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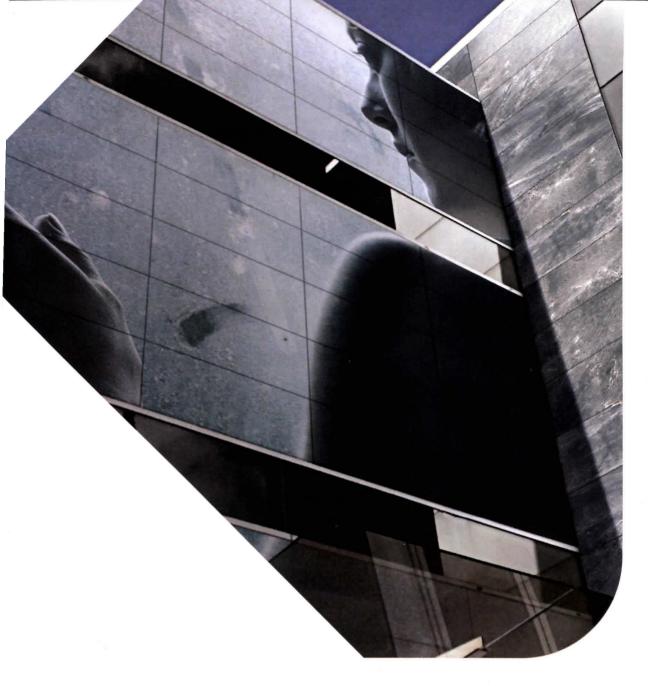
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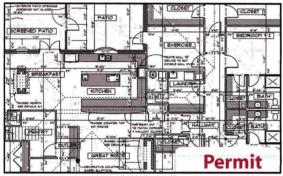
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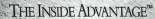






#### **ARCHITECTURE** • DESIGN

## Outlook





SUSTAINABLE

## SUSTAINABILITY REVIVES INTEREST IN TRASH COMPACTION

Mark R. Johnson, FAIA, CKD, AIBD

Back in 1969, Whirlpool Corporation was the first manufacturer to introduce a residential trash compactor, the first new-to-market kitchen appliance in 30 years. In fact, the trash compactor became the best-selling home appliance of that year.

Nearly forty years later, Whirlpool Corporation's trash compactors are still ahead of their time. Capable of reducing five trash bags to one, this humble invention has reduced an immeasurable amount of America's waste.

#### When Less Is More

By compacting trash, the average family produces 80% less waste by volume, providing landfills with

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Reclaimed landfills can become beautiful golf courses that enhance communities.

extended life. Trash compactors are also very energy efficient and have low operating cost. By compacting waste directly at the source where it is generated, the environment benefits in the following ways: fewer trips to landfills, less fuel consumption and less toxic emissions by waste hauling trucks.

#### **Environmentally Friendly**

Your clients also benefit in many ways. In communities where citizens pay for the amount of waste they put out/haul away, a trash compactor shortly



pays for itself by reducing collection bills. Trash is also a source for odors and can compromise air quality in the home. Whirlpool Corporation offers trash compactors

with an integrated forced-air charcoal filter helping to control garbage odors and circulate fresher air. Further, when their useful life is over, approximately 85% of trash compactors are recycled for their scrap metal.

#### Form Follows Function

Aside from their environmental benefits, today's trash compactors are designed to coordinate with the kitchen appliance suite, and undoubtedly are more fashionable than the waste can they replace. They don't take up a lot of space and fit conveniently underneath

> the countertop almost anyplace in the kitchen or garage.

Trash compaction effectively

eliminates much of the labor and handling time by compacting trash right at the source. This advantage over normal waste handling provides clients both convenience and time-savings in trips to the curb, as well as improved security by having trash out of reach of children and pets. So the next time you are spec'ing out a kitchen, don't forget to include the trash compactor.



Mark R. Johnson, FAIA, CKD, AIBD Senior Manager, Architecture and Design Marketing

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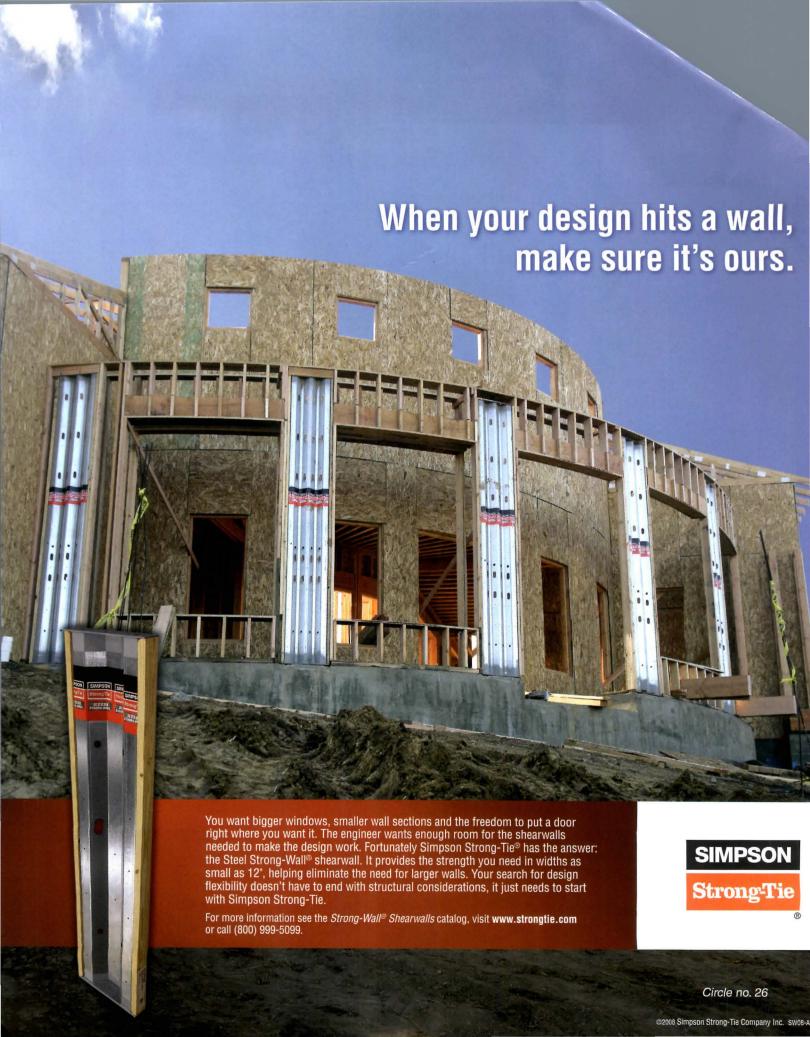












#### residential architect / june 2008

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Steely Architecture: Living above the store (and the tenant) never looked so good. Photo: Rien van Rijthoven. Cover photo: Paul Taggart/WpN.



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### remembering judy

her hard work and talent made us all look good.

by s. claire conroy

ve worked in magazine journalism for 25 years now. I was in my early 20s when I started, and so was nearly everyone else I worked with at the time. Journalism—especially magazine journalism-was then and still is largely a young person's profession. Now, more than two decades later, I am near the top of the chronology on our staff. But I always took comfort that my partner on the art side, design director Judy H. Neighbor, was of similar vintage.

Judy just reached a milestone this past April that I'm staring down in a couple of years: The Big 50. The way I look at it, this is an age when you finally know a little something about what you're doing. But you're not too set in your ways to shake it up and try something different. You have some confidence in your improvisational abilities and a desire to skirt the comfort zone once in awhile.

I and our staff were looking forward to doing more experimenting with the magazine, and we knew Judy would embrace with gusto whatever challenge we could cook up.

But I'm afraid we won't be

taking that journey together. Judy died suddenly just a few weeks ago. She finished work on our May awards issue, headed home for a lovely weekend with her family, and on Monday we received the shocking news from her husband that she was gone.

A blood clot and heart failure. ... Everyone always needs to know how, even if we can't ever understand why or why now.

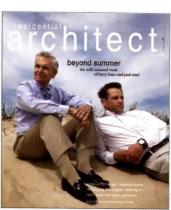
The colleagues who shared in her kindness, talent, and expertise are bereft. She was the guiding light of all the "R" magazines, design director of not just ra, but of REMODELING, UPSCALE REMODELING, and REPLACE-MENT CONTRACTOR. She was the original designer of ra, and the design guru who helped shape the company's launches of EcoHome and COASTAL CONTRACTOR and reshape many of its existing titles.

None of us ever had to worry about how a magazine would look when Judy was at her Mac. Even when deadlines for multiple magazines collided, she was unflappably upbeat and good-humored. She earned the loyalty and admiration of everyone who relied upon her. And we all did. So very much.

One of the responsibilities



Bruce Duffy/Corbis SABA



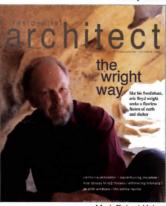
Bill Cramer/Wonderful Machine



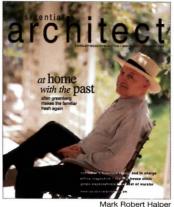
Danny Turne



Bill Cramer/Wonderful Machine



Mark Robert Halpe



With her talented photographers, Judy directed wonderful covers for *ra* (clockwise from top left): Chris Alexander; Harry Bates and Paul Masi; Suman Sorg; Allan Greenberg; Eric Lloyd Wright; and David Arkin and Anni Tilt.

Judy most enjoyed on the magazine was directing the covers. She gave her photographers wide latitude and gentle guidance—with often truly wonderful results.

More than anything,

these great faces, captured in time, make me think of her. ra

Comments? E-mail: S. Claire Conroy at cconroy @hanleywood.com.

## home front

news from the leading edge of residential design.

## perspective school of thought

Before Kent Larson plunged into academia, he designed residential, commercial, and institutional buildings as a partner with Peter L. Gluck & Partners, Architects in New York City. In 1996 he left to ply his research skills at the Massachusetts Institute of Technology, where he currently leads both the Changing Places and House\_n research consortia, as well as the MIT Open Source Building Alliance. Larson spoke recently with *residential architect*.



