

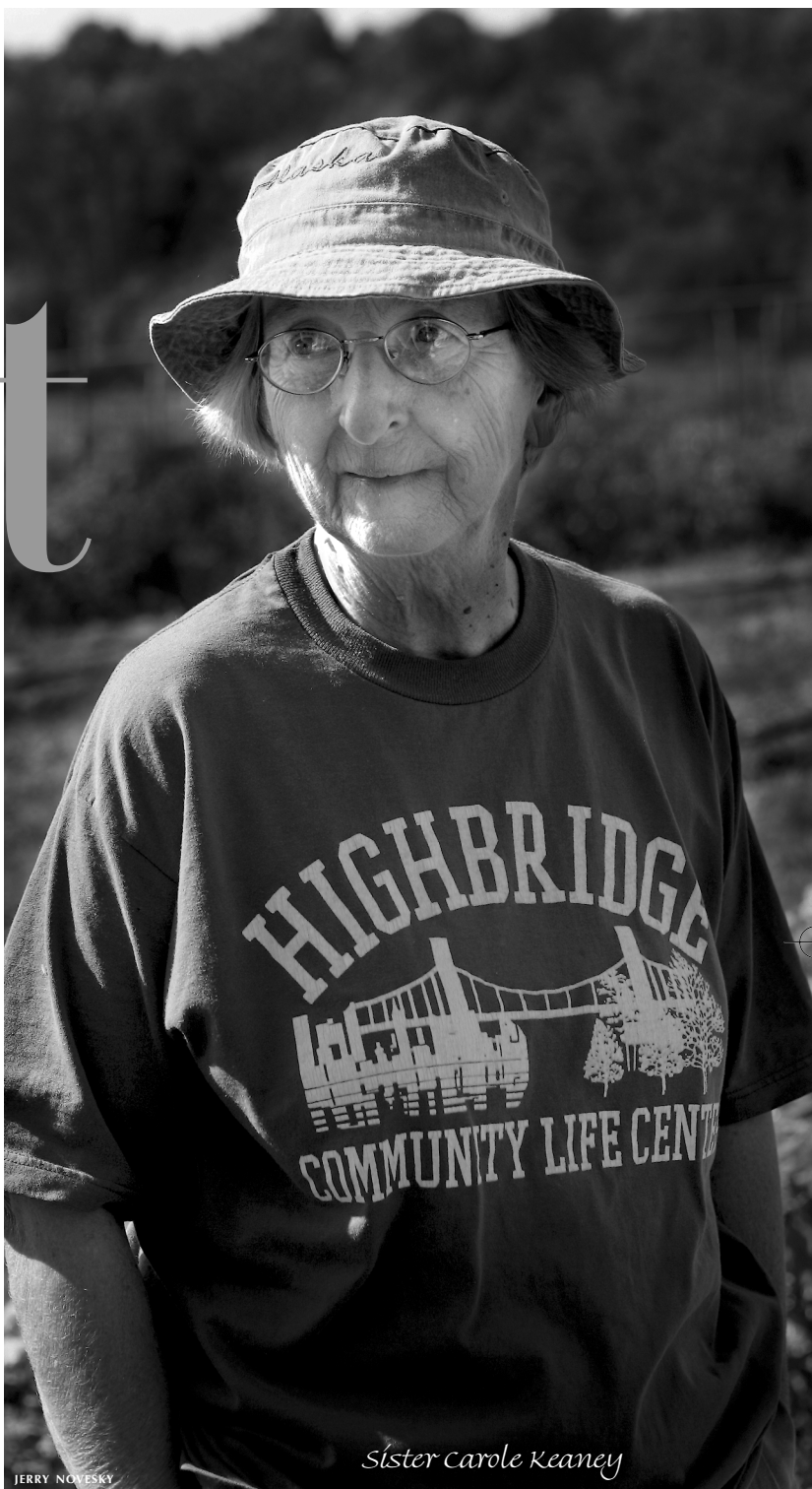
Gardening with Spirit

IT'S SISTER CAROLE KEANEY'S ENERGY that makes her clear blue eyes glow with quiet determination. Energy is what Sister Carole's Empowerment Center Community Garden in Goshen is all about—the earth's energy. The large, plentiful vegetable garden started in 1993 is just under two acres and uses organic and biodynamic growing methods steeped in both ancient history and modern practicality. Overlooking the rolling hills near Goshen, the spot was destined to be a garden with its sprawling open fields sparsely dotted by patches of trees. Here, sustainability and self-sufficiency are the goals.

