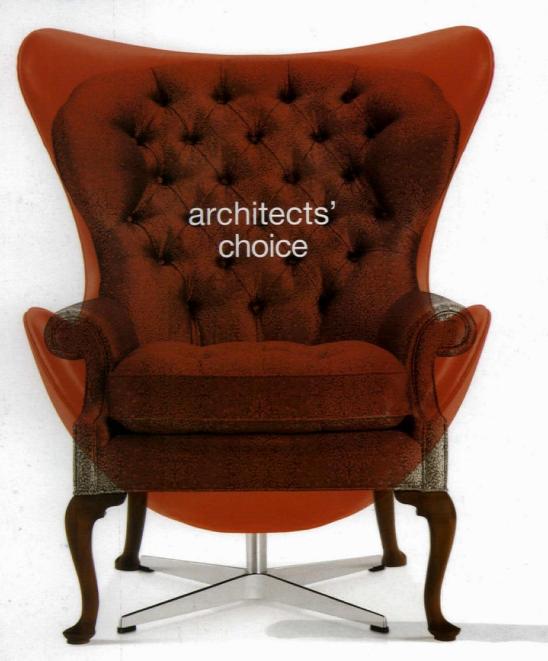
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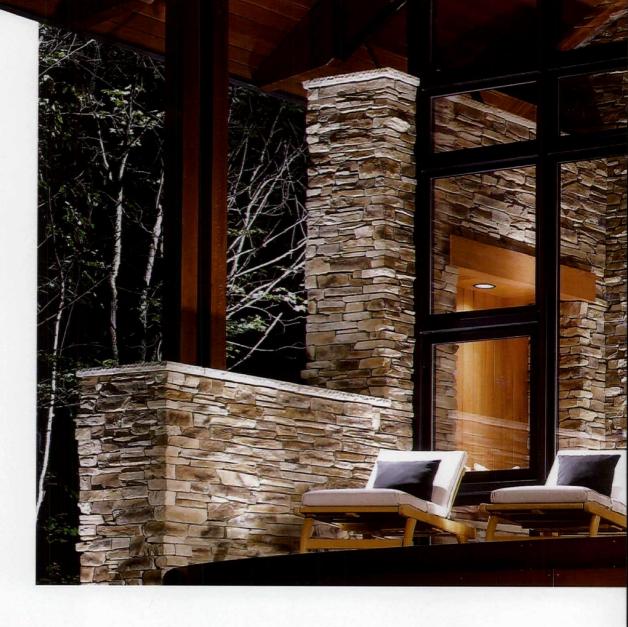
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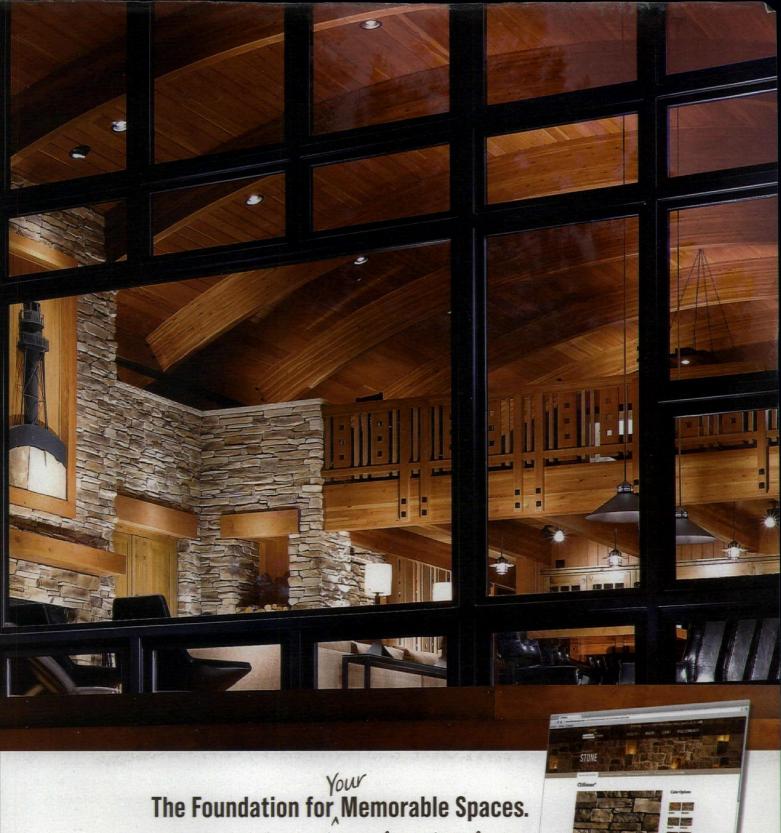
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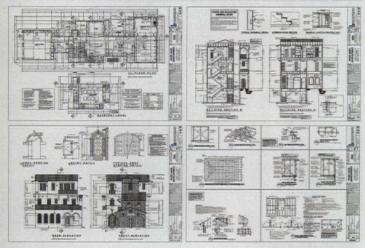
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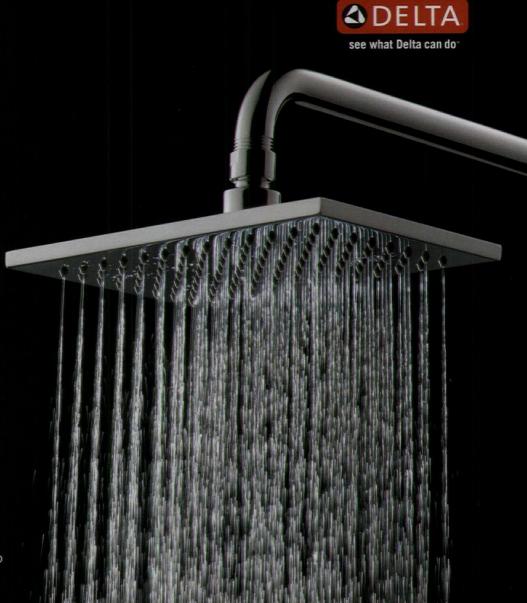


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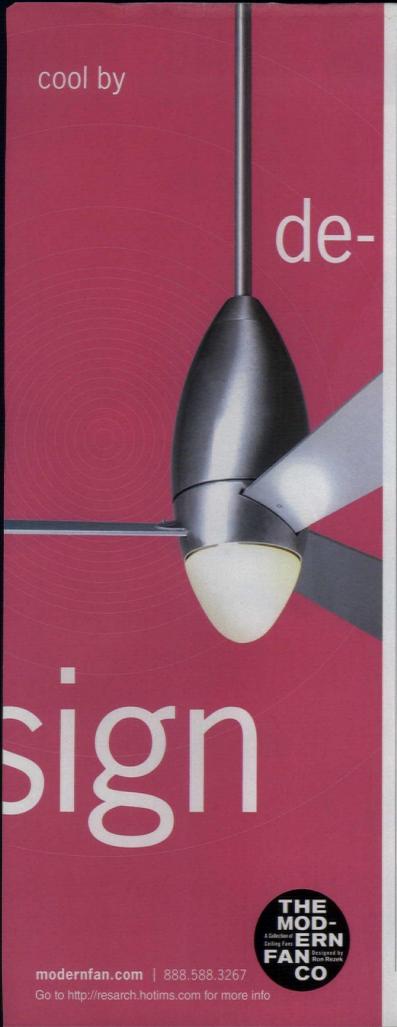
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This year, we asked eight architects we admire to share their favorite tried-and-true products for contemporary/transitional work and their greatest traditional finds.

by nigel f. maynard

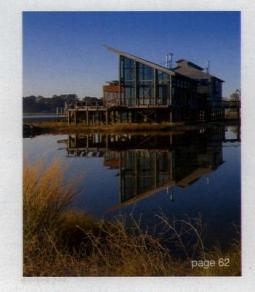
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This home on the Chesapeake Bay sits on the site of an old oyster-shucking factory. With hurricane-rated glass, pressure-treated pine timbers, and steel bracing, it can withstand the toughest weather.

by meghan drueding



On the cover: George II Wing Chair from Baker, The Stately Homes Collection and the Fritz Hansen Egg Chair. Photo (above right): © Maxwell MacKenzie



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## the purge dirge

we don't built 'em like we used to, but should we?

by s. claire conroy

'm about to let go of a precious piece of family furniture: a 1942
Baldwin grand piano. It's a beautiful instrument, made by hand in the heydey of American piano building. Mahogany, brass, ivory, and felt assembled into a commanding focal point of the home.

The trouble is, we've no one left in the family who plays. It will die a slow death of benign neglect if it isn't deaccessioned.

Products of such quality are increasingly rare, but also stunningly expensive to preserve. And unless you have a musician of real ability in your family, the ease and economy of an electronic keyboard likely would suffice. But we lose something irreplaceable in this transition to the "current model."

We don't build pianos like we used to, with the expectation that they will be cared for and rebuilt as their components start to fail. And we don't build houses with the same commitment to their longevity, either. Most of those "Craftsman" houses built everywhere during the boom times probably will see their granite counters outlast their windows and woodwork. They were built

to look vintage, but with newer, cheaper materials that won't endure—like those digital grand pianos with a hollow box where the strings should be, all held together by glue.

How long should a house last? It's a complex question and one that probably doesn't get asked enough. We're quick to discuss price and cost per square foot, but we rarely inquire about a home's shelf life. Will it outlast our children or theirs? The question reaches across all aspects of what and how we build these days.

Yes, it's a question of materials and construction. We choose the best we can afford, but there's no life span label attached—just a limited warranty from a manufacturer. New products are enticing, but what of track records and proven performance? And will anyone maintain these materials—new or timetested—properly?

But it's also a question of style and lifestyle. Architects design and clients fund houses they consider beautiful and functional, but will those who come after also find them so? Or will they gut them and remake them to their taste and needs?

Nowadays, we've begun



Mark Robert Halper

to consider resource consumption as well. So most of us pick and choose a mix of so-called sustainable and conventional products and strategies, hoping our choices will stand us in good stead. It's all a guess and a gamble, wrapped up in common sense.

Of course, these questions presume we do want our houses to last, fixed in time as they were conceived and built. But perhaps it's time to re-evaluate that goal. High-end cars are now developed and fabricated so that entire components can be replaced when they fail, taking the burden off the mechanic to dismantle multiple parts while fer-

reting out the problem. What if houses could plug and play new elements as easily—without demolition or skilled labor? Removable wall panels to update electrical and plumbing—or movable walls to update floor plans for changing needs.

If I could easily move a few walls in my house, I might find the perfect place to stow my father's grand piano until my son grows old enough for lessons. But chances are he'll end up playing some iPad piano app instead, leaving even a digital piano to gather the dreary dust of obsolescence.

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# home front

news from the leading edge of residential design.

### casa bauhaus

San Miguel de Allende's streetscapes are inscrutable. Seventeenth-century buildings form a continuous wall on the winding cobblestone streets, and CASA, the new Center for Architecture, Sustainability + Art, is indistinguishable in its surroundings. But behind the deep red stucco façade are four soaring cubes linked by court-yards. In May, its doors opened to American architecture students for five intensive weeks of analytical design exercises, field trips, and theoretical debate.

