## Dome

Continued from Page C1

The windows of the cupola at the very top of the primary dome resemble more the portholes to a Sherman tank. They feel small, not expansive, but the view they afford is still striking. A rest and reading area, the cupola will eventually be outfitted with bench pads to make it more comfortable, Severance said.

Standing inside the primary dome, "you don't feel boxed in. You are enclosed, but it feels like you are wrapped in it instead of in a box," Severance said.
"Whether you turn to the box.' outside or look up, now you have this almost kind of cathedral space that you in-

Reasons both idealistic and practical propelled Severance and his wife, Mary, into building the home. Built on a network of struts arranged on great circles, or geodesics, lying on the surface of a sphere, the geodesics intersect to form triangular elements that are very rigid and yet distribute building stress and weight across the entire structure. That makes domes very tough, the only man-made structures whose strength increases proportionally as they increase in size.

The domes also offer lovely natural light and acoustics. Not counting the cupola's five bay windows, the living area in Severance's rural Maine vacation home has 15 skylights and 11 other windows.

The domes are both noisier and quieter than a regular home, Severance said. They are quieter in that wind and bad weather outside make less sound in the dome because they flow around its outer rounded surface. They are noisier in that the proliferation of curved surfaces every 7½ feet along the inner dome surface helps sound waves to bounce everywhere inside the place.

"With the way the dome is shaped, you can hear the TV better upstairs than you can hear it in here," said Thomas Greeley, a construction worker for Galen Hart and Sons, one of the subcontractors helping finish build the home's flooring and wiring.

Sound waves, Greeley said, are less easily trapped than they would be within rectangular shapes. The sheetrock walls in the five bedrooms and bathrooms mitigate this impact somewhat and provide more privacy, Severance said. Within them, only one of the walls is curved.

Those curved spaces can be a big headache to most contractors, Hart said. The constant angled cuts for the tiling outside and the wood inside the dome creates work only experienced contractors should attempt.



GABOR DEGRE | BDN

An interior view of Cliff Severance's vacation house in Carroll Plantation.

This building job isn't for cost him. Part of that, he he also has a great eye for everyone though. One of the original granite contractors, an experienced man, took a look at the challenge of cutting countertops around the outer curved edge of the kitchen and living room areas and walked off the job, Hart said.

"This is not a do-it-yourself project," Hart said.

Hart remembers well his first steps inside the structure. "I thought, wow. This is going to be different."

Not that the dome is a money trap, but Severance claims he honestly doesn't know, or want to guess, how much money the dome has

said, is the intermittent nature of the construction and the stops that have occurred because of occasional cashflow shortages. The Severances also regard the dome as the capstone to their relatively lucrative careers she is also an electrical engineer, but retired — and haven't been shy about spending money or taking suggestions that have led to improvements, he said.

"Galen [Hart], he and his crew, are the guys who have done the most recent finish work." Severance said. 'Galen to his credit is not only a great contractor but

County are

becoming

available

thanks to

northern

more widely

Maine pickers,

suppliers and

distributers

such as Van

Buren-based

Northern Girl.

design, what looks good in color and texture. He is usually more fussy than I would be, so I don't have to worry about it being done well or looking good.

He hopes the house will be finished by the end of the year and looks forward to settling into it full time in a few years.

'The way I feel when I get there, it's like it's a sanctuary. I live such a hectic life. All the time I am around people and issues and traveling," Severance said, when I go there, I get this release. I can relax. It is calming."

Ann Kiah Tremble, the late Paul E. MacDonald and the Maureen Cunha MacDonald. Catherine is a 2009 graduate of Bangor High School and a 2013 graduate of the University of Maine at Farmington. She is a fifth grade teacher in Farmington. Jonathan is the son of J. Adam and Kathryn Jagger

**ALBUM** 

**Engagement** 

Catherine MacDonald

Jonathan Brock

their families, Catherine

MacDonald

Jonathan Thomas Brock

Catherine is the daughter

MacDonald and Curtiss

MacDonald of Bangor. She

is the granddaughter of

Joseph H. Tremble, the late

Nancy

and

their

Tremble

Ann

announce

engagement.

TURNER - Together with

Brock of Springvale. He is the grandson of C. Thomas and Judith S. Jagger, Melvina "Bebe" H. Brock John S. Brock. and Jonathan is a 2009 graduate of Sanford High School and a 2013 graduate of the University of Maine at Farmington. He is a sales representative for Nortrax-John Deere.

