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"I AM CRITICAL OF THE RAPID 'CHANGING OF THE GODS' THAT HAS OCCURRED OVER THE PAST DECADES IN ARCHITECTURAL EDUCATION."

Lawrence W. Speck, writing about the past failings and the current approaches to architectural education, in "A Higher Education," page 84.



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### Dialogue

# THE RED MENACE



**i've never used this forum** to respond directly to a reader. But Bruce A. Brodt's letter (below) about my August editorial, "Pricey Gas Is Good for Architecture," was simply too delicious to let pass without comment. In the editorial, I proposed higher taxes at the pump to encourage responsible consumer behavior; research into alternative, renewable energy sources and fuel-efficient vehicles; and the development of high-density and mixed-use communities, public transit, and high-speed rail. Brodt calls this "Marxist drivel" and "socialist." State governments hike taxes on cigarettes to discourage smoking. Is that socialism? I call it smart public-health policy.

Ned Cramer Editor in Chief What's with all the "pinko-commie" name-calling? In the weeks leading up to the Nov. 4 election, the McCain campaign seemed to

channel anti-Communist demagogue Joseph McCarthy, with running mate Sarah Palin taking the role of McCarthy's attack-dog attorney, Roy Cohn. Palin compared Barack Obama's tax policies to socialism, accused him of palling around with terrorists, and described certain unspecified parts of the country as "pro-America," the implication being that the rest of the republic, and its residents—the ones who vote Democrat, presumably—are somehow unpatriotic. Do such tactics promote civil discourse? Communism fell with the Berlin Wall, and capitalism is having a seizure. Time for new ideas, and less empty name-calling.

Brodt would like a return to the good old days of deregulation, circa March 2008. "Get the government out of business and our personal lives, and watch our economy grow," he writes. "There is nothing like free competition to regulate the use of all resources." Meanwhile, on Oct. 23, Alan Greenspan, the demiurge of the free market and a big fan of *The Fountainhead* author Ayn Rand, confessed to a congressional committee, "I made a mistake in presuming that the self-interests of organizations, specifically banks and others, were such that they were best capable of protecting their own shareholders and their equity in the firms." *Mea culpa*, America.

Nobody would accuse Greenspan, with his libertarian ideals, of being an anarchist, any more than taxation and oversight amount to socialism. Too much of a good thing is dangerous, from either side of the aisle, as the world is learning from the spectacular failure of Republican deregulation strategies, and as we learned 30 years ago from the collapse of Democratic public housing policy. At this troubled moment, what some call socialism may just be what the economy and the architecture profession need: responsible stewardship.

Reel Grame

### A Greener LEED

I agree with your editorial ["You're Green? Then Show Us the Data," October 2008]. Rather than extolling the virtues of LEED, I would welcome more information as to how the buildings' systems are working. The inequity of granting one point for a mechanical system and one for a bicycle rack and shower has got to be explained. There should be some type of "weighting" of points to reward the amount of design required to make a building energy-efficient *and* sustainable. The intentions of the USGBC are great. There needs to be more professional (architect and engineer) input into the system and how ratings are determined.

### Greg Burke

Vero Beach, Fla. gjburke@burkearchitects.com

### **Gas Attack**

I have never seen such Marxist drivel from your magazine as Ned Cramer's editorial ["Pricey Gas Is Good for Architecture," August 2008]. He sounds as if he attended a liberal college that believes in government control of the masses as the only solution to our problems. Get the government out of business and our personal lives, and watch our economy grow. There is nothing like free competition to regulate the use of all resources. People will shift to alternatives when they become cost-competitive and viable. I will no longer renew my subscription to any magazine or print media that espouse socialist ideas such as were presented in this editorial.

Bruce A. Brodt Waxhaw, N.C. babarch-1@carolina.rr.com

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Lawrence W. Speck "A Higher Education," p. 84

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A PRINCIPAL AT PAGESOUTHERLANDPAGE and the W.L. Moody Jr. Centennial Professor in Architecture at the University of Texas at Austin, Lawrence W. Speck has pursued a long and acclaimed career at the crossroads of architectural practice, education, and criticism. From 1992 to 2001, Speck was dean of the school of architecture at the University of Texas. He had joined Texas' architecture faculty in 1975, and has since received every major teaching award given universitywide at that institution. In 2005, he received the Rominiec Award, given by the Texas Society of Architects, for outstanding architectural educator in the state.

Speck's professional work includes such Texas landmarks as Austin-Bergstrom International Airport; the Austin Convention Center: and the architecture for Discovery Green, a new, 12-acre park in downtown Houston. His recent focus has been urban revitalization and mixed-use projects, although he also designed the new federal courthouse in Alpine, Texas, and a health center for the Chickasaw Nation that is now under construction in Ada, Okla. This last project Speck calls "fantastic"—the health center will serve as a community hub for the Nation (which provides universal healthcare to its members). Speck and his colleagues "designed the center that way, so there's a significant amount of public space." He notes, "I'm interested in bringing a more interactive, experiential side of architecture into healthcare."

As an architecture professor, Speck is doing "a really weird thing" right now: studying, and teaching, problemsolving. In the spring, he will teach for the second time a cross-discipline course on creative problem-solving, with case studies drawn from the worlds of business, politics, and (yes) architecture. Speck admits to a personal motive in teaching the class. "I'm using the academic side of my life to ask, in a broader sense, 'How do you maintain yourself as ... a creative thinker?'"

A fellow of the AIA, Speck has served on the architectural advisory board for the State Department's Bureau of Overseas Buildings Operations and as a national peer reviewer for the General Services Administration's Design Excellence Program. He is the author of Technology, Sustainability, and Cultural Identity (Edizioni Press, 2007). Speck studied architecture (B.Arch., M.Arch.) and management at the Massachusetts Institute of Technology.

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#### Recognition

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ARCHITECT NOVEMBER 2008

# Abdel-Wahed El-Wakil Wins 2009 Driehaus Prize

THE 2009 WINNER OF THE DRIEHAUS PRIZE for Classical Architecture is Egyptian-born Abdel-Wahed El-Wakil. A two-time winner of the Aga Kahn Award (in 1980 and 1989), the choice seems a surprising one for the \$200,000 prize, often perceived as a more tradition-minded alternative to the Pritzker Prize. Administered by the University of Notre Dame School of Architecture and funded by Chicago financier and philanthropist Richard Driehaus, its previous winners have been practitioners in the Western tradition, including Leon Krier, Allan Greenberg, and the New Urbanist duo of Andrés Duany and Elizabeth Plater-Zyberk. Most of El-Wakil's work has been in the Middle East. Early in his career he worked with the legendary Hassan Fathy for five years. During the 1970s and '80s, he completed more than 15 mosques in Saudi Arabia using traditional masonry construction techniques. From 1991 to 2001, El-Wakil maintained an office in Miami, where he taught at the University of Miami. Since 2001, the architect has divided his time among various Middle Eastern capitals. His heavy stucco walled courtyard buildings stand in stark contrast to the contemporary works of Western stars who are remaking the region's built environment with modern glass high rise structures. EDWARD KEEGAN



Quba Mosque, Medina, Saudi Arabia



Jeddah Lighthouse, Farasan Islands, Saudi Arabia

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### Preservation

### Saarinen's Bell Labs, Once a Demolition Candidate, Endures

N.J. developer that has contracted to purchase building is exploring adaptive reuse options.



The main reception area in Eero Saarinen's Bell Labs building, circa 1964.

THE TELEVISION SERIES Mad Men has recaptured the allure of 1960s corporate modernism. But the vanguard of midcentury business culture and design was arguably far removed from Madison Avenue. Eero Saarinen's Bell Telephone Laboratories in Holmdel, N.J., completed in 1962, exemplified a new generation of sleek office buildings constructed in pastoral, exurban locales.

Today, the glass-enclosed structure stands eerily vacant. Threatened with demolition by a prospective buyer in 2006, its odds of survival now appear more favorable. Somerset Development, which contracted in August to buy the 1.9-million-square-foot building and surrounding 472-acre property, says it intends to preserve the building through mixed-use redevelopment, though it has not revealed any specific plans. (At press time, the sale had not been finalized.)

A unique coalition took shape in 2006, when world-renowned scientists who had worked in the labs for Bell and its corporate successors— AT&T and Alcatel-Lucent—joined architects and preservationists in trying to save the building. Holmdel community members opposed a proposal by Preferred Real Estate Investments, which made a purchase offer in 2006, to build 300 homes on the parklike landscape designed by Sasaki, Walker and Associates. To catalyze the adaptive reuse discussion, about 40 architects—including members of AIA New Jersey, Preservation New Jersey, and the National Trust for Historic Preservation—participated in a charrette last April. The results, to be published on preservationnj.org, include proposals for residences, a healthcare center, and a modern high-tech research center. A Somerset spokeswoman says the ideas helped inspire the company to preserve and redevelop Bell Labs.

Crucial to extending the building's life, says Michael Calafati, principal of Trenton, N.J.– based Historic Building Architects and chair of AIA New Jersey's Historic Resources Committee, is bringing natural light and air into the sequestered former lab spaces. Saarinen himself was a master at using new technologies to enhance performance. Among those he specified for Bell Labs was a semireflective glass that reduced heat gain and glare, obviating the need for interior window shades. GIDEON FINK SHAPIRO









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Education

# **NAAB Rethinks Accreditation**

### Agency looks to make architectural education more comprehensive, signs international equivalency agreement.

**EVERY FIVE YEARS,** the National Architectural Accrediting Board (NAAB), the agency that accredits American professional degree programs in architecture, reviews its "Conditions for Accreditation." This document



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1-888-273-7638 www.bsdsoftlink.com 22–23 gathering in Tucson, Ariz., the NAAB and six collateral organizations—the American Institute of Architects, the American Institute of Architecture Students, the Association of Collegiate Schools of Architecture, the National Council of Architectural Registration Boards, the Canadian Architectural Certification Board, and the National Organization of Minority Architects—reviewed a draft of what will become the new conditions document.

"The measures we engage are divided into two groups," says NAAB executive director Andrea Rutledge. "We discussed student performance criteria—or what students should know and how we should know they know it—and institutional measures, such as human resources, information resources, and technology."

The group developed 34 student-performance criteria. "Not all of these criteria are created equal," notes Rutledge, "so they need to be grouped together to have meaning. Some themes that emerged were stewardship and responsibility with the environment, leadership, collaboration, and inter- and cross-disciplinary studies."

The NAAB hopes to change the accreditation process, moving from a strictly curricular focus toward a more comprehensive and holistic model, so that architectural learning reflects the profession's broadening role. "The Arizona meeting was not a stand-alone occurrence," Rutledge says. "It was part of a process that has been going on for two years. We've been doing a lot of research."

