

The All-American 106 4 Ways to Diversify 118 'Bots on the Jobsite 140  
Work by **BIAD** 240 **SPF:a** 250 **5468796** 258 **Foster** 266 **Rojkind** 274 **Arets** 285

# ARCHITECT

THE MAGAZINE OF THE AMERICAN INSTITUTE OF ARCHITECTS



THE 2014 AIA AWARDS

**JULIA  
MORGAN**





41

A new breed of custom panel will clad Snøhetta's SFMOMA expansion.



134

Synthesis Design + Architecture's Pure Tension Volo Pavilion.

## FRONT

**22** CHANGE YOU CAN BELIEVE IN  
NCARB has endorsed a potentially transformative new path to licensure.

### 41 FRONT

Veiling the Glass House, the COTE Top Ten, an office building with a unique shading system, the 9/11 Memorial Museum opens, photovoltaic roads, fireproofing SFMOMA, and more ...

### 67 AIARCHITECT

Applied research, Chicago's emerging architects, the Windy City on the world's stage, and communicating the value of architecture.

## CENTER

**106** MADE (MOSTLY) IN AMERICA  
Karen Lantz wanted to design her house using only U.S.-manufactured products.

**118** BUILDING NEW BUSINESS  
Architects would be wise to embrace these four emerging design fields.

**122** HALLOWED COFFERS  
At this Mumbai airport, Skidmore, Owings & Merrill crafted a mega-puzzle of custom panels.

**126** DOING GOOD BY DESIGN  
This selection of products is both socially and environmentally responsible.

**134** THE DNA OF DIGITAL CRAFT  
Alvin Huang merges applied research from the classroom with real-world problem-solving.

**140** BATTLE OF THE 'BOTS  
Developers of construction robots are prepping for an automated future.

**150** AN ARTFUL FAÇADE  
For Pablo Bronstein, the avant-garde has become so institutionalized that history seems radical.

**158** DAMAGE CONTROL  
Designing above and beyond seismic building codes can save lives and recovery costs.

## BACK

**312** NURTURE VERSUS NATURE  
Green walls have emerged as a way of covering buildings, but this project offers a cautionary tale.



RESIDENTIAL

# MADE (MOSTLY) IN AMERICA

KAREN LANTZ WANTED TO DESIGN HER HOUSE USING ONLY U.S.-MANUFACTURED PRODUCTS. MINUS THE SOLAR PANELS (AND A FEW OTHER THINGS), HER PROJECT IS A BLUEPRINT FOR LOCAL SOURCING.



Text by **Karrie Jacobs**

**CRUISING SLOWLY UP BANKS**, a narrow residential street in Houston's Museum District, I'm trying to guess which house belongs to architect Karen Lantz, AIA. Along the way I find the typical Houston mix: postwar ranch houses and their lot-filling replacements, mostly McMansions loosely modeled on Versailles. I'm momentarily fooled by a big white modernist house, but it's too cool, too formulaic. I know I'm looking for something more particular. Finally, I spot

a precise assemblage of boxy volumes that looks—and this is a good thing—like it was put together from a Kenner Building Set. The exterior is marked by a xeriscape garden instead of a lawn, a length of white vinyl fence framed like a work of minimalist art, a solar water heater astride the roof that resembles a high-tech gable, and a light sculpture—a bright cluster of LED bulbs—above the entrance.

Lantz, 40, designed the house—built from the ground up and completed early last year—for herself; her husband, a dentist named Andrew Farkas; and their dog, Willa

The landscaping at Karen Lantz's Houston house is irrigated using a below-ground water collection tank manufactured by Norwesco in St. Bonifacius, Minn.

Wonka, a labradoodle. Her first project of note, it is as packed with ideas as an ambitious debut novel. In this case, the ideas are mostly about the economic and ecological impact of materials and products, where they're made and how they're sourced. Like many creative professionals lately, Lantz thinks it's economically and culturally significant to support local manufacturers, much in the way we now support local food producers. More than just follow the LEED for Homes Checklist, Lantz attempted (and largely succeeded) in building and furnishing the house with materials and products manufactured in the United States—no mean feat. And unlike many concept-driven projects, hers is a testament to the fact that you can be highly conscientious without sacrificing the visual side of design.

