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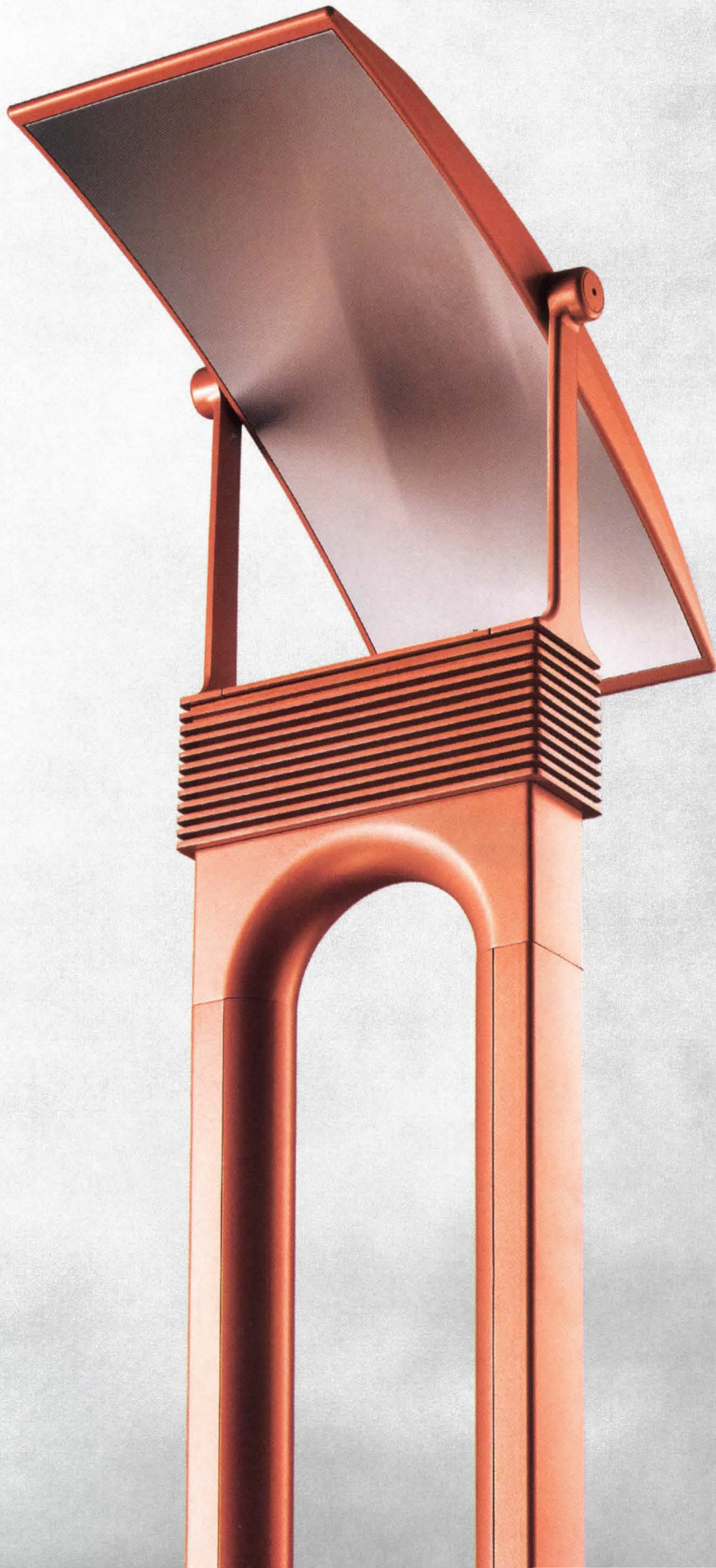
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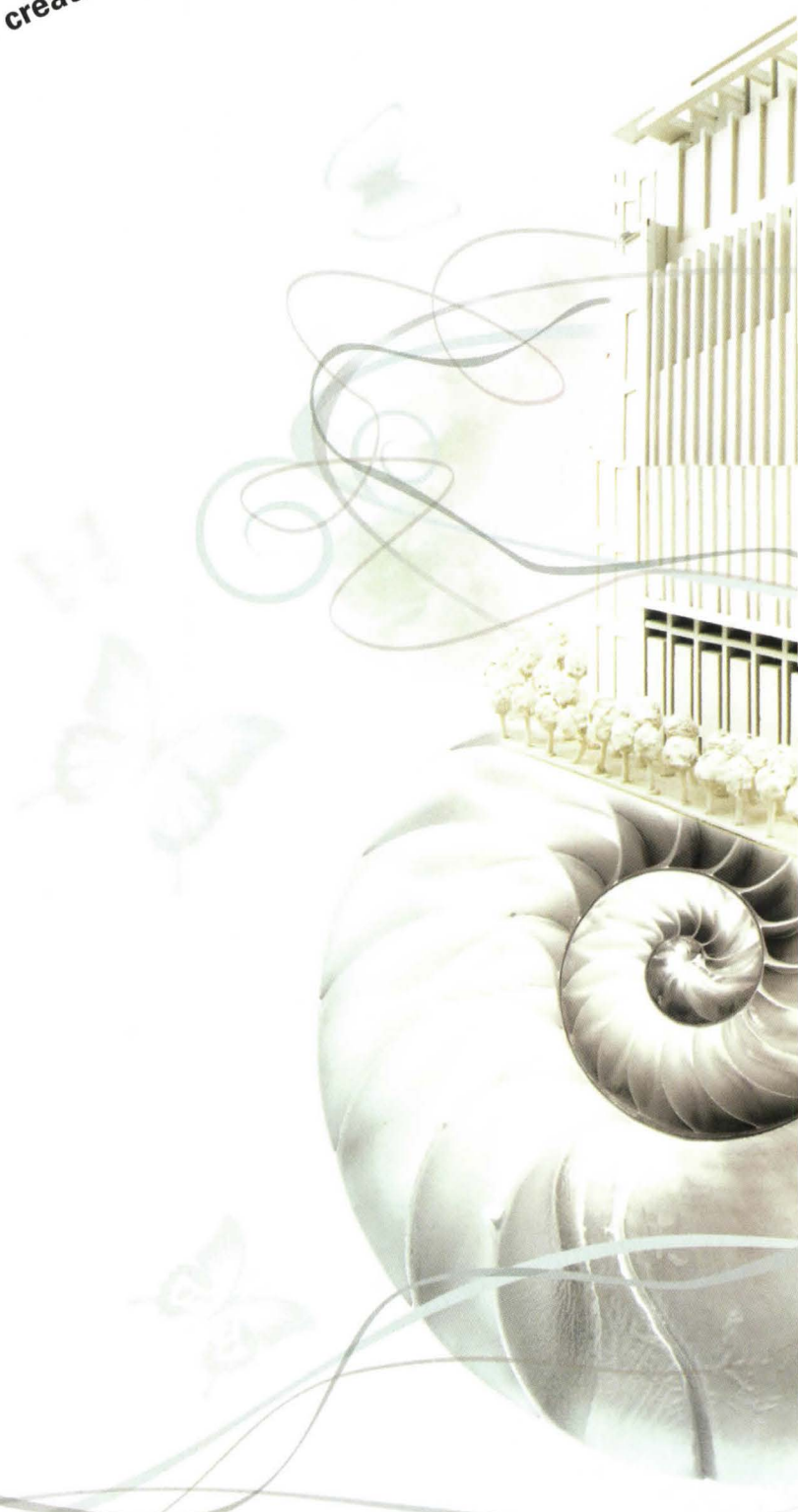
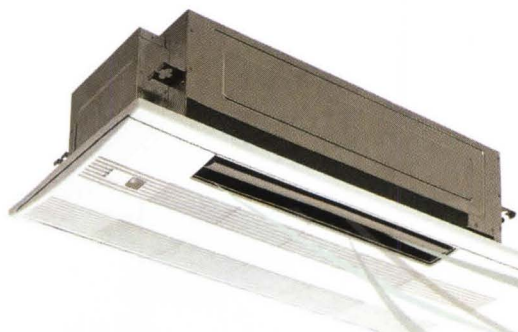
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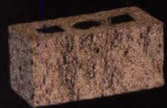
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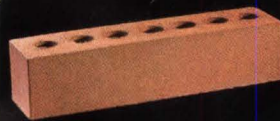
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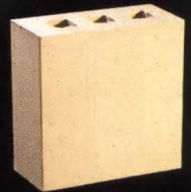
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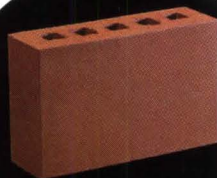
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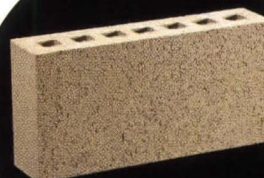
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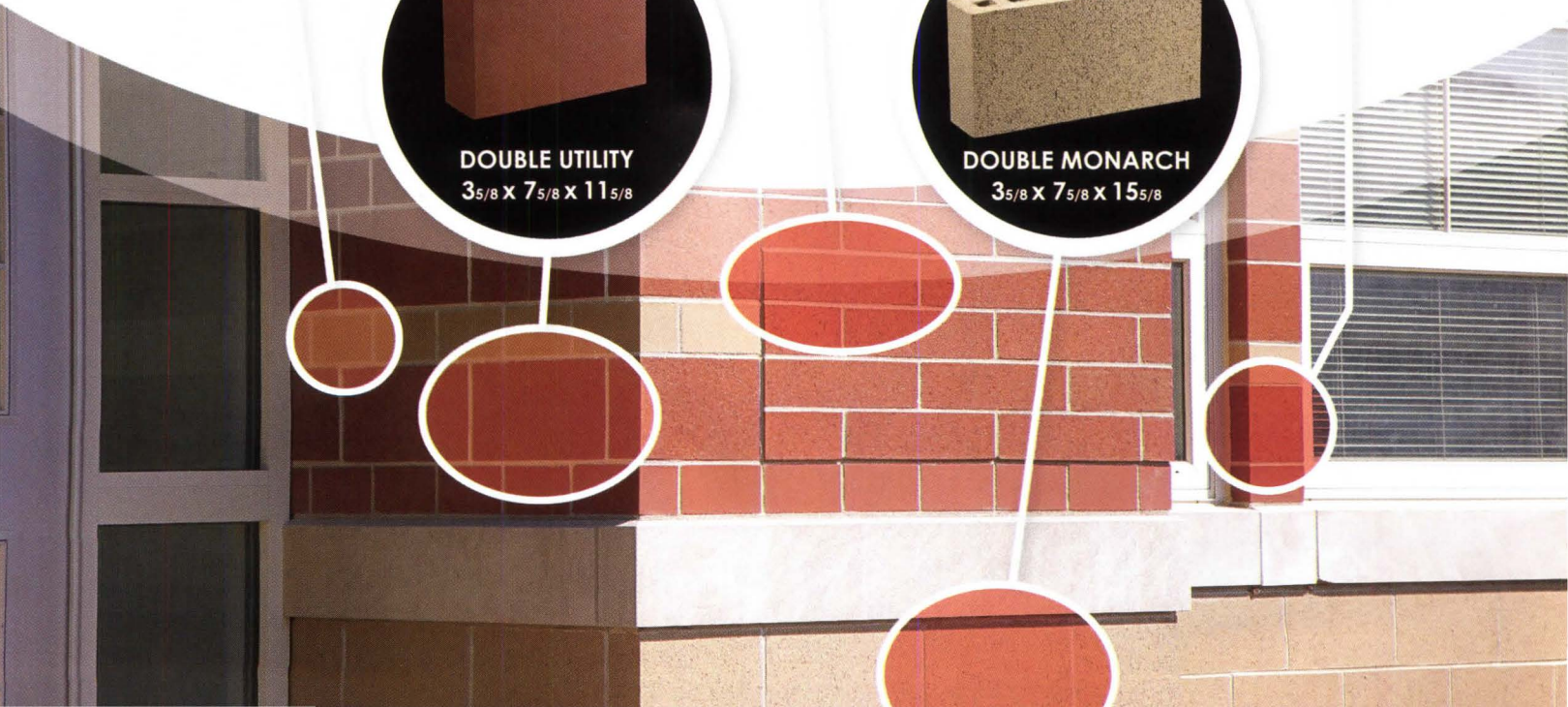
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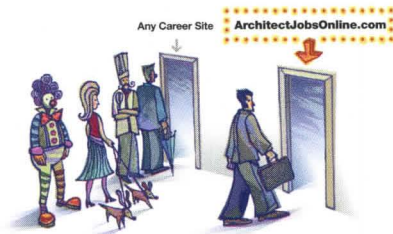


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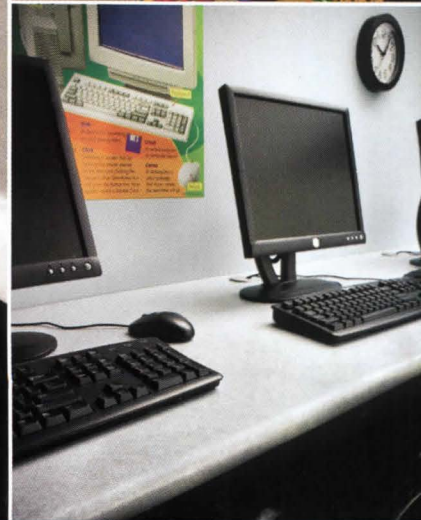
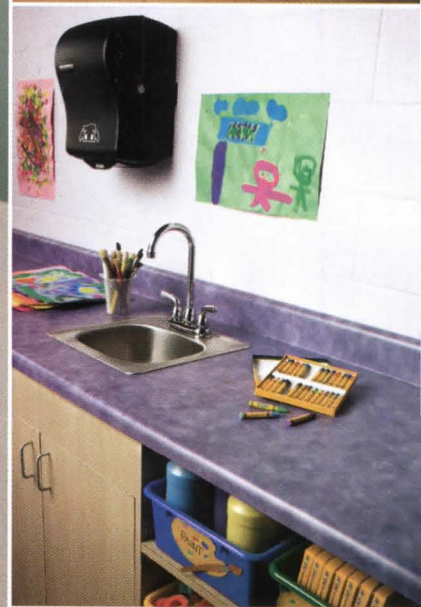
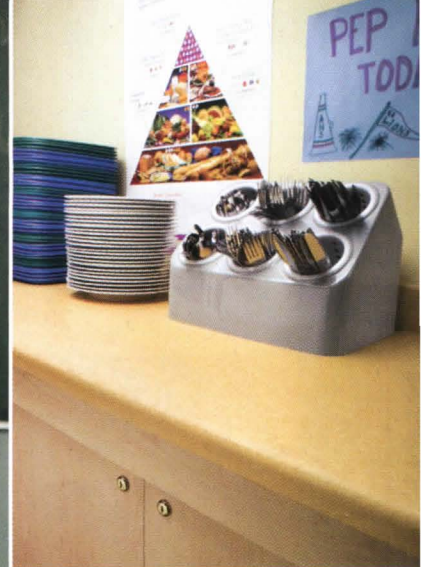
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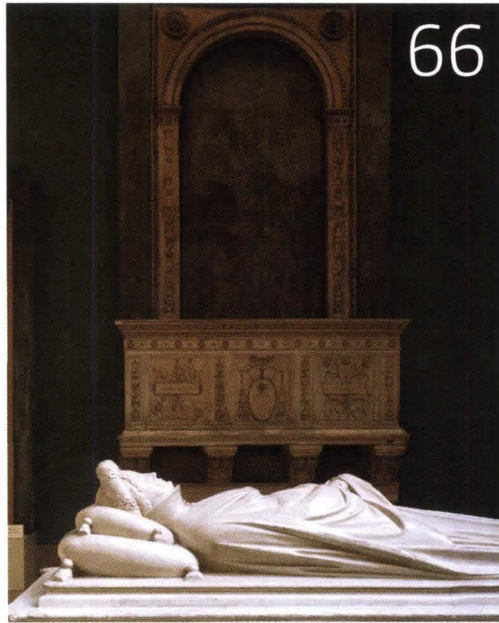
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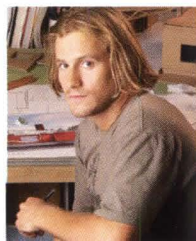


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Rankings of the top schools, deans' opinions, and student perspectives shed light on the state of architectural education in the United States.
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ON THE COVER

Daniel Gussman is a senior in the No.1-ranked B.Arch. program, at Virginia Tech (page 74). Photo by Mike Morgan

IF IT'S GOING TO BE A DUDE'S HOUSE FOR 40 YEARS, IT HAS TO BE THOUGHT OUT.

From "The New Rural Studio," page 74.

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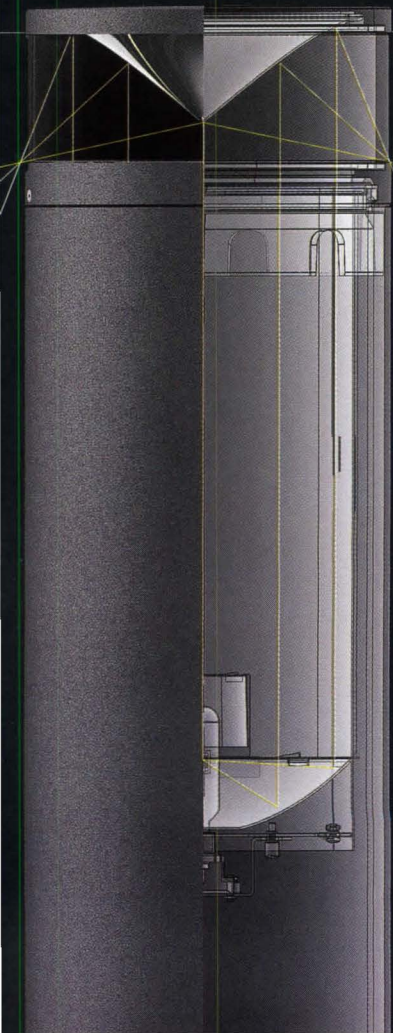
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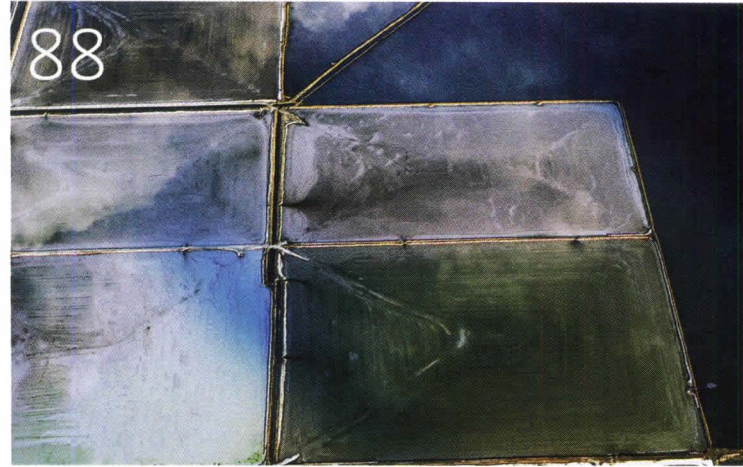
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RIGHT A Dale Chihuly exhibition enlivens the new tropical greenhouse at the Phipps Conservatory in Pittsburgh.

FAR RIGHT David Maisel's large-scale aerial photography mapping human activity is on view at the National Academy of Sciences through Dec. 5.



MATT GREENSLADE



COURTESY NATIONAL ACADEMY OF SCIENCES

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- **More interviews** from Newhouse Program grads
- **Snapshots from** the Rural Studio class reunion

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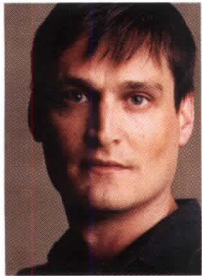
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Dialogue

I WANT TO GO TO YALE



TIMOTHY GREENFIELD-SANDERS

Ned Cramer
Editor in Chief

I MAY LOSE A FEW FRIENDS for suggesting this, but I think the time has come to reintroduce traditional design into mainstream architectural education. “What’s the point?” you may ask. “Is the modernist movement bankrupt?” Now that’s a loaded question, but the short answer is no. Cities across the United States—even ones in the red states—are scrambling to build radical landmarks by Coop Himmelblau, Zaha Hadid, Thom Mayne, and other extreme innovators. But for every duly celebrated iteration of the Bilbao effect, we still get a thousand over-scaled McMansions and themed shopping centers. It’s tempting to place the blame on builders and developers, but it’s not entirely fair. They don’t exactly have a huge pool of traditionally trained architects to chose from.

The avant-garde, for all its well-deserved recent success, has never delivered on its 100-year-old promise to slay the popular taste for traditional architecture. At this point, it’s not a problem: Modernism’s having a great ride, even though it’s still got competition. The real problem is that the profession is largely unwilling and unable to meet the never-ending demand for tradition—in no small part because architecture schools teach their students to despise it. So why should architects be surprised that the lion’s share of what gets built in a historicist manner looks like so much dog duty? Sure, I’d like to see the avant-garde triumph, but I’d just as soon see some improvement in the design of the typical suburban house.

Believe me, I understand the fear and loathing that many architects feel for traditional design. I went through the same boot-camp indoctrination in the principles of Modernism that most of this magazine’s readers did. Born from the shining brow of Walter Gropius at the Dessau Bauhaus, and seeded in the U.S. through institutions such as Harvard and the Illinois Institute of Technology, it’s a closed mind-set that perpetuates to this day at nearly every architecture school in the country. The Association of Collegiate Schools of Architecture has accredited some 250 North American programs, yet the Prince of Wales’ International Network for Traditional Building, Architecture, and Urbanism names just 32 U.S. programs that offer some traditional design faculty or courses, and only two—at the University of Notre Dame and the University of Miami—that are entirely committed to the teaching of traditional design.

I’m not suggesting that architecture schools across the country drop everything and dedicate themselves exclusively to the production of the next Stanford White or Julia Morgan. What I am suggesting is that the schools—and the profession as a whole—drop the attitude about historicist architecture and find themselves a middle road. It’s perfectly possible. Just look at Robert Stern, who has transformed Yale during his tenure as dean from a decaying bulwark of Modernism into a world-class incubator of eclecticism and cross-platform debate. In the current climate of institutionalized Modernism, Stern’s agenda seems absolutely radical. Where else on Earth would I be able to choose between studios run by Peter Eisenman and Léon Krier? If I were looking at architecture schools today, Yale would be my first choice.

Ned Cramer

Editor in Chief

Required Reading

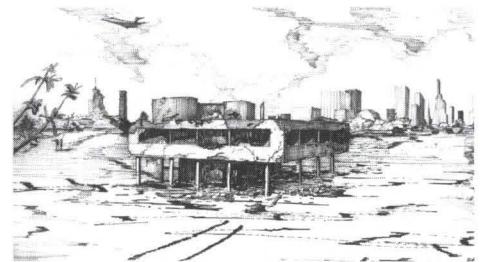
A couple more reads to add to your list in your Dialogue section [“The Great Leap Backward,” September 2007, page 16]:

- 1) *The Upside of Down: Catastrophe, Creativity, and the Renewal of Civilization* by Thomas Homer-Dixon
 - 2) *Collapase: How Societies Choose to Fail or Succeed and Guns, Germs, and Steel: The Fates of Human Societies* by Jared Diamond
- Happy Reading!!!
Rea Jackson
Chicago, Ill.
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Piranesi, International Style

I really enjoyed your article on the new exhibit on “Piranesi as Designer” at the Cooper-Hewitt [August 2007, page 49].

It brought back a fond memory (or was it recalling the countless late nights?) while in third-year design studio in undergraduate architecture school. As a warm-up exercise, we were tasked at producing a *veduta* in the style of the master Piranesi. We were to select an architectural icon of the International Style and project forward a “view” of the same building into the late 20th century. Clever assignment—it combined architectural history, research (remember the library?), imagination, and visual communication. I suppose today the same assignment would be completed in SketchUp. Anyway, I found my sketch (below) almost 32 years down the road—apologies to Le Corbusier.



A great publication from Taschen, *Giovanni Battista Piranesi* by Luigi Ficacci, should be on every architect’s bookshelf.

Madison R. Graham
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mrg@mrga.com

Correction

The Rhino 3D 4.0 image of the Experimental Media and Performing Arts Center at Rensselaer Polytechnic Institute included in [“BIM Wars,” September 2007, page 57] should have been credited to Grimshaw Architects.



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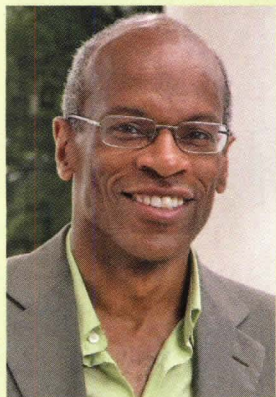
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Maurice Cox Named NEA Director of Design



YOU DON'T HAVE TO have been an actual mayor to oversee the influential Mayors' Institute on City Design at the National Endowment for the Arts (NEA). But it will likely be an asset for Maurice Cox, who is taking over the institute as NEA's new director of design. Cox, 48, who will also run the agency's grantmaking and other public programs, begins full time in January

and replaces Jeff Speck, who left the position last May after four years to return to private practice.

