

# the green house

NEW DIRECTIONS IN SUSTAINABLE ARCHITECTURE

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9 FOREWORD	Chase Rynd <i>Executive Director</i> <i>National Building Museum</i>
10 INTRODUCTION	Camera-Ready Green Design

52 Suburb	
54 Solar Tube	Georg Driendl Architects Vienna, Austria
62 Charlotte Residence	William McDonough + Partners Charlotte, North Carolina
68 Villa Sari	ARRAK Arkkitedhit Pori, Finland
74 Little Tesseract	Steven Holl Architects Rhinebeck, New York
80 Mill Valley Straw-Bale House	Arkin Tilt Architects Marin County, California
84 Naked House	Shigeru Ban Architects Kawagoe, Japan

18 City	
20 P.A.R.A.S.I.T.E. Project	Korteknie Stuhlmacher Rotterdam, The Netherlands
26 156 Reade Street	Studio Petrarca New York, New York
30 Colorado Court	Pugh + Scarpa Architecture Santa Monica, California
34 Viikki	Various architects Helsinki, Finland
38 1310 East Union Street	The Miller/Hull Partnership Seattle, Washington
42 Sea Train House	Office of Mobile Design Los Angeles, California
48 The Solaire	Cesar Pelli & Associates New York, New York

90 Mountainside	
92 House with Shades	Achenbach Architekten + Designer Jebenhausen, Germany
96 SolarHaus III	Schwarz Architektur Ebnet-Kappel, Switzerland
100 Great (Bamboo) Wall	Kengo Kuma & Associates Shuiguan-Badaling, China
106 R128	Werner Sobek Ingenieure Stuttgart, Germany

112 Waterside	
114 Howard House	Brian MacKay-Lyons Architects West Pennant, Nova Scotia
120 Swart Residence	Cocks Carmichael Melbourne, Australia
126 Lake Washington House	Olson Sundberg Kundig Mercer Island, Washington
130 Walla Womba Guest House	I+2 Architecture Tasmania
134 McKinley House	David Hertz Architects/ Venice, California

160 Tropics	
162 Casuarina Beach House	Lahz Nimmo Architects Kingscliff, New South Wales
168 Taylor House	Frank Harmon and Associates Scotland Cay, Bahamas
174 Casa de Carmen	Leddy Maytum Stacy Associates Baja California, Mexico

140 Desert	
142 Tucson Mountain House	Rick Joy Architects Tucson, Arizona
148 Giles Loft/Studio	Lake/Flato Architects San Antonio, Texas
154 Loloma 5 Lofts	Will Bruder Architects Scottsdale, Arizona

180 Anywhere	
182 Glide House	Michelle Kaufmann Designs
188 FEATURED ARCHITECTS	
190 RESOURCES	





## LOLOMA 5 LOFTS

ARCHITECTURAL FIRM  
**Will Bruder Architects**

DESIGNER  
**Will Bruder**

LOCATION  
**Scottsdale, Arizona**

YEAR  
**2004**

The dry, hot city of Scottsdale, known for its false-fronted, Old-West architecture and as a home for spring-training baseball, is located just northeast of Phoenix in the urbanized Sonora Desert. The city didn't have any kind of municipal green-building program when Will Bruder, one of the Southwest's leading architects, began work on an extension to the Scottsdale Museum of Contemporary Art in the mid-1990s. His scheme for the museum, which turned an old art-house movie theater into gallery space and draped its exterior in various kinds of galvanized steel, was eye-catching and popular when it opened in 1999, yes. But not green.

By the time another Scottsdale commission, this one residential, came Bruder's way a few years later, the city had put ambitious new sustainability guidelines into place. They call for projects that are small (less than 3,000 square feet for a single-family house, for example), careful to preserve water and other resources (no swimming pools or lawns), and that pay attention to passive-solar strategies (the longest axis of the project must be oriented to face within 20 degrees of due south, and low-emission windows are recommended). Points are also awarded for efficient insulation, non-toxic paints and finishes, and landscaping and driveways that mitigate impact on site topography, among other criteria. Buildings that meet the city's basic requirements receive an Entry Level green rating, while designs that meet more stringent ones are ranked at the Advanced Level.

The guidelines are not prescriptive: they don't require that every bit, or even a set percentage, of new construction in the city meet green benchmarks. But they allow sustainable developments to be put on an expedited approval track, with Advanced Level projects getting the most favorable treatment; they promote green architecture with a carrot instead of a stick. "So

you make your choice," Bruder explains. "You do something conventional and go through the old, slow process. Or you do something sustainable and move that much more quickly."