For San Francisco architects Cathi and Steven
House, who first traveled to central Mexico in the
early 1990s to source Cantera stone, the idea was
years in the making. The principals of House +
House Architects purchased three infill lots near
the Jardin—the central plaza with its signature
pink granite cathedral. On two lots they built
a vacation getaway/satellite office and a rental
house. The couple finished construction on CASA
in the spring, offering the seminar's inaugural run



Photos: Courtesy House + House Architects

to students from Virginia Tech, their alma mater.

The Houses describe the study abroad program as "loosely modeled on the Bauhaus."

Participants receive academic credits for classes in architecture, art, and sustainable building.

They're also offered courses in fiber arts, painting, and ceramics and the opportunity to test their ideas with local blacksmiths, carpenters, and artisans.





Cathi House presides over a design crit session. The new building, constructed entirely with local materials and labor, supports a variety of uses.

The goal: to give students a holistic view of architecture, and to help them find their voice as designers. "Travel is so important to keeping the creative spirit alive," says Steven House, AIA. "To go to an ancient place and walk paths that have been walked for hundreds of years changes who you are and how you think about your work."

In this culturally rich enclave, where expat retirees, artists, and writers mingle with Mexicans on the town square and four-star restaurants share the streets with elote vendors, the couple also hopes to



host groups of architects who "gather at our long table to have interesting conversations at night, when we're not burdened by the realities of work," Cathi House says. In addition to Virginia Tech, the summer program will be offered to other universities as it evolves.—cheryl weber, leed ap

On a 20-foot-wide by 210-foot-deep lot, courtyards, terraces, and fountains link four buildings that modulate vertical and horizontal space. Mixed into the long, layered vistas are 22-foot ceilings, travertine floors, a lap pool, rooftop planters, and gardens that preserve specimen trees.

### vacation tomes

Resolution: 4 Architecture is one of the prefab architecture world's few bona fide success stories. Over the past decade, the New York—based firm has developed—and repeatedly used—a module-based, mix-and-match system for designing and building prefab modern houses. Now Princeton Architectural Press has chronicled this system in a new book, *Modern Modular*, by the firm's principals, Joseph Tanney, AIA, and Robert Luntz, AIA. *Modern Modular I The Prefab Houses of Resolution: 4 Architecture*. Joseph Tanney, Robert Luntz. Princeton Architectural Press, \$40; July 2012.

21st Century Architecture: Designer Houses. Images Publishing; \$31.50; April 2012.

Law for Architects: What You Need to Know. Menaker & Herrmann LLP/W.W. Norton; \$35; May 2012. Houses + Origins: WA Design. David Stark Wilson/Images Publishing; \$37.65; July 2012.

High Life: Condo Living in the Suburban Century; Matthew Gordon Lasner/W.W. Norton; \$40; September 2012.



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## **AIAVOICES**

TOMORROW NEVER KNOWS | THE FUTURE IS A LOT CLOSER THAN YOU THINK

Cynthia Frewen Wuellner, FAIA, consults with cities and organizations, is an adjunct professor in the University of Houston's Future Studies in Commerce Department, and since 1982 has been principal of Kansas City, Mo.-based Frewen Architects, Inc. As a futurist, she combines her design expertise with strategic thinking about architecture's capacity to reflect its context and time as well as accommodate what she calls "urban futures." "It's about holistic thinking," she says. "Design tries to make things more precise and certain, while futurists embrace the opposite in envisioning the uncertain."

The most constant thing is culture, but culture also is the hardest thing to change. Culture is the challenge that the sustainability movement has run into—value-based ideologies that are not easy to transform, even though we've had the tools to be more sustainable for years. There's a saying that the future is already here—it's just not evenly distributed. Being a futurist is finding the little flecks of ideas, and thinking about them at multiple scales. We have to think about the future because we now have the capacity to destroy the earth. So to identify possible futures, I incorporate a lot of strategic thinking, statistics, and scenarios in my job. Cities are layered. Cities are complex. To recognize that, architects have evolved in their thinking from machine metaphors to natural, biophilic, systems—based approaches.

Architects work in layers and so does the rest of the world.

Politics, community, technology, and so on. But architecture is science and art. Thinking about the future is art, too—it's storytelling and scenarios, which is what urban futures is: human agency. Making people believe that they can make a difference. Things happen because of human behavior and architects are change-makers. It's too bad that we have made unfortunate decisions at times, involving how we design or build. But architects are doing more and more now to reverse those decisions.

Still, architects face great challenges at the urban scale. Look at cities like Baltimore and Boston—both grew, at first, because of infrastructure based on horses, carriages, and walking. Now compare those cities to younger cities like Houston and Los Angeles, in which sidewalks were not even considered at first because the car was such a fundamental part of their growth.

Change is hard, there's no doubt. But architects are change-makers and if you want to talk about planning smartly, New York City has the best long-term plan, in my opinion. It has what I call three-horizon thinking: short-, middle-, and long-term thinking. Mayor Michael Bloomberg is a natural futurist, and he's interested in all three levels at the same time.

Architects are futurists, but we need more help on changing the culture and dominant ideologies. You can change people's minds one block at a time, but it's large-scale change that's going to make the difference.—As told to William Richards.

The local government responds to the increased tax revenues by repaving the streets, picking up the trash more often,

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DESIGNING BEYOND THE BUILDING

## How is urban regeneration transforming where we live?

BY AARON SEWARD

### URBAN REGENERATION IS A PHENOMENON WITH WHICH

most Americans, not to mention architects, are by now quite familiar. Many of this country's post-industrial cities have experienced it in one form or another. As an organic process, the story goes something like this: Young people, generally referred to as "artists," move into an economically depressed, physically dilapidated, and underserved neighborhood in the inner city in search of cheap rent and the social benefits of pedestrian-friendly urban environs. Whether through the sweat of their brows or through their trust fund payouts, they raise the economic profile of the community, drawing in previously scarce services such as grocery stores and restaurants and businesses that invest in infill construction projects, including more modern housing.

and improving the schools. The ameliorated state of affairs soon

draws in other even more economically enabled individuals and families who want to live close to where they work and like the fact that, all things considered, the condos are pretty reasonable, and that they can hang out in trendy restaurants where they'll rub shoulders with artists.

At the end of this regeneration cycle, which can take a decade or more to run its course, the once "bad" neighborhood has become a "good" neighborhood. The one "bad" side to this "good" state of affairs, unfortunately, is that a lot of people who lived in the bad neighborhood can't afford the rent anymore and have to move elsewhere. For that reason, this form of urban regeneration is often simply called "gentrification."

Of course, urban regeneration doesn't always happen so spontaneously. Many local governments in post-industrial Western nations have taken proactive steps to kindle the sort of process described above.

"The key thing that governments have done is to identify the most deprived areas of cities and target investment in public services, such as schools and hospitals, as well as to incentivize the private sector in the form of subsidies or grants to get them to move into particular areas of cities and invest in or develop property," explains Andrew Tallon, editor of the U.K.-based Journal of Urban Regeneration and Renewal.

Where there is a government spending money, there soon will be a business to proffer its services. Accordingly, the U.K. now has approximately three dozen companies that perform urban regeneration planning. That trend has now moved to the U.S., with companies such as Washington, D.C.-based Jair Lynch Development Partners and global mega-firm AECOM offering urban regeneration consulting.

What these firms do is bring the role of the economist to the urban planning table. "For early-stage neighborhoods, where public investment is the first form of investment, we dig through what a place could be and target public and private injections of capital that will help it grow," says Jair Lynch. "It could be improving schools or adding new public amenities, primary care facilities, and grocers."

This form of urban regeneration, much like the spontaneous organic type, also tends to lead to the displacement of low-income communities as areas gains traction. Because this regrettable consequence of urban regeneration has proved too much for the collective conscience to bear, governments have taken steps to offer conciliation to the poor. "Most major cities in the U.S. now have inclusionary housing clauses," says Stephen Engblom, Assoc. AIA, AECOM's head of design, planning, and economics in the Americas. "These clauses mandate that developers integrate a percentage of affordable housing into market-rate projects, rather than relegate them to public housing projects. Alternatively, developers can contribute to a municipal affordable housing fund to subsidize integrated units within existing communities."

The upshot of urban regeneration is that, whether incited through public/private investment or following naturally on the heels of movements of classes of people, there is more interest in the style of living offered by dense, walkable urban environments. The movement is a counterpoint to the urban renewal and white flight of the 1960s, when local governments seized vast tracts of slums through eminent domain, demolished them, and replaced them with high-rise public housing towers and freeways that connected those who worked in the downtown skyscrapers to their homes in suburban garden communities.

"Urban renewal entailed large, sweeping slate-cleaning projects. They involved big infrastructure separating land uses and socioeconomic policy that segmented populations," says Engblom. "Urban regeneration is much more integrated. It's about working with existing contexts and economic generators. Neighborhoods are more successful when they are built through an iterative process that accommodates existing and new contexts while retaining the authenticity of place."

While the job of ameliorating a neighborhood or entire city may seem like the role of government planners and their consulting firms, the point of urban regeneration is that the onus falls on everyone involved in an area's development. That includes residential architects. "Architects have to get involved in the places where they work," Lynch says. "Their sole contribution can't just be the building. They may have to take on a park around the corner or an intersection that's dangerous to cross. They have to turn their skills on the whole neighborhood."

## **AIAPERSPECTIVE**

GOING IT ALONE



HOTO: WILLIAM STEWART

MIDWAY THROUGH THE "I LOVE LUCY" SERIES, RICKY AND LUCY

Ricardo give up their Manhattan walk-up flat for a detached house someplace in the suburbs. The move was part of one of the greatest American migrations that saw millions move from urban apartments to their piece of what was then construed to be the American Dream, complete with a carefully manicured front lawn and a garage. The Ricardos, like much of the post-World War II generation, had a growing family. Who could resist the allure of a garage and an outdoor grill, or the subtle symbolism of independence?

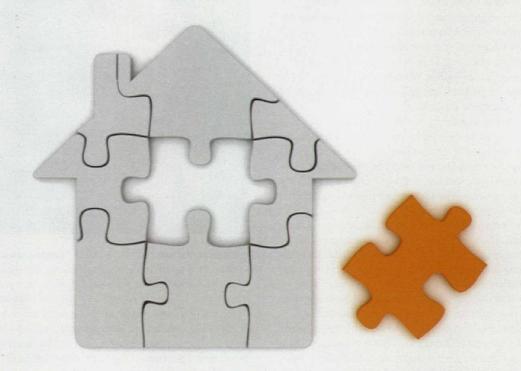
That was in the 1950s, when the Ricardos exemplified the typical domestic unit, and only 22 percent of American adults were single, according to the U.S. Census Bureau. People who chose to live alone were pitied, and "old maid" was not just a deck of cards. Today, more than 50 percent of American adults are unmarried and one in seven adults lives alone, according to Going Solo: The Extraordinary Rise and Surprising Appeal of Living Alone, a provocative new book by Eric Klinenberg, a sociologist and professor at New York University.

