

# Life

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JIM ROSS FOR THE TORONTO STAR

Environmentalists Chuck and Pat Potter enjoy tea at the kitchen table of their cosy Earth Home, an environmentally friendly, solar-powered house they built using 1,200 used automobile tires.

## The house that tires built

Tread should be the trend, say environmentalists of their uniquely constructed home

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SPECIAL TO THE STAR

BANCROFT—August's massive power outage came as no surprise to long-time environmentalists Pat and Chuck Potter, who had warned of its inevitability for years.

So, when the power failed and the lights went off over a large chunk of North America, the Potters were prepared. Heeding their own warning, they had built their home independent of the power grid and gas line. As millions of people struggled to cope with the power outage, the Potters had power and water to spare.

With winter now laying claim to their 16 hectares of woods and wetlands south of Bancroft, the Potters say they are more convinced than ever they did the right thing in building what they call their Earth Home—an envi-

ronmentally friendly house, powered by the sun, its walls constructed of 1,200 used automobile tires.

They call it their Earth Home. Others call it the Tire House although when the roof is covered this spring with 15 centimetres of earth, it will take on a natural mound-like appearance with nary a tire in sight.

"One of the reasons we built this house was that we could see the problems coming and we realized this type of construction solves these problems," says Chuck, 58, a photographer who operates a gallery at the rear of the house.

"If that power failure had hit over the winter, it would have been an absolute major North American disaster of a proportion we have never experienced."

You can find the Earth Home, its rear embedded in a small rise in the woods, at the end of a dirt track off Highway 62 about 30 kilometres south of Bancroft.

Designed by architect Martin Liefhebber, the creator of Toronto's energy-efficient Healthy House, the Potters'



PHOTO BY CHUCK POTTER

The Earth Home stretches 100 feet, its rear embedded in a small rise in the woods. Designed to make maximum use of the sun's power, it has five solar panels to produce electricity and 17 tall windows on its south-facing front to capture sunshine and warm the interior.

► Please see Tire house, L2

# Cozy use of 'free energy'

## ► Tire house From L1

place is constructed to maximize use of the sun's power. Five solar panels capture the sun's energy to produce electricity and 17 tall windows in the building's south-facing front capture the sun's heat.

Thick walls of tires packed with earth and encased in concrete act as a heat storage system, maintaining a constant inside temperature so that the inside of the house is heated in winter and cooled in summer. There are no auxiliary heating units.

The Potters latched on to the idea of using recycled tires as building material in 1990 as the giant Hagersville tire dump fire was spewing toxins into the air and polluting the water system.

The couple was living in Port Maitland, operating a tugboat named NIMBI (Now I Must Become Involved) on a non-profit basis that offered trips along the Grand River to promote environmental concerns among school children. Pat, 52, was also reviewing environmental books for CBC Radio at the time and was asked to review a book by a U.S. architect promoting the use of recycled tires as building material.

"I saw the tires on the cover of the book and I thought, 'Oh, brother,'" Pat recalls. "I was notorious for ripping apart phoney environmental books."

But after reading the book she was intrigued enough to fly with Chuck to Taos, N.M., to check out the Solar Survival Institute run by the book's author. What they saw converted them.

