within the plant’s enormous shed, which runs one-third of a mile long. Although the plant employs about 525 people, you don’t see a lot of them standing around these lines, not least because, in some spots, the heat from the furnaces is so intense that you feel as if your face might peel off. For the most part, the human hand is at work inside air-conditioned control consoles, monitoring computer screens and closed-circuit cameras that track the flow of glass along an exquisitely automated path.

The first stage, batching, prepares the raw materials for melting in the furnace. A battery of six enormous concrete silos stands just outside the front end of the plant, filled with raw materials that arrive by truck or train: sand, dolomite, and a mixture of soda ash and salt cake. Often added to these ingredients are recyclable glass shards or “cullet,” much of which comes from the plant’s finishing end.

Glass consists mostly of sand. At PPG it comprises about 70 percent Oriskany sand, an amazingly pure white substance quarried in northern Virginia and West Virginia. PPG prizes Oriskany sand for its low iron and chromium (iron, for one, gives glass a greenish hue) and high silica content, which makes for an exceedingly clear product.

From the minute the materials arrive, they are in nearly constant motion. Inside the gray, dusty confines of the silo compound, a long, flat conveyor takes the materials in sequenced layers from their silos and sends them to a bucket elevator that carries them up to a scale to check their combined weight. They fall into a mixer that stirs them together “like an old ice cream bucket,” Kapura says. The mix is basically damp sand as it rolls across a high bridge conveyor to the main plant and into a hopper that feeds the furnace.
Melting and Fining

Two enormous melting furnaces stand side by side at the head of the plant, radiating prodigious amounts of heat. The yellow-painted iron handrails of a nearby stair are hot to the touch. Silica melts at about 3,000 degrees Fahrenheit—the peak temperature inside the furnace—although adding soda ash and salt cake helps lower the silica's melting point. Through the melter's open end, you can see the material mixture entering its white-hot confines.

The melter, properly known as a Siemens Side Port Regenerative Furnace, has a tank a couple of feet deep and 200 feet long to hold molten material. "You could swim in there," Kapura says, "if you didn't burn up first." The tank is surrounded by four sets, two on each side, of 36-foot-high regenerators, so called because they force hot air into the furnace and ignite a series of natural-gas flames over the top of the glowing melt, then take back the excess heat for reuse.

Once the mixture is melted into liquid glass, it travels to a second large tank, the refiner, for what is called fining. At this point, when chemical reactions among the batch materials are taking place, the glass is suffused with air bubbles, which are no good for glass. So more air bubbles are pumped in—to bind with the existing bubbles and force them out.

The refiner also serves to cool the glass to about 2,000 F to reach its correct viscosity before it is formed. Above that temperature, Kapura explains, the glass is too much like water for forming, and below that, it's like—what else?—molasses.
The process of forming the refined liquid glass into solid panels is one of mechanically manipulating the material around its natural propensity to be 0.271 inches (6.88 millimeters) thick. PPG's Carlisle plant makes glass in thicknesses between 0.08 inches (2 millimeters) and 0.75 inches (19 millimeters).

At the end of the refiner, the glass pours through an adjustable gate, called a "tweel," that regulates its flow volume and depth to within 1/160th of an inch. It lands atop a bath of molten tin, on which it floats—hence the term "float" glass. The glass and tin don't react with each other but stay separated; their mutual resistance at the molecular level makes the glass perfectly smooth.

As the glass forms a thin layer of pale fire—called a "ribbon"—on the tin bath, a series of adjustable guide wheels on either side hem it in to determine its width, which determines its thickness. Ranks of glowing orange electrodes help to keep the glass hot from overhead, as if it were in a broiler.

The flow of the glass has to be perfect, like "syrup on pancakes," Kapura says, when it passes through the tweel and over a specially sculpted flat spout, or lip, onto the tin. "It all has to do with the viscosity," Kapura says, and, thus, the temperature.