Cox was a member of the Charlottesville, Va., city council from 1996 to 2004, spending the final two years of that period as the city's mayor. In 1993, he joined the University of Virginia's architecture faculty, where he is a professor of architecture. (Cox will be on a leave of absence from the university during his two-year NEA appointment.) He is a founding principal, with Ken Schwartz, of Charlottesville's Community Planning and Design Workshop and was a principal in the firm of RBGC

Architecture, which he co-founded, from 1996 to 2005. His honors, apart from a feature on *60 Minutes*, include a Loeb Fellowship at Harvard and the John Hejduk Award, for outstanding professional contributions, from his alma mater, the Cooper Union.

Your average citizen sees design "as some luxury item," Cox tells ARCHITECT, so he tries to show people through a public, practical process the ways in which design can make their lives better or worse. "Part of the challenge is to get the public to understand [design] as a fundamental right," he says. In his best-known design projects, such as the rebuilding of Bayview, a poor town on Virginia's remote Eastern Shore, Cox has urged residents—using a plain-spoken vocabulary about design and what he calls its "public necessity"—to take control of their environments.

Besides the Mayors' Institute, the NEA's design division runs the newer Governors' Institute on Community Design and the Your Town design programs for rural communities. The pool of Mayors' Institute attendees alone, Cox notes, constantly renews itself. And "mayors go on to be elected at the state level and beyond," he says. "If you can change a few minds—a few strategic minds—you can make an enormous amount of progress."

BRADFORD MCKEE

Clips

The AIA's **Architecture Billings Index** for August was 53.9

(any score over 50 indicates an increase in billings).

The Smithsonian Institution has awarded the contract for designing the **National Museum of African American History and Culture**, which will be located on the National Mall in Washington, D.C., to **The Freelon Group** and **Davis Brody Bond**.

Architect and former ambassador **Richard Swett**, the author of *Leadership by Design: Creating an Architecture of Trust*, has joined **Leo A Daly** as vice president and managing principal.

German architect **O.M. Ungers** died on Sept. 30. He was 81 years old. An influential postmodernist, Ungers served as the dean of Cornell's Department of Architecture from 1969 to 1975; he was a visiting professor at Harvard and UCLA as well. Among his many notable buildings is the Washington, D.C., residence of the German ambassador, completed in 1994.

The Royal Institute of British Architects' **2007 Stirling Prize** was awarded to **David Chipperfield Architects** for the firm's Museum of Modern Literature in Marbach am Neckar, Germany.

Japanese architect **Kisho Kurokawa**, a leader of the metabolist movement, died on Oct. 12 at age 73. A plan to tear down Kurokawa's Nagakin Capsule Tower (1972), a landmark of metabolist architecture, was approved by the building's management company earlier this year.

Ecology

Sustainable Landscapes Make the Grade

ASLA and others join to create environment-focused rating system

LANDSCAPE DESIGN MAY SEEM intrinsically sustainable, but this is by no means a given. To encourage the application of sustainable design principles to landscapes, the American Society of Landscape Architects (ASLA), the Lady Bird Johnson Wildflower Center in Austin, Texas, and the U.S. Botanic Garden in Washington, D.C., are jointly working on a new green rating system called the Sustainable Sites Initiative.

Designed to complement the LEED rating system for buildings, Sustainable Sites will measure the ecological aspects of public, commercial, and residential landscapes. To develop the system, more than 30 experts from nearly a dozen stakeholder groups—including environmental organizations and landscape architecture firms—have identified sustainable practices for soils, hydrology, vegetation, human health, and materials. The U.S. Green Building Council (USGBC) has agreed to incorporate the findings of the initiative into future versions of LEED.

"This was a situation of great minds thinking alike," says Nancy Somerville, executive vice president and CEO of ASLA. "A lot of our members began raising the issue that the LEED system was very building-centric. With their prompting, ASLA started some conversations with USGBC about filling the gaps."

As with LEED, the Sustainable Sites program is designed to be voluntary and incentive-based. It will identify a range of steps that designers and site managers can

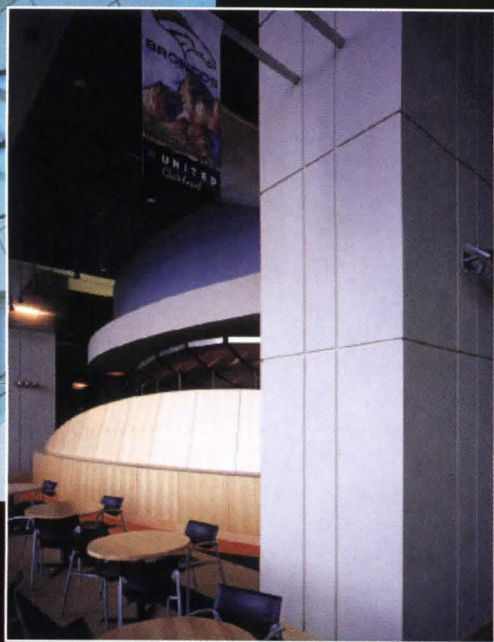
take to improve the sustainability of their landscapes. To prevent water pollution and protect against erosion, for example, the stakeholders recommend installing a water-infiltration system such as a rain garden or vegetated swales. Sustainable soil management could include soil reuse and the addition of compost.

"We want people to understand the true value of landscapes," says Heather Venhaus, an environmental designer with the Wildflower Center and project manager for the initiative. "It goes beyond just cutting down a tree, grading a property, and then replanting vegetation. It's about how landscapes support our lives, sequester carbon, and mitigate the destruction of development."

The initiative will publish its first interim report (which will be available for download from its website, www.sustainablesites.org) later this month, followed by a public comment period. After further refinements and comment, a final report is expected by spring 2009; it could be a stand-alone product or incorporated into LEED, Somerville says. The participating groups are also working on a series of pilot projects to showcase the efficacy of the rating system under real landscape conditions.

"We want to take the good work that's already been done by USGBC and others on buildings and look at the complete picture with sites," Venhaus says. "This is about how landscapes can be repairing and restoring and regenerating." **KIM A. O'CONNELL**

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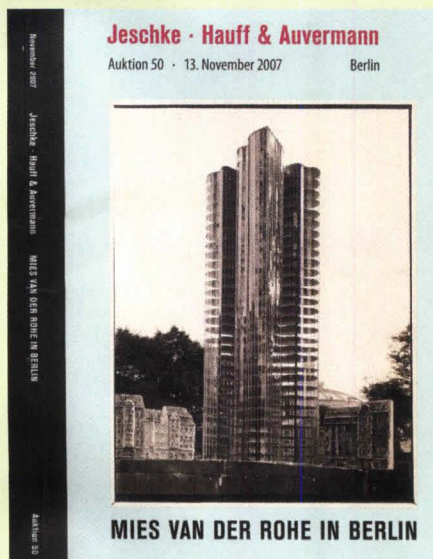
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REPORT NEWS

Archives

Mies Photo Auction Raises Questions The images for sale are exceptionally rare, but experts call their origin 'mysterious'



The auction catalog

IN CASE YOU'VE ALWAYS LONGED to decorate your office with vintage shots of early works by Mies van der Rohe, all concrete cantilevers and planes of onyx and glass, you'll have a chance on Nov. 13, when a Berlin auction house sells 123 prewar photos of buildings and proposals by Mies and his circle. But don't expect much data about the prints' provenance; in fact, scholars are calling the collection's origins "mysterious" and "fishy."

The auction house, Jeschke, Hauff & Auvermann (www.buchauktionen-berlin.de), will reveal only that the anonymous current owners bought the set a few years ago from a family that had kept them "for years." One family member "must have been someone at Mies' studio," perhaps his longtime collaborator Lilly Reich, auction house representative Joerg Mueller-Daehn wrote in a cryptic e-mail.

The unknown Mies staffer clearly had access to crucial material. The photos, dating from 1911 to 1938, depict façades, interiors, models, drawings, and construction sites for built landmarks (including Villa Tugendhat, the Barcelona Pavilion, and the Weissenhof housing estate) as well as some unrealized proposals (such as Reichsbank, Alexanderplatz, and the Glass Skyscraper) and government-sponsored furniture expos. A handful of streetscape shots reveal neighboring buildings by Mies' competitors, including Max Taut, Le Corbusier, and Peter Behrens. Office stamps from Mies or Reich—she took over the practice when he fled to the United States in 1938—appear on the backs of some 30 prints.

"It's an absolutely spectacular collection, with a number of images I'd never seen before," says T. Paul Young, a dealer in modernist art and furniture (and a former staffer at Mies' Chicago office), who co-owns the Young Fox Gallery in Michigan City, Ind.

But who first gathered the photos? The only plausible suspect, other than Reich, is Eduard Ludwig, a Bauhaus graduate who worked for Mies and Reich. "During the Allied bombing raids on Berlin," explains Claire Zimmerman, an art history professor at the University of Michigan and author of a 2006 Taschen monograph on Mies, "Reich and Ludwig stored the office archive for protection in a barn at the Ludwig family's farm outside Berlin." The downtown studio, where Reich left her own archive, "took a direct hit," Zimmerman adds.

Shortly after Ludwig's death in 1960, according to Mies' grandson, Dirk Lohan, a Chicago-based architect, "the East German authorities confiscated the crates from the barn, claiming that everything to do with the Bauhaus was state property, since the Bauhaus had been a state organization." Mies eventually persuaded the government to ship his material to Chicago. (He donated his archive to New York's Museum of Modern Art. "It's the only architect's archive MoMA has ever agreed to accept," says Terence Riley, former architecture curator for the museum.) "But we have no idea what had been removed from the piles in Germany over the years," Lohan says. The photos to be auctioned on Nov. 13, he adds, "could have been kept in Lilly Reich's or Ludwig's private possession, or [they] could have come from the crates. I have no idea. I find it very strange and mysterious that the auction house won't specify where they came from."

Jeschke, Hauff & Auvermann has given price estimates from 120 euros (for a set of seven offset-printed photos of Weissenhof buildings) to 2,500 euros (Barcelona Pavilion views with office stamps). The catalog essay notes that "estimate prices were intentionally kept low to ease giving bids for official institutions." Matilda McQuaid, deputy curatorial director at the Cooper-Hewitt National Design Museum and author of a 1996 monograph on Reich, says that "it would be nice if these went to a museum." But with the chain of possession so vague, McQuaid adds, "it's a very fishy story. I don't think any museum would touch these with a 10-foot pole." EVE M. KAHN

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In Memoriam

Architecture Critic Herbert Muschamp, 59, Dies



FRED R. CONTRA/THE NEW YORK TIMES/REDFUX

AGENTS PROVOCATEURS have a dismal survival rate at the culturally conservative *New York Times*, but for 12 years, starting in 1992, architecture critic Herbert Muschamp not only survived but prevailed, emerging as one of the most compelling voices on its pages—and anywhere else in the United States, for that matter.

Muschamp was unpredictably wicked and wise, flamboyant and sincere, superficial and penetrating, but when his stars aligned, he transcended the subject. He wrote in real time, forging his thinking as he wrote, discovering his article. Insight after insight, he seemed to bleed his thoughts on the page as he invented paths, straight and tangential, through knotty issues. Never facile—despite the battering pace of his production—he took his readers to rarefied and daring journalistic places, mixing the simple and the abstruse in dense yet highly erudite essays. There was seldom an arc to his reviews, but along his episodic trajectories he laid small and large detonations. Often the dense articles merited two or three readings. He eschewed the optic of the gentleman connoisseur reacting with his refined taste buds and wrote instead as an existentialist of honesty. He cut through sentiment and made a point of challenging received wisdom and sacred cows as he chased truth into uncomfortable zones.

A cultural critic disguised as an architecture critic, Muschamp turned up the heat on the subject and produced burning pages that rescued American architecture criticism from tired subjects and flaccidity. A natural radical with a baroque persona that he never masked, he sometimes emerged as the subject of his pieces. Nonetheless, he always maintained, perhaps disingenuously, that the role of a critic was simply to explain the building.

Besides his magisterial career at the *Times*, Muschamp wrote as the critic of *The New Republic* from 1987 to 1992, and he created

and headed the architecture and design criticism program at Parsons in New York. In 1974, MIT published *File Under Architecture*, his precocious and impassioned rant about the disappointing state of the profession; in 1985, MIT brought out *Man About Town*, in which Muschamp tried to reconcile Frank Lloyd Wright's oppositional identities as a prairie architect working in the city.

Muschamp, who was born in Pennsylvania in 1947, died Oct. 2 at the age of 59, months after learning he had lung cancer. He quit smoking the day he learned about his disease.

JOSEPH GIOVANNINI

FROM "THE SECRET HISTORY OF 2 COLUMBUS CIRCLE," THE NEW YORK TIMES, JAN. 8, 2006

I hate to be the one to tell you this, but the old, relentlessly mourned Pennsylvania Station was a dismal piece of architecture. A late arrival in the City Beautiful movement, the building tried to augment meager conviction with extreme colonnades. Walking into its cold, cavernous spaces was like arriving in Philadelphia two hours before you had to. But so what if Penn Station wasn't Grand Central? It was a crime to tear down a building that had become so deeply impregnated with New York's emotional life. The yawning interiors had a distinctive atmosphere. Like a vast sponge for intense expectations, the station soaked up the psychic energy of arrival, departure, separation, reunion and waiting that had accumulated over the years along with the soot, water damage and flimsy commercial intrusions. The station met the new arrival with a dare: can you make the big city know that you're alive? There's nothing like debased Beaux-Arts design for throwing out a frigid welcome.

TWO ARCHITECTS REFLECT ON MUSCHAMP

Frank Gehry: "Herbert was at ease with an unparalleled range of influences, from Proust to Twyla Tharp, Balanchine to Gabriel Fauré, Seneca to Walter Benjamin. A remarkable mind. We never talked about architecture he wrote about."

Richard Meier: "Herbert was phenomenal. No one wrote the way he did, with such a perceptive eye and strong opinion. After Ada Louise Huxtable, he brought architecture criticism to a new level. He'll certainly be missed. It would be helpful for the next generation of young architectural historians and writers to look to Herbert for guidance. There's a strong interest now in thoughtful criticism, on the part of the public as well as the profession, in no small part because he helped create it."

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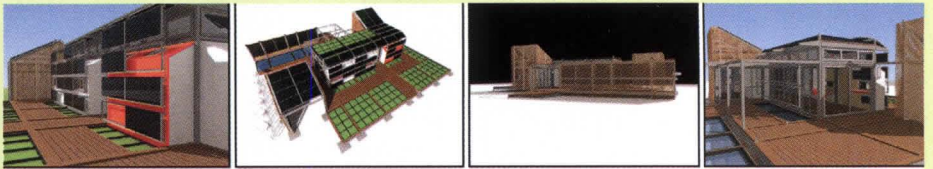
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REPORT NEWS

Green Design

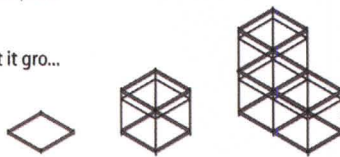
Lifecycle Building Challenge Winners Announced



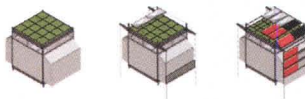
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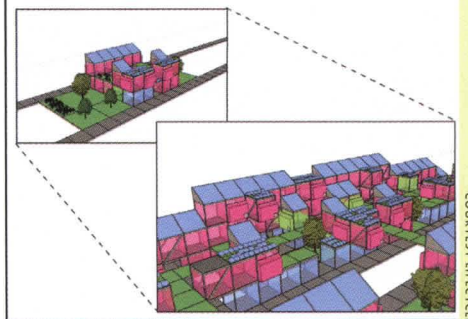


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If the principles of the groHome were applied to the development of a community, the result would be a community that is sustainable, adaptable, and promotes interdependence.



COURTESY LIFECYCLEBUILDING.ORG

IN LATE SEPTEMBER, nine winners and 13 honorable mentions were announced for the first Lifecycle Building Challenge, a sustainable building design contest created by the U.S. Environmental Protection Agency, the American Institute of Architects, the Building Materials Reuse Association, and West Coast Green. Shown above: The groHome, a modular housing unit designed by Texas A&M University's 2007 Solar Decathlon team; the design takes its cues from the open-source software movement and uses radio frequency identification tags to track building components. To learn more about the competition and all of the winning entries, visit lifecyclechallenge.org.

Deadlines Competitions and more

NOV. 23

Registration: What If New York City ...

New York City is seeking innovative ideas for provisional housing for residents who would lose their homes in the event of a catastrophic coastal storm. Successful proposals will provide living spaces at a density level significantly higher than what is now conventionally provided. Submission deadline: Dec. 14. nyc.gov/html/whatifnyc

NOV. 30

Beyond Green High-Performance Building Awards

The Sustainable Buildings Industry Council is now soliciting entries for the 2007 Beyond Green High-Performance Building Awards. Federal, state, and private-sector entries are welcome; commercial, institutional, and residential buildings are all eligible. sbicouncil.org

DEC. 10

Berkeley Prize Essay Competition

The topic for this year's essay competition is "Making Social Architecture." Students enrolled in any undergraduate architecture program worldwide are invited to submit a 500-word proposal. Semifinalists will be asked to submit a 2,500-word essay. The top 10 semifinalists will be invited to participate in the Berkeley Prize Travel Fellowship Competition. berkeleyprize.org

DEC. 14

Arthur Ross Awards

The Institute of Classical Architecture & Classical America invites submissions for the 2008 Arthur Ross Awards for Excellence in the Classical Tradition. The awards are not given for individual projects, but rather for a career or body of work by the nominee. classicist.org

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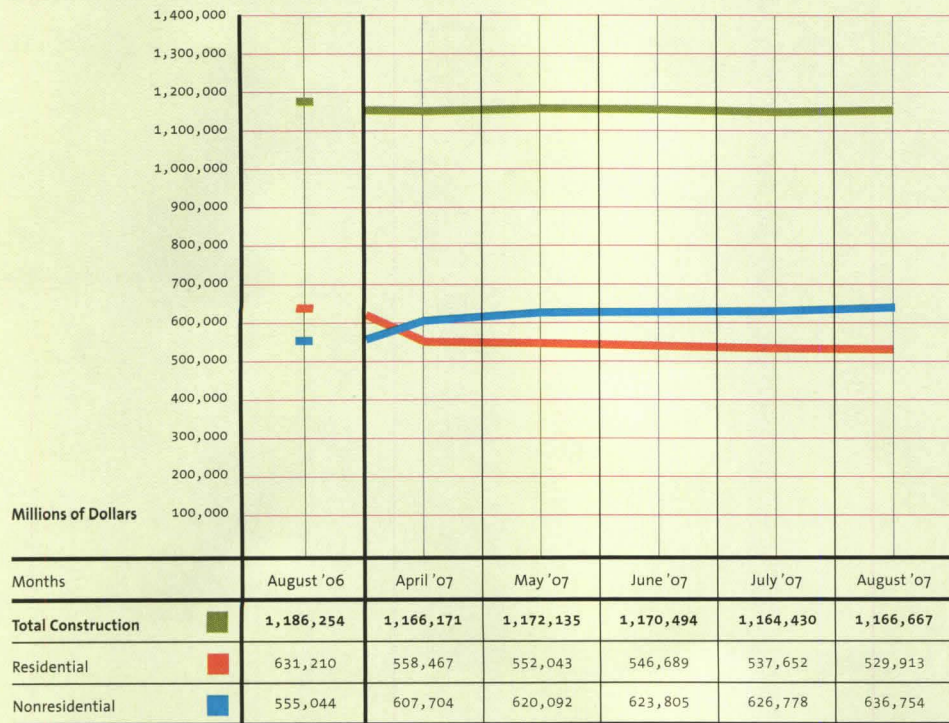
See the Difference Quality Makes

August 2007

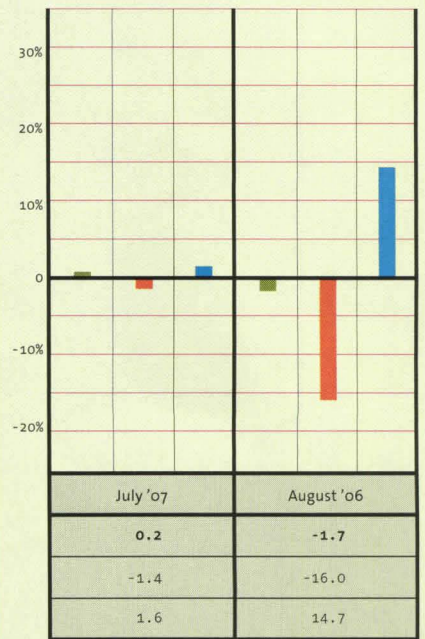
Construction Spending

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

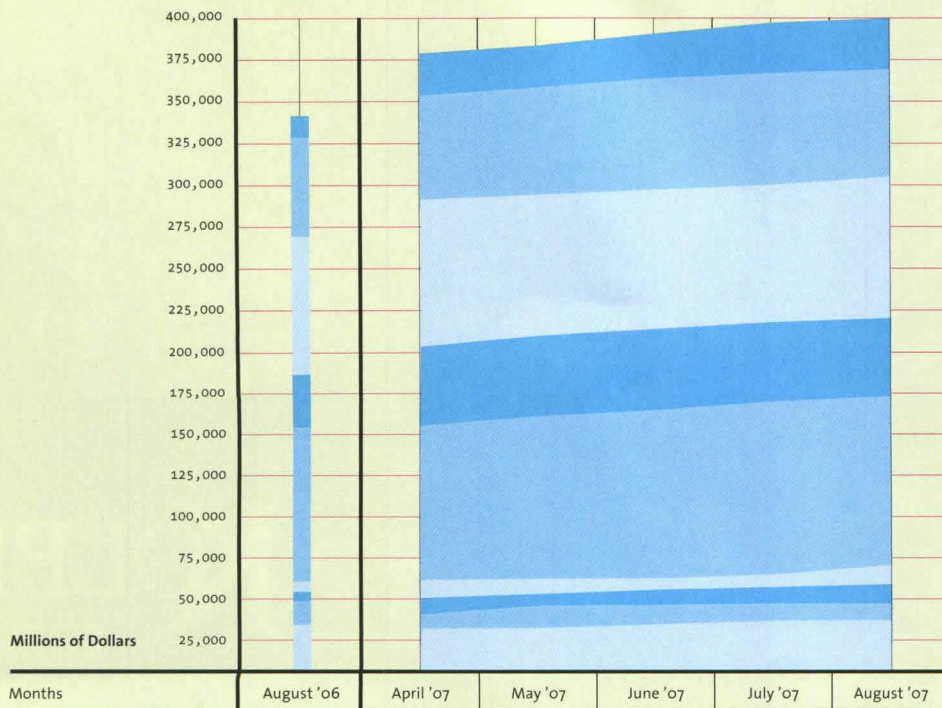
TOTAL CONSTRUCTION (SEASONALLY ADJUSTED)



Percent Change From:

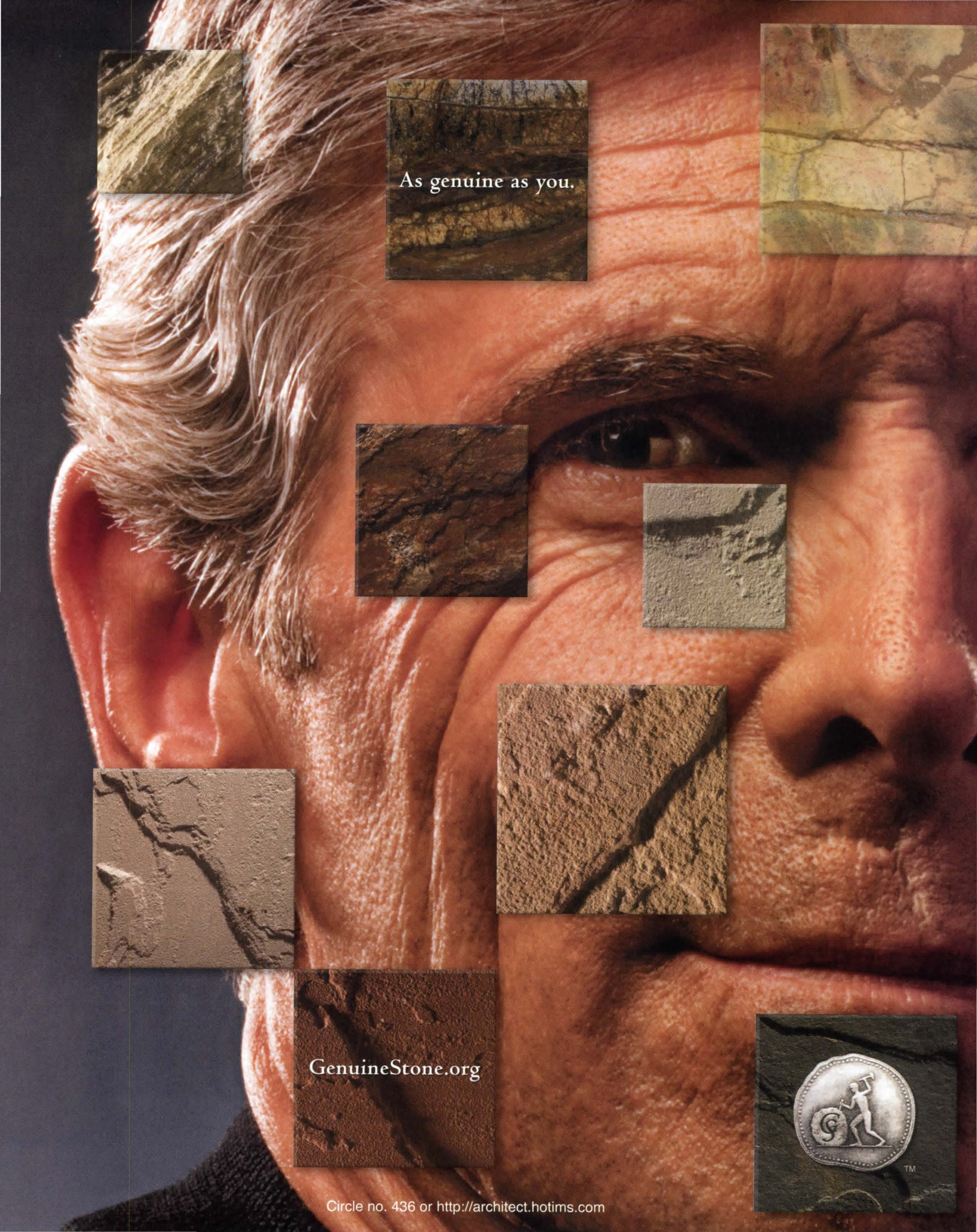


SELECT NONRESIDENTIAL CONSTRUCTION (SEASONALLY ADJUSTED)



Category (August '07 Total)

- Lodging (32,004)
- Office (67,160)
- Commercial (87,238)
- Healthcare (45,959)
- Educational (101,280)
- Religious (7,388)
- Public safety (10,522)
- Amusement and recreation (20,037)
- Transportation (31,753)



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Kansas City, Kan.