Klinenberg began researching his book after the 1995 Chicago heat wave that resulted in nearly 750 heat-related deaths, many of whom were people living by themselves. In writing *Going Solo*, he expected to chronicle lives of isolated quiet desperation. Instead, after more than 300 interviews, he found that those who chose to live alone are generally happier than those who are married. Further, they're more engaged in the lives of their communities. This, as Klinenberg says, is unprecedented in human history. If the trends continue, as the author believes they will, this will force radical changes in housing and social policy, not to mention how well design can facilitate the kind of revitalized community engagement that Klinenberg documents.

Of course, living solo is not without its own challenges, especially for the elderly poor. Yet, although there are relatively few architects to serve a U.S. population of 312 million, never in our lifetime have those engaged in residential design been in a stronger position to effect positive change by responding creatively to the way we actually live.

Jeff Potter, FAIA, 2012 President

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# k+b studio

### kitchen:

### sidebar

A butler's pantry is great for people who like to entertain. But with five children at home, the owners of this kitchen consider theirs an essential piece of family survival gear. Architect Ruth Bennett and kitchen designer/cabinetmaker Paul Reidt gave the storage-and-prep space a generous share of the house's central pavilion, using it to organize activities as well as food. Equipped as a small secondary kitchen, it serves brilliantly at parties and keeps the kids' snack-and-drink runs conve-

niently out of the main kitchen.

The bank of cabinets that separates the spaces offers its zinctopped surface as a serving counter, a beverage bar, or—for the family's everyday meals—a buffet. Open shelves above create a porous connection between the two zones. The design team, which included the owners, located walk-in storage for dry goods in the butler's pantry, as well as a pair of built-in homework stations. "It's kind of a multifunctional core area," Bennett says.

The main kitchen's millwork and finishes strike a note of relaxed formality, tempering a strongly axial plan—and refinements such as riftsawn white oak floors, black granite

countertops, and Carrara marble backsplashes—with areas of barn-inspired horizontal V-groove paneling. The painted-wood and walnut cabinets further the balancing act. Reidt started with bone-simple, almost modernist flush drawer fronts and flat-panel doors, then tweaked the design by beefing up horizontal and vertical elements of the face frame. The resulting shadow lines add depth without resorting to curved edge profiles. A dropped soffit over the wall cabinets moderates the room's 9-foot ceiling, while a band of flat trim is a simple stand-in for crown molding.—bruce d. snider



Equipped as a secondary kitchen, the butler's pantry organizes circulation and activities as well as food.



With black granite and stainless steel counters and Carrara marble backs-plashes, the kitchen strikes a comfortable balance between refinement and utility. Stainless steel "boots" protect the kickspace's outside corners.



Photos: Michael J. Lee

**project:** Courtyard Residence, Acton, Mass.

architect: RBA Architecture, Belmont, Mass.

**builder:** The Classic Group, Burlington, Mass.

interior designer: Susan B. Acton Interiors, Cohasset, Mass. resources: dishwasher: KitchenAid; freezer and refrigerator: Sub-Zero; hardware: Baldwin, Blum; hvac equipment: Buderis; interior doors: Trustile; lighting fixtures: Cooper, DanaLite, Juno, Lightolier, Prima; microwave, oven, range hood: Wolf; plumbing fixtures: Julien; paints: Benjamin Moore; patio doors and windows: Marvin

# k+b studio

## bath: still waters

The Courtyard Residence is made up of three linked pavilions, each with an independent identity. Architect Ruth Bennett and her clients conceptualized the master bedroom pavilion as a peaceful retreat from the world. The owners "see this as their refuge space, almost as if they were in a cottage of their own," Bennett says. Located near the master suite's geographic center, the bathroom conveys an even deeper feeling of remove. But while its landlocked position is great for privacy, Bennett notes, "we wanted to bring in light, so we used [interior] transom windows on two sides." The result is a room that is inward looking, but with no sense of confinement.

Bennett and designer/cabinetmaker Paul Reidt extended the theme of concentric elements by posing a freestanding tub against a wall of wavy, seawater-color tile. At the opposite wall, a pair of tall cabinets brackets a furniturelike vanity cabinet. A shower and toilet compartment stand unobtru-

> sively to one side—the former, behind a glass door; the latter, a solid one—preserving the symmetry of the bathing

space. An abbreviated finish schedule of Carrara marble, ceramic tile, and cherry supports the contemplative aim of the design, and its application makes the room a suitable object of contemplation in itself. "It's a simple approach," Reidt says, "but we still wanted to make sure there was a sense of craft."—b.d.s.



resources: hardware: Baldwin, Blum; hvac equipment: Buderis; interior doors: Trustile; lighting fixtures: Cooper, DanaLite, Juno; Lightolier, Prima; paints: Benjamin Moore; windows: Marvin

A symmetrical layout and abundant clerestory light give this master bath its serene sense of order. Watery green mosaic tile set in a sinuous pattern backdrops the freestanding vessel tub.



Photos: Michael J. Lee



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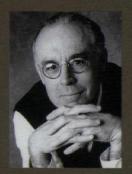
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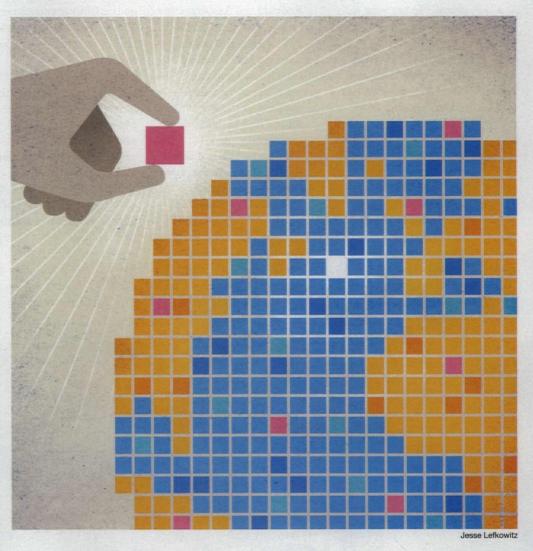
# spec writing in the digital age

the search for the perfect products has gone global—and local.

by cheryl weber, leed ap

o realize how far product and material choices have come in the past five to seven years, one needs only to look into the master bath of a recent home by Santa Monica, Calif.-based Belzberg Architects. The clients had a favorite orchid, which the architects recreated in stunning pixilated color on an entire wall with tiny ceramic tiles. The image was generated on an inhouse computer and sent to the tile manufacturer for printing. The result: an art installation, like having a gallery in your own bathroom, but without the hassle and expense of hand work.

The digital revolution has made mass-customization increasingly common, down to the last detail. Today, many manufacturing companies are able to accommodate one-off requests at a competitive price point. That makes clicking through online catalogs-another digitalera gift-only the starting point for design possibilities. It's no longer simply a choice between, say, a clear or translucent curtain wall; now architects can design a pattern of gradated filters



that control how and where the light comes through.

"We've always had a choice of colors and textures, but never so much power in manipulating the third dimension of design—patterning," says Belzberg Architects principal Hagy Belzberg, FAIA. "Digital manufacturing technology has existed a long time, but until now it

hasn't been cost-effective to use in residential applications."

Technology is just one aspect of the past half-decade's shift in the way residential architects find, vet, and spec products and materials. Driven by changing modes of practice, a global marketplace, the elevation of green building standards, and

even the Great Recession, spec writing isn't necessarily the linear process it has been. Reminiscent of the master builder model, there's a more intensive collaboration with consultants and trades, whether it's because of LEED targets, a search for costefficient solutions, or the desire for innovation.

continued on page 28

## the virtual marketplace

Ask around, and it's clear that product catalogs are going the way of the pay phone. "Every year we purge a little more," says Charlie Kaplan, LEED AP, principal of New Yorkbased Peter Gluck and Partners. A few favorite binders are kept in the office because "sometimes it's just easier to thumb through by hand," he adds. "Our library now is filled with actual books. Proportionally, the amount of space we allocate to materials has almost doubled. The Internet is good for finding products, but it still can't let you touch them."

Dan Rockhill, a designer/

builder and self-described materials junkie, organizes product websites in folders under his browser's "Favorites" tab. At the helm of Rockhill and Associates in Lecompton, Kan., he takes full advantage of online sourcing for everything from house wrap to hardware. "Years ago, finding a stainless steel sailboat fitting for use on a building would take forever," he says. "Now I can find it in less than five minutes and have the order shipped to my door."

Besides, says Rockhill, who also runs Studio 804, affiliated with the University of Kansas School of Architecture and Urban Planning: "Students are born and bred on the Internet and able to move through the options to search for materials much more expediently than I had experience doing. It's a tremendous step up, and certainly improves our ability to entertain a broader base of materials from which to draw."

Not only does the web expand the material universe, it supports the explosion of interest in sustainability. Architects can tell instantly whether a product will meet the standard they're trying to uphold. "A handful of years ago, green-washing was rampant," says Carey Nagle, AIA, LEED AP BD+C, project architect at BNIM Architects in Kansas City, Mo. "We're hav-

ing an easier time finding good-quality information on recycled content, regional materials, and whether materials contain ingredients that fall into the red-list categories."

Nowadays, the spec process is more about trolling for products and materials, says Brian Phillips, AIA, LEED AP, principal of Interface Studio Architects, Philadelphia. "It often starts with finding an image of something on the Internet, tracking that back to what the product is, and finding the manufacturer," he says. "It's the reverse of what used to occur."

Whether it's Inhabitat, Remodelista, Archinect, or 100 other online outlets, de-

## Geothermal

who thought HVAC could be an element of style



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sign blogs play a pivotal role in elevating the dialogue about architecture. Images of new projects spread with a speed that was unthinkable a decade ago. But for some architects, formalizing those references feels a little weird. It's one thing to admire another firm's work, another to file it away for future reference. "There are unwritten codes of honor among architects. But the same thing happens in the music industry," Phillips says. "There's so much sampling going on."

But for all the eye candy consumed on the Internet, architects note some glaring gaps. Studying blog photos of finished projects is a great way to understand a material's scale and what you might want to achieve, but "nobody pulls the detailing for you," Phillips says. "It seems like there should be a great website for details." Currently on a search for the perfect wood cladding, he's been Googling, looking at local projects, and talking to product reps.

In a global marketplace, vetting an unfamiliar company or product is as critical as ever. Does it have a track record? A few years ago, Phillips noticed a carpet manufacturer with an interesting online presence, and the rep seemed terrific on the phone. But a little digging unearthed the fact that it was launched on the back of another company

"it often starts with finding an image of something on the internet, tracking that back to what the product is, and finding the manufacturer. it's the reverse of what used to occur."