#### What is it like to immerse yourself in research after practicing for 15 years?

"Practicing architecture is fabulous, particularly if you get to build great projects. But it doesn't usually give one time to think about larger issues beyond the project at hand. In academia, one can reflect on new, long-term possibilities and interact with students who have the freedom to think outside the box."

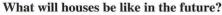


#### What is the purpose of your various research projects?

"We're trying to address societal problems by developing new models for design, fabrication, and technology integration. These models can be applied to issues like proactive health and energy conservation. There's a rich tradition of architects trying to improve society through design and technology. The visionaries of the Bauhaus in the 1920s focused on deploying the tools of the era—electricity, concrete, glass, and steel—to rethink how architecture and mass production could make the world a better place."

#### How will architects' roles change over the next 10 years?

"In addition to conventional practice, architects will be involved in the development of expert tools to let non-expert designers be in the center of the design process. Architects are now involved in only a tiny percentage of new homes. They will play a much more meaningful role as the industry shifts from a craft process to more of an industrial design process. Powerful computational tools will democratize design."



"The future will contain an almost infinite variety of housing that responds to a broad range of personal needs and values. That's why we call our consortium House\_n—there will be 'n' number of solutions. The process of creating residential architecture will mirror the endless array of configurators that you now find online for cars, computers, shoes, and most other consumer products. Architecture, however, requires a far more complex integration of products and systems."

#### Is there any topic you haven't investigated that you'd like to?

"There are thousands of things I want to explore."—meghan drueding





Rendering and photos: Courtesy Kent Larson



The OPEN Prototype Initiative, a program of the MIT House\_n Research Consortium and Bensonwood Homes, among others, recently unveiled its design for Unity House (above and top), a net-zero-energy, mass-producible home. House\_n is also working on developing design tools for non-designers, such as the Design Interface Table (opposite), a thesis project by T.J. McLeish.

#### stamp of approval

harles and Ray Eames focused their considerable talents on creating well-designed products with practical, real-world applications. So it only seems fitting that, starting June 17, images of the mid-20th-century pair and their work will appear on a pane of 16 commemorative stamps from the United States Postal Service. "It's a perfect marriage of subject and purpose," says Derry Noyes, the Postal Service art director who proposed the idea.

The stamps highlight items from the Eames' iconic body of furniture, architecture, textiles, graphics, home accessories, and film, as well as a playful photo of the couple themselves. "The images reduced down beautifully," Noyes says. "There's lots of color and silhouette. You want to show the structural beauty, the way things fit together." Along with her love of Charles



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and Ray Eames' design sensibility, she also shares a personal connection with them: her father was the modernist architect and industrial designer Eliot Noyes, and her parents were close friends of the couple.

Noyes says she and the Postal Service hope the stamps will expand the audience for the Eames' creations, as well as delight long-time fans. Twenty-four million individual Eames stamps will be printed; they'll be available until they sell out or for up to one year.—*m.d.* 

#### save the date

#### between earth and heaven: the architecture of john lautner

july 13-october 12

hammer museum, los angeles

This comprehensive exhibition explores the architectural legacy and influence of John Lautner. Trained by Frank Lloyd Wright, Lautner was known for sculptural houses that pushed the limits of structural engineering. Several of his projects, including the Garcia House (below) and the Chemosphere, have been featured in films or television programs. Along with photographs and recently constructed models of Lautner's projects, the museum will be showing short film tours of the houses. A three-venue tour and 234-page book of Lautner's work are also available as part of the celebration. Visit www.hammer.ucla.edu or call 310.443.7000 for more information.

#### ongoing

Spark Design Awards 2008, deadline: August 1, www.sparkawards.com; Eero Saarinen: Shaping the Future, through August 23, National Building Museum, www.nbm.org; Craft in America: Expanding



Julius Shulman

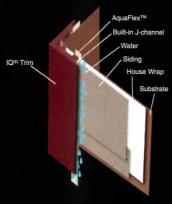
**Traditions**, June 14—September 14, Cranbrook Art Museum, www.cranbrookart.edu /museum; **Ateliers Jean Prouvé**, through March 30, 2009, The Museum of Modern Art, www.moma.org.

For up-to-date, comprehensive calendar listings, go to www.residentialarchitect.com.
—shelley d. hutchins

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#### chance encounter

pb elemental plays a winning hand.

eing your own developer, designer, and builder offers the freedom to align your creativity and your beliefs with your business. But there's no doubt you also take on all the risk. Pb Elemental Architecture decided to play its game of chance with this 6,000-square-foot lot located in a sketchy neighborhood and on a busy road. What hedged the bet was a new library across the street and a determination to build green in a city that embraces it. The area, principal Chris Pardo feels, is on the upswing. "South Park had a bad reputation for a long time," he says, "but now it's becoming a little artist community."

The building is the first in the neighborhood to earn Seattle's Built Green certification. Features such as solar panels, an insulated rainscreen, gray water recycling, stormwater harvesting, radiant heat, and sustainable materials helped the firm garner a five-star rating—the program's highest. And in sustainable design, size matters. Two pairs of 760-square-foot lofts flank a 1,250-square-foot unit. Pardo and partner David Biddle created compact footprints that function efficiently and still feel spacious. They even managed to squeeze in yards. Clever storage includes a hidden pantry behind the fridge downstairs and a flip-down countertop above the washer and dryer upstairs. An open second floor (containing bed, bath, and laundry niche) maintains the full height of the building to produce an airy atmosphere.

"You can see the entire unit from any point in the house," Pardo says, "so it was really important to tie all of the features and materials together." Dark accents unify and anchor two-story interiors. Chocolate bamboo flooring on the mezzanines wraps around to become kitchen ceilings. The same rich stain shows up on low-VOC cabinets and reclaimed wood window frames. A floating steel stair with dark bamboo treads defines a cozy nook underneath. Polished concrete floors and white walls contrast rich millwork. Even on gray days, natural light floods each loft through glass garage doors and skylights—both operable for ventilation.

Before construction began on the lofts, the firm snapped up six more lots and is currently in various stages on other infill projects. The architects are definitely doing their part to revitalize the area with hip, sustainable housing. These five units were completed in February and four are sold—the first one to another architect—so it seems Pb Elemental has played a very good hand, indeed.—shelley d. hutchins



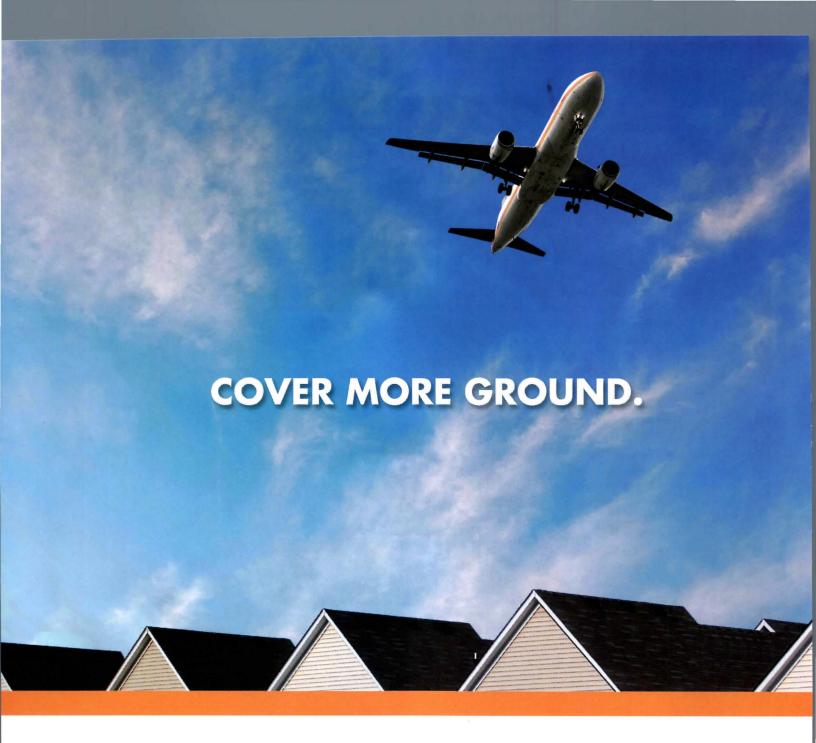




"We weren't sure they'd be the right size," Chris Pardo says of yet another gamble—the solar panel awnings (above and top). But they fit perfectly, permitting doors to stay open even on rainy days.



Photos: Justin Horrocks / Digital Savant



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Will Bruder AIA President, Will Bruder+Partners Itd

Segal delivered as expected and more; throughout the presentation I was kicking myself for not bringing more members of my team to the seminar – this is the next best learning process to real-life experience.

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#### green pieces

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#### ecorock-solid

Like concrete and glass, drywall has high embodied energy, says Steve Weiss, of Sunnyvale, Calif.-based drywall manufacturer Serious Materials. But his company has something different in mind. Its new EcoRock wallboard requires 90 percent less energy to produce because its core is made from "commonly available minerals with high recycled content" that essentially "bake themselves," he says. Better still, EcoRock looks and feels like standard wallboard and will cost the same as premium drywall when it hits the market in late 2008. Serious Materials, 800.797.8159; www.seriousmaterials.com.



#### pure substitute

Bamboo-based building products are commonplace, but only offerings from San Francisco-based Smith & Fong boast certification by the Forest Stewardship Council (FSC). The manufacturer's Plyboo line of flooring and plywood have earned the "FSC Pure" label, signaling they're made from certified forests and handled by an FSC chain-of-custody-certified company. Available by summer. Smith & Fong Co., 866.835.9859; www.plyboo.com.

