Some landscape designs are "greener" than others

by Aaron Hoover

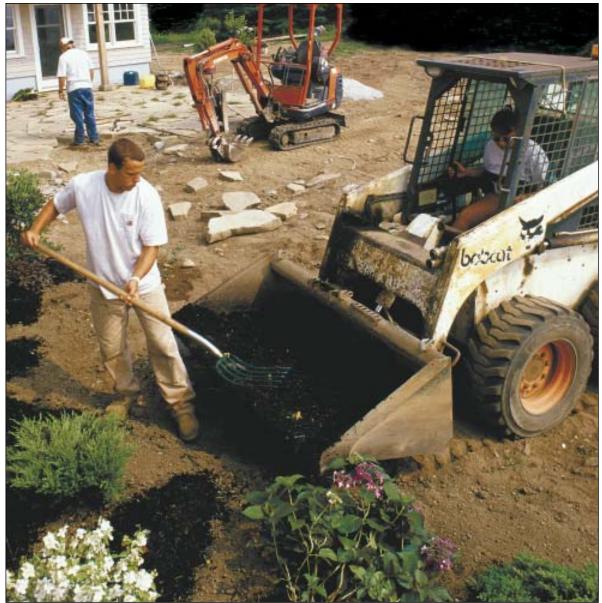
Drawn to the coast for its natural beauty and wildlife, yet increasingly confronted by red tides, fish kills, and contaminated beaches, many coastal residents are deeply concerned about the environment. While they cannot single-handedly save the coast, a growing number are seeking out builders and landscapers who can help them make a difference in their own front yards — by landscaping with environmentally friendly native plants.

In Fort Myers on Florida's booming southwest coast, Custom Earthworks Design is one of a handful of area design firms that specialize in exclusively or mostly native landscapes. Co-owner Pat McCarley's nine-year-old company has grown steadily as new residents and home builders have sought him out to green yards and businesses with East Palatka holly, Walter's

viburnum, dune sunflowers, and other local natives. (See "A Plant Sampler," page 39.) McCarley says many of his clients "feel like they're doing something positive for the environment. They say, 'I can't go out and save the whales, but I can use native plant species and feel good about it.'"

ECO-FRIENDLY NATIVE PLANTS

Native plants are healthier for the environment than turf and traditional coastal exotics for several reasons, the main one being that they are accustomed to the dry coastal climate and thus require less irrigation. "We get calls all the time complaining about water bills from people who have just incredibly large landscapes on Sanibel or Captiva, where water is expensive," McCarley says, referring to nearby resort barrier



A landscape design that relies on a combination of hardscaping and native plant species requires much less water than a traditional lawn, yet withstands salt spray and poor coastal soil conditions.

TODD CAVERLY

islands. "If you can get rid of more of your grass, you don't have that issue."

That's a selling point not only to residents but also to local governments seeking to reduce water use and nutrient-rich runoff into bays and estuaries.

Florida is a leader in the native plant trend because of its year-round growing season and 1,197 miles of coastline. As many as 30 of the state's 67 counties now require at least some portion of native plants in new commercial and/or residential landscapes, notes Cammie Donaldson, author of the annual *Native Plant* & *Service Directory* published by the Association of Florida Native Nurseries (AFNN).

"Water conservation is really driving it," Donaldson says, adding that the association's membership has nearly tripled from about 50 members ten years ago to 140 today.

Many native plants are also salt-tolerant, making them ideal for beachfront lots. Accustomed to salt spray, they can subsist on poor coastal soil conditions and are resistant to local pests, reducing fertilizers, pesticides, and maintenance. They draw birds and other wildlife that some homeowners yearn to observe. "They even attract more butterflies," McCarley notes. "There are just all kinds of reasons to use them."

Lee County, Fla., where Custom Earthworks is based, requires 75% native plants on new landscapes for commercial development. But that rule is just one motivator for customers of Custom Earthworks, which grew 20% annually in its first five years and now handles about 30 residential and commercial developments annually.

Landscape designer Pat McCarley used tall buttonwood trees and Washington palms around this backyard pool to screen the neighbor's house.



WHERE LANDSCAPING MEETS HOME BUILDING

Some homeowners contact the company directly, but the firm subcontracts regularly with several custom home builders. McCarley prefers to begin after the home's exterior is completely finished, but he and the firm's three landscape sales designers often put their heads together with builders long before that.

"Because we're responsible for creating the atmosphere around the home, almost every single time our opinion is solicited for things that have to do with the appearance of the home," he says, citing a recent job where he and a contractor decided to add an outside kitchen to spruce up an otherwise unremarkable pool deck area. "We were trying to find ways to enhance the area," he explains. "We were talking about the land-scaping but also about the livability of the home."