The western half of metro KC is beginning to catch up to its Missouri sibling



MARC CARVER

In June 1804, trekkers Lewis and Clark camped where the Kansas and Missouri rivers meet. Clark declared the site, now home to Kansas City, a “beautiful” one for a fort.

THE HISTORY OF KANSAS CITY is a tale of two cities. The Missouri city was established in the 1820s, followed in 1868 by its sister city (known locally as KCK) across the Missouri River. Linked by more than a shared name and bridges, the two form one large metropolitan area. Each city retains its own identity, however. Until recently, KCK was the more industrial one, while the other city got most of the corporate headquarters and entertainment, sports, and cultural venues. But since the decision to consolidate the KCK and Wyandotte County governments in 1997 (KCK is the county seat), fortunes are beginning to change on the western side. The city known as the Heart of America is getting a massive facelift, with new master planned communities, enormous entertainment complexes, and a rash of downtown revitalization under way.

“Several years ago, Kansas City realized [it] needed to do something to ensure a healthy, growing, vibrant downtown and surrounding areas,” says David Rezac, principal of local firm 360 Architecture. Citizens

approved gambling, resulting in plans for several new casinos; they also voted to increase the size of the convention center and revitalize the central business district. “The coming years will see our visions becoming reality,” says Rezac. The effort has already borne fruit: *Money* magazine put KCK on its list of top places to live in 2005 and 2006. But downtown isn’t the only part of town that’s experiencing growth. Areas south and west of the city’s center are booming with new development.

“With unique retail and entertainment venues in Wyandotte County, growth will surpass many other areas of metropolitan Kansas City,” predicts Scott Lane, senior vice president/managing broker of Reece & Nichols, a local commercial real estate brokerage. “Developers are already beginning to expand south and west, creating additional new home community options in the higher-than-average price range. As retail moves south and west, so will the demand for housing, driving up home values and average sales price.” MARGOT CARMICHAEL LESTER

JOB/POPULATION GROWTH

A July 2005 census estimated the city’s population at 144,210. Job growth for the metropolitan area rose 1.4 percent from June 2006 to June 2007.

OFFICE MARKET

Wyandotte County’s 470,731-square-foot office market was 21 percent vacant at midyear 2007, with average asking rates for Class A space of \$15.75 per square foot. The unusually high vacancy rate is a result of, among other things, recent layoffs by large companies and moves from older buildings into more recent construction.

RESIDENTIAL MARKET

In June 2007, the average home sale price in Wyandotte and Johnson counties, the Kansas portion of the Kansas City metro area, was \$247,000. Homes stayed on the market an average of 81 days.

MARKET STRENGTHS

- More tax revenue from new developments
- Good schools
- Growing service sector

MARKET CONCERNS

- Increasing unemployment rate
- Suburban sprawl

- Aging and inefficient infrastructure

FORECAST

“Village West [a retail and entertainment destination] and Kansas Speedway have given us leverage with new property tax dollars to reinvest in our older commercial and residential neighborhoods and increased developer interest to levels not seen in the last several decades,” says Cindy Cash, president of the local chamber of commerce.

→ continued on page 30

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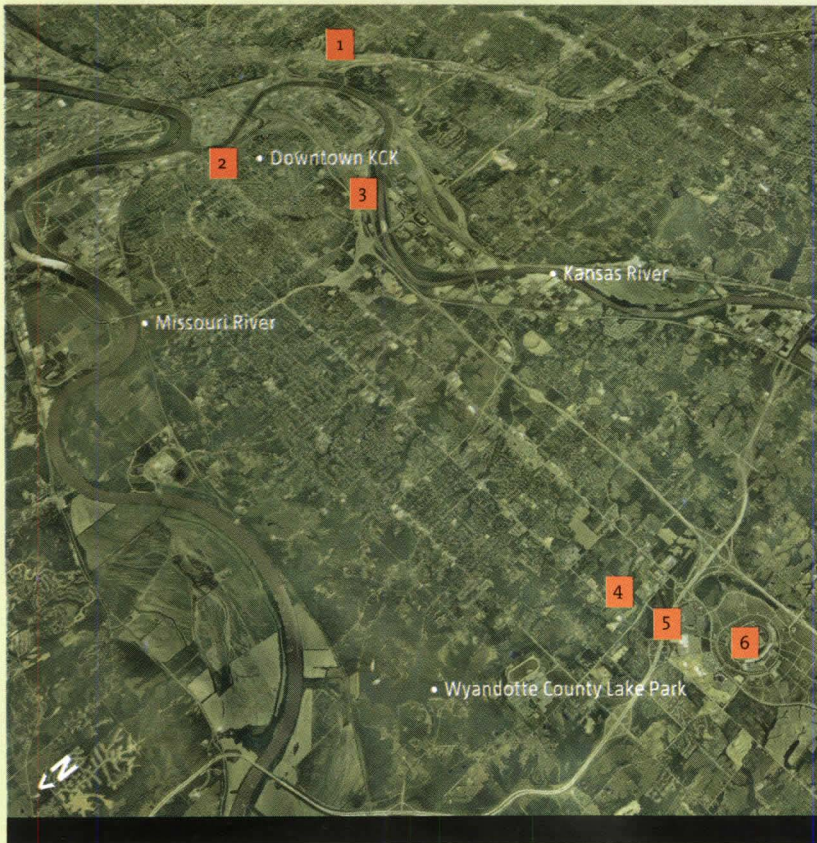


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GOOGLE EARTH

NOTABLE PROJECTS

1 CENTER FOR ADVANCED HEART CARE, UNIVERSITY OF KANSAS HOSPITAL**Architect:** RTKL Associates, Dallas**Developer:** University of Kansas**Completed:** 2006**Cost:** \$77 million

This 238,000-square-foot medical facility just south of downtown includes 82 private patient rooms, high-tech labs, cardiovascular operating rooms, a patient learning and resource center, and a rehabilitation fitness area.

2 BOARD OF PUBLIC UTILITIES BUILDING**Architect:** BNIM Architects, Kansas City, Mo.**Developer:** DST Realty**Completed:** 2002**Cost:** \$11.2 million

The 100,000-square-foot downtown building is the headquarters for the local water and electric utility and also houses a hotel. Among its accolades: the 2003 AIA Kansas Merit Award and the 2004 AIA Kansas City Design Award.

3 HISTORIC FIRE STATION NO. 9**Architect:** Susan Richards Johnson & Associates, Kansas City, Mo.**Developer:** Community Housing Wyandotte County**Completed:** 2006**Cost:** \$1 million

This circa 1910 firehouse in the Prescott neighborhood underwent a complete restoration last year, earning it the Historic Kansas City Foundation Preservation Award.

4 SCHLITTEBAHN VACATION VILLAGE**Architect:** Berger Devine Yaeger, Kansas City, Mo.**Developer:** Schlitterbahn Resorts Worldwide**Planned Completion:** 2009 (Phase 1)**Cost:** \$750 million

Touted by its developer as the "largest and most elaborate entertainment destination in history," this 376-acre project will include a water park and manmade waterways.

5 THE LEGENDS AT VILLAGE WEST**Architects:** Gould Evans Associates, Kansas City, Mo.

(architect of record); HTH Group, Beverly Hills, Calif. (design architect); RED Development, Kansas City, Mo.

Developer: RED Development**Completed:** 2006**Cost:** \$250 million

The 1.2-million-square-foot open-air retail and entertainment center has more than 90 stores and restaurants.

6 COMMUNITYAMERICA BALLPARK**Architect:** 360 Architecture, Kansas City, Mo.**Developers:** Ehlert Development Corp., RED Development**Completed:** 2003**Cost:** \$12 million

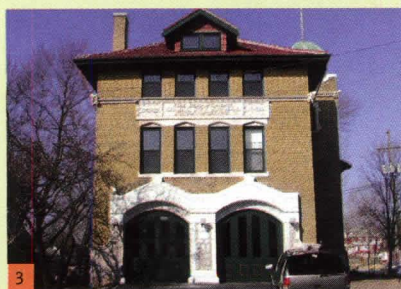
Home to the minor league T-Bones, the 5,000-seat stadium is located a few miles from downtown. The venue imitates great baseball parks of the past, with its footprint determined by the existing city grid.



MARK McDONALD PHOTOGRAPHY



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REPORT SCREEN CAPTURE

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3362 / 100

Cleanup Costs
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Description
Fried Industries formulates industrial cleaners and cleaning agents on a 26-acre site in a rural-suburban area in East Brunswick Township, Middlesex County, New Jersey. The area was previously a clay pit. In December 1983, EPA, under a search warrant, found that hazardous wastes were improperly stored on-site and that soil was contaminated with organic chemicals

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Timeline
90 81 82 83 84 85 86 87 88 89 90 91 92 93 94 95 96 97 98 99 00 01 02 03 04 05 06 07 08



Each page for a Superfund365 site (such as the Fried Industries manufacturing plant, above) displays similar information: (1) name, location, description, and Superfund timeline; (2) an interactive graphic (activated by mousing over it) showing what chemicals are at the site, the responsible party or parties, and the site's acreage; (3) site photos; and (4) the demographics of the surrounding zip code. At left, a Google map of Superfund365's first 100 days.

WHILE RESEARCHING A DOCUMENTARY about how the U.S. Environmental Protection Agency (EPA) responded to the 9/11 collapse of the World Trade Center, digital media artist Brooke Singer learned about Superfund, the EPA program tasked with cleaning up the nation's toxic-waste sites. (There was a question within the EPA of whether ground zero should have been categorized as a Superfund site.) Last spring, with the documentary's production dragging, she was inspired to create Superfund365. The website, says Singer, was "something I could do quickly. ... [T]he main thrust behind it is education" about the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as Superfund is officially known. "It consolidates all the [publicly available] information."

Superfund365.org—which is hosted by Turbulence, the online division of the nonprofit New Radio and Performing Arts—launched Sept. 1. Through Aug. 31, 2008, it will visit 365 of the worst Superfund sites, one site each day. In addition to Superfund data, the site also contains information of a more intimate nature: a series of video interviews with Lois Marie Gibbs, the woman who founded the Love Canal Homeowners Association and began the chain of events that resulted in Superfund's creation. Interviews with others involved with or affected by the federal program will be added throughout the year.

Once the year has run its course, Singer hopes to create a print version of the website. "Especially now that [Superfund] communities are starting to contact me with their stories and information," says Singer, "it would be great to get these stories and photographs into a book that kind of encapsulates the best of Superfund365."

She should expect to hear from more people. Within weeks of launching, the site had already generated web buzz: It was the Yahoo! Pick for Sept. 14 and was noted favorably by TreeHugger and other environmentally minded blogs before the month was over. The EPA, however, has its own opinion about Superfund365. "The [agency] does not care what other people put on their Web sites," wrote a spokesperson in an e-mail. **BRALIO AGNESE**

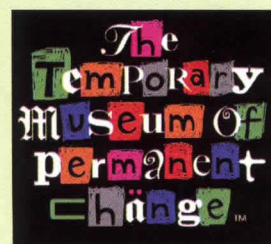
Links

INTERVIEWS

charlierose.com

Whatever you might think about Charlie Rose or his approach to the question-and-answer process, there's no denying the TV journalist regularly gives generous attention to the world of architecture. Search his website for the keyword "architect" and you'll find almost 80 archived interviews (dating back to 1994) with starchitects and lesser-known designers, critics, academics, artists, and others—more than enough to while away lazy afternoons and the occasional sleepless night.

VIRTUAL MUSEUM

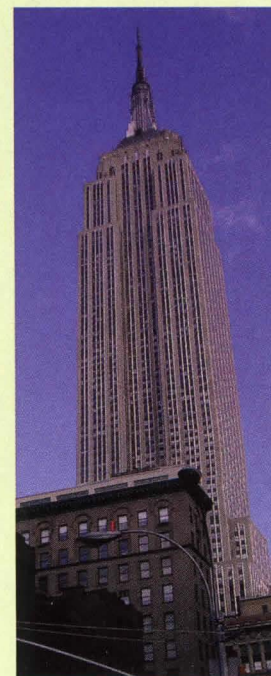


museumofchange.org

For the most part, museums—even those celebrating the city they are in—grow and change at a fairly glacial pace. Salt Lake City's online-only Temporary Museum of Permanent

Change rethinks the template and seeks to be as vibrant as the city itself. The museum describes its "collection" as including "performance art and video production, visual art, urban archaeology, anthropology, local history, existing businesses and ongoing deconstruction and construction processes as spectacles for people of all ages."

GREAT BUILDINGS



arts.guardian.co.uk /greatbuildings

Now three-quarters of a century old, the Empire State Building is having a banner year. Six months ago the skyscraper topped the list of America's 150 favorite pieces of architecture. In October, the British newspaper *The Guardian* ran a series on the dozen best buildings worldwide built since 1900—a group that includes the Sydney Opera House and Gaudi's Casa Milà—and the Deco icon was at the top of the heap again. "It was, and remains, a magnificent successor to a line of

monumentally aspiring buildings that takes us back to the very first great works of architecture," writes Jonathan Glancey about Shreve, Lamb & Harmon's most famous design.

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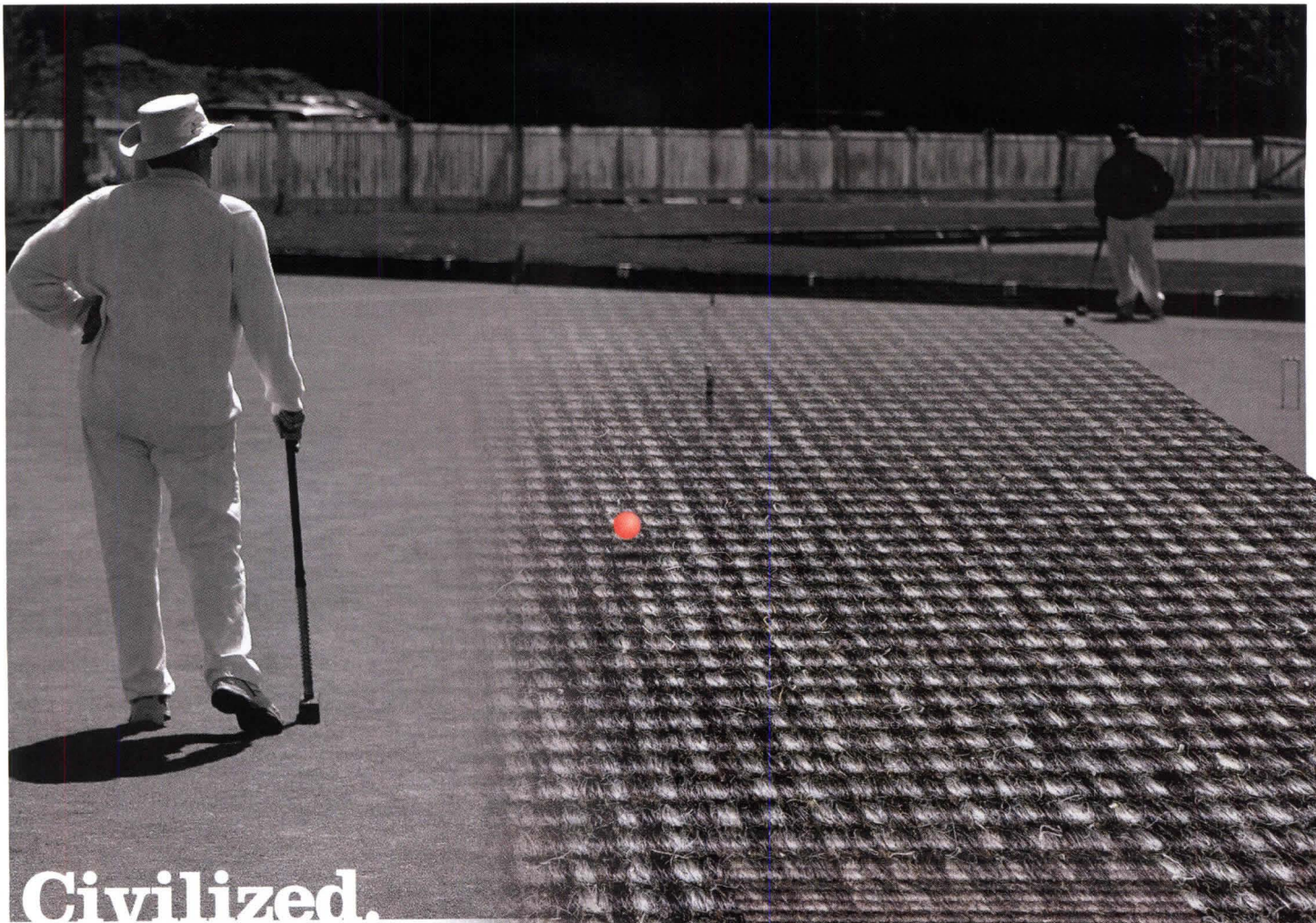
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DO'S AND DON'TS FOR NEW-GRADUATES-TURNED-POTENTIAL-EMPLOYEES AND FOR THE PEOPLE HIRING THEM. Text Fred A. Bernstein Photo Michael Darter

CAREER DAY



If your firm is looking to attract new graduates, don't wait until they have their diplomas in hand, says Jan Harmon, HR manager for HOK's L.A. office. Making presentations at schools is a good way to introduce yourself, and inviting the students to events at your office is a good way to get them excited about the work you do.

If you're hiring, don't be a stranger.

"We might go to an architecture school and give workshops on portfolio and résumé preparation or help prepare students with mock interviews," says Harmon. "We have architects who lecture in professional practice classes and who serve as guest critics. We also develop relationships with deans and professors. If you've gotten to know them over the years, they may point out particularly good students."

Open doors.

"We give tours of our office frequently, and if we're having a particularly interesting seminar, we invite students from nearby schools to attend. The more students you can get into your office, the better chance you have of them getting excited about what it's like to work there."

Let students know you'll help them meet their goals.

To become a licensed architect generally requires experience in 16 separate areas, says Harmon. "At HOK, we try to make sure people get to do a variety of jobs within the firm. Otherwise, they may think they need to go elsewhere to try other kinds of work."

No slave labor.

"We've made a decision in our office that everyone—professionals and interns alike—gets paid." Brava.

Hoping to get hired? Keep your portfolio simple ...

"I prefer to see a portfolio arranged in chronological order, from first year through the end of your program,"

WHEN JAN HARMON began working for HOK (then Hellmuth, Obata and Kassabaum) in 1985, it was rare for architecture firms to recruit on campuses. Harmon, manager of human resources for the firm's Los Angeles office (one of 18 in North America), helped persuade several schools to begin holding career fairs; the events were small at first, she says, with only half a dozen firms participating on average. These days, she says, a similar event can attract as many as 60 or 70 firms—and HOK itself visited about 60 architecture schools this year. "We are definitely competing [with other firms] for the best and the brightest students," she says. And while not every architecture graduate can expect to land a high-paying job—architecture, after all, will never be investment banking—things are as good, if not better, for students today, Harmon says, as they've ever been in her 22 years as a recruiter. Recent graduates with fresh ideas and knowledge of the latest technologies are "invaluable to us," she says, and highly sought-after.

Harmon says. "That helps me see progress you've made. And I always tell students, put your very best image on the last page—you can very subtly keep the portfolio open to that page during the interview. If your portfolio is on a computer, make sure that you have the technology down. I've been in interviews where it takes 15 minutes to get the presentation up and running."

... but not too simple.

"Once, at an on-campus interview, I had a student pull out a shoebox and dump its contents on the table. That told me a lot about her organizational skills."

Blow your own horn ...

"Don't just say where you worked. Say what you did there. List all of your relevant experience. It doesn't have to be an architecture firm. If you've done Habitat for Humanity or worked for a contractor or lighting designer, tell us."

... but modestly.

"We're looking for the ability to work with people. If someone says, 'This was a team project in school,' I like to hear about that. And I like to see an ability to recognize where things could be improved. Saying, 'I got to the end and realized, if I were to do it again, I would have done x, y, z'—that tells me you are going to be able to learn."

Follow up.

"I sometimes have people send me beautiful portfolios, but there's no follow-up letter or e-mail or phone call. If you want a job, don't be shy about asking for it."

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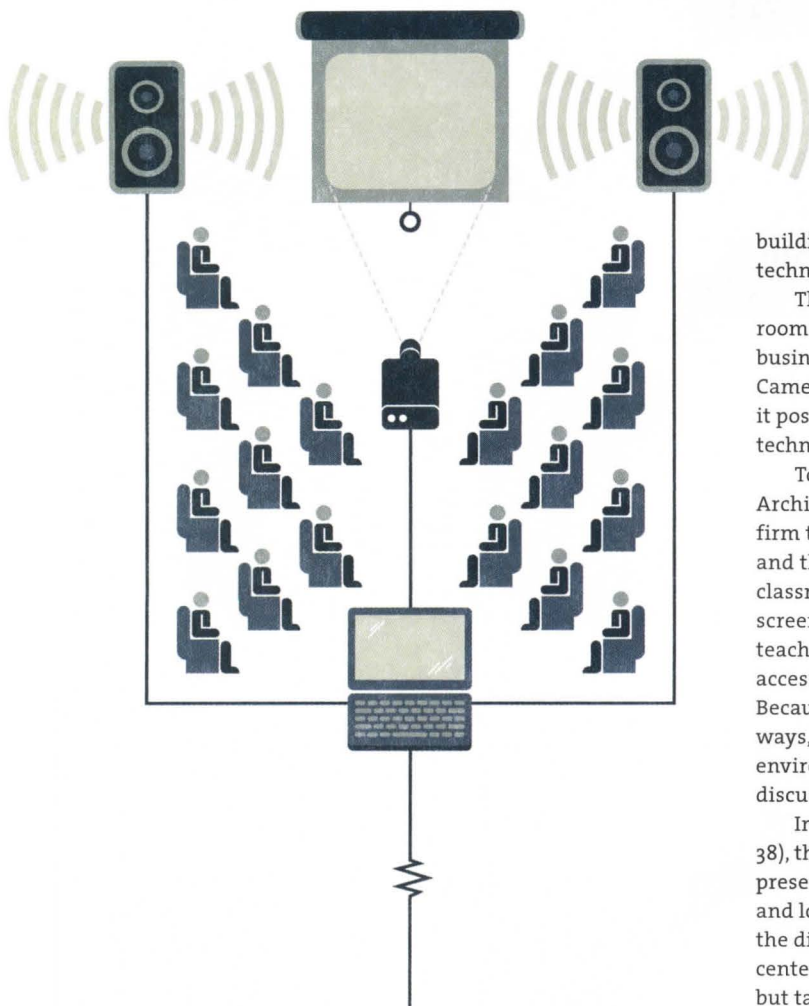


**SMALL
BUSINESS**

Text Katie Gerfen Illustration Head Case

Connected Classroom

A wired university building allows more freedom in teaching style.



With a comprehensive audio/visual package, Charles M. Salter and Associates was able to create a classroom environment where the instructor can learn as much about her teaching style as the students learn from her presentations.

building, “a number of things will change with the technology, the curriculum, and the staff.”

The university was very clear in wanting to use every room in the center as a laboratory—for learning about business concepts as well as learning about teaching. Cameras, sound equipment, and recording devices make it possible to analyze teaching styles and study how this technology can supplement the curriculum.

To make this lab concept become a reality, VBN Architects partnered early on with CSA, a consulting firm that specializes in acoustics, telecommunications, and the design of audiovisual systems. In many of the classrooms, there are four video cameras and four flat screens, one on each wall. This allows the instructor to teach from any point in the room and still be visually accessible to someone logging in from a distant site. Because each of the feeds for these devices works two ways, telecommuters can interact with the classroom environment, asking questions and taking part in discussions.

