

Clearly Arts and Crafts in design, Matthew Bialecki's Stone Craftsman is also green, incorporating natural materials taken from the site and a unique passive cooling system. **BELOW:** The Austin bungalow featured on *This Old House* will incorporate green materials (including salvage) as part of an energy-efficient makeover.

Greening the Bungalow

GREEN BUILDINGS. Green design. Green retrofits. The word "green" has never been more of the moment.

But is Arts and Crafts green? Absolutely, says Matthew Bialecki, an architect in New York's Hudson Valley region who specializes in both sustainable design and Arts and Crafts architecture. "If you look at the Arts and Crafts Movement, so much of the emphasis was on a healthier way of living. It wasn't just an aesthetic," he says. "At its core, it was a movement toward a more

healthy, more natural way of life."

In theory, buying an existing house—whether a 1915 bungalow or a 1950s Ranch—is inherently more green than building a new one, since it doesn't require new materials or disturbing a virgin site. It's also an efficient way to re-use existing materials, including hard to replace old-growth flooring and real plaster. (On the downside, older homes often contain noxious materials like plastics, asbestos, and lead that can end up in landfills.) The Historic Chicago



consume fresh resources, but it can reduce short-term and future environmental costs through the concept of sustainable design. Put simply, the idea is to build with renewable, natural, and preferably local materials, using thoughtful design techniques that help moderate cooling and heating requirements.

Bialecki's stone and shingle Craftsman, for example, is constructed of local woods and locally quarried stone. But underneath the traditional-looking, deep-eaved roof is a built-in passive cooling system. The proprietary "Umbrella" system is essentially a sandwich of insulation, vented air space, and radiant barrier beneath the skin of the roof. The system dissipates heat in the summer and helps retain it in colder months.

Bialecki also loves to incorporate elements like a central staircase or flue-like chase in just the right spot to vent hot air, a technique called thermo-siphoning. Other

green tricks include using stone or masonry fireplaces and floors in key locations; a massive river rock or limestone fireplace, for instance, stores warmth during the day and releases it at night, as does a stone or concrete floor warmed by the sun all day. "We are now doing multi-million dollar houses without air conditioning," Bialecki says. "And they're comfortable."

Bialecki isn't the only architect with green credentials, however. In fact, it's become almost routine for designers to integrate green concepts into new or old Arts and Crafts designs. Kelly R. Davis of SALA Architects in Minnesota typically uses natural materials in his Prairie-inspired designs, including an 800-square-foot passive-solar getaway reminiscent of Fallingwater, recessed into a hillside to conserve energy. John F. Slaven, an Arts and Crafts specialist in Visalia, Calif., used his own home as a green prototype and routinely includes energy efficient and passive solar elements in all of his designs.

If you are thinking of building, look for an architecture firm with Leadership in Energy and Environmental Design (LEED) certification. (Even a small, all-purpose architectural firm, like Mathews Architecture in Asheville, N.C., is often both Arts and Crafts-friendly and LEED certified.) ■ —MARY ELLEN POLSON

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Bungalow Initiative recently renovated four bungalows on a single block as a demonstration of green living, with plans in the works for four more demonstration blocks elsewhere in Chicago's "Bungalow Belt" in the next five years. Even *This Old House* has jumped on the green bandwagon, with an eco-friendly makeover of a 1926 bungalow in Austin, Texas, in the series cycle debuting in February.

Building new and green may

COURTESY MATTHEW BIALECKI ASSOCIATES
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