The property is owned by the Dominican Sisters, who also run the Highbridge Community Life Center in the South Bronx. The sisters use the Goshen property as a respite for inner city youth, residents and seniors. A large former Waldorf School building is used for special retreats.

In 1993, just after Sister Carole returned from a 31-year mission in Indonesia (where she practiced organic, sustainable gardening), Highbridge's Brother Ed Phelan took her up to the Empowerment Center. "I fell in love with the place," says Sister Carole, now 73, who then envisioned vegetables planted in contoured rows that would match the slope of the hillside. "We started the garden with nothing—just a few shovels from the back of my car. We used grow lights to start seeds in the conference room."

PHOTOS BY IRENE STOVER AND JERRY NOVESKY



Sister Carole Keaney

by Abby Luby



Sister Carole also worked with biodynamic farming methods in Australia before returning to the states. "In Australia, the land is barren and unfertile—they do a lot of biodynamic farming there. In a 10-acre plot they have millions of plants." She says that biodynamic farming is like homeopathy for the earth. Special mineral "preparations" are worked in with the soil and plantings are scheduled according to a celestial calendar connecting planetary rhythms to the earth.

The practice was largely developed by Austrian scientist-philosopher Rudolph Steiner (1861-1925), widely known for his teachings and numerous writings on "Anthroposophy," a non-religious philosophy meaning "wisdom of the human being." The basic premise of the gardening component is to treat the soil as a living organism. Composting with manure and prescribed organic materials allows essential bacteria to thrive in the decomposing process, retaining valuable nutrients, ultimately preserving and enriching the soil's fertility. The practice is popular today as a counter to the use of synthetic chemicals and fertilizers and other common agri-business practices known to deplete and shorten the life of the soil.

Working with Sister Carole is Hubert McCabe, a social worker with Highbridge who became seriously interested in gardening while bringing Bronx kids up to the Empowerment Center for a day of gardening. Over the last three years, McCabe, 29, has grown into the part-time role of master gardener and caretaker. He says that one of the biodynamic preparations is made from yarrow root and is worked in with the compost in the fall.

"Yarrow root is isolated and broken down," says McCabe. "They do that by stuffing it in cows' horns and then burying the horns in the compost. When you pull that out you have isolated yarrow compost. My guess is that the compost consists of millions of microorganisms which go wherever you put them down." In the spring the very fertile compost is mixed with water and sprayed on the unplanted garden.

"The principle is a little esoteric and hard to understand," says Sister Carole, who also took biodynamic courses at the Steiner Center in Spring Valley. "Before they put it in the ground, they stir the preparation for a long time and make a vortex, then stir it in another direction and make chaos, and finally stir it again for the elements to come into it. When they spray it on the fields, it works."

Multiple piles of compost a short distance from the garden include horse manure from the local racetrack in Goshen, obtained through a barter arrangement that works well for both sides. Seeds are started in February in a large, 80-foot-long greenhouse, covered with heavy plastic sheets, that is heated with a wood stove and a gas stove.

The biodynamic calendar tells Sister Carole the best times for ground preparation, planting and harvesting. The calendar is based on the different energies from the sun, moon, stars, planets, and how various constellations relate to different gardening practices. This highly notated calendar, with astrological guides, moon phases and planet cycles, appeals to gardeners who follow it to the letter and to those who just use it as a simple guide, like Sister Carole.



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"I don't have to figure it all out—it's all on the calendar," she says. Some days are good to plant root plants. But basically I plant when I can."

McCabe adds, "On a very basic level the calendar provides a nice structure. It gives you the time to do everything instead of becoming overwhelmed—which happens because there is so much to do."