-brian phillips, aia, leed ap

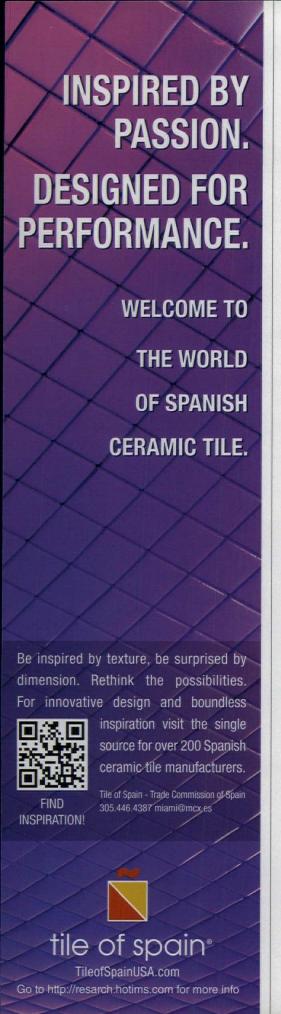
at the height of the housing boom. "We had no idea what their supply chain was, and they did go out of business," he says. "You speculate about what they are, but you don't really know the whole story."

For all those reasons, the architects at Torontobased firm Superkul find themselves doing as much legwork as they used to—more, given the larger batch of options at their disposal. They're asking reps for samples, playing detective, and often returning to products they used 20 years ago.

"When we're considering new products, we go continued on page 30

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### practice

through the same rigorous vetting process that we used to do when we were interns at a larger firm," says co-principal Meg Graham, MRAIC. For highperformance items such as roofing or windows, they invite the manufacturer in for a one-hour presentation. Then they evaluate the product based on what they know about building science and solicit comments from folks who've used it. Did the trades like it? What about durability?

The Internet's immediacy, it seems, has spawned intolerance for poor service. "We have some very good reps who know their products extremely well and are really good at providing support for architects," Graham adds. "If people can't give us good data and get things to us on time, we'll go elsewhere."

## degrees of separation

Where you go depends on what kind of practice you have. When you're not the person hiring the subs, it's harder to find out which windows install easily and have the fewest callbacks. At design/build firms like Peter Gluck and Partners, which contract with each specialty trade, the conversation goes farther.

One example is ultra-efficient mechanical systems. Heating and cooling options have multiplied in recent years, Kaplan says, requiring more communication to make sure the increasingly complex, digitally

controlled systems are easy to install and user-friendly enough to function well post-occupancy. That means working back and forth between product reps, installers, and engineers. One recent example is a home in Aspen, Colo., that uses solar hot water to heat the pool and spa. Because of the extreme cold, the local subs nixed a brand the engineer had recommended.

"The engineer wasn't close enough to the products to be able to help us with this," Kaplan says. "The subs suggested using a different kind of solar panel system where the water drains into a tank and can't freeze. Once the engineer knew what the system was, he had additional input. It was a four-way conversation that in a traditional process you rarely have, unless you have a good general contractor, and then it usually means a change order. We're doing the research before we buy the contract for that product."

If anything, traditional firms are moving closer to that principle. With a focus on whole-building systems and fiscal restraint, architects are huddling with subs and consultants. And manufacturers are meeting them halfway.

"Five years ago, we might have developed an exterior wall system that we built ourselves and had to fine-tune layer by layer," says BNIM's Nagle. "More and more, manufacturers are building entire enve-

lope systems that are fully tested. So you're dealing with a single source, which is better in terms of design, but also installation and the challenges that may arise after installation."

In Phoenix, Thamarit Suchart, co-principal of Chen + Suchart Studio, observes that manufacturers are getting into step with the intensifying trend toward resourcefulness. A few years ago, Suchart reduced costs by going directly to an Alabama factory for a house's Cor-Ten steel skin rather than through a fabricator and installer. He ordered 40,000 pounds of steel directly from the plant, which cut the panels to size and shipped them to the jobsite for "far less money" than a local shop charged. He says: "The contractor was gung-ho about taking on the installation himself. It's not about looking for a metal system, but being innovative about how to achieve a metal-clad building."

When you know what you want, it's easier than ever to grab the technical information, too. "On one house, we were looking for roof drains," says Federico Engel, an associate at Butler Armsden Architects, San Francisco, "It was amazingly easy to go the manufacturer's website and in two minutes import their CAD drawings to get a detail you could work with. The exchange of information like that is becoming more prevalent."

But not prevalent enough, if you ask Jonathan Boel-

### social strata

s a spec writer at BNIM Architects, Sarah Hirsch uses Twitter to tune into the latest news of the material world. Rather than follow manufacturers, she selects their reps, who tend to intersperse product information and installation tips with personal interests. "By doing so, I become familiar with them and comfortable calling on them when I want to use one of their products," she says.

A prime example is John Danes, door opening consultant with ASSA ABLOY, based in New Haven, Conn. He uses Twitter (@johndanes), Pinterest (pinterest.com/assaabloy/assa-abloy-solutions), and a personal website (johndanes.com) to share news.

BNIM also recently opened a Pinterest account to display its own projects and check in on manufacturers, who pin photos of their wares in use. For starters, Hirsch compiled the following list of companies active on both Twitter and Pinterest.

- Armstrong: @ArmstrongFloor, pinterest.com/armstrongfloors
- Benjamin Moore: @Benjamin\_Moore, pinterest.com/benjamin\_moore
- Daltile: @daltile, pinterest.com/daltile/pins
- Kohler: @Kohler, pinterest.com/kohlerco
- Marvin Windows: @marvinwindows, pinterest.com/source/marvin.com
- Pella: @pella\_news, pinterest.com/pellawindows
- Sherwin-Williams: @\_AskSW\_, pinterest.com/SherwinWilliams
- Silestone: @SilestoneUSA, pinterest.com/source/silestone.com
- Trex: @Trex\_Company, pinterest.com/trexcompany

"I highly recommend that specifiers experiment with a social media platform or two," she says. "You may be surprised how much you learn and how much information there is to share."—c.w.

kins, AIA, studio director at Marlon Blackwell Architect, Fayetteville, Ark. Most manufacturer renderings are missing a layer of articulation he'd like to see. "We insist on accurate 3D content, not just 2D drawings you can plunk into Revit," he says. "Sometimes we'll take 2D content from a manufacturer and make the 3D content. It's a lot of work, and the joke is that we should sell it back to them."

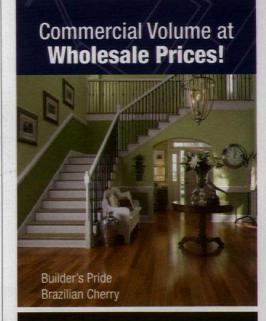
It's not just detailing. Manufacturers are automating custom design, too. According to Belzberg, who designed the orchid wall, even some of the smaller stone and glass manufacturers are able to cut and mold custom pieces from digital files. "The manufacturing process to print these is so efficient now that the final product is any kind of image I wish," he says. "That's powerful stuff."

Two years ago, for the first time, the firm made an entry structure for a house in Hawaii from a kit of parts fabricated in Los Angeles. "It's coming to a point where I think a great deal of the buildings will be automated in their manufacturing—not prefab but custom," he says.

Les Eerkes, AIA, thinks so, too. "If anything has happened recently, it's a greater ability to customize products because of the relationships we have with the product reps and subs," says Eerkes, principal at Olson Kundig Architects in Seattle. Since 2008, the firm has been using GoTo-Meeting, screen-sharing software that lets the architects collaborate on 3D CAD drawings and other digital files in real time.

The design team selects fabricators early on, working with them to determine cost, complexity, and constructability. "We can have the structural engineer, steel fabricator, architect, and contractor twirling the 3D model around and manipulating the image," Eerkes says. "I'll have three or four of these GoToMeetings a day, and the contractor can point an iPad at the thing we're talk-

continued on page 32



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ing about." The technology allows them to explore ideas fluidly, prefabricate components, and get deeper into customization mode.

### reconnaissance mission

In the research-and-curate

realm, architects have become opportunists: These days, product inspiration can come from a blog, a company rep, a local construction site, or, like it or not, an Internet ad. "I'm a surfer, and occasionally I notice product placement

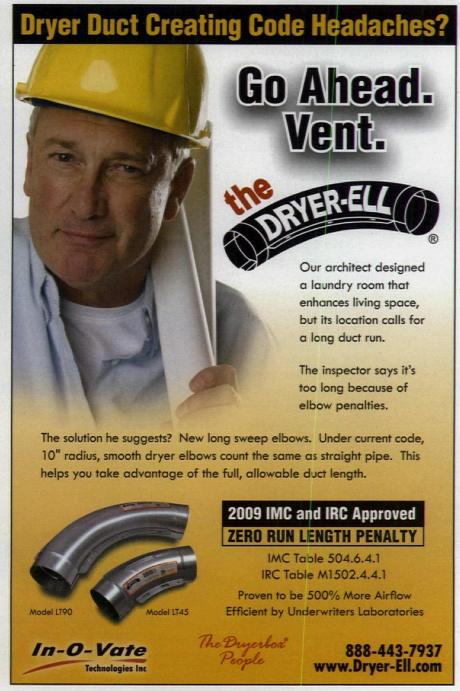
ads for architecture popping up when I look at surfing websites," Eerkes says. "The ads follow you wherever you go; it's like the movie Minority Report."

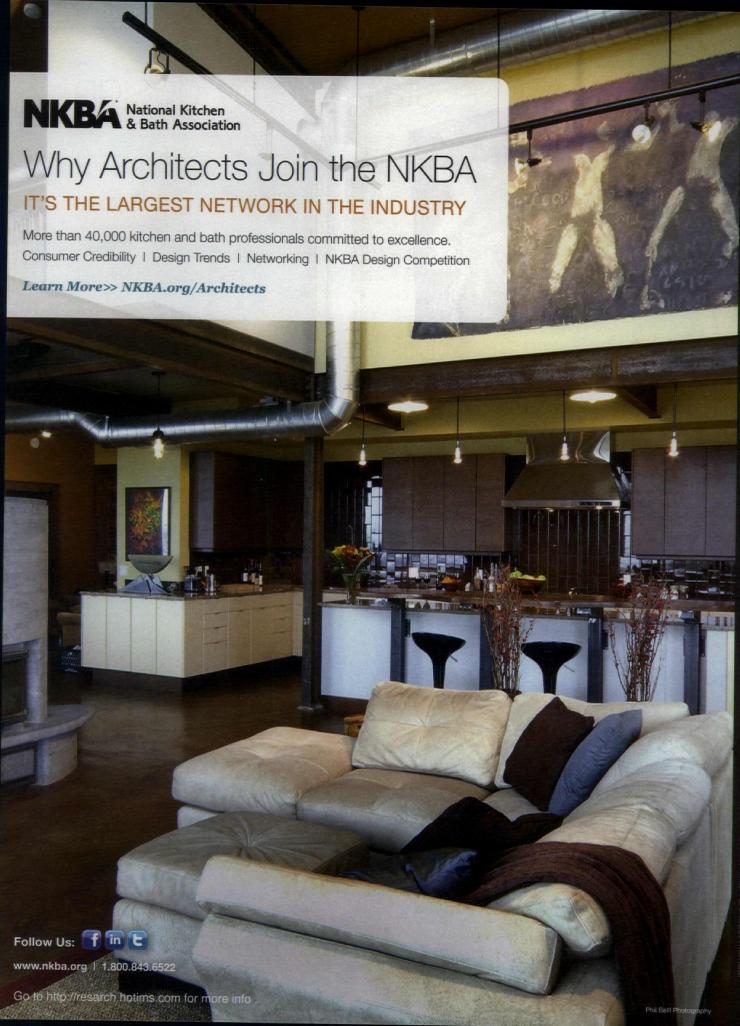
Without those anachronistic binders, albeit neatly organized and within arm's reach, the trick is creating order from the cacophony of windows, weather barriers, and boutique paints. BNIM's Sarah Hirsch, LEED AP, spec writer and a recent winner of the Construction Specifications Institute Specifications Writer Award, maintains the office's master specs list but also is exploring the use of GreenWizard as an online library for manufacturer information.

