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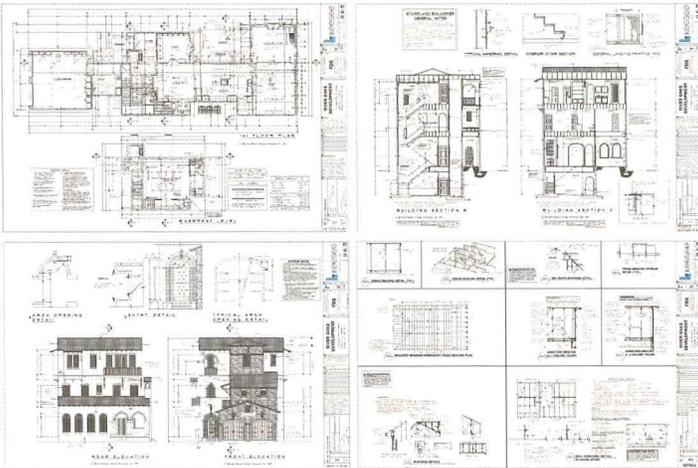


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Volume 15, number 5. *residential architect* (ISSN 1093-359X; USPS 016-871) is published bimonthly (January/February, March/April, May/June, July/August, September/October, November/December) by Hanley Wood, LLC, One Thomas Circle NW, Suite 600, Washington, DC 20005. Copyright 2011 by Hanley Wood, LLC. Opinions expressed are those of the authors or persons quoted and not necessarily those of Hanley Wood. Reproductions in whole or in part prohibited without prior written authorization.

residential architect is sent free of charge to qualified readers involved in the residential home design market. The publisher reserves the right to determine qualification criteria. Out-of-field subscription rates are: U.S., \$39.95; U.S. students, \$19.99; Canada and all other countries, U.S. \$49.95; airmail is additional. Single-copy price is \$10.00. For subscription information write to: *residential architect*, P.O. Box 3494, Northbrook, IL 60065-9831. **Subscription inquiries and back issue orders:** 888.269.8410 / **Fax:** 847.291.4816. **Reprints:** YGS Group 717-505-9701 ext. 128. Periodicals postage paid at Washington, DC, and at additional mailing offices. Postmaster: Send address changes to: *residential architect*, P.O. Box 3494, Northbrook, IL 60065-9831. This issue is mailed in regional editions. Canada Post Registration #40612608/G.S.T. number: R-120931738. Canadian return address: Pitney Bowes Inc., PO Box 25542, London, ON N6C 6B2.

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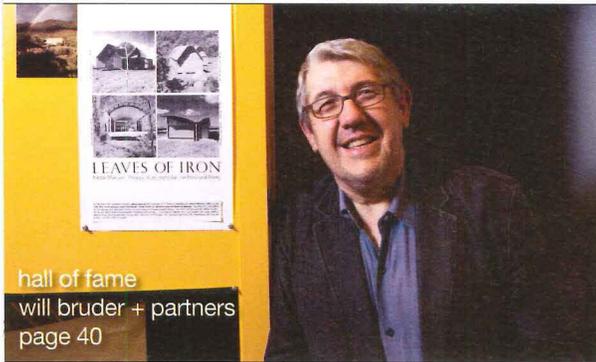
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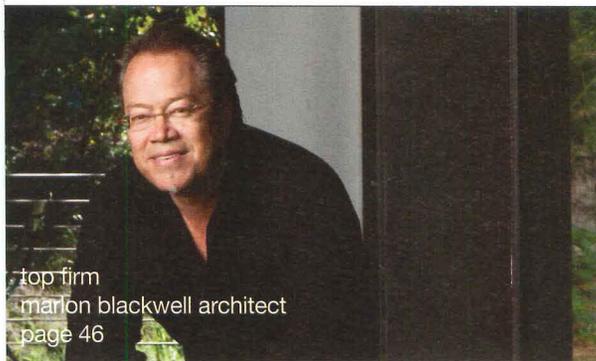
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contents



hall of fame
will bruder + partners
page 40



top firm
marlon blackwell architect
page 46



rising star
gray organschi architecture
page 52

Will Bruder, Marlon Blackwell, Lisa Gray, and Alan Organschi (from top) are our 2011 Leadership Award winners. Photos: Danny Turner (top and middle), Matt Greenslade (bottom). Cover photo: Danny Turner

from the editor.. page 9

home front.. page 12

University of Maryland wins 2011 Solar Decathlon / new book on urban agriculture.

aiarchitect.. page 15

News and views from The American Institute of Architects.

green piece.. page 19

Low-tech sustainable solutions lead a home in St. Peters, Minn., to LEED Gold.

k + b studio.. page 22

This open, sleek kitchen offers full access to a poolside veranda while a walnut millwork cube effortlessly separates the master bath from the bedroom.



practice.. page 27

Navigating your way through today's lending process is no easy task—unless you have a sound strategy to guide you.

leadership awards

hall of fame.. page 40

Will Bruder is extremely passionate about architecture and, at 65, he remains excited about what he does and the limitless possibilities that lie ahead for him and his firm—where he still takes the design lead on every project.

by Bruce D. Snider

top firm.. page 46

Marlon Blackwell undoubtedly has come into his own with considerate, site-sensitive architecture that has earned him national recognition.

by Meghan Drueding

rising star.. page 52

Lisa Gray and Alan Organschi examine the relationship between design ideas and how they are executed, striving toward the idea of building well and thoughtfully.

by Cheryl Weber, LEED AP

shelter lab.. page 65

A Solar Decathlon entry will become a duplex in a Washington, D.C., neighborhood.

new material.. page 67

All the new that's fit to print.

workspace.. page 72

A St. Louis firm transforms a vacant historic building into a green, light-filled office.

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from the editor

the court of public opinion

thanks to the web, your next design critic is powered by google.

by s. claire conroy

at one of our annual Reinvention symposia several years ago, we toured a recently built custom home on a waterfront site. It was a very handsome modern house in an area known for lots of other modern houses and a sophisticated market for high design in general. So I and our other attendees were quite surprised to see, attached to the dock next door, an angry looking handmade sign disparaging both the architect and the house we were there to admire.

Not only did this lay critic take to the high seas to make his views known, he also took to cyberspace, maligning our architect friend throughout the Internet. Who was this one-man design vigilante? A disgruntled neighbor. We saw his house, too, when we came to visit. And, let's just say, it is not destined to win any design awards. It might even merit its own online hate site.

The accessibility and reach of the Web has taken these homegrown scuffles and given them a national—even international—stage. Now and forever, anyone who Googles our architect's name also will pull up this

vituperation. Journalists, relatives, and, worst of all, potential clients will filter this venom into their overall impression of our quite talented practitioner.

In the past, small-town architects knew they might run into neighbors at the grocery store and that kept them conciliatory, if not artistically compromised, at every step of the design and construction process. Well, the World Wide Web, as we used to call it, is now a global grocery store where everyone can run into you—even if you're dressed in sweats and wearing a cap to cover your dirty hair. You thought you could slip in for a quick quart of milk ...

It's a sobering, perhaps even staggering, lesson about the power of the Web to make our lives more difficult. We already knew we could use its power for the good of our businesses, but many of us have yet to feel the sting of its dark side.

For architects, the import is clear. There's a new imperative to really consider the neighbors and context where you work. If your project can be seen by others; others will have a strong opinion of it. You may not want to seek their buy in, but the cost of not addressing their concerns has grown exponentially larger.



Mark Robert Halper

How would you feel about a Facebook page devoted to slamming you and your work—with hundreds of fans on board? Alas, it's happening everywhere—especially on large commercial projects with imbedded controversy and impassioned opponents. Even out-of-town architects are not exempt. Gone are the days when they could swoop into a new city and impose their design brilliance on communities they only superficially understand. Thanks to the pervasiveness of search engines, the court of public opinion is now only keystrokes away. In other words, what happens in Vegas no longer stays in Vegas.

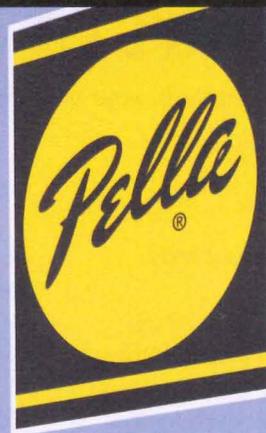
Maybe this new accountability isn't such a bad thing. Our editors at the magazine have recently spurned a number of projects for publication because of the heartless treatment of existing structures. Some of the new work is quite good in isolation, but none had the luxury of pure isolation. Instead, these projects mounted a full frontal assault on their surroundings.

One wonders what those neighbors are Tweeting about the architects. Here at the magazine, we talked only among ourselves, before we quietly hit the delete button. **ra**

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home front

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Photos: Jim Tetro

WaterShed's split butterfly roofs collect and direct water into the axis at the core of the house. The home also features a green roof that slows rainwater runoff to the landscape and improves the house's energy efficiency.

watershed moment

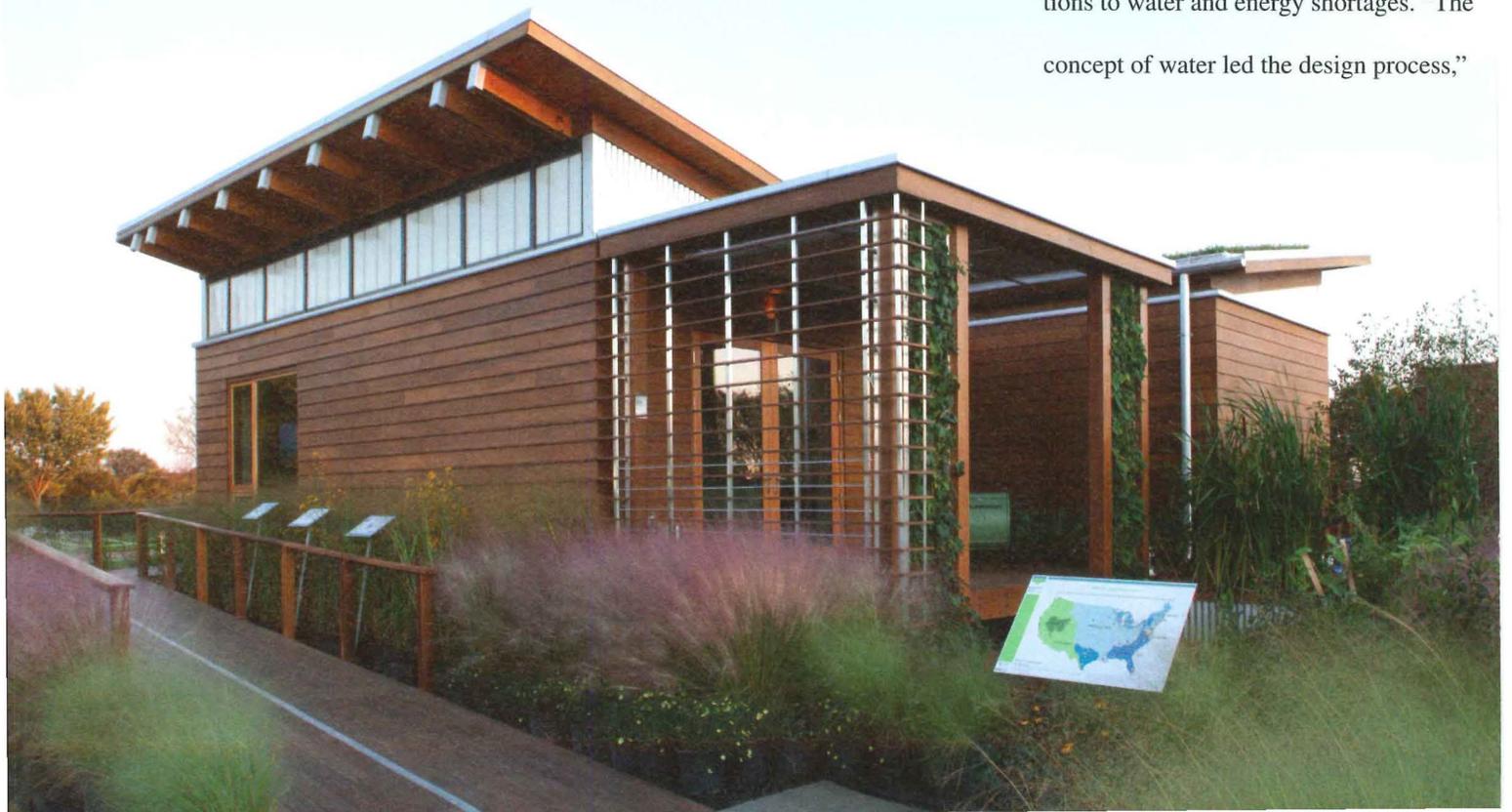
When the dust settled on the 2011 Solar Decathlon in Washington, D.C., the University of Maryland's WaterShed house was declared the overall winner of the biennial competition.

"Maryland is a well-experienced team," Solar Decathlon director Richard King told a crowd at an Oct. 1 press conference. "After taking second place in 2007, they rested and regrouped in 2009 and came to

West Potomac Park in 2011 focused and determined to win."

The DOE-sponsored decathlon challenges collegiate teams to design, build, and operate solar-powered houses that are cost-effective, energy-efficient, and attractive. This year, organizers also added an affordability category to the mix.

Inspired by the Chesapeake Bay ecosystem, the WaterShed house proposes solutions to water and energy shortages. "The concept of water led the design process,"



says fourth-year architecture student Parlin Meyer. “Not only conservation but water use, giving visitors an idea of how a house relates to water.”

The school says the butterfly roofed house is a model of how the built environment can help preserve watersheds by managing stormwater on site, filtering pollutants from graywater, and minimizing water use.

Maryland won the competition with a total of 951.151 points (out of a possible 1,000), consistently scoring high marks for all categories, including a win in the architecture section. Architect Michelle Kaufmann, AIA,

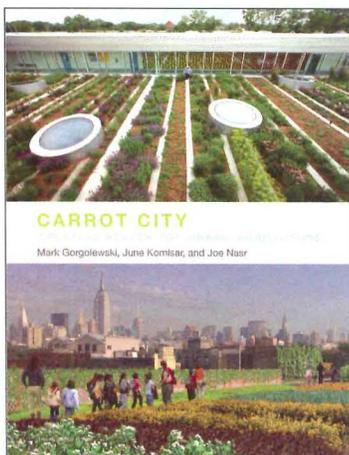
LEED AP, a juror in the architecture contest, said the home “achieves an elegant mix of inspiration, function, and simplicity.”

While Maryland took home the overall prize, Appalachian State University won the People’s Choice Award for its Solar Homestead, a net-zero energy confection inspired by early traditional Appalachian settlements. The home, which placed third in the architecture competition, consists of six outbuildings connected by the Great Porch—an outdoor living space protected by an 8.2-kilowatt trellis of bifacial solar cells.—*nigel f. maynard*



Photos: Jim Tetro

Solar Homestead’s six outbuildings include an outdoor living space (the Great Porch) and adaptable Flex Space with a half-bath, outdoor shower, and outdoor kitchen.



garden cities

Of late, growing vegetables in the city has become the preferred hobby for well-educated hipsters. But the modern concept of urban agriculture is much older and broader than its trendiness would suggest; for example, Ebenezer Howard’s Garden City movement began in the late 1800s. The new book *Carrot City: Creating Places for Urban Agriculture* (The Monacelli Press, \$50) delves into the past and

present of city farming, examining 40 recent and future projects that weave in edible greenery among the concrete.

Authored by architects Mark Gorgolewski and June Komisar and urban agriculture expert Joe Nasr, the book highlights mostly Canadian and American projects, with a few from the U.K., the Netherlands, and one each from China and Argentina. Built projects, like Teeple Architects’ 60 Richmond Street

East Housing Co-operative in Toronto (featured in our March 2008 issue), mingle with unbuilt ones such as Mithun’s Center for Urban Agriculture in Seattle.

Both of these efforts are part of the book’s “Redesigning the Home” chapter, which focuses on urban farming in residential communities. Another chapter is devoted entirely to products and systems that facilitate urban agriculture, such as composters and greenhouse technologies.—*meghan drueding*

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In 2011, Barbara A. Campagna, FAIA, LEED AP BD+C, left her post as chief architect for the National Trust for Historic Preservation's 29 sites to start her own design firm, Barbara A. Campagna/Architecture+Planning, PLLC (BAC/A+P), with locations in Buffalo, N.Y.; Winston-Salem, N.C.; and Washington, D.C. It's not the first time she has been in private practice, but BAC/A+P is one of the first to focus exclusively on finding sustainable solutions within preservation, and keeping preservation at the center of the conversation about sustainability. A former chairwoman of AIA Seattle's Historic Resources Committee and an AIA Young Architect of the Year Award recipient (2002), Campagna recently completed her term as president of the Association for Preservation Technology International.

THERE IS STILL A LOT OF WORK TO BE DONE, BUT I HAVE SEEN LOTS of changes in five years. The U.S. Green Building Council has made huge strides in looking at whole-building reuse. But what we need to do is operate and maintain our buildings better. Not everyone can afford a rating system like LEED—and that's an issue. But even if rating systems are expensive, the cost of not doing good architecture is much higher. People on both sides need to understand that a rating system—any rating system—adds costs because you're being a better steward. If an existing building seems inefficient, it's probably not because of its original design—it's because of how we've been maintaining it.

It's an amazing time right now. There are a lot of organizations and agencies out there that are actively thinking about

preservation and sustainability together. As a firm, if you have the energy and the resources to help people understand the relationship between the two, you can find a niche for yourself. Continuing education is also hugely important for everyone, but particularly emerging professionals. Organizations and companies need to find money to certify and educate their staff members, which is going to make a difference across the board. You can't do any of this without money, unfortunately. But people who are affecting change are finding that money.

The fact is we have to find organizations, companies, and clients—as they try to find us—who understand that they have to spend some money in the beginning for long-term benefits. If you believe that you need to make an impact, it takes people like executive directors who are willing to take a stand. The people I've been working with are all extremely principled. And, of course, there are compromises along the way, but you can compromise without jeopardizing your principles about sustainability and preservation.

If we can recycle aluminum cans without thinking, why can't we apply the same principle to buildings? I talk a lot about avoided impacts if you reuse an existing building and mitigating our waste stream problem. My goal is that one day we won't make a distinction between preservation and sustainability. We will just call it good architecture.—As told to William Richards. **AIA**

AIA FUTURE

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NORTH DAKOTA'S OIL-BOOM HOUSING CRISIS CALLS FOR COMMUNITY, NOT QUICK FIXES

AS THE U.S. CONTINUES CONSUMING 25 PERCENT OF THE WORLD'S produced oil, while holding less than 3 percent of proven reserves, North Dakota's Bakken geological formation offers a glimpse of the industry's Holy Grail: a large domestic source of accessible crude oil. Its extraction is bringing abrupt transformations of the land, massive economic gains (though not for everyone), and a housing shortage so severe that workers bunk in "man camps" that local architects compare (sometimes unfavorably) with post-Katrina FEMA trailers. However long the boom lasts, North Dakota's natural, built, and social environments are changing irreversibly.