After producing four new accreditation models, resulting from widespread input from the collateral organizations, the NAAB reviewed them, merging them into a collective draft known as the "fusion model." After making the draft available for public comment in September, the draft was re-edited and expanded by the NAAB. It was this document that was discussed in Tucson. After the NAAB board of directors reviews the proposed conditions, the draft will be open for comment from March through June 2009 before the NAAB finally approves it next July.

"It's important to understand that school visits won't be affected by these changes until 2011," Rutledge explains. "Schools with 2010 visits won't have to scramble to prepare for these revisions. Part of the process is to help programs understand what the changes will look like."

Responding to another change in architectural practice—its increasingly global reach—the NAAB recently joined several international accreditation agencies in recognizing each other's programs. In April 2008, at a summit in Canberra, Australia, the NAAB signed an agreement with organizations from Australia, Canada, China, South Korea, and Mexico, establishing "substantial equivalency" between their respective programs. Architecture degrees granted after Jan. 1, 2010, will be accommodated under this new agreement. JOHN GENDALL

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Employment

## Top 10 Occupations In Online Job Ads, September 2008

Occupation	Total Ads (Thousands)	Average Hourly Wage \$34.71	
Computer and mathematical	617.9		
Healthcare practitioners and technical	589.9	\$31.26	
Management	564.7	\$46.22	
Office and administrative support	522.2	\$15.00	
Sales and related	439.0	\$16.94	
Business and financial operations	288.9	\$30.01	
Architecture and engineering	207.7	\$33.11	
Transportation and material moving	134.6	\$14.75	
Production	126.6	\$15.05	
Food preparation and serving related	117.6	\$9.35	

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SOURCE: THE GLOBE AND MAIL

SOURCE: THE CONFERENCE BOARD, "ONLINE JOB DEMAND DROPS 216,000 IN SEPTEMBER," OCT. 1, 2008



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### REPORT

### Research

# AIA Announces Upjohn Initiative Recipients

FOUR APPLIED-RESEARCH PROJECTS have been awarded a grant by the AIA Upjohn Research Initiative, which provides base funds over the course of 18 months for research that advances professional architectural knowledge and practice. A jury of representatives from the AIA's College of Fellows and Board Knowledge Committee selected the four projects, which will split a pool of \$90,000, from a field of 30 applicants. Created in 2006 and first awarded in 2007, the yearly grant is named in honor of Richard Upjohn, a co-founder of the AIA and its first president. BRAULIO AGNESE

### 2008 AIA Upjohn Research Initiative Awardees

Project: Cradle to Grave: Case Studies of Buildings' Environmental Footprint Principal Investigators: Dan Jacobs, A3C; Ash Ragheb, Center for Sustainability, Lawrence Technological University

**Objective:** Evaluating the local and global environmental effects of multiple case-study buildings throughout their life spans, thereby showing how lifecycle analysis can be applied to complex systems such as buildings.

Project: EcoCeramic Phase II: High-Performance Masonry Enclosure

Principal Investigators: Jason Oliver Vollen, Binary Design and Rensselaer Polytechnic Institute; Kelly Winn, Rensselaer doctoral student; Jed Laver, University of Arizona

**Objective:** Developing the EcoCeramic masonry unit—a sustainable material composed of clay and glass fibers into a weatherproof, self-supporting enclosure system.

Project: Guidelines for the Design of Sustainable Learning Laboratories That Teach Through Architecture Principal Investigator: Jim Jones, Center for High Performance Learning Environments, Virginia Tech College of Architecture and Urban Studies

**Objective:** Promoting "buildings that teach" and environmental stewardship by developing an AIA learning module that demonstrates the connection between critical thinking and architecture.

Project: Thermally Active Surfaces in Architecture

Principal Investigator: Kiel Moe, Northeastern University School of Architecture

**Objective:** Understanding the scientific basis of thermally active surfaces; demonstrating how the use of such surfaces for the thermal conditioning of buildings could change professional practice; and documenting the systems, performance, and constructability of 10 case-study projects.

### "He's been incredibly important and valuable in this role as [a sustainability] visionary. The problem is that sometimes the theorists like [William] McDonough will represent themselves as practitioners, and that's where the guys in the trenches get

frustrated." —Auden Schendler, executive director of sustainability, Aspen Skiing Co., as quoted in the October 2008 *Fast Company* article "The Mortal Messiah"



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### REPORT

Economic Advice

# AIA Offers Guidance In Tough Times

### New webpage launched to aid architects feeling the pinch.

THE AIA HAS CREATED A PAGE on its website as a central resource for architects trying to find their way through the ongoing economic downturn. "Navigating the Economy" (aia.org /navigatingeconomy) contains articles, thirdparty links, and weekly podcasts with information on how to deal with the credit crisis and how firms can stay afloat in trying times. The webpage—compiled by the organization's marketing and communications team at the behest of CEO Christine McEntee and other members of AIA's leadership—was launched on the heels of the economic stimulus package passed by the U.S. Congress and at a time, says AIA spokesman Scott Frank, when "the downturn was affecting the overall economy as well as the design industry. It was getting pretty bleak." The page will stay online indefinitely, certainly as long as the organization feels it will benefit members. "[The economic situation] might get even worse," notes Frank. "Housing is obviously very bad, and commercial is following, but if the institutional market indeed begins to suffer as well, people who have been largely insulated from this downturn will begin to feel the crunch." KATIE GERFEN

Clips

Cannon Design has announced the development of a new healthcare consult-

ing arm of the practice, called Cannon Consulting. Targeted toward providing healthcare companies with support and the tools to increase efficiency, the new practice is staffed by healthcare professionals with backgrounds in clinical, operational, and financial management. Cannon Consulting will be led by firm principal Mark A. Stinson.

Thompson, Ventulett, Stainback & Associates of Atlanta, known as TVS, has changed its name. Effective last month, the firm is now known as tvsdesign.

The ULI Terwilliger Center for Workforce Housing has announced the winners of the first annual ULI/J. Ronald Terwilliger Workforce Housing Models of Excellence Awards. The three winning projects, recognized for creating workforce housing in high-cost communities, are The Boulevard in Anaheim, Anaheim, Calif., developed by John Laing Homes; Legacy at Lincoln Park, Rockville, Md., developed by Urban Atlantic Development; and Morgan Woods, Edgartown, Mass., developed by The Community Builders. At least 25 percent of the units in the three projects are designated for families earning between 60 percent and 120 percent of the median income in their respective areas.

AutoDesSys-the software company behind form • Z-selected 16 students working on 11 projects as the winners of the company's 16th annual student design competition. The architectural design Award of Distinction winner was Farzam Yazdanseta from the University of Maryland, with an honorable mention awarded to Ben Mokri from the NewSchool of Architecture and Design. The program is run in conjunction with the form • Z Joint Study Program to teach 3-D design in schools. Winning projects can be seen at formz.com/jointstudy /award winners.html.

The National Park Service is entertaining the idea of holding a design competition to revitalize the grounds around Gateway Arch, the iconic St. Louis structure designed by Eero Saarinen. The goal would be to better link the arch to downtown and to the nearby waterfront, including incorporating barrier-free pathways to the Mississippi River. Currently, there are no funds to run the competition.

San Francisco–based **SMWM has merged with Perkins+Will**. Led by founding principal Cathy Simon, SMWM has done design and planning work nationally and abroad, with notable projects including the San Francisco Ferry Building and U.C. Berkeley's Hearst Memorial Gym.

A renovation project at the **University of Toronto** uncovered a his**toric ceiling** in the Gerstein Reading Room. The ceiling's neo-Gothic wood trusses and carved beams, which had been hidden for more than a century by metal bracing installed in the early 1900s to support the structure, are being restored and preserved and will remain exposed.

England's University of Hertfordshire has designed a room it is touting as the **most relaxing room in the world**. Deep green lighting, combined with a skylike screen and lavender aromatherapy, creates an environment that, the university says, promotes introspection and increases dopamine levels. The university plans to use its research and work with the design industry to develop less stressful work environments.

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### REPORT

### Education

## Marywood University to Open School of Architecture



A rendering of Marywood's architecture school building, previously a little-used gymnasium.

**MARYWOOD UNIVERSITY**, a private, Catholic school in Scranton, Pa., has announced a new school of architecture, the state's seventh. The school, which will begin enrolling students for the fall 2009 semester, will feature a strong focus on sustainable design, building on the university's membership in the U.S. Green Building Council. Three degree programs will be offered: a four-year preprofessional Bachelor of Environmental Design in Architecture degree; a five-year B.Arch.; and a six-year M.Arch., which requires two years of study after the completion of the preprofessional program.

To further emphasize the programs' green focus, the school says that all students will be required to take course work that prepares them for the LEED Accredited Professional exam, allowing B.Arch. and M.Arch. students to graduate with LEED AP status as well as a professional degree. Students will also take classes in the university's existing liberal arts core.

"We expect to have anywhere from 20 to 30 students" in the first year, says Gregory Hunt, special assistant to the provost for the school of architecture. The school facility, an adaptive reuse by Scranton firm Hemmler + Camayd Architects of an "underutilized" campus gymnasium, "should accommodate about 200 students," Hunt adds. "We expect it will take five to seven years to reach capacity." Currently under renovation, the building is expected to achieve LEED Gold status.

The announcement comes after a year and a half of planning. As for who will lead the new school as dean, Hunt says he cannot comment before the decision is announced by Marywood officials. The university will apply next fall for National Architectural Accrediting Board candidacy status, granted to new programs that demonstrate viable plans for achieving accreditation within six years. K.G.

Culture

## **Getty Research Creates Architecture Department**

**THE GETTY RESEARCH INSTITUTE**, in Los Angeles, has announced its new Department of Architecture and Design. Led by Wim de Wit, with Christopher James Alexander acting as associate curator, the department was established because the Getty wanted "a better mechanism to engage the architectural community," says de Wit, not just in California—the institute has a

deep archive related to Southern California architecture—but nationally and internationally. De Wit adds that the Getty recently acquired the archives of the International Design Conference in Aspen, which met annually from 1949 to 2004, but that it will be some time before everything, including audio and video materials, will be catalogued and made available to researchers. B.A.

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Edited by Andrew Slocomb West

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Spertus Institute of Jewish Studies Chicago, Illinois Glass: VE13-85 Insulating Laminated with silk-screen Photographer. William Zbaren

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# Text Kate Herman

Classroom Culture

48.256

SOURCE: Al

THEORY VS. PRACTICE, model-making vs. 3-D modeling, energy efficiency vs. formal invention-such are the fundamental tensions as architectural education evolves. School accreditation hinges on a combination of core curricula, student and faculty diversity, the incorporation of a mutually respectful "studio culture" training, and more, says AIA director of education Catherine Roussel. Overall, the number of students has inched upward since 2001, with fewer pursuing B.Arch. degrees and more choosing the B.S.Arch. path instead. In 2001, the number of schools with a B.Arch. and at least one M.Arch. program (either I or II) was 73, but those numbers have diverged: Today, just 54 schools offer B.Arch. degrees, while the number of M.Arch. I and II programs has grown to 94. The AIA continues to analyze and improve the education process, says Roussel, but "we still need to work on improving the transition from student to practitioner. They're expected to be productive the minute they get into the office."



students.