In the Management Case Study Room (see page 38), the instructor’s podium is located between two presentation screens (which can be automatically raised and lowered from their places in the ceiling), allowing the display of multiple images but keeping the professor center stage. The room is set up for videoconferencing but takes it a step further: One camera is focused on the students and one on the instructor to promote interaction, either between the instructor and distance-learning students or between the students and teleconferencing lecturers. Such systems help instructors supplement the day-to-day lessons with high-profile speakers. “You’re not going to get Steve Jobs to trek over to Hayward,” says Tom Corbett, principal consultant with CSA. “If they can videoconference in, then you are more likely to get them.”

In designing a system that would be top of the line but also not out of date in two years, Corbett and his team tried to anticipate changing technologies. Using two different aspect ratios on the flat screens in classrooms, the auditorium, and the entry hall introduces a new technology without making existing equipment owned by the university obsolete. New systems are both analog and digital. “It’s important that the faculty’s needs be met because they have to convey information with the system,” says Corbett. “But it is also important that the technology department’s needs be met, because they have to service the equipment.” →

DURING THE INITIAL DESIGN PHASE of the new Valley Business and Technology Center at California State University East Bay in Hayward, Calif., it became clear that the building would have to rate high on cutting-edge technology but age gracefully too. The campus’ first new building in nearly 30 years, the center houses nearly 3,500 students, 74 offices, meeting rooms, auditoriums, and a host of other specialized spaces, all of which need to be well-outfitted, technologically speaking. The team of Oakland, Calif.–based VBN Architects and San Francisco–based Charles M. Salter and Associates (CSA) was tasked with creating a high-end facility on a tight state-controlled budget.

“Our goal,” says Timothy Craig, a principal at VBN, “was to develop spaces in the building that can be used in a variety of different ways, with a standard backbone of parts so that they can be rearranged and reorganized easily.” Flexibility was key, he points out, not only so that multiple classes can be taught in the same space, but also because over the life of the

Products

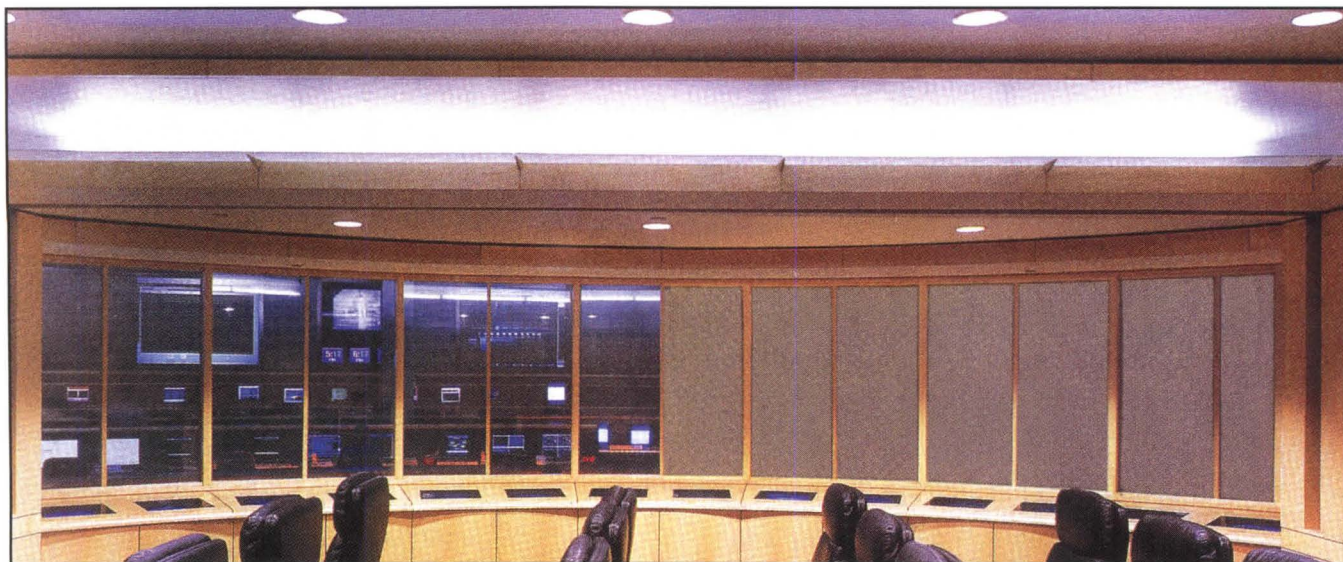
Management Case Study Room, California State University East Bay



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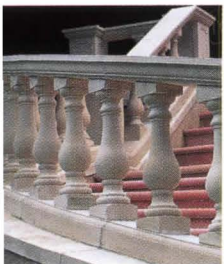


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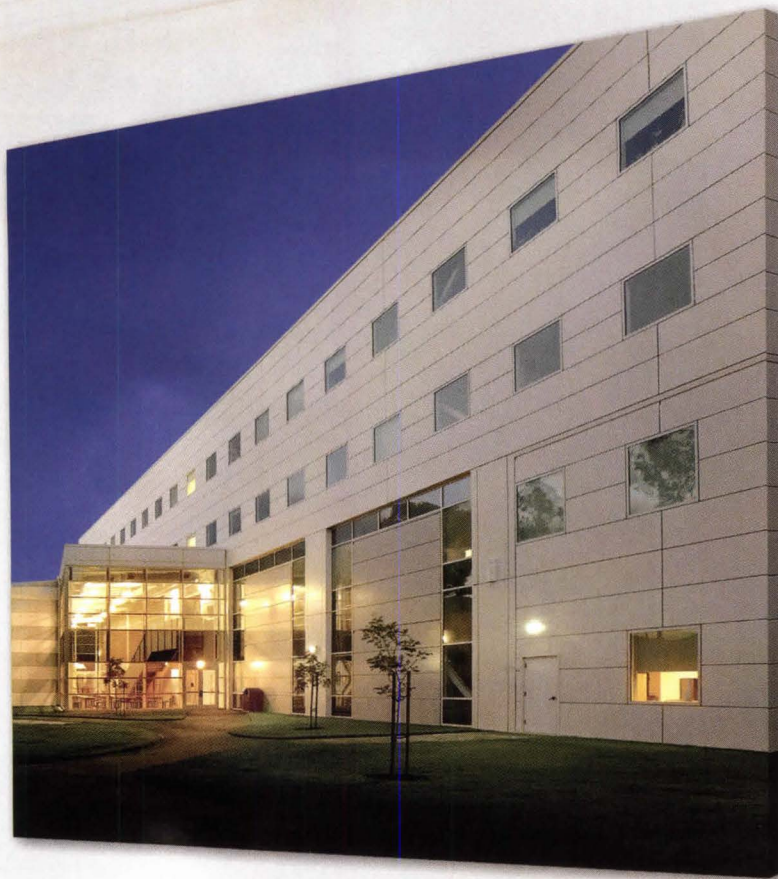
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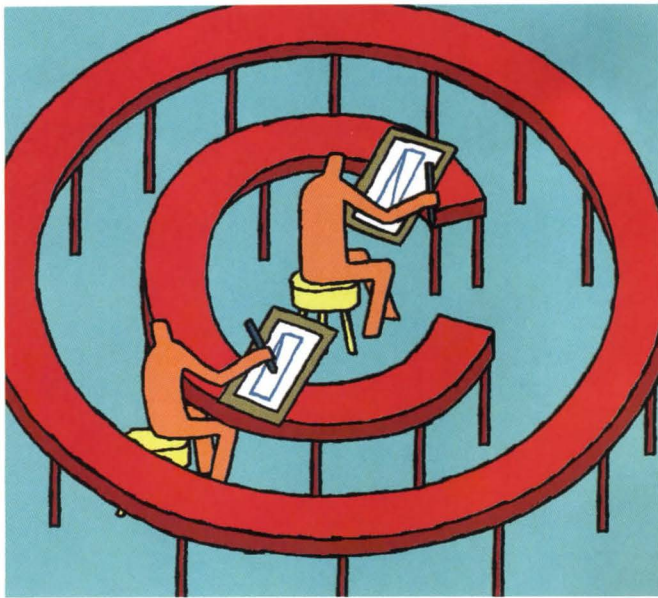
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A HIGH-PROFILE COPYRIGHT INFRINGEMENT CASE SHOWS HOW COURTS THINK ABOUT ARCHITECTURE.

Text Jeffrey C. Brown Illustration Tim Ellis

TOO CLOSE FOR COMFORT



INSPIRATION IS A SLIPPERY THING, and the question of what inspired a particular design solution is usually debated academically in the classroom or recreationally over dinner. Occasionally, however, that question lands in court. A copyright infringement lawsuit carries financial risks that are not easy to quantify, even when the allegedly infringed design was registered with the U.S. Copyright Office, a process detailed in September's issue ("Yours, Truly," page 47). Most litigants want and need an honest assessment of the anticipated outcome of a lawsuit before deciding to proceed. Legal counsel can help, but regardless of a case's unique circumstances, the courts generally use the same concepts and standards to decide a copyright infringement case. A textbook example is *Shine v. Childs*, one of the highest profile architecture copyright infringement cases in recent memory.

Shine's Design

In the fall of 1999, Thomas Shine was a student in Yale's Master of Architecture program. The curriculum included a class on skyscrapers, for which Shine developed a design he called "Olympic Tower." Shine's final review jury included David Childs, a consulting partner at Skidmore, Owings & Merrill. Shine's work was impressive, and he received praise from Childs and others.

The Alleged Infringement

In the aftermath of 9/11, Childs designed a skyscraper dubbed "Freedom Tower" to replace the destroyed twin towers. Childs' design was presented in late 2003. Shine and others noticed similarities between Childs' Freedom Tower and Shine's Olympic Tower, which prompted Shine to register his design with the U.S. Copyright Office in early 2004 and thereafter sue Childs for copyright infringement. Childs' lawyers responded with a motion to dismiss Shine's lawsuit.

Two to Prove

In order for Shine to prevail, he had

to prove (1) ownership of a valid copyright and (2) the copying of the original elements of his work. The U.S. District Court for the Southern District of New York's decision on the motion to dismiss acknowledged that Shine's copyright registration certificates were compelling evidence of validity. For the second element of infringement—copying—Shine had to prove that Childs had access to his design and that there was substantial similarity between his design and Childs' design. Because Childs had to concede his access to Shine's design, the only remaining issue was whether the designs were substantially similar.

Feeling the Difference

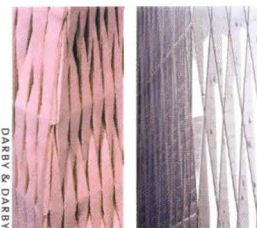
Courts typically analyze substantial similarity under what is commonly known as the "total concept and feel" test. In practical terms, this means that an infringing work is substantially similar to a copyrighted work if an ordinary observer is disposed to overlook the differences between the works and regard their aesthetic appeal as the same. In *Shine v. Childs*, the court concluded it was possible that a lay

observer, applying this test to the two skyscrapers, might find that Freedom Tower's twisting shape and undulating, diamond-shaped façade made it substantially similar to Olympic Tower. (Although Childs' original design was scrapped for reasons of security, the court noted that because the design "remains in the public domain, Shine's infringement claim stands.") On that basis, the court denied Childs' motion to dismiss the lawsuit. The case was resolved in June 2006.

The Takeaway

Shine v. Childs foretold a trend in architecture infringement cases that continues today. Because the subjective "total concept and feel" test leaves so much room for argument, parties may not be inclined to resolve cases early but, instead, settle them on the eve of trial after spending significant time and money. When in doubt, the prudent course of action may be to ask for permission first rather than seek forgiveness later.

Jeffrey C. Brown is an intellectual property attorney in Minneapolis.



A detail from an exhibit in the copyright infringement case *Shine v. Childs* highlights the façades of Thomas Shine's Olympic tower (above left) and David Childs' Freedom Tower.

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AT THE PHIPPS CONSERVATORY, IKM ARCHITECTS DEVICES A WAY TO REGULATE TEMPERATURE AND AIR FLOW IN A STICKY SITUATION.

Text J. Patrick Rand Photos Matt Greenslade

BREATHING EASY

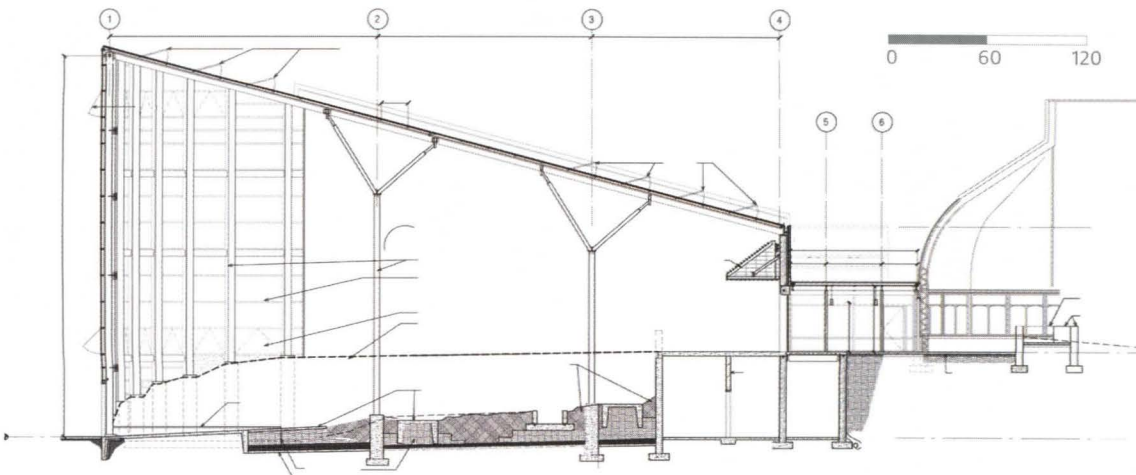
Automated vents in the lower portions of the glazed wall open near the floor of the 60-foot-tall space to capture prevailing southernly breezes. The air then climbs as it warms and exits through roof vents. As breezes pass over the glazed roof vents, a Venturi effect is created: Wind speed accelerates and draws warm air out of the interior space. Building operators continue to tweak vent-opening configurations to optimize interior conditions.



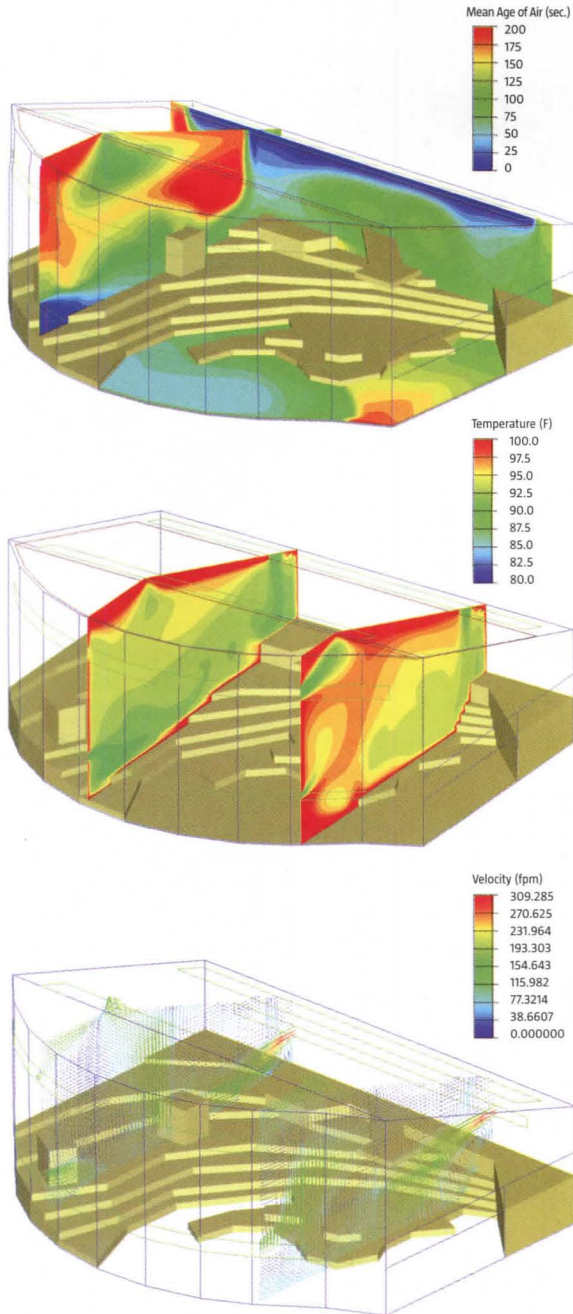
LOCATED IN THE HEART of Pittsburgh, the Phipps Conservatory and Botanical Gardens has “the greenest garden in the world,” according to director Richard Piacentini. He could be describing the Phipps’ Thai-style forest filled with winding pathways and diverse vegetation that he created—or the new Tropical Forest Conservatory that encloses it. The 12,000-square-foot sustainable building, designed by IKM Architects, overcomes the problems the Phipps faced maintaining the interior temperature and humidity in its beautiful but inefficient Lord & Burnham conservatory built in 1893. The new design is engineered to get the most out of natural sunlight: On a glazed roof, light is often hard to control and gets reflected away in the winter, when it is needed most. The tall south wall (shown left) admits the most direct sunlight, allowing for better control and better penetration into the space. Roof glazing provides plants with much-needed sunlight on overcast days, but is angled down and away from the direct sun to avoid oversaturation.

J. Patrick Rand is a professor at the North Carolina State University School of Architecture.

IKM Architects carefully choreographed the visitor experience. You enter at a high point, where mountain rain forest plants are positioned, then descend along a winding path through lowland ecosystems. Comfort for people and plants was also a high priority. An array of localized controls create microclimates for particular families of plants without wasting energy.



Technology



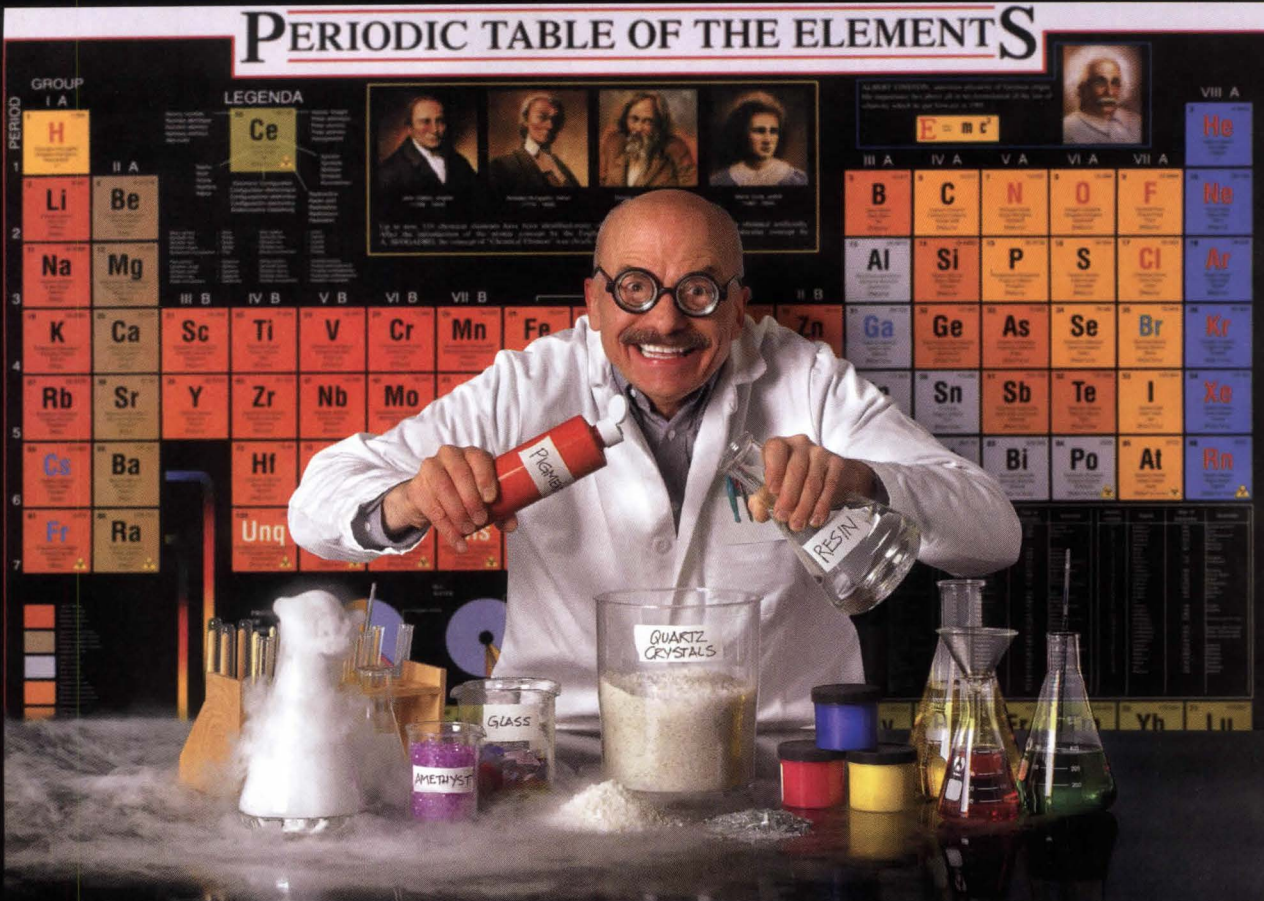
Studies (above) of the interior air show how fresh and how warm the air is, as well as how quickly the air moves throughout the space. Passive solar design and natural convection are common strategies in most green buildings. To meet the specialized lighting and ventilation demands of the conservatory, state-of-the-art software and sensors analyze conditions inside and outside, automatically adjusting vents, shades, dampers, and valves to optimize conditions.

HEATING AND COOLING: Outside air is pulled through six 24-inch-diameter concrete tubes that are 300 feet long and buried deep in the earth, where the temperature is 55 degrees Fahrenheit year round. In the winter, the tubes deliver air that is passively warmed along this path before entering the interior space. In summer, the same tubes direct passively cooled air to the spots where visitors are most likely to linger.



All glazing is argon-filled insulated clear glass except above door height on the south wall, where uninsulated, single-pane glass permits the maximum amount of light to reach the light-hungry tropical plants. To minimize shadows, window mullions on sunny exposures have narrow profiles and are perpendicular to the curved wall. If sunlight overheats the interior, automated shades unroll below the roof to keep the heat near the envelope. The shades are Mylar coated on the upper surface to reflect radiant energy and have insulating fabric on the underside. The architects plan to add shades on the vertical south glass wall, because the conservatory gets a bit too warm on sunny winter days.

PERIODIC TABLE OF THE ELEMENTS



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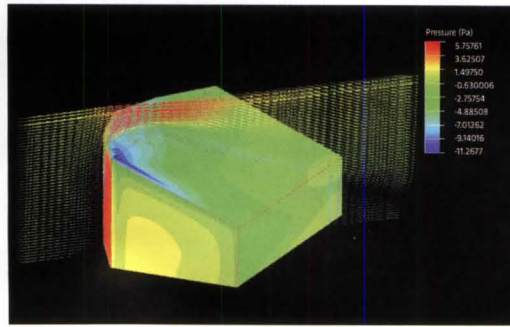
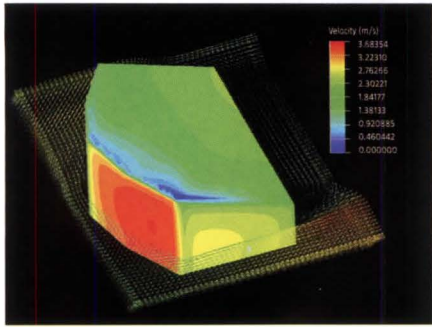
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Pressure and velocity studies show how outside air hits the southern wall of the building, then loses speed and pressure as it flows over the aerodynamic form. This movement helps draw warm air out of vents on the roof, maintaining air flow and temperature inside.

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Plant beds (above) have root-zone heating, so the canopies of the plants can endure cooler temperatures without suffering. Mistlers deliver a fine spray of water to plant canopies as needed, and in summer ultrasonic foggers near the footpaths introduce evaporative cooling locally. Radiant heating in the footpaths provides supplementary heat when needed.

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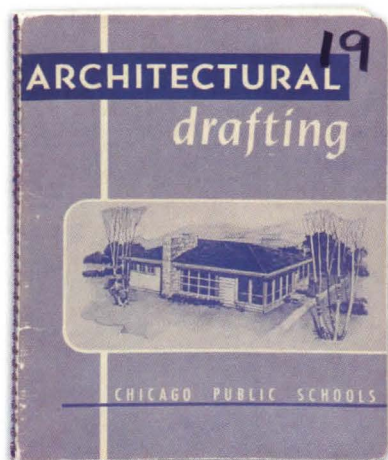
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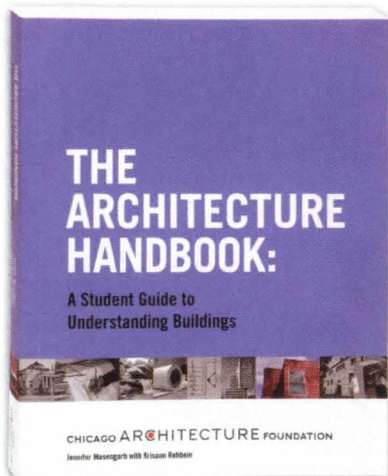
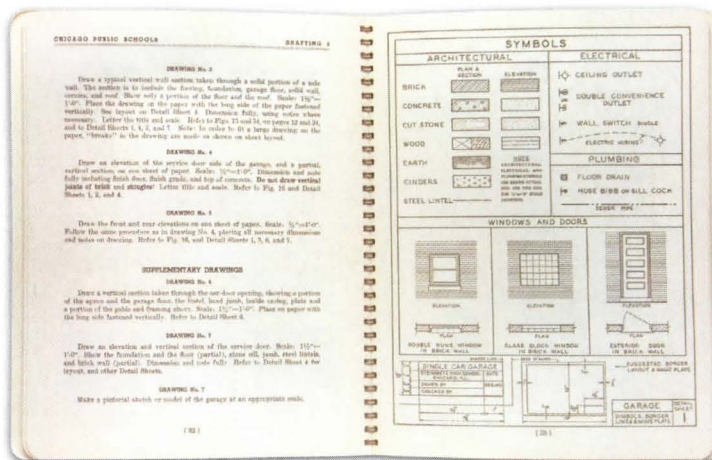
A NEW TEXTBOOK WILL MAKE THE NEWHOUSE PROGRAM'S NEXT 25 YEARS RELEVANT.

