

At Home in the Modern World

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Rethink Recycling

Why Today's Best Designers Are Digging Through Your Trash

HOW TO RECYCLE

Houses, Computers, Cars, Your Body, and More

A HOUSE MADE FROM SCRAPS



RECLAIMED WINDOW WALL

SCRAP WOOD

BACKYARD BLISS
A Really Cool Pool

“The house is where we experiment,” Andrew Dunbar says. “We weren’t so much trying to do ‘green’ things as just wanting to be able to live in a better way.” But the architect and his wife, landscape architect Zoe Astrakhan, weren’t simply experimenting for the sake of experimentation. The ideas the resourceful couple incorporated into their 1908 Edwardian in San Francisco’s Mission District made the most of what they could afford, providing elegant finished solutions that belie the design’s humble origins. Also housing an art gallery and the couple’s office, Interstice Architects, the renovated building acts as a powerful showpiece for the designers’ capabilities.

Ten years ago, when Dunbar and Astrakhan first moved in, they gutted the interior and camped out in the 2,000-square-foot wood-frame structure—with little more than a toilet, sink, and a few electrical plugs to their name. “We tried to imagine a home where we would also exercise our interest in edible landscaping and the use of graywater,” says Astrakhan. Dunbar’s penchant for affordable recycled building materials dovetailed nicely with her think-

ing, and he realized that there was a lot they could do together by hand. “We both learned how to build and to weld so we could fashion what we needed,” Dunbar says. As they embarked on a series of money-saving do-it-yourself projects, they found unorthodox design solutions.

Their work at home informed their practice, and their participation in experimental art projects, such as ScrapHouse (a house built from urban detritus in just two weeks) and PARK(ing) Day (subversive portable gardens designed to usurp street parking), added to their lexicon of resource-maximizing ideas. One design credo they now espouse emerged with the birth of their two daughters, Anaïs, seven, and Miika, five: “Always design multipurpose, flexible spaces,” Astrakhan says. Thus, tough steel floors in their home office allow the children to ride tricycles in from the garden, and a luminous plastic potting shed often doubles as a playhouse. The couple’s elastic approach is instructive, particularly in a dense city. “We’ve learned that when you do it right,” Dunbar says, “1,100 square feet of living space is not small.”

Just Redo It

What do you get when you give a couple of designers unlimited creative license on their very limited budget? For Andrew Dunbar and Zoe Astrakhan, the possibilities were limitless.

Project: MISSION:House
Architect: Interstice Architects
Location: San Francisco, California

Story by Zahid Sardar
Photos by Justin Fantl



01

Greenhouse Roofing Wall

Never as cold as Montreal, Quebec, where Dunbar is from, or North Conway, New Hampshire, Astrakhan's hometown, San Francisco nonetheless gets chilly enough to need heating. The prohibitive cost of outfitting the structure with radiant heat led Dunbar and Astrakhan to pull down the solid south-facing rear wall for additional sunlight and solar gain.

For \$2,000, they replaced it with a two-story, 32-by-24-foot-wide transparent wall, sheathed on both sides with Lexan Thermoclear corrugated-plastic panels, commonly used for greenhouse roofs. "It acts as a lighting panel and a radiant heating wall," Dunbar says.

The 12-foot-by-22-inch Lexan panels overlap vertically and are fastened to wood studs with shaped battens and galvanized bolts. When the sun shines, warmed air trapped within the wall radiates heat indoors. When it gets too hot, two sections of the wall, one eight by eight feet and one four by eight feet, suspended from an overhead barn-door track, slide open to let in cool air. ▶



02

Counter Surgeons

Fashioned from beech wood countertops that were supplied free with six kitchens worth of Ikea cabinets, the huge island is the hub of the kitchen. No framing was needed to build it because the cabinets below support the weight. The countertops were cut, mitered, and biscuit joined to form a functional unit that also houses a sink while providing enough space for the children get creative. "I taught art for eight years and I know how important a big, easy-to-clean work surface is," Astrakhan says.



