



EVERYDAY IS EARTH DAY



Photo by Sandy Hartzell



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Perched on a ridge in the foothills of South Mountain, to the west of Gettysburg, sits a snug little community of nine homes terraced into the hillside so that each of them can take advantage of the warm southern exposure and mountain views that seem to stretch all the way to the Gulf of Mexico.

Those views are spectacular, but there is far more here than meets the eye. Thanks to a layer of solar panels on the roof of each home, the community produces at least twice as much electric power as it consumes. Thanks to a separate system, the sun also serves as the fuel for the hot water in each home. And thanks to what locals call "the miracle," the community recycles every drop of its domestic waste water.

Known as Hundredfold Farm, this 84-acre community could call itself Pennsylvania's year-round headquarters for Earth Day. One of the founders of this unusual community is Lou Hammann, a retired Gettysburg College professor, who began working on the idea back in 1996. It took no less than a decade to find the perfect piece of land, then to joust with local and state officials for the appropriate permits, and

finally to build the homes and the systems that would make this a self-sustaining community. The project was finally ready for occupants in December, 2006. Now, more than three years later, Hammann says the development is still a work in progress. The community is designed to include 14 homes, but only nine have been built. Looking at the bare home sites, Hammann says the financial crisis struck here with no less force than anywhere else. The market simply dried up. Prospective members were unable to sell their outside houses, so they could not buy into the community.

The homes are attractive and comfortable. Priced in the \$350,000 range, they include as many as three full baths, a complete kitchen and about 2,000 square-feet of living space – and those spectacular views. The community adds a "condo" fee of around \$200 a month.

But Hundredfold Farm is selling features that potential buyers won't find in most other developments. Imagine producing twice as much power as your home uses – and selling the surplus to the local utility. Some observers find those rooftop solar panels unsightly, but for the pre-cable television generation that can remember forests of antennas sprouting from suburban rooftops, the sight of flat panels is a relatively unobtrusive feature of the landscape. The panels draw more energy than the homes can use – including whatever computers and electronic gadgets one might want as well as the heating, the cooling, the lighting and television. Hammann and his wife, Patricia, say they have not had to give up any creature comforts to enjoy this “green” lifestyle, though living in such a domestic environment does require a degree of discipline.

Other residents agree. Rosie Bolen, who teaches at Mount Saint Mary's University in nearby Emmitsburg, MD, has lived here for more than two years. Asked to name the best feature of the community she pauses, then protests: “I have to list three. It's beautiful. The people are great. And we're not harming the environment.”

Hammann grins at her response, then launches into a tour of the feature he calls “the miracle.” It is a double plastic-sheeted greenhouse about 100 feet long, which serves as a treatment plant for the community's waste water. A series of above-ground tanks contain biological and bacterial, not chemical, agents that provide primary treatment. The water is then pumped to an underground bed – Hammann calls it an actual swamp – covered with a small rainforest of plants whose roots create a habitat for microbes, bacteria and other sewage-eating organisms. Adding additional oxygen flow to the tanks accelerates the process, which produces water that meets state standards for re-use. It is then pumped back into the houses for non-potable uses, such as flushing toilets. Hammann says the excess water goes into a drip irrigation system for the Christmas tree farm.

The 60-acre tree farm is owned and operated by members of the Hundredfold community. During the holiday season, the residents volunteer to help people pick out and cut down their trees in one of several cooperative community projects.

In addition to water and power, a third earth-friendly system heats the water for each of the homes so that they do not have to use the fossil fuels normally associated with household hot water.

Bill Hartzell, a community resident who helped install the water purification system, says developers have toured the community looking for ways they might design more earth-



The greenhouse also serves as the community's waste water treatment plant.



friendly projects – and reap the advertising and sales benefits of the “green” movement. “I suggest they start with simple things, like laying out a project so the homes all face south. That's not a very difficult design issue. Then if they install most of the windows on the south side of their homes, the southern exposure will provide some warmth and reduce oil, natural gas or electricity consumption. The heating bills will be lower, too.”

The three infrastructure systems combine to make Hundredfold a self-sustaining community. But there is a fourth system at work here, and Hammann believes it is equally essential to the project's success. The fourth system is the spirit of cooperation among residents. In planning jargon, Hundredfold is a “co-housing” community, meaning the residents take the word “neighbor” back to a time when it implied helping – and depending on – each other. Living here requires a state of mind that allows someone to interact with neighbors almost like an extended family. They meet in the “Common House” whenever there's an issue to be considered. It could be anything from allowing air conditioning, which they allowed, to using chemically treated wood for residential decking, which they rejected. Decisions are made by consensus, not by a majority vote; meaning everyone

has veto power. So how does anything get accomplished? Hammann's reply is as quick as it is simple: “You learn to cooperate.”

“Co-housing is a state of mind,” he continues. “We have a social system that begins with cooperation. Our members all spend time volunteering for the good of the community. We all participate in the decisions that affect the community.”

Bill Hartzell takes aim at some of the misconceptions that the concept of co-housing must confront: “When we were first planning this venture, the local rumors were swirling. But over the years, people have accepted that we're not a bunch of hippies hanging out on the mountain. We're a community of responsible people – college professors, a chiropractor, law librarian, dermatologist, courier – who chose to live in a cooperative society.” Hartzell pauses before he stresses: “That's cooperative. Not communal.”

Hammann picks up the thought: “You can build a development with all our earth-friendly physical features, but without the co-housing concept. And that development will be a huge improvement over what's out there. But for it to work – for it really to succeed – you need to add the commitment of residents who care about their community and who care about their planet. That's why we're here.” **HBC**