



CHIMNEY
This 4,000-sq-ft home features a brick chimney that provides a focal point in the landscape. The chimney is made of brick and has a height of 110 feet. The chimney is made of brick and has a height of 110 feet.

ECO-CONSCIENCE GUIDED A KENNETT SQUARE COUPLE TO BUILD THEIR DREAM HOME

BY ROBERT DIGIACOMO • PHOTOGRAPHS BY JEFFREY TOTARO/ESTO

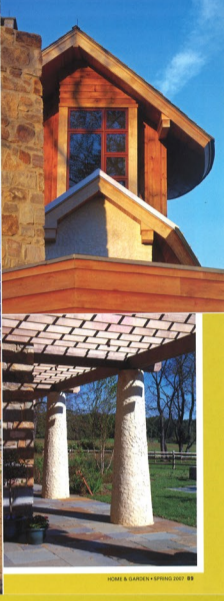


CHANGE STARTS AT HOME.

Chris and Cecilia Ross believed that sentiment strongly enough to leave their 19th-century farmhouse in Kennett Square and move to a hilltop across the field, where they put their environmentally conscious beliefs into practice. Thanks to Chris' role as a state legislator, he had an understanding of sustainable architecture and design, and an idea of how they could build the new house they wanted and also help the environment. Chris had spent many hours on "green" policy, and he wanted to understand firsthand how a truly sustainable home worked. So he and Cecilia decided to build one.

SHEDDING LIGHT
Five Epiglinae throughout the house keep the sun's rays from heating the interior. The shed is made of stone and has a height of 110 feet. The shed is made of stone and has a height of 110 feet.

BLUE DEES
Perpetual doesn't stop the Rosses from enjoying the view. The Rosses have 10 solar panels on the roof that convert the sun's rays into energy used to heat the house, and have a conservation site for recycled materials used for watering outdoor plants, providing care and water.



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color tip

Designer Barbara Churchill used bright fabrics in the living room, incorporating a sofa and pillows with Co'Purse by Lorenza Pirelli for Bergamini, set accents, and using Rockport by Ellen West for Bergamini in a chaircase for two club chairs and in lemon yellow for a bar stool chair.

BEAMS OF LIGHT
The living room and dining area walls are covered with a 4-foot-long, 1-foot-wide, 1/2-inch-thick, light-colored wood paneling. The paneling is made of wood and has a height of 110 feet. The paneling is made of wood and has a height of 110 feet.

and we wanted to use local materials as much as possible," says Chris. "We also didn't want it to look like a regular house, rather than an exotic example." They gave Moger a checklist of what their new house should be: a warm, inviting space with a design flexible enough to accommodate both their private and public selves. They would need room enough for their children to entertain friends in their own space, and for them to host the large events and fundraisers that are the staple of public life. In Moger, they had found an architect who already believed

in sustainable design and was eager to learn more. "We design architecture of the landscape, instead of on the landscape," Moger says. "We design with the topography in mind, the passage of the sun and the prevailing winds." These spatial principles, coupled with a high-tech, solar-fueled heating and cooling system and other green features, figure prominently in the Ross home, a sprawling, three-story contemporary riff on a traditional Chester County farmhouse. Traditional materials—stone, cedar and pine—help the modern structure blend into the landscape. "I took photographs

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color tip

Churchill chose bold but earthy colors. Barbara Moore's California Blue is the color of the walls in the study. The color is a deep blue and has a height of 110 feet. The color is a deep blue and has a height of 110 feet.

off barns and stone walls and open picket fences and horse stables and anything that I could find that felt like Kennett Square and Chester County farmhouse," says Moger, who used the pictures to make a collage from which he drew inspiration. Sustainable, the architect knew, had to mean livable for the Rosses. They sought the cozy feel of a traditional space—including extensive woodwork and moldings, wood floors and several fireplaces—within the bones of a modern structure.

The house had to have sufficient indoor and outdoor living areas to accommodate guests at events, as well as a dedicated area for the kids to hang out with their friends—a billiards room in a separate wing—that could be closed off when the kids were away at college. These features—as well as the Rosses' love of their two dogs, who have free rein inside and out—helped guide the choices of interior designer Barbara A. Churchill, owner of B.A. Churchill Designs in Kennett. (continued on page 106)

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Green Acres

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Square. An earthy color palette uses bold marigold in the living-dining area, offset by a mellow shade of green-tinted gold in the kitchen and billiards room. The library is painted a bright jewel-tone blue. "It's earthy, but I wanted it to be very rich and sophisticated, so it wasn't dull in any way," says Churchill.