Kapura asks me to take out the Milky Way bar he gave me at the start of our visit, unwrap it, and grip the ends in both fists (which is why my notebook now has chocolate stains). He has a Milky Way of his own, although his is chilled. He grips it at either end and pulls it apart. It snaps cleanly in half. He tells me to do the same with mine, which had been in my pocket. The gooey caramel stretches to a strand as it pulls apart.

"The glass has to have the right stretch," Kapura says. He can't tell that story with a Snickers, he says, because the nuts in the candy would be like having flaws in the glass.
On the red-hot forming line (above), the glass is poured in a thin layer atop a bath of molten tin, from which it stays separate as it takes shape. T-shaped electrodes hang above to convey heat, and a guide wheel (right of center) controls the stream's width, which in turn determines the glass's thickness.

Because of the terrific heat of the glassmaking process, operators on the forming line work largely on computers in air-conditioned consoles, yet wear protective clothing in case they need to approach the machinery. Even packing-line operators (left) wear protective gear to shield them from broken glass.
After exiting the lehr, or cooling chamber, at about 300°F, a “ribbon” of fully formed glass (this page) drops in temperature further as it moves down the cooling line. As it cools, a laser checks it for flaws.

Next, it passes under automated cutters (opposite, top) that score it into preprogrammed widths before cutting it lengthwise. The cutting blades are computer-adjusted to fulfill the specified dimensions for different sizes of prefabricated glass sheets.

The finished product: Workers in the warehouse (opposite, bottom) transport bulk loads of Azurlite aqua-blue glass (made at PPG’s Wichita Falls plant, though not in Carlisle). Each load weighs about 16,000 pounds.
After the drama of melting and flowing, the glass remains mostly passive for the rest of the trip through the factory. As it forms and moves toward the “cold end” of the tin bath, a series of water pipes conduct heat away, taking the glass temperature down to about 1,150 F, at which point it enters a cooling oven known as a lehr.

The lehr is a rather long, enclosed passage in which the glass gradually cools down to about 300 F, a process known as annealing. A machine at the lehr’s far end automatically does a first check for flaws such as stones or bubbles in the glass surface before a stain inhibitor is applied from overhead. The stain inhibitor protects the glass from corrosion, which can develop if it is stored for a long time before fabrication. (This coating is eventually washed off.)

The solid sheets pass through the “slit-cut bridge,” a series of adjustable incisors that cut the panels into specified widths as it passes under them lengthwise. The panels then move beneath a second cutter called the “cross-cut bridge,” which scores them in the other direction, perpendicular to their path—though to make a straight cut while the glass is moving, the cutter is set at an angle. Directly afterward, they pass over a point called the “high roll snap,” which bumps the panels to separate them along the score lines.

Any pieces that are found flawed by the automatic inspection are discarded at the cullet drop, a kind of trap-door section of the roller line. Individual pieces are taken off the line to be inspected by the staff for any distortions. If the panels prove worthy, they flow forward for packing in one of two directions at the “mainline corner table,” which sends them either straight ahead or off to one side, depending on their size.

The edges are trimmed from the outer pieces and then inspected (the refuse is recycled as cullet), and the glass receives an application of a separating medium, a fine powder that allows the panels to stack without sticking together or scratching (saving on the tons of paper that used to be laid between them). An automatic packer picks the panels up by suction and stacks them in bulk.

Usually, the glass panels are sent to another line to be tempered by heat so that if they break, they crumble into small cubes that aren’t sharp. They may also receive specialty coatings here that modulate heat and light transmission, though some coatings may be applied later at a customer’s—i.e., a fabrictor’s—shop. When it’s finished, the glass goes off, as white as water, to enclose homes, buildings, automobiles, and even aircraft.