Discovered in 1951, the Bakken formation—a subsurface reservoir 2 miles deep within low-porosity shale—generally resisted conventional drilling methods for decades. Recent advances in horizontal drilling and hydraulic fracturing make retrieval economically feasible. Oil extractors and auxiliary industries began swarming to North Dakota after a 2008 U.S. Geological Survey report suggested a recoverable amount of 3 billion to 4.3 billion barrels.

Oil plays have raised North Dakotans' hopes before. After the 1973 OPEC embargo, domestic production picked up in the 1980s. Housing and hotel construction spiked in the North Dakota cities of Minot, Stanley, Tioga, and Williston, the latter of which became "a mini-boomtown," says Alan Dostert, AIA, president of Grand Forks-based EAPC. "Then the market shut off," recalls Craig Helenske, AIA, principal of Helenske Design Group in Fargo, N.D. "Some people went bankrupt. A lot of this property went into default. Literally, from the late '80s until three or five years ago, that same property was just sitting there. No activity, no need, no nothing."

A once-bitten-twice-shy attitude lingers among

developers, bankers, and civic officials. Dostert notes that 30-year mortgages and decade-long booms are an unpromising combination. The state's Century Code, restricting communities from assuming certain levels of debt even when income is adequate to serve it, impedes construction of facilities needed "now, not two or three years from now when a bond gets paid off," he says. Helenske describes the conditions as "just an incredible logistics nightmare, [and] it's almost like a war zone out there." Industrialization is moving too fast for officials to give zoning, planning, or creative architectural input a moment's consideration. "What we're going to end up [with] here," he fears, "is a countryside that's going to look like one huge industrial park in the not-too-distant future. Basically, we're losing control of it. Architecturally, there's nothing good that's coming out of this—that will have to come later, when the dust settles."

Tom Rolfstad, executive director of economic development for his hometown of Williston, studied architecture at North Dakota State University and now works to guide investment in civic improvements. With today's boom driven by technical progress—not OPEC price manipulations—Rolfstad is among those expecting sustained benefits. His office is seeking \$1.5 million in federal Department of Transportation funding to renovate Williston's Main Street area near its Amtrak station ("a really nice old depot," he says) and \$350 million in state loans for water-supply upgrades. The language of transit-oriented development and smart growth is not prominent in the local vernacular, but Rolfstad believes that fast growth needn't equal hit-and-run exploitation. "Traditional oil drilling was kind of a boom/bust, because you had limited reserves," Rolfstad notes. "Now, as we map out just how many wells it's going to take, we're



[theoretically] talking a minimum of 15 or 20 years.”

The influx of jobs attracts skilled workers nationwide. Improved housing includes campers connected to every available water/sewer hookup, notes Dostert. In winter, when the mercury can reach -30 degrees Fahrenheit, occupants insulate them with anything from tar paper to hay bales to snow. Apartment rents aren't advertised; landlords ask for bids. “It's a really strange demographic, a really strange market,” he says.

Observers credit the oil interests for supplying worker quarters, but “this isn't housing that you'd want to live in,” says Helenske. “These are basically glorified shipping containers, with maybe a window, a toilet, some ventilation, four bunks—and these guys have to pay over \$1,000 a month to live in them.” Locals caution outsiders against drawing inferences about the man camps from frontier history. Conditions are closely controlled, says Dostert.

Wayde Schafer, regional representative of the Bismarck, N.D.-based Dacotah Sierra Club, cites underreported downsides: spills, toxic drilling, mud spreading out of open storage pits during recent floods, the wasteful practice of natural-gas flaring. “Nationally, 1 percent to 2 percent is flared off,” he says, but since foundries can't keep up with demand for pipelines, and gas isn't captured for the market, “in North Dakota it's over 30 percent. You're getting all of the pollution and none of the energy.”

Schafer also points to incidents eroding community bonds. On July 2, *The Bismarck Tribune* reported a banker in Beach, N.D., bought apartments, gave longtime tenants a Hobson's choice between eviction or paying more than double their rent, and replaced them with high-paying oil field workers.

Nearby Native American tribes find the changes particularly troubling, reports Kandi Mossett, an organizer for the Indigenous Environmental Network (IEN), a nonprofit that advocates cultural preservation and environmental stewardship. Inequitably distributed floods of cash, she says, are dividing long-impooverished indigenous communities. Environmental risks disproportionately burden reservation residents. After a blowout near Killdeer, N.D., the IEN warns about further ruptures, she says, noting that pipes for fracking water pass directly beneath Lake Sakakawea, but “all we have is an interim environmental code and a draft emergency management plan that hasn't even been approved.”

Truck operators are seldom held accountable for damage done on tribal lands; Mossett has seen tribal police pull drivers over for obvious chemical leaks without being able to detain them for inspection. “The oil companies are in charge of their own environmental assessment,” she says. “They'll write up a two-page report, hand it in, find a FONSI—Finding of No Significant Impact—and then boom! They're drilling.” A tribal compliance officer taking photos for independent assessment, Mossett notes, was chased away and told to give 30-day notice if he ever wanted to visit the site. “A lot goes unreported here,” she summarizes.

Few philosophical contrasts are as sharp as that between Native Americans' seven-generation planning and the oil companies' speed. Helenske, noting that early-stage extraction jobs give way to smaller managerial workforces, recalls that some Bakken-region communities a decade ago benefited from interdisciplinary charrettes with developers, residents, academics, and industry personnel. “I've talked to people in Williston about trying to do that,” he says. “The trouble is that they literally don't even have the time to take a breath.” As industry pursues a bonanza that could alter the national risk/benefit balance in relation to peak-oil predictions and dependence on foreign suppliers, architects could bring some sorely needed skills in complex planning to the table. To date, nobody's been inviting them. —By Bill Millard **AIA**

AIAPERPECTIVE

WASTE NOT • NOTHING FOCUSES AMERICA'S
CREATIVE ENERGY LIKE A CRISIS

PHOTO: WILLIAM STEWART



In good times, we tend to grow lax and flabby. Administer a shock and we spring into action.

The recent history of the housing market is a case in point. During the buildup of the housing bubble, homeowners and builders often confused bigger with better. Out of that mindset emerged suburban palaces for two that could sleep a harem. Once the bubble burst, the focus shifted from conspicuous consumption to value. Cutting expenses earned you bragging rights. Prius replaced Hummer.

The rush to value has produced mixed results. Many home builders and owners have opted for add-ons—insulation, energy-efficient windows, efficient heating and cooling systems, and solar panels. Helpful, yes, in getting a handle on the monthly utility bills, but little more than “greenwash,” the equivalent of putting a brick in the toilet tank to stem the flow of water.

What these quick fixes miss is the kind of thorough reassessment that can result in real and lasting value. Since the cost of gas is likely to increase, why continue to chew up the countryside with sprawling developments that require residents to use their cars to pick up a quart of milk? Let's not even talk about those two-hour commutes—each way. What about density, multifamily housing, residential retrofits of existing commercial and industrial buildings, access to mass transit, protecting open space, and designing with nature to create homes that convey a special sense of place rather than anywhere?

A commitment to integrative connect-the-dots thinking is what sustainable design is about—not pigtail fluorescent bulbs. An increasing number of architects and builders realize this is the market differentiator for buyers and renters looking for value. It's likely to be the one bright spot before the housing market recovers sometime, according to recent estimates, from 2012 to 2016.

Whether the wait is one year or five, those who work in the residential sector should be using this time to think strategically about the next burst of irrational exuberance. An industry that has the ability to build as many as 2 million new homes annually could be more prosperous while having a lasting impact in shaping more livable and sustainable communities. As Chicago mayor and former White House chief of staff Rahm Emanuel has said, “You never want a serious crisis to go to waste.” **AIA**

Clark D. Manus, FAIA, 2011 President

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real simple

low-tech solutions help a minnesota home achieve leed gold.

Architect Sarah Nettleton, AIA, LEED AP, believes in the simple approach to life and to solving problems. In her view, whiz-bang technology is no substitute for common-sense techniques that promote energy efficiency. This is why the principal of Sarah Nettleton Architects first explores tried-and-true sustainable solutions that often are free but always effective. “Simple can be sustainable,” she says.

Nettleton applied this line of thinking as her firm designed this LEED Gold custom home overlooking the Minnesota River Valley in St. Peter. The clients had read Nettleton’s book, *The Simple Home: The Luxury of Enough* (Taunton Press), and wanted a modern farmhouse

that incorporated some of her design concepts and sustainable strategies. Rather than relying on pricey mechanical equipment, the architect used the land and orientation to optimize natural daylight and ventilation.

Nettleton started with a narrow, bar-shaped plan that allows windows on three sides of most rooms, as well as a screened porch at one end. She oriented the 2,900-square-foot house so that the south side promotes passive solar gain, and she used computer modeling to track the sun so the client would have a bright, warm place to sit at all times. “The windows on that side feature glass with high solar heat gain,” she says, which is an important part of the passive system. As her firm explains, “Like traditional ado-



Photos: Don Wong

be buildings, the walls and floors can heat up during the day and then release heat throughout cooler nights.”

The home had to be highly insulated and tight to combat the harsh Minnesota winters, so Nettleton chose structural insulated roof and walls, and specified a foundation system that features insulation in between layers of concrete—sort of like an ice cream sandwich. An underground air-to-air system with an energy recovery ventilator brings fresh air into the home.

In addition to passive systems such as exterior sunshades that reduce heat load, Nettleton also used an active solar thermal array that provides 11 percent of the home’s heating load. A zoned, in-floor radiant system offers additional heat in the coldest winter months.

The home boasts de rigueur green products such as windows with low U-factor

This home has south-facing glass doors with sliding metal sunscreens that reduce glare and heat gain (above). Open and bright, the living area is highlighted by fir cabinets, translucent panels, and polished concrete floors.

ratings; energy-efficient appliances and boiler; and low-flow fixtures. A rainwater catchment system collects 59 percent of the water from the roof and directs it to a cistern for irrigation.

One of Nettleton’s top goals was to secure third-party certification that the house performed as intended. “We are all aware of LEED buildings that under-perform or perform below code,” she says, “so we checked to make sure we got it right.” As proof of the firm’s efforts, Nettleton proudly reports that the home is 75 percent more efficient than the International Building Code.—*nigel f. maynard*

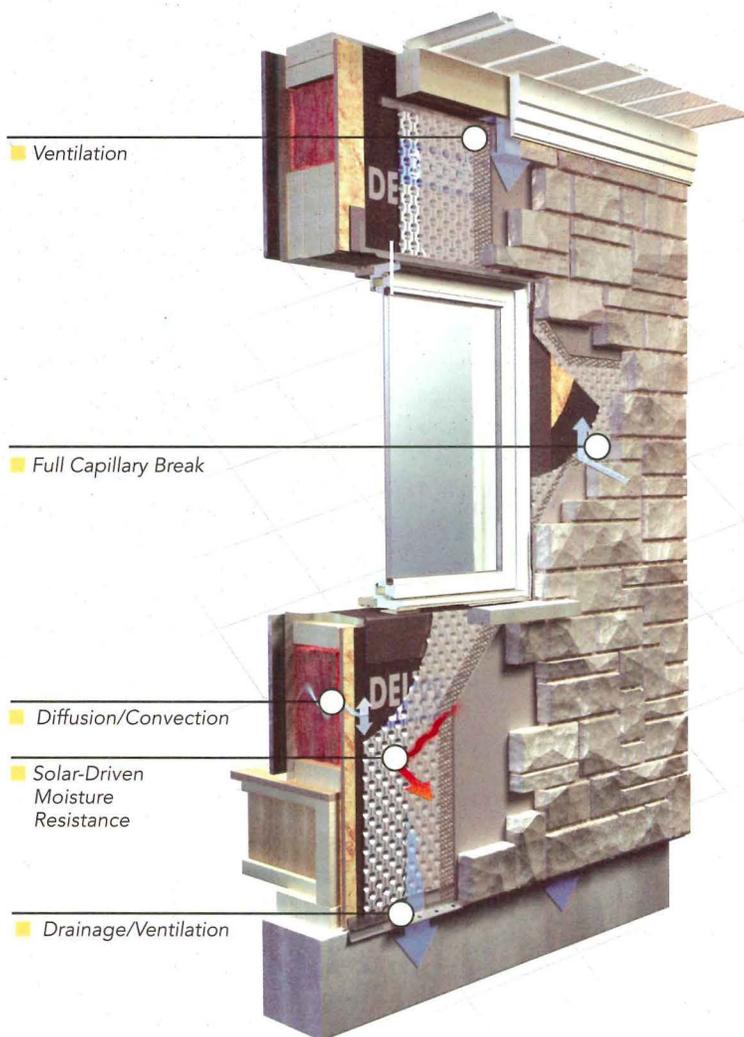


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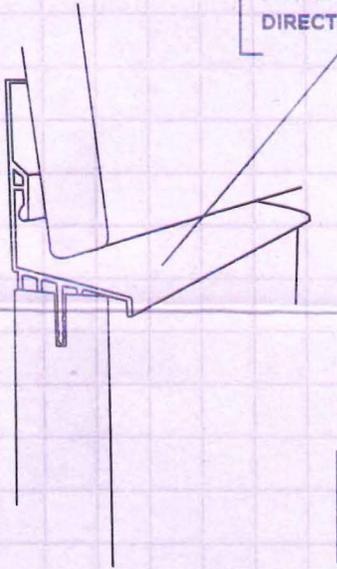
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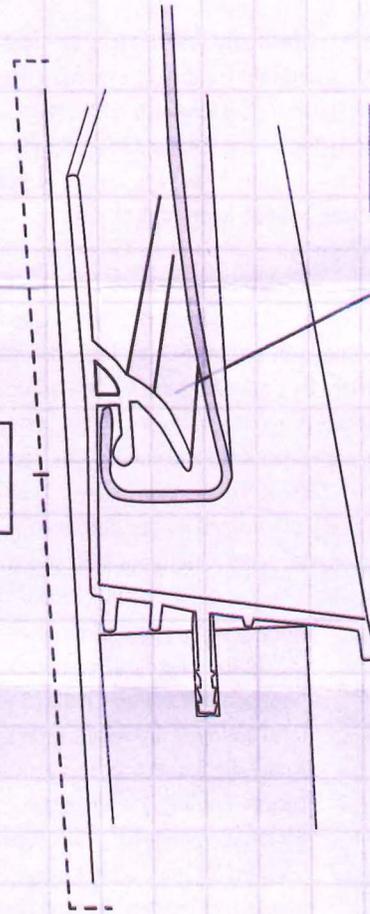
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k + b studio

kitchen: season opener

To those who doubt that modern architecture is a match for the rough-and-tumble reality of everyday life, we submit the Appleton Living kitchen. Serving two adults, four children, and a minimum of three dogs—the Venice, Calif., family also takes in rescued canines—it offers a study in svelte, sculptural form that also is practical, livable, and tough as nails.

The room occupies one wing of an L-shaped house, incorporating cooking, dining, and sitting areas and—with a wall of sliding doors open—a full-length poolside veranda. Architects Tryggvi Thorsteinsson and Erla Dögg Ingjaldsdóttir capitalized on that openness by organizing the kitchen around two 16-foot islands and entirely avoiding above-counter storage. With long swaths of glass along the north and south walls, the layout produces a “see-through” effect, Thorsteinsson says. The view through the building is scarcely interrupted by the stair that lines the north wall, a folded plane of plate steel hanging on thin steel rods that nearly disappears in profile. A bed of smooth, black stones shadows the stair at the floor, giving three-dimensional form to the space above.

At the islands, Thorsteinsson and Ingjaldsdóttir wrapped contrasting shells of gray stone composite and terra cotta tile around millwork surfaced in bamboo. Matching bamboo covers a wall-height millwork element—holding the refrigerator, wall ovens, and a nook for small appliances—that separates the kitchen from a children’s playroom. Except for a “boardwalk” of ipe planks that borders the stone bed, describing the path to the pantry door, the floor is covered in limestone tiles. That surface flows onto the veranda, which takes the edge off cool evenings with overhead radiant heaters and a recessed fireplace/pizza oven. The veranda’s cantilevered edge doubles as a bench, Thorsteinsson notes. Lit from below, he adds, the floating form “lightens up the heaviness of the building and creates functionality at the same time.”—*bruce d. snider*

Occupying the full width of its wing, the kitchen/dining/sitting space opens onto a full-length poolside veranda.



project: Appleton Living, Venice, Calif.

architect: Minarc, Santa Monica, Calif.

builder: Core Construction, Apple Valley, Calif.

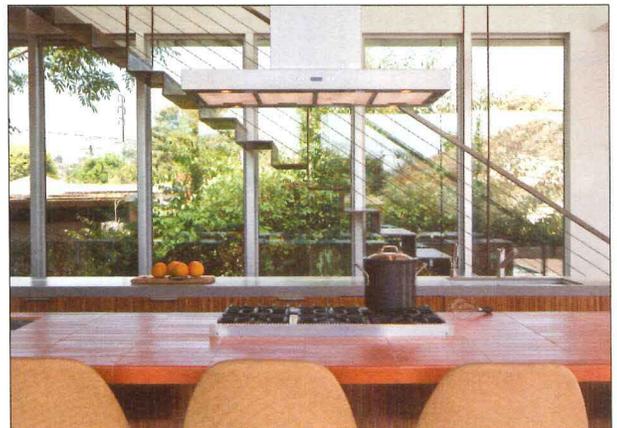
resources: countertops: Caesarstone, Heath Tile; dishwasher: Miele; fireplace: Spark Modern Fires; freezer: GE; lighting fixtures: Alinea; oven: Bosch; plumbing fittings: Franke; plumbing fixtures: KWC; range: Viking; range hood: Gaggenau; refrigerator: Miele; windows and patio doors: Five Star

continued on page 24



Photos: Art Gray

An ipe-planked “boardwalk” leads from the kitchen to the pantry (above). A plate-steel stair climbs along the north wall, shadowed at the floor plane by a bed of smooth stones.



k + b studio

bath: block party

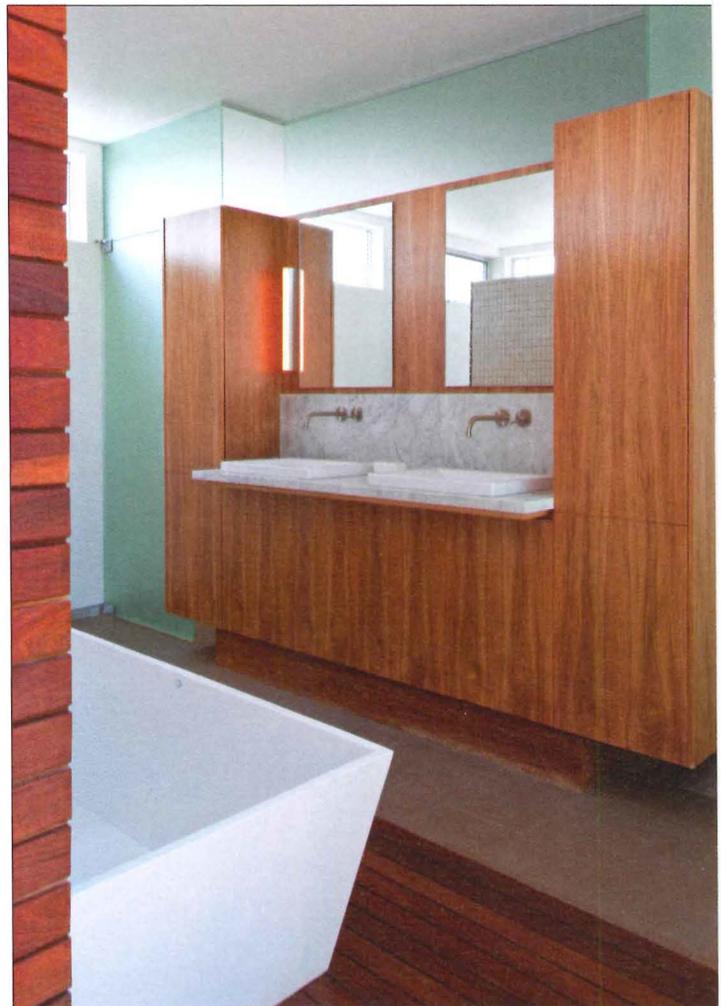
Architects Tryggvi Thorsteinsson and Erla Dögg Ingjaldsdóttir like to define rooms with simple blocklike elements rather than with traditional walls. “We never look at a surface as two-dimensional,” Ingjaldsdóttir says, “We look at everything as a three-dimensional form.”