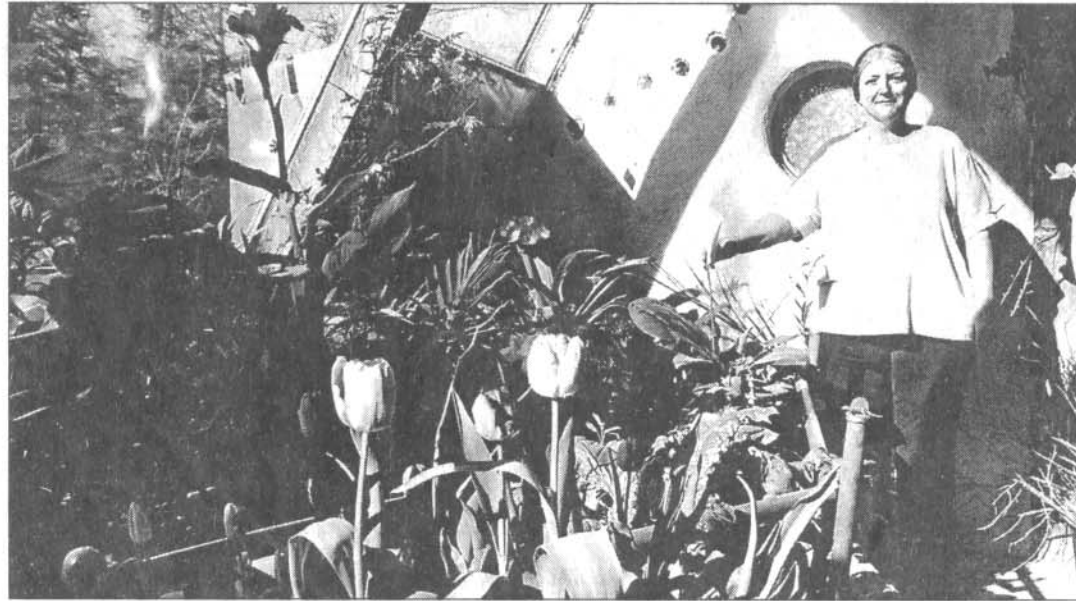


PHOTO BY CHUCK POTTER

Even in the depths of a bleak winter, the entire home is like a greenhouse, says Pat Potter, "with the jasmine right now in bloom."

"One thing the students (on the NIMBI) could not get a handle on and felt completely powerless about was global warming," Pat says. "We were actively trying to find a way to develop a more sustainable lifestyle so we could be a role model for these kids. And using recycled materials that did away with an environmental problem could be one answer to global warming."

The Potters bought their 16 hectares in 1995 and spent the first year preparing the site, obtaining the necessary building permits and fixing up an old cabin in which they lived until they could move into the house.

After striking a deal with a Bancroft tire dealer to deliver 1,200 tires to the site — and to

pay a \$1 a tire for taking the used tires off his hands — the Potters laid the first tire in 1996. They've been working on the house ever since.

The Earth Home has about the same living space as a conventional three-bedroom house with kitchen, living room and two bathrooms. A deep well provides pure water while composting toilets take care of human waste. Water from showers and sinks is directed to outdoor planters that filter out harmful chemicals and the roof is designed to direct rainwater — to be used for garden watering — into two large cisterns.

Employing no contractors, the Earth Home was constructed by the Potters' own sweat and la-

bour with a little help from volunteers, for a total estimated cost of \$40,000, excluding the \$20,000 for the property.

The Potters say they can keep their home at a comfortable temperature, winter and summer, with solar power. They have no auxiliary heating or cooling devices. They do their cooking on a wood stove.

"This is a solution that's so much more affordable than a conventional house and people can say they have done something to make a difference," says Pat.

"We have property taxes and a small annual fee for clearing the driveway but we've no mortgage or utility bills."

Pat says she knows of 18 other

"tire" houses, either constructed or under construction in Ontario and recently heard of two more being built in Quebec.

The Potters' project was highly controversial for the area when it was built, but Pat says her research and experience tell her the concrete-encased tire walls don't produce smell or toxins and are not a fire hazard — despite dire predictions to the contrary.

Any drawbacks?

Well, Chuck does have to clear the windows and the solar panels after a snowfall. But that's a small price to pay for a sense of security, he says.

The large computer he uses for his digital photography is a power hog and three or four days without sunshine limits his computer time. And there are times in the winter when the Potters have to don extra clothing to take the chill off.

"What an easy solution, if all it takes is an extra sweater and warm pants to save the planet," says Chuck.

"What really worries me is that society will not learn to correct its wasteful ways. There will be a serious increase in temperatures, increased evaporation, more cloud and less sunshine.

"All this free energy going to waste because we are not using the sun, it's crazy. Why are we using oil and gas when we could be heating and cooling our buildings with sunlight?"

For information on photo gallery hours and tours of the Earth Home, call 613-474-0435.

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