Wherever it winds up, “the first person to touch the glass,” Kapura says, with a pause that suggests his continued amazement, “is the customer.”
BULK ORDER

STEVEN EHRlich ARCHITECTS DELIVERS A HUGE, LIGHT-FILLED, WORKER-FRIENDLY WAREHOUSE IN LOS ANGELES.
Integration between landscape design and architecture enhances a staff-friendly environment. Timber bamboo, fishtail palms, and other low-light-tolerant plants form gardens along the nearly 800-foot-long Main Street (right). Patterned in alternating bands of stained and plain concrete, this raised pedestrian walkway leads employees safely to break rooms on the west and east sides of the warehouse (the east break room is shown above). A patio (top) with drought-resistant plantings marks the entry from the parking lot (opposite), which is bioswailed so that runoff from the asphalt percolates slowly back into the ground rather than flooding the storm drains.
Industrial steel steps bridge the conveyor belts that stream in horizontal rows from the northern packing areas to shipping in the south. Bringing natural light deep into the warehouse, skylights track the length of the main pathway. Below, Zen-like planting beds with tall bamboo stalks and fishtail palms alternate with small seating arrangements and computer stations.

While it might be a stretch to characterize these gardens and lounges as "spiritual" spaces, their atmosphere transcends the standard warehouse interior. The client and Ehrlich's office spent two months meeting with user groups to determine how to make this an enjoyable place to work. They looked to studies that show a correspondence between good work environments and increased productivity. The design also makes sense from a Taylorist point of view: Employees are able to sit for a moment to check their e-mail or eBay bids, rather than spend their short breaks trekking across the distribution floor.

Delineating the divide between old and new construction, Main Street is the most expressive element in a straightforward floor plan. The 300,000-square-foot addition wraps the 1984 building in a lopsided L shape. Although the building is something of a cipher, the architects use the facades to their advantage. Each surface responds to interior functions. On the west side, the firm split the 38-foot-high facade into two bands: The top is a ribbon of insulated metal panels adorned with custom downspouts (to handle the runoff of a 200,000-square-foot roof), while the bottom skips from clear to fretted to channel glass.

Forming stripes against the channel glass, the clear, vision-corrected glass rises only a few feet from the slab before switching to obscured panes. This allows for privacy and security while affording glimpses of the landscape from inside. The idea stemmed from the biotech research laboratory that Ehrlich's firm completed in 2003 in Cambridge, Mass. Although the warehouse is a different building type housing a very different enterprise—employees stand at conveyor belts, not lab tables—workers’ needs and desires proved universal.

"We learned from the biotech building that the scientists wanted a view to the outside," Chaney explains. "We took that bit of shared knowledge to the warehouse."

"This is our Donald Judd shot," says Ehrlich, surveying a lineup of trucks parked along the eastern loading bays. The trailers repeat down the length of the façade, recalling that sculptor's trademark boxy artworks. This side of the building is devoted to receiving shipments, with the exception of the eastern entry courtyard and break room. Forty-one loading bays are in continual use.

"The building is a machine," Ehrlich continues. "As architects, we get turned on by all the bolts and gizmos, by all the technical parts." The reductive palette of high modernism and minimalism clearly influences Ehrlich (who paraphrases Le Corbusier's ode to function). He points to the translucent channel glass that spans most of the 820-foot-long façade, interrupted only by concrete sheer walls at the middle and two ends. The insulated glass planks allow diffused light to fill the interior, while keeping heat gain down.

"Now that's a window," he exclaims. "We were the first people to do channel glass in the United States, so we were confident in using that material. We are always looking for the right alignment of material and purpose—one that presents honesty, expressiveness, and appropriate function."

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The Sound of the Fury
New CD presents an aural history of the Bauhaus

We've grown up revering the drawings, models, mantras, tubular steel chairs, and stern photos of the legendary Bauhaus practitioners, many of whom fled for their lives with the rise of Hitler's Nazi Party. But there's always been something missing from this old picture. Now, thanks to a Bauhaus CD, we can experience sound with the architectural fury.