Social media adds another search-and-sort overlay. "We're struggling with how to grab and organize Twitter information," Hirsch says. "Most of it is in our heads." She also uses Bo.lt, a storage and sharing site similar to Pinterest.

In some ways, specwriting has come full circle, mixing powerful technologies with personal contact. To be a 21st-century architect is to embrace the knowledge that the pursuit of the perfect product often means crowd-sourcing, both globally and close to home. As much as we dutifully try to keep up with everything on offer these days, we continue to rely on institutional memory, trusted reps, and the colleague at the next desk.

"We use a lot of oldfashioned communication," Nagle says. "The best way to transfer this information is to make sure we're talking face-to-face. We're always researching together at various scales. You see what everyone else is doing." ra







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#### Presents:

# Sustainable Green Building with Clay and Concrete Roof Tile

By: Andrew Hunt







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## LEARNING OBJECTIVES

- 1. Identify the history of clay and concrete tile.
- 2. List the steps of the clay and concrete tile's lifecycle analysis.
- 3. Compare the costs and environmental impacts of four types of roofing materials.
- 4. Describe how concrete and clay tile can contribute to green building on different levels.

This course is registered for 1 AIA HSW/SD hour and 1 GBCI CMP hour.

When we talk about "green" in terms of design and manufacturing, what do we mean? This is a big question and lots of debate surrounds the details, but there ar a few main points. First, a green design or product saves energy either in its use or in its manufacturing. Second, it reduces waste by being recyclable or using recycle materials. Third, it reduces the impact on the earth by reducing the carbon emission or other pollutants. And fourth, it utilizes local resources. Minimizing the need to transport materials saves energy and reduces pollution.

That said, choosing green roofing product for a building project can seem challenging Manufacturers' claims about the green qualities of their products can be misleadi or sometimes even confusing. Having quantifiable measures to determine how green a product really is can go a long wa in helping you to pick the right product for your project. Clay and concrete roofing til are made with inherently green materials, and an examination of their lifecycle and carbon footprint will substantiate this quality. Measuring the lifecycle and carbo footprint of a roofing product will help yo choose environmentally friendly products, and help improve the sustainability of you

What is a product lifecycle?

There are four phases in the lifecycle of a roofing product: raw materials, manufacturing, service on the roof, and the end of life. Phase one of the lifecycle is where materials are extracted and transported for manufacturing, then refin into the final product and transported to the distributor or end user. Once on the roof, the product reacts with the environment throughout its service life. After its service has expired, it reaches the fourth and final phase - the end of the lifecycle. And like most green products, this typically means recycling the material for other purposes or introducing it to the manufacturing process a second time.

#### Lifecycle

#### Raw Materials

#### Manufacturing

#### On the Roof

#### End of Life

- Extraction of raw materials
- Transportation to the next stage(s) of refinement Distrib
- Creating the Final Product, Plant Recycling Practices
  - Transportation to
     Distributor, Client or
     Customer
- Interaction of Final Product with the Environment (Toxicity, etc.)
- Lifespan and Sustainability
- Using the Product for
- other Purposes

  Re-Introducing the
  Material to the
  Manufacturing Process

Based on: Environmental Technologies Action Plan of the European Commission

How the lifecycle of a product impacts carbon emissions or the carbon footprint. The carbon footprint is a measure of the impact of human activities on the environment such as burning fossil fuels to produce electricity, transportation, heating and cooling. It is measured in tons of carbon dioxide (CO2) produced by these activities. The carbon footprint figures can help you identify the measurable emissions of the product from its raw material stage through its end of life.

A carbon footprint really has two components: the primary component measures direct CO2 emissions, while the secondary component measures lifecycle emissions. Direct CO2 emissions include burning of fossil fuels to produce energy and emissions from vehicles. Secondary measurements include materials processing, manufacturing, use, and disposal of products.

Let's compare the carbon footprint of two roofing materials: common asphalt shingles and concrete tiles. In the raw material phase, asphalt uses oil. The oil refining process is one of the largest producers of carbon emissions, and shipping from various international areas such as the Middle East requires more energy and emits more pollution during transport. On the other hand, concrete tiles are made of natural mineral materials which have low energy manufacturing processes across the U.S. During the service life phase on the roof, asphalt shingles can indirectly cause more carbon emissions as they are generally poor insulators and buildings using them will require more heating and cooling than those using other roofing materials. Concrete tiles have an opposite indirect effect. Over the service life, concrete tiles actually absorb up to 20% of carbon dioxide emitted during the manufacture of the cement.

By the end of their service life, asphalt shingles have an approximate carbon footprint of 1,332 pounds/square foot, while concrete tiles have an approximate carbon footprint of 166 pounds/square foot. The carbon footprint of concrete tile roof is approximately one eighth of the emissions compared to an asphalt shingle roof over the lifecycle of the product.

Source: Icelandic Building Research Institute, Norwegian Building Institute, Danish Technical Institute "CO2 absorption".

Lifecycle of a roof tile.

Each stage of the lifecycle has environmental impacts. The four phases include raw materials and their extraction, the processing and manufacturing of the tiles, the performance and use of the tiles, and finally, the end of life. Examining the phases will help create a clear picture of how green the tiles truly are.

Raw materials and manufacturing.
Using locally sourced raw materials reduces cost, energy, and transportation associated with shipping raw materials to distant manufacturing facilities. As a result, this helps to reduce the embodied energy of a product.

Both concrete and clay raw materials are very abundant across the U.S. Nearly the entire country can receive locally extracted and manufactured concrete and clay, immediately making the carbon footprint for these materials lower than many others.

But what is concrete actually? Concrete is an aggregate of sand and cement mixed with water. Sand is one of the most abundant materials on earth, actually accounting for 28% of the earth's crust. Cement is made from limestone that is

heated in a kiln with small quantities of other materials such as clay. The resulting hard substance is ground, often with the addition of gypsum.





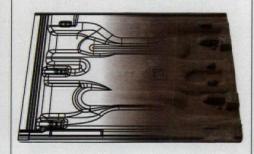




Besides being abundant and easy to source locally, the sand and cement main ingredients in concrete tiles are recyclable as well. Some manufacturers even use recycled cement in their raw material mixtures, which diverts waste from landfills.

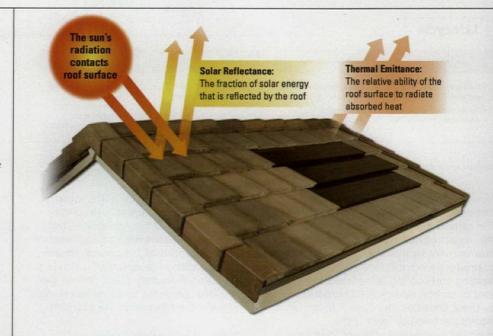
Concrete tile manufacturers have the advantage over other roofing material manufacturers in that they have the ability to use recycled water, and recycled concrete. In addition, concrete tile manufacturing diverts waste from landfills by using waste materials generated by high energy production processes. These post-industrial materials include blast furnace slag and fly ash. Blast furnace slag is generated during the production of steel. Fly ash is captured in power stations chimneys. These waste manufacturing materials that may be otherwise disposed of in landfills get a second life as new roofing tiles in a safe and stable product.

Modern manufacturing has new advantages as well. Computer modeling and engineering design tools help minimize the use of raw materials by designing stronger and more efficient systems. In the case of concrete roofing, the tiles are engineered to allow greater airflow between the tiles and roof deck. How do different roofing materials



compare during the manufacturing phase? A study done in 2008 by the Öko-Institut - Institute for Applied Ecology compared the manufacturing impact of three common roofing materials: metal, clay, and concrete. All the measurements were based on a roof area of one square foot. Metal sheets used the greatest amount of energy at 17,485 Kwh and contributed the greatest release of acid rain pollution at 6.42 pounds. They had the second highest greenhouse gas emissions at 420 pounds. Clay tiles contributed far less towards acid rain at 1.2 pounds.

On the other hand, at only 4,505 Kwh, manufacturing concrete roof tiles used nearly four times less energy than metal



sheets and nearly 3.5 times less energy than clay roof tiles. The manufacturing process of concrete tiles also contributed the least amount of acid rain at a mere .58 pounds, and less than half the amount of greenhouse gas emissions at 197 pounds.

The manufacturing of tiles produces lower acid rain than other roofing materials.

#### Acid Rain Ib Performace Values

Sheet Metal	Clay Roof Tiles	Concrete Roof Tiles	
6.42	1.20	0.58	

In 2007, a NAHB study shows that clay is one of the longest lasting roofing materials at 75 years. With the low manufacturing footprint, inherent energy efficiency and long durability of clay-clay tiles are a good choice for a green product over the life of the structure.

Source: Öko-Institut e.V. Institute for Applied Ecology, Freiburg, 2008 http://www.oeko.de/

Source: 2007 NAHB Study on Life Expectancy of Home Components http://www.nahb.com/

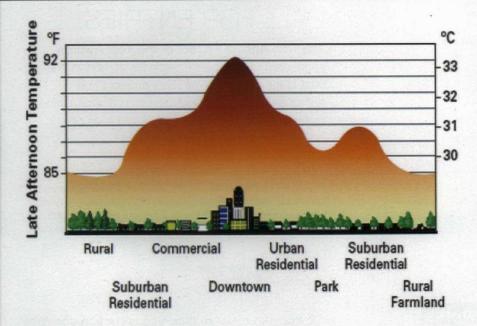
#### Performance of the roof tiles.

Once the roof tile is installed, the next lifecycle phase is performance or end use. A roof is designed to protect the structure and interior beneath it from the elements. A good roof can do more.

Solar reflectance is the ability of a roof to reflect the solar energy and accompanying heat, preventing it from entering the attic space. The higher the solar reflectance index (SRI) value, the less additional heat will seep in.

Depending on the desired color, both clay and concrete roof tiles can have high SRIs. The lighter the color, the greater the value and the less heat transferred into the building. A roof with a high SRI value will be cheaper to operate because less heat will be absorbed into the building through the roof. This reduces the requirement for air conditioning and refrigeration in the building.