Lee Staton, a custom home builder and owner and president of Fort Myers—based Nautilus Construction Group, has hired McCarley to landscape at least a dozen of his \$1-million to \$2.5-million homes over the past decade. He says he brings McCarley in "very early" in the process — before construction begins, if possible. That's because it's critical for McCarley to work with the homeowner in choosing a landscape and matching it to the style of the home, a process that is not necessarily rapid or efficient.

"Pat can present different ways of doing it, but they

[the homeowners] need to have time to digest it,"
Staton said. "They'll get back together and they'll have
Pat change the drawings, and then they'll get back
together and have Pat change the drawings, and so
on."

Once the design is settled, McCarley often needs to start planting before the home is completed so that the end product has a finished look, Staton says. For one house to be finished this summer, McCarley planted four palm trees early in the spring, well before the outside of the home was completed, Staton notes.

Builders also turn to McCarley to solve tricky problems with less-than-ideal lots. For example, with pieshaped lots, even \$500,000 to \$1-million homes may be close together toward the rear of each lot. Keeping the owners satisfied with their privacy often comes down to good landscaping, McCarley says.

"The owner doesn't want to look at a neighbor's garage, and the neighbor doesn't want to look at him," he says. "You've got to find a way to squeeze in a land-scape buffer that will serve the purpose, not be a maintenance nightmare, and complement the home that you're landscaping."

That challenge would be the same for native or non-native plants. But many people underestimate the versatility of natives, often stereotyped as "weedy," McCarley says. In fact, while native species have a



The fishtail fern (left), contrasts with the smaller, fragrant wart fern (right), along a path covered in washed shell. At night, the shell reflects light from the moon and other ambient sources, while the crunch of the shell even helps provide security.

more natural look by definition, they can serve many different tastes and home styles. "We've done native landscapes where they've been very natural, very barrier-island-like. But we've also done 100% native projects that are very formal and elegant" using, for example, royal palm trees.

Staton agrees. His 4,000- to 5,000-square-foot homes tend to be on the formal side, based on classic English, French, and Italian designs. "One thing Pat is able to do," he says, "is incorporate natural or native plants, trees, and bushes in a fashion that looks correct in that caliber of a home."

McCarley says the up-front cost for native land-scapes closely mirrors traditional landscapes. Custom Earthworks' prices start at \$15,000 for new homes and \$40,000 for a condo or commercial building, and they climb from there. One residential landscape, on Captiva Island, came to \$90,000. A seaside condo landscape, meanwhile, totaled out at \$150,000. Individual plants run from \$1.50 per plug for common species like dune sunflower to at least \$600 each for slow-growing, 6- to 8-foot buccaneer palms.

Whatever the up-front cost, McCarley emphasizes that native landscapes are less expensive than their counterparts in the long run because of savings in water, fertilization, and maintenance. "For the homeowner, it's cheaper," he says.



In a project awarded first place in a Design with Natives competition for 2005 for the Florida Native Plant Society, McCarley removed sod from around a stormwater pond, and replaced it with maple and bald cypress, pond apple and leather ferns, spike rush, and cordgrass. Other outlying material included oaks, pines, wax myrtles, and muhly grass.

McCarley's greenery palette contains about 200 plant species, including a few exotics. When he first launched his business in 1997, it was difficult to find many of the plants he needed, but the increase in demand has helped solve that problem. Availability remains an occasional issue, however. This summer, McCarley has had to search hard for mangroves. As he notes, that's ironic, considering that just two decades ago Florida builders and developers were ripping them out by the acre.

"Mangroves are popular because they help to preserve our coastline and they provide fish habitat, so they're in high demand," he says.



Groundcovers of different heights are often used to providing layers of vegetation that won't need to be trimmed frequently and won't upstage or overgrow smaller varieties. Here McCarley accomplishes this with Indian hawthorne (foreground), coontie, and sword fern.

GREEN BUILDING AND NATIVE LANDSCAPING

Statewide in Florida, Custom Earthworks is unusual in its focus on new construction, and native landscapes in general remain "a niche market," says Laurel Schiller, vice president of the Association of Florida Native Nurseries and co-owner of Florida Native Plants, a Sarasota native nursery and landscaping firm.

Tastes are changing, but the process is incremental, and numbers remain small. She describes her typical customers as current Florida residents tired of the constant watering and maintenance that comes with exotic landscapes, as well as environmentally aware baby boomers buying early retirement or second homes.