In the master bath, a walnut-surfaced cube separates the space from the bedroom. Standing a couple of feet shy of the ceiling, the millwork box presents a flush surface to the bedroom, where it serves as a headboard. Its sides form twin passages to the bath and open to reveal storage. Etched glass doors topped by a room-width etched glass transom open into the bath, where a void in the cube supports twin sinks and a marble counter and backsplash. Set atop a high recessed kick panel, the cabinetry seems to levitate between the floor and ceiling.

A freestanding partition faced in ceramic tile and edged in spaced ipe boards backdrops a ceramic vessel tub while screening a generous walk-in shower and a separate toilet compartment. A section of ipe decking, flush with the limestone tile floor, drains the shower and any spillover from the tub. High windows brighten the room, which opens onto a screened courtyard.—*b.d.s.*



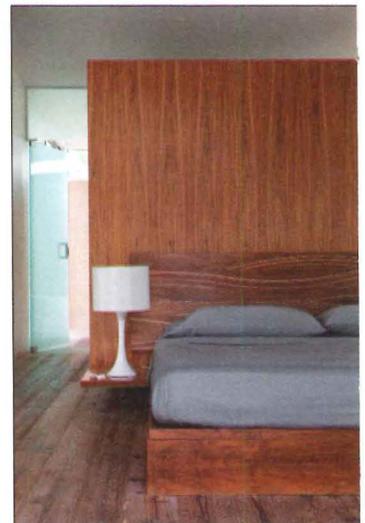
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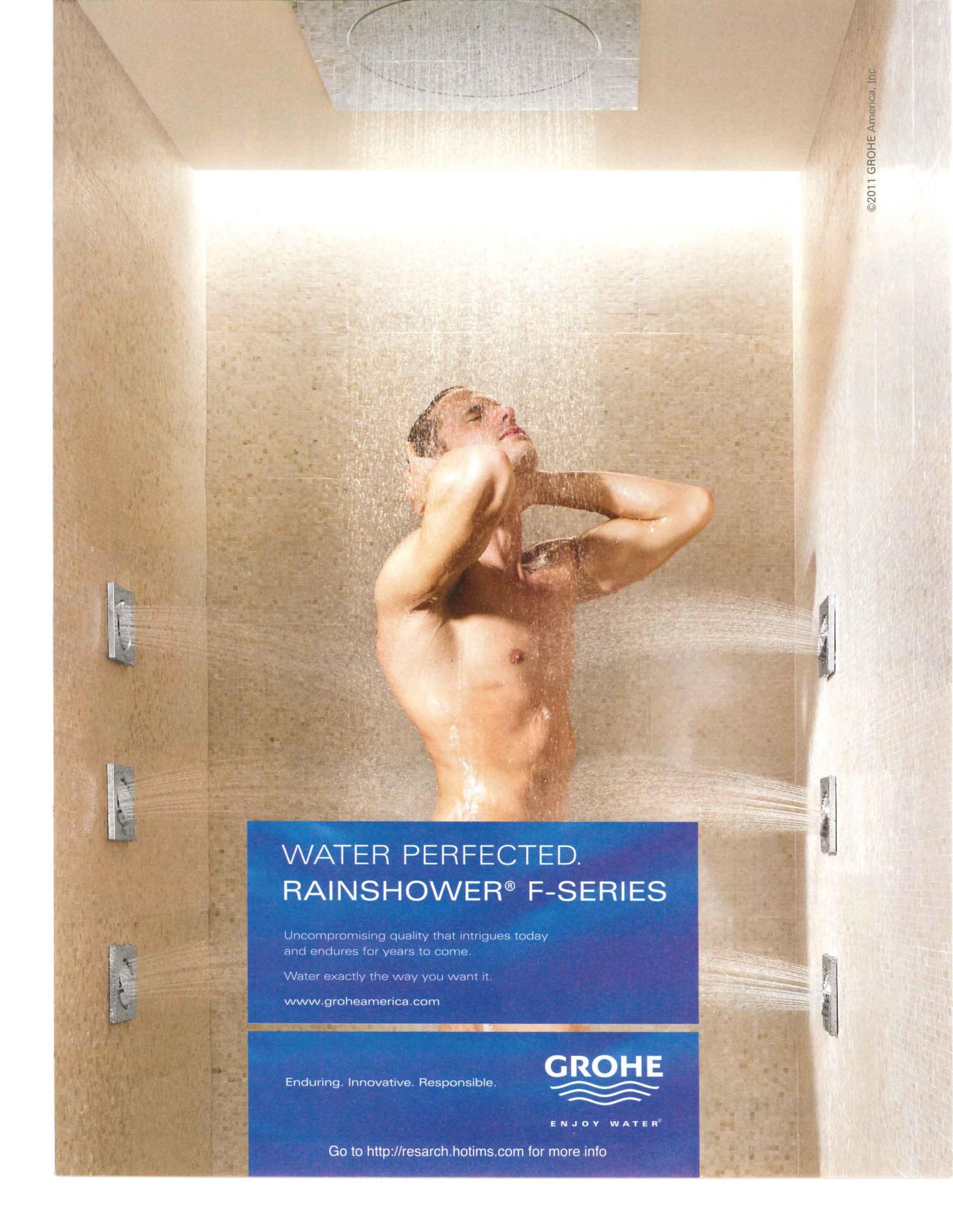


Photos: Art Gra

A walnut-surfaced millwork element presents opposite faces to the bath and bedroom (above and right). A tiled floating partition screens the walk-in shower (left).

resources: lighting fixtures: Alinea; plumbing fittings: Duravit, Wetstyle; plumbing fixtures: Duravit; windows and patio door: Five Star





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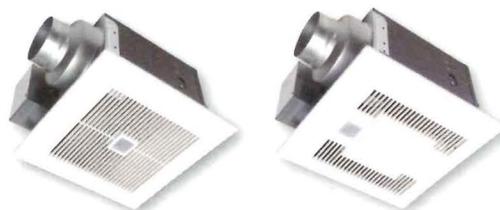
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loan rangers

how architects are navigating today's precipitous lending landscape.

by cheryl weber, leed ap

If there was any doubt about the current hostile lending environment, consider an encounter New Jersey architect Gregory La Vardera had recently with a regional bank. Mere hours before his clients' construction loan settlement, the bank required his signature on an "assignment of architect's contract." In normal conditions, this is routine paperwork ensuring that, if the client defaults, the architect will service the project for the bank under the original contract terms.

Now, however, it included language pressuring La Vardera to give up basic rights. It stated, for example, that even before default, the bank would have to vet any contract changes. It also proposed that he would accept any third party to whom the bank assigned his contract, and that the bank would have full rights to use and reuse his design without additional compensation.

"It was perhaps the most outrageous contract request I've ever been presented with, and done in the context of, 'You'd better sign this or you're going to screw up your clients' settlement,'" La Vardera says.

It's just one example of the shenanigans banks



Aaron Thomas Roth

are pulling these days as clients, who are tentatively trickling back, try to get projects funded. Although architectural services skew to higher income brackets, most clients still depend on banks for financing. And banks, still stuck with toxic loans and taking the heat for the real estate bust, are making it difficult for even the most financially sound

clients to hire architects.

The assignment-of-contract glitch, though panic-inducing, is fairly easily resolved. A more systemic funding farce is low-ball appraisals. Almost everyone has stories of projects that shut down when appraisers failed to offer a value that made sense. More on that later. But suffice it to say that the road to housing recovery

will be long, thanks in part to dysfunctional lending practices. Like it or not, banks get to call the shots. Architects and their clients will have to be patient—and resourceful—because there is no quick fix.

onerous assignments

The assignment of ar-
continued on page 29

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chitects' rights can surface at any time, even years after the original architect-owner contract is executed. Basically, it says that if party A goes under, party B takes over the contract to get the project done. Now, though, banks are trying to make changes in their favor. "They're often asking the architect to provide services beyond the normal scope, such as ensuring that all utilities are in place and permits are secured, which is the contractor's job," says Ken Wortley of Philadelphia-based Wortley/Poole Professionals, a risk manager and insurance broker for design professionals. "Banks literally see them as a wholesale opportunity to make changes to the agreement, or ignore it entirely and make their own provisions."

The situation is tricky because not only are architects exposing themselves to greater liability on the job, but they're also at risk for crashing the client's settlement. Wortley advised La Vardera to sign the bank contract but strike the offensive language and ask for payment of any outstanding fees the client owed. The settlement proceeded on schedule.

But there's more architects can do. Attorney Randy Koenig, FAIA, Koenig Jacobsen, Irvine, Calif., says he reviews at least one urgent assignment of architect's contract a month. "With stalled proj-

bypassing the bank

With low billings and tight credit a constant theme, Seattle architect Jerry Jutting recently found a way to generate some work while diversifying his retirement accounts. After identifying a need for young-adult co-housing in Seattle, Jutting and two partners built a single-family rental house targeted to recent college graduates. They found a small, inexpensive site close to a freeway and designed a house with six same-size bedrooms, each two sharing a bath.

But with banks unwilling to fund an odd-duck project, Jutting and partners financed the construction through an IRA. After setting up an LLC, each partner transferred \$130,000 from mutual-fund retirement accounts to a California institution specializing in self-directed IRAs. "It was important to have partners, so the other two could elect to hire me for the design work; I wasn't making the decision to pay myself," Jutting says. "The IRA trustee needs to make sure processes are in place so that any profit goes back to the IRA and people aren't skimming for their own use. The restrictions are the same as for a conventional IRA—we can't take profits until we retire."

Completed in September of this year, the rental will be managed through the LLC. For Jutting, it was a way to build a project with the potential for income and transfer some money away from the volatile stock market. "Now that it's built, the bank can see what it is, and they know what the income will be. We do have some banks interested in providing permanent financing now, and are hoping to do another project," he says.—c.w.

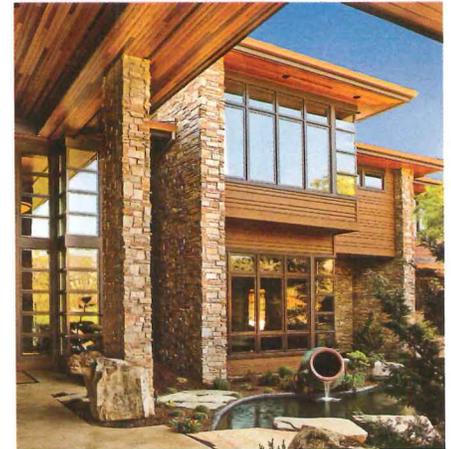
ects on the rise, lenders are placing more onus on these assignment of contracts," he says. "And the timing is interesting. It's always under drama because it must be done immediately. The architect gets severe pressure from the owner to accommodate, which can lead to a careless transfer."

His advice: Make sure an original owner-architect contract is in place before the client applies for a loan. Include an anti-assignment clause (legal leverage for

negotiation) stating that "the architect shall have no obligation to execute any documents or agree to any assignment of architect's rights or obligations after the execution of this agreement without the architect's express written consent."

A careful reading of the bank's contract can keep architects from undoing in one fell swoop what they've negotiated with the owner, Koenig says. Scope creep is the main red flag. When an

continued on page 30



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owner defaults, banks expect the architect to protect their investment by overseeing construction, usually without compensation. Architects should demand payment for additional services, but limit their exposure. "The bank wants to obfuscate that separation between design and construction. We can't be responsible for construction errors, and we fight hard to promote that distinction," Koenig says.

When liabilities blur, the standard indemnity agreement also is in jeopardy. Koenig counsels architects never to "hold harmless" the lender or agree to pay

its legal fees if a dispute arises. "In my 25 years of practice, this has been the biggest legal issue affecting architects' businesses," he says. "I'd add a phrase—it won't be in there—stating that the architect's liability is limited to the amount of the fee or available insurance, whichever is less."

Koenig draws one more pre-emptive line in the sand: Architects must insist that all outstanding bills be paid before they start working for the lender. That's critical, he says, because banks like to insert that the lender won't be responsible to pay the architect's fees if the lender paid the owners for

"banks see assignment of contracts as a wholesale opportunity to make changes to the agreement, or ignore it entirely and make their own provisions."

—ken wortley

those fees. But that doesn't mean the owners paid the architect. And until they do, the bank doesn't have license to use the plans.

San Diego architect-developer Jonathan Segal, FAIA, takes self-protection a step further. His original contracts require a \$25,000 fee to change parties. "The assignment of contract is a horrible document," he

says. "I have had limited success striking clauses in loan documents."

numbers game

Horrible, perhaps, but it's a hitch many architects would welcome right now. It means they've landed a project, and it has appraised for enough money to obtain a loan. Memphis

continued on page 32



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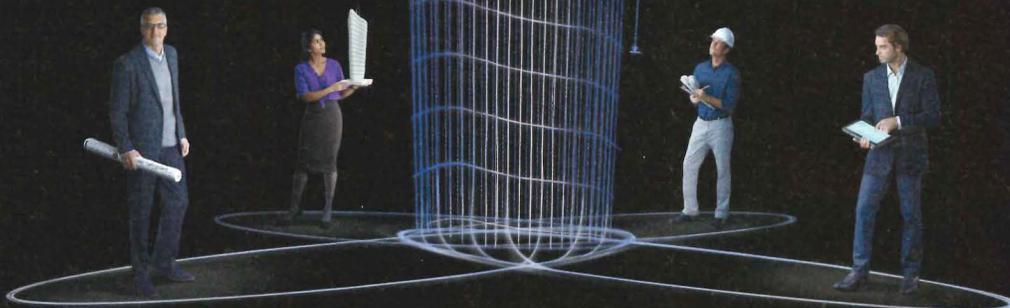


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architect Todd Walker, FAIA, principal of Archimania, says low appraisals nixed three potential jobs in the past two years. One client, hoping to convert a warehouse to apartments, received an appraisal on the existing building 40 percent lower than its 1995 value. "It's disheartening," Walker says. "Generally appraisals are better with existing houses where people have equity."

It's the same in Minneapolis, where Sarah Nettleton, AIA, LEED AP, says clients recently tried to refinance a home she completed in 2007. They couldn't get comparables to

"appraisal-related cancellations generally result from banks requesting 8 to 10 comps, when there simply aren't that many apples-to-apples comps."

—walter molony

support its value. Another client is awaiting word on a construction loan. "We're hearing they'll loan 80 percent based on appraisal, but this is a neighborhood of older custom homes," she says. "There are few comparables, and the underwriting has gotten stricter."

Restrictive lending has forced architects to shift their sales pitch. Pre-crash,

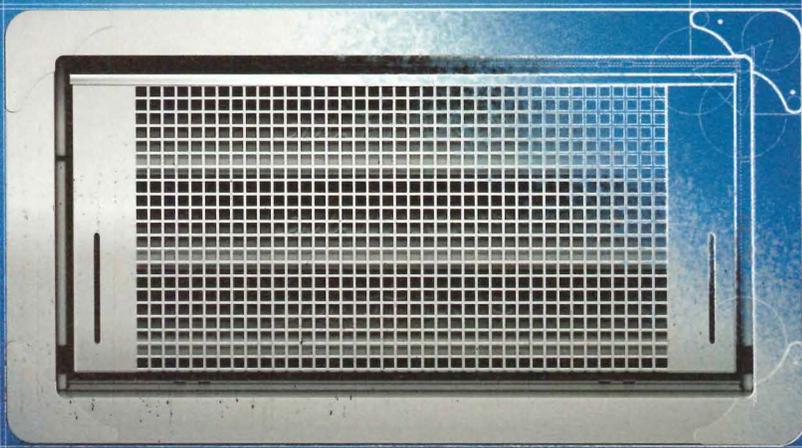
their first priority was to sell the design; now financials are front and center, perhaps rightly so. "I don't give them the full stream of, 'I can make this happen,'" Nettleton says. "It seems unfair for clients to pay tens of thousands of dollars for a piece of paper that's a dream, and then what? In the first meeting I try to filter out how

the money works. It adds a level of complexity to something that wasn't easy to begin with."

Further proof that low appraisals are weighing down the housing recovery, the National Association of Realtors (NAR) said that 16 percent of realtors surveyed reported a canceled contract in June of this year, and blamed the high number on low appraisals. In June 2010, only 9 percent reported a cancellation. Another NAR report found that 32 percent of members surveyed either negotiated a lower sales price or had a contract canceled or

continued on page 34

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delayed as a result of a low appraisal in the previous three months.

"It should be noted that appraisal-related cancellations generally result from banks requesting eight to 10 recent comps versus the traditional three, when there simply aren't that many apples-to-apples comps," says NAR public affairs officer Walter Molony. "For example, an appraiser may be forced to include trashed foreclosures in valuing a traditional home, so pressure from lenders is contributing to low appraisals and elevated cancellations."

Ken Chitester, communications director for the

National Appraisal Institute in Chicago, confirms that foreclosed properties may be used as comps. "In Las Vegas, if we eliminated foreclosures as comps, we wouldn't have any comps," he says. "The problem is that there are many inexperienced appraisers who don't know how to adjust the numbers properly when using them as comps."