Clay and concrete tiles also have a relatively high thermal emittance. This means that they can radiate the heat that is absorbed away from the building before it is absorbed into the building. Roofing materials with high thermal emittance values are more economical to operate because they reduce the loads



of the HVAC systems. This reduces the requirement for air conditioning and refrigeration in the building.

Source: Cool Roof Rating Council (CRRC) www.coolroofs.org

#### The Urban Heat Island Effect

The urban heat island effect occurs when the built environment absorbs solar heat during the day, raising surrounding temperatures. The annual mean air temperature of a city with one million people or more can be 1–3°C warmer than its surroundings. In the evening, the difference can be as high as 12°C because the built environment radiates the heat absorbed during the day.

The urban heat island effect can increase surrounding temperatures resulting in an increased need for air conditioning and refrigeration. It can also affect local weather patterns, such as wind direction, and can even increase rainfall downwind of a city.

There are two standard solutions to help mitigate the urban heat island effect. The first is to use highly reflective materials. A material's solar reflective index (SRI) is measured on a scale of 0 to 100, where 0 is black and 100 is white. The more reflective the material, the less solar heat

will be absorbed. The second solution is to increase the amount of vegetation in urban areas where the Urban Heat Island effect can occur.

How much of a difference does this make? Let's compare five common types of roofing materials: gray asphalt shingles, unpainted cement tile, white coated metal roof, white cement tile, and red clay tiles. Research done by the Lawrence Berkeley National Laboratory found that gray asphalt (one of the lighter colors of roofing shingles) has an SRI of 22 while unpainted cement tile has a higher SRI value of 25. Likewise, white coating on a metal roof has a lower SRI than a white cement tile roof which has a SRI of 90. Of the colored materials, red clay tiles are cooler than both the asphalt shingles and unpainted cement tiles with an SRI of 36.

For a home with gray asphalt shingles, if the air temperature was 83 degrees Fahrenheit in the summer, the temperature on the roof would be nearer 150 degrees Fahrenheit because of the 67 degree temperature rise of the asphalt shingles.

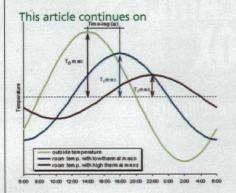
White cement tiles and concrete tiles have a lower temperature rise (only 21 degrees Fahrenheit) than both asphalt and metal roofing materials. For the same house with white cement tiles, on an 83 degree day, the roof temperature would only be 104 degrees, instead of 150 degrees. This means concrete, metal, and clay roofs are the best bets for designers and homeowners concerned about energy efficiency.

Source: http://www.epa.gov/hiri/

#### Thermal Mass

Thermal mass is the ability of a material to store heat. During peak temperature hours a material with high thermal mass will absorb heat, rather than transfer it to the living space. This keeps the interior of the home comfortable during peak temperature hours. At night, the absorbed heat is released, helping the home to stay warm. Concrete and clay tiles have a high thermal mass; this helps the building react to temperature fluctuations throughout the day, which can help improve building comfort and reduce peak energy demands.

Further, concrete and clay tiles are engineered to allow greater airflow between the tile and the roof deck. This improves the insulating properties of the roof. Increased air flow allows absorbed heat to be removed before it is absorbed by the rest of the building. Hot air is channeled above the deck and is released through the ridge.



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# architects' choice

No matter what their stylistic leanings, most residential architects know design did not begin with Corbu. Most of their clients also see a continuum of design relationships that traces back to the very earliest enterprises of humanity. They're not afraid of looking back to move forward, nor do they fear mixing elements of the classic and the modern. For, indeed, few neo-traditional houses have floor plans from the 1800s. And no new modern house is completely severed from all antecedents. All we see informs what we do, whether consciously or subliminally.

In keeping with this spirit of inclusion and continuity, we asked architects we admire to share their trade secrets with us—their tried-

and-true products for contemporary or transitional work and their great finds for traditional work. It's a lovely collection they've compiled for us, some of it displayed in their own fine work. We're delighted to present it to you.

Looking at the artful insertions of modern products within existing older homes, we see hints of interesting adaptations to come. So much of our housing stock is aging. We can always tear down and build anew, but sometimes it's even more satisfying to preserve the pentimenti of previous interventions and to usher these traces along into the future. Old and new, living together in harmony. Thanks to the skilled hands of residential architects and their well-considered choices.

by nigel f. maynard

# architects' choice

# hit swing

Feldman specs Rixson offset pivot and floor hardware when he wants a dramatic entry door. Ideal for single-acting exterior or interior doors weighing up to 250 pounds, the hardware comes with a top pivot cover and floor plate. Products come in myriad finishes including bright brass, satin chrome, and bright chrome. Rixson Specialty Door Controls, 866.474.9766; www. rixson.com.

# ceramic style

Midtown is a through-body stoneware tile that's designed for contemporary interiors. It's a "large-format ceramic tile we have been using quite a bit," Feldman says. With neutral tones of gray and beige, the tiles are available in two sizes with either natural rectified or honed rectified edges for a clean look. Lea Ceramiche, 39 0536.837811; www.ceramichelea.it.

# nest best thing

Nest is a smart thermostat that creates a custom heating and cooling schedule. As a result, it conserves energy when the house is empty. Using a combination of sensors, algorithms, machine learning, and cloud computing, the device learns behaviors and preferences and adjusts the temperature up or down accordingly. Nest Labs, 650.561.4089; www.nest.com.



Paul Dve



Courtesy Feldman

# feldman architecture

jonathan feldman, aia san francisco www.feldmanarchitecture.com



## other favorites

Stone Panels: engineered stone cladding, www.stonepanels.com Aquatherm: polypropylene plumbing pipe, www.aquatherm.com







# inside slider

Paul Dyer

• Feldman is a fan of the sliding door hardware for the rustic modern aesthetic. He also likes the function. Flexible enough for a variety of applications, the hardware is available in 6-, 8-, 10-, and 12-foot track lengths and comes in flat black paint, galvanized, and stainless steel. It also can be ordered in a custom finish. Crown Industrial Barn, 650.952.5150; www. crown-industrial.com.

# architects'

# logico thinking

Rendered in hand-blown
Venetian glass with a satin finish, Artemide's Logico ceiling fixture adds a soft touch to a modern interior. "This sinuous glass fixture comes in multiple sizes, and can be combined to create larger groupings of surface mount and hanging combinations," Toates explains. It has die-cast aluminum fittings and uses a medium-base bulb. Artemide, 877.278.9111; www. artemide.us.

#### down and out

O Toates is so enamored with Classic Gutter Systems' downspout clean out that he uses it on almost every project. "I install [it] at every downspout right above where it will go into the cast iron boot," he says. Available in smooth round copper and chromated aluminum, the product incorporates a screen that prevents debris from clogging the drain. Periodic cleaning of the screen is required. Classic Gutter Systems, 269.665.2700; www.classicgutters.com.



Courtesy Peter Zimmerman

# peter zimmerman architects

john toates, aia berwyn, pa. www.pzarchitects.com

"this device allows you to easily keep debris from getting down into the underground rainwater conductors and the stormwater management systems that most projects require."



**Superior Clay:** Roman fire brick, www.superiorclay.com **Lucifer:** recessed light, www.luciferlighting.com

"fireslate is impermeable to any cleaning agent and patinas beautifully, it can be machined and made into slab sinks as well."



The Williamsburg 14 interlocking roof tiles have a sawn wood shake texture and a square butt, which the architect likes "because they closely emulate the appearance of a wood shingle roof but have over a 75-year life span." Available in all of the manufacturer's colors, the tiles have a permanent non-fading finish and won't rot, warp, curl or burn like wood. Ludowici Roof Tiles, 800.945.8453; www. ludowici.com.

### clean slate

Made from Portland cement, silica sand, and fillers, Fireslate is formed under 400 tons of pressure and steam and then air-cured. "I like using the product for kitchen counters or laundry rooms where the effect of a soapstone appearance is desired without the maintenance issues," Toates says. Shown here in a Zimmerman Architects-designed kitchen, the product has no veins, does not delaminate, and weighs 40 percent less than stone. Fireslate, 800.523.5902; www.fireslate.com.



# architects'

# rhino tough

© Gerkin Windows and Doors is among Deaver's favorites. His choice is the Rhino 5300 Series aluminum casement. The company "provides commercial-grade aluminum windows with a nailing flange for residential construction," he says. Thermally broken frames, reinforced corners, and multipoint locks come standard. Gerkin Windows and Doors, 800.475.5061; www. gerkin.com.

### a baldwin

Deaver specs Baldwin Hardware's Atlanta mortise lock and cylinder entrance set for simple reasons: "Clients love the feel and sound of this solid brass hardware, and I like its slender form," he says. It's made from solid forged brass with a mortise lock. It's shown here in a satin nickel finish, but 18 other options are available. Baldwin Hardware, 800.566.1986; www. baldwinhardware.com.

# lap of luxury

• HardiePlank fiber cement lap siding is Deaver's choice when he wants a traditional cladding product. "I use a smooth 4-inch exposure version for scale and texture," the architect says. Made with cellulose and Portland cement, the product is said not to rot, warp, or decay. James Hardie Building Products, 888.542.7343; www. jameshardie.com.

#### other favorites

Bona: flooring finish, www.bona.com

Carlo Nieri: cold-rolled steel handrails, nieridesign.com



"gerkin has simple, clean design with solid operating mechanics for large openings."



nick deaver architect

nick deaver, aia austin, texas www.nickdeaver.com







# architects'

# modern proportions

⚠ Duravit is Montalba's preferred brand for bath fixtures. With dual-flush, wall-hung toilets, bidets, sinks, and bath furniture, the German company offers myriad sizes, styles, and configurations. "Duravit gets it right in terms of proportions, beauty, and functionality and it's the perfect white—spiritual but modern in its consistent clean look," the architect says. Duravit, 770.931.3575; www.duravit.us.

# lever, italian style

The Italian manufacturer is known for producing high-design architectural solid brass hardware. Montalba likes the H 329 Serie RB Novantacinque, which is available in various configurations. With a spring-assist built-in rosette, the product accommodates all standard and some custom backset dimensions. Valli & Valli, 212.326.8811; www.vallivalli-us.com.

# fit to be tight

Montalba turns to Duratherm when he wants a modern window made from a traditional material—wood. The company fabricates its windows with frame depths of up to 10 inches and continuous extruded-silicone weather stripping. Duratherm Window Corp., 800.996.5558; www.durathermwindow.com.







Courtesy Montalba Architects

# montalba architects

david montalba, aia, leed ap santa monica, calif. www.montalbaarchitects.com



#### other favorites

Lane Air: skylights, www.lane-aire.com
U.S. Steel: Cor-Ten steel, www.uss.com



# light catcher

♠ A fan of natural light, Montalba often specs Fleetwood Windows & Doors' 3070 and 1000 series sliding doors. "The frames are thin and relatively minimal so we can capture the most light, the most view, and their ease of use is unmatched," he says. Features include 1-inch clear glass and a bronze spacer. Fleetwood Windows & Doors, 800.736.7363; www.fleetwoodusa.com.