The atonal strains of Josef Matthias Hauer's "Phantasie, Op. 17," that open the disc transport listeners to the youthful 1920s experiment. The soirees, the irreverence, and the wit would have been accompanied by equally edgy tunes. On cue, Bauhaus Reviewed 1919–1933 (LTM Recordings) delivers a rat-a-tat piano track from Arnold Schoenberg, plus Dadaesque melodies from Hans Heinz Stuckenschmidt. The audiobook laces music with taped recollections from the 1950s and '60s by Gropius, Albers, and Mies, who explain how they were trying to break down barriers and build a way-out world. No recordings survive from Bauhaus archives, but liner notes by James Hayward make a few connections. Hauer worked with Bauhausian painter Johannes Itten on a tonal color system. George Antheil's jazzy "Little Shimmy" lasts less than a minute but reflects the optimism of the era.

As Mies says toward the end, "The epoch is the only thing you can express."

The price of modernist Muzak: The CD sells for about $20 at online sources such as www.cdniverse.com. LINDA HALES

Sample the Bauhaus movement online with a free audio excerpt from Bauhaus Reviewed 1919–1933 at www.architectmagazine.com.
It also covers the most fashionable neighborhoods.
**Big Shed**
*By Will Pryce*

As a building form, skyscrapers have few equals. But height isn’t everything. Author-photographer Will Pryce believes the modern Colossus is the “big shed.” He has traveled widely to document the sprawling, steel-framed caverns that serve as exhibition halls, air terminals, sports venues, and factories. He found glamour in Renzo Piano’s Kansai Airport and Grimshaw and Partners’ Messehalle 3 in Frankfurt. Cathedrals to commerce, they have their genesis in Victorian engineering and the Crystal Palace, but Pryce traces their lineage forward to R. Buckminster Fuller, who saw the power of architecture as technological advance, and to the Pompidou Center in Paris, where Richard Rogers and Piano turned the cultural center inside out to create a shell of “neutral space.” That emptiness has become the hallmark of modernity, adaptable for the next new endeavor. As architects experiment with ever greater, more elegant spans and trusses, Pryce’s book leaves readers with an indelible image. The world’s biggest shed—he calls it the largest free-standing enclosure in the world—is the Cargolifter Airship Hangar in Germany, which was constructed to house two blimps in a volume of 184 million cubic feet. After the owners went out of business in 2002, a cruise line acquired the site for about $140 million. Instead of an industrial shed, the interior has been transformed into a tropical resort, complete with swimming pool, 14,000 plants, and 500 species of animals. It’s no Pantheon for the ages, but the heroic scale is undeniable. Architects may prefer the cover image: Rafael Viñoly’s Tokyo International Forum, whose 197-foot-tall glass-walled hall is defined by just two columns. They support a roof truss that spans 407 feet—a worthy inheritor of the Crystal Palace legacy. *Thames & Hudson; $60*

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**Atlas of Novel Tectonics**
*By Jesse Reiser and Nanako Umemoto*

The essay is illustrated by photos of the Supreme Court taken from the left and the right. Meaning: A building cannot be reduced to politics. *Princeton Architectural Press; $29.95*

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**Classical Swedish Architecture & Interiors 1650–1840**
*By Johan Cederlund*

Swedish palaces and country houses have been largely overshadowed by knowledge about those in the rest of Europe and Britain. This book offers a detailed history in a rare English translation, which introduces the Age of Greatness (1611–1718), when Sweden ruled all of Finland and some Baltic and German states as well; the Age of Liberty (1719–1772), and the Gustavian era (1772–1809). It also introduces the architects: Nicodemus Tessin the Younger, the originator of a uniquely Swedish baroque style; Rococo master Carl Harleman; neoclassicist Jean Eric Rehn; and the French field marshal Jean Baptiste Bernadotte, who took the name Karl Johan, which is now synonymous with Swedish Empire style. *W.W. Norton; $60*

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**Details in Contemporary Architecture**
*By Christine Killory and René Davids*