Ditto that for adjustments in valuing one-of-a-kind properties. Declining appraisals go with a declining market. Yet the premium for quality architecture has never been well understood by most appraisers. "It's a mathematical flaw

to say you can't design the best or worst house in the neighborhood, that it always has to be somewhere in the middle," says Eric Rawlings, AIA, LEED AP, principal of Rawlings Design, Decatur, Ga.

As an example, Rawlings says a house he designed for a local speculative builder appraised for \$725,000, just \$25,000 more than a nearby cookie-cutter house 1,400 square feet smaller. As comps, the appraiser used two \$800,000 houses Rawlings also had designed. However, this house, too, eventually sold for \$800,000, and he

suspects the bank came up to the contract price after it was put on the market. "Value is such a fluid thing, that's why there's so much confusion," he says. "A lot of people assume appraisers have a magic methodology, but it's quite unremarkable when you look at it in more detail."

appraiser shopping

According to Chitester, the Dodd-Frank Act that was signed into law in July 2010 represented the largest overhaul of appraisal regulations since the savings and loan crisis of *continued on page 36*

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1989. Most of the changes, he says, have to do with appraiser independence to prevent banks from pressur-

"in the first meeting i try to filter out how the money works. it adds a level of complexity to something that wasn't easy to begin with."

—sarah nettleton, aia, leed ap

ing them to hit a number. It also seeks to pay a reasonable fee to appraisers, since low wages and quick-turnaround jobs result in inexperienced people doing the bulk of work.

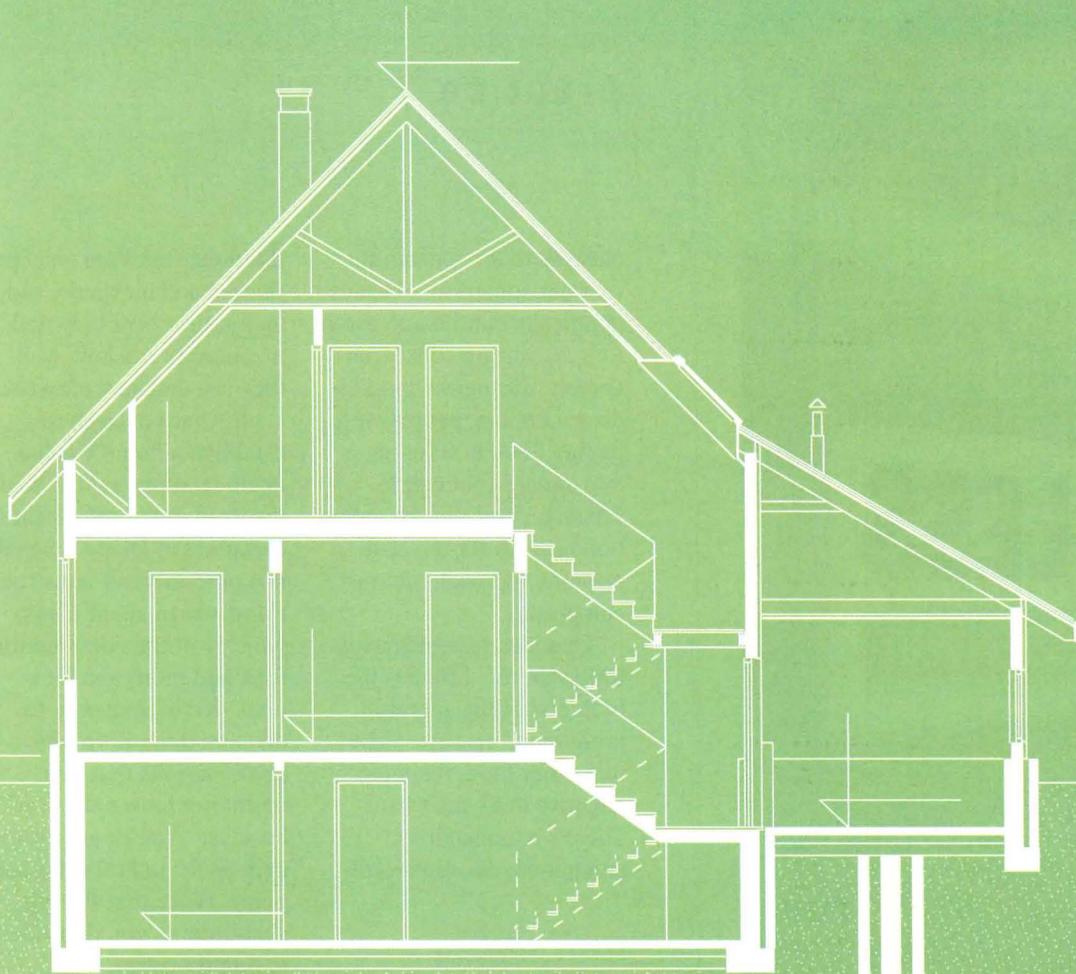
"Most appraisers say this is still not happening," Chitester says. "Typically, banks hire an appraiser through an appraisal management company (AMC). The firewall put into place between appraisers and lenders exists, but the role of middleman may be played by a non-lending department in the same bank. Many of the largest AMCs are owned by the largest banks, and the best qualified appraisers typically aren't the ones receiving assignments from AMCs."

The only way around this flawed system, he says, is to ask the bank to assign the appraisal to the most experienced person they can find. (As backup, the Dodd-Frank bill explicitly states: "Persons who perform evaluations should possess the appropriate appraisal or collateral valuation education, expertise, and experience relevant to the type of property being valued.") Usually that's someone certified through a professional association. For example, the Appraisal Institute, which represents 25 percent of licensed appraisers, bestows MAI (commercial) and SRA (residential) certification on those who've attained a level of education, ethics training, and peer review beyond basic licensure. Banks might not honor the request, but you can ask for an appeal. Another option is to hire an appraiser directly and give the report to the bank, although the bank ultimately will hire its own.

Dave Porter, founder of PorterWorks, Stanwood, Wash., a former mortgage lender who provides training for builders, appraisers, and insurers, urges architects to get specific: Give appraisers a package outlining not just a house's fine qualities, but how it's different from the comps.

"What really frustrates me is the conversation about dollars per square foot," Porter says. "A lot of builders are building

continued on page 38



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cheaply to drive down the cost per square foot because appraisers continue to use it as a measuring stick. Conversely, during the market-driven bubble, people were paying \$800,000 for an 800-square-foot condo. There's a place in the valuation process for the cost-to-build approach, not just comp sales."

That idea resounds with Chitester, too. "Data is the lifeblood of the appraisal profession," he says. "The more they have, the more effective their analysis. There's a tremendous amount of education avail-

difference between an experienced and inexperienced appraiser is how they find the number and how well they can defend their work.

It's hard enough to establish a home's value once, let alone twice. With the economic outlook uncertain, San Diego's Segal is a proponent of construction-to-permanent loans, which roll the construction loan and mortgage into one. "It's a great way to do something if you have qualifications that you might not have next year," he says. "You're not doing appraisals and escrows and points twice, but the biggest thing is you don't have to qualify twice."

Segal recently settled on such a loan for his own house, which he says appraised at \$4 million but will cost \$3 million to build. He paid a 1 point origination fee to lock in a 2.5 percent construction rate, changing to 4.3 percent when the building receives a certificate of occupancy. "It's unbelievable the amount of leverage you're getting versus a traditional loan, especially when the appraiser doesn't know what he's doing," Segal says, adding: "Money is cheap, and if you can get comps, now is the time to build. People need to understand that building a house is a business, and make sure it's solvent. Architects can take a more active role in the business world and solicit the banks for clients." **ra**

"with stalled projects on the rise, lenders are placing more onus on these assignments of contracts."

—randy koenig, faia

able—we have scores of courses and seminars. It's simply not the case that appraisers don't know the first thing about a good house."

The challenge is to find the right one. There's no cookbook for adjustments, but there are many ways to arrive at a credible opinion of value, Chitester says. The

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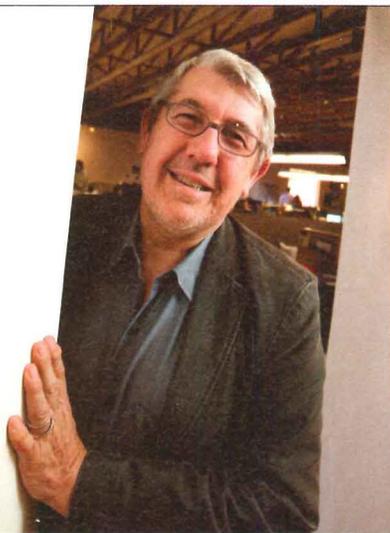
2011 leadership awards

honoring outstanding contributions to residential work that advance the profession as a whole.

hall of fame: will bruder, aia phoenix

will bruder's extensive career attests to the transformational power of architecture.

by bruce d. snider



Danny Turner

Will Bruder's lifelong immersion in architecture informs an approach to practice marked by deep respect for the design process, an ageless joy in making things, and the conviction that "we work because of our clients, not in spite of our clients."

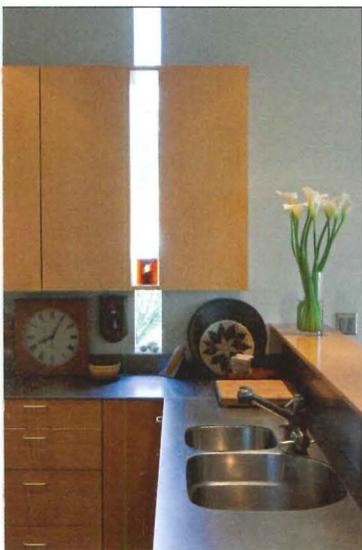
One might begin a Will Bruder profile with some seminal event from the Phoenix architect's long and rich career, but how would one choose? There's the 11-year-old kid in 1957, sneaking onto the Milwaukee construction site of Frank Lloyd Wright's Annunciation Greek Orthodox Church. There's the college student presenting himself at the door of an up-and-coming modernist architect named William Wenzler, who asks, "Do you want to start today or come back tomorrow?" There's the summer of 1967 at Paolo Soleri's Cosanti Studio, spent casting concrete vaults in the desert heat; the move from the Midwest to Phoenix; or the self-described "outsider" winning the coveted Rome Prize and returning to design his adopted home city's most

emblematic civic structure. The fact is, Bruder has had several lifetimes' worth of architectural peak experiences, and he has forged them into a body of work as varied as it is prolific, as rooted in its place and time as it is universal.

Not bad, for a guy who never attended architecture school.

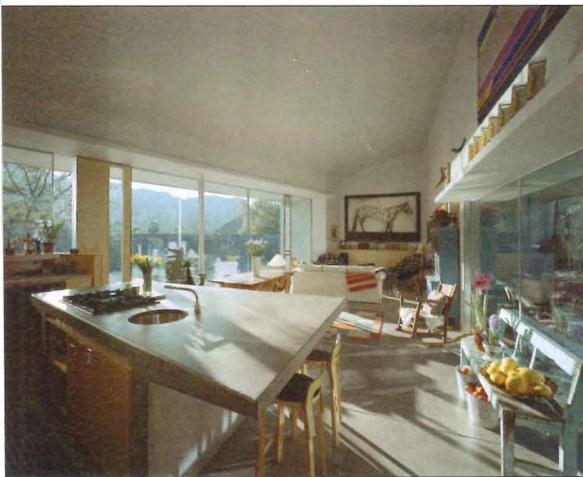
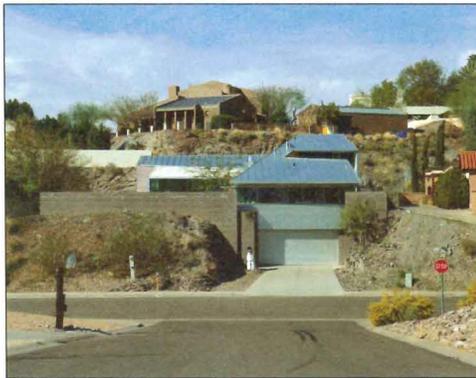
finding the seam

Bruder's first shot at college was a full scholarship to study automotive design at the General Motors Institute. "But by Christmas [of freshman year]," he remembers, "I was already thinking that this wasn't the life that I wanted. So I went to the library, and I started reading books on architects." His home state of Wisconsin had no school of architecture, so he applied to the Illinois Institute of



A five-unit live/work project in Scottsdale, Ariz., Loloma 5 reflects Bruder's growing interest in urban infill sites. Unlike his highly individualized single-family work, it required that he design for a hypothetical owner. After one of the actual owners became his wife, he lived in one of the units for six years (left and far left).

Photos: Bill Timmerman



Built on a difficult infill site, the Hill/Sheppard Residence carves out private spaces and distant views amid a jumble of neighboring buildings. "Weeping" mortar—a move drawn from the local vernacular—adds texture to its concrete masonry walls (top).

Technology (IIT), where he was accepted for the fall of 1965. But by then he was already working for Wenzler's firm, an all-star team that included a brilliant chief draftsman named Michael P. Johnson, who took Bruder under his wing. "It was as good a place as I could have arrived at on the planet," Bruder remembers. Wenzler's hemicycle-plan Nickoll Residence would appear in *Life* magazine later that year. Not about to forgo that kind of excitement, the new apprentice gave up his spot at IIT and enrolled at the nearby University of Wisconsin at Milwaukee in fine arts.

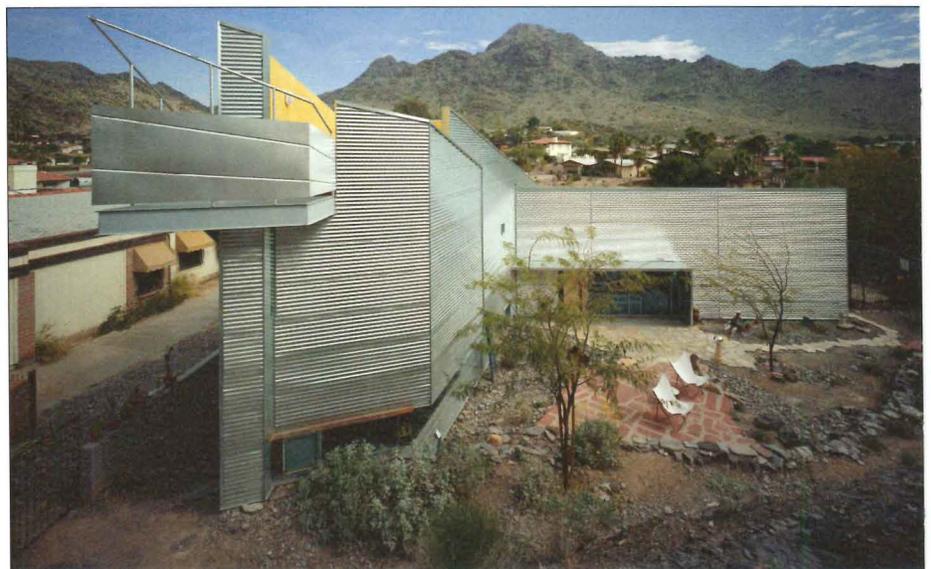
"My only degree is in sculpture," Bruder says. But at Milwaukee, he also studied structures, urban planning, architectural history, and philosophy. All the while, he adds, "I was working 40 hours a week in this hot office." The combination of hands-on work and omnivorous self-directed study would become a central theme in Bruder's career. After hearing Soleri lecture in Milwaukee, he spent six weeks of his 1967 summer break at the architect's Arizona studio, absorbing Soleri's vision of, as Bruder recalls, "the ordinary becoming the extraordinary."

Neither the desert nor the vision would ever loosen its hold. Bruder returned the following year for an eight-month apprenticeship spent casting concrete domes

on plaster-of-Paris forms, producing graphics for Soleri's next book, and drawing the never-built ¾-mile-high planned city 3D Jersey. "My whole grounding in materiality, beyond my sculpture background, comes from Soleri," says Bruder "a guy who wasn't doing it in the normal way." After earning his degree, Bruder joined the Detroit-area firm Gunnar Birkerts and Associates. But Arizona, as a place and an idea, called him back. He returned in 1970 and, although he has traveled and taught widely, Phoenix has been his home ever since.

a place in the sun

Neither the baking backwater of pre-air conditioning days nor the sprawling Broadacre City of today, Phoenix in the 1970s was a place of expanding horizons. Newcomers found at the city's edges "a surreal natural landscape," Bruder remembers. "They were open to re-evaluating everything, and architects were able to be a part of people's change in coming here." His clients were "open, curious ... looking for something." Bruder matched that attitude with his own boundless curiosity, and a conviction that what they were seeking could be captured. He moonlighted designing patio projects and remodels until he could sit for the licensing exam, but he imbued



Photos: Timothy Hursle



Deeply embedded in its desert site, the Nellis/Cox Residence contrasts the roughness of broken-block masonry walls with the refinement of interior shoji panels and a flowing, curvilinear floor plan.

Photos: Timothy Hursley

even such small projects with a sense of importance, of being architecture.

The raw material of this early work was mid-century modern houses in cul-de-sac neighborhoods. Soon, though, he moved on to new houses on large lots, where the immediate context consisted only of the desert landscape. Unlike Tucson to the south, Phoenix had little in the way of Southwest vernacular architecture. Finding the local soil unsuitable for making bricks, early migrants from the Midwest built with wood. "And the dry desert heat is brutal to wood," explains Bruder, who based his own palette on vernacular materials more suited to the climate: concrete block and corrugated metal.

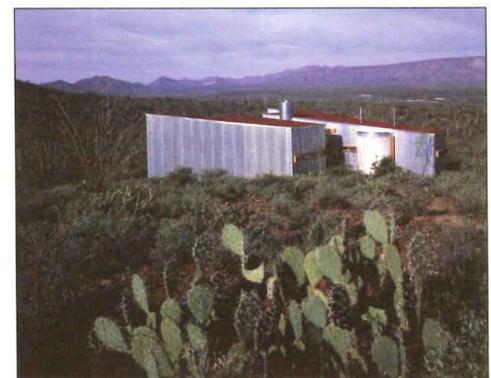
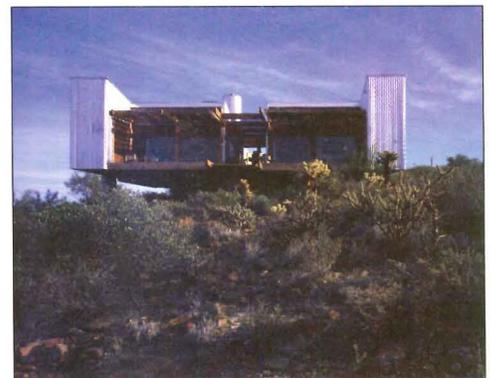
Bruder was getting his hands dirty, often serving as both general contractor and architect, and he drew recognition almost from the start. The Galloway Cabin, begun in 1974, the year he hung out his shingle, won a National Plywood Association Award in a competition juried by Paul Rudolph. Bruder's own house, built in four weeks in 1977, was published in *Architectural Record's* Record Homes issue along with one by John Lautner, one of Bruder's longtime heroes.