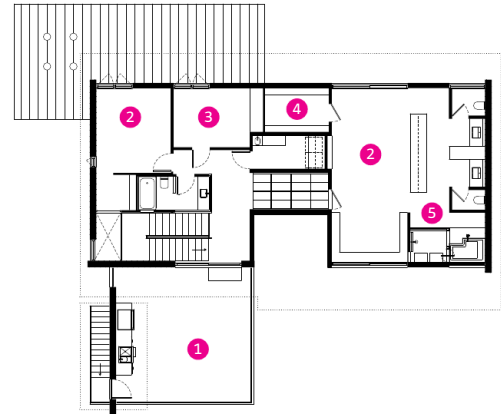
**ON A TOUR OF THE HOUSE,** Lantz was quick to tell me that she didn't grow up with a lot of money. She was raised in Pasadena, Texas, a working-class suburb of Houston, and married her high school sweetheart. "His dad worked at NASA and my dad worked at Armco steel [now AK Steel]. We both went to junior college and I went on to architecture school at the University of Houston."

Fourteen years ago, the couple bought the 1950s ranch house that originally sat on the property and rented it out. They also bought a second house by the Texas Medical Center and lived in it. Both properties increased dramatically in value and helped them finance the new 3,600-square-foot house that Lantz estimates cost roughly \$250 a square foot.

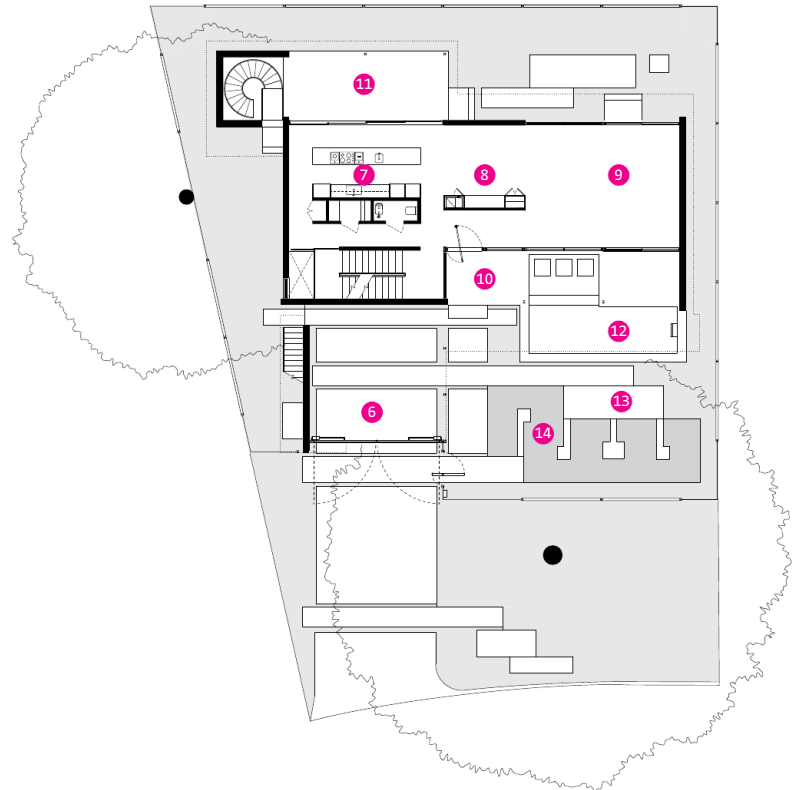
Originally, Lantz's plan was simply to design a house good enough to liberate her from a professional holding pattern she refers to as "renovation hell." But in 2009, as she demolished the old house that sat on the lot (diligently finding new users for the materials), she found herself preoccupied by the recession. "My friends were losing their jobs. I felt like there's something very wrong with that. Why are those factories closing?" At appliance showrooms, salesmen offered her discounts for German-made appliances. Lantz was appreciative: "I was calling in every discount I could get." But she began to resent the fact that she was "being directed toward products that weren't manufactured here."

LEED's system (Lantz anticipates that the house will be certified LEED Platinum) awards points for sourcing goods from within a 500-mile radius, but no major appliances are manufactured that close to Houston. Lantz decided that, beyond the carbon generated by transporting goods, there was another important issue: American manufacturing. She eventually found an attractive, European-

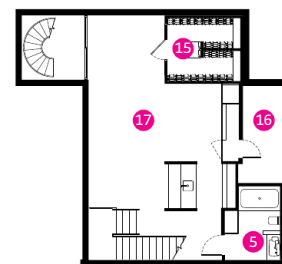
### Second-Level Plan



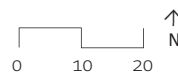
### Ground-Level Plan



### Basement-Level Plan



1. Roof terrace
2. Bedroom
3. Study
4. Closet
5. Bathroom
6. Carport
7. Kitchen
8. Dining room
9. Living room
10. Entry
11. Porch
12. Pool
13. North garden
14. Courtyard
15. Wine cellar
16. Mechanical
17. Media room





inspired line from Sub-Zero. “I was so excited that we were producing them in Madison, Wis.,” she says. And suddenly, Lantz’s design process had a focus: “It became a mission about finding the best-looking American products.”

