Many Shades of Green Luxury

By Barbara Stahura

Photo courtesy of Grupe Company

Living in a luxurious home by no means precludes living in a green home. In fact, given the size of most luxury homes and the costs of maintaining, heating, and cooling thousands of square feet, it makes sense to go green. With new green technology and products making their debut practically every day, more options are available than ever before, not only for the hidden elements of a home but also for the visible, aesthetic ones.

During the energy crisis in the 1970s, the popular idea of energy conservation was turning down the heat and pulling on a sweater. Not exactly chic, but few other options were available. Forty years later, with the need to sustain and restore the Earth now undeniable, not only has the concept changed – it's now called "going green" and includes much more than fiddling with the thermostat – but green technology has blossomed, providing to homeowners an ever-widening array of options to conserve energy and other natural resources.

And it's no longer just counterculture types who are interested in living in a green residence. The desire goes all the way up to the highest echelons of luxury homes.

Today, "It would be virtually impossible to build a luxury home without green factors," says John Brian Losh, CEO and publisher of *LuxuryRealEstate.com Magazine*, *Who's Who in Luxury Real Estate*, and www.luxuryrealestate.com, the most viewed luxury real estate Web site in the world. "Most are as green as you can get.

"Retrofits and remodels to green are also happening," he adds. "These owners can afford it. People look at a green remodel as a savings; they're economically motivated."

Even new luxury-home developments are green "out of necessity," Losh says, although they're not publicized as much any more "because it's old news now."

Opposite: To meet the growing demand for greener homes, this Rocklin, California, Grupe Company-built residence meets LEED Certified level specifications. Below and right: The installation and finished product of an underground hydronic snowmelt system. Radiant-heated flooring is used for interior heating as well as outdoors for patios, sidewalks, and driveways.

WHAT MAKES A LUXURY HOME GREEN?

Many elements can contribute to a luxury home's (or any home's) green quotient. Energy efficiency is usually the main consideration, since energy is a home's largest expense. But "green" has a much broader connotation nowadays, says Rosemarie Rosetti, president of the Universal Design Living Laboratory™ (UDLL), a demonstration home being built in Columbus, Ohio, to showcase universal design, green building, and healthy home construction (www.udll.com). She emphasizes that a green home can enhance the quality of life for those who live there.

"Green is a lifestyle choice, including the construction of the home, the products and services used in it, maintenance, and the ability to utilize resources in an economical way," she explains. "There are many components, but it's all about preserving what little resources this world has and protecting the inhabitants that live there."

Losh concurs. "There are lots of ways to design a green home," he explains. "It can work well with the landscape or be in concert or harmony with the environment. There's energy efficiency, and it also must be built with conservation and wise use of resources in mind. Every luxury home built today is built with those factors in mind."

Rosetti explains that people who want to build the ultimate green luxury home can work to attain certification from the Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ from the U.S. Green Building Council (www.usgbc.org). Originally designed for commercial buildings, LEED® standards can now be applied to residences at the Certified, Silver, Gold, or Platinum levels. Rosetti is striving for the highest LEED rating possible for the UDLL, where she and her husband, Mark Leder, will live.

LEED standards encompass a whole-building approach to sustainability. There are five key areas: sustainable site development, water savings, energy efficiency, materials selection, and indoor environmental quality. One important LEED element is the distance materials are transported. Rosetti, for example, is sourcing hardwood flooring that is produced or at least widely distributed within 500 miles of Columbus. Local and regional sourcing reduces the "carbon footprint" of a home by reducing the amount of fossil fuels used to transport its components, which improves the LEED rating.

ONE GREEN MANSION

Green (or at least greener) luxury homes are going up or going for sale across the country. Among those recently on the market: a 5,200-square-foot mansion on eight acres in Woodstock, New York; an 11-acre estate in Steamboat Springs, Colorado; and a four-bedroom, $4.3 million place in Scottsdale, Arizona. Green multi-family residences are being built, too. One example is the Kalahari Harlem, a luxury condominium in New York built to LEED Silver standards and embellished with "premium finishes and building amenities." One apartment there was recently listed for $1.6 million.

In 2006, Forbes.com reported on "Millionaires' Green Mansions." One of them, owned by Geoffrey de Sibert in Monterey, California, combines the luster of Old World elements with green technology of the 21st century. Tony Schaurer was the home's contractor.

