WASHINGTON MARYLAND VIRGINIA
HOME&DESIGN
The Magazine of Luxury Homes and Fine Interiors

SHADES OF GREEN

Local designers, architects and builders shed light on the rapidly evolving world of sustainable design

Written by Sharon Jaffe Dan

Beth Knox, wife of architect Bill Hutchins, reads on the sun porch of their sustainably designed home in Takoma Park. The porch is framed with locust logs from a friend's farm. The wall in the adjacent bedroom are made of strawbale finished in an earthen

Washington, DC, made headlines in late 2006 for becoming the first city in the U.S. to pass legislation requiring not only government-owned office buildings of a certain size to adhere to rigorous green-building standards—but privately owned buildings as well. Even though the private sector requirement doesn't kick in until 2012, the move has bolstered DC's reputation as an Earth-friendly capital.

Aware that the seeds were planted in the commercial sector, we approached this special green issue of HOME & DESIGN wondering what kind of movement we'd find in the local residential market. Today's homes have a substantial impact on the environment—and not a good one. According the U.S. Green Building Council, buildings overall represent 48 percent of all carbon dioxide emissions in the country; homes on their own represent 21 percent of these emissions.

While we have a long way to go before these numbers take a downward turn, we are pleased to report that the green building movement is alive and well in the Washington area. Knowledgeable builders, architects, interior designers and developers are helping their clients build healthier, more energy-efficient homes. The projects we spotlight on the following pages vary widely in their levels of "green-ness." Dozens of factors, including budget, scope, site constraints, personal priorities, timing and patience, affect a homeowner's decision on how green to go.

On the following pages, we've come up with a few guidelines to help you get started on a greener path.

1) practice energy efficiency.

Whether you're buying a new washing machine or building a new house, you should factor energy efficiency into your decision-making process. It's a simple equation: Reducing the consumption of fossil fuels in turn reduces the carbon dioxide emissions that cause global warming.

Creating an energy-efficient house, however, is not so simple. Typical American homes lack energy-efficient appliances, windows and insulation and therefore consume extra energy to compensate for loss of heat and air conditioning.

If you are building a home or starting a renovation, an experienced architect can help design a "tight building envelope" that will minimize air infiltration and maximize energy efficiency. He or she will position your home to take advantage of passive solar gain, recommend an environmentally friendly insulation (such as Icynene foam) and install low-E windows with argon gas that help keep heat in

during the winter and out during the summer. You can also consider alternatives to fossil fuel-burning energy, such as solar power, wind power or geothermal heat.

A light-filled addition to a Davidsonville, Maryland, house designed by architect Bill Hutchins contains a large wood-burning stove. Clad in cob, a mixture of sand and clay, it reaches 1,100 degrees Fahrenheit and heats the entire 2,000-square-foot house

While the upfront costs of such systems may be higher than their conventional counterparts, they will save you money in the long run through reduced utility bills. Likewise, choosing Energy Star-rated appliances and lighting will help you reduce consumption and save a few dollars too.

Architect Susan Pierce and her husband Kelvin, who own Commonwealth Home Remodelers in Vienna, Virginia, are in the process of building a vacation home in the Blue Ridge Mountains that adheres to rigorous LEED (Leadership in Energy and Environmental Design) guidelines developed by the U.S. Green Building Council. The project's heating and cooling systems will combine hydronic and geothermic technology. Additional heat will come from a masonry stove in the great room. "The cost to make a house as energy-efficient as possible is so worth it," says Pierce. "For most people, it makes sense to spend the extra money."

2) renew, recycle, replenish.

Whether you are planning a small renovation or building a new house, there are many ways to reduce waste, one of which is to reuse or recycle materials. Architect Bill Hutchins of Helicon Works in Washington, DC, incorporated a number of salvaged materials in the renovation of his 100-year-old Takoma Park bungalow, from framing lumber to windows and doors. "Using salvaged materials is great," he says, "because they're otherwise just going into landfills." Hutchins recommends several local outlets where homeowners can either donate materials they are discarding or search for their own special finds. Community Forklift in Bladensburg, Maryland, for example, accepts goods for tax-deductible donations. In turn, the company sells recycled wares for around half of their market price. Other outlets for salvaged goods include the Loading Dock in Baltimore and Habitat for Humanity's ReStores in Alexandria, Gaithersburg and Pasadena, Maryland, near Annapolis.

Of course, buying new products made from recycled materials also helps reduce waste. Homeowners can find carpet made from recycled soda bottles, countertops made from recycled paper and tiles made from recycled glass.

3) build a healthy home

Conventional building materials often harbor harmful materials, from formaldehyde in cabinet particleboard to off-gassing chemicals in carpet backing. Homeowners can find plenty of healthy alternatives in the marketplace, if they do their homework and know the right questions to ask.