On 10 acres of desert 30 miles from

downtown Phoenix, the house consisted of two metal-clad modules—truncated wedges in both plan and section—joined by a covered dog trot. "Budget will drive geometry," Bruder says, and the budget on his own house was only \$10,000. With the greater latitude later commissions would provide, he was more apt to lay out a plan in flowing curves that followed the site's contour lines. In every case, he explains, "the work grew from the ground up, from this interpretation of the site." His manipulation of material and space better reflected the optimism and ambition of early and mid-century modernism than it did the prevailing attitude of his own generation of architects. At the time, Bruder recalls, "Post modernism is in the air, but I've come up outside of academia. I'm basing my hero worship on Wright and [Bruce] Goff and Lautner and Paul Schweikher. That's my cast of characters. I like this work; it makes sense to me."

straw into gold

Respect for his elders, however, never lessened Bruder's passion for moving the work forward. His early efforts, he says, were driven by "bravado, intrigue, and the interest in pushing the material." And

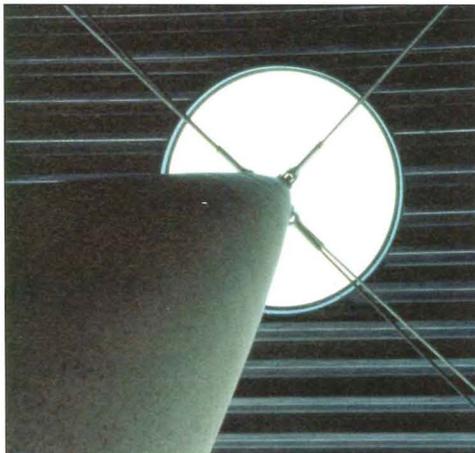
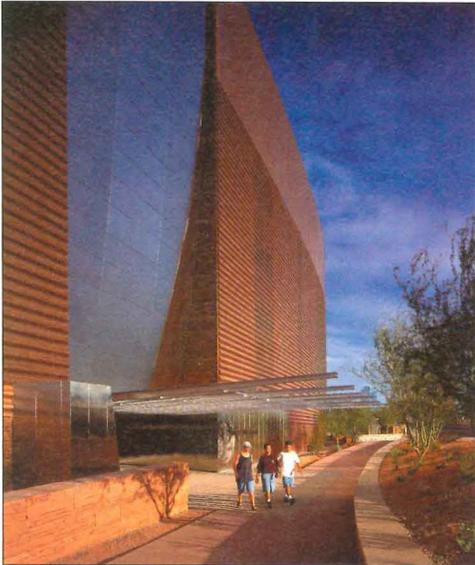


Photos: Neil Koppes

Combining utilitarian materials and subtly sophisticated geometry, Bruder's own house in the desert outside Phoenix brought him to national attention.

2011 leadership awards

Bruder's most prominent commission to date, the Phoenix Central Library applies the principles—and some of the favored materials—of his residential work, albeit at a grand scale.



Photos: Bill Timmermar

he's always had the sculptor's alchemical gift for ennobling the commonplace. Central to his approach, he says, is "how you celebrate the materials and how they go together. And how they go together, often, is the joint as a void." In the Nellis/Cox Residence (1988–2000), he met a tight budget by specifying walls of discarded broken concrete blocks instead of stone. The resulting jagged, deeply shadowed surfaces contrast strikingly with the plan's flowing lines. His most recent work is more refined in texture but still uses materials to enclose space in ways that transform and elevate both.

"He's a very special American architect," says Peter Q. Bohlin, FAIA, of Bohlin Cywinski Jackson (BCJ). The two met in the mid-1990s when Bruder visited BCJ's Ledge House in Maryland (he would later write an introduction to the firm's book on that project), and they have followed each other's progress ever since. Bohlin observes of his friend's work, "It always seems fresh, personal, strong. He's always fiddling with new materials. The work is sculptural—fully—and very inventive. He does very special houses—and they're Will's houses." But that personal quality emerges from a deep, broad interest in the work of others, Bohlin notes. "He's constantly visiting and studying, to an amazing extent."

Of his many trips abroad, Bruder views the Rome Prize sabbatical in 1987 as a singular watershed in his career. For six months he traveled the length of Italy, studying "the effect of material and craft—from the Etruscan to the Roman—on 20th-century modern architecture, culminating with the work of Carlo Scarpa." In retrospect, he distinguishes between his pre-Rome and post-Rome buildings, the latter being not only "finer grain in scale than the earlier work," but also "more of the vernacular and the context." After his return from Italy, Bruder's context shifted increasingly from the desert to the city, most notably in his design for the Phoenix Central Library.

city life

Bruder's residential work would be enough to establish him among the leading architects of his generation, but it is impossible to ignore the impact of what David D. Salmela, FAIA, calls "that amazing library in Phoenix." Bruder had done public work since his days with Birkerts, but the Phoenix Central Library cemented his reputation as a civic architect. The building, which rises from the cityscape like an urban mesa, culminates in a vast reading room whose soaring concrete columns support a light tensegrity roof structure. At the solstices, sunlight

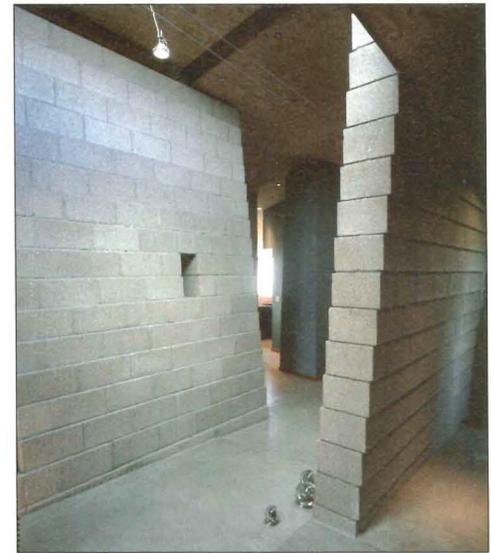
pierces the roof's circular skylights, illuminating the column tops. The event has become a biannual civic ritual.

Bruder followed with a series of residential projects that reflect a growing interest in the urban environment. In the Hill/Sheppard House (1993) he sought "a total merging with the context, almost an effort to make the house invisible." But rather than the open desert, the context here is a leftover site in a closely packed suburban subdivision. Put to this very different kind of test, Bruder's intricate folded-plane geometries define private spaces and frame distant views amid a clutter of neighboring buildings. Multifamily projects like Loloma 5 (2004) and Mezzo (2008) represent steps toward a livable, walkable future for one of America's most car-centric cities.

Single-family and multifamily alike, all Will Bruder + Partners projects benefit from the founder's full involvement, including his trademark on-site improvisational design. As lead designer on every project—and the tally now exceeds 600—Bruder handles primary client contact, presenting each proposed design in his own hand-drawn sketches. But while

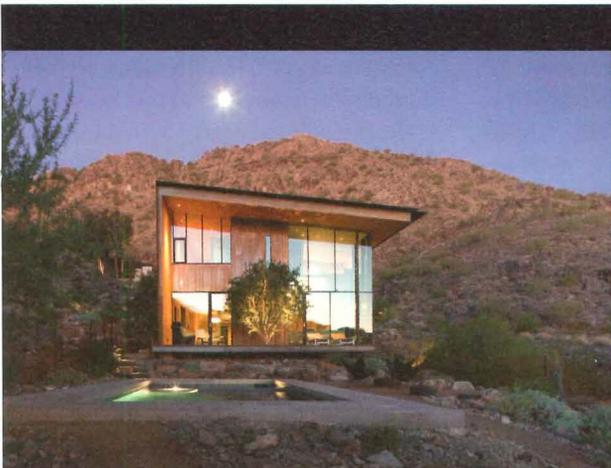
he stands at the center of the process, he is generous in nurturing the talents of his associates. Counting among his former protégés Wendell Burnette, AIA, and Rick Joy, AIA, Bruder says, "I take great pride in my studio. I think it's a teaching studio, a mentoring studio."

"There's a bunch of guys in Phoenix who flat-out want to be him," says Joy. "The thing about Will is, he's enormously generous with his belief in architecture, what it can do for people, its uplifting possibilities." For Bruder, at 65, those possibilities have never been greater. "I'm excited about what I do," he says. "It's my sport; it's my passion." He brings to each new project "all the things I've learned from all these buildings I've had the privilege of enjoying." The attraction that first drew him to a Frank Lloyd Wright construction site more than 50 years ago retains its magnetic force. "It's about capital-A architecture. You're getting paid to open the possibilities of what architecture is about." And the goal of architecture, he says, "is to build a better world to live in, to build armatures for memory. And memory is what people value more than any physical thing." ra



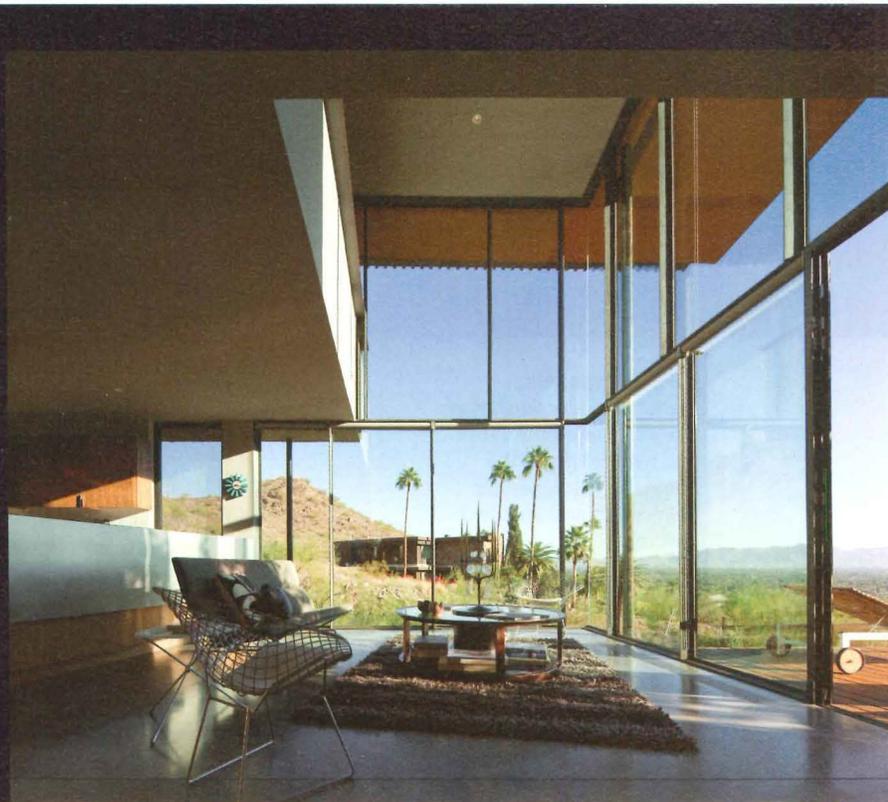
Photos: Bill Timmerman

Laid in corbeled courses, the Byrne Residence's concrete masonry suggests slanted canyon walls (above). The void between wall and roof planes is a classic Bruder move (top).



Photos: Bill Timmerman

The Jarson Residence employs a simple gesture—a folded plane of rusted steel that forms one wall and the roof—to create a powerful sense of shelter (above and right).



top firm: marlon blackwell architect fayetteville, ark.

an ozark mountain setting nurtures marlon blackwell's bold architectural vision.

by meghan drueding



Danny Turner

In Fayetteville, Ark., Marlon and Meryati Johari Blackwell enjoy the views and natural light at the home they designed for themselves and their two children.

marlon Blackwell's first architecture assignment went badly. "In ninth-grade shop class, you had to design a house and make a model," he remembers. "Mine was genuinely awful." A few years later, he started architecture school at Auburn University and says he "just struggled through the educational process." Given this unpromising start, one might have concluded that Blackwell, FAIA, wasn't cut out to be an architect.

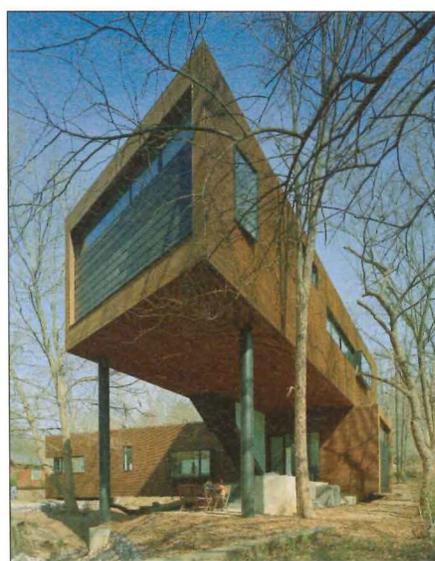
How wrong that would have been. The 54-year-old, Fayetteville, Ark.-based architect is now an intellectual powerhouse, a star on the lecture circuit. He heads up the architecture department for the Fay Jones School of Architecture at the University of Arkansas. And he and his wife, Meryati (known as Ati) Johari Blackwell, LEED AP BD+C, lead an eight-person firm whose diverse portfolio and long list of awards is the envy of many peers. "There is no 'bread-and-butter' here," says designer and project

manager Jonathan Boelkins, who has worked at the firm for five years. "Every project is given a lot of consideration."

Houses garnered Blackwell his first dose of national attention in the late 1990s and early 2000s. He still designs them, along with institutional and commercial jobs. The firm recently has started to win commissions of a larger scale, including a nearly 500,000-square-foot high school in Fayetteville that it's designing with two other firms.

human touch

Like Blackwell's thoughtful, site-sensitive architecture, his path from struggling student to successful architect was an unconventional one. He grew up in an Air Force family of modest means, living on military bases in Germany, the Philippines, Montana, and Alabama, among other places. At Auburn, Blackwell paid his way through by working as a Bible salesman, deploying his gregarious personality to become one of the company's top salespeople. (Raleigh,

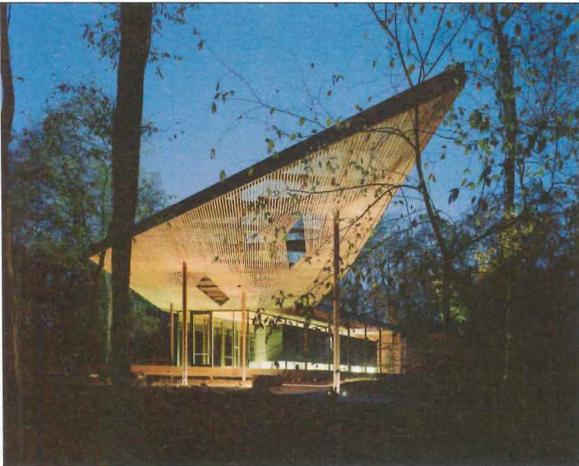


The Blackwells' home, known as the L-Stack House, spans a seasonal creek and sports a rainscreen of Brazilian redwood. The project's stacked volumes help it negotiate the neighborhood's one-story scale.

Photos: Timothy Hursley

leadership awards

The elegant Ruth Lilly Visitors Pavilion at the Indianapolis Museum of Art (below) demonstrates the firm's unique blend of exuberance and restraint.



N.C., architect Frank Harmon, FAIA, who taught at Auburn at the time, recalls feeling puzzled by the prevalence of Bibles in the school's studio spaces. "I later found out that Marlon had been there," he says.)

After graduating, Blackwell spent 10 years working at firms in Lafayette, La., and in Boston. "In firms, I felt paralyzed," he says. "I desperately didn't want to be there." In 1990, at age 34, he entered Syracuse University's M.Arch. II program. This time, he discovered the passion for schooling that had eluded him in his undergraduate years. The discipline he'd learned in working with firms, and all the architectural ideas he had but felt he couldn't articulate, came together for him at Syracuse. "I couldn't believe how much I could produce," he says. Before graduate school, "I had the ideas but not the language. I was crude and raw, but with a lot of hard work and curiosity, you begin to will yourself talent."

In 1992, Blackwell began teaching at the University of Arkansas, deep in the Ozark Mountains. He soon married Ati, a Malaysian-born, University of Miami and Architectural Association-educated designer whom he'd met after giving a

lecture in Miami. And he embraced with gusto his task of inviting guest lecturers to the university. Peter Eisenman, FAIA, Jacques Herzog, Hon. FAIA, Pierre de Meuron, Hon. FAIA, and Peter Zumthor came at his request, as did non-architect speakers such as music critic Greil Marcus and artist Robert Irwin. "You want to situate yourself with people who are making these huge differences," Blackwell says. "Spending time with them gives you a sense of what it takes."