Bruder went for green and for speed. For a lot just four blocks away from the museum, on a street lined with palm trees and low-rise apartment buildings, Bruder and his colleagues at Will Bruder Architects produced a striking collection of five live-work lofts that combine attention to region and sustainability with stripped-down but forceful, even muscular, contemporary form. Each unit of the LoLoma 5 Lofts includes 1,550 square feet on three floors: commercial space on the ground floor topped by two-bedroom, two-story apartments. The building is located in the new Scottsdale Arts District and is within walking distance—at least on a relatively cool day, or in the morning or evening—not just of the museum but of other cultural facilities, restaurants, and mass transit stops. The building qualified for distinction at the Advanced Level of the city's green program.

The green elements begin just past the curb: what the architects call the "auto court" is lined with crushed compacted granite, with no concrete or asphalt. This pavement helps keep temperatures down on a surface that Bruder says "could have been a heat trap" and integrates the building with the surrounding landscape.

The western facade, facing the street, is relatively buttoned up, clad in Rheinzink panels and narrow-gauge windows that direct thin columns of evening light into the kitchens. Also visible from the street is the northern facade, which tells a more complicated story about sustainability in a region where the sun is something both to be treasured—it's the reason most people move to this part of the country, after all—and feared for the damage it can do.

The northern facade features the most glass. But because even December days can be hot here, and because spring and fall are often downright scorching, this side of the building also shows signs of an effort to protect residents from the sun. The

◀ The exterior of each unit in Will Bruder's LoLoma 5 building includes a balcony cantilevered from the facade to grab views of the desert from two directions. Perforated metal screens help control the level of sunlight inside.





↑↑ The western facade is faced in Rheinzink panels sliced through vertically with narrow windows.

↑ The eastern facade has slightly wider windows.

➤ Parking spaces at the base of the building are accessed via an auto court made with crushed granite instead of asphalt or cement—materials the architect says would have created a heat trap in the desert sun.



windows are substantially covered with perforated metal scrims, which are about 70 percent solid and 30 percent void. The scrims cover the upper half of the second-story windows and most of the windows on the third floor.

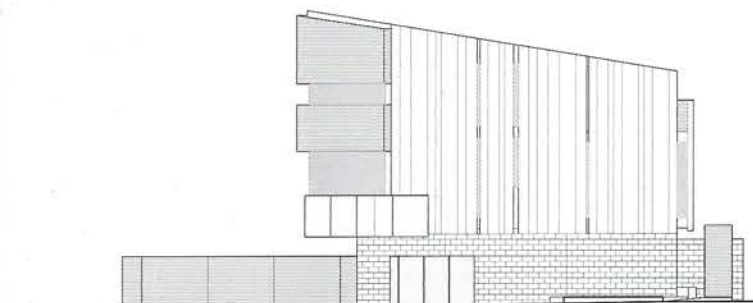
The views from inside through the scrims are more transparent than you would guess. And the design does offer plenty of opportunity for residents to step outside at times of the day—and of the year—when the sun is less than intense. Each unit includes a balcony on the second story, cantilevered out from the facade and twisted a bit to grab views to the north and west, where Camelback Mountain rises 900 feet above the desert floor. There is also a roof-top balcony for each loft on the southern side of the building, offering views of the city, the desert, and the Sandstone Papago Buttes, as well as a cool place to sleep on warm nights. “We wanted to recapture the whole spirit of sleeping porches,” Bruder says, citing Rudolf Schindler’s own 1922 house in Hollywood as an inspiration. The architect says that both balconies are designed to provide “outdoor living environments that accommodate the sun’s path and this climate we’re in.”



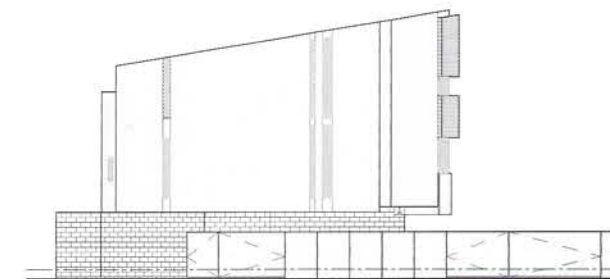
↑ The building includes a palette of materials inspired, Bruder says, by everything from the color of the desert floor to Frank Lloyd Wright’s nearby Taliesin West.

Inside, the lofts are open and airy. Bruder estimates that the ventilation system will allow residents to use natural cooling for much of the year. Most residential buildings in the area close off to the elements rather than try to engage them, as Bruder’s does. “I don’t think most people here who live in row-house units like these are used to the ability to open and close the windows and bring ventilation all the way through the house,” he says. He estimates that from the middle of September to the middle of May residents will be able to live essentially without air-conditioning, reducing to four the months of the year when they will have to rely heavily on artificial cooling.