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—nigel f. maynard and shelley d. hutchins



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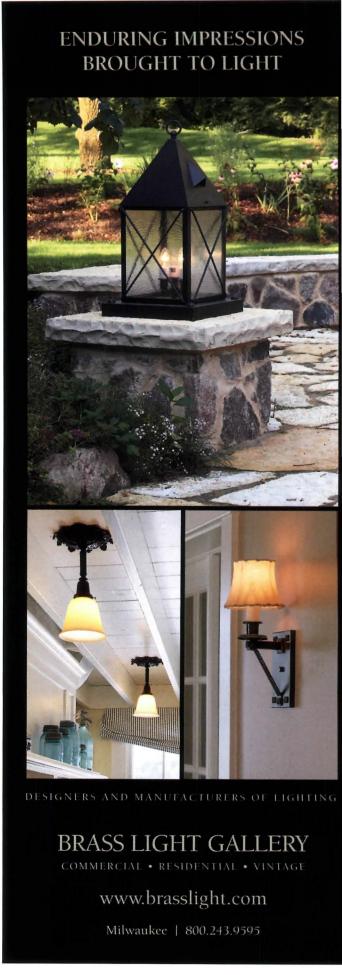
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## k+b studio

#### kitchen:

#### test kitchen

Pittsburgh architect Gerard Damiani, AIA, NCARB, calls his live/work row house a "prototype of how to build well and affordably, as well as sensitively to the site and the feel of our city." That's a hefty goal for a 1,770-square-foot building, so Damiani and partner Debbie Battistone took their time designing it—six years, in fact. The resulting space, with its nine types of windows and five ways to open a cabinet, is a showcase of fine design and clever craftsmanship.

The kitchen is the first space potential clients see as they walk through the foyer to stairs for the second-story studio [see Workspace, page 64], so the couple made it the

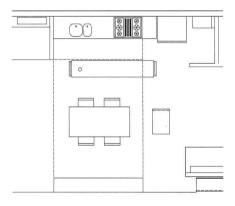
heart of their architectural laboratory. A serene, seemingly simple layout conceals numerous bells and whistles. "When you take on a strategy like this, you have to make sure it has an architectural continuum," Damiani explains. Solid maple plywood provides that continuity, with nary a handle or knob in sight to break up the expanse of blond wood.

The kitchen's only other material is steel—a practical choice that also links to the city's heritage. Stainless steel appliances match commercial-grade countertops and an exposed frame on the

island. That frame extends past the countertop, forming sturdy towel bars that double as handles to roll the castermounted island aside when space is tight.

Other innovative strategies maximize function and space within the compact footprint. A partial wall floats between the kitchen and living area, concealing open pantry shelves next to the fridge on the kitchen side and more storage in the living room. Perforated maple panels provide ventilation for air registers, as well as a microwave cubby. And the trash bin can be reached either by opening a cabinet door or through the circular hatch cut into the island countertop.

Damiani and Battistone say their lengthy effort has paid off in spades. Prospective clients venture into the kitchen to see its clever details and often wind up commissioning the firm for their projects. And once the workday ends, it's simply a great place to make dinner or unwind with a glass of wine.—shelley d. hutchins



A galley layout puts appliances against the wall, freeing up the rolling island for relocation as needed.







The kitchen/dining area opens to the second floor, permitting sunlight from a central skylight to penetrate the interior. A cinder block wall unifies the public rooms, while maple plywood casework defines each space. The multitasking built-ins, also designed by studio d'ARC, include an asymmetrical drop-leaf dining table, Murphy Bed couch, and swiveling TV stand.



Photos: Ed Massery

architect: studio d'ARC architects, Pittsburgh

general contractor: Jeffrey M. Smith Construction, Gibsonia, Pa.

structural engineer: The Kachele Group, Pittsburgh

cabinetmaker: Kramer Kustom, Pittsburgh

**resources:** dishwasher: Miele; faucets: The Chicago Faucet Co.; fireplace: CFM Corp. (Vermont Castings); refrigerator and stove: GE Consumer & Industrial (Monogram)

## k+b studio

#### bath:

#### breathing room

Warm and gentle aren't usually the first words that come to mind when talking about contemporary architecture. But those are exactly the descriptors New York City-based architects Katherine Chia, AIA, and Arjun Desai hope to hear when people see their work. This Manhattan loft (a RADA winner for interiors)—and especially its bathrooms—is a prime example of how the firm tames the contradictions. "Most bathrooms are hermetically sealed," Chia explains, "but we like to create bathroom zones with a breathable skin and bring in organic materials like wood."

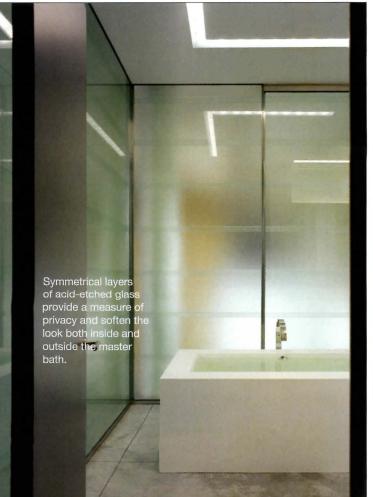
All three bathrooms lack exterior walls, so bringing natural light into the interior spaces was especially important. Chia and Desai enclosed the guest and children's baths using vertical wood slats with a prominent grain. "It's a material that still has an architectural presence," Chia says, "but the scale and texture of the wood grain brings additional warmth to the space." In most places, the fixed planks are offset to block sight lines, yet filter light. The slats pivot in a few select spots,

however, so the homeowners

can manually control light distribution and ventilation.

Glass encloses the outer corner of the master bath, which is tucked up against one of the loft's interior walls, to maximize borrowed light without exposing bathers. The acid-etched glass is layered shingle-style, adding texture to the sleek space. "It's a more gentle surface than if it was one sheet of glass," Chia says of the spec, "and when light hits it, the glass plays with the light and diffuses it into different colors and textures."—s.d.h.







Photos: Paul Warchol Photography

**architect:** Desai/Chia Architecture, New York City

**general contractor:** David Giovannitti, Giovannitti Inc., Yonkers, N.Y.

**resources:** plumbing fittings and fixtures: AF Supply Corp., Dornbracht Americas, Duravit USA, Vola A/S; translucent walls: PK–30 System by Philip Kerzner

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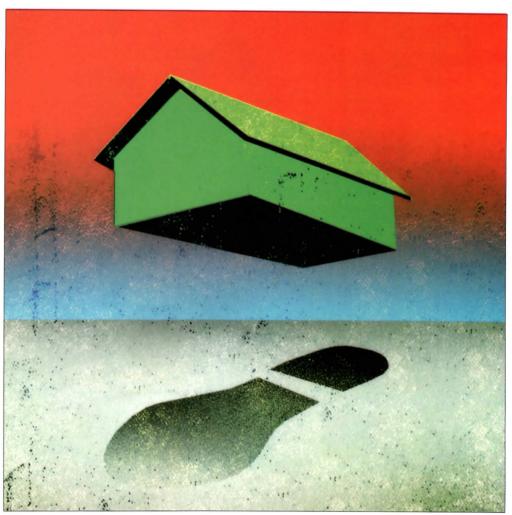
### watch your step

how the residential design community is responding to 2030's carbon footprint challenge.

by cheryl weber

n the past year and a half. Edward Mazria's 2030 manifesto has taken on a momentum of its own. Until recently, the 67-year-old architect was a principal in the successful Santa Fe, N.M., practice of Mazria Riskin Odems and lecturing about global warming on the side. But in 2007, Mazria, AIA, decided to spin off from the firm. He brought along a few staff to help run Architecture 2030, the nonprofit he founded to spread the word about architects' role in averting climate change. Or rather, the decision was made for him, since the groundswell of interest in his environmental research had begun to eclipse the practice. "This is all time-consuming," Mazria says, sounding a tad travel-weary this spring after returning from backto-back speaking engagements in Sacramento, Calif., Orlando, Fla., Miami, and Lafayette, La.

It's been several years since Mazria, a veteran of the 1970s environmental movement, sliced up the latest scientific data and concluded that the building industry is responsible for about half of America's energy consumption and the greenhouse gas emissions that contribute



Brian Stauffer

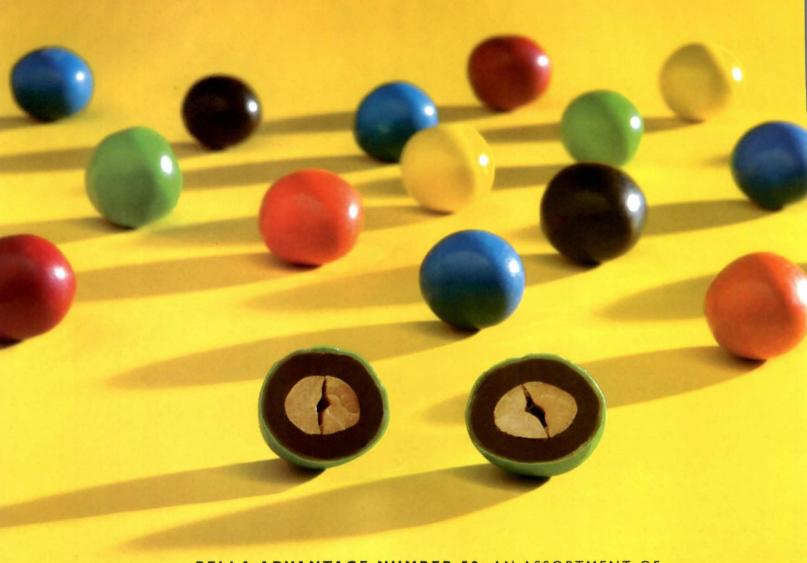
to global warming. Since much of the burden falls squarely on architects—he estimates they design 77 percent of all nonresidential buildings, 70 percent of all multifamily, and 25 percent of all single-family homes—he's begun asking the profession to incrementally reduce fossil fuel use in projects: by 60 percent in 2010 and by an additional 10 percent every five years until reaching net-zero

nirvana in 2030. At each stage, he allows, 20 percent of those emissions targets may be offset by purchasing renewable energy credits.