An August 2016 wedding is planned.

## **Ferns**

Continued from Page C1

should fit with the practices of sustainability and fair trade," Cook said. "We want to elevate our brand with a cleaner, safer product that can be directly connected to Aroostook County. We all love the country and [are] proud to have food coming from here.

Before any of Haines' pickers take to the woods this year, they must participate in a daylong workshop and training session covering sustainable harvesting, handling the fiddleheads in the field and basic food safety practices.

"A lot of the folks who pick fiddleheads do it for some extra money and are not experts in the food trade," Cook said. "We are talking to them about keeping their buckets clean, not smoking while gathering fiddleheads, making how to keep them cool and the importance of them being brought in the same day as they are picked."

Haines and Cook held their first training session last week for about 20 prospective pickers, and a second training session will be held later this

Once brought in from the field, Haines and Cook are keeping meticulous records on where each and every fern came from, and they are passing that information along to

the consumer. 'We want to create accountability and traceability to make sure the product is safe and that the consumer is happy," Haines said. "What this is going to do is create industry standards for the foraging industry that have not been there before."

So precise are these records, all consumers need to do is plug in a code from the fiddlehead package onto an interactive map on the Northern Girl website, and it



MARADA COOK

bags with the fiddleheads, where those fiddleheads plant," Fuller said. "In some were picked.

Haines plans to hire 45 pickers this year to supply Cook with about 30,000 pounds of northern Maine fiddleheads she needs for wholesale and retail sales in 10-pound bulk packages and single-serving 5-ounce containers.

And while 30,000 pounds won't put much of a dent in the millions of pounds of fiddleheads Haines said are in Aroostook County, he and Cook don't want to see any areas over-harvested or permanently damaged.

"We are really going over the basics of sustainable harvesting with the pickers," Cook said. "We really want our pickers to look at the process from a stewardship point of view.

That's good news to Dave Fuller, agriculture and nontimber forest products professional with University of Maine Cooperative Extension, who has spent years studying fiddleheads.

"Sustainability is really No.

sure no debris gets into the will show them exactly 1 with any wild harvested will be less and less fiddleareas, I've seen up to 30 people at a time picking."

Savvy pickers know where the best spots are, he said, and return year after year, which can be a problem. Between 2005 and 2008, Fuller compared harvesting methods among three fiddlehead plots.

"One plot was the control area, and I took nothing out," he said. "In the second plot I harvested half of what came up that season with no subsequent harvest, and in the third plot I took every marketable fiddlehead that came up, which simulates what most people picking fiddleheads for cash do."

In the plots where no or half the fiddleheads were harvested, Fuller said the same number of plants came up the following season.

"But where I picked everything, after three years, 90 percent of those plants were dead," he said. "If we have people going back to the same spots every year and taking everything, over time there

heads.

Haines does not want to see that happen.

"One of the best management practices we are talking to our pickers about is the maximum they can pick in an area so the fiddleheads can also regrow," he said. "Frankly, we know there are millions and millions of pounds of fiddleheads in the woods in Aroostook County, and

want to keep it that way." According to Cook, there is a growing market for all those northern Maine fiddleheads.

"Last year we shipped 10,000-pounds of fiddleheads, she said. "We are looking to triple that this year."

To people "from away,"

here is a certain woodsy mystique to a Maine fiddlehead, Cook said, and she's ready to capitalize on that.

"Here in Maine the fiddlehead is such a traditional food, we just assume people know about them," she said. "But in other places it's such a sexy vegetable and really seen as a specialty seasonal forage

**Fiddleheads** At the start of the fiddlefresh from Aroostook

head season, for example, Cook said it is not at all unusual to see people pay \$19 per pound for the greens at a New York City farmers market. That price drops quickly

gourmet food from Maine."

as the season moves on," she said. "That can put northern Maine at a disadvantage because we start picking so late in that season.'

That's where branding the Aroostook County fiddlehead and making it the must-have green comes in, she said.

Cook also stressed that, just because fiddleheads may sell for close to \$20 per pound in the big city, it does not mean anyone can fill a car with fiddleheads, drive south and make a killing.

"There are a lot of steps that go into pricing between picking and the final market that people don't see," she said. "From washing, food safety, packaging and delivery there is a lot of 'value added' going on [and] over time as part of our commitment to fair trade I'd like to see transparency in those steps so people understand what it takes to get this product to market."