The total number of

architecture students in 2007. Of those, 9,994 were M.Arch. (I and II) or D.Arch.

The number of African-American students enrolled in B.Arch. programs in 2007.

8.5%

The 2001-2007 increase in faculty members with a nonarchitecture Ph.D. or D.Arch.; 2007 total: 500 faculty members.

ALL DATA PROVIDED BY ASSOCIATION OF COLLEGIATE SCHOOLS OF ARCHITECTURE (ACSA) EXECUTIVE DIRECTOR MICHAEL MONTI AND TAKEN FROM THE ACSA AND THE NATIONAL ARCHITECTURAL ACCREDITING BOARD

SOURCE: AMERICAN WIND ENERGY ASSOCIATION

38%

The percentage of total architecture faculty who work in the Northeast (1,877 of 4,942). Just 368 faculty are in the East-Central regionat 7.4 percent, the smallest concentration in the country.

3,018

The number of Hispanic students in B.Arch. programs in 2007. The AIA is constantly reviewing diversity issues in the field, says Roussel. "Our goal is to reflect the society we build in."



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#### Text Margot Carmichael Lester

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Overall office vacancy at midyear 2008 was 14.16 percent. Class A space ranged from \$18/s.f. to \$23/s.f.

#### **Residential Market**

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#### **Market Strengths**

• Colorado State University (CSU)

• Wealth of green spaces and outdoor activity options

• Decisive local government officials and active citizenry

#### **Market Concerns**

Suburban sprawl

Affordable housing inventory

• Lack of parking could hamper urban development

#### Forecast

Sustaining the city's character in the future will require "perseverance, patience, passion, stubbornness, and longevity," says Fort Collins director of planning Joe Frank. "Maintaining political support for and awareness of the importance of the downtown area is also a factor."









**NESTLED AGAINST THE COLORADO FRONT RANGE,** Fort Collins is consistently rated among the best places to do just about anything. It's a regular fixture in the top five of *Money*'s "Best Places to Live" list, earning second place this year; it's No. 3 on *Forbes*' 2008 "Best Places for Business and Careers" list; and *Outside* regularly gives the city high marks for its quality of life and the wide range of outdoor activities it offers.

With all this praise, not to mention a growing university (Colorado State), it's no surprise people are flocking here. They have been for more than 100 years. The city experienced its first boom in 1872, when an agricultural colony and the state university were established.

"We know that more families and businesses will continue to want to come to Fort Collins to take advantage of the opportunities that the community and region have to offer," says city director of planning Joe Frank. But Fort Collins is quickly approaching its growth-management boundaries, and greenfields are becoming scarcer. "Our strategy and actions look inward to infill and redevelopment," says Frank.

As a result, there's a lot of new development happening in the city center, much of it adaptive reuse of existing structures as well as LEEDcertified rehabilitation and new construction. And why not? An eclectic collection of early 20th century architecture, Fort Collins' downtown is picture-perfect. "One of Walt Disney's principal designers grew up in Fort Collins and modeled Disneyland's Main Street, U.S.A., after this city and its buildings," notes Randy Shortridge, an architect and urban designer for local firm RB+B Architects, adding, "but at three-quarters scale!"

#### NORTHSIDE AZTLAN COMMUNITY CENTER

Architect: Aller Lingle Massey Architects, Fort Collins; Completion: 2007; Cost: \$8.6 million; Size: 50,000 s.f. • LEED Gold facility will be key component of proposed cultural redevelopment area.

#### NEW BELGIUM BREWING CO.

Architect: The Neenan Co., Fort Collins; Completion: Ongoing; Cost: \$22 million; Size: 50,000 s.f. • Downtown microbrewery's interior wood comes from fallen trees; winner, 2007 AIA Colorado North Award.

#### THE MITCHELL BLOCK

Architect: The Neenan Co.; Completion: 2009; Cost: \$10.3 million; Size: 33,385 s.f. • LEED Gold mixed-use project features a green roof; will act as gateway to city's core historic district.

#### UNIVERSITY CENTER FOR THE ARTS

Architect: Slaterpaull Architects, Denver; Completion: 2008; Cost: \$32 million; Size: 173,000 s.f. • Adaptive reuse of circa-1924 high school into venue for CSU music, theater, and dance departments.

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### A think tank for urban leaders makes its research available to everyone.

IT'S EARLY OCTOBER IN CHICAGO, and Carol Coletta, president and CEO of CEOs for Cities, is blogging about the smell of burning leaves. Innovative chef Grant Achatz of Alinea inspired the post by capturing the familiar autumnal smell—a fragrance rich with memories—in a dish at a cooking demonstration. Following his example, Coletta's entry is a concise musing on the potential of emotional response to shape cities. And it is representative of the kind of creative urban thinking that takes place on ceosforcities.org.

CEOs for Cities was founded in 2000 as a kind of think tank, bringing together mayors and executives to tackle issues facing U.S. cities: economics, diversity, sustainability. But the nonprofit's website is a resource for anyone—not just the suits—engaged in the urban realm. Via its blog posts, news reports, white papers, and the social network and forum My City, the site advocates for innovation and change. Coletta also hosts the weekly radio program *Smart City* (archived at smartcityradio.com), where she interviews contemporary thinkers and business leaders, tapping their expertise for the cause. "We use [our] site to make our research more available, so that people can make cities better for people to live, work, play, and learn," says Coletta. "Part of the problem with the field we are in is that there is a lot of data, [and] people don't always get around to using it. The site is not a file cabinet. It is there to shape decisions."

For instance, CEOs for Cities member Joe Cortright's white paper "Portland's Green Dividend" discusses how a good relationship between urban form and transportation makes for a greener city. The points the economist makes dovetail with the architecture profession's move toward eco-conscious design. Coletta foresees architects leveraging Cortright's paper and other research on the site to inform clients about the importance of sustainability, especially a viewpoint that goes beyond the building's footprint. "Architects today are trying to get their clients to be better clients," she notes. "We provide tools that may help architects do their work smarter."

#### LINKS

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effort, tapping 10 others to enrich the	urban planning, or is it simply too	"Exhibition Preparation" sections are	Indian architecture and urban
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#### THE CO-FOUNDER OF A FAST-GROWING FIRM OFFERS TIPS ON SMART RECRUITING. Text Fred A. Bernstein Photo Dilip Vishwanat





AS ARCHITECTURE STUDENTS at the University of Kansas, David Ohlemeyer and two of his classmates dreamed of starting their own firm. While still in their 20s, they did exactly that. The firm, the Lawrence Group, founded in St. Louis in 1983, grew to 30 people in the 1990s, and then to 215 by 2006.

To add as many as 40 employees a year in half a dozen offices (including one in Beijing), Ohlemeyer and his partners have had to spend a lot of time recruiting. The firm's website even asks potential employees to call Ohlemeyer directly—evidence of how seriously he takes that aspect of his job.

But if Ohlemeyer is an expert on hiring, he's far from an expert on getting hired: He hasn't had to look for a job in more than 25 years. Back then, he said, he took the job he was offered. "Things are very different now. Candidates have a lot of choices." And that means that hiring requires selling yourself to potential employees, not the other way around.

#### Know yourself.

Using recruiters and running

ads shouldn't be ruled out.

but there are better ways to

find talented employees, says

David Ohlemeyer, a principal

of the Lawrence Group.

If your firm doesn't have a written mission statement, you ought to write one, says Ohlemeyer. "Before you can recruit successfully, you need to know your company, its culture, and its values, and be able to articulate them."

#### Think about how you interview for projects.

Though he hasn't had a job interview in 25 years, Ohlemeyer says, "I have been interviewed for lots of projects. So I look at how I present the firm to prospective clients, and I apply those lessons to recruiting."

#### Have answers ready.

"Prospective employees will want to know things like: How do your benefits compare with those at other firms? Can a candidate build a career with your organization? Are you hiring just for a specific project? If so, what happens when that project is finished? Be prepared to answer."

#### "Hire" one of your employees.

"To fill an upper-level job, the first thing we do is look inward," Ohlemeyer says. "Nobody understands our company better than the people who already work here."

#### Ask inside the firm—and outside.

"When there's a position to fill, we always ask our employees, 'Do you know anyone?' We have had the most success recruiting people who have some prior connection to the firm." Ohlemeyer says he'll also get advice from consulting engineers and general contractors. "We ask them whom they really enjoy working with, who seem to be the best performers." (But the Lawrence Group doesn't raid other firms—"That's not what we're about," Ohlemeyer says.)

#### Use professional recruiters sparingly.

"All a recruiter can really do is give you a field of candidates. And we find that, at least in St. Louis, we can come up with the field ourselves. We have used recruiters more successfully when we were looking for people in markets we don't know as well, or people in departments like marketing or IT."

#### Think about taking the search public.

"We've run newspaper ads, but you get literally hundreds of responses, and trying to weed through that many can be excruciating," Ohlemeyer says. "But as a desperation measure, if we've spread the word and we're still not getting anybody, we'll place an ad."

#### Bring people in on a trial basis ...

Ohlemeyer sometimes makes a deal with recruiters to bring on the person temporarily. "If things work out, we'll make the employee permanent and pay the recruiter's fee at that time," he explains. "That gives us a chance to check people out before making a long-term commitment."

#### ... including summer interns.

"Even this year, when we haven't done a lot of hiring, we did have summer interns. It's a very short-term obligation, and it gives us a chance to try each other out. Over the years, about half our interns have become permanent employees. And having interns around helps keep the company fresh."

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HOK EMPLOYS DAYLIGHT IN GALLERIES AT THE FROST ART MUSEUM IN MIAMI, BRINGING SUN TO A NORMALLY DIM ROOM TYPOLOGY. Text Edward Keegan

# **MELTING THE FROST**



Bringing daylight into a gallery where direct light can damage the artwork is no easy task. With the design of a series of light-reflecting and -redirecting petals over expansive skylights (above), and after several computer scenarios (right), HOK and Arup were able to find the balance between letting light in and protecting the paintings on view.



**SUN-DRENCHED MAY BE** an attractive notion to Florida's oranges and snowbirds, but it's not quite what one thinks of when considering the state's art museums. Still, when Miami's Florida International University (FIU) hired Yann Weymouth of HOK's Tampa office to design the new Patricia & Phillip Frost Art Museum, he and his gallery lighting consultants from London-based Arup became strong advocates for using daylight wherever possible.

"It can be too much," admits museum director Carol Damian of the region's abundant sunshine. But the conditions at the previous exhibition space made Damian, an art historian and curator at FIU for a decade and a half, an early advocate for a daylit solution. That gallery was several steps below grade, in what Damian calls Florida's version of a basement, and windows had been covered to provide exhibition walls. The only natural light was borrowed from the below-grade entry door.