Mazria's clear, urgent message has been embraced by individuals, firms, and architecture schools all over the world. The challenge has been adopted by the major building sector organizations, the U.S. Conference of Mayors, and a number of cities and states. Illinois

recently legislated that all state buildings meet the 2030 targets. California adopted the benchmarks for commercial buildings and is requiring that residential units produce as much energy as they use by 2020. In perhaps the biggest triumph of all, last January the U.S. government signed the 2030 Challenge's energy-reduction targets into law for all federal buildings.

continued on page 31



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#### practice

It's hard to imagine that all new buildings could be carbon-neutral within a decade or two. But the science is clear, and the technology is closing in. In the nation's northern climes, "even on cloudy days there's enough sunlight falling on each square foot of roof to get 10 times as much energy as the buildings need to operate," Mazria says. "It's a matter of conversion. Solar technologies keep increasing every year. We think the technology will increase faster than the reduction targets." However, he's asking architects to first tackle the problem through pure design. Passive solar strategies alone, he maintains, can reduce emissions by 50 percent to 80 percent. The rest can be made up with solar and wind power-technologies that are dropping in price.

"The latest reports are saying the price of generating on-site electricity using thin photovoltaic cells is expected to drop dramatically in a few years," Mazria says. "We think the cost of going carbon-neutral will keep pace with targets as we go out in time. That's also why the targets are stagedto allow time for the cost to drop."

#### taking the measurements

By all accounts, we're at the tipping point for a major shift in the way buildings are designed and built. Whether the motivation is rooted in marketing or a

moral sense (or both), architects have begun to rally around their power to adjust the global thermostat. And to his credit, Mazria has kept things clean and simple by basing the targets on a common measurement: the amount of BTUs a building uses per square foot, with reductions benchmarked against the EPA Target Finder's averages for different building types. (Its values are calculated from the Commercial Buildings **Energy Consumption Survey** (CBECS)-a baseline agreed upon by the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE), The American Institute of Architects (AIA), and the U.S. Green Building Council (USGBC).) But hitting those goals takes some homework.

Rob Brennan, AIA, of Baltimore-based Brennan + Company Architects, started using green specs five years ago and does a "green plan" for every project. As a result, he believes he's well on the way toward hitting the 60 percent target. Verifying those numbers is the more difficult task, however, and the ability to take quick, accurate measurements in the design phase will become even more critical as the targets progress. Brennan recently identified a mechanical engineer who does energy modeling and is offering the service as an option for clients, but money is an obstacle. "We're climbing the ladder; some clients are open to it, others not at all," he says.

"The 2030 Challenge is a noble cause; it's made people aware of what needs to be done, and quickly. Our effort in the next year will be to quantify our projects' energy use to get to these more aggressive numbers."

If anyone knows how to balance BTUs and budget, it's long-time environmentalist David Arkin. AIA, Arkin Tilt Architects. Berkeley, Calif. But even he agrees that running the numbers is hard work. It's something architects aren't trained to do, and it's difficult to find energysavvy engineers willing to work on a small scale. That's why he hired recent architecture school graduate Dan Johnson, LEED AP, to do the math. Johnson interned at Spokane, Wash.-based Integrated Design Lab, which conducts sustainability studies. "We're skeptical of the results we get from energy consultants," Johnson says. "Maybe they don't understand the design entirely. I like doing the calculations right in front of me, so I know what all the assumptions are. For a lot of stuff I just use pencil and paper. Calculating something by hand will keep you moving faster and require less investment in time."

Because BTU averages for small residential projects aren't readily available, Arkin Tilt measures its work against California's Title 24 energy code, aiming for at least a 60 percent reduction. For energy modeling, the

continued on page 32



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#### practice

architects use DOE-2 software and also ENERGY-10. which is oriented toward smaller buildings. "It's only recently that this issue has penetrated single houses," Johnson says. "A lot of the mechanical systems, such as radiant floors, aren't even included in the software. so we have to hack that. As more residential architects turn to energy software, manufacturers are responding, but they're slow to develop new products." And the fancier 3-D modeling programs aren't necessarily better, he believes. "The simpler programs that simulate your building as a dumb box are faster to use, and I don't think the numbers

are any less accurate,"
Johnson says. "Plus, if we change anything during construction, the greater accuracy of the model we use in design doesn't pay."

For Arkin, who's been using passive solar strategies since day one of his 11-year-old practice, heeding the 2030 Challenge has meant paying far more attention to the building envelope, selecting the most efficient windows and weather-stripping details, for example. He's also considering monitoring finished projects for a year, using the feedback to fine-tune his specs. "I do think the 2030 Challenge is going to succeed because it's relatively straightforward," he says.

"we think the cost of going carbonneutral will keep pace with targets as we go out in time. that's also why the targets are staged—to allow time for the cost to drop."

-edward mazria, aia

"You're given a number of ways of accomplishing it, and the tools are out there."

Large firms may find it harder to turn the ship, but they also have more resources at hand. Last fall the international firm Perkins+Will publicly declared its commitment to 2030. Now its green team is working on measuring energy performance across project types. Are they hitting the goals? "In some

cases we are, in some cases not," says Kathy Wardle, LEED AP, associate principal and director of research in the Vancouver, British Columbia, office of Busby Perkins+Will. "Some clients come to us wanting a high-performing building from the get-go; others don't mandate it. We're trying to benchmark and educate on every project, even if clients don't want it, so we know continued on page 34

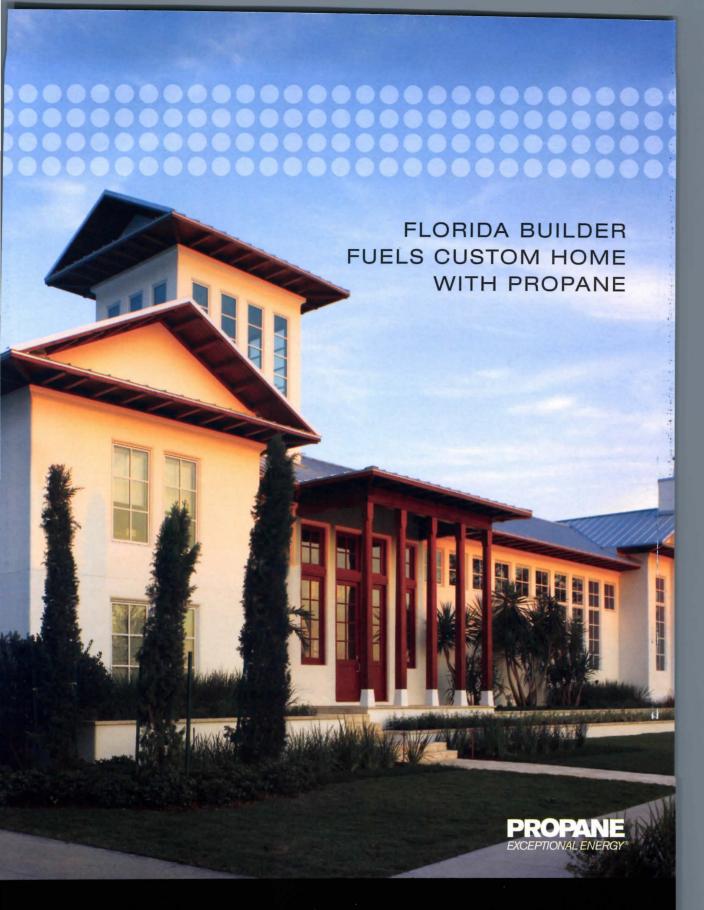
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Since the neighborhood was off the city's municipal gas main, Clayton chose propane to deliver the convenience and luxury his buyers demand. "It wasn't even a question," Clayton says. "These buyers will accept



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nothing less than the flame of a gas cooktop or the realism of a gas fireplace, so propane was our first and only choice." Since market research showed that Tradewinds would most likely be purchased by a second-home buyer from a large northern city, the choice of propane was even easier. "Northern buyers won't purchase a house without gasfired appliances, especially at this price," says Barbara Koenig, senior vice president of New Broad Street Companies, the agency commissioned to sell Tradewinds. "They want the performance that propane delivers, from the instant flame for cooking to hot water on demand in the shower."

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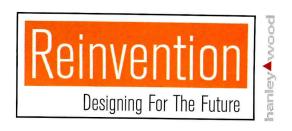


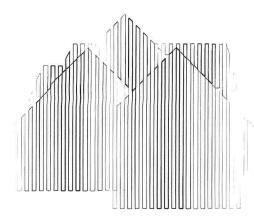
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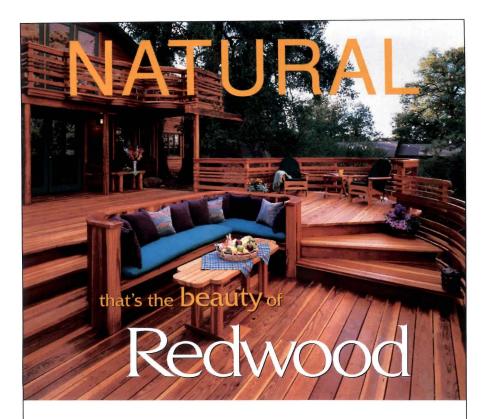
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#### practice

where we stand against the 2030 targets."

Residential developers are Busby Perkins+Will's toughest customers, since they're typically selling what they build. But there is progress. Phase one of Dockside Green, a 100unit mixed-use project in Victoria, British Columbia, beat the national energy code by 58 percent and is being submitted for LEED Platinum certification. Which brings up another measuring stick: Busby Perkins+Will is trying to decipher how the 2030 targets match up with LEED energy credits. For example, The Vento, a mixed-use project in Calgary, Alberta, qualified for LEED Platinum this year but fell just short of 2030, beating energy code by 47 percent.