Text Katie Gerfen Photos Charlie Brown

BOOK SMART



The Old: *Architectural Drafting*, Board of Education, City of Chicago, 1951, 78 pages



The New: *The Architecture Handbook*, Chicago Architecture Foundation, 2007, 462 pages



MANY ARCHITECTURE ORGANIZATIONS in this country offer youth education programs. But one, the Chicago Architecture Foundation (CAF), has reached an important milestone with the Newhouse Program and Architecture Competition: its 25th anniversary. Along with an exhibition chronicling the program's history, the CAF is marking the occasion by making the program even better. After three years of planning and coordination with the Chicago Public Schools (CPS) system and volunteer advisors, the CAF has rolled out *The Architecture Handbook: A Student Guide to Understanding Buildings*, a 462-page textbook developed and written by foundation staffers Jennifer Masengarb and Krisann Rehbein.

The program of the first quarter-century...
The Newhouse Program got its start (and its name)

from Illinois State Senator Richard H. Newhouse, who wanted to study architecture when he was young but never felt that avenue was open to him as a black man. He approached CAF and Skidmore, Owings & Merrill to organize an enrichment program for students in CPS high school drafting classes. The program had its first annual competition in 1983. Students received prizes for doing the best renderings based on the CPS textbook, a 1951 architectural drafting manual that explained how to draw plans for a vacation home.

The Newhouse Program's early curriculum may have been rudimentary (not to mention irrelevant—how many city kids have a vacation home?), but it had a great impact on students. Rahman Polk, now an architectural technician at Hammond Beby Rupert Ainge Architects in Chicago, was in one of the program's first classes, during the 1983–1984 school year. He says,



Jennifer Masengarb
Education Specialist
Chicago Architecture
Foundation



Krisann K. Rehbein
Education Specialist
Chicago Architecture
Foundation

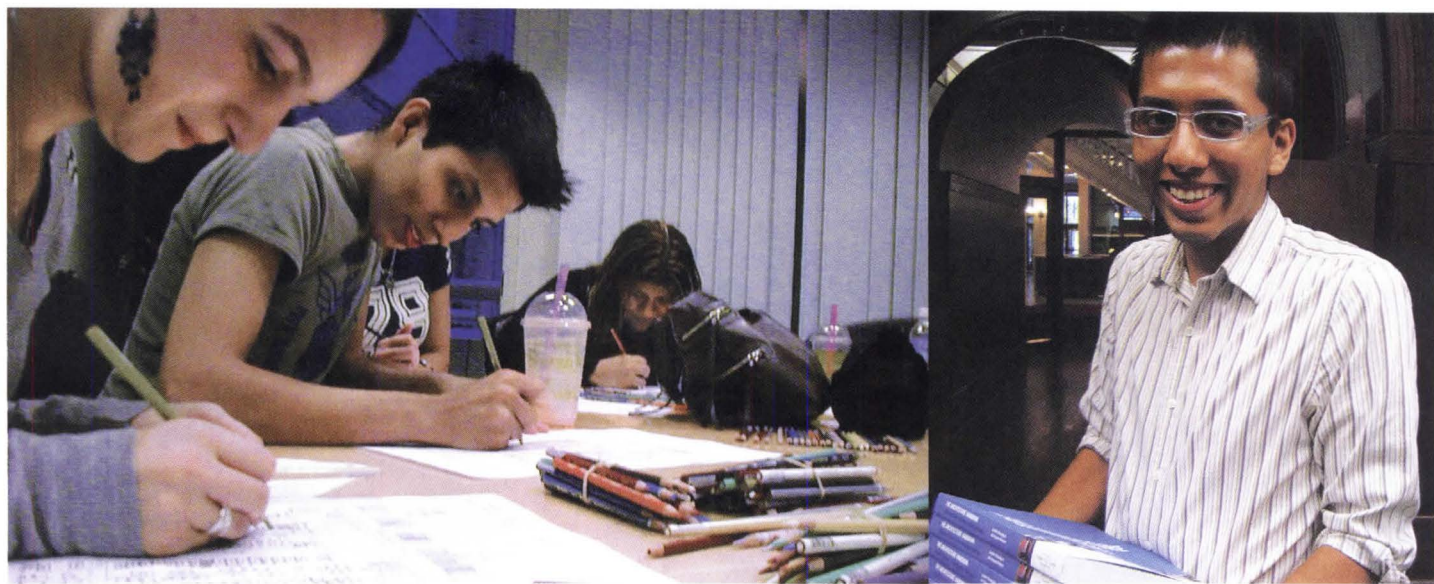
Pro Bono

"I started working at 16 and hadn't really considered college until I entered the Newhouse competition. I always wanted to be an architect, but the program showed me that becoming one was an obtainable goal."

Drafting wasn't the only skill Polk took away from the program. He also found focus in other areas of his academics and his career path. "Self-motivation and

feasible with a roomful of 30 students that are 16."

One student volunteer, Ricardo Escutia, was involved in the student advisory group from 2005–2006, but actually participated in the Newhouse Program for three years. "Since I was a little boy, I was constantly building things that I had designed," Escutia says. "But being in the architecture curriculum at Lane Tech [High



-sufficiency were key issues [that I took away], along with effective communication of ideas through graphic presentation. These things serve me well to this day."

Turning the page

The Newhouse Program used the same 1951 drafting book until the start of the 2007–2008 school year. But in October 2004, a meeting of the CAF, officials from CPS, principals from six area firms, and admissions officers from the Illinois Institute of Technology and the University of Illinois at Chicago made it clear that a new curriculum and book were in order. "We asked the question, 'What can a student do with four years of drafting?'" says Rehbein, who has a master's in urban policy from the University of Chicago. "No architecture firm hires rooms of draftspeople anymore," says Masengarb, who studied architecture at the University of Detroit Mercy and the University of Virginia. "We needed to shift to a critical-thinking, design-based class."

The first hurdle they encountered was not with the students. It was the realization that a lot of the teachers lacked the design background to teach such a comprehensive course. To create a book that both the teachers could teach and the students could learn from, Masengarb and Rehbein started a series of workshops with three types of people: volunteer architects who helped develop ideas, Newhouse students who came in every Monday night to test proposed activities, and teachers piloting the text in their classrooms. "The [volunteer architect] teams were divided into topic, based on their interest area," says Masengarb. "They advised us on the big things the student needs to know. The challenge for us was to balance that with what's

School] helped solidify my choice." Escutia is now in his second year of a five-year professional B.Arch program at the Cooper Union in New York.

During the Monday night sessions, he and his fellow advisory board members were asked for their opinions on specific activities and the overall format of the text. "I think the [student] committee had a voice throughout the whole process, and our concerns are clearly shown in the book," he says. "One major concern was the fact that there was no history of architecture in the old curriculum." Now students learn basics that can serve as a foundation for their future education.

Looking to the future

The new text engages students. "It shows us examples of architecture that are relevant to our lives," says Escutia. Instead of learning to draft a middle-class vacation home by rote, Newhouse students now can explore underlying principles of construction, design, and urbanism, using models like the F10 House, a sustainable Chicago row house designed by EHDD Architecture. To make the curriculum more useful for teachers, each architectural lesson ties into a basic Illinois state educational requirement for subjects such as math and languages.

"The [old] manual had a myopic focus on replicating obsolete examples," says Polk. "This new book represents a sea change toward good design." And engage students it will, by getting them off the computer and into discussions about design principles. "Just flipping through the book," Polk adds, "stopping at pictures to read the captions, will vastly expand a student's knowledge about the profession."

Students like Ricardo Escutia (above) on the advisory committee tried out new activities like coloring land-use maps (above left) to help rate their effectiveness at teaching principles. Their recommendations were heavily considered when putting together the final chapter selection in the new textbook.

d2k
dressed to kill



design is provocative

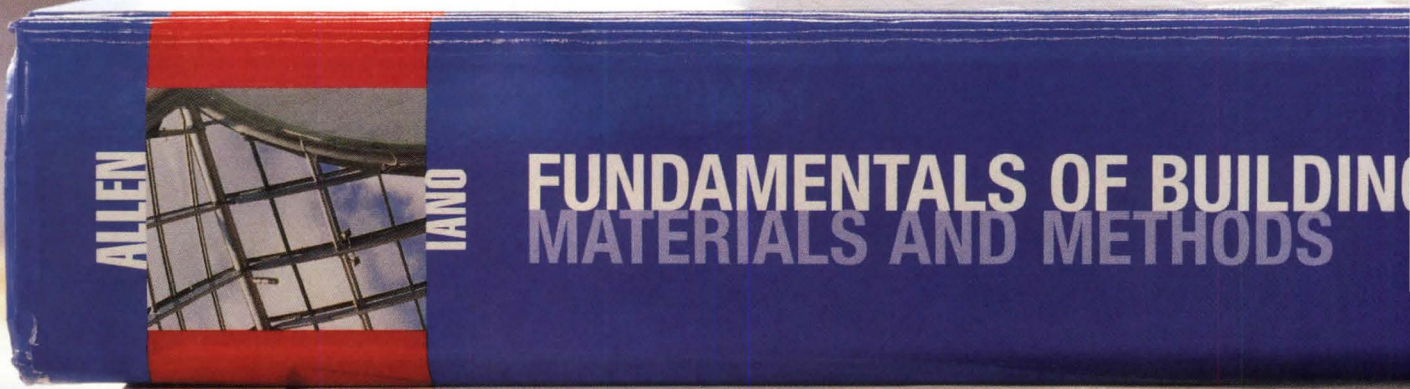
Before it answers questions—it has to raise a few. Is a designer's primary purpose to create beauty, to elicit a reaction, or to enhance function? Does carpet limit possibilities, or create them? **Dressed to Kill** answers your questions as it challenges you to consider many more possibilities.

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THE FIRST ANNUAL EDUCATION SURVEY



3. *Building Construction Illustrated* treats buildings the same way *Gray's Anatomy* treats bodies. Co-authors Ching and Adams show how a construction technique works, then how an architect draws it.

Text Ned Cramer Photo Matthew Monteith

1. One of the first books many students see, this 900-page tome explores all facets of the building process, complete with drawings.

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2. Intro to Architecture in book form: Frank Ching uses line drawings to express architectural basics, from planar elements to three-dimensional hierarchy.

IF THERE'S ANY BIG TAKEAWAY to be had from our first annual education survey, it's that architecture students and professors are facing the same epochal forces of change as the profession itself. Sure, sustainability, BIM, and integrated practice are emerging concerns for many architects. What's news is that these issues are transforming not only professional practice, but the academy—and a new relationship between school and office is emerging in the process.

A long-standing complaint—a cliché, really—about architectural education is that the typical curriculum places insufficient emphasis on the pragmatics of professional practice. Yet the academy seems to be gaining ground on the marketplace. While many green-minded firms, for instance, still struggle to adopt the LEED certification process and get buy-in from clients, the survey results suggest that universities are proving more nimble: 57 percent of firms surveyed say that they get new ideas about sustainability from their straight-out-of-school employees.

What's even more eye-opening, nearly 80 percent of recent graduates who responded to the survey claimed to feel adequately trained for the workplace upon completing their educations. Flying in the face of received wisdom, this statistical confidence supports anecdotal evidence about the phenomenon of “up-mentoring,” in which new hires find themselves more knowledgeable in certain areas than the management. And what would those areas be? Ask the kid who's fixing your computer.

THE TOP TEXTBOOKS

SOURCE: PUBTRACK™ HIGHER EDUCATION. © 2007 R.R. BOWKER LLC

TITLE	COURSE	MARKET SHARE
1. Fundamentals of Building Construction: Materials and Methods by Edward Allen (\$100, John Wiley & Sons)	Construction	48.0%
2. Architecture: Form, Space and Order by Francis D.K. Ching (\$45, John Wiley & Sons)	Introduction to Architecture	14.3%
3. Building Construction Illustrated by Francis D.K. Ching & Cassandra Adams (\$45, John Wiley & Sons)	Construction	12.0%
4. Design Drawing by Francis D.K. Ching (\$49.95, John Wiley & Sons)	Design Studio	32.8%
5. Architecture: From Prehistory to Postmodernity by Marvin Trachtenberg & Isabelle Hyman (\$120, Pearson Higher Education Group)	Introduction to Architecture	26.1%
6. Buildings Across Time by Marian Moffett, Michael Fazio, & Lawrence Wodehouse (\$92.50, McGraw-Hill)	Architectural History	34.5%
7. Print Reading for Construction: Residential and Commercial by Walter Charles Brown & Daniel P. Dorfmueller (\$54.60, Goodheart-Willcox Co.)	Construction	8.6%
8. Modern Architecture Since 1900 by William Curtis (\$39.95, Phaidon)	Modern Architectural History	50.0%
9. Contemporary Urban Planning by John M. Levy (\$85.31, Prentice Hall)	Urban Planning	39.2%
10. Construction Drawings and Details for Interiors: Basic Skills by W. Otie Kilmer, Rosemary Kilmer, & Stephen Hanessian (\$55, John Wiley & Sons)	Interiors	18.3%

R.R. Bowker collects data on which books architecture students are required to read, using numbers from the Carnegie Foundation for the Advancement of Teaching and its own research. The information is sorted by course—the percentages above represent the share each book has in the listed course. The table is ordered by sales volume (not shown here), with *Fundamentals of Building Construction* selling nearly 9,000 copies, new and used. Francis Ching, with a relatively lower market share, still hits the next two spots, boosted by his popularity beyond the ivory tower. **ANDREW SLOCOMB WEST**

THE TOP U.S. ARCHITECTURE SCHOOLS

EVERY YEAR for the last nine years, the Design Futures Council and the journal *DesignIntelligence* have produced a ranking of the architecture schools that best prepare students for professional practice. The results are determined through a poll of firms and organizations that hire graduates. Many of the country's leading firms participate; collectively, these participants employ more than 100,000 people. This year, for the first time, a selection from the ranking and its accompanying survey of deans, practitioners, and students appears in ARCHITECT magazine.

The ranking has experienced some fluctuation over the years. Last year's list of the top 15 undergraduate programs also included the Illinois Institute of Technology, Auburn University, and the Rhode Island School of Design. At the graduate level, last year's list also featured the University of Pennsylvania, the Southern California Institute of Architecture (SCI-Arc), the Rhode Island School of Design, Texas A&M, and the University of Illinois. Each of these programs just missed the top 15 cutoff for 2008. It would not be surprising, based on nearly a decade of results, to see these programs reappear toward the top again next year.

Architecture schools are becoming ever more selective and are offering a wide variety of learning options, even as accreditation standards have stayed relatively rigid. The National Architectural Accrediting Board will be evaluating changes to its accreditation rules in 2008, a move that is sure to provoke interest from students, practitioners, and professional organizations.

Leaders in the profession warn that architecture is going through disruptive changes: Increasingly, students are more knowledgeable than more experienced practitioners about green building and technologies such as BIM. This is bringing about a phenomenon known as "up-mentoring," in which interns and architects in their 20s and 30s have more-valuable roles in professional practice than ever before, helping baby boomer and even Generation X colleagues keep pace with technology. Firms using recent graduates solely for AutoCAD production are sorely underutilizing their talent. When our survey asked practitioners if their firms got an infusion of new ideas about sustainability from recent hires, 57 percent said yes, and that response is expected to increase.

James P. Cramer is chairman of The Greenway Group and the founding editor of DesignIntelligence. His full report is available for a fee at www.di.net. For details on survey methodology, visit www.architectmagazine.com.

UNDERGRADUATE

	2008	2007	2006	2005	2004
VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY	1	4	7	10	4
CORNELL UNIVERSITY	2	1	1	1	2
SYRACUSE UNIVERSITY	3	3	7	5	4
CALIFORNIA POLYTECHNIC STATE UNIVERSITY, SAN LUIS OBISPO	4	6	3	4	3
UNIVERSITY OF CINCINNATI	5			1
UNIVERSITY OF TEXAS AT AUSTIN	6	9	2	8	10
CARNEGIE MELLON	7	10	9	9	13
KANSAS STATE UNIVERSITY	8	12	5	6	8
PENNSYLVANIA STATE UNIVERSITY	9		10	13
PRATT INSTITUTE	9	14	10	
THE RUNNERS-UP					
RICE UNIVERSITY	11	2	3	3	4
UNIVERSITY OF SOUTHERN CALIFORNIA	12	5	5	7	4
UNIVERSITY OF NOTRE DAME	12	11	12	
IOWA STATE UNIVERSITY	14	14	13	12	11
CALIFORNIA POLYTECHNIC, POMONA	15			
UNIVERSITY OF OREGON	15	14	15	11	11

GRADUATE

	2008	2007	2006	2005	2004
HARVARD UNIVERSITY	1	1	1	1	1
MASSACHUSETTS INSTITUTE OF TECHNOLOGY	2	4	8	4	5
COLUMBIA UNIVERSITY	3	9	4	4	3
CORNELL UNIVERSITY	3	6			
WASHINGTON UNIVERSITY IN ST. LOUIS	5	6	10	13	12
VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY	5	10			
UNIVERSITY OF CINCINNATI	7	2	2	6	4
UNIVERSITY OF MICHIGAN	8			11	7
UNIVERSITY OF CALIFORNIA, BERKELEY	8		13	7	12
CLEMSON UNIVERSITY	10		13		
RICE UNIVERSITY	10	6	7	9	11
UNIVERSITY OF TEXAS AT AUSTIN	10	12	6	14	
THE RUNNERS-UP					
PRINCETON UNIVERSITY	13	12	15	12	6
UNIVERSITY OF VIRGINIA	13	5	3	8	9
YALE UNIVERSITY	13	3	8	2	2
KANSAS STATE UNIVERSITY	13				
SYRACUSE UNIVERSITY	13		12		



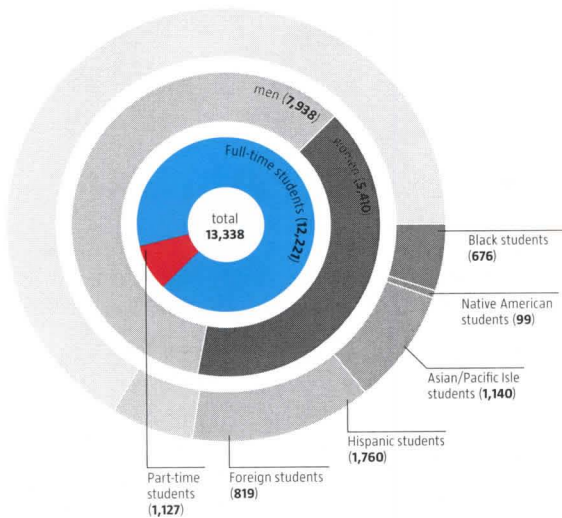
130 OFFICES OF ARCHITECTURE FIRMS, **46** DEANS OF ARCHITECTURE SCHOOLS, AND **740** STUDENTS PARTICIPATED IN THIS YEAR'S SURVEY.

57% OF FIRMS GET NEW IDEAS ON SUSTAINABILITY FROM RECENT GRADUATES THEY'VE HIRED.

THE UNDERGRADUATE PROGRAMS

B.ARCH. STUDENTS AT A GLANCE

STATISTICS FROM THE NATIONAL ARCHITECTURAL ACCREDITING BOARD
Based on responses from 45 accredited B.Arch. programs nationwide



DEANS ON ...

TOP THREE EMERGING CONCERNS

in the design professions

- 1 SUSTAINABILITY IN EDUCATION AND PRACTICE
- 2 BIM AND OTHER PROJECT DELIVERY MODELS
- 3 INTEGRATED PRACTICE

MOST IMPORTANT TEACHING APPROACHES

(ranked in order of importance)

- 1 PRACTICAL APPLICATION
- 2 THEORY
- 3 TECHNICAL TRAINING
- 4 INTERNSHIPS/CO-OPS

THE TOP 10 SCHOOLS

When it comes to architecture school, anyone with a degree in the subject already knows the drill: late nights and a lifetime's start on caffeine (or stronger stimulants). Of course, that's not the picture painted by the schools' literature and websites. These materials all tout what must be today's Big Three descriptors: *sustainable*, *digital*, and *interdisciplinary*. ("Those are pretty standard buzzwords," admits University of Michigan dean Doug Kelbaugh.) We've tried to scratch beneath the surface of the top programs—both undergraduate and graduate—by talking to deans and directors and even by perusing Archinect's School Blog Project (archinect.com/schoolblog/index.php) to get a feel for what's really going on at these elite institutions. Here's what we found.



1. VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY, BLACKSBURG, VA.

School of Architecture + Design; College of Architecture & Urban Studies • Director: Scott Poole • Prominent Alums: Suzanne Lovell, Lee Polzano (president, Kohn Pedersen Fox) • Bragging Rights: At Virginia Tech, freshmen in architecture, landscape architecture, industrial design, and interior design are intermingled in studios where together they learn basic design for the entire year. Furthermore, Poole says, "We put our most experienced teachers with the freshmen."



2. CORNELL UNIVERSITY, ITHACA, N.Y.

College of Architecture, Art & Planning • Dean: Mohsen Mostafavi (outgoing) • Prominent Alums: Edmund Bacon, Peter Eisenman, Arthur Gensler, Richard Meier • Website Buzzwords: "simulacrum," "evocation" • Bragging Rights: Cornell's four-year course in architecture was the first in the nation when it was established during the 1870s, and the current five-year program dates to the 1920s.



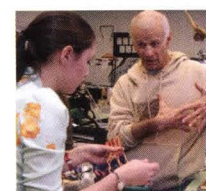
3. SYRACUSE UNIVERSITY, SYRACUSE, N.Y.

School of Architecture • Dean: Mark Robbins • New Building: The Warehouse, Gluckman Mayner Architects, 2006 • Prominent Alums: Bruce Fowle, Richard Gluckman, David Rockwell • Website Buzzwords: "rigorous," "dialogue," "integrated" • Town and Gown: Fourteen building projects are currently under way in the 140,000-person city of Syracuse. Last summer there was enough going on for students to stick around and work with faculty. "That was an old tradition of the school that hadn't happened [in many years]," according to Robbins.



4. CALIFORNIA POLYTECHNIC STATE UNIVERSITY, SAN LUIS OBISPO, CALIF.

Architecture Department • Department Head: Henri de Hahn • Bragging Rights: A recent, unrestricted \$60 million bequest by an anonymous donor who once attended (but did not complete) the architecture program figures to transform it in as-yet-unknown ways.



5. UNIVERSITY OF CINCINNATI, CINCINNATI, OHIO

College of Design, Architecture, Art, and Planning • Interim Dean: Robert Probst • Notorious Building: the Aronoff Center for Design and Art, Peter Eisenman, 1996 • Bragging Rights: UC's co-op program puts students to work. When you call the college and are put on hold, a recorded student enthuses, "Having real work experience will look so sweet on my résumé!"



6. UNIVERSITY OF TEXAS AT AUSTIN, AUSTIN, TEXAS

School of Architecture • Dean: Frederick Steiner • **Prominent Alums:** Michael Dennis, Reed Kroloff, Craig Dykers • **Bragging Rights:** While every school is jumping on the green bandwagon, Steiner notes that Austin was an early incubator. "The Austin Green Building Initiative laid the

groundwork for LEED and involved our faculty, students, and alumni," he says, adding that first-year architecture students have the best academic credentials of all incoming UT freshmen.



7. CARNEGIE MELLON UNIVERSITY, PITTSBURGH, PA.

School of Architecture • Head: Laura Lee • **Prominent Alum:** Roger Duffy (design partner, Skidmore, Owings & Merrill) • **The Campus:** Carnegie Mellon's architecture school shares a turn-of-the-century Henry Hornbostel building with art, design, drama, and music. The newest

venture at CMU is a six-story structure dubbed "Building as Power Plant." "We're proposing a building that's not only zero-energy, but will actually provide power to the campus," says Lee. It's slated to finish in 2010.



8. KANSAS STATE UNIVERSITY, MANHATTAN, KAN.

Department of Architecture; College of Architecture, Planning and Design •

Department Head: Peter Magyar • **Bragging Rights:** The college's quarter-century-old, award-winning journal *Oz* proves that there's whimsy in the heartland. • **Expiration Date:**

K-State's time on this list will be short-lived. The undergraduate architecture program is being phased out as of 2011.



