

# Dome home: dream come true for builder

By KATHY LOWE  
For the Emerald

It looks something like a giant beehive or a mini-Kingdome, but the Springfield structure — a geodesic dome house — is a dream come true for Rodger Boothe.

Boothe, owner and operator of Oregon Domes Inc., says his dream began in 1971 after he heard the words of R. Buckminster Fuller, the inventor and developer of geodesic domes.

Boothe and two partners went to the East Coast and built a dome home from scratch using the calculations and basic principles Fuller presented in "Dome Book II." But when they returned to Eugene to build domes, they ran into problems with the city's building department.

"They said I couldn't do it," says Boothe. "I didn't have any engineering. I didn't have any credibility. I didn't have anything, so it (the idea of building domes) just sat for a year."

Boothe, however, did not sit still. He contacted Cathedralite Domes in Santa Cruz, Calif., a company which manufactures geodesic domes, and signed on to distribute its products. Because of his experience with domes, he was able to obtain a permit to build them in Oregon.

Financing was a problem. "We had a very difficult time with financing; nobody wanted to take a chance on an unusual structure like a geodesic dome," he says.

But Boothe and his partners kept hammering away, and in January, 1978 finished a model house on Whitbeck Road, which was visited by more than 35,000 people in six months. After such an overwhelming display of public interest and recognition, financing was easier, Boothe says.

Although Boothe and his partners later split up, he has built about 50 dome homes — 40 of which were built this year — in 17 Oregon counties.

Boothe describes the rate of dome home construction in Oregon and the rest of the country as "phenomenal."

"We expect to do 150 more houses next year. We're doing about four a month at the present rate, and it looks like it's going to go that way all through the winter."

One of the characteristics of Oregon Domes is the unique relationship between client and builder. "With the owner builder program we're not responsible for the house in its entirety. We're simply there to help people through the process," Boothe says.

"The crux of what we've been trying to do as a company is establish an energy-efficient shelter method using all the resources that any individual person might have on hand to initiate the shelter building process."

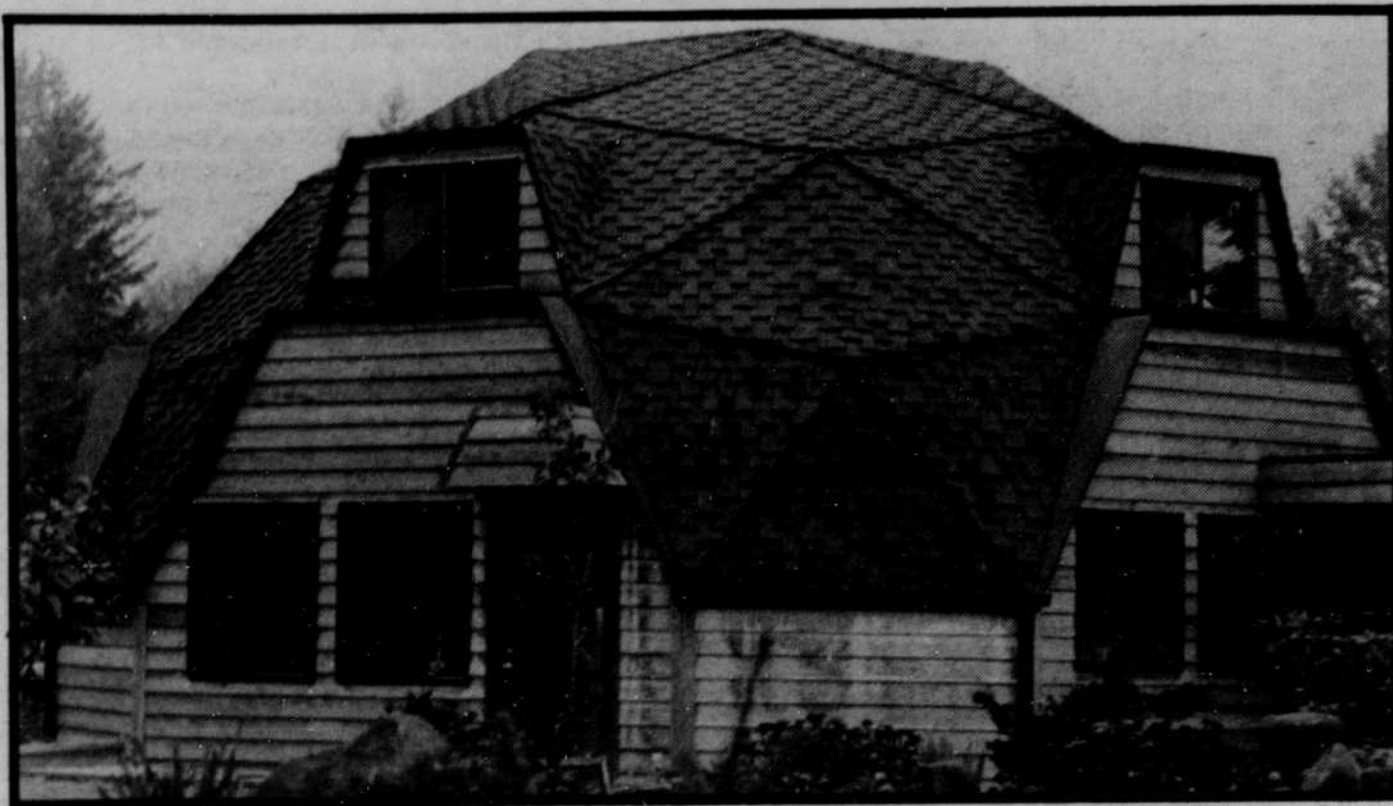


Photo by Joe Schnabel

Geodesic domes are the latest — and best — thing in housing, says dome owner and builder Rodger Boothe. Boothe says his dome home not only saves energy, it is roomier and stronger than any

conventional "square" house. "You walk in the door and ... it seems like you're living in an environment... molding the inside and outside together."