So how do LEED buildings fare on 2030? According to Gregory H. Kats, a Washington, D.C.-based LEED consultant and managing director of Good Energies -an international cleanenergy venture capital firm with five offices in Europe and North America—a recent study showed that from 2000 to 2008, the average energy use of LEED buildings amounted to about 30 percent below code. Now, however, the point system is being remapped to address core issues weighted more heavily toward climate change, as identified by the National Institute of Standards and Technologies. The shift to that rating is expected to

continued on page 36

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#### practice

result in 40 percent to 50 percent reductions, depending on the level of certification.

Nonetheless, Kats sees the 2030 numbers as just the beginning of a snowball effect. "Methodologically, the 2030 baselines aren't precisely defined," Kats says, adding that, ultimately, it doesn't matter if you're measuring against ASHRAE, CBECS, or something else. "Architecture 2030 is a fantastic initiative and tool, but the latest science suggests that those targets should be moved up. Add to that the declining cost of going green, and there are enormous opportunities. When you see California trying to get residences to net-zero by 2020 and the United Kingdom by 2016, it's clear we need to act aggressively. I think you can cost-effectively get a 50 percent energy reduction in new buildings. but we have to push beyond that and go pretty quickly to net-zero energy."

#### green sweep

Although green design has been steadily moving from the fringe to the mainstream in the last six years or so, only recently—with prompting from Hurricane Katrina and the documentary film An Inconvenient Truth—have we begun to take seriously the predictions of coming catastrophe resulting from global warming and to understand the way the human race is changing the environment. Presented with startling research from Mazria and others, the AIA

adopted 2030 standards in late 2005. Since then—most notably under the leadership of 2007 president RK Stewart, FAIA—it has made sustainability part of its core identity.

Others have joined in too. At Greenbuild 2006, Kats facilitated a closeddoor meeting during which the AIA, ASHRAE, and USGBC agreed to collectively take up the 2030 Challenge. He says it's admirable that these organizations have not been territorial about a mandate developed by an outside group. "They were each giving up territory by acknowledging a shared responsibility," he says. "This is a real act of leadership in putting the community ahead of what could be interpreted as narrow selfinterest." Last February, the Residential Energy Services Network also announced it would embed the 2030 metrics into its Home Energy Rating System, giving the housing sector a common baseline for achieving the targets.

In addition to a smorgasbord of green initiatives and the planned renovation of its Washington, D.C., headquarters to achieve a 60 percent reduction in fossil fuel use by 2012 and carbon neutrality by 2030, the AIA is also greening its awards programs. Katherine Austin, AIA, Sebastopol, Calif., who helped rewrite the calls for entries, says the 2009 programs will reflect the changes. "The AIA is now asking all those who submit

projects to demonstrate with specific metrics how they are meeting the 2030 Challenge," Austin says. "This will be a wake-up call to any member who isn't thinking seriously about this."

She adds, "I want to get away from the awards being this 'monument in the park' idea to relating to the community and city. There's been far too much attention on the 'starchitect' thing. If the big guys want to play, they'll have to be part of this movement. It will be up to the juries, and I really hope they'll follow through."

As a longtime ecochampion and author of The Passive Solar Energy Book, Mazria and his message have evolved at a critical moment in history. It's powerful enough to unite professionals from across the building industry. And it's a concept that clients can easily understand. "What's interesting is that our research can bridge a lot of disciplines," he says. "Back in the '70s and '80s, we were leading the charge with passive solar and other energy strategies. Now we've been educating ourselves on both climate change and construction and coming up with ideas that work. We seem to be in the right place at the right time with the kind of information we can bring." ra

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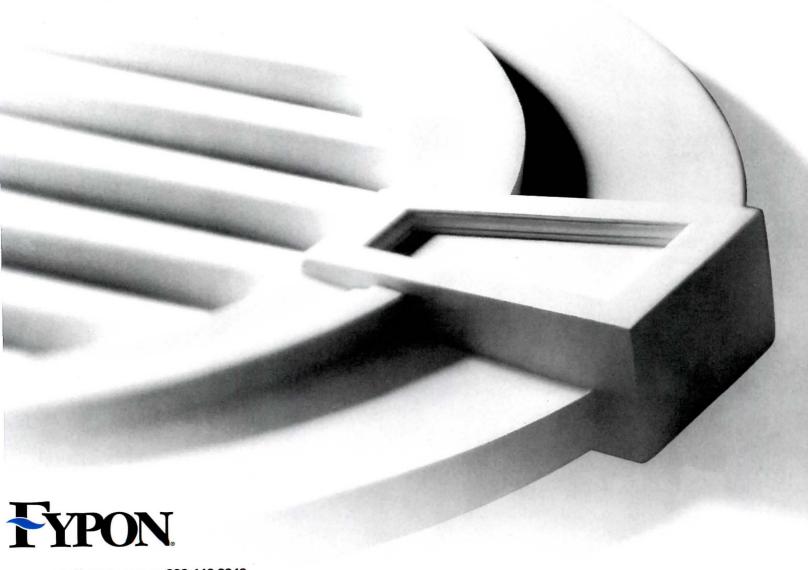
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Photos: Courtesy Messana O'Rorke Architects (top); William Abranowicz (above and right)



# articulating the minimal

brian messana and toby o'rorke do more to express less.

by cheryl weber

t's oddly fitting that Brian Messana, AIA, and Toby O'Rorke, RIBA, share the ninth floor of their Manhattan office building with costume designers who outfit Broadway actors. Stepping off the elevator into a dim foyer furnished like a Bohemian stage set, one is unprepared for the bright, orderly space behind the door to the left. The Messana O'Rorke office contains the light-handed magic that modernist architects routinely use to manipulate space. Translucent Plexiglass panels, screwed to a poplar frame, provide a vestibule, and overhead a 4-foot-wide stainless steel box runs through the office, creating the illusion of length. In the workspace of two architects who worship Benjamin Moore Bright White, a red Jens Risom chair supplies the only spot of color.

The juxtaposition may as well be a metaphor for the eclectic backgrounds that Messana and O'Rorke bring to their architecture. Messana, a native of

Malibu, Calif., was a self-described pack rat until high school, when he suddenly jettisoned his matchbook and postcard collections, stripped the carpet and wood paneling from his room, and painted the walls white. "It wasn't so much about minimalism as just a point in my life where I shifted from wanting to collect to wanting to be as lightweight as possible," he says. Scottish-born O'Rorke has dabbled in furniture, costume, and product design, and took a break from architecture studies to work at a postmodernist firm in Sydney, Australia. "We were putting pyramids and domes on things," he says. "But my interest at the moment was in the detailing of it, how they put it together, and how one could then articulate it to make it minimal."

The pair has been practicing the art of minimalism since opening for business in 1996. They've developed a keen eye for the calming qualities of space and light, and a reputation for quiet, nuanced innovation.

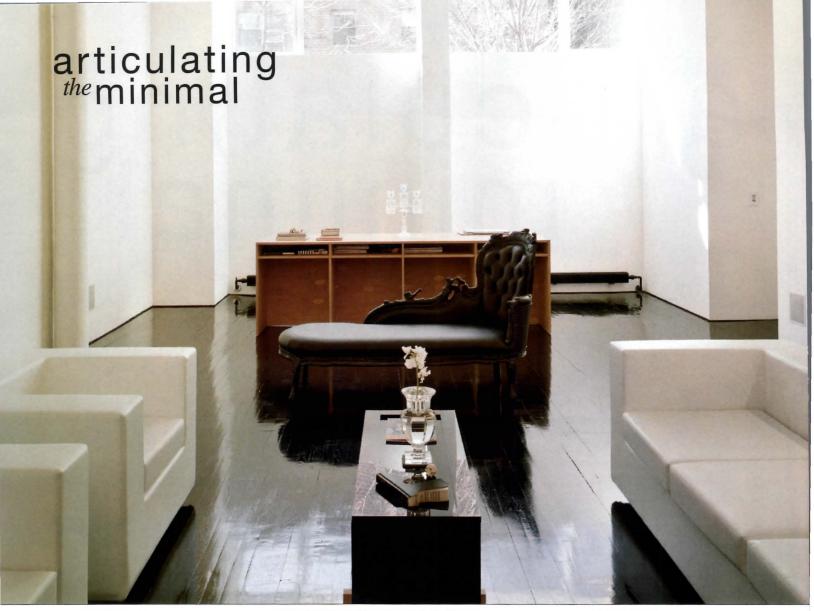
Their work is all about paring a program down to its essence—some might even call it austere. While it's true that their Zen-like aesthetic of light-flooded planes and a limited material palette photographs beautifully, closer study reveals a soothing, user-friendly logic behind the abstract effect. What these deceptively simple parts add up to, especially in the city, is a mind-clearing sanctuary where clients can decompress at the end of the day. But O'Rorke insists that their intent isn't to dictate a Spartan lifestyle. "We want the architecture to make any options possible for furnishings and the way the clients live," he says.

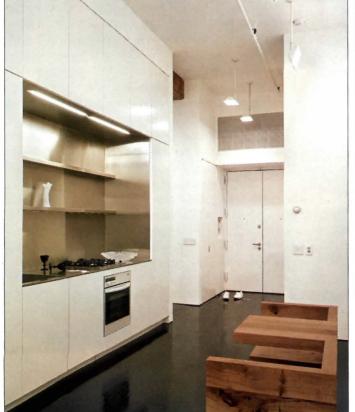


(above, from left) preserved the simple form of an 18th-century Dutch homestead in Columbia County, N.Y. (opposite, top). A Cor-Ten addition, inspired by rural trailer homes, contains kitchen, guest bedroom, and shower.

Brian Messana and Toby O'Rorke

Downstairs, the exercise room—with sauna and steam room—beholds the apple orchard.