With the dogs in mind, Churchill rethought much of the Rosse's existing furniture, including the living room's Federal sofas, with pet-friendly new fabrics. She also incorporated pieces they had collected, such as a circa-1810 Federal mahogany accordion-extension dining table. With fewer walls to hang art due to the house's wide expanses of glass, the Rosses called favorites from their collection of family portraits and contemporary works by artists including Douglas Marness and Nancy Adler, both alumni of the Pennsylvania Academy of the Fine Arts. "I tried to keep a happy blend of the 'green' methodologies, which stresses eco-respectful systems, by using natural and traditional materials, colors and fabrics that complement the architecture," says Churchill.

ROOM TO PLAY The sun-filled billiards room allows the Ross children ample space to spread out and spend time with their friends.

GREEN MACHINE

AT FIRST GLANCE, THE ROSS HOME doesn't give away all of its eco-friendly secrets, but like a hybrid car, it runs much differently. The sustainable design started with the property. The Rosses purchased the hilltop site five years before, intending to replace the existing 1950s-era split-level on it. Ultimately, they were able to recycle about 60 percent of the building materials, which not only saved them from a landfill, but also cut demolition costs by one-third. The old foundation was ground up and used as the footing for the new foundation and driveways, and 3.5 tons of drywall were recycled into additive for crops and paper used for animal bedding. The new house is sited to maximize the views of a huge, 200-year-old William Penn oak tree on the front lawn, and to regulate the sun's impact on heating and cooling. Drawing on the expertise of green building consultant and engineer Tad Radzinski, president of Sustainable Solutions Corporation in Schwenksville, Moger (who worked with a team from Gladwyn's Shay Construction, designed the house's footprint so the sun enters the home from the south through a first-floor glass wall, warming

the brick flooring of a central hallway and wall. This releases heat at night as the house cools down, lowering the Rosse's heating costs. Ceiling fans aid airflow. "If you forget about technology, the house should function on its own," says Moger. He designed a natural ventilation system by creating a "heat chimney" when the windows and doors are opened on the bottom floor, cool air flows into the house and any hot air rises to the top of the house, where it escapes through electronically controlled windows. Technology does have its role, however. Radzinski helped maximize the energy-efficient space by designing a geothermal heat pump, partly powered by 30 solar panels on the roof of the property's barn, which resists sudden jumps in temperature; the eventual goal is to sell back unused power to PECO. As well as horses, the barn also houses a rainwater recycling system that Radzinski created for flushing toilets, watering outdoor plants and washing cars.

One of the home's most unusual features—and a signature element of sustainable architecture—is the roof over the billiards room. Constructed by David Brothers Landscape Services in Worcester, it is covered with drought-resistant plantings to provide a natural layer of insulation. Outside the house, Jonathan Alderson, owner of a landscape architecture design firm of the same name in Wayne, came up with a plan that includes local deciduous trees on the southern side to provide shade. "Part of our philosophy is to try and be sensitive to the natural environment and for the design to be harmonious to that," says Alderson.

The couple enjoys the eco-friendliness of their new home almost as much as its comfortable day-to-day living. "You're supposed to leave your place better than you found it," says Cecilia. "We just care about the environment. We thought since we had the opportunity to do something about it, we should."

GOING GREEN

The future is here for environmentally friendly homes designed to save energy, use less water and offer better air quality, according to Sandy Wigpoin. He should know—he's the principal of Constance, an eco-friendly development and consulting company in Philadelphia, and the chair of the U.S. Green Building Council (USGBC), a coalition of leaders in the building industry committed to promoting environmentally responsible buildings. "There's a huge shift occurring in the construction industry," Wigpoin says. Green-friendly practices have become more commonplace in the commercial and institutional construction industry since the 1999 introduction of the Leadership in Energy and Environmental Design's (LEED) Green Building Rating System, a national, voluntary standard created by the USGBC for developing high-performance, sustainable buildings. According to Wigpoin, a developer and consultant who was the co-founding chair of the council's Delaware Valley chapter, some 8,000 projects valued at \$10 billion nationwide are being developed using LEED's guidelines. In addition to LEED, several market forces are making green-friendly materials and practices more appealing at the consumer level, too. Over the past decade, both the National Association for Home Builders and many local municipalities have adopted standards for green building. The private sector also has recognized growing consumer interest in being green by stocking products like no-fume paints and educating workers at mass-market home improvement stores on environmentally friendly methods. Although concrete and steel use and water consumption figure in the trend toward sustainable development, the major reason driving this interest for most people is their family's health and rising energy costs, according to Jill Kowalski, executive director of the Delaware Valley Green Building Council. "Environmentalism is building just makes sense, and it happens to help the environment as well," Kowalski says. "At the end of the day, if the environment fails, nothing else is going to matter." —R.D.