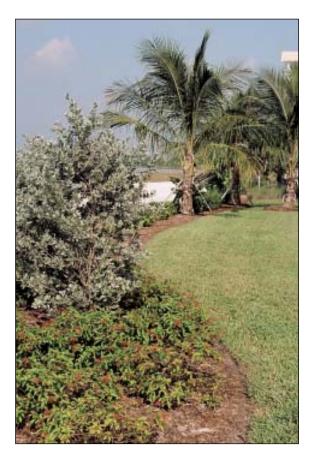
"They grew up with Earth Day in the school system," she says. "Their whole background is different from the background of the generation before. The generation before ditched the Everglades, drained the rivers, and cleared the land."

That said, she emphasizes that a big part of her work is getting the message out about native plants. Indeed, there's an obvious education gap. Staton, the custom home builder, says his customers usually don't ask for natives but are enthusiastic once they learn of the benefits. "They like seeing what they see, and 'oh, by the way, you don't have to fertilize the hind out of it and you don't have to maintain it every day.' So it's kind of a double attraction," he says.

Schiller says green-oriented customers are not uncommon, but the building community has been slow to catch on. She says she often receives calls from transplants unhappy that a builder or developer has wiped most of their tree canopy and who are hoping Florida Native Plants can help them restore the natural look.

"Our business is about trying to give people the opportunity to live in the backyards of their property," she says. "So much of it is so cleared that they are eight to ten years from a canopy again."

The fast-growing green building trend toward more environmentally benign, energy-efficient homes would seem to present a natural opportunity for native landscaping to move onto center stage. But Schiller worries that there is a "disconnect" between the practices and standards of green building and the potential of native landscapes to enhance "the green effect." Designers and builders will tout thermally efficient windows without considering the benefits of the tree canopy, for example, which can do as much or more to



To create a visual buffer between the beach and the grounds at the Riviera Club on Fort Meyers beach, McCarley used firebush and silver buttonwood (foreground), with coconut palms and cordgrass (background).

reduce home cooling loads.

"People will say, 'We're cutting solar radiation by 30%, and I think, 'A tree on the southwest side will do that too,' " she says.

"I think the building industry has been much more interested in the 'hardscaping' without seeing that it could and should be both," she notes. "The savings will be much greater if you're using old Florida landscaping techniques that cool and shade." ~

Aaron Hoover writes on science and the environment from his home in Gainesville, Fla., and is a regular contributor to Coastal Contractor. Photos courtesy of Custom Earthworks Design except as noted.

A PLANT SAMPLER

by Laurel Schiller, Florida Native Plants

Bald cypress (Taxodium distichum)

Buccaneer palms (Pseudophoenix sargentii)

Buttonwood: green (Conocarpus erectus) and silver (C. erectus var. sericeus)

Coconut palm (non-native): Cocos nucifera (cultivar 'Maypan' recommend as resistant to lethal yellowing disease)

Coontie (Zamia pumila)

Cordgrasses: saltmarsh or smooth cordgrass (*Spartina alterniflora* var. *glabra*); saltmeadow cordgrass (*S. patens*); sand cordgrass (*S. bakeri*)

Dune sunflower: East Coast beach dune sunflower (*Helianthus debilis*); West Coast beach dune sunflower (*H. debilis vestitus*); cucumberleaf dune sunflower (*H. debilis cucumerifolius*)

East Palatka holly (Ilex x attenuata 'East Palatka')

Firebush (red flowers are butterfly favorites): Hamelia patens

Fishtail Boston fern (non-native): Nephrolepis falcata f. furcans

Indian hawthorne (non-native): *Raphiolepis indica* 'Alba' has white flowers; *R. indica* 'Majestic Beauty' has pink flowers and is resistant to black leafspot; *R. indica* 'Rosea' has darker pink flowers

Leather ferns (Acrostichum danaeifolium)

Mangroves: red mangrove (*Rhizophora mangle*); black mangrove (*Avicennia germinans*); white mangrove (*Laguncularia racemosa*)

Muhly grass (Muhlenbergia capillaris)

Oaks: live oak (Quercus virginiana); laurel oak (Q. laurifolia); sand live oak (Q. geminata)

Pines: slash pine (*Pinus elliottii*); longleaf pine (*P. palustris*); loblolly pine (*P. taeda*)

Pond apple (Annona glabra)

Royal palm (Roystonea spp.)

Southern wax myrtle (Myrica cerifera)

Spike rush (Eleocharis spp.)

Sword fern (Nephrolepis exaltata)

Walter's viburnum (Viburnum obovatum)

Wart fern (non-native): Phymatosorus scolopendrium

Washington palm (non-native): Washingtonia robusta