Photos: Elizabeth Felicella Photography

The architects excel at creating peaceful respites amid harsh urban conditions, like this former storefront on the East Village fringe. A barely-there kitchen is tucked into white lacquered cabinets, and high windows admit southern light while editing unwanted views.







Messana and O'Rorke's trademark white walls allow furnishings, finishes, and artwork to take center stage. The spiral stair leads to the rooftop, where an old water tank has been turned into an oculus-topped retreat.

#### retail to residential

Messana and O'Rorke first crossed paths in the late 1980s at Virginia Tech's Alexandria campus, where both were enrolled in a six-month exchange program. Messana was in his final year of graduate studies at the California Polytechnic State University, San Luis Obispo. O'Rorke was finishing up postgraduate studies at Oxford Polytechnic (now Oxford Brookes University) in England. After school, both men moved to New York City, where they did stints at other firms—Messana with

Richard Meier & Partners Architects, and O'Rorke in the offices of Margaret Helfand; Henry Myerberg, AIA; and Thierry W. Despont. Just before co-founding the practice, O'Rorke also worked at the Ralph Lauren flagship store in a mansion on Madison Avenue and 72nd Street, designing traditionally paneled rooms to showcase the clothing launches. Looking back, he says that his time at Ralph Lauren taught him how cabinetry is manufactured, and how it could be reworked to achieve stripped-down perfection.

The partners often use built-in storage containers to define space and choreograph the passage through a house—an approach they refined in their early work on retail design. They landed their first commission through Messana's former colleague at Meier's office, who had taken a job as assistant to the creative director at Donna Karan New York (DKNY). The project—the interior renovation of a four-story building in Santiago, Chile—led to 18 more DKNY showrooms on three continents. Breaking into the residential market was tougher. "We had a lot of potential clients who liked our work, but no one who was willing to give us the opportunity to produce our first residences," Messana says. The foot in the door came from a friend, who granted them creative freedom to design her New York apartment in exchange for waiving the fee. After the project appeared in several widely circulated magazines, the house calls kept coming.

Residential clients, of course, bring a different set of challenges, and what invariably stifles the partners' creativity is too much program. A list of functional specifics is a necessary starting point, but it in no way defines the design. "Some people start looking at what their friends have and are inflexible about having dual-purpose spaces," O'Rorke says. "What we do is intuitive. I can't create something when so much is going on." Messana puts it slightly differently: "Our process is to understand all the components and how to manage them. It doesn't feel like we have to cut the scope down, because we like to tighten things up."

From there, the meticulous fine-tuning involves figuring out how to make mundane objects like air vents and smoke detectors disappear. One afternoon last spring, O'Rorke spent two hours placing thermostats



A prewar Greenwich Village apartment was pared to white walls and ebony-stained floors. An etched glass pocket door hides the kitchen as needed.



Photos: Elizabeth Felicella Photography

in a house. "If you're doing minimalist architecture, the focus turns to this functional thing if it's been put in a spot where you have to look at it," he says. "There are all these layers, which you can easily let go of and end up with a space that's much less pleasant to be in."

#### light box

Those who hire Messana O'Rorke Architects are drawn to that purity and rigor. One client, Michael Jones, had planned to buy a loft but settled instead on a prewar Greenwich Village apartment. It was tired-looking but had good bones, and he was looking for something "high-quality, clean, and considered" in the renovation. "I wasn't sure I'd be able to get to the spareness I really wanted, but they helped me get there," Jones says. The new dwelling is both serene and visually surprising, with dark-stained wood floors, pure white walls stripped of trim, a white marble bathroom, and white lacquered cabinets. The architecture becomes a container for the texturally rich furnishings and a pristine backdrop tuned to the subtle and changing light. "Color creates atmospheres and moods you may not want 24/7, whereas bright white shows the form," O'Rorke says. "And shadows change color constantly."

A 520-square-foot "mini-loft" uses storage to separate public and private realms. A teak divider stows the TV while preserving views, and lacquer cabinets under windows promote the illusion of length.





Messana and O'Rorke have only recently begun to break free of the limbo between architecture and interior design that many urban architects experience. For a while, interior designers didn't think of them as interior designers, and architects didn't think of them as architects. Now that they've completed several ground-up projects, their goal is to see their ideas realized on increasingly larger scales. But they're not stressed out about how to get there. "At the moment our work feels good," Messana says. "We're doing what we like to do." ra



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# inside story

## second take

When San Francisco-based architect Craig Steely and his artist wife, Cathy Liu, bought this early 1900s Victorian building 14 years ago, it retained few original details. Because Steely was in the nascent stages of his career, his subsequent remodel of the two-unit house was done "on a shoestring budget," he says. "We refinished the existing subfloor, I built my own cabinets, and I reused some old salvaged materials that came out of other clients' projects."

Today the well-established Steely Architecture is known for elegant modernist custom homes and loft conversions, so when the architect needed more room for his growing family and a bigger office for his

> burgeoning practice, he decided to stay put in his Duboce Triangle neighborhood and to renovate the building with finer finishes. "I wanted the house to reflect my work," he says.

The existing building consisted of a ground-floor garage, a first-floor rental unit, and a second-floor flat for Steely's family. The rental unit remains, but Steely and staffers Luigi Silverman, Seth Pare-Mayer, and Norberto Melendez opened up the second level, setting aside 600 square feet for a street-facing office and tucking two bedrooms and a bath to the rear. The team added a third level for the kitchen/living/dining area and a south-facing deck and sod patch. Now the entry staircase from downstairs leads to the second floor, where frosted glass panels separate the small foyer from the office and a large street-facing window brings precious light to four workstations.

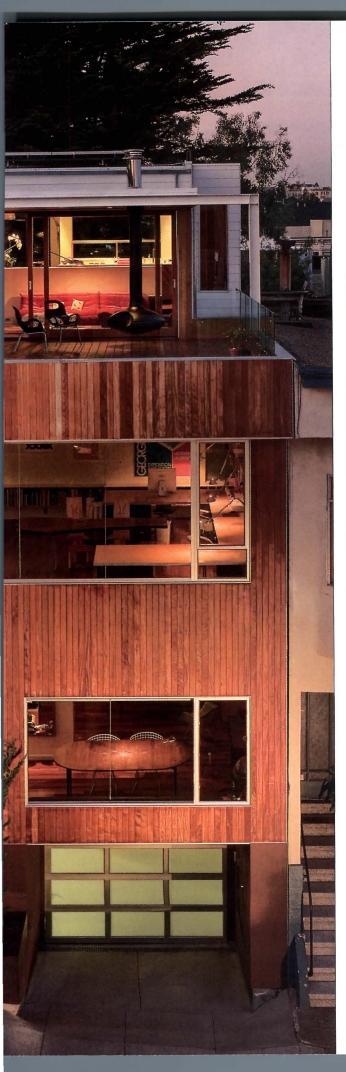
These new interiors showcase a lush palette of materials that express Steely's sophisticated sensibilities. The kitchen cabinets have book-

matched zebra wood veneers; ipe wood covers all the floors and deck; the bath vanity is made from ebony veneers; and countertops throughout are CaesarStone quartz in "Blizzard" white.

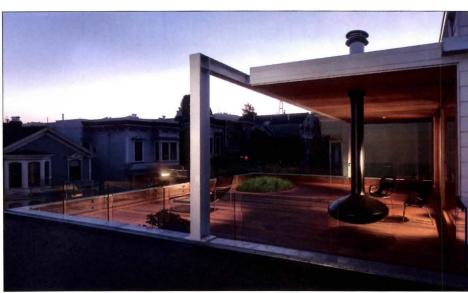
Steely used a fair amount of space for the deck and admits that he could have made the rooms bigger, but he says the reorganized, smaller interiors are more flexible. The job, he adds, "was a commitment to quality of space rather than quantity of space."—*n.f.m.* 



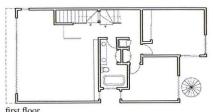


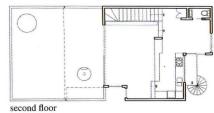


by nigel f. maynard, meghan drueding, and shelley d. hutchins









project: Beaver Street Reprise, San Francisco

architect/general contractor: Steely Architecture, San Francisco

project size: 1,537 square feet construction cost: Withheld photography: Rien van Rijthoven

## inside story

## guiding light

The problem of bringing natural light into spaces that lack it has vexed architects for centuries. Katherine Chia, AIA, and Arjun Desai came up with a smart, modern alternative when designing the conversion of this New York City loft from a commercial warehouse space to a residential one. "The space was dark and cavelike," Chia says. "We thought, What can we do to really punch light through it?"

With the support of their clients, actor/film producer/restaurateur Bershan Shaw and her publicity-shy partner, Chia and Desai decided to design a light source of their own. They and lighting consultant Christine Sciulli created a series of 8-foottall, translucent plastic light boxes that delineate different rooms within the 4,000-square-foot unit. The boxes act as walls, with

the added benefit of transmitting light and shadows. "We wanted to activate the space, but in a really subtle way," Chia says. Plywood uprights divide the light boxes into vertical strips, while clear resin shelves inserted periodically provide nooks for storage and display. To keep costs and waste down, each piece of the light boxes was prefabricated using Computer Numerical Control (CNC) milling and laser cutting, then assembled at the contractor's shop and transported to the site.