John Linden



# architects' choice

### fire in the round

© Fireorb is a suspended wood-burning fireplace that allows 360-degree rotation. It's made from 10-gauge steel and features a black powder finish; a stainless steel model also is available. The hearth measures 40 inches in diameter, weighs 165 pounds, and uses a stainless steel ball bearing rotation system. Fireorb, 847.454.9198; www.fireorb.net.

## cover up

• Sherwin-Williams' Duration Home Series is a Cain favorite. Recommended for high-use areas of the home, the washable latex coating allows most stains to wipe clean with water, the company says, and contains anti-microbial properties to resist mildew. It's also made with a low-odor and low-VOC formula and comes in more than 1,500 colors. Sherwin-Williams, 800.474.3794; www. sherwin-williams.com.

### do over

© Legacy Wood Products offers long leaf heart pine flooring that has been reclaimed from beams, posts, and decking in old buildings. "A board originally cut over 150 years ago with up to 75 growth rings per inch representing 600 years of history is a treasure," Cain says. The company offers select and premium planks in a variety of widths and lengths. Legacy Wood Products, 706.296.5841; www.legacyheartpine.com.

## other favorites

Nichiha: fiber cement, www.nichiha.com SierraPine: Medite MDF, www.sierrapine.com



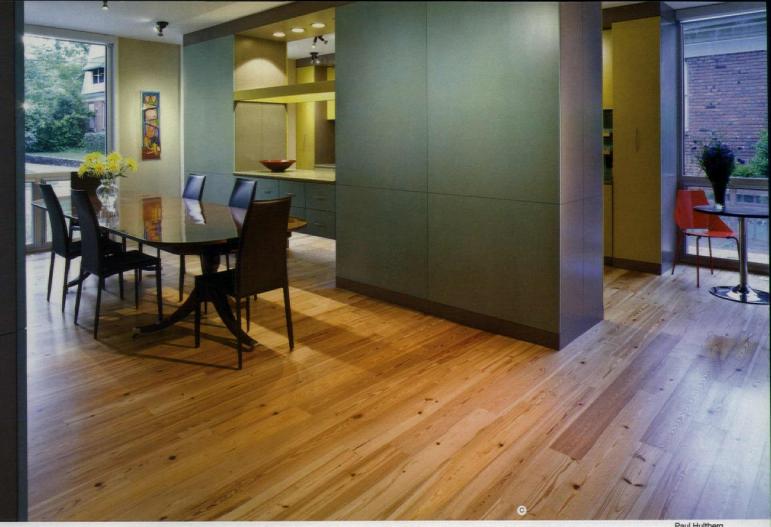


Courtesy Robert M Cain Architect

# robert m. cain, architect

robert m. cain, aia, leed ap atlanta www.robertmcain.com





Paul Hultberg

"in clear quarter sawn planks, long leaf heart pine is a stunningly warm and beautiful material for furniture and floors."



# control yourself

• Lutron's RadioRA 2 "makes it relatively easy" to control lights, thermostats, shades, security, and other systems, Cain declares. The wireless product saves energy by giving homeowners the ability to adjust the amount of daylight and electric light (using light controls and automated shades) as well as temperature in a single room or the entire home. It also turns off standby power to small appliances. Lutron Electronics, 888.588.7661; www.lutron.com.

# architects'

## tara firma

⚠ Like so many architects, Decker is a fan of Dornbracht's Tara faucet line. The German brand constructs its products from solid brass and uses only ceramic disk cartridges for durability. It's "an unadorned beautifully streamlined faucet, elegant in its simplicity—a classic," she states. Various finishes are available. Dornbracht Americas, 800.774.1181; www. dornbracht.com.

# big steel

Steel is the ultimate modern window and door spec, and Decker's favorite is Crittall Window's Corporate 2000 series, seen here in the firm's work (below right). It "offers great flexibility in steel window design and delivers very slim sight lines that allow for maximum glazing," she says. A redesign of the traditional hot rolled steel window, it's made with slender profiles, an external rainscreen, and a powder-coat finish, among other features. Crittall Windows, 44 1376 530800; www. crittall-windows.co.uk.





Courtesy Anne Decker Architects

# anne decker architects

anne y. decker, aia bethesda, md. www.annedeckerarchitects.com

#### other favorites

Somerset Door & Column Co.: wooden columns, www.doorandcolumn.com
Julien: stainless steel sink, www.julien.ca



Gordon Be



"these lanterns are wonderfully crafted and lend a sense of history and understated timelessness."

### windsor hot

• For Old World charm, the architect turns to Paul Ferrante for handcrafted lanterns. "The modified Windsor in an old iron finish with antique glass is one of our staples," Decker raves. Seen here in one of the firm's projects, the unit measures 9 inches wide and 16 inches tall, but it can be customized. Paul Ferrante, 323.653.6504; www. paulferrante.com.

# air apparent

• Decker turns to The Reggio Register Co. when she wants a traditional grill to blend in with the firm's work. "They carry both historically appropriate as well as clean-lined grills for modern applications in a host of finishes," she says. Grilles can be produced from wood, aluminum, and come in a variety of sizes. The Reggio Register Co., 800.880.3090; www.reggioregister.com.

# architects' choice

## nut case

Webber has a warm spot for pecan wood. "Our work is mainly modern, but we find that pecan is one of the woods that can work in almost any setting," the architect says. Part of the hickory family, pecan is tough and resilient, the Hardwood Information Center says. It "brings some of the warmth and elegance of walnut but maintains a relaxed air," Webber adds. The firm used it on the Fairfield House (right). Hardwood Information Center, 412.244.0440; www. hardwoodinfo.com.

# kit of parts

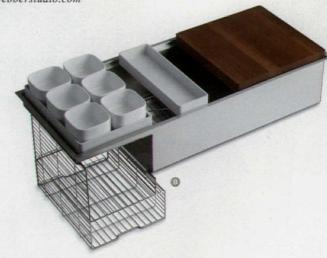
 Kohler's Stages kitchen sink line is the new hot thing, says Webber, who appreciates the products' practicality and versatility. Measuring 45 inches wide and almost 10 inches deep, the sink is made from 16-gauge stainless steel and comes with a variety of options and accessories. "The integral drainboard is something we are finding nearly all clients want," the architect says. Kohler, 800.456.4537; www.kohler.com.



Courtesy Webber + Studio Architects

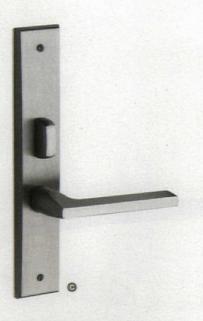
# webber + studio architects

david webber, aia austin, texas www.webberstudio.com



#### other favorites

Polygal: polycarbonate, www.polygal-northamerica.com Schneider: car charging station, www.schneider-electric.com

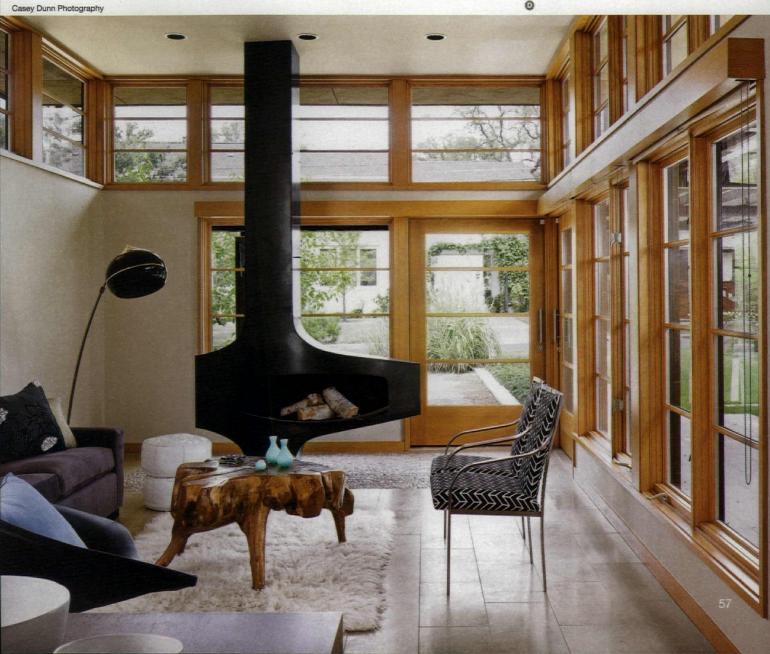


# great grab

G "We never get tired of good hardware that has a great quality, a great design, and reliably reasonable cost," Webber says. For that he turns to Baldwin Hardware's Lakeshore because it has the ability to go in traditional or minimal settings. The product is made from solid forged brass and comes in various finishes. It can be installed on wood, metal, and some fiberglass doors. Baldwin Hardware, 800.566.1986; www. baldwinhardware.com.

## flue season

• When Webber wants a hearth product that's bold and dramatic, he chooses the Heterofocus from Focus Fireplaces. It's custom made in France from raw steel with visible welding seams. The wood-burning product measures about 55 inches wide, functions with its door open or closed, and operates with 78.6 percent efficiency, the company says. Webber used the product in the Tarrytown House (below). Focus Fireplaces, 33 (0)4 67 55 01 93; www.focus-creation.com.





## halo effect

When Voith wants a light that blends the modern and the traditional, she turns to the Nimba by Santa & Cole. The fixture features a suspended stainless steel circle with a white plastic inner shade. Available in two sizes—a 35.4-inch and a 47-inch model—it comes in xenon or LED options, the latter of which the architect prefers. Santa & Cole, 404.858.4610; www. santacole.com.

# great walls

⑤ Voith doesn't always settle for painted walls; she also opts for wallpaper in standard colors and emerald green dyed-silk from de Gournay. The company offers paper-backed fabric, silk, and damask wallpapers that have been hand-drawn and dyed. "Traditional patterns such as these make new rooms feel immediately timeless," the architect says. De Gournay, 212.564.9750; www.degournay.com. "we are always looking for led fixtures that have the presence and grace of a traditional chandelier, this one feels as if it's floating magically."



Peter Olson

# voith & mactavish architects

daniela holt voith, aia, leed ap philadelphia and austin, texas www.voithandmactavish.com



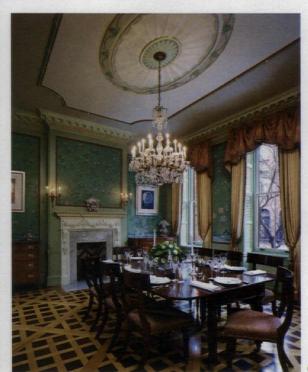
Leon Lugassy Designs: parquet floors

Retroplate: concrete floor system, www.retroplatesystem.com





Courtesy IKEA



## master plaster

• Voith says "ceilings are the forgotten surfaces" in a house, which is why she specifies plaster ceiling medallions from Felber Ornamental Plastering. Shown here in one of the firm's projects, medallion 8865 measures 4 feet, 9 inches by 6 feet, 10¼ inches. "Felber offers a wide variety of choice and potential for customization," the architect says. Felber Ornamental Plastering Corp., 800.392.6896; www.felber.net.