9. PENNSYLVANIA STATE UNIVERSITY, STATE COLLEGE, PA.

Department of Architecture; School of Architecture and Landscape Architecture •

Department Head: Daniel Willis • **New Building:** Stuckeman Family Building for the School of Architecture and Landscape Architecture, Overland Partners, 2005 • **Bragging Rights:**

Visiting lecturers often comment on the high level of craft in student work, according to Willis.



9. PRATT INSTITUTE, BROOKLYN, N.Y.

School of Architecture • Dean: Thomas Hanrahan • **New Building:** Higgins Hall Center Section, Steven Holl Architects, 2005 • **Website Buzzwords:** "conceptual possibilities," "flexible typologies," "complex ecology of interests" • **Snack-Food Disaster:** In 1996, a vending machine caught fire during a renovation of Pratt's

existing, Victorian architecture school building, prompting Hanrahan to hire Holl. • **The Campus:** Hanrahan recently put his own stamp on the Pratt campus, designing the brand-new Juliana Curran Terian Design Center Pavilion with his partner, Victoria Meyers.



MICHAELE PRIDE

DIRECTOR, SCHOOL OF ARCHITECTURE AND INTERIOR DESIGN, UNIVERSITY OF CINCINNATI

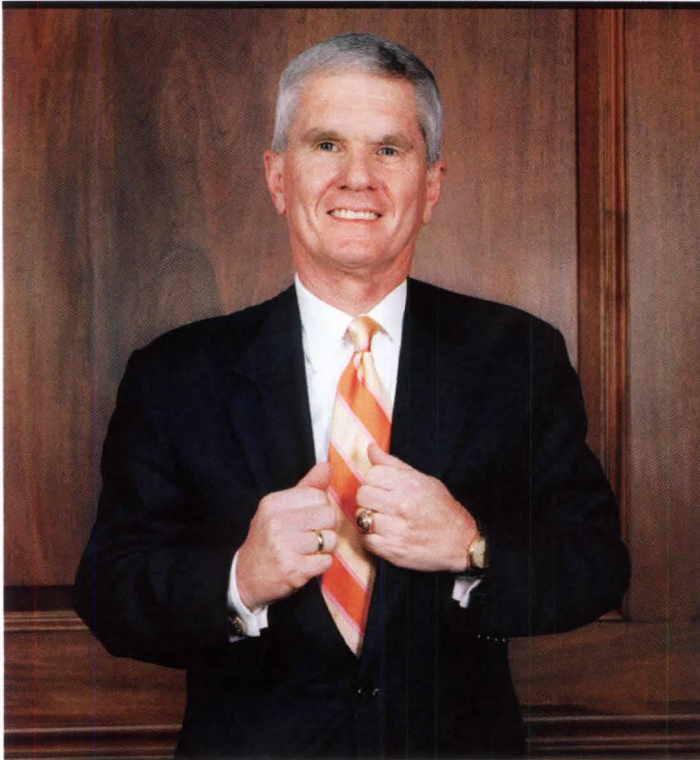
FOR MICHAELE PRIDE, social responsibility is paramount to the practice and study of architecture: "We're not doing our job if we're not responding to issues and questions that are in our own backyard." As a student at Arizona State University and then at Harvard University, she researched the sociopolitical realities of urban design. She put that research into practice for seven years as principal of the Los Angeles firm re: architecture and led the volunteer efforts of the design community in L.A.—her hometown—following the riots of 1992.

When she had the opportunity to move to Cincinnati in 2003 (from Lexington, Ky., where she had directed the University of Kentucky's Downtown Design Center), Pride jumped at it. "It's significant for me that the school ties to the profession," she says. "Having been a practitioner myself, I was drawn by the curriculum, the faculty, and the co-op program."

The University of Cincinnati was the birthplace of cooperative education in 1906. Today, undergraduate students in architecture complete six quarters of professional work experience before graduation. Not surprisingly, they emerge highly employable: According to the website of the College of Design, Architecture, Art, and Planning, of which Pride's school is a part, more than 800 U.S. architecture firms rank Cincinnati as their first overall institution for recruitment. The graduate program at UC has long been a staple of *DesignIntelligence's* best schools list, but this year is the first since 2004 that its undergraduate program cracks the Top 10.

Pride believes that the school's continued strength relies on preparing students for an ever-shifting workplace. "If we focus on imparting a set of skills, those skill sets will rapidly be outdated," she says. "The most crucial thing we can do is help our students to leave here asking the right questions." ELIZABETH A. EVITTS

THE GRADUATE PROGRAMS



JAMES F. BARKER
PRESIDENT, CLEMSON UNIVERSITY

JAMES F. BARKER IS LEADING A DOUBLE LIFE. An architect by trade, Barker became the 14th president of Clemson University in October 1999, after serving for four years as the dean of the architecture school. It's certainly a boost to that school to have an architect running Clemson—but what's more, Barker says, it's a great asset for a university president to have a background in architecture. "My graduate school experience, my practice and licensing turned out to be wonderful preparation for academia," he says. "In architecture school, you're taught everything from poetry to plumbing, and that breadth has served me very well."

After earning a B.Arch. degree from Clemson and a Master of Architecture/Master of Urban Design from Washington University in St. Louis, Barker opened his own practice in Mississippi in 1977 and began teaching at Mississippi State University. He returned to Clemson in 1995 as the dean of the architecture school and helped with a revamp of the university's organization, which streamlined the schools of study into larger colleges of collaborative education. After these mergers took effect, he presided over the newly formed College of Architecture, Arts and Humanities.

The new setup means a broader recognition of architecture campuswide. Today at Clemson, "because of the partnership with the humanities and the arts, architecture is no longer on the fringe," Barker says. "It gives a confidence to the students that they can serve in roles at the core of our society."

And other disciplines can borrow from the architectural approach. "[The architecture faculty] would talk about how great the studio experience is. We wondered why other parts of the university weren't adopting it," he recalls. But now, he says, "Other departments, like English, are structuring themselves in this way. It really is great for teaching critical thinking and creativity." ELIZABETH A. EVITTS

THE TOP 10 SCHOOLS



1. HARVARD UNIVERSITY, CAMBRIDGE, MASS.
Graduate School of Design • Dean: Mohsen Mostafavi (incoming) • Prominent Alum: Philip Johnson • The Campus: Gund Hall is famous for its five "trays" of studio space stacked under a (reportedly leaky) glass roof. The school's cafe is called—what else?—the Chauhaus.



2. MASSACHUSETTS INSTITUTE OF TECHNOLOGY, CAMBRIDGE, MASS.
Department of Architecture; School of Architecture + Planning • Dean: Adèle Naudé Santos • Bragging Rights: Having the renowned Media Lab as a resource gives MIT a clear advantage. • Stay Tuned: Yung Ho Chang, head of the department of architectural design, promises "exciting expansion and curriculum development" in the near future.



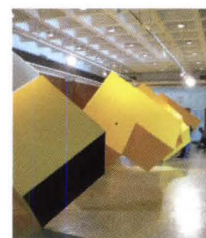
3. COLUMBIA UNIVERSITY, NEW YORK, N.Y.
Graduate School of Architecture, Planning, and Preservation • Dean: Mark Wigley • Prominent Alums: Peter Eisenman, Antoine Predock, Joseph Rosa • Website Buzzwords: "biodiversity," "digital fabrication" • Bragging Rights: On GSAPP's website, Wigley bluntly states that Columbia students are expected to work while the rest of the world sleeps.



3. CORNELL UNIVERSITY, ITHACA, N.Y.
College of Architecture, Art & Planning • Dean: Mohsen Mostafavi (outgoing) • Prominent Alums: Nathaniel Owings, Lawrence Perkins • The Campus: A new building by Rem Koolhaas' OMA is expected to break ground, amid controversy, in 2008.



5. WASHINGTON UNIVERSITY IN ST. LOUIS, ST. LOUIS, MO.
Graduate School of Architecture & Urban Design; Sam Fox School of Design & Visual Arts • Dean: Bruce Lindsey • Prominent Alums: George Hellmuth, Gyo Obata • Bragging Rights: Graduate student and Archinect blogger Andrea Michalski says the school doesn't have a single approach, but rather "pull[s] design out of each student."



5. VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY, BLACKSBURG, VA.
School of Architecture + Design; College of Architecture & Urban Studies • Director: Scott Poole • Bragging Rights: Graduate architecture students have recently worked on interdisciplinary projects including, with the veterinary school, a mobile lab for a jungle in Tanzania.



7. UNIVERSITY OF CINCINNATI, CINCINNATI, OHIO
College of Design, Architecture, Art, and Planning • Interim Dean: Robert Probst • **Bragging Rights:** Like their undergraduate counterparts, UC's grad students use the co-op program to gain real-world experience—and often income as well. Archinect blogger Christopher Davis notes that “the master’s program lacks a specific focus,” but the school’s diverse faculty can be an asset to students with self-direction.



8. UNIVERSITY OF MICHIGAN, ANN ARBOR, MICH.
A. Alfred Taubman College of Architecture + Urban Planning • Dean: Douglas Kelbaugh • **Prominent Alums:** Charles Correa, John Dinkeloo, Charles Moore, Ralph Rapson, John Ronan • **Bragging Rights:** Michigan has long used its proximity to Detroit’s manufacturing base as a reason to stress hands-on, physical design. “We have the biggest high-bay research space of any architecture school in the country,” Kelbaugh says. A planned rooftop addition by Seattle firm Miller/Hull is another nod to pragmatism. “We want a tough addition that we can muck around in, rather than some signature statement,” Kelbaugh explains.



8. UNIVERSITY OF CALIFORNIA, BERKELEY, BERKELEY, CALIF.
Department of Architecture • Chair: Mary Comerio • **Prominent Alums:** Hans Hollein, Lars Lerup, Julia Morgan, Eric Owen Moss, Stanley Saitowitz, Marilyn Taylor, Allison Williams • **Bragging Rights:** Two things set UC Berkeley apart, according to Comerio. First is the school’s pioneering Ph.D. program—the first of its kind within the profession. “We invented building science research,” Comerio says. Second is the school’s embrace of global culture. Recent studios have traveled to India, China, and Latin America. “Our students are not myopically focused on their own backyards.”



10. CLEMSON UNIVERSITY, CLEMSON, S.C.
School of Architecture • Chair: Ted Cavanagh • **Prominent Alum:** James F. Barker (president of Clemson) • **Bragging Rights:** Clemson’s 50-year-old program is best seen through the lens of its “fluid campus,” which unites facilities and curricula across four locations: Clemson; Charleston, S.C.; Barcelona; and Genoa. Students abroad are more than tourists: They live in and design for each locale, says Cavanagh.



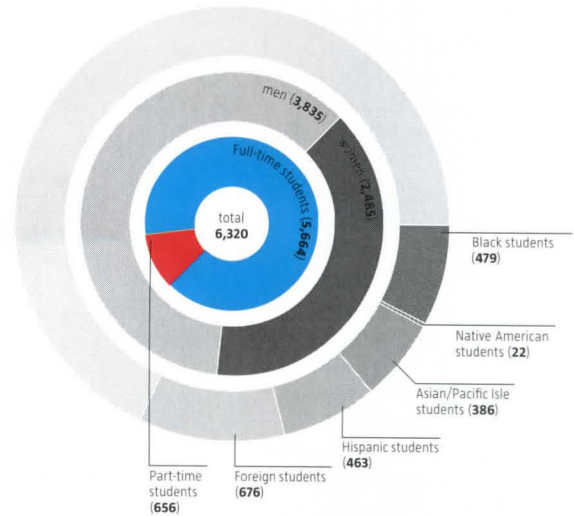
10. RICE UNIVERSITY, HOUSTON, TEXAS
School of Architecture • Dean: Lars Lerup • **Prominent Alum:** Fay Jones • **The Campus:** Rice’s School of Architecture is housed in Anderson Hall, a 1947 building with a James Stirling–designed postmodern addition. Architecture has been taught at Rice since the university’s first class in 1912.



10. UNIVERSITY OF TEXAS AT AUSTIN, AUSTIN, TEXAS
School of Architecture • Dean: Frederick Steiner • **The Campus:** The school’s newest resource is its own botanical garden: The Lady Bird Johnson Wildflower Center, designed by an alum. It supplements facilities that Steiner describes as “the most remarkable suite of buildings of any school of architecture”—two Cass Gilbert classics and a slightly later structure by Paul Philippe Cret.

M.ARCH. STUDENTS AT A GLANCE

STATISTICS FROM THE NATIONAL ARCHITECTURAL ACCREDITING BOARD
 Based on responses from 92 accredited M.Arch. programs (at 65 schools) nationwide

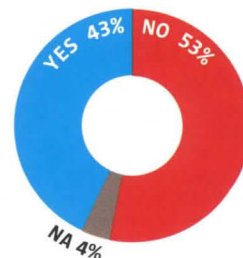


39%

OF M.ARCH. STUDENTS
 NATIONWIDE ARE WOMEN.

DEANS ON ...

DO YOU FIND IT DIFFICULT
 to recruit qualified BIM/modeling
 technology instructors?



**37% OF DEANS
 SAY THAT LESS
 THAN 10%
 OF DESIGN
 COURSEWORK
 AT THEIR
 SCHOOLS
 REQUIRES BIM
 TRAINING.**

PROJECT RUNAWAY

AN ADVANCED STUDIO AT COLUMBIA BORROWS FROM REALITY TV TO GENERATE EXCITING DESIGN.

AT FIRST, IT WAS A ONLY A WHIM: What if, Yolande Daniels wondered, the weekly challenge format of TV shows like *Top Chef* and *Project Runway* could be adapted for architectural design? The more she thought about it, the more it made sense, and the result is an advanced studio led by Daniels (shown right, in center of photo) at Columbia University, where she is an assistant professor of architecture.

Runaway: 13 weeks/challenges/critiques=13 ways to probe architecture, now in its second season—oops, semester—poses a different design challenge for its student “contestants” every week. “There’s a combination of theoretical projects and practical projects,” says Daniels, citing the challenges of the three previous weeks: to design a house with resale value, to design an irreducible component for that house, and to develop a series of advertisements for architecture. (In the last competition, one student took the instantly recognizable Pac-Man screen and redrew it in the shape of the Empire State Building).

When ARCHITECT visited Daniels’ studio in early October, her seven students were immersed in the fourth challenge: Redesign/brand the outdoor grill/beverage/dessert bar at Pier I in Riverside Park South. The bar in question is a summer cabana located under Manhattan’s West Side Highway on parkland overlooking the Hudson River. Daniels asked her students to visit the site and to design, in place of the cabana, a flexible, “nomadic” bar that could engage park users year-round but still respond to seasonal fluctuations in traffic. Two schemes were later selected as the winners by critic Ben Krone of New York’s SHoP Architects.



PRACTITIONERS ON ...

BEST SCHOOLS FOR DESIGN

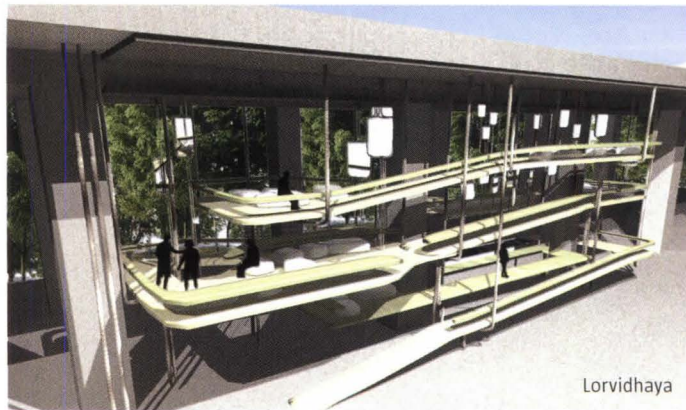
(as ranked by industry professionals)

- 1 Harvard
- 2 — Columbia
— Cornell
- 4 University of Cincinnati
- 5 — SCI-Arc
— Washington University in St. Louis
— Virginia Tech

BEST SCHOOLS FOR CONSTRUCTION METHODS AND MATERIALS

- 1 Cal Poly, San Luis Obispo
- 2 — University of Cincinnati
— Kansas State University
- 4 — Virginia Tech
— University of Illinois, Urbana-Champaign
— Texas A&M

WEEK FOUR WINNERS



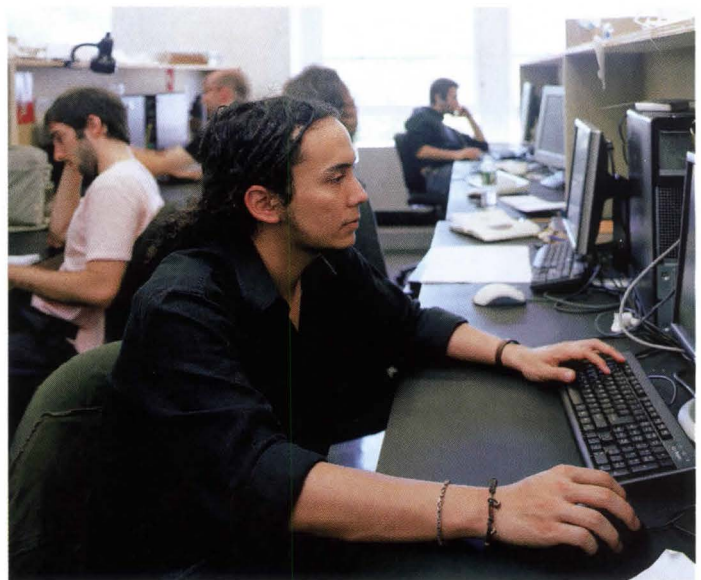
Lorvidhaya



Arunsmith



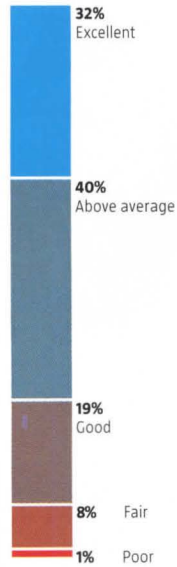
Prae Lorvidhaya A former jewelry designer hailing from Thailand who is studying for a Master of Science in Advanced Architectural Design (AAD), Lorvidhaya envisages the “nomadic bar” as a set of platforms hung from pulleys below the West Side Highway (see rendering at left and model above). A truck would drive onto the bottom platform to form the main bar/kitchen area, and smaller seating or bar areas would be suspended above. In slow seasons, the truck would drive away, and the whole structure could be hoisted up and stored under the road. Lorvidhaya’s scheme was picked as the overall winner by Ben Krone.



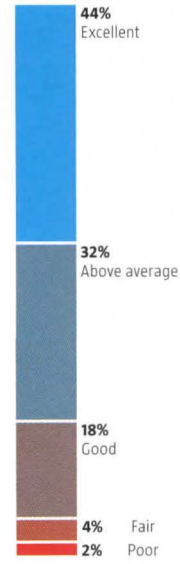
Anond Adrian Arunsmith To maximize the project’s access to the river, Arunsmith designed it as a floating bar on the Hudson, with the kitchen and services in the “hull” so that patrons (and passersby) can enjoy an unobstructed vista of the river and the George Washington Bridge. A hinged, rotating roof (see rendering at left) could be adjusted according to sunlight and weather conditions, and the whole structure would be modular. For Arunsmith, an AAD student who previously worked and studied in Bangkok, this challenge was the first in which “I got really physical, because there’s a real site.”

STUDENTS ON ...

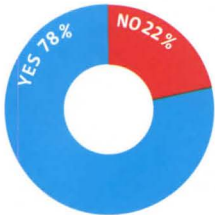
HOW WOULD YOU RATE
the ability of the professors
in conveying what is useful
for professional practice?



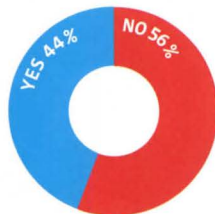
HOW WOULD YOU RATE
the quality/value of the
education you received based
on the cost of receiving it?



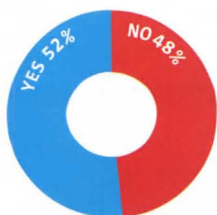
UPON ENTERING PRACTICE
(if applicable), did you feel
adequately trained to face the
daily tasks?



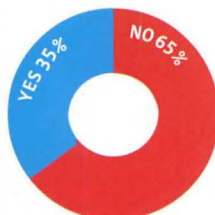
DO YOU FEEL YOU NEED
additional academic training to
compete adequately?



WERE YOU EXPOSED TO
BIM TECHNOLOGY?



DO YOU FEEL CONFIDENT
in the application of BIM
technology upon graduation?



WHAT THEY'RE LOOKING FOR

THE STUDENT



KIMBERLY SUCZYNSKI

M.ARCH./M.C.P. STUDENT, UNIVERSITY OF CALIFORNIA, BERKELEY

Suczynski graduated from the State University of New York, Buffalo, in 2006 with a B.S. in architecture and a minor in environmental behavior and design. She expects to graduate from Berkeley in 2009.

- I know I want to go work at a firm and get licensed. I'm not 100 percent sure where in the country, or even if I'll stay in the country. I haven't really actively looked [at firms]. Whenever I see a project I'm interested in, I always keep it in the back of my mind.

- My focus now is on trying to prepare myself in as many skills as possible. I added on an Engineering and Business for Sustainability certificate program. I've been trying to round myself out; the big task will be finding a firm that would encourage me to continue [in that].

- All the people I know who've worked for corporate firms. Lots of them like it, but they get cornered quickly. There aren't too many opportunities to work on multiple projects at the same time. Personally, I like to do a lot of different things at once.

- I learned AutoCAD through my internship [in 2006 at Young + Wright Architectural in Buffalo, N.Y.]. It was a great firm. They really cared about their people. After being there for three months, I was kind of bored. I was just doing redlines. They were very responsive [when I told them].

- I know how to use AutoCAD and Vectorworks and can do some 3-D modeling. I'd like to go to a firm and learn BIM. The older generation really rely on us [for technology support] a lot. It's an interesting relationship with your mentors.

- I really like the idea of a firm encouraging people to volunteer at a school to help students learn how to draft. And firms that, after you work there five years, give you a couple of months to travel abroad. I like the idea of gym benefits.

- I feel like Berkeley's done a really good job of preparing us for the complex issues of being an architect in our culture. I think my generation is at a point where we're realizing the impact of our actions. I'm studying to take the LEED exam. Everyone's going to have to be LEED-accredited and designing green buildings.

THE HR DIRECTOR



MARY CAIN

DIRECTOR OF HUMAN RESOURCES, GENSLER

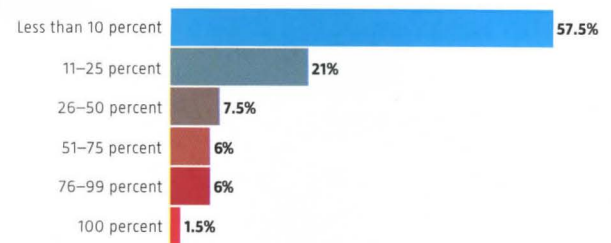
One of the largest architecture firms in the world, San Francisco-based Gensler employs nearly 3,000 people in 29 offices across the globe. The company hires 60–75 recent graduates each year.

- What we're really looking for [in new hires] are people who have a lot of talent and people who have certain competencies. We pick it up from there—we expect to train people.
- We're looking for people who are very adaptable, who are able to listen and learn from others. One of the hallmarks of our culture is that we expect people to work very collaboratively. And since we're a global firm, that can sometimes be more challenging—and frankly interesting—but you have to be open to it in the first place.
- A lot of recent college grads don't have that much real-world experience. But we can still get some indicators of their level of talent by seeing some of the projects they've done in school. [Their experience] beyond that would help as an indicator of talent.
- We can't say there is a tendency [to prefer one educational approach], but as one of our executive directors has pointed out, we need to encourage people to use their college years to learn conceptual ways of doing things. Once you're on a job, you're expected to meet client needs. It's expected you'll have that conceptual work in your head, and pretty solid.
- [BIM] has been a pretty dramatic shift in a shorter period of time than most of us would have predicted. This is a good time for schools to start responding to that.
- [Working globally] is kind of a double-edged sword. There are folks who in a heartbeat would go on an international assignment, but the opposite is also true. There are some people who really don't want to be involved with that much international work. We need both.
- We are constantly looking at sabbaticals, compressed workweeks, part-time arrangements, phased retirement. It comes down to flexibility. And it goes both ways. We expect our employees to be flexible as well, to manage the needs of the firm, the clients', and their own. We are very much about work/life balance.

PRACTITIONERS ON ...

BIM SOFTWARE

What percentage of your firm's projects employs BIM software?



“I WOULD HAVE SAID TWO OR THREE YEARS AGO, WE DIDN'T SEE [CANDIDATES] COMING WITH AS MUCH [BIM] KNOWLEDGE AS THEY NOW HAVE. IT'S BEEN A SIGNIFICANT CHANGE.”

—JANINE PESCI, DIRECTOR OF LEARNING, GENSLER

44%

OF STUDENTS FEEL THEY NEED FURTHER ACADEMIC TRAINING TO COMPETE IN THE MARKETPLACE.