Chia and Desai applied a similar level of inventiveness and care to the rest of the loft. They placed the two large public spaces—the kitchen/dining/living room and the library—in diagonal corners to establish a dynamic spatial connection. Inspired by the paintings of Mark Rothko and the early sculptures of Anish Kapoor,

they sparingly deployed bold, saturated blocks of color to high-light individual walls. And they tied the entire project together using existing items: large round columns, ceiling beams, and an exposed sprinkler system. "The original bones were worth calling out as details," Chia explains.—*m.d.* 



New York City
architect: Desai/Chia
Architecture, New York City
general contractor: Kane
Contracting, New York City
mechanical engineer:
Rodkin Cardinale Consulting
Engineers, New York City
lighting consultant:
Christine Sciulli Light +
Design, New York City
project size: 4,000 square feet
construction cost: Withheld
photography: Paul Warchol
Photography

project: Light Box Loft,



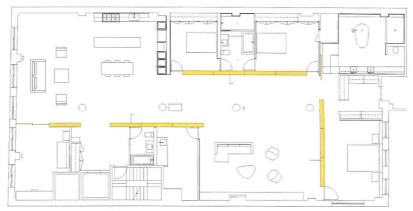












Desai/Chia juxtaposed movable, clear resin shelves against the loft's translucent, downlit walls. The two main public areas sit catty-corner to one another, ensuring a smooth flow of space throughout the apartment.

## inside story

## the great divide

To add walls or not to add walls? That was the question Elizabeth Whittaker, Assoc. AIA, faced when renovating this Boston loft. Her client wanted to keep the wide-open spaces and exposed terra-cotta brick ceiling, but he was looking for a modicum of organization and privacy. Glass was the solution.

"We put the bedroom in the corner and wrapped it in glass," explains Whittaker, principal of Merge Architects. The translucent walls create distinct public quadrants outside the bedroom without physically dividing up the rest of the 1,400 square feet of space. Late in the day, the glass begins to take on a more reflective quality, becoming nearly opaque. And after dark, it morphs into an art piece as it mirrors the neighboring bus terminal's electronic sign. "It was such a small move," Whittaker

says, "but it completely changed and transformed the space."

A section of solid wall within the glass blocks the bed from view and contains a gas fireplace and art niche for the living/dining space. Above the fireplace wall, three large transom windows allow air to flow freely between the living area and bedroom. They also allow both rooms to share the single existing register for heating and cooling. Along the bedroom's short axis, a sliding glass door within a glass wall opens to the owner's corner office niche.

"When you do interiors, it's always about the materials," Whittaker says, "and we love to research new materials." The firm's exciting find on this project was COR engineered wood. The wood's uniform grain gives it a clean look, and the enhanced structural stability was ideal

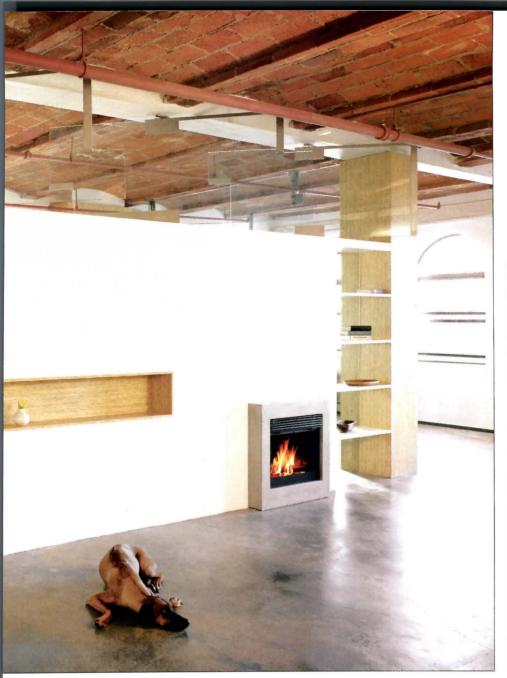
for 11-foot, floor-to-ceiling spans. Fine engineering is not only in the wood, however. The frameless glass panels are supported by custom-designed and -fabricated hardware that Whittaker says "gives the glass presence without creating a traditional wall."—s.d.h.



project: Quadrant Loft, Boston architect: Merge Architects, Boston general contractor: Harpy Eagle Remodeling, Malden, Mass. metal fabricator: Magma Metalworks, Beverly, Mass. cabinetmaker: Dana Teifert, Boston project size: 1,400 square feet construction cost: \$133 per square foot photography: Anton Grassl/Esto

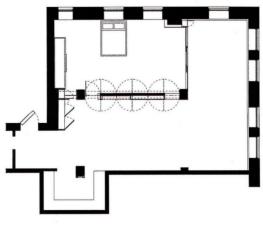










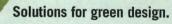


COR engineered wood wraps existing columns and reappears as built-in storage, segueing from bedroom closet to living room bar. Its blond tones provide a warm foil for cool glass walls.

residential architect / june 2008



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## thanks, but no tanks

the case for on-demand, tank-free water heaters.

by nigel f. maynard

he Partnership for Advancing Technology in Housing (PATH) is a HUDfunded program whose goal, in part, is improving the energy efficiency of houses. So when PATH decided to build its first concept home to showcase its mission, it picked the best building technologies available, including insulated concrete forms, metal roofing, and spray foam insulation. For hot water needs, PATH rejected a traditional heater in favor of an on-demand tankless system.

According to the Office of Energy Efficiency and Renewable Energy at the U.S. Department of Energy (DOE), water heating is the third-largest expense in most homes, after conditioning the interior and operating major appliances. Because this accounts for 14 percent to 25 percent of the home's expenses, more building professionals are exploring alternatives to traditional hot water tanks. Their focus is squarely on tankless.

Unlike a traditional tank, which heats a reservoir of water 24 hours a day, an on-demand unit activates only as needed. When a hot water faucet is turned on, for example, cold water travels

through a pipe into the unit, where a gas burner or electric element then heats the water. Louisville, Ky.-based manufacturer GE Consumer & Industrial estimates that a tankless device trims water heating costs by as much as 25 percent annually, compared with a standard 40-gallon tank. "Those savings are a result of eliminating standby losses—the energy lost from warmed water sitting in a tank," the company explains.

The benefits of tankless heaters extend beyond the pocketbook, however. They can deliver a continuous supply of water at a preset temperature, and manufacturers say a properly sized unit will supply hot water to multiple sources simultaneously. DOE reports that typical on-demand units provide hot water at a rate of 2 gallons to 5 gallons per minute, with gas-fired heaters producing higher flow rates than electric units. A traditional tank may run out of hot water, but a tankless unit, if pushed past its limit, will deliver hot water at the preset temperature (albeit at a reduced flow rate).



Photos: Courtesy Rinnai America Corp.

Homeowners can use Rinnai controllers (above) to view and adjust the company's tankless water heaters (right) from inside the house.

A tankless unit also offers a design benefit to architects hoping to maximize space in a mechanical room. Such systems are often no bigger than a small suitcase and are usually installed on an inside wall or on the outside of the house.

#### tanks a lot

Tankless has become popular in recent years thanks, in part, to the green building movement and the push toward energy efficiency. In fact, Bob Hitchner, director of tankless sales in the Montgomery, Ala., office of Rheem Manufacturing Co., says the industry sold roughly 327,000 units in 2007—a 29 percent increase over the previous year. "A few years ago



people viewed tankless as experimental, even though it's a proven technology that has been around awhile," he says. "But we have gone beyond the experimental stage now."

Hitchner says wider acceptance of tankless products is directly related to recent enhancements that have made the technology more palpable. Although tankless technology dates to the 1950s, "the big improvement came in the early '90s with electronic

continued on page 54

#### doctor spec

controls," he explains.
"Before, the units were
mechanically driven based
on the movement of the
water." Now, electronics
read the temperature and
flow of the water and calculate how fast and how high
to heat it. The improvement,
he adds, has led to a much
more reliable product.

Architects seem to agree. Heidi Richardson, principal of Richardson Architects in Mill Valley, Calif., says she specs tankless water heaters "almost exclusively" because "they work really well, and they lower energy bills." Michael Rosner Blatt, principal of Los Angeles-based Fung + Blatt Architects, is also a fan. "We've been using tankless exclusively for the last five years," he acknowledges. "We also have one in our house." He says today's consumers seem to be better educated about the technology, noting that "a lot of clients ask us about it up front" and that "no one [now using it] has called back to complain."

A new generation of tankless units with added features could propel tankless to even greater acceptance. Rheem, for example, recently unveiled a 7.4gallons-per-minute direct vent gas unit that draws makeup combustion air directly from outside rather than from inside the house, leading to better indoor air quality. Fountain Valley, Calif.-based Noritz America Corp. introduced the 531 series of compact units for apartments, condos, and

townhouses. West Hatfield, Mass.-based Stiebel Eltron has upgraded its whole-house Tempra electric line with advanced microprocessor controls that eliminate water temperature deviations. And Peachtree City, Ga.-based Rinnai America Corp. has an LS Series that features a commercial-grade heat exchanger, enabling architects to specify the products for domestic hot water alone or for hot water and space heating. Other worthy offerings include products from Takagi Industrial Co. USA in Irvine, Calif.; Bosch USA in Farmington Hills, Mich.; GE; and Monitor Products in Princeton, N.J.

#### less is more?

While a tankless heater may seem like a no-brainer, specing one requires consideration of a host of issues. Rheem, which claims to be the only manufacturer offering traditional and tankless units, recently launched SmarterHotWater.com as a tool for professionals interested in going tankless. "Being water heater-agnostic makes [us] a credible resource to help professionals sort out the claims and counterclaims about tank and tankless water heaters," Hitchner said in a release announcing the site.

Among other things, architects should know that on-demand units cost twice as much as traditional tanks. Additionally, installation can get expensive in a retrofit situation. Replacing a tank heater with a similar unit



Manufacturers such as Noritz and Rheem offer a wide variety of tankless water heaters for small houses and other types of specialized situations.



can run \$500 to \$800, but replacing a tank with a tankless product will cost up to \$3,000, the site says. There's little difference in cost for new-construction installs.

Architects should also consider fuel type. A gasfired tank, for example, is ideal for whole-house use. The American Council for an Energy-Efficient Economy, a nonprofit advocacy group in Washington, D.C., also says gas-fired is more energy-efficient. Electric, on the other hand, is less effective in wholehouse applications and, according to James Facer, a regional sales manager for Noritz America, better-suited to point-of-use applications such as a dedicated faucet. "The cost of operation [for an electric unit] is also higher," he adds.