After a lifetime devoted to biodynamic and organic farming, Sister Carole has learned what works. "In the morning all the energy is going up in the leaves and stems—that's a good time to harvest lettuces and leaf crops, when the most vitality is there. In the afternoon, from about noon to 2PM, the earth rests—that's a good time not to be in the garden. The day has its own siesta. After that you can still plant root crops, but I'm not that meticulous."

The success of the Center's garden was proven during the drought last summer. The garden uses drip irrigation—a network of perforated hoses that water the contoured vegetable rows—using water drawn from a pond a few hundred feet away. Last summer the pond went dry. Surprisingly, the garden flourished anyway.

"We were amazed that things didn't die out," says Sister Carole. "It wasn't as good a crop as we had in previous years, but it testifies to how important mulch is with all its organic matter and how it holds the moisture."

The garden has caught the attention of area gardeners, both master and novice, who are passionate about working with the earth and eating fresh, healthful produce. A Community Supported Agriculture project (CSA) was organized to help keep the garden going.

When I first started I could dig for about five minutes and then my body said 'stop.' Now I could do a lot more. Working outdoors in the fresh air is more interesting than walking a treadmill.

Betsy Hawes, a retired teacher who taught elementary school in Washingtonville, joined the group three years ago. Hawes, a Certified Master Gardener trained by Cornell Cooperative Extension, says she sees many advantages to being a member of the CSA. "There are a lot of health benefits to the individual members between the exercise [working in the garden] and eating good vegetables. To me, that's a big, important part of it," she says. "Some of the members had cancer and continue to live—the healthy food has helped them. It's helped people like me, who like to get a little bit trimmer between the exercise and the good vegetables. When I first started I could dig for about five minutes and then my body said 'stop.' Now I could do a lot more. Working outdoors in the fresh air is more interesting than walking a treadmill."



The Genesa Crystal

The Peace Garden at the Empowerment Center in Goshen, mainly a kitchen garden of herbs and flowers, is centered around a circular plot in which is mounted a "Genesa Crystal." Said to amplify natural energy in the area around it, the shape has been credited with everything from aiding sleep to thwarting shoplifters. Its unusual configuration has an equally unusual, though modern, history.

Combining both mathematical and organic structure, the Genesa crystal shape is defined by four equally spaced hoops (usually constructed of copper tubing). Technically a cuboctahedron (also a Dymaxion or a Heptaparallelahedron), the shape echoes the cellular pattern of an embryonic organism after three cell divisions (eight-cell stage), according to agricultural geneticist Dr. Derald Langham, who reportedly

developed the Genesa concept in the 1940s and 1950s.

Further, the shape uniquely includes all five "Platonic Solids" within it: the tetrahedron, cube, octahedron, icosahedron and dodecahedron. The interpretation and application (and influence) of the mathematics of the Platonic Solids can be found in sources as diverse as the mystical Jewish Kabala and DaVinci's human proportion drawings (based on a star tetrahedron).

Given the complexity of the Genesa crystal design, it's little wonder that the shape has been adopted by New Age philosophers as a sort of do-all, be-all energy channeling device. A quick online search pulls up hundreds of testimonials about the effects of the crystal on its environment.

On the other hand, the crystal has been used in gardens for years, where it is said to draw in, cleanse, balance and "recycle" the life force energy of the surrounding area. The Empowerment Center's Peace Garden, with its centered Genesa crystal, was not watered during last year's drought, yet was as lush and fertile as any greenhouse bed when we saw it in September. That's a fact. —JN



There are all kinds of energies; here, we are working with real energy that we don't see. But when you believe something is there, you can see it and realize that all things are connected.

Since no pesticides are used, members hand-pick bugs and insects off the plants. For Hawes, sharing knowledge with less experienced gardeners has proven essential. New members usually are hard workers who just need more training, she says.

The braconid wasp parasitism of the tomato hornworm caterpillar is a good example—the wasps lay their eggs inside the caterpillar, which is literally eaten alive by the wasp pupae. The pupae eventually emerge from the caterpillar, spin tiny cocoons on its back, and later hatch as adult wasps. Hawes remembers when one new member found a tomato hornworm caterpillar covered with the tiny cocoons. “The caterpillar is like a machine that eats tomato plants; it's big and yucky to dispose of,” she says. A caterpillar covered with wasp cocoons “is very gross looking—when one member found it, not knowing that the wasps catch more caterpillars, it got thrown into the woods. That caterpillar should have been left here. Everything is learned side by side,” she concludes, “That's the best way.”