Alan Abrams, a certified building designer and principal of Abrams Design Build in Washington, DC,

recently downsized from a single-family home to a condominiumoverlooking Sligo Creek Park in Silver Spring. He and his partner, Janet Kinzer, made a deliberate decision to create as green a home as possible. “The decision to move here was a green decision, to reduce our footprint, to use public transportation and because of the nature,” says Abrams. “We’re using this as a laboratory to experiment with materials. We made the decision that I would be gatekeeper and no material that wasn’t renewable or recycled or reclaimed or in other ways contributing to a healthy indoor environment would get past the threshold.” Their newly renovated interiors, which feature natural building materials, locally crafted furniture, energy-efficient lighting and even low-flush toilets, demonstrate that it’s possible to go green—even in a high-rise.

4) keep it local

A homeowner may discover some gorgeous eco-friendly cabinets online, but if they’re made in California then the energy spent on shipping can defeat the purpose. “You don’t want to ship things across the country,” says Bill Hutchins, who hires local artisans and cabinetmakers on all of his projects. “For me, sustainability is about building community in every way: economic, social, material, relational.” The concept of fostering the local community is an important tenet in the sustainable movement. Devotees of green building strive to find sources located within a 500-mile radius of their final destination.

Developer Christopher VanArsdale of VNV Development Co. in Washington, DC, has been fascinated with green building for more than 10 years. When he arrived in DC as a young attorney in 1997, he volunteered with the nonprofit Green Home, building affordable green houses and doing a lot of “experimentation and reading.” Now a real estate developer, VanArsdale is using his expertise to build green homes throughout the Washington area and is also launching a business model to design modular, prefabricated zero-energy homes.

His most extensive green experiment to date is the renovation of the 100-year-old Kalorama rowhouse he shares with his wife and their young son and daughter. Among other green features, the home has been retrofitted with nine solar panels (for heat and hot water), a radiant floor heating system and photovoltaic panels that fuel lighting and electricity.

“Doing this renovation is a way, I think, of putting certain values into action,” says VanArsdale. “It’s also a demonstration of how you can ‘green’ a hundred-year-old house.”

While few homeowners have the time or inclination to become experts on green building, the more knowledge they can bring to the table, the more fruitful a collaboration with a builder or an architect will be, says Bill Hutchins, who designed the floating stainless-steel-and-ash stair and some built-in furnishings in VanArsdale’s home. “A lot of it comes down to how well versed the client is and what kind of questions they’re capable of asking,” he says. “My best clients come highly educated. I learn from them.”

Alan Field, ASID, design director of The Levine Group in Silver Spring, incorporated a number of green products in a Capitol Hill kitchen renovation. The sleek Corsi cabinets are made from reconstituted teak, the floors are cork and the Richlite counterto

When seeking a green builder or designer, architect Susan Pierce advises homeowners to “look for someone who has a LEED certification project under their belt. If someone is able to discuss options freely and easily and express enthusiasm,” he or she is likely to be a good candidate.

Once you're past the learning curve, says VanArsdale, building green becomes a logical decision-making process. "To me, the difference between green building and conventional building is a question of how much thought you put into each component of the house and how those components work together as a whole. In green building, you're always thinking about how you can squeeze out a little more performance or efficiency from the building's systems or how you can make it healthier or more environmentally friendly.

"Once you learn how to do it, there's no reason not to," he says. "The result is superior, more comfortable, more efficient, healthier and more durable."

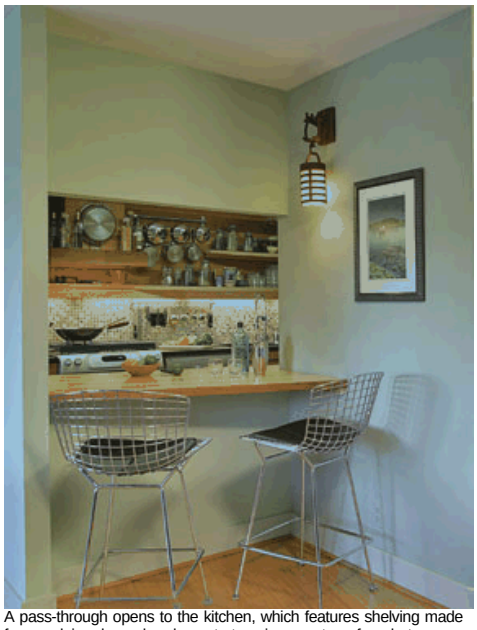
RESOURCES

The Internet is a great resource for homeowners who want to learn about sustainable design. The following Web sites will help you embark on a green project of your own.

American Society of Interior Designers' Sustainable Design Information Center; www.asid.org.
Co-op America; www.coopamerica.org
Energy Star; www.energystar.gov.
Forest Stewardship Council; www.fscus.org.
Green Seal; www.greenseal.org.
U.S. Green Building Council; www.usgbc.org.

Designer Alan Abrams recently renovated his Silver Spring condo, using sustainable materials throughout.

Textiles made of natural fibers including wool, linen and silk embellish Abrams' master bedroom.



A pass-through opens to the kitchen, which features shelving made from reclaimed wood and countertops in soapstone found at an abandoned quarry.

Solar panels on the roof of developer Chris VanArsdale's century-old Kalorama rowhouse provide power for the family's heat and hot water.

On the second floor of VanArsdale's home, a decorative high-efficiency fireplace by Max Blank provides supplemental heat.

VanArsdale made use of environmentally friendly resources throughout the house, including recycled glass and metal tiles in the kitchen.