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The Nantucket Magazine early spring 2007



Teresa Heinz Kerry

On saving Mother Earth

GREENING NANTUCKET HOMES

DESIGNER **Trudy DuJardin**
ARCHITECT **Chip Webster**

Mothers & daughters At SEAGRILLE

Hot dish
on food & wine

Annye's

Heart-healthy food



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GREENING NANTUCKET

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Two decades before the words “global” and “warming” appeared in the same phrase describing our planet’s health, Nantucket and Connecticut interior designer Trudy DuJardin began building “green” from the inside-out. Long interested in how work and living spaces might affect people’s health, DuJardin began suggesting interior alterations that would be sensitive to her clients’ and her contractors’ allergies, and would cause minimal impact on the environment.

“It started in 1987 when I purchased a house on Nantucket in Monomoy,” said DuJardin, a member of ASID, the American Society of Interior Designers. “Sitting near the harbor, I felt a tremendous responsibility. Because I love this island, I wondered ‘How do I do this the right way?’” With her thoughts on preserving the health of Nantucket Harbor and its bay scallop fishery, DuJardin focused—like a growing number of other Nantucket builders, architects, designers and homeowners—on creating environmentally sensitive

Above, Chip Webster on-site at his new Surfside home



spaces using less harmful construction techniques and materials.

Dujardin acted long before recent dire predictions of global warming, cataclysmic weather events and irreversible climate changes in the not-so-distant future. Today, that hoopla makes her smile, because she didn't need the knock to her awareness before she began designing healthy, smart spaces. To her it made common sense back then, and she has since designed or overseen a number of from-the-ground-up "green" building projects focused on creating safe and healthy living spaces with minimal environmental impact.

For Dujardin, crafting Earth-friendly and eco-healthy styles came from her assimilation of environmentally sound interior design practices for use in so-called "sustainable development," using safe and easily renewable



Photo by Cary Hazlegrove

resources. For much of the Nantucket design and building industry, that change has come more recently, like a rude awakening from a late spring frost.

Orange juice paint

Her Monomoy house was an experiment for Dujardin, who learned that the multi-dimensional basics of green building could be healthy for her clients, for those putting the house together and for the island environment.

"In a holistic way, it's not just for the end-user of the house. It's also for the health of the people working on the house and the people in the factory producing the products," she explained.

Using the harbor's then high water quality as her standard, Dujardin committed to not using any materials, solvents or paints that contained volatile organic compounds. Instead of particleboard



Opposite below, Verde founders Ian Konecko, Rebecca Anderson and Burr Tupper

heavily laden with toxic binders, she sheathed her house in CDX plywood—which uses less formaldehyde in its ply-bonding glue—and steel instead of laminated beams, which are also heavily glued. Floor finishes were created from citrus-based coatings that made the house smell like tangerines.

"We had a chemist who came up with a water-based urethane," she said. "The painters said they loved working there because they never got headaches."

Another project followed at her home in Westport, Connecticut, where mold and drainage issues presented new obstacles and where she discovered that future renovations could be even more challenging. Today, her specialty is environmentally healthy interior design. Through her design company DuJardin Design Associates, DuJardin has become a national expert on non-toxic building



materials and sustainable design. Communities in Vermont, on Long Island in New York and in Arizona—each designed as sustainable, green-built projects—have consulted her. DuJardin has also appeared at numerous national conferences on the subject and serves as an active member of the ASID Sustainable Design Board.

Greening Nantucket

Since highlighting sustainable practices in her business, DuJardin has seen a sea change from her clients' early resistance to paying extra for green interiors to a quickly accelerating drive towards building as green as possible. "In 1987, people didn't feel the urgency that they feel today," noted DuJardin. "Now, people are really feeling the need with global warming and pollution."

That line of thinking is finally taking hold on Nantucket, as the island's building industry discovers the financial and environmental benefits of capitalizing on "eco-clients." With the wave of green building in relative terms just breaking on Nantucket's shores, those committed to the core of building green, from blueprints to certificates of occupancy, are still few on the island, although interest appears to be growing rapidly as the ecological imperative to heal the Earth gains ground.

"Fledgling" is how Architect Rebecca Anderson of Milton Rowland & Associates describes Nantucket's green building world.