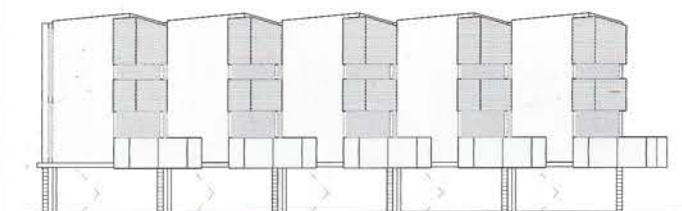
Despite their great views and striking architecture, the units in the LoLoma project are not extravagant. Bruder says he prefers working with tight spaces, where every square foot counts. He says the finished lofts “have a sailboat modesty to them—everything in its place—that breeds an attitude of efficiency.”



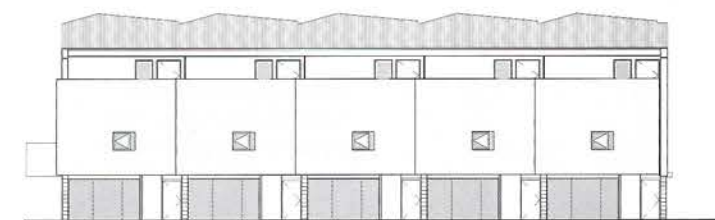
West Elevation



East Elevation



North Elevation

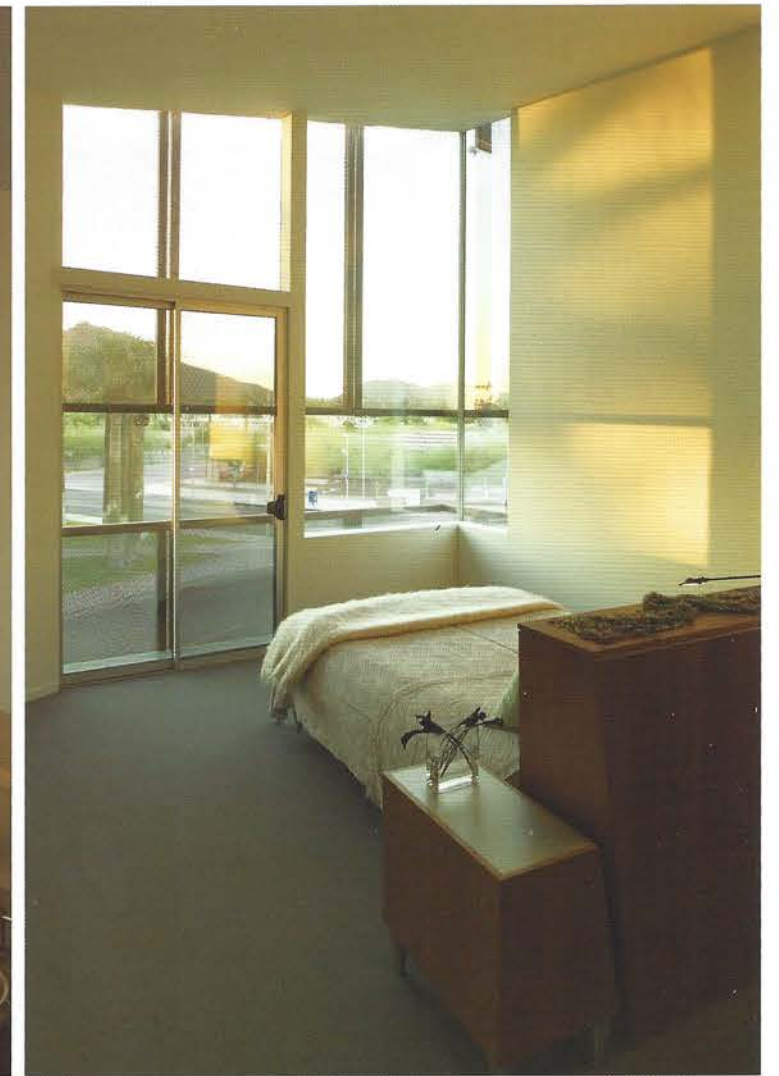


South Elevation





↑↑ The windows on the northern side of the building are partially enclosed inside perforated metal screens that help reduce glare and solar gain. Seen from inside, the screens maintain a surprising degree of transparency.



↖↑ Windows deliver thin columns of light into the kitchen and offer expansive views from the bedroom.

← Roof balconies are tucked away on the southern side of the building and can be used as sleeping porches.





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