The dome alternative is better and cheaper than the traditional American method of turning the entire building process over to a general contractor who uses separate construction, plumbing and foundation companies, Boothe says.

A dome is built step-by-step, Boothe says. Assistance is provided when it is needed as well as instructing the client in all phases of construction. The aim of Oregon Domes is to open the construction process to the maximum amount of owner input, he adds.

The design of dome homes complements the owner-builder concept because it is easily and quickly assembled, is energy efficient and allows a greater amount of freedom in design, he says.

The triangles used in the domes are prefabricated and sold as a kit. The components are of wood — basically plywood and two-by-fours, which are sized to exact specifications so each piece fits another piece exactly to make the pentagons and hexagons that form the dome.

So far, every dome home built by the company has been assembled by the owner and friends, Boothe says. The outside shell can be put together by unskilled workers in six hours and the house can be completely finished in four to six months.

Boothe encourages owners to gather their friends together to put a new twist on the old American tradition of cabin raising. "Putting up a dome is a whole lot more fun than putting up a square, because you can put the basic shell up in one day."

The basic design of the geodesic dome, Boothe says, "is incredibly strong and incredibly weather-resistant. Much more so than a conventional home."

The snow-load requirement in the Eugene area is 30 pounds per square foot, but dome houses are capable of holding 120 pounds per square foot or four times the amount required by law, he says.

The secret of the dome's strength is its shape, which is basically an egg. It is impossible to squash an egg lengthwise because all the force you apply is distributed throughout the entire shell, Boothe explains.

For this reason dome homes have been known to sustain 200 mph hurricane winds and have been built in areas of California

where construction of conventional houses is not allowed because of earthquake danger.

The dome house built by Boothe and his wife Linda is 35-feet in diameter and has an area of 1,100 square feet. Although it does not cover a large area, the home conveys an airy, open feeling because of the large, soaring ceilings. With two bedrooms, two bathrooms, a living room, a kitchen-dining area and storage space in the house is roomy.

"It's great," Boothe says. "It's really different from just the point of view of living in a dome

versus other different places I've lived. This place is real special to come home to."

"You walk in the door and it doesn't seem like you're living in a house, it seems like you're living in an environment. It's almost like bringing the outside in and molding the two things together."

A dome home costs less to heat because of less exposed surface area. A dome owner can save 30-50 percent on heating and cooling costs without adding insulation because of the design, he says.

Boothe's house is fueled by electricity, but runs on a unique hot water radiant method, considered to be one of the most efficient systems developed, Boothe says. The system heats water to 120 degrees by two or more 5 kilowatt elements, circulates it through a series of copper coils that heat concrete slabs, which in turn heat the house.

A thermostat turns off the elements, allowing the slabs to continue to radiate heat using no additional energy. The system is draft-free, reduces heating bills and is easily adaptable to other power sources — especially solar power, Boothe says.

The Boothers kept their thermostat at 70 degrees every day last January — when many days were below freezing — but only paid \$36 to heat and maintain their home during the month.

The house, at 796 South 70th St. in Springfield, is open for viewing on Sunday afternoons between 1 and 4 p.m.

**FOR YOUR HIT MOM AND DAD UP HOW TO**  
**HIT MOM AND DAD UP**  
**FOR YOUR HOLIDAY TRIP HOME.**  
It's easy.  
All you have to do is cut out, sign and send the letter below.

Dear Mom and Dad,

How are you? I'm fine, and the doctor says I'll feel even better when I get a few days' rest and a couple of home-cooked meals. But with the condition of my wallet, it looks like I'll have to hitchhike home for the holidays.

My roommate just made plans to go home with Greyhound and says Greyhound is a great way to fight inflation because their fares are so reasonable.

Greyhound even makes it possible for someone to prepay a ticket in one place so someone at another place can just pick up the ticket and come home. You can even send along a small cash advance with the ticket. Greyhound will take care of everything for just a small fee. Boy — is my roommate lucky.

Well, I have to run to pick up some more of that expensive medicine. I miss you all very much and hope to be home next weekend.

Love and kisses,

**GO GREYHOUND**

**NFL FOOTBALL - BIG SCREEN T.V.**

**Monday Nights at 6 p.m.**

**Large Pitchers (Miller) \$1.75**

**Free Popcorn**

**Deli open til 9 p.m.**



**woodside**

**brewery**

**& DELICATESSEN**

**2165 WEST 11TH 485-4044**