The new, three-story, 46,000-square-foot building contains 10,000 square feet of exhibition space on the second and third floors—to protect the exhibited works from potential flooding. Nine galleries form the heart of the L-shaped museum. Wall heights range from 13 feet 4 inches to 28 feet 8 inches in the five galleries that receive natural light through the Frost's signature skylight design with petal arrays. "We had to convince the museum that daylighting would be desirable and could be controlled," says Weymouth. Arup had recently completed a retrofit of The Rothko Chapel in Houston, where the intensity of the





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Each of the petals under the skylights is constructed of a fiberglass shell using the same technology as surfboard construction. The designers even spoke to local surfboard makers about manufacturing them (although they eventually hired a more conventional subcontractor). Arup used computer modeling to determine the exact form that utilizes parabolic curvature-slightly more curved on top than bottom. The petals are finished with a gray silver metallic automobile paint, chosen for its neutral qualities so as not to affect the color of the daylight.

While the drooping petals are the primary aesthetic device that gives the Frost galleries their image, less sophisticated but equally important things occur above the array in each skylit room. The skylights themselves, glazed with a polycarbonate material to meet hurricane wind loads, also provide critical light diffusion to protect the artwork on the wall. It's the combination of diffusion at the skylight with the redirection of light by the petals that delivers the exact quantity and quality of light to each gallery wall.

For the designers, with the limited budget typical of a public institutional project, a full-scale mock-up of the galleries was not an option. As expected by HOK and Arup, some fine-tuning of the system has been necessary to get the assembly just right. Initial tests after building completion revealed a lighting level of 29 foot-candles in the galleries, slightly higher than the target of 25. Simple coatings of paint have been applied to the skylight surfaces to increase diffusion and reduce the light level to the appropriate range.

Arup also designed the artificial lighting for all the galleries. In those without natural lighting, the desire was to create an effect that didn't dramatically vary from adjacent daylit spaces. When a room is naturally lit, supplemental artificial lighting is provided from two sources—one seen, one concealed. Simple spot fixtures hang between the petals for more dramatic needs on cloudy days or occasional evenings. But the effect of diffused light through the skylights can also be achieved at these times through a distinctly low-tech solution. Ceramic metal halide floodlights mounted on poles-not unlike a street or parking lot fixturesurround each skylight on the roof. When used, they can simulate the effect of daylight coming through the tall skylight structure, are easily relamped and maintained, and don't add any heat load to the building interior.

HOK's Weymouth notes that they expect little need for the artificial lights. "Seventy percent of the year, they won't even need to turn on the lights," he says. "That's when you get the most energy savings," says Arup's Shaw. Which gives their silvery fiberglass petals a metaphoric shade of green, too.

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ARCHITECT NOVEMBER 2008

#### THE FUTURE OF BUILDING INFORMATION MODELING, THE FIRST ARTICLE IN A SERIES. Text Mimi Zeiger



LAPTOP PERCHED ON A CAFÉ TABLE, David Fano scrolls through a presentation he normally shows to his Columbia University architecture students, who are already preparing for digital practice. The screen displays black-and-white elevations, blue wire frames, and rendered models, all drawing types that can be realized with building information modeling, aka BIM, and programs like Revit it is a true wall, with studs and metal sheeting," says Daly. "BIM allows us to accelerate parts of the package because we are getting a more integrated view of the project." Francis Cauffman first instituted BIM six years ago and started using Revit roughly a year and a half ago. In April 2007, the firm made a formal announcement to all its consultants and partners that from then on, design work

## **ALMAC HEADQUARTERS BUILDING SCHEDULE**



#### A \$78 million project

designed in Revit, the Almac corporate headquarters began construction in July and is expected to finish in May 2010. Project leader Jim Daly of Francis Cauffman Architects prepared the diagram above to illustrate how BIM blurs the lines between the traditional phases of the design process (note how SD. DD. CDs. and build-out substantially overlap) and allows for early bid-package issue, among other changes.

Architecture, ArchiCAD, and Vectorworks. For Fano, a New York—based consultant specializing in BIM implementation for design and construction offices, BIM embraces everything from parametric modeling to CAD details. It's a big, powerful way to think about the design delivery process. Under BIM, the traditional phases—schematic design (SD), design development (DD), construction documents (CDs), and construction administration—get streamlined and integrated.

For Jim Daly, a principal in science and technology at Francis Cauffman Architects in Philadelphia, nailing down design decisions early is part of BIM's appeal: The heavy-at-the-front-end process determines elements such as the façade, windows, and elevators as the digital model takes shape. "The exterior wall is not just a couple of lines; for new construction would take place entirely in Revit. At any time, dozens of BIM projects are active in the firm.

To illustrate BIM's benefits, Daly created a time line (above) for the 70,000-square-foot, three-story Pennsylvania headquarters Francis Cauffman has designed for Almac, a pharmaceutical company. The diagram shows overlap between the SD, DD, and CDs phases. The final building footprint and interior programming are fixed in the first stages of the model. With the Revit model coming together midway through design development, the architectural team was able to issue pre-bid steel, mechanical, electrical, and plumbing packages well before the traditional milestone. An integrated model leads to a more streamlined project, and with fewer RFIs and change orders, there's potential for owner cost savings. "Clients will never stop pushing on the schedule, so it is up to us to keep up the quality on the products and documentation," notes Daly. "The pace at which technology evolves and changes our lives makes us all less patient. Nobody expects that to change in the near future." complaint is that contractors haven't been quick to adopt BIM. Still, Fano has some lingering doubts that design professionals are ready to get up to speed, saying, "If architects don't take a more active role in BIM, contractors will own this aspect of building." And just as

#### "Revit is not a tremendous saving of money. It takes the same number of man-hours to deliver a project using Revit as using 2-D CAD. But it gives us a better deliverable."—Jim Daly, Francis Cauffman Architects

The potential for more efficient architecture is huge, but at the time of the 2006 AIA Firm Survey, only 16 percent of AIA member–owned architecture firms had BIM software. That number is rising alongside rapid changes in the technology. A paradigm shift is occurring in the profession: On Oct. 17, the AIA issued "E202–2008 Building Information Modeling Protocol Exhibit," a contract document written by industry practitioners that, according to the press release, "sets the requirements and authorized uses for BIM content, and identifies BIM authors at five progressive levels of development. It also establishes protocols for model ownership, conflict resolution, storage, viewing, and archiving."

Such protocols should help settle questions over who owns what information at what point. A common

# SIDE BENEFITS OF BIM

Maybe you're tired of hearing that BIM promises a "revolution" in building design. Why adopt it now? Here are a few good reasons:

Text Amanda Kolson Hurley

#### BIM compels you to work better, earlier.

Jim Daly, a principal at Francis Cauffman Architects, doesn't deny that working in Revit is in some ways a constraint. After a core team for a project has been selected, he notes, switching people out becomes "very problematic," because the 3-D design process is so front-loaded. And yet, that's a *good* thing, he insists. The core team members become job captains for the 2-D linework, ensuring continuity and quality control, and keeping the client happy.

#### It's great for owners, especially in this economy.

BIM compresses the overall project schedule and allows project costs to be fixed earlier. If you're an owner who is concerned about escalation of costs, a shorter project cycle and earlier handover of risk to the builder are going to be attractive. Daly hopes that owners will influence legal thinking, too: "If you can show a client it saves them money or reduces the schedule significantly, that will be a big motivator for them to encourage [their] lawyers to change the way they think about it."

#### It's green. (Or will be.)

You can eliminate a considerable amount of paper waste by working from a digital model. Of course, the bigger the uptake of BIM within the building industries, the greater the gain for the environment. the words are out of his mouth, he outlines some of the fears that go along with adopting BIM. "There is a feeling that it will hinder the design—that you can't be as free. That it will force the architect to make decisions too early." Then, he softens the blow: "It's just a tool," he adds.

Because BIM software packages like Revit and ArchiCAD are capable of linking detailed product information to the model, they make it possible to keep track of project costs and material takeoffs. Fano brings up a façade drawing of a housing project on his laptop. (He produced it while an employee at SHoP Architects.) The façade is composed of three kinds of panels, each a different material. To control the cost implications, he varied the pattern and got "live" takeoffs, ultimately performing a type of self-imposed value engineering well before the drawings landed in the hands of the construction manager. Daly, however, is lukewarm on this aspect of BIM: The information that manufacturers embed in the files is surplus, he feels, to architects' needs.

It is hard to understate BIM's impact on a design delivery process that hasn't really changed in a century. Firms that have switched to BIM don't switch back, but the technology comes with tensions and reservations. "The single greatest concern I've heard is fear about perceived difficulty of implementation. It is true that every firm that has adopted the technology has gone through a learning curve; this is a fact of adoption of any new technology or technique," remarks AIA resource architect Markku Allison. "Other concerns include cost (of both initial software and training), difficulty in finding team members who are also using the technology, and the possible blurring of boundaries through sharing work on a model."

This blurring between construction management and architecture, at its best, results in collaboration, but there is also fear of a power grab for project control, with the architect marginalized. To address the issue, the AIA in November 2007 released the *Integrated Project Delivery (IPD) Guide*. The document outlines best practices for collaboration between owners, designers, consultants, and contractors, with BIM as the underlying technology.

While there still are some pretty significant kinks regarding insurance and liability, the holistic promise for efficient, sustainable projects shines bright. "With the traditional process, we are constantly defining boundaries; with IPD, we have more time to design the project," says Allison, who was part of the multidisciplinary team that drafted the *IPD Guide*. "Other stakeholders can bring their skills to the project. Each can contribute in a richer, more meaningful way."

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Text Joseph Giovannini Photos Richard Barnes

#### GWATHMEY SIEGEL RENOVATES AND EXPANDS PAUL RUDOLPH'S LEGENDARY, CONTROVERSIAL A&A BUILDING.

IN THE FALL OF 1977, Paul Rudolph visited Yale with New York architect George Ranalli, for a show of Rudolph's drawings that Ranalli had curated, and as the two walked up to Yale University's Art & Architecture Building, which Rudolph designed when he was head of the architecture school, he broke into tears: "What have they done to my building?"

One of the most original talents in American architecture, Rudolph poured himself into the design of the A&A building, which opened in 1963. At a gateway corner pivoting New Haven into the campus, Rudolph sited a monumental play of interlocking spaces and cubes pinwheeling off four massive service piers. The design recalled the concrete masts of Frank Lloyd Wright's Larkin Building in Buffalo, N.Y., demolished a decade earlier. Rudolph brought a dazzling complexity to Wright's four-poster idea, with blocks of form and space pushing and pulling back and forth, up and down, in a 10-story building terraced into some 37 levels. He re-established the 20th century monument, and in the process actually solved Wright's conundrum about how to bring Prairie architecture to the dense city: Wright broke the box horizontally, and Rudolph, vertically.