03

Cabinet Frenzy

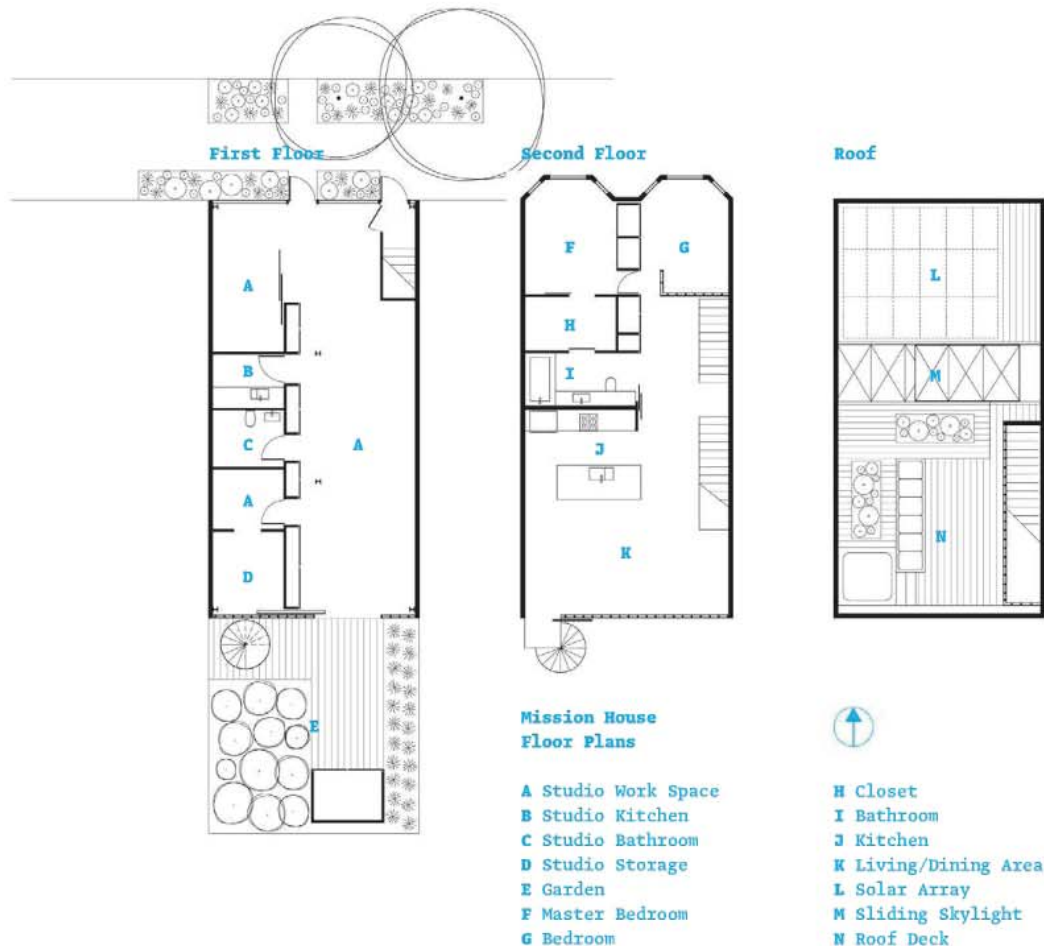
"Small Ikea kitchens drive me crazy, but six kitchens' worth of Ikea cabinets can be made into something beautiful," Dunbar says. Staggered by width, the cabinets have exposed kick-plate gaps for storing CDs. The easy-to-assemble cabinets cost \$12,000, which is about a tenth of the price of custom storage units. To mitigate the off-the-shelf look, the couple cut custom 14-inch- and 7-inch-wide pulls from five-foot-long L-shaped anodized-aluminum extrusions for about \$3 apiece.



04

Pin-Ups

Storage walls don't have to be monolithic, static, or dull. In the ground-floor gallery, 40-foot-long library shelving is punctuated by floor-to-ceiling columns made from white acrylic panels that conceal low-cost fluorescent-tube lighting. The shelves are enlivened by sliding panels made of Homasote (composed of 98 percent postconsumer recycled paper mulch). They shield books while also providing pin-up space for the children's art projects and the office's large-format print-outs and house plans. ▶



05

High-and-Low Gardening

When it came to landscaping, Dunbar and Astrakhan opted for function and form—settling on edible vegetables and bamboo that can be used for future construction. The backyard, shaded by neighboring houses, gets little sun. So, the roof became the perfect location for their vegetable garden, as well as benches and a recreation space crowned by a hot tub powered by a four-kilowatt solar array. The solar-panel canopy will someday shelter a sedum green roof.

Meanwhile, the backyard is used to grow tall *Phyllostachys viridis* “Robert Young” bamboo, which will eventually be used to construct fences and solar-panel screens. The fast-growing bamboo casts dappled shadows on the home’s transparent rear facade during the sunniest months.

In the garden, modular wood tiles composed of short lengths of ipe are used as pavers. They allow easy access to irrigation lines and drains. “The heavy tiles can be removed or reconfigured without any demolition,” notes Dunbar.

Upstairs, the tiles form a deck and are used for parapet walls, planter boxes, and to clad the hot tub. “The tiles help to unify the various sections of the roof garden into one voluminous whole,” Dunbar says.



06

Magnetic Attraction

The couple initially painted partition walls between the children's room and their own with black metallic paint creating both a writing surface for the children and a magnetic bul-

letin board for notes. However, "the black looked too oppressive," Astrakhan says. So they applied several coats of lively lime green paint to brighten up that section of the house.

Better still, there was an unexpected dividend: The metallic paint underneath remained magnetic. ▶



DWELLINGS

07

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An Indoor Outdoor Shower

With just one side window, there was insufficient light and air in the center of the house. As a remedy the couple installed a custom Rollomatic retractable 24-by-7-foot skylight. The

half that sits squarely above the large central bathroom rolls back on a motorized track.

Dunbar describes the bathroom as an outside-in room because it has light, air, and some-

times, when it drizzles and the skylight is left open, even rain. Designed for exactly these circumstances, a blue-glass mosaic tile floor is laid at an angle to drain with ease.

08

Window Shopping (Or Not, As the Case May Be)

Dunbar and Astrakhan's low-cost, high-impact tour de force is a storefront facade constructed from salvaged double-insulated window glass panels arranged in a shingle pattern.

To attach the glass to the facade without nails, Dunbar built a metal framework. Six L-shaped steel extrusions and squared tubes were fixed horizontally between a one-story-high steel moment frame to keep the top and bottom edges of the glass "shingles" in place. Vertical gaps between the overlapping shingles were caulked and the horizontal edges fitted with gaskets to keep out the weather.

The facade, and sidewalk garden have become something of a symbol of renewal on a street better known for gang activity. Consequently, it often catches the attention of people passing by. "The angled panes are quite reflective so even though people can't look in, the texture attracts them," Dunbar says. "Sometimes they stand outside and wonder if it moves. It does not!" ■■■