### swede success

© "Don't discount IKEA cabinetry," Voith cautions. The Swedish company's Akurum system is one of the best deals in kitchen cabinets, she adds. Offering various stock sizes, the line consists of boxes made from fiberboard and melamine foil, but it also includes softclose hardware and wood, aluminum and glass, and lacquered doors, among other features. IKEA, 800.434.4532; www.ikea.com.

Jeffrey Totaro

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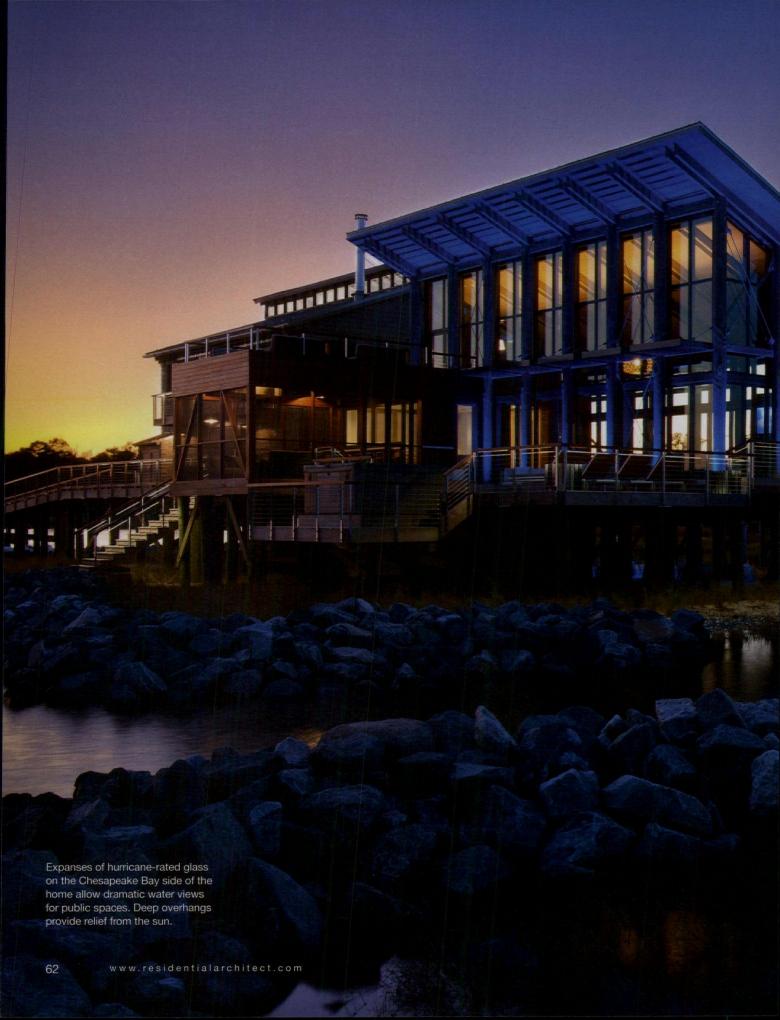








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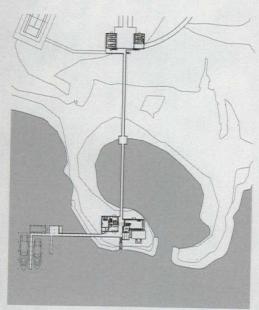


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# by land & by sea





Twin garages make way for a bridge that connects to the main house, which sits upon the outline of a former oyster-shucking factory. Supported by 97 piles, the bridge crosses over terra firma, wetlands, and water.

House were to someday vanish, the building wouldn't move an inch. Architect Dale Overmyer, AIA, and his client, Bill Dean, took no chances with the waterside site's sandy soil. They placed the house atop 105 wood pilings, each one driven about 35 feet down into the earth. "The house is not reliant on the soil at all," says project manager Jeremy Fletcher.

The home's exposed structure lends it a resemblance to a boat dock or an industrial maritime building. In fact, it occupies the footprint of an old oyster-processing plant on a narrow spit of land curling out into the Chesapeake Bay. "This was clearly the most extraordinary place on the site to experience the water," Overmyer says.

Modern-day local regulations stipulated that any additional buildings would have to sit at least 100 feet away from the coastline. Overmyer obliged with a pair of new garages that act as an entry gate for those arriving by car. Once visitors have parked, they walk or ride a golf cart over a 375-foot-long access bridge to the main house, traversing upland areas, wetlands, and a shallow tidal pond. The bridge slices in between the main house's two portions, ending at the water's edge.

Which brings us to the other way to arrive at the house: by boat. Dean, an electrical engineer by trade, lives in Washington, D.C. Rather than drive three hours to the house from there, he often sails instead. The architects included a five-slip dock connected to the house by a boardwalk. And they didn't worry about identifying the home's front or rear elevation. "The house fronts on both the water and the land," Overmyer points out.

A shed-roofed pavilion enclosed in hurricane-rated glass holds the public spaces, where Dean frequently entertains. The home's other half contains the bedrooms and is topped by a pitched roof with a clerestory. Overmyer borrowed the building's utilitarian forms, as well as no-frills details such as exposed rafter tails and steel chimneys, from the local vernacular. "We just take the really good





A steel-and-glass bridge ties together the house's two main portions, providing a vantage point for looking back at the mainland or out at the water. The double-height living room opens to the outdoor areas, creating a perfect venue for entertaining large groups.



architect: Dale Overmyer Architects, Washington, D.C. general contractor: Ilex Construction, Charlottesville, Va.

marine contractor: Dameron Marine Construction, Fredericksburg, Va.

structural engineer: Robert Silman Associates, Washington

landscape architect: Oehme, van Sweden & Associates, Washington

interior designer: Elizabeth Hague Interiors, Washington lighting designer: George Sexton Associates, Washington

project size: 4,145 square feet

site: 13 acres

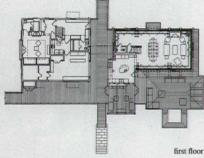
construction cost: Withheld photography: © Maxwell MacKenzie

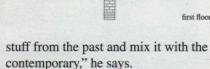
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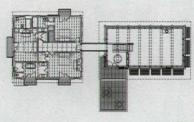








The maritime tradition of long-lasting, durable materials comes into play here, too. Terne-coated steel roofs and cedar shingle siding will hold up over time and require little upkeep. The interiors feature typically outdoor items, including a concrete living room floor and white-painted wood walls in the master suite. "We wanted it to feel like an inside-out kind of building," Overmyer recalls. Hurricane-rated glass, pressure-treated pine timbers, and steel bracing will ensure stability, even in the roughest of weather. And landscape architects Oehme, van Sweden & Associates specified hardy,



second floor

low-maintenance native vegetation for the 13-acre property.

But the project has its glamorous side, too. Mahogany railings add a level of polish to the waterside porch, while mitered-edge cabinetry lines the interiors. Blue-tinted LED uplights illuminate the exterior at night, in an unexpected but elegant touch. "The hope is that from more than 1,000 feet away, it would look like something from history," Overmyer explains. "When you get closer, it becomes something more personal and luxurious. Suddenly the details start to fill in. The aesthetic is 90 percent crab-picking plant and 10 percent yacht." ra

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## **KEYNOTE ADDRESS—"Design for the 99 Percent"**

### Lawrence Scarpa, FAIA, Brooks + Scarpa

Design opportunities exist everywhere in our built environment, but residential architects seem to garner attention only for the most rarified of their projects—the jewel box house for the patron client. In some ways, they've contributed to this tunnel vision by touting this work above the bread-and-butter buildings they toil upon as a matter of course. It's time for them to shine the light on the everyday contributions they make to our social fabric and to resolve anew to make every level of housing a design priority.

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## AGENDA AT-A-GLANCE

#### WEDNESDAY, OCTOBER 17

Housing Tour-Chicago's Finest

Visit to the World of Whirlpool Showroom

The Annual Meeting of the Congress of Residential Architecture
The Great Debate

Welcome Reception

#### THURSDAY, OCTOBER 18

Keynote Address—"Design for the 99 Percent" Lawrence Scarpa, FAIA, Brooks + Scarpa

Panel Discussion—Innovating Community Design and Mass Market Housing

#### Leadership Awards Luncheon

- · Hall of Fame
- · Top Firm
- · Rising Star

Special Award-Winners Panel
Discussion—"The Future of Houses
and Housing"

#### **Breakout Sessions**

- · Reinventing Market-Rate Housing
- Architecture for All—Design Education as Advocacy
- · Design for the 15 Percent

Special Participatory Event

Cocktail Reception

#### FRIDAY, OCTOBER 19

Panel Discussion—Deconstructing the Mass Appeal and Continued Relevance of Traditional Architecture

Panel Discussion—Responsive Modern Design

Reinvention Symposium Adjourns

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A CORA/AIA-CRAN Luncheon Meeting

AIA Custom Residential Architects Network (AIA-CRAN) Forum Architects for the People

## **SPEAKERS**

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Julie Hacker, FAIA, Cohen & Hacker
Brian Johnsen, AIA, Johnsen Schmaling Architects
Mark Peters, AIA, Studio Dwell Architects
Brian Phillips, AIA, LEED AP, Interface Studio Architects LLC

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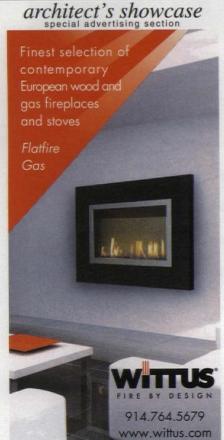


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# workspace

# interstice architects

san francisco www.intersticearchitects.com

San Francisco-based Interstice Architects used to occupy office space on the ground floor of the partners' renovated Mission District home, but "we grew from four to six people and the space got too tight," says principal Andrew Dunbar, AIA, LEED AP.

Interstice's home for the past three years is a converted 1940s-era warehouse located about five blocks away from the old space. Bathed in light from

large windows, the 2,500-square-foot studio features 25-foot ceilings, exposed framing, and a concrete floor. The firm sandblasted the elements to expose the





Photos: Cesar Rubio Photograph

warm wood because "rawness of materials is something I appreciate," Dunbar says.

The firm "wanted to work in a big circle that looks into a shared space in a less formal way," the architect explains, so the designers organized the open-plan studio with a central volume that they framed in 2x4s and clad in salvaged 10-foot-by-5-foot sheets

of sandblasted glass. "It's like a big bubble in the middle of the office," Dunbar jokes.

Lined with artificial turf that is surprisingly soft, the space supports an arsenal of conference room accessories from projection screens to display and graphic boards of various sizes. The partners had hoped the space would allow the firm to grow to about a dozen people. But new digs might be in the offing: the firm already has maxed out its head count.—nigel f. maynard





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