Rudolph had every reason to weep when he returned in 1977, because the building displayed awful mistreatment. Two years after it opened, the building was already ridiculed, if not vilified, by architects who were building their own reputations by tearing it down. Charles Moore, who succeeded Rudolph as dean, mounted the first iconoclastic offensive by building a tongue-in-cheek Mylar "ridicula" in the heroic jury space on the piano nobile. Robert Venturi targeted Rudolph as the architect to demolish in Complexity and Contradiction in Architecture: The building was a duck rather than a decorated shed. The coup de grâce was a disastrous fire of dubious origin that only confirmed the building's status as a pariah.

With the near-total eclipse of Postmodernism, it is ironic that the very figures who opposed Rudolph are burying their previous positions, some with a convenient amnesia. Venturi has formally apologized for his writings, and Robert A.M. Stern has officiated, as current Yale dean, over the comeback of the building, positioning himself as Rudolph's cultural successor. The A&A building, now called Paul Rudolph Hall, was recently restored by Charles Gwathmey, and, in a complex oedipal act, Gwathmey also just completed an extension on the building's north (campus) side, the 87,000-square-foot Jeffrey Loria Center for the History of Art.

First, we must all be grateful that after some 40 years, the building has been restored to the canon as one of the great moments and monuments of 20th century architecture. The structure has been treated with great respect by architects who consider themselves heirs to the Rudolph tradition and by a university that acknowledges the building as a primary icon from the period of courageous architectural patronage under president A. Whitney Griswold (who also hired Kahn, Saarinen, and Bunshaft). Pace.

The first task of restoration was to strip off all the indignities, the partitions that had smothered Rudolph's vectorial spaces. As in a quarry, the concrete defined forms that shaped and directed space, and Gwathmey Siegel & Associates clarified the forms to liberate and restore the space. The massive concrete itself proved an obstacle for new systems. The architects, with associate partner Thomas Levering as project manager, simply bypassed the problem, attaching ducts inconspicuously outside the structure, then weaving them through dropped ceilings into the interiors.

The earnest and respectful restoration sadly misses several germane issues. One of the most regrettable misunderstandings stems from the fact that Gwathmey, despite his status as a Rudolph student, represents a different Modernist tradition. Rudolph slips planes and volumes past each other, creating a relational environment of independent parts, whereas Gwathmey meets corners and volumes in a flush architecture of modular agreement: Gwathmey obeys the grid that Rudolph escapes. Rudolph's buildings tend to great complexity, whereas Gwathmey's tend to simplicity. Whenever Gwathmey adds a dropped ceiling, or even a bookcase, he makes coincide lines that Rudolph would have intentionally misaligned. The Gwathmey edit tames Rudolph; it also undoes Rudolph's space-defining changes in floor and ceiling levels by making them flush and continuous. The lowered ceilings and

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raised floors may accommodate ducts, but they also diminish the A&A building's spatial variety.

### Tonally, the restoration undermines the tactility of Rudolph's building.

Dubbed Brutalist, it was brut only in the French sense of the word "raw." The original represented an embodied materiality, down to the patterns that the board forms imprinted on the concrete (which often figured as starting points for bawdy student graffiti in the bathrooms). In an architectural world that would soon capitulate to Sheet rock via its surrogate, foam core, the Rudolph building was overwhelmingly physical: You could scratch your back like a cat on the corduroy walls and punch your fingers into the squishy (and carcinogenic) asbestos fire retardant sprayed on the ceilings.

The restoration architects, however, import materials that are slick and commercial. The dropped ceiling panel system is completely out of character with the original, its low-gloss, vinyl-looking surface at odds with the concrete. The panels, actually made of metal, now take the ceiling out of Rudolph's highly material 3-D surround, denaturing the concrete lid in a jarring tonal lapse. Similarly, wooden floors, raised to the level of the surrounding concrete terraces, domesticate the spaces and reverse the spatial differentiation defined by the level changes. Gwathmey Siegel replaced Rudolph's hemp curtains with neat but bland rolldown shades.

# Adding onto a masterpiece is a thankless task, especially if the new budget doesn't match the original.

Richard Meier was first tapped to design the addition, but his design proved too expensive. Yale turned to Gwathmey, who had worked with Rudolph on the production drawings for the building, to design the \$126 million project.

Rudolph had always anticipated an addition for the art department, so he sited his elevator core off center, on the campus side, where it was intended to become central to the expanded building. That elevator core should have been the starting point of the addition, but Gwathmey suppressed the old elevators for new ones, believing the originals too small for current needs. Rather than consolidating the two small elevators into a larger one within the existing shaft, or adding a big bypass elevator adjacent to the old, the architects created a new bank of elevators, then trivialized the old, vacant shafts by adapting them (and the bathrooms opposite) into coat and photocopier rooms and service areas.

Rudolph intended that the elevator core hyphenate the two buildings, but the addition loses the hyphen, muddying the parti that Rudolph anticipated with such great clarity. The building now has two cores, one suppressed, and visitors to the building are encouraged to ignore the ceremonial flight of stairs up to the piano nobile of the Rudolph building. Instead, they step in at street level through Gwathmey's new, much more prosaic entrance.

What Gwathmey does get right is that he separates the old building and the addition by a public space that acts as a skylit courtyard between the two. The courtyard, which serves as a lounge and reading room for the expanded library, binds the old building to the addition by a void.

To avoid a mimetic response to Rudolph's design, Gwathmey strikes out on his aesthetic own, creating a collage of volumetric parts in shifted and angled geometries. But the facade of near-volumes along the street drifts off into the depth of the site without the sustained discipline of Rudolph's fourposter building. Gwathmey did not have to match the A&A building in grandeur or weight, but he did need to create an addition with a presence that would balance the old building. Compared with Rudolph's, the forms and composition are weak, and all the more so because they are clad in limestone and zinc panels, some laid horizontally and some vertically. The materials look, and are, insignificant seen against the very robust concrete. The Rudolph building had body; Gwathmey's is dressed.

Rudolph designed a strong-willed, handmade masterpiece, and any addition, no matter how well intended, starts out behind the eight ball. Gwathmey's addition courteously defers to the original, but the better way to honor Rudolph's A&A would have been a response equaling its power and presence. Rudolph, who was ecumenical as dean, would have enjoyed—and even demanded—a building that took on his own, mano a mano. This is a commission that asked for brilliant parity among architectural equals, but standing now at this pivotal corner is a perpetuation of the student-teacher relationship.

Studio Photos Mark Mahaney

### UNIVERSITY OF MIAMI



THE NEW TOWN STUDIO • INSTRUCTOR: JAIME CORREA • STUDENTS: 11 • SCHEDULE: M, W, 8-12; F, 2-5

On a perfect October day on the palm-studded University of Miami campus, Jaime Correa's students can be found deep inside a Bauhaus-by-way-of-South Florida 1940s studio block, trawling Google Earth for promising sites for a zero-energy town — the eventual object of The New Town Studio, part of the School of Architecture's postprofessional M.Arch. in suburb and town design.

Prior to this exercise, the 11 students began the semester by carefully documenting the pre-1920s conditions of four American cities that Correa calls "prototypical": Annapolis, Md.; Nantucket, Mass.; Newport, R.I.; and San Antonio. Correa, who has been teaching the class since 1989, encourages his students to integrate traditional urban design methods with contemporary technologies and ecological awareness.

It's no surprise that, under the deanship of Elizabeth Plater-Zyberk, the school at Miami has become a hub for aspiring New Urbanists. However, the appeal of American New Urbanism which, after all, celebrates the regional and vernacular—turns out to be broadly international. Teamed up to research town sites on the day of my visit are Sara Hayat, who hails from Iran by way of Germany, and Palak Gandhi, from India. Both say they were drawn to Miami in search of solutions to ramped-up urban development and sprawl in their home countries.

Later, the class moves into the Leon Krier–designed gallery next door for a pinup of their meticulous pre-1920s town maps (the school is known for its fine hand drawings). Student Jeffrey Hall, from Nashville, tells me he left his advertising career to pursue an architectural education in Miami and feels at home with the pedagogical approach here. Evidently, the school that marches to its own drum attracts *simpatico* students: "We don't have to brainwash anybody," Correa jokes. *Armanda Kolson Hurley* 



# UNIVERSITY OF NEW MEXICO

#### ANTOINE PREDOCK ARCHITECT CREATES A NEW PUBLIC FACE AND PROMOTES A SENSE OF COMMUNITY FOR THE SCHOOL OF ARCHITECTURE & PLANNING.



Text Katie Gerfen Photos Kirk Gittings

**CRUISING DOWN** Albuquerque's Central Avenue, a fragment of the old Route 66, motorists glimpse an interesting sight: a two-story movie screen attached to a 108,000-square-foot university building. A throwback to the drive-in and a showcase for student video projects, the screen is a calling card for Antoine Predock Architect's new School of Architecture & Planning at the University of New Mexico.

The building had to accomplish many objectives, dean Roger Schluntz recalls. It had to provide a new face for the university along Route 66; complement the campus's ubiquitous Pueblo Revival architecture; and espouse modern design principles. It had to provide instructional space, build community, house a library, and answer the myriad needs of an architecture school.

This could have led to disjointed results, but Predock has crafted an open, unified space, with studios and critique space organized around a three-story well. Balconies, stairs, and a bridge encourage what Predock calls "visual eavesdropping," fostering social interaction and an environment in which students can learn from instructors and each other.

SCHOOL OF ARCHITECTURE & PLANNING AND FINE ARTS DESIGN LIBRARY • Client University of New Mexico Design Architect Antoine Predock Architect Executive Architect Jon Anderson Architect Structural Engineer Chavez, Grieves Consulting Engineers M/E/P Engineer Bridgers & Paxton Consulting Engineers Energy Consultant The Weidt Group Code Consultants Code Consultant, Inc. Civil Engineer Jeff Mortensen & Associates Specification Consultants KG Associates Builders Jaynes Corp. Cost \$29 million



**RESPONSIVE ROBOTIC ARCHITECTURE** • INSTRUCTORS: PHILIP BEESLEY, RICHARD SARRACH • STUDENTS: 9 • SCHEDULE: M, TH, 2-6; F, SEMINAR

Who knew a bagel shop delivered to studio? It's 9:30 on a Friday morning, and nine sleepy fourth- and fifth-year students at the Pratt Institute School of Architecture are preparing to present their research when a cell phone chirps and one person makes a break for the door. "Is she coming back?" asks visiting professor Philip Beesley, down for a biweekly visit from the University of Waterloo in Ontario. The student returns, bagel in hand, and the conversation resumes as each student presents information on architectural theory, ranging from Pierre Teilhard de Chardin's noosphere to Eric Owen Moss' efforts to, as Beesley puts it, "build [James Joyce's] *Finnegans Wake* in Culver City."