"I think it is sort of an emerging market in a number of places. People have been fairly comfortable in their niches; it's been slow to come here," she said. "I mean, we do 'Nantucket' houses. They're

Setting the standard for environmental solutions

The North America's largest user of scrap lumber, Dodge-Regupol has made a business out of finding creative ways to reduce, reuse and recycle. Dodge-Regupol currently uses more than 2.75 million tires annually in its solutions for industrial and residential applications.



Tips for Building Green

Build smaller

Reduce building size to create less environmental disturbance, use fewer materials and less space to maintain and operate.

Build more efficiently

Employ thoughtful design using materials more responsibly to build a house that's better insulated and uses more efficient energy systems.

Build healthier

Building healthier using natural daylight, creating better indoor air quality and using non-toxic, environmentally friendly materials.

Chip Webster & Associates is a full-service architectural firm with offices in Nantucket, Boston and Boulder, Colorado. Visit them at cwa-arch.com or call 508-228-3600.

Mustang Construction Group (MCG) is a member of the U.S. Green Building Council, a coalition of leaders from the building industry working to promote buildings that are environmentally responsible and healthy places to live and work. For MCG, Webster's home is a pilot project home using "The Leadership in Energy and Environmental Design" (LEED®) Green Building Rating System™, a nationally accepted benchmark for the design, construction and operation of high performance green buildings. Contact them at mustangconstructiongroup.com or call 508-257-6984.

Trudy DuJardin, ASID, is an award-winning designer and national expert on non-toxic building materials and sustainable design. She is on the board of the Joslyn Castle Institute for Sustainable Communities, one of the country's preeminent foundations dedicated to promoting sustainable development. Her DuJardin Design Associates maintains offices in Nantucket and in Westport, Connecticut. Contact them at dujardindesign.com or call 508-228-1120.

Verde: Nantucket Green Build is a company of professionals committed to designing and building resource-efficient and healthy buildings. Rebecca Anderson did her architectural internship on Nantucket before earning her license. Co-partners Burr Tupper and Ian Konecko are licensed builders with years of on-island experience. Together they bring their sense of environmental responsibility and their passion for beauty and quality to the work of greening Nantucket. Contact them at 508-684-9464.

high-end and they're covered in shingles. If people want a house [here], there are three to choose from. We're not used to experimenting with our house styles or our choices."

Anderson, however, is more than ready to mix it up. Late this past winter, she and two local builder friends, Ian Konecko and Burr Tupper, started Verde—Spanish for "green"—as a consulting, design and building firm focused on building green whenever possible.

Green up close

Architectural firm Chip Webster & Associates also preaches green to its clients and is designing the new facility for Small Friends of Nantucket as the

island's first green school building. To do so, Webster called upon his colleague architect Steven Blashfield to design the project and guide Small Friends' building committee through the process of selecting green building materials and techniques, as well as energy efficient heating, cooling and power systems.

Blashfield, among others locally, has earned certification as an architect in Leadership in Energy and Environmental Design, or LEED, a recognition given by the U.S. Green Building Council to builders and architects and to commercial buildings or private homes. Before hanging out their business shingle, Verde's founders all got their LEED certifications for designing structures on three levels of increasing environmental soundness:

gold, silver or platinum, based on a complex grading system. LEED is the only wholly green certification on Nantucket today. Although the Nantucket Historic District Commission has for years reviewed applications including solar panels and the odd personal wind turbine, the agency's guidebook, "Building with Nantucket In Mind," offers no specific parameters for building green or for sustainability.

Webster has designed his own new house, currently under construction by builder Ron Fesko's Mustang Construction Group, to include as many green or sustainable elements as possible. He also purchased a bus that he plans to convert to ethanol fuel sources to serve as a mobile design and project

Eco-smart practices & materials

Site choice:

- Avoided environmentally sensitive sites and farmland
- Close proximity to existing sewer, water, roads
- Close proximity to green spaces
- Minimal disturbing of site by designating specific areas for storage and vehicles, temporary relocation of excavated soil, minimal number of trees cleared.
- Excavated material kept on site throughout construction, to be redistributed in cleared areas to minimize erosion and promote new growth of native flora
- Minimized turf and landscape water through water permeable 'hardscaping,' sufficiently shaded to reduce solar gain
- Implemented supplemental techniques to reduce insect infestation at all framing to footings and foundations