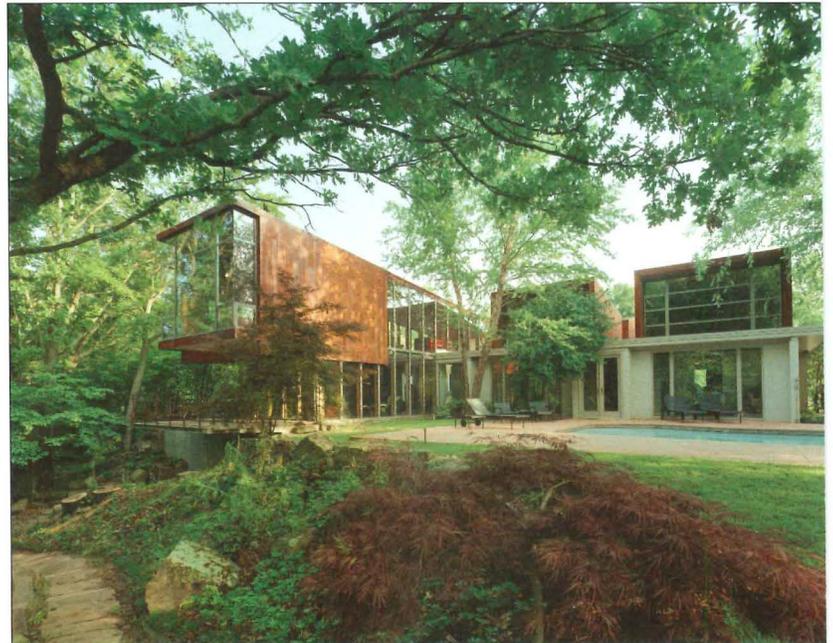
Fay Jones, who lived and worked in Fayetteville until his death in 2004, acted as one of Blackwell's many mentors. "Fay was a humanist, man," he says. "He was the most approachable person in the world." People say the same sort of thing about Blackwell, who has the ability to talk easily with just about anyone. "Marlon combines highbrow and lowbrow in the sense that he's a very good storyteller and a very intellectual guy," says his friend Brian MacKay-Lyons, Hon. FAIA, FRAIC. "He brings a very consistent human decency to all his relationships."

high profile

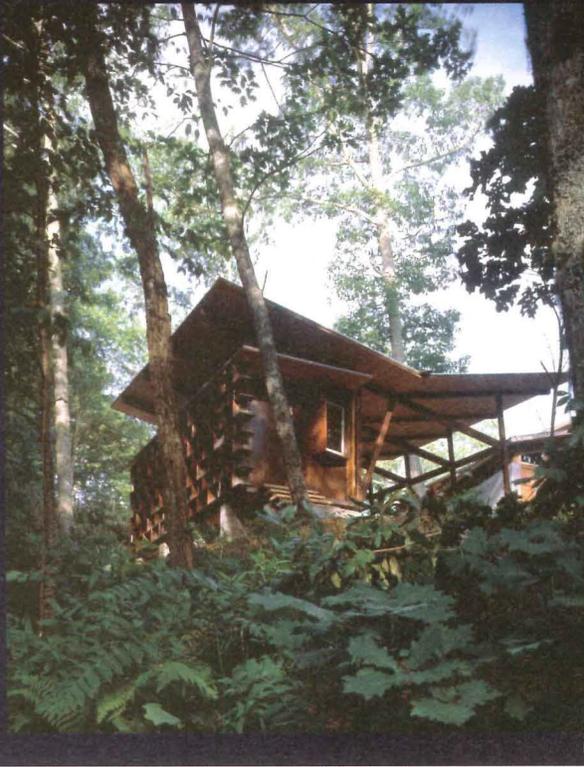
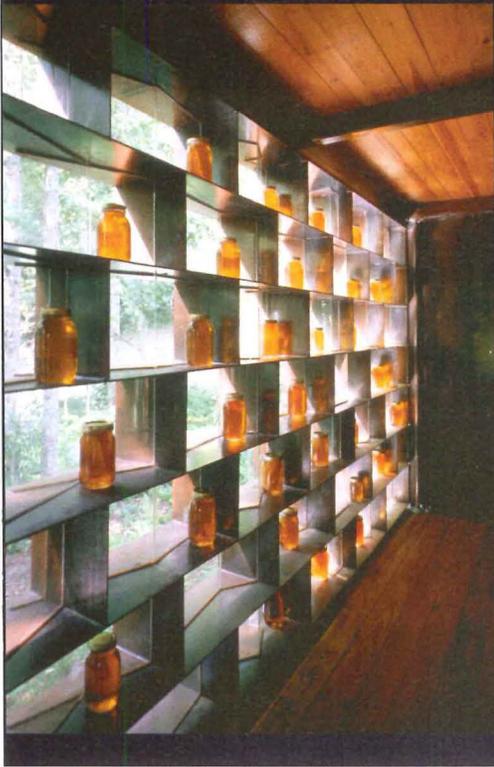
Over his next few years in Fayetteville, Blackwell gained a deep understanding



A respectful reinterpretation of an existing, fire-damaged residence in Johnson, Ark., (above and right) includes an extended living room clad in weathering steel and lined on the inside with a rich mix of walnut and cherry.



Photos: Timothy Hursler



Even Blackwell's early projects, such as the Moore HoneyHouse in Cashiers, N.C., express the complex engagement with nature that continues to pervade his work.



Photos: Richard Leo Johnson/Atlantic Archives

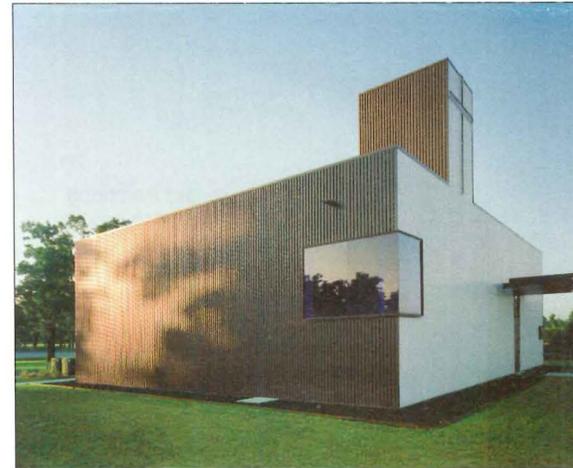
of the Ozarks' materiality, culture, and natural environment. He then designed a pair of buildings that rocketed him to national attention. The Moore HoneyHouse (1998) in Cashiers, N.C., ingeniously uses a honeycomblike, steel-and-glass wall of shelves to bring in light, provide structural support, and store and display honey cultivated by the beekeeper client. And the Keenan TowerHouse in Fayetteville (2000) synthesizes the childhood concept of a treehouse with the imagery of an industrial Arkansas tower to create a bold, iconic piece of architecture. The TowerHouse made the cover of *Architectural Record*, and requests for Blackwell to lecture jumped from two to three per year to 20 per year.

Since then, his firm has steadily turned out award-winning projects, both residential and non-residential. The office now employs eight people, including Marlon and Ati, who is a full partner. "I can't say the business would be where it is without Ati," Marlon says. "She's constantly challenging and pushing me." After working first at another local firm and then part-time with Marlon when the couple's two children (now 10 and 12) were younger, Ati has taken on a greater

role in the firm's day-to-day operations, including its financial management. "We share a passion for architecture," she says of herself and Marlon, who is the design lead on all projects. "Even though we come from two different backgrounds, I understand his sensibility."

During a slow period in 2009, the Blackwells and their staff moved into a space in a mid-century office building that they renovated for a developer client. "The office is casual and open," Ati notes. "Marlon and I don't have special desks. There's a level of trust we all have with each other."

The slowdown gave the firm a chance to rethink some of its processes. "We decided three or four years ago that we wanted to do more public work," Marlon says. "Our goal was to elevate our presence without compromising what we do." He and his team started trying to land bigger public projects, eventually realizing that one of the best ways to do so is to team up with larger firms. They're working with DLR Group and Hight Jackson Associates on Fayetteville High School, the first phase of which is under construction now. And along with Polk Stanley Wilcox Architects, Marlon Black-



Photos: Timothy Hursley



On a shoestring budget, the firm turned a banal metal structure into the award-winning St. Nicholas Eastern Orthodox Church in Springdale, Ark.

2011



Blackwell's work consistently displays an inventive use of materials. For example, charred and oiled cypress clads an under-construction bunkhouse and cabin in Caddo Gap, Ark.

Renderings: Courtesy Marlon Blackwell Architect

The elevated Porchdog House, which Blackwell designed as part of Architecture for Humanity's Biloxi Model Home program, bridges its distance from the ground with a street-level porch, storage space, and a covered parking area.

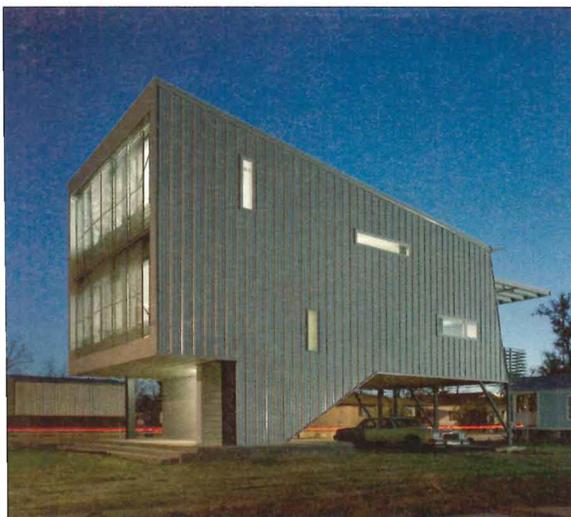


Photo: Timothy Hursley

well Architect is designing a renovation of and addition to Vol Walker Hall at the University of Arkansas.

At the same time, the firm has a private cabin and bunkhouse under construction in Caddo Gap, Ark. A handful of other projects, including a retail store at the Crystal Bridges Museum in Bentonville, Ark., and a Montessori school in Fayetteville, also are under way. "We will always do residential," says Ati, who served as general contractor for the couple's own house in Fayetteville, the L-Stack House. (The project won a *residential architect* Design Award in 2010.)

site centered

Blackwell is widely considered one of the country's leading regionalists. He interprets the natural and man-made characteristics of a place, weaving them together to create exciting yet site-appropriate buildings. He takes his research seriously: When he and Ati were designing the L-Stack House, they lived in a rental house next door to their property for a year and a half, so they could gain a true sense of the land.

When absorbing the influences of a

place, Blackwell doesn't automatically jettison the ugly in favor of the beautiful; he draws inspiration from both trailers and trees. "I have no interest in making utopias," he says, and indeed his work conveys a sense of realism—a raw energy and power similar to that of a hand-drawn sketch. At the same time, its restraint, precise detailing, and intimate relationship to the site lend it a refined feeling. "My curtains are the trees and the light and the movement outside," says residential client John Tyson. "Every time I come into the house, I take a deep breath."

Even if a project isn't within Blackwell's own region of northwest Arkansas, he and his team apply the same process of divining a site's particular qualities. Last year they completed work on a visitors' pavilion at the Indianapolis Museum of Art (IMA), one of the firm's highest-profile and most far-flung projects to date. "It became very clear with his residential architecture, especially the TowerHouse and the HoneyHouse, that it was so unique and incredibly sensitive and specific to the location," says Lisa Freiman, an IMA senior curator who was instrumental in

choosing Blackwell for the job. “His work is so considerate of nature but also thinking about the relationship between natural forms and architecture.”

Blackwell believes his work has grown more liberal in its definition of regionalism. “Increasingly, it’s become a bit more transgressive with the vernacular,” he says. He credits his childhood interest in drawing cartoon strips with making him more aware of the way things live in three dimensions. “Most of our work is generated in profile, more sectionally,” he explains. “I love drawing plans, but it’s important to get out of plan. Looking at things in 3D helps you understand how things hit the ground and sky. I just think how something meets the ground is really important.”

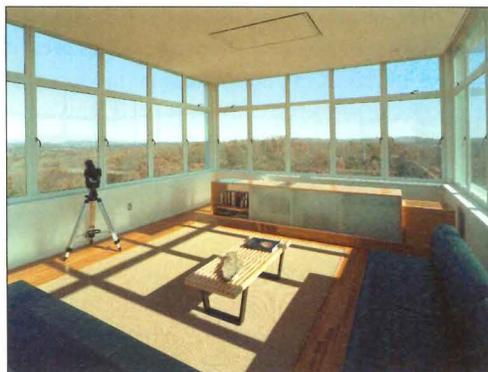
His favorite work by other architects sometimes shares the abstract forms of his own work—and sometimes not at all. “I love the Seaside Chapel,” he says of Merrill, Pastor & Colgan Architects’ pristine, Carpenter Gothic–influenced chapel in Seaside, Fla. “I would never do that, but it’s damn good. To me it’s not about style. It’s about a disciplined approach.”

Since 2009, Blackwell has chaired the architecture department at the University of Arkansas. He still teaches fourth and fifth-year studios, with the help of a teaching partner, and has served as a visiting professor at other schools including MIT, Auburn, and the University of Florida. He’s received offers to leave Fayetteville, but has always chosen to stay. Living and working there enables him, Ati, and their firm to continue the tradition of Fay Jones and other significant local architects, which has become something of a mission for him.

“I feel like if I left I’d be abandoning part of what I set out to do, which was to say, ‘Hey, man, why can’t design happen here in Arkansas?’” he says. “Fayetteville is a strange place, and I’m sort of attracted to strangeness. We’re not making things up—we’re building on a legacy here. It’s a cool place.” **ra**



Photos: Timothy Hursley



At the Keenan TowerHouse in Fayetteville, a permeable oak screen contrasts with industrial-style standing seam metal. The interior room provides a treehouse-like vantage point.

rising star: gray organschi architecture new haven, conn.

gray organschi's houses define the luxury of scarcity: creating richness with simple moves.

by cheryl weber, leed ap



Matt Greenslade

Lisa Gray and Alan Organschi converted a downtown New Haven warehouse into their 6,500-square-foot headquarters, including a workshop.

When we called Lisa Gray, AIA, and Alan Organschi to talk about their Rising Star award, it took a while for the married couple to start discussing their current work. There were so many tangential topics to touch on, from the relationship between building design and the matriarchal social structure in Indonesia's Sumatra, where Gray spent seven months on a Fulbright scholarship after graduating from Yale School of Architecture in 1987, to the impact of urbanization on the craft tradition there. Organschi talked about the late Italian architect Giovanni Michelucci's expressive Church of the Autostrada, a monument to the workers who built the highway through the mountains connecting Milan and Naples.

As co-editor in the late 1980s of *Perspecta: The Yale Architectural Journal*, Organschi had interviewed Michelucci and invited him to lecture at the school. With postmodernism in full swing, he recalls, architecture was

about image and iconography, not the technology of assembling buildings. "In his book *Contradiction and Complexity in Architecture*, Robert Venturi had denigrated Michelucci's church—he said it was too picturesque," Organschi says. "But in a later edition, he added a footnote that he'd visited the building, and that it was actually incredible. That encapsulated everything we were trying to comment on at that moment. Architects were so preoccupied with the representation of architecture that they were willing to stake their critique on pictures rather than experiencing it."

What does this have to do with a 17-year-old firm in New Haven, Conn.? A lot, as it turns out. Gray and Organschi, New England natives who met at Yale, are obsessed with the relationship between design ideas and how they are executed, often combining detailed hand work with building-scale fabrication processes that let them reinvent what architecture can be, and how it might go together. Their make-it-happen method-

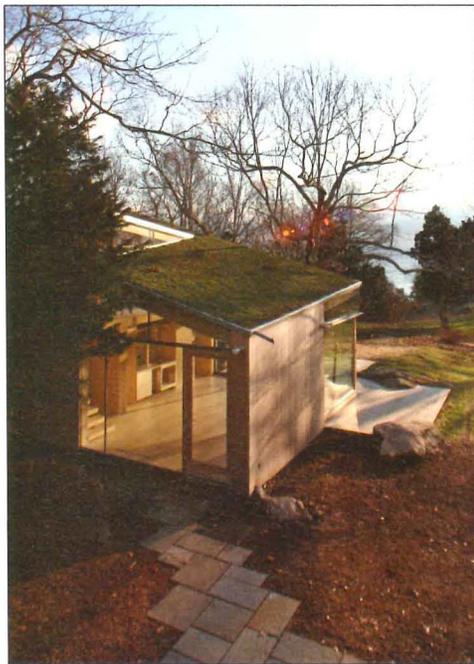


Photos: Robert Benson Photography



Built on a forested slope, the Hillside House's post-and-beam wings sit against stone retaining walls, minimizing the visual and site impact.

A play on traditional New England sheds, the Guilford Cottage typifies Gray Organschi's talent for turning site constraints into a cool architectural idea.



Bo Crockett/Gray Organschi Architecture

ology gives their work its unique character. It also suits the times we live in, freeing them from some of the conventions that bog down building and opening the door to tight budgets and delicate sites.

But these techniques are just a means to an end. The pair is less interested in expressing craftsmanship, technology, or structure than in how planes and forms interact with light and the landscape, and do so with the quietest moves. In fact, they don't use the word craft. "When Alan and I opened our firm, we were very attracted to the idea of building things really well and thoughtfully, but not in an intentionally one-off way," says Gray, who also oversees Gray Design, the firm's interior design arm. "Over time we became more interested in the ability to preplan and prefabricate to create something unique but replicable."

research based

Building has always been Gray Organschi's ethical and creative center. Organschi put himself through school doing carpentry and making furniture. Building at a small scale, he was fascinated by all the steps that can compromise design. "It's hard to muster all the economic, political,

social, and manpower forces to create a building with a really good idea behind it," says Organschi, who teaches a housing studio at Yale. "It's not like being a painter with a paintbrush. You're shooting for this high level of energy that conveys the goals, whatever they are." Occupying the street level of the firm's three-story former warehouse is Jig Designbuild, an offshoot fabrication and construction company. The six architects working on the upper floors aren't just drawing pictures; they're going into the workshop to design the assembly systems, though CNC milling and other production work usually is outsourced.

Well-known and respected among the New Haven intelligentsia, Organschi and Gray are admired for their common touch. "Their work is not cosmopolitan, pretentious, or overly abstract; it's real," says Joeb Moore, AIA, principal of Joeb Moore + Partners Architects in Greenwich, Conn. "The way they promote their work is that it's all about matter-of-fact materials and assemblies and the forms that emerge from them. But it's more than that. There's an earnestness, directness, and playfulness with the history of architectural form that anyone



Photos: Bo Crockett/Gray Organschi Architecture



The architects orchestrated all the material handling for the Depot House, from the prepainted wood siding to the fabricated stairs. Its simple barn forms sit on top of the former train depot's rubble and cinderblock foundation.

Curving birch plywood planes respond to the acoustical and spatial challenges of Firehouse 12, which houses an apartment, music studio, and performance space.



Photos: Robert Benson Photography



looking at their work will sense.”

An 875-square-foot cottage in Guilford, Conn., illustrates the blend of pragmatism and Yankee ingenuity embedded in their projects. Strict height and size limitations gave form to a precise accessory dwelling that does many things simultaneously: It edits out undesirable views while admitting others through glass corners and eaves, and a tipped up skylight creates head room in the loft. In addition to mass-produced sliding glass doors, its collage of assembly systems includes frameless glass templated and produced off-site, then glazed into a framing and trim system the architects designed. A plywood ceiling, folded like origami, was digitally designed to produce simple, flat planes that could be sheathed with conventional bamboo flooring. The architects also engineered an attachment system for installing the single-pitch sod roof on a traditional steep angle.

Their working philosophy goes beyond overt notions of sustainability. “There are so many things you can’t account for that make up the cost of building: How do you move the plywood from point to point? Is it better to paint the siding after

it’s up or before it’s assembled?” Organ-schi says. “This is what big architecture firms are doing with huge projects like skyscrapers. When you bring that level of thought and detail to smaller-scale work, it results in a better building.” Yet, he adds, “the balancing act we’re working toward is not to overarticulate. We want to find the wonder of architecture without making the building feel like it’s trying to stand in the spotlight.”

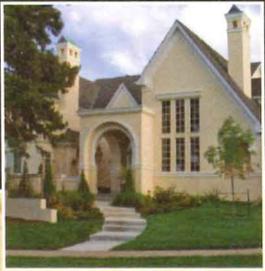
The firm currently is thriving on a mix of residential and institutional work, including an eco-focused charter school. Says Gray, “It feels to us as though the practice of architecture is a very broad project, and we feel lucky to be involved with an endeavor that’s so complicated and a core group of people who are skilled. We’re not on the cusp of new stuff, but appropriately bringing our resources to a good mix of projects.”