This is a typical seminar day in "Responsive Robotic Architecture," the studio Beesley teaches with Richard Sarrach. The goals are to examine the idea of performative architecture through concepts such as robotics and mechtronics (the commingling of mechanical and electrical engineering). The first day of studio, students were thrown in headfirst. Asked to put together a mechanized mesh system designed by Beesley's Toronto office, they were required to assemble the plastic mesh, solder the circuit board, and wire the system so that the mesh expands or contracts based on signals from integrated motion sensors. The mesh now hangs limp in the secondfloor studio space, having been cannibalized for student projects. On the other side of the table, a tentacle is suspended from the ceiling; it curls up when it senses motion-"We wanted to make it a little bit like an animal," designers Xuedi Chen and Shawn Sims explain-and it could be applied as a divider in a flexible space. The most promising designs at the end of the semester will tour the country in an exhibition. Katie Gerfen





#### THE EDUCATION ISSUE





TRANSPARENCY • Predock describes the building enclosure as "a big unapologetic wall that has apertures that allow different possibilities." The expanses of glazing allow passersby on the south (previous spread) or north (above) sides of the building to see the activity in what is often a 24-hour building. The openings also allow students to look out, which Predock notes is something "that people in these studios need to, but don't often, do." His client is pleased. "The building responds even beyond my expectations," Schluntz says. "The school and our programs went from virtual obscurity to being the prominent feature on this segment of the campus."

BUILDING AS LEARNING TOOL • "The guts of the building are hanging out, in an instructional sense," says Predock, when describing the building's interior. All systems are exposed, from the massive steel trusses (left) to cable trays that snake along the ceilings, bringing power and network operations to every workstation. The exterior walls-of poured-in-place concrete tinted an adobe tone to match the other campus buildings-are exceptionally thick. The thickness accommodates a plenum that creates airflow in an inductive-air system.



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#### Lower Level

**OPEN STUDIOS** • The

studio spaces are not only open to each other, but also to the firstfloor critique bridge, a space with rotating pinup boards and room for classes to gather. "Anything can happen in this space," says Predock. "It is the pulse of an architecture

school. Here it's not locked away, it's at

the crossroads." The

"You just sense the intensity. Because of the

open studios themselves were a conscious change

from what the school had before, and a positive one, says Schluntz:

openness, there is a lot of wonderful engagement that we didn't have previously."



#### First Floor



#### Second Floor









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Text Kimberly Stevens Photos Tom Bonner

# WOODBURY UNIVERSITY

### RIOS CLEMENTI HALE STUDIOS DESIGNS A STUDIO BUILDING THAT INSTRUCTS THROUGH STRUCTURE.

"IT IS A GOOD SIGN when architecture students see the built environment as their medium," says Frank Clementi, a principal in Los Angeles–based Rios Clementi Hale Studios. The firm recently completed a new studio building in Burbank for Woodbury University's architecture school. "It was our goal when we designed the space, so it is amazing to actually see the students inhabit it—there are holes in the walls, paint in weird places, and evidence that they are immersing themselves in the space—and ultimately learning from it," he continues.

The studio building, which completes the architecture facilities at Woodbury, is part of a \$27 million campaign that includes a business complex, a residence hall, and a 300-car parking lot. According to Clementi, the studio building's design is emblematic of a shift in architecture school culture. It is a hybrid of sorts — a space conceived as part building, part teaching tool, with multiple studio spaces to inspire students to actually teach one another. "Architecture itself has always been a starbased system, and I think that is beginning to change," he says. "The students go to class together, they work together, they eat together, and they sleep together, which teaches collaboration. It's a great incubator for what the real work world is like."

The two-story, 19,000-square-foot structure is nestled among existing, traditional brick-and-mortar buildings, which once housed a convent. The architects incorporated studio and critique space for about 200 students, as well as a doubleheight space for exhibitions, fund-raisers, graduations, and all-school lectures and events. A giant glass lantern illuminates the room. A custom film for the glass, in a graphic leaf pattern, pays homage to an olive grove that once stood on the property.

The building forms a perimeter along the southeast corner of the 22-acre campus. In order to avoid a monolithic appearance, the architects laid the exterior cement blocks in different colors and textural patterns. But it is the technological expression of the building that Clementi hopes will have an impact on the students. The structural and mechanical systems are exposed to serve as teaching tools. "The structure of a building becomes obvious when it is showcased," he says. Cantilevered steel beams support a balcony and the roof; metal decking forms the roof. There are also metal ducts and DuctSox for the HVAC system, sprinkler pipes, and pendant lighting. "Layer upon layer of the building is exposed," Clementi says, and according to faculty, the impact is already clear: "This building has instilled a sense of pride of place," says professor Paulette Singley. "I think it has improved everyone's attitude, and it has ultimately improved the work—it has been truly transformative."

THE WOODBURY UNIVERSITY STUDIO BUILDING • Client Woodbury University Architect Rios Clementi Hale Studios-Mark Rios (principal-in-charge); Robert Hale, Frank Clementi (principals); Jennifer Charles (project architect); Naseema Asif, Garth Ramsey (design team) Design/Build Contractor Swinterton Builders Project Management Exceleration Project Management Structural Engineer Charles Tan + Associates Civil Engineer KPFF Acoustical Engineer Newson Brown Acoustics A/V Consultant PlanNet Consulting Electrical Systems Unison Electric Mechanical Systems Western Allied Corp. Plumbing Pan-Pacific Lighting Mark Jacksen Illumination Landscape Valley Crest STUDIO

### UNIVERSITY OF CALIFORNIA, LOS ANGELES



SUPRASTUDIO • INSTRUCTORS: NEIL DENARI, STEPHEN DETERS • STUDENTS: 15 • SCHEDULE: TU, 9-12; M, W, F, 2-6; WEEKLY 90-MINUTE RESEARCH STUDIO

As UCLA student Stephen Nieto points out, architecture studios start to look the same after a while: Bide your time for several weeks, then pull some all-nighters near the end to finish a solitary project. But the UCLA Department of Architecture and Urban Design's new one-year graduate program, Suprastudio, is very different. Students work together to take on a single project over the entire year (which includes four quarters), creating new urban centers—as well as specific architecture—interconnected with the vast Southern California megalopolis. "This is definitely not a normal studio," says Nieto, who loves the course's collaborative format and its wide-reaching scale.

The M.Arch. II program, dreamed up by new UCLA department chair Hitoshi Abe, is taught by Los Angeles architect Neil Denari and studio assistant Stephen Deters. Students, divided into five teams of three, develop plans for large, potentially developable sites throughout the L.A. area, including the former El Toro Marine Corps air station near Invine and underused sites near Chino, Irwindale, and Palm Springs. Teams start with broad plans and get more specific as the year progresses. Along the way, they get technical lessons and seminars from engineering firm Buro Happold and planning and architecture firm EDAW, as well as input from designers, marketers, and strategic leaders at Toyota, which pitched in \$100,000 for the course.

Nothing in the curriculum is set in stone, says Denari, and most learning comes when questions pop up along the way. "Essentially, it's a giant experiment. You don't know what a problem is until you start chipping away at it," he says. And that approach is paying off already, only a few months in. "It makes it easier to tackle a small building when you understand the context," says Raul Aguilera, a member of the team working on the site near Palm Springs. "A good architect is unselfish and can always think of things in terms of the greater good and the larger scale," adds his teammate Megan DuBois. Sam Lubell





1. GARAGE DOOR • A folding door opens to reveal a double-height space that was designed to answer a variety of needs. For the university at large, the space can be used for graduation events, concerts, and fund-raisers, with chairs set up inside or out, using the opening as a proscenium. On an average day, the area is taken over by students as a space to hang out, eat lunch, socialize, or work on projects.

2. EXTERIOR • Designed and constructed to be an explicit teaching tool for the students, the exterior is an exercise in different surface materials. Beams are left exposed so that students can see how a cantilevered balcony works, paint was eschewed for colored cement to demonstrate a material's versatility, and the textured brick wall extends beyond the building, so students can see how to design a self-supporting wall system.

3. STUDIO SPACE • The interior follows the same design-by-example principle as the exterior: The gypsum drywall pinup panels stop shy of the ceiling to expose the structural concrete masonry unit walls and allow room for clerestory windows to bring light into the space. Desks were designed and constructed from fiberboard, with little scrap, giving each student a 5-footlong dedicated workspace, as well as a computer cabinet and electrical outlets. Concrete floors and unfinished ceilings complete the studio space, which takes up 5,500 square feet on each of the building's two levels. Students have fully claimed the environment as their own, pinning up projects, adding furniture, and otherwise personalizing the space where they spend so much of their educational career.







# **UNIVERSITY OF VIRGINIA**



U.Va.'s Design Trust (left to right) W.G. Clark, Karen Van Lengen, William Sherman, Warren T. Byrd Jr., Willard Scribner, Lucia Phinney, Joshua Stastny, Jeff Bushman, Robin Dripps, Anselmo Canfora, Peter Waldman (seated), Sandra Illescu, Judith Kinnard



TO REDESIGN CAMPBELL HALL, U.VA. ARCHITECTURE DEAN KAREN VAN LENGEN HIRED HER OWN FACULTY. WHEN KAREN VAN LENGEN ARRIVED at the University of Virginia (U.Va.) in 1999, the School of Architecture she joined as dean was full of talented people and fresh ideas. But the building it occupied, Campbell Hall, was sorely lacking in space for reviews, classes, and staff. The four-story concrete-and-brick facility, which was designed by Pietro Belluschi and opened in 1970, had been criticized by the National Architectural Accrediting Board. "There was a huge accreditation issue," Van Lengen says. "I had to do something about it immediately."

Even perceptually, the physical environment was lifeless. So, launching an initiative called "Campbell Constructions," Van Lengen seized the opportunity to upgrade the building. Instead of hiring a name-brand outsider, her stratagem was to provide design opportunities for the U.Va. faculty. Starting with a rather modest gallery renovation, Van Lengen quickly moved on to bigger projects. A feasibility study by Bushman Dreyfus Architects, of Charlottesville, set the stage for three larger-scale projects—two additions and a new landscape plan.



Van Lengen worked with U.Va.'s provost to pay the faculty for their design work with summer salaries and stipends. She also insisted that the more ambitious projects be managed by an architect of record: SMBW Architects of Richmond. In addition to the logistical hurdles, there were political battles to win—in particular, with the conservative Board of Visitors' predilection for traditional design schemes that cater to "Jeffersonian" precedents. "It was a hard sell," says Van Lengen. "But we did it." Van Lengen also raised most of the \$15.5 million cost of the three largest projects. A host of other, smaller initiatives was supported by private funds or university resources.

Van Lengen, who is resigning in 2009 after 10 years on the job, couldn't be more pleased with the legacy she will leave. "Not only did we use our own family to make our own space, but we did it in a way that is not about image," she maintains. "It's about how we live together to develop more dialogue, more innovation, and more opportunities."