Twenty-five projects demonstrate the evolving relationship of architectural form to technology. Projects are drawn from a cross-section of North American projects by high-profile firms, from Ball-Nogues to Weiss/Manfredi. The portfolio includes Alsop’s leggy Sharp Centre for Design in Toronto, OMA’s Seattle Public Library, and Herzog & de Meuron’s Walker Art Center in Minneapolis, among others. Detailed drawings make this book more than a fashion show. *As Built; $55*

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**Surreal Things: Surrealism and Design**
*Edited by Ghislaine Wood*

Staging an exhibition and producing a book of 350 stunning images, from Isamu Noguchi’s sofas to Christopher Nicholson’s Artichoke House, in which every leaf was envisioned as a window to open. Architects of the 21st century have been busy designing structures that look like giant pickles or snakes in the grass. Their counterparts in product design have also shifted into highly surreal gear, producing larger-than-life gilded totems of milking stools and charred chairs. There’s no point asking what the point is. V&A curator Ghislaine Wood notes that surrealism is “a state of being as much as a particular visual aesthetic.” Her research traces the evolution of a radical art movement to cultural phenomenon and ultimately to commerce. At this distance, after decades of restraint, it’s clearly time to vent the emotions suppressed under too many black turtlenecks. Dali’s “Mae West Lips Sofa,” the cover image, offers itself as a kiss goodbye to the rules of decorum. *Harry N. Abrams; $75*
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Zaha Hadid: Architecture and Design
Design Museum
Through Nov. 25

For Zaha Hadid, the one-woman exhibition at London's Design Museum is more than a homecoming; it's a victory lap 35 years in the making.

Those who saw the exhibition of her work last year at New York's Solomon R. Guggenheim Museum can anticipate the impact of abstract paintings morphing into sculptural models and finally—finally—into built works. But the full scale of achievement has to be measured against the latest buildings and the essential backdrop of London.

Hadid studied at the Architectural Association under both Leon Krier and Rem Koolhaas in the late 1960s and opened her studio in 1972. She toiled in relative obscurity, developing a reputation as a Baghdad-born architect on paper. All that changed with completion in 2003 of the Center for Contemporary Art in Cincinnati, with galleries housed in horizontal tubes floating between ribbonlike ramps, which proved to the Pritzker Prize jury that swirls not only could be built, they worked. She is only now finishing her first work for London, a diamondlike design clad in polished stainless steel for the Architecture Foundation.

Design Museum director Deyan Sudjic has planned the exhibition to introduce Hadid's "extraordinary flashes" to a hometown audience, but he says, "I hope people will come away realizing that she is interested in materiality."

Sudjic allows full immersion in Hadid's dynamic digital architecture through a darkened first floor devoted to projects and process, leading to an airy, daylit second floor, where buildings and objects (such as the Aqua Table, shown above) speak to each other in a new language of form. He hopes to "evoke the experience of moving around in her buildings," which now include the Phaeno Science Centre and the BMW plant, completed in the past year in Germany.

Hadid's studio, now 170 strong, turns out furniture and objects along with master plans and building plans, such as the Opus, a 20-story hollowed-out cube for Dubai; a silvery beanlike building for Budapest; and a museum for Sardinia that looks like global warming got the best of an ice cream cone.

The distinctive "eruption of energy" that marks a Hadid building or sofa has been evolving since the early 1990s, when the faint of heart in Wales selected, and then rejected, her radical approach to an opera house. Hadid had to wait until last year to complete her first project in Britain, a Maggie's Cancer Care Centre in Scotland. Next up is the Aquatic Center for the 2012 Olympics.

The power of the exhibition comes from the juxtaposition of drawings, which have always suggested the chaos and disorder of modernity, and the built works, which are dynamic but serene.

Hadid explains herself by saying she "started out trying to create buildings that would sparkle like isolated jewels. Now I want them to connect, to form a new kind of landscape, to flow together with contemporary cities and the lives of their peoples."

