

BUILDING GREEN GOES MAINSTREAM

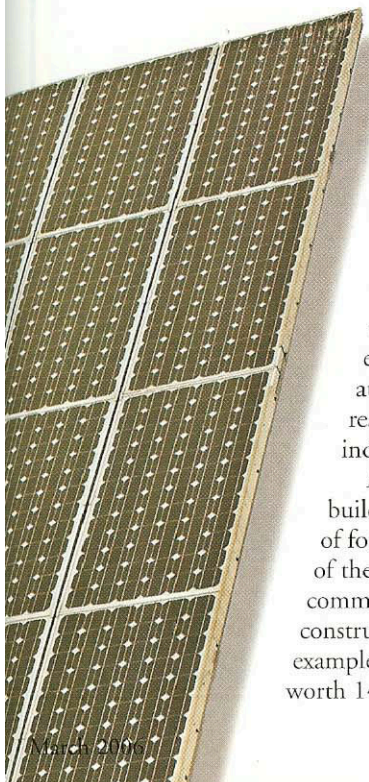
By Kathleen Dreessen

Sausalito architect Kathy Shaffer wasn't surprised when she was contacted recently about a proposed "green" houseboat and a "green" vacation retreat in Napa. This wasn't about the color green, but the environmentally friendly, energy- and water-efficient green building that is rapidly making its way into mainstream construction.

"For the vacation home, I kept the design small, used passive solar design, sustainable materials, wiring for future solar panels and had the house pre-plumbed to use gray water on the landscaping," says Shaffer of the 50-acre retreat. Graywater is water that's been used in the home, except for toilet water. "People interested in green building should have a good architect who is knowledgeable about green design, materials and construction, and a contractor who knows what materials are available and how to install them correctly."

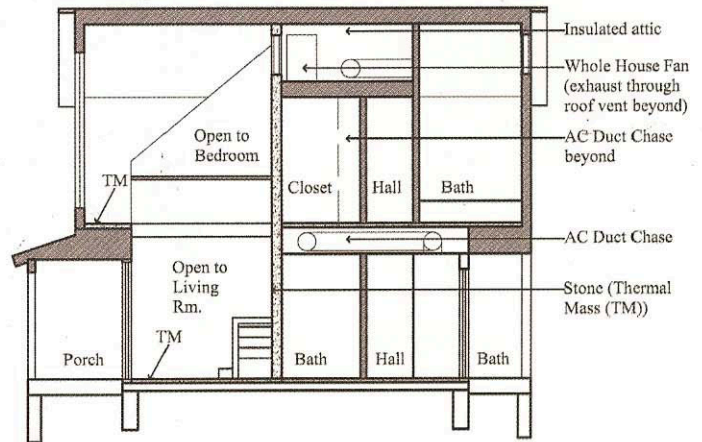
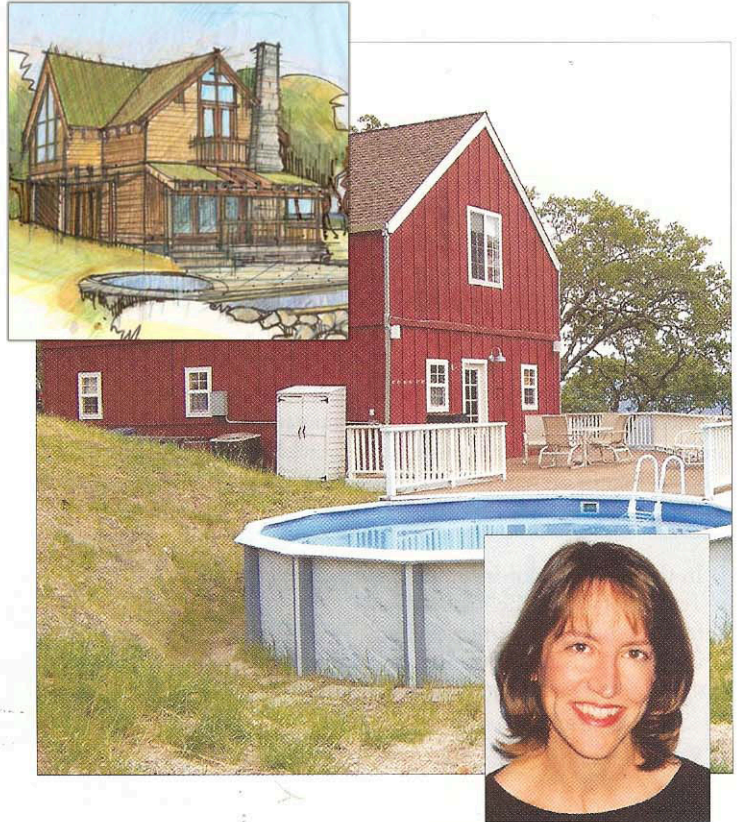
What *does* green mean?

The idea of green building emerged in the 1970s during the energy crisis as people became more concerned with resource efficiency. Specialized homebuilders experimented with such things as straw bale construction, increased insulation and solar power. Today, the term "green building" covers many different areas—both in design and in construction.



In 1995, the U.S. Green Building Council (USGBC) developed LEED, Leadership in Energy and Environmental Design, to establish a common definition of green building. LEED is a voluntary rating system to determine to what extent buildings are green. It rates five areas: water use; land use, transportation and site issues; energy use, air quality and atmosphere issues; materials and resource use; and indoor air and indoor environmental quality.

After third-party validation, the building is considered certified to one of four levels based on a point system of the type of construction (such as commercial interiors or homes, new construction or existing buildings). For example, "Materials & Resources" is worth 14 points and considers the goals of



Left page: Straw bale, rammed earth and solar materials. Above top: Kathy Shaffer (inset) and the completed Napa vacation home she designed. Above: A section of the floorplan from Kathy Shaffer's Napa vacation home design.