### LILINOIS INSTITUTE OF TECHNOLOGY



SPACE/INTENTION/MEDIA/INFO/DURATION • INSTRUCTORS: DIRK DENISON, JONATHAN MILLER • STUDENTS: 12 • SCHEDULE: M, W, F, 2-6

"There's no program, but there *is* a client," explains architect Dirk Denison of the studio he's conducting at the Illinois Institute of Technology (IIT) with longtime friend film critic Jonathan Miller. The two instructors and 12 upper-level undergraduate and graduate students meet in Room 214 of 3410 South State St.—a building designed by Ludwig Mies van der Rohe less than 50 yards south of the renowned Crown Hall, but so unremarkable that IIT can only place its construction between 1945 and 1953.

The studio's nonexistent "program" is the development of abstract, media-based content for a temporary pavilion to be designed by Zaha Hadid and constructed in Millennium Park next summer, celebrating the 100th anniversary of Daniel Burnham's Plan of Chicago. For Marco Trusewych, a fifth-year undergraduate, the opportunity to be influenced by Hadid was appealing, and so was the challenge of a conceptual problem that wouldn't necessarily result in a building design. "They're open for you to be off the wall," he says of the critics. "But you have to really own your ideas."

"IIT is in a time warp," observes fourth-year undergrad Natalia Klusek. "Drawing 10,000 bricks isn't going to make you think critically," is how she describes some of her previous studios at the school. Klusek's early concept for this project—rendered in handdrawn sketches, CAD plans, sections, and 3-D modeling—is a field of potentially sophisticated, engineered sticks that visitors might use for any number of purposes. "There's a social aspect to the proposal," says Miller during a critique—laying out a possible direction for her unorthodox solution to take. *Edward Keegan* 











EAST ADDITION (VICTOR AND SONO ELMALEH WING), 2008 • Designed by W.G. Clark in collaboration with SMBW Architects, the East Addition—a slender, four-story pavilion—is a new icon for the campus. Its east façade thrusts toward Rugby Road, a busy pedestrian route, dressing up the back-of-house image that has characterized this approach to the building for decades.

Designed primarily to increase the School of Architecture's space for pinups, the addition includes three loftlike rooms with concrete floors, maple ceilings, and expanses of glass that allow passersby to view the activity inside. "The review room is an extension of the teaching experience," Clark says. "I wanted the building to show what we do."

The north façade is a collage of clear and translucent glass. Inside, a series of rotating panels provides pinup surfaces on both sides. The panels turn and lock into position at 90-degree intervals on steel mechanisms, a solution Clark likens to Thomas Jefferson's mechanical inventions at Monticello. Cherry benches are strategically located in each review room. On the second floor, one bench sits in front of a transparent north-facing window, where students' models will be put on display.

Outside, a concrete stair descends to a new courtyard. From there, a new entrance leads to a spacious lobby/exhibit area with access to the school's existing main lecture hall, which has long been difficult to find. The tower connects to the existing building by a bridge paved with Buckingham slate.

Faculty Architect W.G. Clark Architect W.G. Clark Associates—Joshua Stastny, Azadeh Rashidi Architect of Record SMBW Architects—Willard Scribner, Bland Wade, Rab McClure, Ron Wolfe, Gwen Logan, Josh McCullar, Nicole Truitt, Yalin Uluaydin, Bronwen Warner, Andrew Cocke Structural Fox & Associates Civil Engineer Draper Aden Associates M/E/P Hurd & Obenchain Box Kite Design/Metal Fabrication Charles Yeager Lighting Mark Schuyler LC Contractor Donley's Construction STUDIO

MASSACHUSETTS INSTITUTE OF TECHNOLOGY



BUILDING THE SCHOOL IN SICHUAN: EARTHQUAKE RE-HABITATION • INSTRUCTORS: WEIJEN WANG, KANDA SONG • STUDENTS: 11 • SCHEDULE: TU, TH, 2-7

Weijen Wang's 11 architecture students are getting a lesson in real-world school design that's not quite what they signed on for (just ask them). Not least because the clients are in China—in Sichuan Province's Beichuan County, which suffered a devastating earthquake last May.

The phrase "ad hoc" comes up several times as Wang—a visiting associate professor at MIT, an associate professor at Hong Kong University, and principal of his own firm—describes his responses to what's transpired since MIT School of Architecture + Planning dean Yung Ho Chang (a friend of 20 years) asked him in June to lead a third-year M.Arch. studio in designing a middle school for Beichuan. First, there was a change in program, from a remote boarding school for 1,000 students to a regional middle and high school serving 5,000. Then, they lost one collaborating university (although Beijing's Tsinghua University remains a partner). Next, a central government organization came on as a sponsor, and the project even roused the interest of Chinese Premier Wen Jiabao. And the "shifting sands" continue to change, says Wang, who has designed several schools himself, including a temporary structure after a 1999 Taiwan earthquake.

Still, he presses on, making occasional journeys to China to finalize, as best he can, the details of his studio's October site visit, when, as ARCHITECT went to press, Wang's students were planning to spend a few days in Beijing and a few in Beichuan, exploring the site and meeting school leaders. In the meantime, Wang's students are working first on general classroom organization, then creating sectional studies (at 1:50 and 1:10 scales) to understand the tectonic and material qualities of what they will design.

Their instructor looks ahead to 2009, when he will return to China to see the school through to completion—perhaps with the help of one or more students. "There's a level of pragmatism [Wang] injected into the studio from the start," says student Ian Kaminski-Coughlin. *Braulio Agnese*  Site Plan













1. NAUG LOUNGE, 2009 • Working with New York designer Joel Sanders, Van Lengen herself is turning this double-height space into a hub where students can plug in an iPod to share music, tune in to a real-time lecture on campus, or select a channel that captures sounds of nature on campus. • Faculty Architect Karen Van Lengen Architect Joel Sanders Architect-Joel Sanders, Chris Kitterman

2. VICTOR AND SONO ELMALEH GALLERY, 2002 • The first "Campbell Construction," this small project revamped the school's original entrance and created a new lobby gallery. • Faculty Architect Tim Stenson Student Assistants Jim Kovak, Kirk Jensen Steel Fabricator Virginia Industrial Services

3. METABLICA, 2004 • This student project, guided by professor William Sherman, produced three folded stainless steel tables that promote activity around a brick courtyard. • Student Design Team Meredith Epley, Justin Hershberger, Nathan Petty, Elizabeth Shoffner, Michelle Shuman, Katie Spicer Steel Fabricator Lauren Danley Finish Roger Sherry, Plank Road Studio

4. ERIC GOODWIN PASSAGE, 2004 • As a memorial to a member of the class of 2002, a pair of outdoor classroom spaces was erected by professor Peter Waldman's design/build studio. The construction-composed of two tilt-up concrete walls flanking a narrow passageway-is a study in opposing themes. • Faculty Architect Peter D. Waldman Student Design Team Sam Beall, Justin Walton, Jennifer Findley, Daniel Wilken Concrete Work Allied Concrete

5. FINE ARTS CAFÉ, 2008 • Designed by associate professor Judith Kinnard, this project took an uninspired snack bar-little changed since the 1970s-and injected it with energy. New materials wrap the existing concrete shell to provide spatial definition and social connections. • Faculty Architect Judith Kinnard Architect of Record University of Virginia Lighting Consultant Mark Schuyler LC

6. LANDSCAPE, 2008 • The additions to Campbell Hall provided an opportunity to reconnect the school to its immediate surroundings. Warren Byrd, former chair of the school's department of landscape architecture and a principal of Nelson Byrd Woltz Landscape Architects of Charlottesville, created a series of new and adapted landscapes that are expressive of regional hydrology, geology, and ecology. One of these, the Woltz Bioretention Garden, is a demonstration garden that addresses erosion and removes impurities from rainwater as it flows from the site. "There was always an intention that this would be a teaching landscape," says Byrd. • Faculty Landscape Architect Warren T. Byrd Jr. Landscape Architect of Record Nelson Byrd Woltz Landscape Architects-Todd Shallenberger (senior project manager); Thomas Woltz, Serena Nelson, Emmanuel Didier, Sophie Johnston, Sara Osborne, Michael Stouse, Jason Kreuzer, Dan Norman, Anne Samuels (project team) Architect of Record SMBW Architects Structural Fox & Associates Civil Engineer Draper Aden Associates M/E/P Hurd & Obenchain



SOUTH ADDITION, 2008 • Designed by associate dean William Sherman in collaboration with SMBW Architects, the South Addition adds 26 new faculty offices to the building—a boon in a school whose faculty has tripled since the building's completion. The addition's adjacency to the design studios on the third and fourth floors (the faculty had previously been segregated on the lower levels) greatly improves communication with students. "It's a way to reorganize the way the institution works, as well as the interaction between faculty and students," Sherman says.

The south façade reflects Sherman's interest in buildings that respond to climate. The exterior wall incorporates a louver system that combines frosted and clear glass panels that open and close in response to the sun's movement. Open during the day, they admit light directly into the building; closed at night, they trap the accumulated day's warmth, creating a greenhouse effect on the porches that connect faculty offices.

The offices are clustered in groups of four around a vestibule that forms small communities of interdisciplinary faculty, and two new classrooms on the southwest corner add needed instructional space. Outside, a recessed area carved out of the first floor provides two outdoor classrooms.

Faculty Architect William Sherman Architect of Record SMBW Architects Structural Fox & Associates Civil Engineer Draper Aden Associates M/E/P Hurd & Obenchain Contractor Donley's Construction





Text Lawrence W. Speck

**STANDING, AS I HAVE FOR** my entire career, with one foot in architectural education and one foot in practice, I am often a target for professional colleagues wanting to take potshots at academia.

### "Why can't you teach them to draw?"

"Every architecture student should be required to take at least four or five courses in the business school."

THE STATE OF THE ACADEMY

A HIGHER EDUCA

THE NARROW, POLITICIZED IVORY TOWERS OF YESTERDAY HAVE BEEN REPLACED BY ARCHITECTURE SCHOOLS THAT VALUE DIVERSITY OF THOUGHT AND PRACTICE.

"These kids need to be taught how to put a building together—not just to make pretty pictures."

I have heard it all, and although I have great respect for these colleagues, I am genuinely dismayed at how little they seem to know about what really goes on in architecture schools today. Many of them seem stuck in the era of their own architectural education.

The 60-somethings think there isn't enough emphasis on design and technical skills. There is too much "talkitecture," they say-which is probably a valid criticism of the architectural education they received in the 1960s. The 50-somethings criticize an overemphasis on formalism in architecture schools where the well-rendered façade is the sine qua non. That probably reflects more their personal experience in the 1970s than it does design studios today. Forty-somethings question a concentration on abstract imagery, architectural language, and esoteric intellectualism. They think students should be grounded in making real buildings for real people to inhabit. Thirty-somethings are concerned about the worship of shape-making and novelty in architecture schools. They feel that students are too enamored of sexy computer models and have no idea how to really put a building together.