A big part of that, she said, is shining the spotlight on the people at the start of the process.

"Right now the identity of the person at the headwaters of the supply chain is anonymous and they are not engaged in the marketing of fiddleheads," Cook said. "We want to change that and give them a voice so they are no longer invisible to the consumer.'

Haines and Cook also want to pay those pickers fair wages.

This year Haines said he is paying between \$1.50 and \$2 per pound for the fresh picked fiddleheads. Last year his top foragers earned \$400 to \$600 per day, while the average harvesters brought in around \$200 per day, Haines said.

"We have standards for our pickers, and we want them to adhere to those standards," Haines said. "We can pay a premium for that, [and]

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as our adherence to fair trade practices grows, we want to get money into the hands of the pickers."

According to Haines, Northern Girl and Crown O'Maine Cooperative are quickly becoming the the largest distributors of Fiddleheads in New England and are continuing to grow.

"We are essentially trying to corner the market for supplying this forage food," Haines said. "It's really pretty exciting."

**BDN** writer Anthony Brino contributed to this report.

## Compost

Continued from Page C1

away. By looking at the compost, we see what kids like, what they don't like. I think it's reduced our food waste."

By composting, the students save about 10 gallons of food scraps per day from the waste stream and bring them to a series of large compost pallets behind the school. They fill up 10 or 11 pallets over the course of the school year with food scraps, garden waste and leaves from the city of Belfast. Because of the high volume of compost material, the temperature within the pile can easily reach 160 degrees Fahrenheit, or hot enough to turn into soil. It's so hot, and there's so much material in the bins, that the middle school successfully composts meat and bones. However, some experts caution against that strategy for home composters because

"Good compost doesn't smell. Usually if it's getting stinky there isn't enough brown material, like sawdust, mulch hay, leaves or coffee grounds."

DAVID WESSELS

they can smell bad and attract unwanted animals. "It gets really hot," Wes-

sels said, grabbing a long thermometer to demonstrate. "Is it going up?" "Yup," chorused the stu-

dents who intently watched as the numbers rose. "The only science to it is getting the proportions right getting it mixed enough," Wessels "Good compost doesn't smell. Usually if it's getting stinky there isn't enough

brown material, like saw-

dust, mulch hay, leaves or

coffee grounds.'



The Garden Project at Troy Howard Middle School in Belfast started in 2000. Students make compost, plant, take care of and harvest the vegetables, which mostly end up on lunch trays in the school cafeteria.

thing, because students aren't the only creatures interested in the compost bins. The school has several regular guests, such as a seagull dubbed "Frankie," who ventures every day after lunch to see what's on the menu. But because the series of bins sits at the edge of the

Lack of aroma is a good forest behind the school, pests aren't really a problem.

> "It helps that we have predators [such as weasels]," Wessels said. "The pests can't get out of control.

After the material in the bins breaks down, in the fall, students run "countless wheelbarrows" full of the soil out to the garden, Wessels said. Their efforts haven't gone unnoticed. In 2012, the school was named "Composter of the Year" by the Maine Resource Recovery Association.

But awards seemed far from the minds of the students busy this week composting and working to get the gardens ready for planting. The air was redolent with the earthy smell of good dirt, and the grey skies above were brightened by the smiles and good humor of a group of boys working off some pre-lunch energy by energetically weeding the raised-bed gardens.

Josh Gerry, 12, of Searsmont said he is a big fan of the Ecology Academy, and of its focus on getting outside, gardening and composting.

"It's kind of hard work," he said. "But I've learned how to weed properly and how to actually compost. I

didn't know how before. Josh and several other stu-

dents said they've brought their newfound knowledge home. Hayden Brewer, 13, of Swanville, whose favorite vegetable is peas, said he has been enjoying working in the garden at his house.

'It's saved us a lot of money," he said. "Instead of going to the grocery store and buying vegetables, we are growing them. And we noticed a big difference in taste. I never liked tomatoes until we started growing them at our house, and I found myself eating them a lot more often."

Wessels chimed in. "We start them on the

sungolds," he said. "It's the gateway tomato." Josh and Hayden said they've started composting

food scraps at their homes, too, which means the circle started at the middle school is expanding — and that's good news to Wessels.

"It adds up," he said. "It's great that the kids get to do every step of the process. I think it's pretty magical."