Lantz began an extended scavenger hunt that turned up Corian, the once-ubiquitous white surfacing material, which DuPont makes in Buffalo, N.Y. She found kitchen accessories fabricated by Waterstone Faucets in Murrieta, Calif., and Uplift medicine cabinets with doors that slide vertically from Bristol, Pa., manufacturer Robern. From her home state, she sourced metal roofing material from San Antonio, soy-foam insulation from Arlington, and coated glass from Waxahachie. Houston companies yielded a steam therapy shower for the master bathroom, insulated windows, and terrazzo flooring. Bob Bertin of American Marble Mosaic Co., a third-generation terrazzo man, was especially supportive of her mission. “I said, ‘Bob, I really want to know where everything comes from.’” He obligingly handwrote a sourcing list for every last bit of gravel.

For some things, Lantz simply couldn’t find U.S. producers. While her decision to use an Italian-made sink in the powder room was a stylistic whim, the fact that she felt compelled to install a German-made solar hot-water heater and a thin-film solar array produced in China suggests that we’re behind the curve on these crucial technologies: “There are American companies making solar panels, just not the beautiful thin-film ones I was looking for,” says Lantz. “There are domestic solar hot-water systems, but the sources I found were not to the standards of the European companies.”

It isn’t just the sourcing of the materials that’s significant. Everything in the house invites the eye and the hand. For the most part, Lantz says “the materials dictated the aesthetic,” although she was clearly influenced by midcentury modern design. Indeed, her living room exudes Case Study House, with reupholstered vintage club chairs and sofa against a warm backdrop of Texas limestone. A round hanging lamp that could be a Noguchi is actually a piece by California artist Russell Crotty. And then there’s a zigzag ceiling, an innovation intended to modulate the room’s acoustics, which Lantz borrowed from a Madrid restaurant designed by Spanish architect Francisco Mangado, Hon. FAIA.

One of the more unconventional material decisions Lantz made is only visible in key spots—for instance, where the staircase to the second floor rests on one of the steel beams (milled in the U.S., of course) that supports the house. “My dad made steel,” Lantz says. “His company sent steel to New York for the [original] World Trade towers. I had the feeling



1. Wine cellar by USA Cellar Systems (made outside the U.S. but assembled in Long Beach, Calif.).
2. Texas limestone from Aguado Stone in Georgetown, Texas.
3. Terrazzo flooring by American Marble Mosaic Co. in Houston.
4. Second-story glass floor by Innovative Building Products in Denton, Texas.
5. Green glass fiberglass-faced gypsum board for zig-zag ceiling by Temple-Inland in McQueeney, Texas.