Although I believe that academia has a responsibility to be experimental and to constantly seek new territory, I am critical of the rapid "changing of the gods" that has occurred over the past decades in architectural education. Ours is a very broad field, in which it is easy to get sucked into one or a few aspects

and lose sight of the big picture. Focusing students too tightly on a narrow set of issues, or indoctrinating them in a very specific architectural language, seems wrong-headed and irresponsible. It has certainly been a downfall of architectural education in the recent past.

It was heartbreaking in the early 1990s to see graduates of top architectural programs trotting around their portfolios with beautifully stippled Prismacolor drawings



of façades filled with elaborate historicist allusions, then finding the work laughably out-of-date only a few years after school. It is similarly disillusioning to see the "globs and blobs" portfolios of a decade ago looking kind of sad and silly now.

I sincerely believe, however, that architectural education today is headed in a more durable direction—one more beneficial for students and more productive for our discipline as a whole. There seems to be a constantly increasing number of schools that view architecture as an inherently complex, multifaceted field, and believe architectural education should reflect just that. These schools are more pluralistic and less singular intellectually than their counterparts of the past few decades. There is more diversity of thought and less party line.

This conclusion comes in part from my long-standing experience as a faculty member at the School of Architecture at the University of Texas at Austin, as a former dean who has participated in endless meetings of architectural educators and administrators, and as someone who frequently lectures and serves on juries in a wide variety of academic programs. But it also comes, in particular, from intensive visits that I have made as an advisor-evaluator for five architecture programs over the past two years. These were not the "check-the-box" inquisitions sponsored by NCARB for accreditation purposes, but were sincere efforts whereby each program independently solicited counsel from educators and professionals as to how

they might improve themselves. The five institutions—the Massachusetts Institute of Technology (MIT); Tulane University; the University of Nevada, Las Vegas (UNLV); Louisiana State University (LSU); and the University of Michigan—are very diverse in terms of financial capacity, ranking, and geography. They constitute a pretty good representation of architectural education in the United States, public and private.

Each two- or three-day visit involved presentations; informal discussions with students, faculty, and staff; and dialogue with provosts or presidents of the universities. I was impressed in every case by the frankness of the conversations and the genuine desire for improvement.

What I took away from these experiences was a reassurance that architectural education in this country is rich and thriving in a wide variety of contexts. It turns out that many students can do hand drawings and physical models (which I knew very well from my own institution), and they can also represent architectural environments in an amazing variety of other media that is more sophisticated and communicative than at any other time in the history of our discipline.

They may not be taking too many courses in the business school, but they may well be participating in the Urban Land Institute's Gerald D. Hines Student Urban Design Competition, where they work on a team to solve a difficult urban problem in a way that makes economic sense and produces a healthy urban environment. Their school will very likely offer design/build opportunities where they can learn intimately "how to put a building together." They might be involved in one of the 20 Solar Decathlon teams that will construct, stick by stick (or SIP panel by SIP panel), a 1,000-square-foot sustainable house that will be rigorously tested in front of thousands of spectators on the Mall in Washington, D.C.

Many programs have sophisticated community design centers like the one at LSU, where every undergraduate spends at least one semester working with clients in neighborhoods that desperately need architectural services but cannot afford professional help. Other programs, including studios at MIT, concentrate on plugging into similar authentic design situations abroad, in China, Turkey, and elsewhere. Students who participate gain personal exposure to the challenges of global architectural practice as well as to environmental problems beyond the ones we face in the United States.

Rich, mature architecture programs have a host of strengths. They offer excellent

history and theory courses as well as a rigorous technical curriculum. Their faculties experiment with rapid prototyping as an alternative production means, but also construct retrofit projects with saws and measuring tapes in their own buildings. From breadth comes cross-fertilization: The education on offer is not a one-liner indoctrination, likely to become obsolete.

The human products of these comprehensive programs are extremely impressive. One graduate student at UNLV was heavily involved in research with a faculty member involving sophisticated modeling of energy performance in buildings; he also helped teach thermal fundamentals to beginning undergraduates. At the same time, he was producing design work that was beautiful, sophisticated, and immaculately detailed. Likewise, MIT undergraduates in a studio on multifamily housing were remarkably capable of synthesizing urban design concerns with a sensitivity to individual residents' needs.

There are, of course, those who cling to the notion of a school of like minds preaching a clear, distilled doctrine to be absorbed unquestioningly by impressionable young students. They point, often, to the Bauhaus as the ideal example of the well-crafted curriculum taught brilliantly by a cohesive faculty. If they could just repeat that pattern, they feel they would reach the apex of architectural education.

As it turns out, the Bauhaus was anything but that kind of singular, cohesive environment. In its most fertile era, it offered diverse points of view on a wide range of architectural topics. While Johannes Itten and Wassily Kandinsky were helping students get in touch with a mystical, spiritualist side of design, Walter Gropius was helping them understand the power of mass production. While Theo van Doesburg was emphasizing the beauties of rationalist geometry, Ludwig Hilberseimer was encouraging an efficient, nonhierarchical social fabric for the city.

I would encourage professionals to become engaged in an architecture school and discover the changes that have occurred in the past decade Sitting on a jury or two, or going to a reunion, probably won't do the trick. It might require becoming a really active mentor to a student, learning as much from him or her as you teach. It might involve taking on interns and asking them about life outside the office. Or teaching a design studio as an adjunct faculty member.

Breadth is not an easy thing to see at a glance. More and more, though, it is the strength of American architectural education.



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BOOKS, EXHIBITS, OBJECTS

Text Hannah McCann

#### OBJECT

Armor • Milan, Italy • c. 1600–1610 • Before the Wall Street Crash of 1929, William Randolph Hearst bought this Milanese suit of parade armor for \$15,000 and displayed it in his New York apartment. Standing at just over 5 feet tall, it was probably made for a young man of small stature but great prominence. The dense ornament is carved, punched, and delicately damascened—a painstaking craft—in silver and gold. This was one of six suits of armor Hearst owned, part of the tycoon's vast collection of treasures that included swords, guns, silver and gold, tapestries, enamels, and paintings. Most were sold when his fortunes reversed in the 1930s. For the first time since then, 150 items from Hearst's holdings are reunited in "Hearst the Collector," an exhibition currently at LACMA in Los Angeles, through Feb. 1. lacma.org

### CULTURE

#### BOOK

Ken Adam Designs the Movies: James Bond and Beyond • By Christopher Frayling and Ken Adam • Steven Spielberg calls the War Room in Stanley Kubrick's Dr. Strangelove (shown in the foldout spread below) the finest set in the history of film. It and other celluloid worlds designed by Ken Adam are revealed in largeformat concept sketches, technical drawings, floor plans, and stills, as well as behind-the-scenes stories of directors at odds with the designer. Thames & Hudson; \$65



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## R. Steven Lewis THE MENTOR

Interview Edward Keegan Photo William Anthony

REVERSING THE LOW NUMBER OF MINORITY ARCHITECTS, SAYS NOMA'S NEW PRESIDENT, REQUIRES ADDRESSING FUTURE GENERATIONS THROUGH NATIONWIDE COMMUNITY EFFORTS AND INSTITUTIONAL PARTNERSHIPS.

#### **AGE** 51

Organization of Minority Architects FYI A co-founder, along with Roland Wiley and Steven Lott, of Los Angeles-based RAW Architecture (now RAW International) in 1984, Lewis moved to the U.S. General Services Administration's Office of the Chief Architect in 2004, where he spent four years working on the Design Excellence Program. Earlier this year, he joined the Pasadena, Calif., office of engineering and construction company Parsons Corp. In 2006, Lewis was named a Loeb Fellow at Harvard University, where his topic of study was race and the profession of architecture. He became NOMA's president in October.

TITLE 2009-2010 president, National

#### Audio of this Q&A is available online t www.architectmagazine.com.

#### How did you come to be an architect?

My dad is an architect. I grew up in a household that featured yellow tracing paper and Prismacolor and markers rather than the usual set of toys. My siblings and I evolved as young artists by association.

### What's your professional experience?

In 1984, we started a Los Angeles firm called RAW Architecture. Three African-Americans decided that we wanted to carve out a different niche. Our mission was to avoid public set-aside work for the first five years and try to build a clientele that allowed us to express our design point of view. Pretty bold for 1984. My dad struck out on his own in the late '60s, early '70s at a time when black architectural firms were starting to emerge in urban places like New York City. The housing market, funded largely by HUD, was a safe vehicle to empower black architects with commissions, albeit not the high-profile new construction that many of our white colleagues were able to land with similar or less experience. In four decades since civil rights leader Whitney Young Jr. harshly rebuked AIA architects for their "thunderous silence" and "irrelevance" regarding civil rights, black architects have risen from 1 percent to 1.5 percent of licensed professionals, a statistically insignificant improvement. What are we doing wrong? It is a loaded, very complex, and interesting question. Those percentages translate to approximately 1,650 licensed black architects in America today. We were trending in a more positive direction in the post-Whitney Young era, when affirmative action was in full effect and institutions like Columbia were pressed from the bottom up. Student action led to a complete revamping of their admission policies. Many of my friends and colleagues benefited, but then there was a relaxation, to let the market take care of itself. That has been absolutely devastating. About a year or so ago, we hit rock bottom. Institutions, whether pressured by their constituents or through their own good conscience, are taking measures to correct this problem. My alma mater, Syracuse University, under the leadership of dean Mark Robbins, made available 10 full scholarships a year targeting black high school students. They have had a zero attrition rate over three years since the first crop got there.

### Professional success often comes down to role models and connections. How do we get 1,650 black architects to become role models in the same way that your father was to you?

On the heels of Whitney Young Jr.'s speech at the AIA, 12 black architects decided they could not sit by idly. They became NOMA, the National Organization of Minority Architects. My dad was a member of the New York chapter during those formative years, and we are today dealing with some of the same issues—structural inequality that will still take some years to knock down. I'm happy to say we are looked to by the design community for leadership in evolving the profession. Architects of color have inherited as part of their DNA to always have work that ties back to the community, whether it is pro bono or for profit.

### What do you hope to accomplish in the coming year?

NOMA's board operates on a volunteer basis. We will never be strong based on our numbers, but we can be influential based on our leadership. We are looking for people to lead us toward mentoring. How do we create a pipeline for future generations to enjoy the benefits of this profession and make their contribution? Project Pipeline is the national initiative aimed at cultivating interest among middle school and high school kids. We focus on people of color: black, Latino, anyone who is young that we can grab and get interested. We have a number of structured programs. The biggest and the most fruitful is a summer camp in a number of cities and in partnership with the ACE mentoring program or the AIA summer programs. These are strategic partnerships, leveraging NOMA with the resources of our sister organizations to broaden the impact.

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Q&A



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