THE CLASS OF 2008



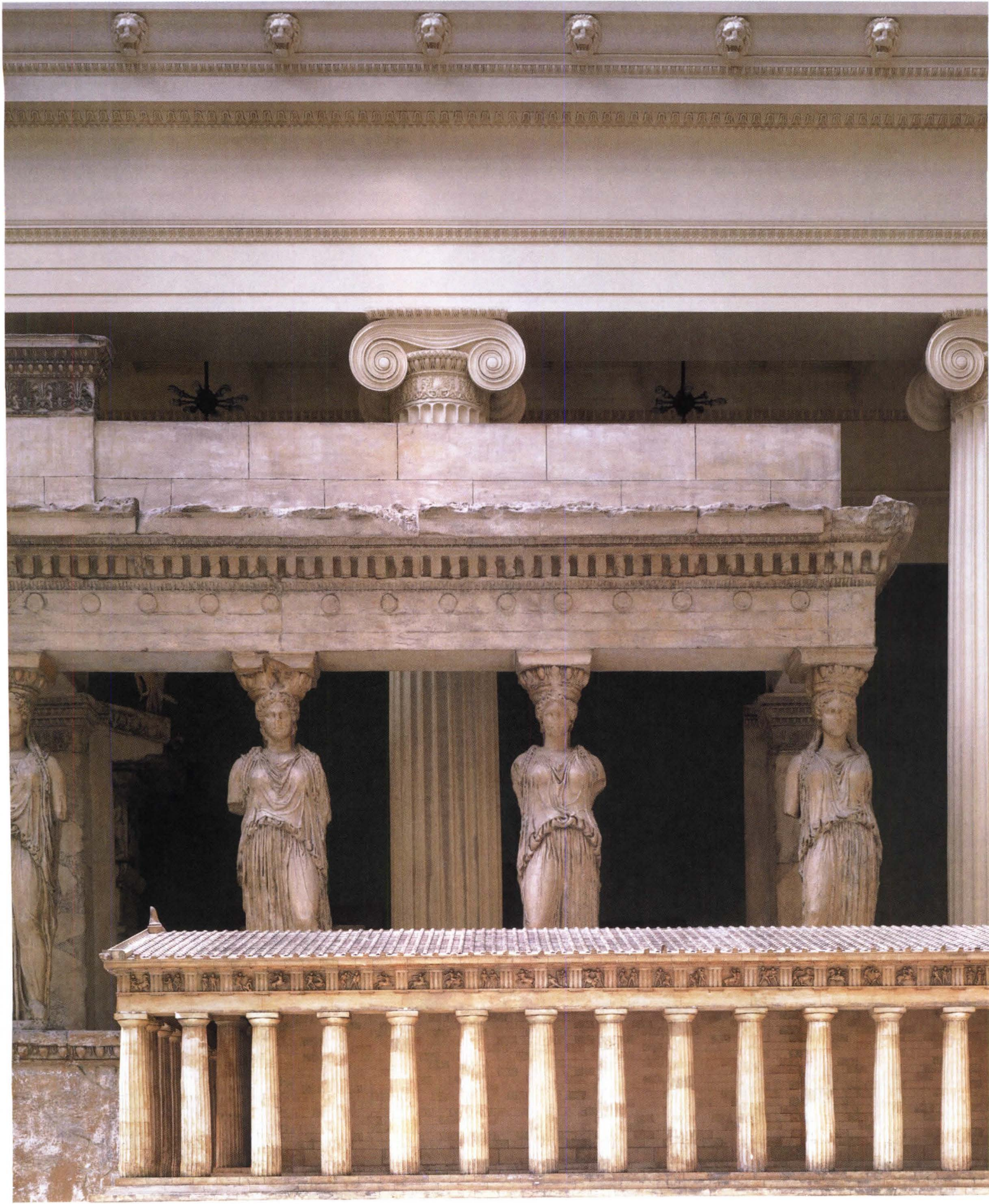


VIRGINIA TECH

B.ARCH. STUDENTS EXPECTED TO GRADUATE NEXT MAY

Daniel Aguilera, Belilta Asfaw, Mark Ballintyn, Christina Baragona, Louis Barbieri, Laura Bowe, Jessica Bowling, Greg Broerman, Eric Brown, Ira Buckley, James Cantillon, Anna Carpenter, Samson Chang, Shaun Clopton, Erica Cochran, Ryan Cole, Braxton Cox, Russell Davis, Susan Day, Natalie Deck, Nicole DeJong, Marc Delissio, Jamie Etnoyer, Catherine Everhart, Zachary Falls, Adam Feuerstein, Jillian Fischer, Michael Ford, Brian Fraser, Sean Gallagher, Jill Githens, Chase Goitia, Chelsea Greemore, Jonathan Grinttam, Chase Grogan, Daniel Gussman, Jonathan Hanahan, Jessica Harman, Jordan Hawes, David Hayden, Maggie Headly, Eric Henderson, Legare Hinds, Tim Hornbaker, Patrick Hummel, Abbe Ingerson, Karen Irizarry, Katie John, Emily Jones, Adrienne Jordan, Davies Karisa, Kellie Kauffmann, Thomas Keller, Sean King, Mercedes Kiss, Grace Lee, Brandon Lingenfelser, Bradley Lockwood, Jessamyn Losse, Adam MacPherson, Amy Markle, Becky Martin, Jacob Marzolf, James McReynolds, Alejandro Medina, Lauren Merrill, Charles Meyer, Michelle Meyer, Christopher Miller, Kelly Mitchell, Kerri Murphy, Christine Mussler, Joel Newberry, Vanessa Poe, Julie Poluszejko, Tom Quigley, Phillip Raguindin, David Rariden, Pamela Reitter, Melissa Richard, Robert Riddle, Steve Rollo, Chris Roman, Alan Royce, Samuel Scheibel, Wynne Shafer, Josh Smith, Rachel Smith, Ana Sosa, Abigail Sparks, Casie Stone, Brett Striffler, Jeana Stright, Chatham Thomas, Bojana Vukomanovic, Robin Washco, Chris Wilson, Sean Witty, Scott Young, Hayden Yount, and Rosa Zlatkovsky

VIRGINIA TECH JUMPS FROM FOURTH PLACE ON THE DESIGNINTELLIGENCE UNDERGRADUATE RANKING LAST YEAR TO FIRST PLACE FOR 2008.



THE WORLD'S COLUMBIAN EXPOSITION of 1893, held in Chicago, advocated the City Beautiful movement by its own architectural example. But besides the classicized façades of the White City, the exhibition got down to detail in the Palace of Fine Arts, where cast-plaster fragments of classical and historical buildings were displayed along with cast-plaster statues after the antique. The event inspired American institutions, including the Carnegie Museum of Art in Pittsburgh, to create their own cast-plaster architecture exhibitions, which looked like Renaissance *vedute*, those imaginary urban visions of buildings gathered like neighbors into the same collapsed view.

But by the 1920s, plaster cast collections fell out of fashion, discredited by new museological

books for the community lending libraries he also endowed. He was not interested in first editions, or costly original Greek and Roman sculpture, but in the ideas that copies delivered. He was educating the public rather than appealing to connoisseurs, promoting the Emersonian ideal of self-reliance through self-education. "The few who travel much fail to remember that the masses of people travel but little," he said. In short, Carnegie was bringing the Grand Tour to Pittsburgh.

Winston Churchill famously said, "We shape our buildings; thereafter they shape us." So when we enter the cavernous Hall of Architecture within the larger Carnegie Museum, we are twice edified. The hall contains large-scale fragments of such

Text Joseph Giovannini Photos Richard Barnes

OLD MASTERS IN PLASTER

THE CARNEGIE MUSEUM OF ART LIFTS THE FIG LEAF FROM ITS 100-YEAR-OLD COLLECTION OF PLASTER CASTS.

assumptions favoring originals rather than copies. Not long after, Modernism inflicted the coup de grâce. The collections at the Metropolitan Museum of Art in New York and at the Art Institute of Chicago, among others, were dispersed, and their very existence passed out of collective awareness. A very few still exist, and the Carnegie Museum, with its 140 plaster architectural casts still standing in their original position in the Beaux-Arts Hall of Architecture, has the largest in the Western hemisphere and one of the three largest in the world.

The Carnegie's plaster-cast collection is now the subject of a show—"On a Grand Scale: The Hall of Architecture at 100"—in the Heinz Architectural Center within the museum. The show, which closes Jan. 27, 2008, is really an exhibition squared, an exhibition about an exhibition. It takes us back into time twice, to the mindset of a hundred years ago when the collection was formed, and to each chapter in a condensed architectural history representing stone architecture in plaster. The curator, Mattie Schloetzer, has included contemporary plaster sculpture by British artist Rachel Whiteread to demonstrate the tradition of plaster casting transformed into a contemporary vision.

ALONG WITH A SISTER Hall of Sculpture, the Hall of Architecture was a gift of Andrew Carnegie. The philanthropist believed in educating the public, and plaster casts were the museum equivalent of mass-printed

masterworks as the Porch of the Caryatids from the Erechtheum on the Acropolis and a 12th century Romanesque portal from the abbey church of St. Gilles, in Gard, France (now the largest cast in the world). Smaller pieces include Ghiberti's Gates of Paradise, from the Duomo in Florence, and the Renaissance pulpits of Santa Croce in Florence and the cathedral at Siena. All are arrayed in a peristyle hall modeled after one of the seven wonders of the ancient world, the mausoleum at Halicarnassus in what is now Turkey. A column and capital fragment of the mausoleum is displayed within the descendant building, which was designed in 1907 by Pittsburgh architects Frank Alden and Alfred Harlow, updated via a Beaux-Arts interpretation.

Alden and Harlow miss no opportunity to instruct visitors, both in the architecture of the surrounding museum and in the hall itself. The architects planned the visit to the hall as a processional: Visitors ascend a broad flight of stairs, as though rising into a temple. The exhibition offers experience, and the experience is elevating. You rise to the occasion. Extrapolating from the nature of the exhibits, Alden and Harlow classicized even the museum's bronze elevator cabs, down to the crown moldings of acanthus leaves.

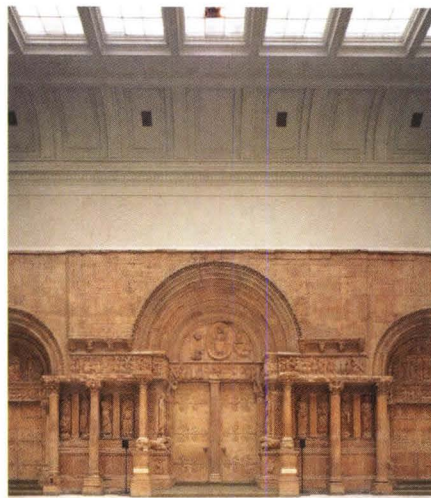
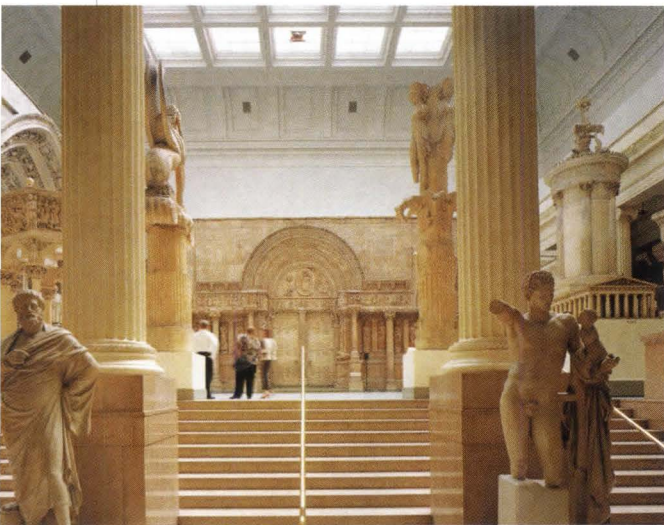
The cast architectural fragments here come from edifices pregnant with meanings, many of them quasi-moral or overtly religious. The Carnegie's copy of the Temple of Athena Nike from the Acropolis harbors the mysteries of

Receding façades: In the Carnegie's Hall of Architecture, a model of the Parthenon sits in front of a plaster cast of the Porch of the Caryatids from the Erechtheum, a temple on the Acropolis in Athens, Greece. Behind both looms the entablature of the hall itself, which was designed after one of the seven wonders of the ancient world, the mausoleum at Halicarnassus. Andrew Carnegie's aim was to bring the Grand Tour to Pittsburgh: "The few who travel much fail to remember that the masses of people travel but little," he said.

geometric harmony, and a portal from the Cathedral of Saint Andre in Bordeaux visualizes figures from the Bible. Visitors can admire the copy of the Lion's Gate at Mycenae, a major monument of architectural history,

shared the idea of bringing classics to the masses. The column fragment from the Halicarnassus mausoleum was cast from the original in the British Museum. Period photos capture showrooms stocked with plaster

SKETCHBOOKS ON DISPLAY REVEAL THAT, FOR THE AVANT-GARDE OF THE TIME, CASTS WERE A TOOL AKIN TO COMPUTER MODELING TODAY.



Flanking the entrance to the Hall of Architecture (above left) are Sophocles (at left) and Hermes with the infant Dionysus. The anchor of the Carnegie's collection is a massive cast (above center) of the western façade of the 12th century abbey church at St. Gilles, in Gard, France. This cast was one of the largest ever produced. *Untitled* (above right), a 2002 work by British sculptor Rachel Whiteread in the Hall of Sculpture, is a negative, or inverted, cast of a stairway from an 18th century house in London.

Sculpture casts from the Hall of Architecture (facing page, clockwise from top left): the famous Augustus of Prima Porta (c. 15 B.C.), with the goddess Athena in the background; the comic playwright Menander (c. third century B.C.) beside a copy of the Borghese Vase, c. 40 B.C.; the tragedian Sophocles—a cast of a Roman copy of a Greek original from c. 330 B.C.; and the Naxian sphinx (c. 570 B.C.) from Delphi, Greece, the site of Apollo's ancient oracle.

and the palm-leaf capital from the Egyptian temple of Heracleopolis, 1330 B.C., inscribed with the name Ramses II.

Carefully curated at the time for excellence and representative breadth, the buildings embodied the didactic capacity of architecture to teach the lessons of high culture. The educational mission served not only the general public, but also schoolchildren, architects, and tradesmen and artists who learned to draw by sketching the pieces.

For its time, the hall was huge, housing replicas of building exteriors as well as interiors. The visitor has the strange sensation of being simultaneously inside and outside. Now, the plaster casts are themselves antique.

"ON A GRAND SCALE" establishes the context of the time. One wall of architectural prints from the 19th century, with idealized and sentimentalized views of monuments like the Sainte Chapelle in Paris, demonstrates the popularity and accessibility of architectural representation for people who wanted souvenirs of their trips, and for those who couldn't make the trips but hung the images on their walls. There are Baedekers on display, illustrated even for travelers who never made it beyond the armchair.

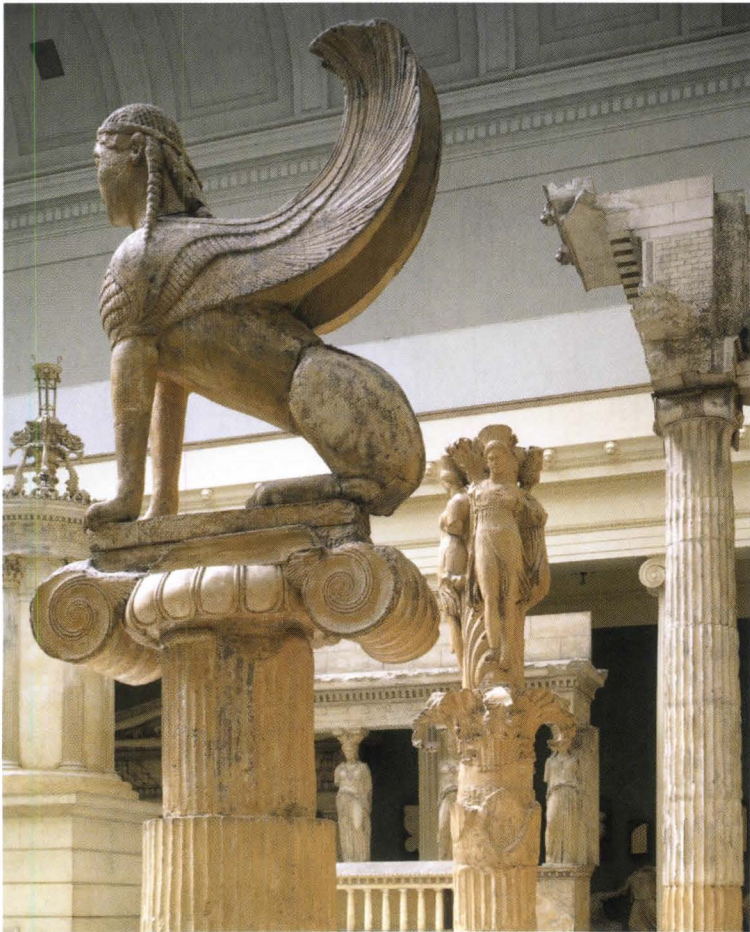
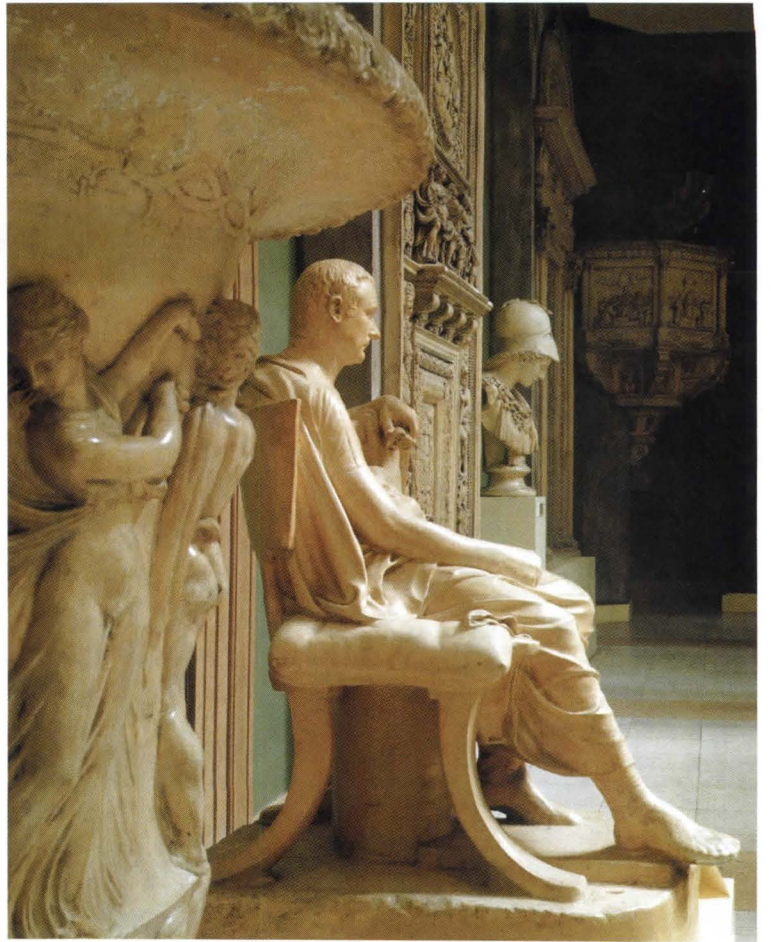
On another wall are views of the numerous plaster-cast museums of the time, including the Columbian exhibition itself. The museums were really casting ideals in plaster, because these buildings embodied character and virtue. They taught by their example of principle. In the late 19th century, there was an international network of like-minded museums that

casts, gallery-style. Art became an industrialized, widely accessible commodity charged with a moralistic social agenda. The Winged Victory could be ordered from a catalog for middle-class houses.

One of the exhibits simply explains the mechanics of casting, showing how piece molds were taken off original stonework and then puzzled together for the final pour. The deeply carved hollows in the original required deft handicraft and numerous fitted pieces to register the sculptural undercutting. (Today, casts are made with rubber and silicon, which can simply be peeled off the master.) Architectural drawings illustrate just how these edifices of plaster imitating stone were erected on scaffolds of wood. One exhibit shows how plaster casts are restored: Many casts relegated to basements and orphaned to other museums did not fare well, and the survivors often need work.

A photograph, once owned by H.H. Richardson, of St. Gilles church shows its probable influence on his design of the heavily Romanesque Trinity Church in Boston. These copies acted as architectural models, and Carnegie's encyclopedic hall served as a reference for professionals. With the availability of prints, the new medium of architectural photography, and plaster architectural casts, late 19th century architects had the information that facilitated their eclecticism, born of the century's fascination with history.

What plaster casts added to this base of information and inspiration was three-dimensionality. Representations of buildings on paper tend to flatten space, even when drawn in perspective, whereas the casts accurately simulated the spatial depth of the originals. In the last several decades, the impact of





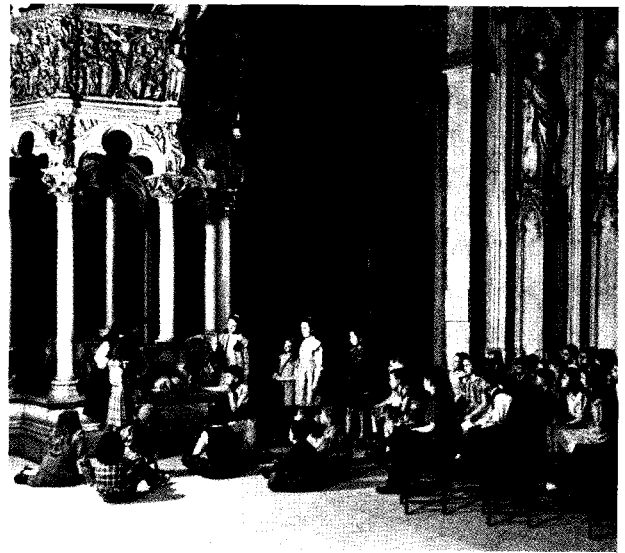
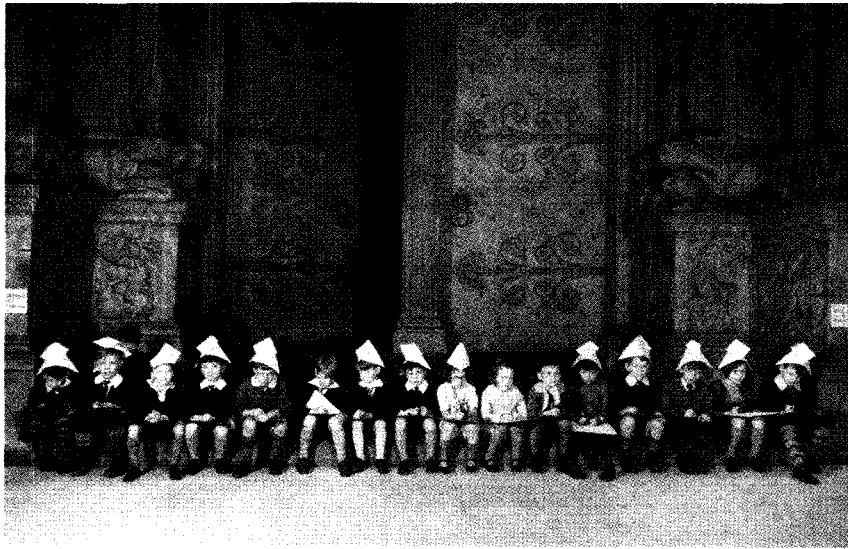
drawing and art on architecture has been huge—as in the work of Zaha Hadid and Frank Gehry—and these casts exercised a comparable influence through drawing: Six sketchbooks displayed in the exhibition are turned to pages drawn from cast plaster models. For the avant-garde of the time, casts were a tool akin to computer modeling today.

Cumulatively, the exhibits establish that plaster

were a form of documentary, but they impressed and elicited strong reactions and emotions, much like the huge tableaux of the Rockies and Yosemite brought to East Coast audiences by painter Albert Bierstadt. The casts awed by their precision and presence.

Curiously, the hall itself, and therefore the exhibition, presages issues that Walter Benjamin raises in his 1936 essay “The Work of Art in the Age

THE MUSEUMS WERE REALLY CASTING IDEALS IN PLASTER, BECAUSE THESE BUILDINGS EMBODIED CHARACTER AND VIRTUE: THEY TAUGHT BY EXAMPLE.



casts represented a world unto itself that posited a utopia of the past. Today, however, it is difficult for modernist eyes to perceive the importance that casts played as an instrument of public and professional education and inspiration. Used to seeing objects only as objects, we overlook the meanings that these, so freighted with notions of culture, represent.

But like the famous “The Architecture of the Ecole des Beaux-Arts” drawing show held at MoMA in 1975, with the magisterial watercolor renderings done in the 19th century through World War I, this is a show that remembers a potent and original way of delivering the idea of architecture. The show is also fresh for returning to a page of museological and pedagogical history that has been decisively turned. With incremental exhibits that build on each other, explaining the phenomenon slowly and even obliquely, the show itself is subtle and quiet. Rather than recapitulating the grand architectural spectacle standing nearby, it opens the subject. It clarifies the rudiments of how casts were physically made, mounted, and repaired, and it intimates the why of plaster casts by contextualizing them in the zeitgeist.

