

Awakening to the Sacred

BY MICHELLE SULLIVAN

Near the grounds of the Sisters of Charity Motherhouse at Mount St. Joseph, atop a garden-clad hill off of Bender Road, stands a modest 1,200-square-foot house where environmentalist S. Paula Gonzalez lives with another Sister of Charity housemate.

Although this building, which is a converted chicken barn, may seem ordinary from the outside, its design and structure make for an energy-efficient, earth-friendly living space. A tiny garage carved out of the old barn provides a home for S. Paula's golf cart—her solar-powered golf cart.

Two 170-watt PV panels mounted on the roof of the garage absorb sunlight and convert it into 340 watts of direct current electricity used to charge the 36-volt battery system that powers the cart.

The cart is silent, with the exception of the sound of the tires, which gives an idea of how little an impact the vehicle has on the environment.

"It started as a combination project with the chemistry department at the College of Mount St. Joseph," S. Paula said. "I had one panel and needed to find a use for it." S. Paula said she wanted to use the cart to get around the Mount grounds—and perhaps treat others to a "solar ride."

Not only does the cart serve as an environmentally friendly means of transportation, but it also shows what can be done with a little bit of sunshine. The latter can be said of S. Paula's home, "La Casa del Sol" or "The House of the Sun" as she has named it.

Although the house does not have solar electricity, it has been designed in such a way that the sun naturally heats the house during the winter. Innovative insulation maintains this heat during cooler months while it keeps heat out during the warmer months.

Because the house is designed for daylighting, which means the entire house can be lighted naturally by the sun, little energy is needed to provide light. Naturally lighting, heating and cooling such a space dramatically reduces the amount of energy S. Paula uses in La Casa del Sol.

In addition, almost everything in the house is reused. The cabinets were found and refurbished; old bedroom furniture, storage units and doors were retrieved from the College of Mount St. Joseph; the wood paneling was found in a nearby dump.

The house was constructed with a mere \$15,000 by the hands of 35 volunteers, who worked every Saturday for nearly four years. S. Paula said she made the money used for the building of La Casa by hosting yard sales, where she sold donated items and other "junk" she dug up.

"I didn't know a thing about building," S. Paula said.



S. Paula Gonzalez showcases the operating system used to convert sunlight collected by solar panels on the roof of her home, La Casa del Sol, into energy, which charges the battery that powers her golf cart.

"It just shows you what people can do if they want to."

And S. Paula has proven that statement true. She also has managed to construct another building, this one more dependent on solar power. EarthConnection, a short golf-cart trip away from La Casa, is a renovated four-car garage—with a new addition—that has 16 flat-plate solar collectors on its roof.

"It is a more sophisticated building than La Casa del Sol," S. Paula said of the EarthConnection building, which served as an active environmental learning center from 1995 to 2001. Advances have been made to EarthConnection that were not featured in La Casa.

For example, S. Paula and her team of University of Cincinnati architecture students and a woman faculty member found a way to save summer sun and use it in the winter. The collectors on the roof use sunlight to heat water, which is pumped into a bed of insulated earth and conserved.

By the end of summer, the ground in the insulated bed of soil outside is about 85 degrees. Come winter, the heated water is pumped through underground tubing beneath the building to a ground-source heat pump, which converts the heat in the water into heated air.

"We put the sunshine in the bank and save it for winter," S. Paula said of this unique system. "We have heat in the winter from last summer's sun."

The solar energy collected by the 20 PV panels on the roof is converted into electricity, which provides a portion of the electrical energy needed at EarthConnection.

Aside from the energy-saving technology with which the building is equipped, many materials inside are reused or made from recycled material. The carpet is made from plastic; the structure's frame consists entirely of wood, and there is a wall made from aluminum cans.

The purple wall seen in the entrance of the building is constructed from reused aluminum cans and cement. S. Paula said the process was long and took some hard work, but the message it sends is enduring.

"We did this simply to show that we need to stop wasting," S. Paula said. "The aluminum cans now have a purpose for the future."

And what does S. Paula's future hold? She surely does not plan on stopping her Earth ministry anytime soon.

"I'm 75 going on 50," S. Paula said. With more than 1,700 programs, workshops, seminars and retreats given, two solar buildings and a solar-powered golf

cart, one can only imagine what S. Paula Gonzalez will do next.

"I was born an environmentalist," said S. Paula. "It is part of my soul."

Born in rural Albuquerque, N.M., S. Paula and her family raised much of the food they ate. She said she learned how to live off of the land from the methods

her parents used when growing and preserving crops.

After attending a Sisters of Charity high school in Albuquerque she came to the College of Mount St. Joseph, where she studied biology. She went on to receive her master's and doctoral degrees in biology from The Catholic University of America in Washington, D.C.,

before returning to teach at the Mount for 21 years.

Although she always felt in tune with nature, S. Paula was not always an environmental activist. It was not until the early 1970s that her focus turned toward renewable energy.

When a new nuclear power plant was being introduced to Cincinnati, S. Paula became involved in anti-nuclear activism. She said speaking up about what was happening there began her awakening to what she calls her "Earth ministry."

But after nuclear accidents such as Chernobyl and Three-Mile Island, S. Paula said she started to think about other options for energy. That is when solar power became a part of S. Paula's life, and she began her research.

"I understood a bit about Earth by realizing I am a part of it," S. Paula said of working on the farm as a child. She said she hopes to help others become an integral part as well.

Inspired by her environmental upbringing, S. Paula has her own garden now where she grows vegetables and sunflowers. She said she feels that her garden is her spiritual director.

"My motto is 'Awaken to the sacred,'" S. Paula said. "Everything in nature is sacred because it is all an expression of the divine."

S. Paula said she intends for her two solar buildings and solar-powered golf cart to "help people to realize we desperately need to see ourselves as members of the whole Earth community and to find ways to do so every day."

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- S. Paula Gonzalez