Much of the home's distinctive beauty comes from its two-century-old Spanish roof tiles, wooden doors dating to the 18th century, and terra-cotta floors. Transporting these materials and others from Europe, Israel, and Syria required a lot of fossil fuels, but at least the materials were recycled. For de Sibert and many luxury-home owners, "aesthetics drives the market," Schaurer says.

But it's the modern technology that gives de Sibert's 11,000-square-foot mansion its green qualities. The residence was constructed with

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ICFs, or insulating concrete forms. ICFs are linked, hollow, plastic foam forms strengthened with rebar and filled with concrete to create walls with energy efficiency about four times that of wood construction. Building with ICFs means "using not much wood," Schaurer explains. "And there's no formaldehyde or outgassing" as is common with many building and insulation products.

"Our goal was to build a luxury home with ICFs and natural materials, and not require a lot of petrochemicals," he says.

The roof holds an array of solar panels that deliver all the home's electricity needs. De Sibert had predicted during the home's production that the monthly electric costs for the home would be $15.

Those few dollars are "the basic meter cost for PG&E [Pacific Gas & Electric]," says Schaurer, and today, the electric meter usually runs backward since the solar panels produce more electricity than the house can use. Thanks to the moderate coastal climate, cooling costs are minimal. Natural gas is used only for cooking, drying clothes, and pool heating, according to Schaurer.

All the appliances are extremely energy efficient, of course. The house also uses hydronics, similar to old-style steam boilers, for running hot water through pipes in the floor for radiant heating. This system also produces domestic hot water. A 20,000-gallon cistern under one of the terraces collects rainwater via the home's gutters. The stored rainwater provides for two month's worth of garden use during the dry winter months on the California coast. Furthermore, the lawn's irrigation system is underground so no water is lost into the atmosphere due to evaporation.

While purists will quibble with the long-distance transport of some of this mansion's elements, for all practical purposes, it is about as green as a home can get.

These beautiful eco-friendly fabrics from Robert Allen's Pure Style collection are specially designed for the conscientious customer who wants to make an effort to reduce environmental impact without sacrificing style.

INSIDE A GREEN LUXURY HOME

While energy-efficient technology accounts for most of a home's green qualities, interior design and products also contribute.

Interior designer Mary-Catherine McCarthy (mcm2design@aol.com) has recently assisted a client with restoration of a 1,600-square-foot home in a historic preservation district as well as one who built a 14,000-square-foot home that was green from the get-go. Both clients chose interior elements that assisted with greening the structures.

One good way to waste energy, McCarthy says, is to have high Palladian windows that are too tall for window treatments and thus do not allow control of the heat streaming through. She suggests situating windows to take advantage of natural light and using the right window treatments for light and heat control. Also, small, round skylights called solar tubes can be retrofitted or built-in new to allow additional natural light.

Tankless water heaters are "a terrific invention, so you don't have to heat a huge tank of water all day long," she explains. Instead, tankless systems near sinks and tubs or showers produce hot water only as needed.

Even fabric and carpet selection plays a role in the environmental friendliness of a home. Many are produced in unsustainable ways and contain harmful chemicals that outgas into a space.

For instance, there is a move toward ecotextiles, which can be downright luxe as well as environmentally friendly, for use in upholstery, window treatments, and bed linens. McCarthy mentions Robert Allen as one excellent producer of eco-friendly fabrics. Carpet maker Interface, Inc.®, is high on her list, too. One of the world's largest carpet manufacturers, Interface is working to eliminate any negative impact its carpet and textile companies have on the environment by 2020. In the last 12 years, it has reduced its absolute greenhouse gas emissions by 56 percent worldwide, and has cut manufacturing waste sent to landfills by 63 percent.

Beautiful wood can be recycled from old structures, or it can come from a location certified by the Forest Stewardship Council, which encourages responsible forest management. McCarthy explains that elegant furniture from sustainable woods and made by true craftsmen can be ordered from Karges-by-Hand.

Flooring also is becoming eco-friendly, with cork, bamboo, updated linoleums, and Marmoleum®. Gorgeous, durable countertops are fashioned from everything from recycled paper to a cement/recycled glass mixture called IceStone®, which, according to McCarthy, gets LEED points. "When a client wants marble that has to be taken from the earth and shipped from Italy, I will suggest using IceStone, which is made in Brooklyn," says the New Jersey-based designer.

McCarthy explains that going green can "push the designer and the client a little. You can't use standard solutions and be a green designer."

Fortunately, more owners of luxury homes are coming around, with a little encouragement and a look at the economics. "We have to educate people to help them see something new as elegant, which they hadn't seen that way before," she says.

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