On a regular basis, families and kids connected to Highbridge travel up to the Goshen center to learn gardening. McCabe brought up a high school science class of about 60 kids to work on a project about compost and organic farming. He was experimenting with a new garden bed that wouldn't require tillage or turning over the soil, an idea spawned by Sister Carole and Betsy Hawes.

“We picked out a space inside the garden and just laid down a thick clump of newspapers, leaf mold, grass clippings, old compost and horse manure—anything we could get our hands on,” McCabe recalls. “The first group



of kids built the first level, which was about 8 to 10 inches [deep]. The second level was built by a group of high school kids.”

McCabe says it was the best bed in the garden, especially during the drought. “We only watered a little bit and it maintained its moisture much better than anything else. It was exciting because it was an idea that actually flourished.”

Sister Carole's “anything goes” in the garden makes it very kid-friendly. In a special children's garden, youngsters are encouraged to plant their own plots. Fair Oaks resident and CSA member Irene Stover is a parent of 15-year-old boy and girl twins who have accompanied her to the garden for the past five years. “There were times when they were around 10 or 11 they didn't have the patience for it,” Stover notes, “but that improved, especially having other kids around. My daughter learns a lot—she enjoys finding the insects and appreciates the beauty of the plants. My son enjoys being the ‘strong male’—it has been good for him to be adept at some things. He has helped Sister Carole a lot.”

Stover says that kids are more than welcome at the center, they are essential. “It's important for children to experience that kind of work while learning about the land

and where food comes from," she notes. "It's fantastic to have a whole family there."

The garden is on a four-year rotation schedule, which lets some rows rest for a year or two without being planted. Many varieties of each vegetable are grown, including tomatoes, potatoes, squash, onions, garlic, beans, kale, collards, Swiss chard, rutabaga, turnips, parsnips and 15 different types of lettuces.

But in order to keep that diversity and high crop yield the garden needs more members, says McCabe, who, if things work out, plans to stay on when Sister Carole retires. "I am moving toward a full-time position here, which is what I want. We are trying to figure out how to do that."

By teaching respect for the earth, by being creative with nature and not controlling it—that will empower not just ourselves, but also the earth for its own abundance.

Financially, the current CSA can't pay for a full-time gardener and caretaker—both Sister Carole and McCabe are part-time and do what they can. Membership fees pay for renting the land from the Dominican Sisters, purchasing gardening necessities and heating fuel for the greenhouse. Recently, a local farmer advised garden members to try to sell their produce at some smaller farmers' markets, says McCabe, who adds, "We may try that this year."

"The community has grown," says Hawes. "But not as much as we ideally would like. A larger membership would bring us close to being self-supporting. Now, the fees don't even cover the expense of a gardener. Sister Carole lives on next to nothing."

"We can support at least 70 families, and we have to expand," McCabe emphasizes. "We have two beautiful adjacent fields and we could easily expand so we can go from just being self-sufficient to being profitable. The best-case scenario is if the land is put into a trust."

In 1994, Sister Carole started a "Peace Garden" from the former kitchen garden just outside the old school building. Flowers flanking the border are the colors of the rainbow and healing herbs and perennials make up the rest. Two benches are placed for quiet meditation and a Genesa crystal occupies the center. The crystal, shaped from four equal-size copper tubing hoops, is said to draw energy from within a two-mile radius for cleansing and balancing. Inside the hoops is a good-sized white crystal. It's the quintessential token of Sister Carole's belief in the strength of the earth's energy.

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and realize that all things are connected. We are all one with the universe and by teaching respect for the earth, by being creative with nature and not controlling it—that will empower not just ourselves, but also the earth for its own abundance." ❖

EMPOWERMENT CENTER COMMUNITY GARDEN
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The CSA operates from May to November. Shares: \$300 full-time (3 hours of work per week); \$600 nonworking, harvest your own; \$750 nonworking who don't harvest their own produce and pick up at the farm on Sunday afternoons. All harvest-your-own produce is organic (but not certified) and grown biodynamically.