Richardson acknowledges that neither technology is perfect. "There is one drawback to tankless units: they need to be in a central location of the home," she says. "But that goes for traditional hot water tanks,

too, so it's not really a big deal." Indeed. As much as possible, you'll want to shorten the water lines from the unit to the delivery point for better efficiency.

DOE describes an efficient setup as one in which the hot water uses are relatively close together, with short hot water lines between them. "One of the major costs in installation is the price of the vent," Hitchner explains. You can reduce venting costs by locating the unit for the shortest runs, he says, adding that installing the unit outside is cheapest. Blatt says his firm does, in fact, favor a direct vent unit mounted on the exterior of the house.

Still, remember that even a large gas-fired unit can't supply enough hot water for multiple simultaneous uses in large houses. In those cases, multiple units work well—especially if they're set for dedicated areas that use a lot of hot water. Says Blatt, "Multiple smaller units are always better than one big unit." ra

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#### lighten up

Using a lightweight, cement-based composite, Concreteworks Studio crafts a wide variety of custom products, but Swatt turns to the Oakland, Calif., firm for bathtubs and countertops. For one project, he says, "we embedded fiber optics into the



concrete"-a custom touch that's "invisible during the day, yet glows like the

galaxy at night." Concreteworks Studio, 510.534.7141; www.concreteworks.com.



Cesar Rubio

#### solid opening

To promote "continuity from interior to exterior," Swatt specs large aluminum openings from Fleetwood, as he did on this home. The products are manufactured with standard features such as a 4½-inch frame, multipoint locks, and continuous weather stripping. Four standard colors, plus custom hues, are available. Fleetwood Windows & Doors, 800.736.7363; www.fleetwoodusa.com.

-nigel f. maynard



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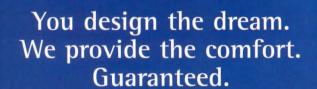
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#### new material

by nigel f. maynard and shelley d. hutchins

#### house speaker

Speakers should be heard and not seen, but in this age of home theaters, media rooms, and whole-house audio, that's easier said than done. Custom home clients, it turns out, want their MTV and VH1—even if they come with visible grills and obtrusive black wires. Appleton, Wis.-based Acoustic Ceiling Products has inverted



the old paradigm, however, with the Onsia concealed-speaker system. Each flat-panel speaker plate screws into wall studs and finishes like regular drywall. Unlike conventional speakers, which emit sound via single-band pulses from conventional cone diaphragms, Onsia generates sound through the stimulation of the entire panel surface, creating hundreds of simultaneous nonlinear vibrations that, in effect, turn an entire wall into a sound source. Acoustic Ceiling Products, 800.434.3750; www.onsiaideas.com.



#### modern medley

Franke has combined work surfaces of tempered glass with stainless steel bowls for hip, easy-to-clean kitchen sinks. The glass—available in seafoam or black—is lightly textured for a nonslip grip, and a subtle slope in its surface allows for quick drainage. The 18-gauge steel bowls come in single or double configurations with accessories such as integrated cutting boards and colanders. Franke Consumer Products, 800.626.5771; www.frankeusa.com.

#### good outlet

The shower drain need not be an afterthought. With California Faucets' StyleDrain, it becomes yet another opportunity for design expression. Available in two styles and 30 finishes, the

drain has no visible
screws and sports a square
shape to make
tiling jobs easier.
California Faucets,

800.822.8855;

www.calfaucets.com.



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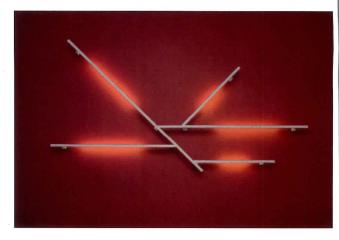
#### new material



#### edwardian dandy

English luxury brand Czech & Speake created the Edwardian Furniture Collection to complement its period bath faucets and accessories of similar design. The vanity shown here is handmade from sustainably grown mahogany with "flame" mahogany panels. Treated to withstand moisture, the 44-inch-wide unit has eight drawers and a center cupboard housing an English ticking laundry bag. The basin, faucet, and marble top are sold separately. Czech & Speake, 800.774.1181; www.czechandspeake.com.

FOR MORE PRODUCT INFORMATION, VISIT WWW.RESIDENTIALARCHITECT.COM OR EBUILD.COM, HANLEY WOOD'S INTERACTIVE PRODUCT CATALOG.



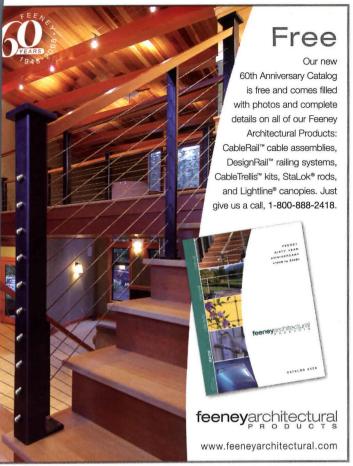
#### kao factor

Add illuminated drama to walls or ceilings with the Kao light sculpture. Designed by Bruno Houssin for Artemide, the aluminum fixture has linear forms that cast an ambient glow projecting about 1½ inches from its mounted surface. Kao is wired for 24-watt and 54-watt fluorescent bulbs, making it an energy-efficient choice for low-light spaces such as foyers and corridors. A clear polycarbonate dust cover protects the bulb. Artemide U.S.A., 631.694.9292; www.artemide.us.



#### keys to the castle

Julia Morgan's iconic architecture for the renowned Hearst estate inspired Sóko's Hearst Castle Collection of hardware. Knobs, pulls, hooks, and towel bars are currently available, with more accessories coming soon. Pieces are manufactured from stainless steel or bronze in nearly a dozen finishes, including natural, mink, and black. Sóko's founder, artist Cari Jaye Sokoloff, is also creating limited-edition designs to commemorate Hearst Castle's 50th anniversary as a state park. Sóko, 888.828.7656; www.sokostudio.com.



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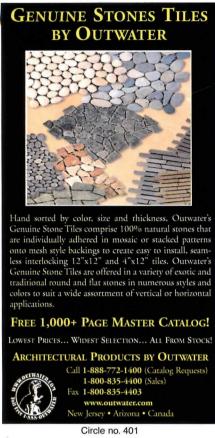


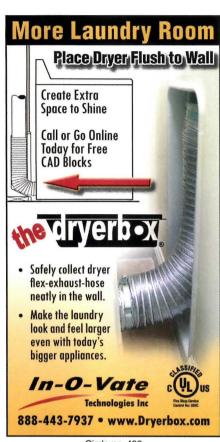
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<sup>\*</sup> Issue mailed in regional editions.

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#### workspace

#### studio d'arc architects

pittsburgh www.sdapgh.com

Gerard Damiani, AIA, NCARB, and Debbie Battistone wanted their new live/work locale to embrace Pittsburgh's urban fabric. So they scouted for an empty lot close to downtown, eventually settling on one with a view of the city. They grabbed the prospect for their new second-floor studio, which has the building's only street-facing window. "I liked this idea of an architecture studio with a big window into the city," Damiani explains. "It's the eye of the architect looking at the neighborhood."

The ample glazing lets the husband-and-wife team forgo artificial lighting during the day—a big plus for the eco-conscious firm. Materials also were chosen for their low-impact practicality. For desks, plan racks, a printer shelf, and a model display table, Damiani used maple butcher block "with

a thickness that could cantilever, so pieces fly into the space."

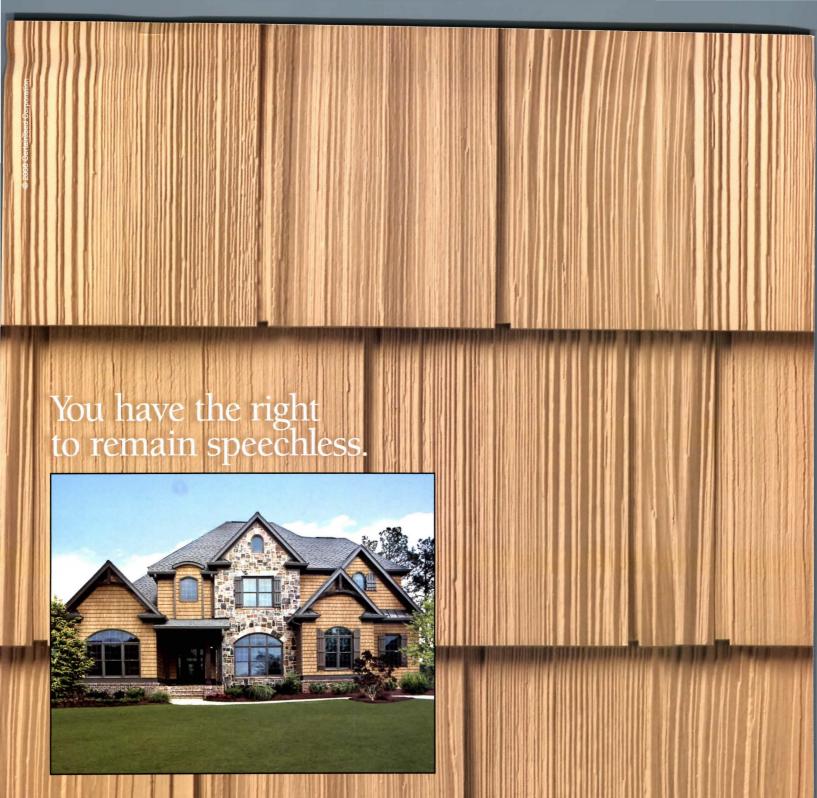
The studio's 390-square-foot layout is no bigger than the couple's first live/work space, even though the house is twice as big as their previous flat. "We decided to keep the square footage the same,"

Damiani says, "with the idea that we would live more than work—although that part hasn't really worked out!"—shelley d. hutchins





Photos: Ed Massen



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