Water:

- "Grey water" re-use system
- Zoned irrigation system serving planting beds with drip system
- Dual flush toilets (Very High Efficiency rated)

Indoor Environment:

- Meets Energy Star requirements
- Humidity control system
- Heat recovery unit (HRV) for fresh air circulation
- Exhaust fans on timers based on air flow rate
- Parking and vehicle storage detached from dwelling
- Paints with low volatile organic compounds (VOC) paints, flooring materials

Materials:

- Home size smaller than national average
- Advanced framing techniques ensure waste factor for framing below 10% minimum
- Local materials and certified sustainable lumber used

- Materials, products, and systems analyzed for durability and projected life span
- No tropical hardwoods
- Recycled products and materials prioritized
- General construction waste monitored and significantly reduced compared to typical construction site

Energy and Atmosphere:

- Exceeds Energy Star for homes with a modeled score of 93 HERS (86 HERS minimum). Modeling and verification by third party.
- Glazing meets Energy Star requirements
- Domestic hot water and radiant floor system heated by solar tubes. Radiant floor system supplemented by propane fired, high efficiency hot water-on-demand system
- All recessed lighting LED based, significantly reducing power consumption and heat loss.
- Closets and utility spaces lit with compact fluorescent lights.

TUESDAY



- Got 8 hours of sleep
- Went to the spa
- Spent a relaxing afternoon on the beach at Cisco
- Had dinner and drinks with friends

- Got 8 hours of sleep
- Picked up *The Independent*
- Went to the spa
- Spent a relaxing afternoon on the beach at Cisco reading *The Independent*
- Had dinner and drinks with friends

WEDNESDAY



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Photo by Terry Posner

Trudy Dujardin at her Nantucket home.

are shipped to the island. Fewer materials shipped would mean less fossil fuel was used to bring materials here."

According to Webster, Marine Home Center's head building supplies buyer Mark Songer is already on that bus. Webster and Anderson credit Songer with organizing a green building materials seminar last summer and with stocking green building materials that, when combined with all other aspects of eco-building, can keep the costs on par with conventional construction. Even so, green building can cost 10% to 15% more if certain elements of a building are substituted with earth-friendly materials, cautioned Webster.

Building green from the ground up can be done by using less concrete in foundations, using mixed concrete-hard foam panels or by mixing recycled materials into the concrete. Advanced framing techniques can save up to 30% in lumber. In many cases, sustainability can be better achieved with framing materials made in environmentally-sound harvesting operations, by using blown-in insulation and by installing sustainable interior materials such as bamboo and cork flooring. Double-paned windows, natural lighting, solar heating and power, energy-efficient appliances and myriad other techniques contribute to long-term savings. Still, there are those who are missing the message from Mother Earth.

"A lot of our clients still call saying, 'I want beautiful interiors and I don't care about the air.' We're just passionate about the environment, and this is a piece of it," said Dujardin. ■

For more resources on designing or renovating your home with "green" in mind, visit the "Sustainable Products and Resources" section of dujardindesign.com or globalgreen.org.

management lab. Other builders getting into the green building act include Michael Haigley, Twig Perkins and Rob Andersen, who helped Pi Pizza owner Evan Marley install solar water heaters and other energy-efficient aspects at his house in Fisher's Landing.

Passionate about the environment

Anderson and Webster say that the potential for the success of green building practices on Nantucket runs as deeply as the pockets of their clients.

"I think, realistically, [it's] huge, because there's already a whole lot of money involved and because there's an identifiable need here to reduce our energy use and our output of waste," said Rebecca Anderson. "Whatever we're saving in land we're wasting in our buildings, and then throwing away what we've torn down. It would be a change from what we're doing, but the appearance of it wouldn't be radical."

"The reason for Nantucket to build green is the same reason for everyone to build green," said Webster. "Nantucket has always been in the public eye, so for Nantucket to lead by example through building green is a wonderful opportunity. Another reason for Nantucket [to adopt these practices] is that many materials

A shade apart.



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