Indeed, their interest in research will carry them along for the next 20 years. “What I like about them is that embedded in their thinking is a long-range project for their office,” Moore says. “They have a clear thesis statement about what their work is. That’s extremely difficult to do, and they are true to it.” **ra**



Photos: Bo Crockett/Gray Organschi Architecture

Roofed poolside sofas, produced in various shops and assembled on site, transform into off-season lanterns. The screens are made of latticed white cedar and translucent polycarbonate.



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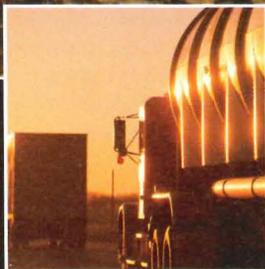
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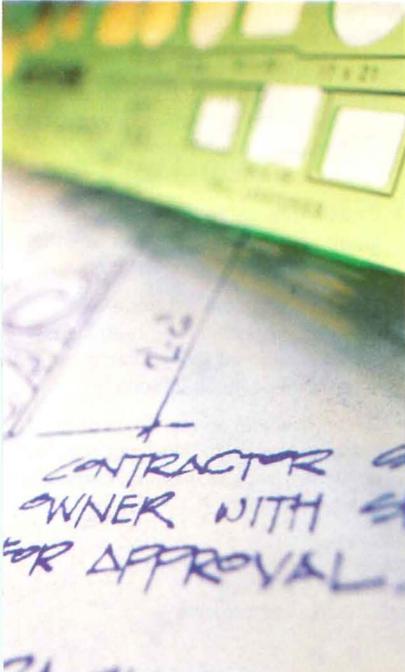


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ONLINE COURSES:

Propane Gas Underground Systems: Residential Infrastructure Requirements and Energy Benefits

COURSE OBJECTIVES

- Compare the benefits of different energy sources for fueling or powering the home.
- Identify the benefits of using propane to fuel homes.
- Describe different propane applications and list storage options.
- Outline underground propane tank installation considerations and identify the benefits of underground propane tanks.

IAHB APPROVED
IAA CREDIT: **1 LU/HSW/SD HOUR**
USGBC CREDIT: **1 GBCI CE HOUR**

Go Green with Propane: An Overview of Propane Gas Systems for Green Residential Construction

COURSE OBJECTIVES

- Identify multiple energy sources, including hybrid systems, and the benefits associated with each.
- Describe residential propane storage options and applications for green building.
- Explain the impact of fossil fuels and electricity on the greenhouse gas effect.
- Identify the NAHB Green Building Standards and LEED for Homes guidelines, and explain the benefits a homeowner receives from building a green home with propane.

NAHB APPROVED
AIA CREDIT: **1 LU/HSW/SD HOUR**
NARI CREDIT: **0.1 CEU HOUR**

Water Heaters: Retrofitting from Standard Electric to Gas Tankless

COURSE OBJECTIVES

- Compare the performance benefits of heating water with propane versus electricity.
- Describe two ways in which tankless water heaters save money when compared to tank-type water heaters.
- Explain the impact of fossil fuels and the generation of electricity on the greenhouse gas effect.
- Identify water heating retrofitting opportunities, including specification and installation of a tankless water heater.

NAHB APPROVED
AIA CREDIT: **1 LU/HSW/SD HOUR**
NARI CREDIT: **0.1 CEU HOUR**
USGBC CREDIT: **1 GBCI CE HOUR**

FULFILL YOUR PROFESSIONAL TRAINING REQUIREMENTS



Hydronic Heating in Rural Residential Applications

COURSE OBJECTIVES

- Describe what hydronic heating is and why this alternative heating system benefits homeowners.
- Identify at least three parts of a hydronic system and at least two alternative fuel sources.
- Classify at least two different heat emitters by component and location.
- Identify alternate heating uses, other than residential space heating, for hydronics.

NAHB APPROVED

AIA CREDIT: **1.5 LU/HSW/SD HOURS**

NARI CREDIT: **0.1 CEU HOUR**

Propane-Enhanced Renewable Energy Systems

COURSE OBJECTIVES

- Explain why a supplemental energy such as propane is often required in combination with renewable energy technologies.
- Describe how propane supplements three types of alternative energy technologies.
- Identify at least three things that need to be considered before specifying a residential alternative energy system.
- Identify three basic functions of common features in three types of renewable energy technologies.

NAHB APPROVED

AIA CREDIT: **1 LU/HSW/SD HOUR**

NARI CREDIT: **0.1 CEU HOUR**

USGBC CREDIT: **1 GBCI CE HOUR**

A Comparative Analysis of Residential Heating Systems

COURSE OBJECTIVES

- Describe general trends when comparing standard- and high-efficiency heating systems with dual-fuel or renewable energy systems.
- Explain how carbon emissions differ among heating systems and why that can vary depending on location.
- Compare and contrast trade-offs involved in specifying high-efficiency HVAC equipment for residential projects in terms of payback periods.
- Describe where certain types of HVAC systems may be most appropriate based on factors such as location, operating costs, or efficiency.

NAHB APPROVED

AIA CREDIT: **1 LU/HSW/SD HOUR**

NARI CREDIT: **0.1 CEU HOUR**

USGBC CREDIT: **1 GBCI CE HOUR**

Innovations with Propane Gas for Outdoor Residential Use

COURSE OBJECTIVES

- List at least three outdoor residential uses for propane.
- Describe the safety and environmental benefits of using propane in residential applications.
- Compare and contrast greenhouse gas emissions of commonly used residential energy sources.
- Describe the sustainable energy benefits of building with propane-fueled systems and appliances.

NAHB APPROVED

AIA CREDIT: **1 LU/HSW/SD HOUR**

NARI CREDIT: **0.1 CEU HOUR**

USGBC CREDIT: **1 GBCI CE HOUR**

Community Propane Systems: Economic, Environmentally Responsible Energy Without Geographic Limits

COURSE OBJECTIVES

- Identify two environmental benefits of using propane instead of natural gas as a community energy source.
- Describe Sustainable Development Pillars and the impact of greenhouse gasses on climate change.
- List the NAHB Green Building Standards and applicable strategies to earn points toward green home certification.
- Describe applications for propane energy inside and outside the home.

NAHB APPROVED

AIA CREDIT: **1 LU/HSW/SD HOUR**

USGBC CREDIT: **1 GBCI CE HOUR**

Retrofitting Homes from Heating Oil to Propane: Efficiency, Economic, and Environmental Benefits

COURSE OBJECTIVES

- Describe the history and current use of heating oil in the United States.
- Identify which alternative energy sources are available to current heating oil consumers.
- Complete a heating analysis of alternative energy choices.
- Identify why propane is a superior alternative to heating oil from both an environmental and energy-use perspective.
- Explain considerations when converting from heating oil to another energy source.

NAHB APPROVED

AIA CREDIT: **1 LU/HSW/SD HOUR**

NARI CREDIT: **0.1 CEU HOUR**

USGBC CREDIT: **1 GBCI CE HOUR**



Specifying Propane Standby Generators: Installation and Value Considerations

COURSE OBJECTIVES

- Explain common reasons for power disruptions.
- List the three main kinds of standby generators available for the residential market.
- Identify the most reliable and appropriate fuel choice for an environmentally friendly and energy-efficient generator.
- Identify how to properly size a generator to ensure the home is safe, secure, and comfortable during power outages.

NAHB APPROVED

AIA CREDIT: **1 LU/HSW/SD HOUR**

NARI CREDIT: **0.1 CEU HOUR**

Propane Enhanced Solar Water Heating

COURSE OBJECTIVES

- Describe why solar water heating is a viable and reliable water heating method for residential remodels and new construction.
- Describe why solar water heating is not sufficient in many parts of the country, and compare two energy sources that can supplement a solar water heating unit.
- Describe how a solar water heating unit works with a propane-fueled backup tankless water heater.
- Review a spec for a solar water heater with a propane-fueled backup tankless water heating unit.

NAHB APPROVED

AIA CREDIT: **1 LU/HSW/SD HOUR**

NARI CREDIT: **0.1 CEU HOUR**

USGBC CREDIT: **1 GBCI CE HOUR**

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A Comparative Analysis of Residential Water Heating Systems

COURSE OBJECTIVES

- Explain the need for an analysis of water heating systems and briefly describe the methodology of this study.
- Describe the factors that contribute to energy costs varying by region and climate.
- Compare and contrast the environmental and economic benefits of the systems in each climate.
- Identify the conclusions reached from the analyses of water heating systems.

NAHB APPROVED
AIA CREDIT: **1 LU/HSW/SD HOUR**
NARI: **0.1 CEU HOUR**

Understanding the 2009 IECC Energy Code, Advanced Efficiency Programs, and Their Implications for Propane

COURSE OBJECTIVES

- Identify the regions in the United States where propane is likely to be used in new homes and with what appliances.
- Discuss the structure of the 2009 IECC code and the sections that impact propane in new single-family homes.
- List the IECC's major compliance paths and describe the minimum efficiency requirements for propane-fired residential equipment.
- List at least two different green building codes and standards and describe how propane can contribute to gaining points in those programs.

NAHB APPROVED
AIA CREDIT: **1.25 LU/HSW HOURS**
NARI: **0.1 CEU HOUR**
USGBC CREDIT: **1 GBCI CE HOUR**

Residential Energy Performance Upgrades: An Energy, Economic, and Environmental Analysis

COURSE OBJECTIVES

- Explain the difference between elective and non-elective energy-efficiency measures (EEMs).
- Identify the most beneficial EEMs in each of the five climate zones outlined in the study.
- Determine approximate payback periods for EEMs in your projects that are similar to those covered in the study.
- Discuss how you would convey the costs and benefits of EEM options to your clients.

NAHB APPROVED
AIA CREDIT: **1 LU/HSW/SD HOUR**
NARI CREDIT: **0.1 CEU HOUR**
USGBC CREDIT: **1 GBCI CE HOUR**

PRINT COURSES:

Expanding Outdoor Living: Using Propane for Efficient and Sustainable Outdoor Living

COURSE OBJECTIVES

- Describe why furnished outdoor spaces are becoming popular among homeowners and designers.
- Describe at least three considerations that should be taken into account before designing an outdoor space.
- Describe at least three features fueled by propane that are often part of outdoor spaces.
- List at least three facts about propane related to its low environmental impact.

AIA CREDIT: **1 LU HOUR**
NARI CREDIT: **0.1 CEU HOUR**



Condensing Tankless Water Heaters: Using Propane for the Most Efficient Water Heaters on the Market

COURSE OBJECTIVES

- Describe how a condensing tankless water heater works and outline the possible advantages for use in a residential setting, especially in retrofit situations.
- Describe how new Department of Energy standards and upgraded Energy Star ratings will change the landscape of residential water heaters.
- Explain why Energy Factors (EFs) don't always reveal the best value.
- List at least three facts about propane's low environmental impact.

AIA CREDIT: **1 LU/HSW/SD HOUR**
NARI CREDIT: **0.1 CEU HOUR**

Heating Oil Conversion: Exploring Propane as a Viable Alternative Energy Source

COURSE OBJECTIVES

- Describe the history and current use of heating oil in the United States.
- List alternative fuel sources that are available to current heating oil consumers.
- Complete a heating analysis of alternative fuel choices.
- Understand why propane is a superior alternative to heating oil.

AIA CREDIT: **1 LU/HSW/SD HOUR**
NARI CREDIT: **0.1 CEU HOUR**

Living Off-Grid: Power Generation and Storage Basics

COURSE OBJECTIVES

- Describe why living off-grid has become more appealing.
- List the technology and components required to generate and store power in an off-grid home.
- Describe the functional and practical differences among portable, stand-by, and off-grid generators.
- Compare the advantages and disadvantages of diesel fuel and propane for off-grid use.

AIA CREDIT: **1 LU/HSW/SD HOUR**
NARI: **0.1 CEU HOUR**

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MORE TRAINING OPTIONS

Training opportunities don't end with continuing-education courses. The Propane Education & Research Council offers a number of excellent research studies and training videos at buildwithpropane.com.

Under the website's Resources tab, research highlights include:

- Whole-House Analysis of Energy-Efficiency Upgrades
- Heating-Oil Conversions: Evaluating the Alternatives
- Propane-Enhanced Renewable Energy Systems
- Comparative Heating Systems Study

The website's Multimedia Library has training videos on a number of subjects including:

- Converting an Oil-Fueled Boiler System to Propane
- The Future of Propane
- Achieving Affordable and Impactful Energy Efficiency
- Residential Multi-Unit Tankless Water Heaters



Propane Education & Research Council
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COURSE TITLE

**Illustrative Guide to Classical Moulding
Design for Cabinetry & Furniture**

COURSE OVERVIEW:

This new course explains how the standard language of classical design is versatile and can be adapted for modern use in cabinetry designs. This course discusses correct proportions for cabinetry and moulding build-ups in kitchens and baths, according to different design programs. It also covers how to successfully combine moulding shapes and motifs, how to design with classical language within different cultural styles, and how to always be able to adapt known precedents to match present design issues.

OUTLINE:

This course covers these areas of interest:

- Classical proportions and ratios of mouldings based on size of room
- How to create and adapt classical moulding build-ups
- Cabinetry design concepts
- Combining moulding shapes and motifs
- How to use mouldings in different applications

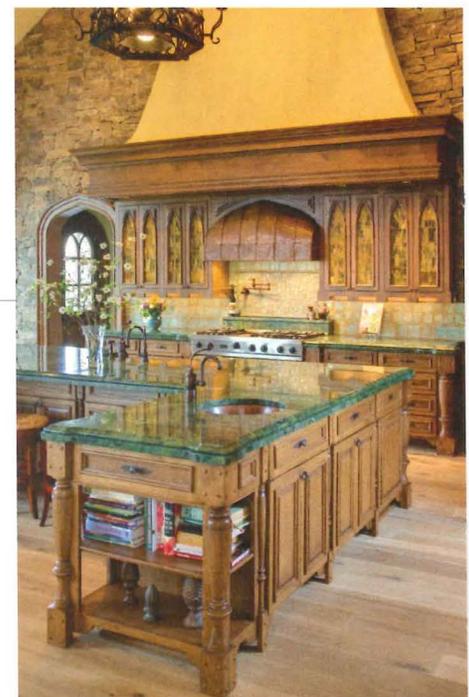
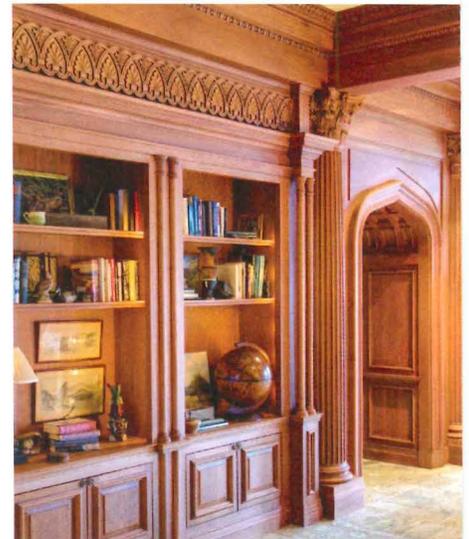
WHO SHOULD TAKE COURSE:

This course will benefit any design professional that would like to successfully create unique and proportionally correct cabinetry and furniture pieces in their design programs.

► *COURSE CREDIT: 1 LU*

ABOUT WHITE RIVER™

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empower to the people

a solar decathlon entry transforms into a habitat for humanity project.

After the 2011 DOE Solar Decathlon, one of its entries—known as Empowerhouse—won't have far to travel. As of press time, it was slated to stay in Washington, D.C., to become part of a Habitat for Humanity duplex in the city's Deanwood neighborhood. A team from Parsons The New School for Design; the Milano School for International Affairs, Management, and Urban Policy at The New School; and Stevens Institute of Technology designed the solar-powered, 1,000-square-foot home using Passive House principles. Following the competition, the net zero energy building will be moved to Deanwood, where Habitat's Washington chapter will work with local partners such as the D.C. Department of Housing and Community Development to expand it into a 2,700-square-foot, two-family house.

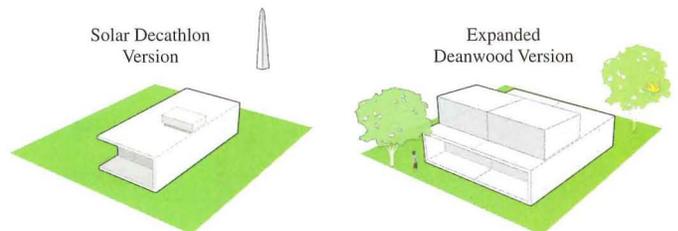
Students from the three schools built the panelized Empowerhouse on Stevens' Hoboken, N.J., campus last summer before breaking it down into two modules and shipping them to D.C. for the biennial decathlon. "As you build it,



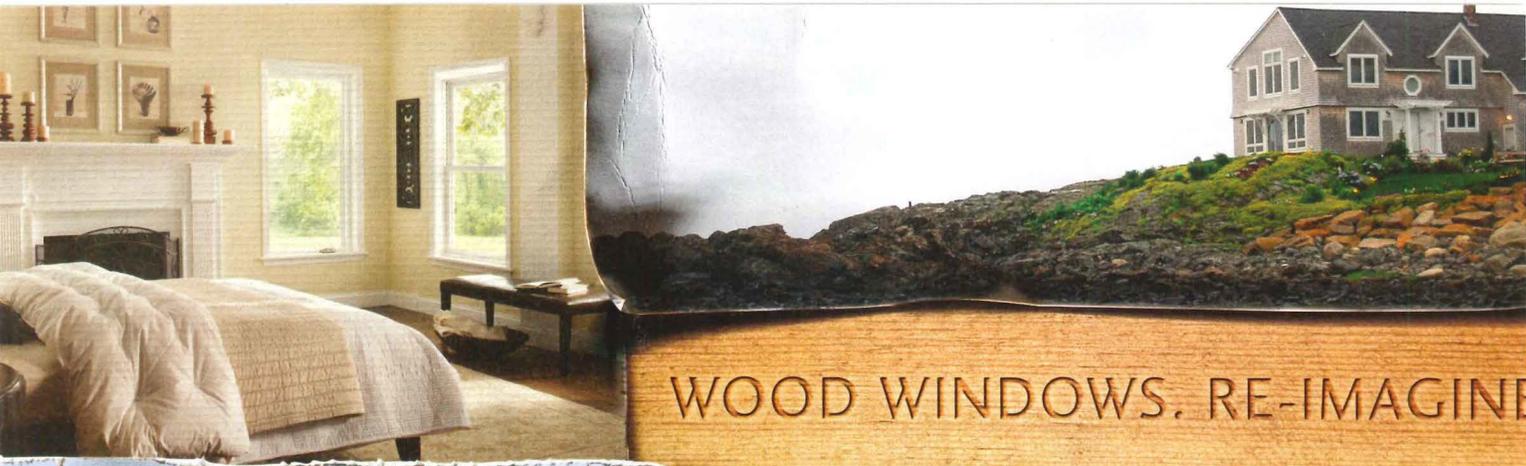
Illustrations: Empowerhouse Collaborative; Photo: Lisa Smith

you actually see the consequences of your design decisions," says Parsons student and design team member Carly Berger. The home's super-insulated building envelope and energy recovery ventilator curb its power consumption, minimizing the number of pricey rooftop solar panels needed to achieve net-zero energy status.