The shadowy and delicate Romantic aura of some of the drawings and etchings on view implies that the casts were not so much physical as oneiric cues, touchstones to dreaming about other places and times via the magic carpet of buildings. To be sure, the casts

of Mechanical Reproduction,” which questions the merits of the original over the copy. One photograph on display shows very proper turn-of-the-last-century female students, hair up and in braids, drawing from a plaster nude cast from a Roman statue, probably copied from a Greek original. Somehow it was acceptable for Victorian women to draw the male form in translations once or twice removed from the original. Reproductions sanitized the event by keeping the original at a distance. Meant for the mind, they transmitted an ideal removed from the physical. The architectural casts, in fact, were buildings without space: Visitors could see but never enter. They remain tantalizing façades.

This show may appear to address a dry subject. But in fact it’s very daring and conceptually layered, provocative and unexpected. It displaces our prejudices so that we can see with more understanding eyes how an important didactic tool both instilled architecture as a collective myth and taught the lay public and the profession. The exhibition is not revisionist in the sense of casting a new and different interpretation on a phenomenon with an accepted meaning. The Carnegie has simply dusted off an apparently musty subject, mounting a historiographic exhibition about a rich but forgotten moment in architecture.

Joseph Giovannini is a New York-based architect and critic.

A figure representing

Virtue (facing page, foreground) from the 16th century tomb of Francis II and Marguerite de Foix in Nantes, France, regards a cast of the baptismal font (1416–1430) from the cathedral in Siena, Italy. Between them stand casts of Hermes with Dionysus and, behind them, Sophocles.

Wearing paper hats, a

class of elementary-school students (above left) sits in front of the cast of the St. Gilles abbey for an art lesson in 1924. A regular Saturday art class started at the Carnegie in 1932; a Saturday class from c. 1940 (above right) admires a cast of a 13th century pulpit from Siena. To their right is a cast from the Cathedral of St. Andre in Bordeaux, France.



David Krantz (left) and Ian Harris, creators of the documentary *Archiculture*.



Text Braulio Agnese Photo Ken Weingart

TUDIO VERITÉ

TWO DESIGNERS-TURNED-DIRECTORS PUT THE SPOTLIGHT ON ARCHITECTURAL EDUCATION.

DAVID KRANTZ AND IAN HARRIS finished architecture school in 2005, and already they want to go back: this time not as students, but as filmmakers. Krantz, a landscape architect who went to Clemson, and Harris, who studied architecture at the University of Cincinnati, want to make a documentary about undergraduate architecture students and their final studio theses.

The idea goes back to Krantz's school days. In his fourth year, having completed his studio requirements, he took a graduate-level course. With little prior connection to the other students, Krantz experienced the studio as an outsider. It proved a revelation. A documentary fan, he recognized the story waiting to be told: the egos, the 16-hour work sessions, the agonizing crits. "Architecture school," says Krantz, "requires you to be in a studio on weekends, at night, and your friends just don't understand: 'Why can you not go out and party with us?' ... Why do kids [endure this] to get this job? What is the job? Why is it such a desirable job?" It wasn't until Krantz and Harris met in early 2006, however, that the film became more than a notion. The two bonded over the idea. Says Harris: "We both believed in the story, started to develop the story, and then [asked ourselves]: 'How are we going to do this?'"

Since that self-reflective pause, the two have had a hell of a year. Each day, after long hours at their San Francisco firms—Krantz, 24, is employed at Hart/Howerton, and Harris, 26, at GLS Landscape/Architecture—the budding filmmakers return home to work on the documentary. They've tapped into the Bay Area film community to learn how to shoot a movie, partnered with the Film Arts Foundation to help with finances, and found friends and others to provide occasional assistance. The apartment they share splits the distance between their offices, maximizing collaboration time, and its slightly down-at-heel address saves rent money. (Plus, if you lean out of the kitchen window, there's a fine view of the new federal building by Morphosis.) Krantz and Harris are the film's producers, directors, and, so far, financiers. They calculate it will cost \$175,000 and another two years to get the film ready for screening.

In September the pair toured a handful of schools that expressed interest in the project. Now they are in discussions with the Pratt Institute School of Architecture. If all goes well, in a few weeks Harris and Krantz will leave their firms and head to Brooklyn, N.Y., to start filming.

Initially, Krantz and Harris called the documentary *Architorture*—a wry, if lovingly intended, comment on the demanding nature of design education, and one they fully realized might seem like bad PR to most schools. ("I've been lectured to by deans," says Harris.) The working title has since been changed to *Archiculture*. "We're not making this film with an agenda," says Harris. "Hopefully, [it's] a means for people to watch and then begin to discuss what the architectural education system is like."

Learn more about *Archiculture* and track the documentary's progress at archiculturefilm.com.

STILL TRUE TO SAMUEL MOCKBEE'S SOCIAL IDEALS,
RURAL STUDIO IS STARTING TO THINK BIG UNDER DIRECTOR ANDREW FREEAR.

The New RURAL STUDIO

TIME MOVES AT ITS OWN PACE in Hale County, Ala., where cotton was once king, and where former slaves and their descendants were left behind to eke out an existence. One hundred and thirty years after Reconstruction, poverty and substandard living conditions remain prevalent in small towns such as Greensboro, Akron, and Mason's Bend. Roughly one-third of residents live below the poverty level, with a county per capita income of \$12,292 in 1999.

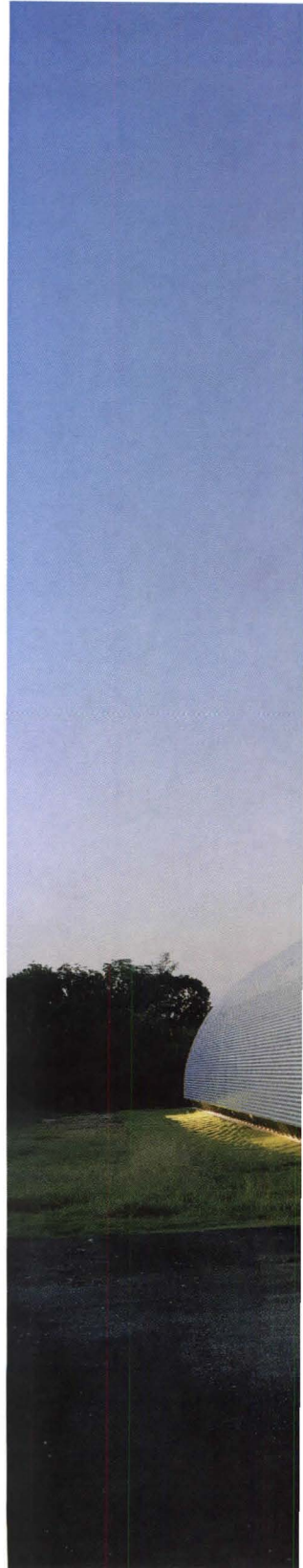
A burly Mississippian named Samuel "Sambo" Mockbee arrived in Hale County in the early 1990s offering hope and promise, but Mockbee—godfather of Auburn University's acclaimed Rural Studio—died late in 2001 following a battle with leukemia. So six years later and with new leadership, what has become of the country's most celebrated design/build program?

Even in Hale County, time has not stood still. Quite the contrary: The activity of the studio seems to have picked up steam. Under the energetic direction of Andrew Freear, who came to Auburn after practicing and teaching architecture in Chicago, the Rural Studio has become broader in impact, more exacting in execution, and far less reliant on the funky range of salvaged materials that typified its early years. The result: buildings that are less about folk art and more grounded in pragmatic concerns such as longevity and livability.

Says Freear, a straight-talking Englishman who relishes his teaching role, "It's phenomenal—we've done about 60 buildings now. And we can look at those buildings and see where we've done a good job and where we've done a bad job." In fact, says Freear, the 14-year inventory of Rural Studio buildings has become one of the program's key teaching tools. At the beginning of each year, new students are taken to visit the earlier buildings, and the result is a heightened emphasis on craft. "I've tried to up the ante with the detailing," Freear says. "You have to be very careful about the choice of materials, particularly in a place like west Alabama, where there is no maintenance." The recent generation of projects relies heavily on hardy materials such as galvanized steel and cedar. Materials are detailed in ways that combine aesthetic beauty with ease of care. Or, to quote Daniel Splaingard, a Rural Studio graduate and recent staff hire as clerk of the works: "If it's going to be a dude's house for 40 years, it has to be thought out."

The most visible change in the studio's work over the past six years is a shift in scale. Long known for its experiments

The "Dog Pound," completed this summer, typifies the new scale and ambition of the Rural Studio. The as-yet-unopened animal shelter consists of a lamella roof curved over animal holding areas, polished-concrete dog runs, and freestanding metal-clad offices (one is shown opposite) for reception and medical treatment. Freear enlisted structural experts to advise on the project, an approach that enables greater complexity.





in low-cost houses and use of offbeat materials such as carpet squares and hay bales, the studio has embarked on a series of larger, community-based projects. Many of these span several years and are built in phases. "It enables us to help more people," Freear says. "The projects are more academically challenging and more worthwhile socially."

A recent example is the Rural Heritage Center, a nonprofit foundation in Thomaston, in nearby Marengo County, that approached the Rural Studio already armed with a \$190,000 grant from HUD. What started out as a small rehab project blossomed into "a three-year lovefest," Freear says. The students demolished interior walls at the center and built a new glass-enclosed display space, director's office, and cafe. The final flourish was a 100-foot-long perforated metal sign that provides a backdrop for an outdoor stage.

Ironically, given how closely it is still identified with Mockbee, the studio's financial situation has gotten more stable since his passing. Auburn University, after years of providing piecemeal support to the program, has budgeted \$400,000 per year for overhead and maintenance, says Freear. Now Freear and his students have to fundraise only for materials. In-kind donations are still quite common, and the studio has also received substantial annual gifts from a pair of family foundations, which have kept new projects moving ahead.

Through it all, Freear says, he has tried to maintain the same naughtiness, fun, and can-do attitude that the Rural Studio was built on. He characterizes his role as a combination of hand-holder and psychologist. "I'm just there saying, 'Yes, it will be OK.' I never say no to the students. I exhaust them, because I keep coming back for more. But I'm really about giving them confidence." Apparently, he is equally hands-on himself: After working at breakneck speed for five years, Freear is burnt out. He is currently on sabbatical in Italy, where

he's reflecting on the Rural Studio experience and writing a book. In the meantime, Mississippi State University professor David Buege, a longtime advocate of the Rural Studio and a frequent visiting critic there, watches the fort as interim director.

Students continue to flow to the studio, where they gain the kind of experience that Freear equates to seven years in practice: "I couldn't make the decisions they are making as 23-year-olds. They are so mature—and so intensely proud of the things they have done." One clear benefit of accepting more civic projects is learning to work with public agencies and community volunteers. For example, students initiated the long-term project at Lions Park, a Greensboro recreation complex, by negotiating with three landowners and a host of stakeholders ranging from a Little League board to a local riding club.

Bill Hemstreet, a Lions Club member involved in the project, was stunned by the sophistication of the student team leaders. "The diplomatic aspects of trying to pull off something as complicated as this—you can't overestimate how important good communication skills are," he says. "These students have been incredible."

And while Freear continues to push students toward greater accountability, he clings to a fundamental belief in the program that traces back to Mockbee. "I love and respect greatly the fact that Sambo thought going to school was not only about yourself, but about making the world a better place," he says. "It sounds a bit romantic, but if architects cannot make the world a better place, there are not many people who are better positioned to do that."



Andrew Freear

DOG Pound

When Hale County was threatened with a lawsuit for not meeting a state requirement that each Alabama county have an animal shelter, in stepped Rural Studio. Four thesis students with no previous construction experience took on the job, which included the solicitation of \$100,000 in material and cash donations to make the budget work.

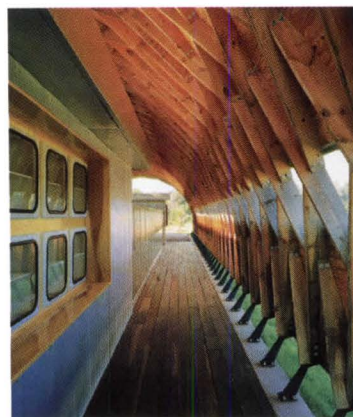
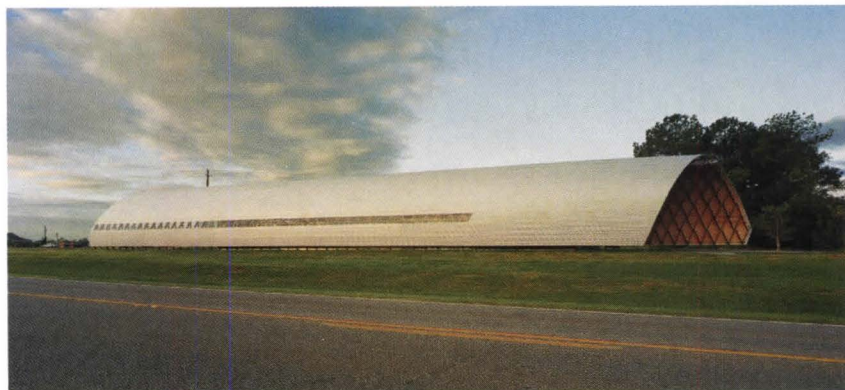
The dominant design element of the resulting facility (commonly called the "Dog Pound") is a sweeping lamella roof (see photo and section on facing page), selected for its ease of construction and low maintenance costs. Open at both ends, the roof shelters the open kennel while allowing free ventilation. In winter, the animals are kept warm by a radiant heating system in the concrete floor.

The roof structure is lifted off the ground on custom-designed steel legs that are anchored into the concrete foundation, and it was built

from conventional 2x8s that were precut and curved on one edge using a jig (to ensure that the hundreds of pieces were identical). The all-important pin connection that's repeated countless times was designed in Rhino under the guidance of consulting engineer Joe Farruggia, who has helped Rural Studio take on increasingly complex projects.

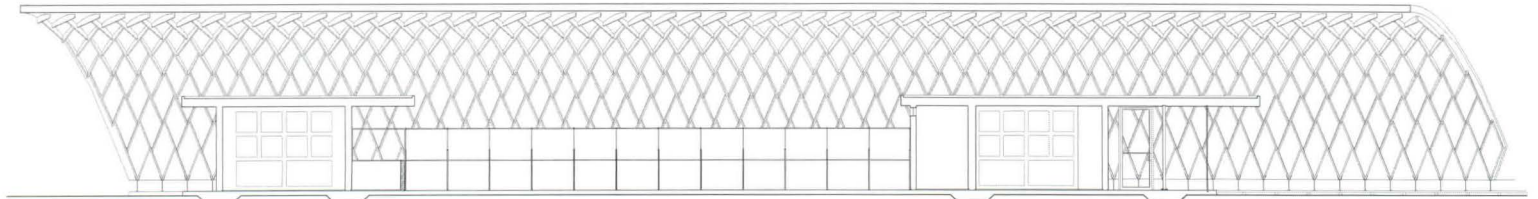
The shelter's framework is sheathed with tongue-and-groove flooring material, then covered in corrugated metal (see photo at top right). A ribbon of Plexiglas down the north side allows a view to the street, with a second strip overhead. Two freestanding rooms clad in sheet metal, one at either end, house reception and adoption services and medical evaluation/treatment. (The photo at far right shows the office and a room for cats.)

PROJECT TEAM (FALL '05–SUMMER '07): Jeff Bazzell, Julieta Collart, Lana Farkas, Connely Farr

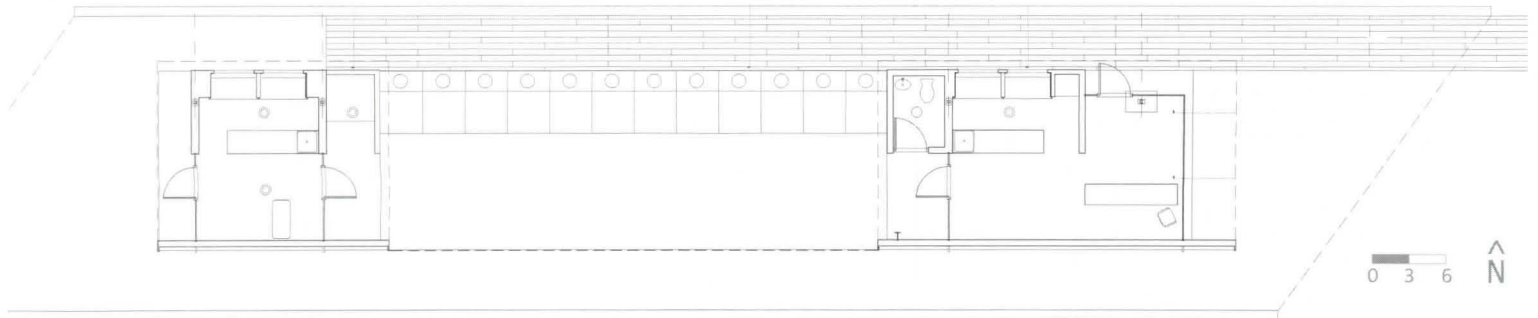




section



floor plan





HALE COUNTY HOSPITAL Courtyard

Like many recent clients, Hale County Hospital approached Rural Studio first. The hospital hoped to create a garden or courtyard in barren space flanked by prosaic brick façades. The issues were more than aesthetic: This area flooded routinely and offered no shelter for the sidewalk that connected two wings.

The thesis team began by laying 1,200 feet of drainage pipe to siphon away storm runoff. They then set about designing key elements that would provide shade, seating, and a place for plants. A large

trellis made of expanded metal (shown above) forms the dominant element, which will evolve into a “green gazebo” outside the patient rooms as cross vine and confederate jasmine overtake it. With input from structural experts, the metal sheets were bent and bolted together so that they span overhead like a box beam.

Planters were fabricated from thin sheets of Cor-Ten steel, which has the strength to support soil and will block the spread of the bamboo inside. Cor-Ten was also used to fabricate a small koi pond

that incorporates a bench of cypress planks on one end. A metal pergola spans above the “front porch,” a raised platform tucked against one of the hospital’s exterior walls. A proposal by the student team calls for the conversion of poorly used hospital space into a conference room that would lead directly to the shaded porch.

Two additional planters recall earlier times at the Rural Studio, when salvaged materials were the norm. Twenty palettes of white marble—mostly discarded headstones—were delivered to

the site, split with a homemade guillotine, finished, and stacked to form the planter walls.

Now a sleek, galvanized steel canopy (above, in background at far left) hung from an asymmetrical steel frame covers the “fast track” sidewalk, where nurses wheel patients between the emergency room and patient wing.

PROJECT TEAM (FALL '05–SPRING '07): Blair Bricken, Nathan Foust, Nicholas Gray, Heidi Schattin



LIONS Park

Little League baseball is alive and well in Greensboro, Ala., thanks in part to five thesis students who developed a new master plan for the town's 40-acre Lions Park.

Prior to their involvement, the park was slipping fast. Baseball fields were scattered willy-nilly on the grounds, large slabs of parking surrounded the open pavilion, and a paved road encouraged vehicular traffic deep into the site. The local Lions Club, which owned most of the land and wanted to give Greensboro a lasting recreation area, asked the Rural Studio to take on the job. A \$100,000 grant from the Baseball Tomorrow Fund, which required a \$50,000 match by the community, gave impetus to the project. And a multiheaded client group (including the Lions, the city of Greensboro, Hale County, and the Greensboro Baseball Association) meant that the students had to juggle many interests.

Their plan for the site yielded a hub-and-spoke organization of four fields around the existing pavilion, and much of the grant money went into purchasing new light poles and fixtures. The fun part, says former student Daniel Splaingard, was the backstops

and dugouts. The backstops "are an interpretive understanding of how a backstop could work better if you had a pole-bending machine," he explains.

In order to shield fans from the terror of foul balls, the students made the backstops taller than normal and angled them forward for better deflection. The dugout roofs are streamlined, sculptural forms made of 14-gauge galvanized sheet steel that was laser cut and broken at a shop in Tuscaloosa. Initial experiments with the bent poles were conducted at a local muffler shop, but the final fabrication also was done in Tuscaloosa.

The first phase of construction finished in the spring of this year, just in time for the 2007 baseball season. Large-scale graphics made from reflective film used on highway signs are soon to be added to the dugout roofs. Two additional Rural Studio teams are now at work on a park landscaping project and construction of restrooms and a pavilion stage that will expand the possibilities for community use.

PHASE 1 PROJECT TEAM (FALL '05—SPRING '07): Laura Filipek, Alicia Gjesvold, Jeremy Sargent, Daniel Splaingard, Mark Wise



BIRDING Tower

Located in neighboring Perry County is Perry Lakes Park, where the Rural Studio has completed four projects since 2001. The latest addition is a 100-foot-tall birding tower that offers an unparalleled view of the park's bird habitat.

Four thesis students worked with the Alabama Forestry Commission to select a decommissioned fire tower, then purchased it from the state for \$25. "The catch was," says team member Natalie Butts, "we had to remove it." Before work could begin, the students were trained and certified in tower construction. Dismantling the 18,000 pounds of steel took them only 15 days—no cranes involved.

Following the advice of structural consultants Joe Farruggia and Anderson

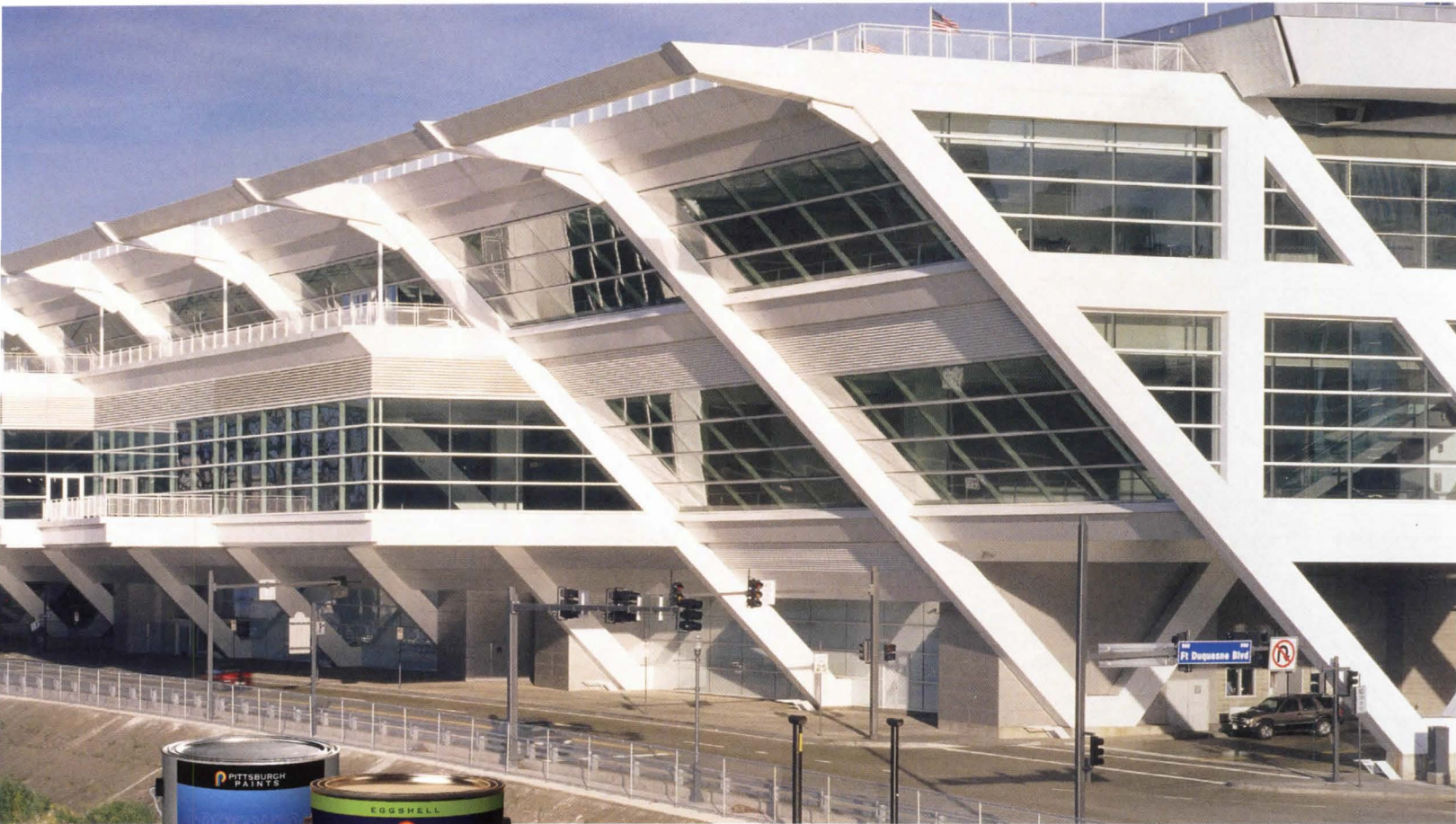
Inge, the students decided to place the tower on helical anchors because of limited access to the wooded site. They also designed and built a 270-foot-long boardwalk (see photo below) that approaches the tower along the edge of a cypress swamp. The boardwalk ate up much of their budget, requiring them to raise another \$20,000.

"Our hope for the tower is to allow people to experience nature at many different levels," says Butts. Despite liability concerns, Perry County was willing to go along with the unorthodox project because it should benefit local businesses.

PROJECT TEAM (FALL '04—SPRING '06): Adrienne Brady, Natalie Butts, Paul Howard, Coley Mulcahy



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