**A Barrier to Fire.  
Not Inspiration.**

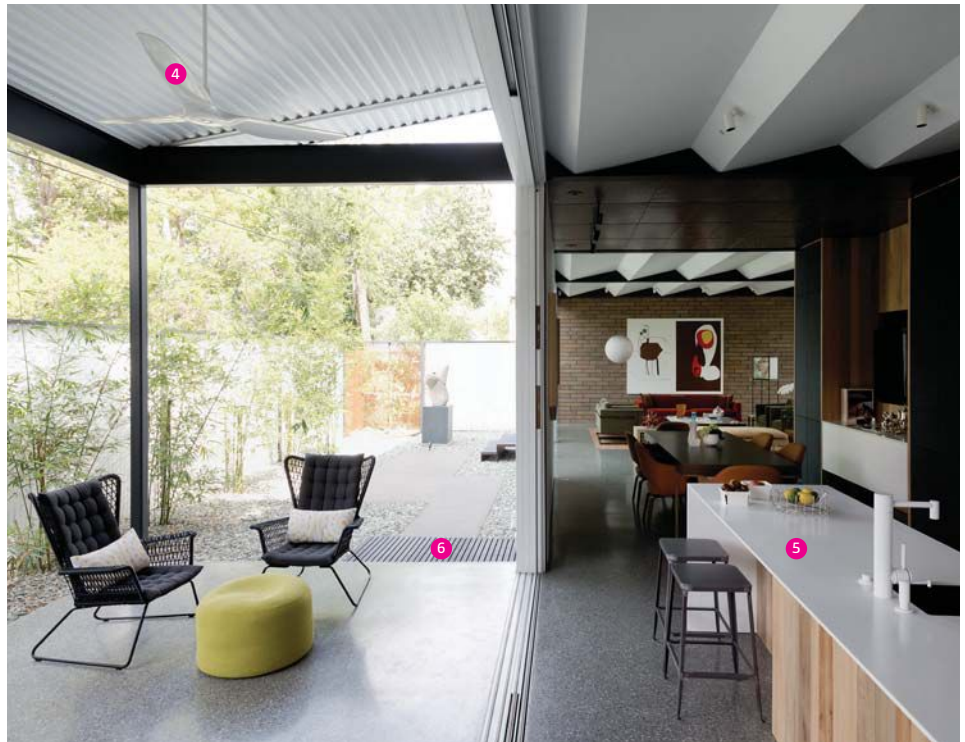
# aluflam

**Fire-Rated Aluminum  
Window And Door  
Systems**

For beauty, the best in safety and design flexibility look to Aluflam. Built to blend effortlessly with non-rated storefront and curtain wall systems, our virtually limitless portfolio includes true extruded aluminum vision doors, windows and glazed walls fire-rated for up to 120 minutes. You'll see why we've become the favorite of architects and installers alike. Aluflam gives you a barrier to fire, not inspiration.



## CENTER



1. Hunley faucet by Waterstone Faucets in Murrieta, Calif.
2. E Series built-in double ovens and framed induction/gas multifunction cooktop by Wolf in Fitchburg and Madison, Wis.
3. Aluminum doors by Fleetwood in Corona, Calif.
4. Haiku ceiling fan by Big Ass Fans in Lexington, Ky.
5. Countertops by DuPont Corian in Buffalo, N.Y.
6. Duradek fiberglass grating by Strongwell in Chatfield, Minn.

JACK THOMPSON

Aluflam USA  
Phone 714-899-3990 | Fax 714-899-3993  
Email [info@aluflam-usa.com](mailto:info@aluflam-usa.com)  
[www.aluflam-usa.com](http://www.aluflam-usa.com)

Circle no.194 or <http://architect.hotims.com>





1. Texas limestone from Aguado Stone in Georgetown, Texas.
2. Grout for Texas limestone by Spectrum Cement in Alvin, Texas.
3. Shower-door glass by Cristacurva in Houston.
4. Teak shower seat by MTI Baths in Sugar Hill, Ga.

that if I used steel he would love that." Her father, she adds, didn't live to see the house completed.

**IN SOME WAYS**, Lantz's first house is a typical career move: "As an architect," she says, designing your own home is "the moment to make your statement." But the statement she's making is not just about her own abilities. It's more about how the architectural profession could help boost the manufacturing sector.

Industrial employment in the U.S., which bottomed out in early 2010 after decades of decline, has started to creep up again, according to the U.S. Bureau of Labor Statistics. Similarly, the Institute for Supply Management shows a consistent uptick over the last year in manufacturing activity. But economic experts disagree about whether the indicators demonstrate that industry is simply recovering from the recession or whether "reshoring"—the return of manufacturing jobs to the U.S.—is



if you can  
dream it,  
we can help  
you create it.

To connect with someone who can help you bring your ideas to life with Sunbrella® fabrics, visit [trade.sunbrella.com/build](http://trade.sunbrella.com/build).

  
COMMERCIAL

Circle no. 61 or <http://architect.hotims.com>



1. Metal roof by Berridge in Houston and San Antonio, Texas.
2. Coated neat glass Cardinal in Waxahatchie, Texas.
3. Steel beam by New York Steel USA.
4. Washed terrazzo by American Marble Mosaic Co. in Houston.
5. Aluminum metal baseboards and reveals by Fry Reglet in Santa Fe Springs, Calif., and Alpharetta, Ga.

actually happening. For her part, Lantz says, "I wish that I could influence architects that do big buildings to use the principles of this tiny project. I would like it to be cool to say, 'I got my material locally.'"

What's more, she hopes her project helps change the architectural character of her hometown. "Houston is such a conservative city architecturally. We're always making houses that seem like they're from someplace else. I hope that this house seems like it's from *here*."

JACK THOMPSON



University of Rhode Island Hillside Hall, Kingston, RI

**HANOVER®**  
 Architectural Products  
[www.hanoverpavers.com](http://www.hanoverpavers.com)  
 800.426.4242

Circle no. 298 or <http://architect.hotims.com>