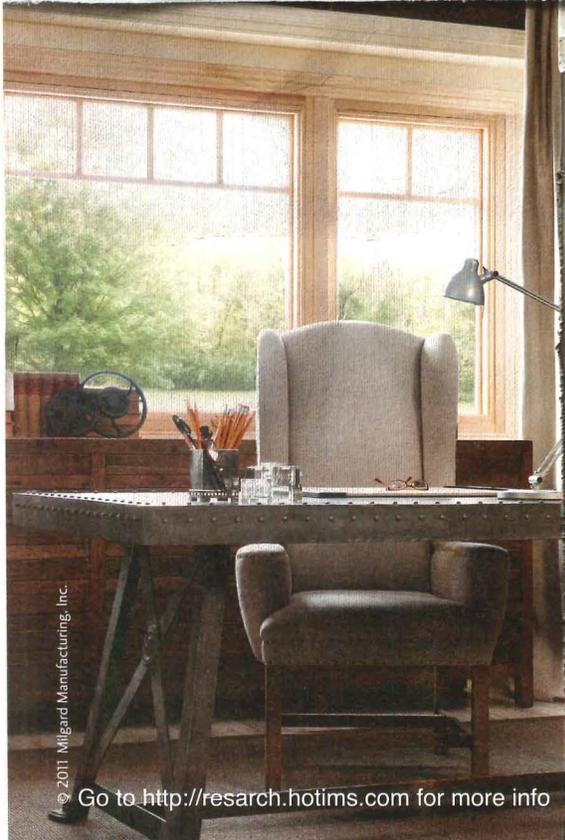
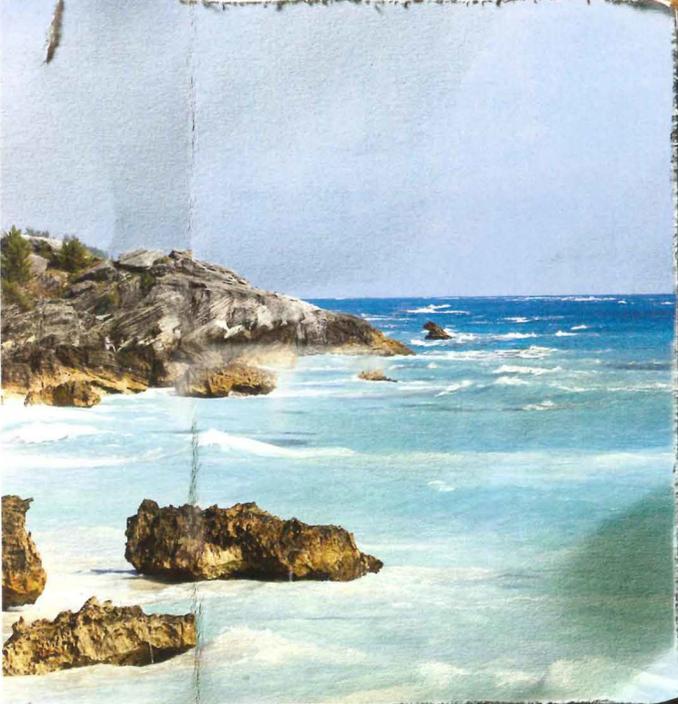
Habitat D.C. hopes to use Empowerhouse as a model for future Passive House projects, reducing both environmental impact and utility bills. "Not only are we striving to be greener, but we want to keep energy costs lower to provide greater affordability," says the chapter's director of communications and client services, Heather Phibbs.—*meghan drueding*



The Solar Decathlon version of Empowerhouse (above photo) will be moved to a site in the Deanwood neighborhood of Washington, D.C., and transformed into a pair of attached houses (top) built by Habitat for Humanity's Washington chapter.



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by nigel f. maynard

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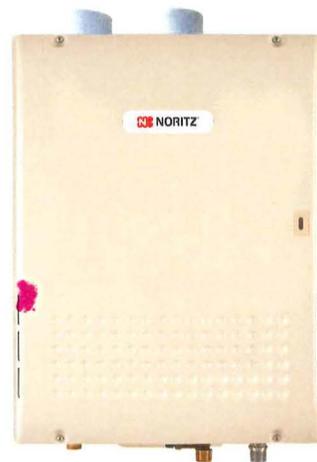
Reportedly this is the first dishwasher designed for the outdoors—and, at \$4,990, perhaps one of the priciest. Made with a stainless steel interior and exterior, the unit uses focused spray zones to help ensure the entire



load gets clean and specially designed spray nozzles that maximize the application of water. It offers six wash programs, six temperature settings, and a triple filtration system that cleans water throughout the wash cycle. The product uses 3.8 gallons per wash. Kalamazoo Outdoor Gourmet, 800.868.1699; www.kalamazoogourmet.com.

range rover

Thermador claims the Pro Grand Steam Range is the only product on the market that offers seven cooking options with four integrated appliances. Priced at \$14,000, the stove offers a steam oven, convection, burner cooking, simmering, grilling, griddle, and warming drawer. Niceties include a six-burner gas cooktop including a 22,000-BTU burner, hydraulic SoftClose hinges, full-access telescopic racks, and commercial-style temperature gauges. Thermador, 800.735.4328; www.thermador.com.



giving tanks

The newest addition to the company's ecoTough series of gas-fired condensing tankless water heaters, NRC98 has an energy factor of 0.93, which is almost 10 points higher than a conventional tankless unit. It offers a maximum flow rate of 9.8 gallons per minute and a standard BTU input range of 16,000 to 180,000. According to the manufacturer, the heater meets the hot water needs of northern residences with two bathrooms and southern homes with three baths. Noritz America Corp., 877.986.6748; www.noritz.com.

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WEDNESDAY, DECEMBER 7

Housing Tour

AIA Custom Residential Architects Network (AIA-CRAN) Forum

Welcome Reception

THURSDAY, DECEMBER 8

Keynote Conversation—"Progress Report: Adapting and Evolving" **Rick Joy, AIA**, Rick Joy Architects Ltd.

Panel Discussion—Thinking and Making

Leadership Awards Luncheon

Hall of Fame:

• **Will Bruder**, Will Bruder + Partners Ltd.

Top Firm:

• **Marlon Blackwell, FAIA**, and **Meryati Johari Blackwell, Assoc. AIA and LEED AP**, Marlon Blackwell Architect

• **Rising Star:**

• **Elizabeth P. Gray, AIA**, and **Alan Organschi**, Gray Organschi Architecture

Special Award-Winners Panel Discussion: "The Future of Residential Practice"

Breakout Sessions

- Architect-Led Design/Build
- Architect-Led Development
- Architect-Led Interior Design
- Perfecting the Client Process
- The Fine Art of Blogging

Case Study—What a High-Design Firm Learned From Prefab

Cocktail Reception

FRIDAY, DECEMBER 9

Special Participatory Event

"You On View" Slide Presentations

Panel Discussion—Getting It Right: The Architect/Builder Collaboration

Reinvention Symposium Adjourns

SPECIAL EVENTS

A CORA/AIA-CRAN Luncheon Meeting

The Annual Meeting of the Congress of Residential Architecture—CORA: 10 Years After

SPEAKERS

Bill Aylor, AIA
LakelFlato

Marlon Blackwell, FAIA
Marlon Blackwell Architect

Will Bruder
Will Bruder + Partners Ltd.

Wendell Burnette, AIA
Wendell Burnette Architects

Andy Byrnes, AIA
Construction Zone

John DeForest, AIA
DeForest Architects

Jared Della Valle, AIA
Alloy

Lise de Vito, Assoc. AIA
Zack I de Vito Architecture Construction

Duo Dickinson, AIA
Duo Dickinson Architect

David Dowell, AIA
El Dorado Inc.

Kevin Eckert, LEED AP
Build LLC

Ted Flato, FAIA
LakelFlato

Elizabeth P. Gray, AIA
Gray Organschi Architecture

Eddie Jones, AIA
Jones Studio

Neal Jones, AIA, LEED AP
Jones Studio

Rick Joy, AIA
Rick Joy Architects Ltd.

Andrew van Leeuwen, Assoc. AIA
Build LLC

Alan Organschi
Gray Organschi Architecture

Douglas Stockman
El Dorado Inc.

Jim Zack, AIA
Zack I de Vito Architecture Construction

KEYNOTE SPEAKER

Rick Joy, AIA, Rick Joy Architects Ltd.

Informed by his past as both a carpenter and a musician, architect Rick Joy designs buildings that are emotionally moving and quietly transcendent while remaining solidly grounded in their place. After working in and around Tucson, AZ, for years, Joy now travels far afield applying his small practice sensibilities and attention to complex and often collaborative projects throughout the United States and abroad.

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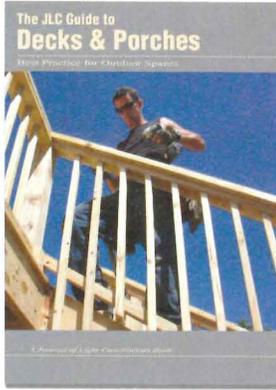
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United States Postal Service Required by 39 USC 3685

1. Publication Title: residential architect 2. Publication Number: 016-871 3. Filing Date: 9/30/11
4. Issue of Frequency: Bi-monthly Jan/Feb, Mar/Apr, May/June, July/Aug, Sept/Oct, Nov/Dec
5. Number of Issues Published Annually: 6
6. Annual Subscription Price: Free To Qualified; Non-Qualified \$39.95/year
7. Complete Mailing Address of Known Office of Publication (Not Printer): Hanley Wood, LLC, One Thomas Circle, N.W., Suite 600, Washington, DC 20005
8. Complete Mailing Address of Headquarters or General Business Office of Publisher (Not Printer): Hanley Wood, LLC, One Thomas Circle, N.W., Suite 600, Washington, DC 20005
9. Full Names and Complete Mailing Addresses of Publisher, Editor, and Managing Editor - Publisher: Warren Nesbitt; Editor: S. Claire Conroy; Managing Editor: Jennifer Lash - Hanley Wood, LLC, One Thomas Circle, N.W., Suite 600, Washington, DC 20005
10. Owner - Full name: FSC Holdings, LLC; J.P. Morgan Partners (BHCA), L.P.; J.P. Morgan Partners Global Investors, L.P.; J.P. Morgan Partners Global Investors (Cayman), L.P.; J.P. Morgan Partners Global Investors (Cayman) II, L.P.; J.P. Morgan Partners Global Investors (Sell-down), L.P.; JPMP Global Fund/Hanley, L.P.; JPMP Global Fund/Hanley A, L.P.; JPMP Global Fund/Hanley/Sell-down, L.P.; USEP II HW Acquisition, LLC; Apollo Investment Corporation; HW Co-Investors, LLC; Co-Investment Partners, L.P.; Michael Wood; Frank Anton; Peter Goldstone; Galen Poss., One Thomas Circle, NW, Suite 600, Washington, DC 20005
11. Known Bondholders, Mortgagees, and Other Security Holders Owning or Holding 1 Percent or More of Total Amount of Bonds, Mortgages or Other Securities: None
13. Publication Title: residential architect 14. Issue Date for Circulation Data Below: JULY/AUGUST 2011

	Average No. Copies Each Issue During Preceding 12 Months	No. Copies of Single Issue Published Nearest to Filing Date
15. Extent and Nature of Circulation		
a. Total Number of Copies (Net press run)	22,058	22,337
b. Legitimate Paid and/or Requested Distribution		
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(2) In-County Paid/Requested Mail Subscriptions stated on PS Form 3541	0	0
(3) Sales Through Dealers and Carriers, Street Vendors, Counter Sales, and Other Paid or Requested Distribution Outside USPS ®	14	15
(4) Requested Copies Distributed by Other Mail Classes Through the USPS	0	0
c. Total Paid and/or Requested Circulation [Sum of 15b 1, 2, 3 & 4]	20,079	20,083
d. Nonrequested Distribution		
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(2) In-Country Nonrequested Copies Stated on PS Form 3541	0	0
(3) Nonrequested Copies Distributed Through the USPS by Other Classes of Mail	0	0
(4) Nonrequested Copies Distributed Outside the Mail	558	921
e. Total Nonrequested Distribution [(Sum of 15d (1), (2), (3), and (4))]	1,007	1,403
f. Total Distribution (Sum of 15c and 15e)	21,086	21,486
g. Copies not Distributed	972	851
h. Total (Sum of 15f and 15g)	22,058	22,337
i. Percent Paid and/or Requested Circulation	95.22%	93.47%

16. Publication of Statement of Ownership for a Requester Publication is required and will be printed in the September/October 2011 issue of this publication.
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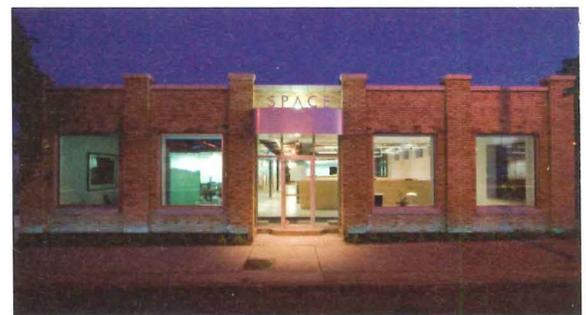
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When Space Architecture + Design decided to buy and renovate a building for itself, the St. Louis–based firm chose a vacant warehouse in a gradually reviving Midtown neighborhood called The Grove. “We were looking to make an impact on this community,” says owner Tom Niemeier, AIA. Tax credits for a host of aspects, including brownfield remediation, historic preservation, and energy efficiency, helped offset the

cost of the renovation, which was completed in 2010.

Niemeier is especially proud of the firm’s innovative mix of solar thermal panels, a chilled beam system, and geothermal wells, which combine to keep the office at a comfortable temperature throughout the year. “It works amazingly well,” he says. Storefront

windows let in abundant natural light, and the 7,500-square-foot building encompasses a studio, resource library, and wood and metal shop. The company currently employs 16 people, but the flexible floor plan easily could accommodate more.—*meghan drueding*



Photos: Courtesy Space Architecture + Design



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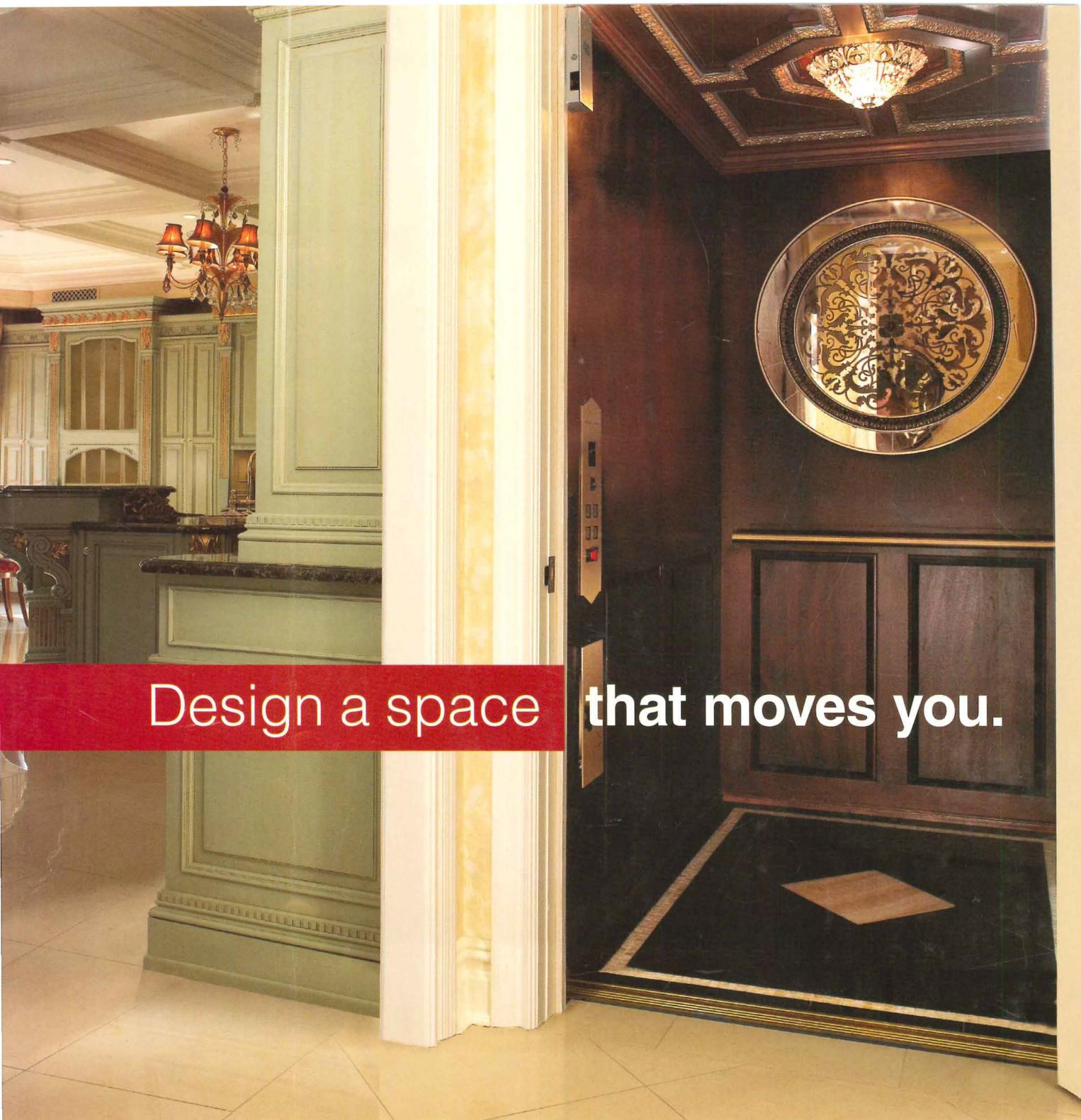
"Sub-Zero ranked Highest in Customer Satisfaction with Refrigerators."

"Wolf ranked Highest in Customer Satisfaction with Ranges, Cooktops, and Ovens, Two Years in a Row, Tied in 2011."



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Wolf received the highest numerical score for ranges, cooktops, and ovens in a tie, and Sub-Zero received the highest numerical score for refrigerators in the proprietary J.D. Power and Associates 2011 Kitchen Appliance StudySM Study based on 13,492 total responses, and measures opinions of consumers who purchased their appliance from a retail store or their new-home builder during the previous 24 months. Proprietary study results are based on experiences and perceptions of consumers surveyed in March-April 2011. Your experiences may vary. Visit jdpower.com.



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