The exhibition closes with the subliminal suggestion that one isolated example is not enough. Sudjic describes the museum's sendoff as "a skyline of her coming projects to see against the backdrop of London" through a glass wall. Is more Hadid better? It would be worth the jet lag to see. www.designmuseum.org.
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Regional Modernism
Ogden Museum of Southern Art
Through July 15

An exhibition at the Ogden Museum of Southern Art in New Orleans offers a glimpse of modernism in Southern Louisiana. The built works of local firms include sleek glass curtain walls and airy covered plazas—not the sort of structures that, in the blink of a post-Katrina minicam, normally show up as the backdrop for updates on the hurricane-ravaged Big Easy. That's partly because the exhibition reaches out for contemporary architecture in Baton Rouge and southern Mississippi.

But there's the rub. The show is part of a post-Katrina series on architecture in a region where even the best buildings were subjected to hurricane-force winds that tipped the scale of history. At the opening on May 25, there were a few gasps as visitors were treated to glossy images of buildings that had suffered storm damage, according to Stephanie Kaston, who helped publicize the show.

The exhibition was organized by Melissa Urcan, executive director of AIA New Orleans, and Ammar Eloueini, associate professor at Tulane University’s School of Architecture. They selected a range of works, from houses to public libraries, which exemplified the theme of sustainability. Along with models, renderings, and photos, interviews with architects play in a loop. Among the most photogenic of the buildings are the New Orleans Public Library by Curtis&Davis (above, left) and the Louisiana State Museum in Baton Rouge (above, right), an elegant concrete, glass, and metal box with surprising cutouts by Eskew+Dumez+Ripple.

The buildings are grounded in reality, which is a far cry from where this exhibit series began, with the optimism-laden “Newer Orleans: A Shared Space.” In that joint project of the Netherlands Architecture Institute and Tulane, three Dutch and three American design firms developed approaches to rebuilding New Orleans that were unbridled by politics or budgeting.

Still, work by the likes of Charles Colbert, John Desmond, Ledbetter Fullerton, James Lamantia, Al Ledner, Perez, APC, Trehan Architects, VJAA, Wayne Troyer Studios, and others shows plenty of potential for a revival in southern Louisiana. www.ogdenmuseum.org

The Park at the Center of the World:
Five Visions for Governors Island
Center for Architecture
Through Aug. 25

New Yorkers already are reinventing Staten Island by turning a landfill into a recreational wetland. And the High Line is set for conversion from an unused rail line to an elevated park on Manhattan’s West Side. Next up is Governors Island, a historic, some say destitute, 172-acre locale in New York harbor, with 18th century fortifications, Victorian houses, and drop-dead views of Manhattan.

The island’s future as the Next New Superpark is the subject of a summer exhibition at the Center for Architecture. The island passed from military base to state and city control in 2003, and the ruling Governors Island Preservation and Education Corp. is still trying to figure out who should develop it—and into what. Housing and casinos were ruled out with the transfer. A Nickelodeon theme park has been dismissed, along with an auto racetrack. Developers shied away when it turned out they’d have to pay for infrastructure, according to Frederic Bell, executive director of the AIA New York Chapter and a member of the advisory council.

An 2006 appeal for ideas generated responses from 29 teams representing 65 firms in 10 countries. The field has now been pared to a manageable five: Ramus Ella Architects/Michel Desvigne; Hargreaves Associates/Michael Maltzan Architecture; West 8/Rogers Marvel/Diller Scofidio + Renfro/Quennell Rothschild/SMWM; Field Operations with Wilkinson/Eyre Architects; and WRT + Urban Strategies.

Their contest boards will go on display while the overseers seek public comments. The design brief asked for preservation of parkland and pathways. The concepts—framed by New York magazine as a battle between a “grid,” a “necklace,” a “path,” a “shell,” and a “nest”—only begin to answer the key question facing New Yorkers (other than who will foot the bill): What would make you take a ferry to get there? Nantucket, anyone? www.aiany.org
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Studio as Muse
THROUGH AUG. 5
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Herzog & de Meuron's design for the New Parrish Art Museum in Water Mill, N.Y., will not be ready for a few seasons. But the museum isn't passing on the opportunity to reach out to would-be benefactors summering in the Hamptons. Through Aug. 5, the Parrish is staging three exhibitions on the concept of the artist's studio, the basic building block of the museum's new architecture. Pictured here, Joe Fig's Chuck Close: Summer 2004, 2005.
www.parrishart.org

Akron Art Museum Opening
JULY 17
AKRON, OHIO
The Akron Art Museum's John S. and James L. Knight Building by Coop Himmelblau opens July 17, giving the museum its first "purpose-built" structure—63,300 square feet of glass and steel attached to the original museum, a converted 21,000-square-foot Renaissance Revival post office.
www.akronartmuseum.org

DesignDC: Leading Design
JULY 18–20
WASHINGTON, D.C.
Futurologist Bruce Mau will give the keynote address on "Massive Change" at the three-day conference of designers, engineers, contractors, and architects organized by the D.C. and local Maryland chapters of the AIA.
www.aiadesigndc.org

Joshua Prince-Ramus
JULY 19
WASHINGTON, D.C.
How is Joshua Prince-Ramus, partner in charge of the acclaimed Seattle Central Library, faring since his breakaway from Rem Koolhaas' Office for Metropolitan Architecture? Prince-Ramus' lecture at the National Building Museum promises an update on an equally defining civic structure for Louisville, the Museum Plaza Tower, plus projects in Dallas and Norway.
www.nbm.org

Living the Piazza
JULY 19
LOS ANGELES
The role of the piazza, the ultimate expression of public open space, will be explored by Michael Webb, author of The City Square, in a lecture at the Italian Cultural Institute.
www.iclosangeles.esteri.it

Rebuilding Sustainable Communities in Iraq
JULY 23–26
BOSTON
An international conference at the University of Massachusetts' College of Public and Community Service.
www.cpcs.umb.edu

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THE ILLUSTRATOR OF ARCHITECTURE-THEMED PICTURE BOOKS HAS A NEW EXHIBITION AT THE NATIONAL BUILDING MUSEUM.

Interview Katie Gerfen  Photo C. B. Smith

DAVID MACAULAY

What is the focus of the new exhibition?
This is the very first show I have ever done that actually has a scholar curator whose brainchild this is. Cathy Crane Frankel wanted to use my drawings as a way to get people to think about drawing. For me, it’s not about making art, it’s about learning. It’s about seeing things better. That’s why I draw.

How did you get into creating architecture books?
I studied architecture for five years, and I have a degree in architecture. But I didn’t want to be an architect. I just sort of knew that by my fourth year. So I began looking for some alternative, and illustration became increasingly appealing to me, especially picture books, because it looked like those people were having a good time. I put some story ideas together, and one of them was a story about gargoyles coming to life in a half-finished cathedral, and of course I loved drawing all its stones and scaffolding and ropes. I took my drawings to Walter Lorraine at Houghton Mifflin, and he said, “Well, you know what, we don’t really need another gargoyle story, but tell me about this building.” So I went back to what I had been studying, and I assembled a sequence of images that would show how you would build a cathedral, and that was the beginning. If Walter hadn’t been in that day, I don’t know what I’d be doing.

When does the narrative enter into the picture?
The words and pictures grow together. They have to. I don’t know how to do a book any other way. Sometimes the pictures are more or less efficient than the words as ways of communicating. Probably only 5 percent of my drawings make it into the final book. The other 95 percent are what I have to draw to understand the information I am trying to communicate.

Are you working on an architecture-themed book now?
I’m working on a book about the human body. There are no bricks here, but there are lots of building blocks.

Do you think you’ve influenced future architects?
I think I’ve influenced young people to consider architecture or consider illustration. But when I talk, I invariably run into somebody who decided to go to architecture school because when they were 12 they found one of those books. I am responsible for some of it.
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