



Saving our Medicinal Plants and our Collective Cultural Past

El Jardín Semillas

Segradas

BY RUTH GOLDSTEIN (The Sacred Seeds Sanctuary)



At the edge of the Costa Rican rainforest exists a magical garden where the sweet scents of Queen of the Night, a night-blooming medicinal plant, tickles the nose; where the calls of monkeys, hummingbirds and toucans fill the air; and where a small group of people are working to keep culture and biodiversity alive.

The garden, *Semillas Segradas* or *The Sacred Seeds Sanctuary* for medicinal plants and cultural knowledge, is part environmental effort, part anthropological endeavor. Roughly thirty percent of the garden's two hundred and thirty-five species of plant verge on extinction. When the plants die, so does the cultural knowledge of how to use them. Environmental destruction equals loss of cultural identity.



Costa Rican ethnobotanist Dr. Rafael Angel Ocampo Sanchez, world-renowned ethnobotanist James A. Duke, and New York Botanical Garden's Dr. Michael Balick spoke to me about what they thought of the Sacred Seeds Sanctuary and environmental conservation today.

"The greatest challenge facing the use of medicinal plants today is the view that if you use plant medicine, you are

poor. This social stigma overwhelms the pride we should have in our culture." Dr. Ocampo says this while tracing a sideways figure eight (the symbol for eternity) through his country's rich soil.

Dr. Ocampo wants to empower Costa Ricans, traditional healers, elders, parents and school children. He wants them to take pride in their natural resources, to take pride in their cultures.

When he speaks to his countrymen about medicinal plants, they think he is a gringo. "This is the irony of conservation these days," he says. "We Latin Americans have forgotten our own cultural heritage and assume foreigners know more about it than we do. We need the international community's participation if we are going to save cultural history and biodiversity." Promoting such pride in cultural heritage and supporting the human connection to nature are integral to the Sacred Seeds Sanctuary.

Dr. Duke agrees. At seventy-seven, he has lived in and visited over thirty countries. He leads community-based eco-tourism trips, teaching about medicinal plants worldwide. He views the garden as an important teaching and conservation tool because he too has witnessed the cultural destruction that accompanies the loss of ecological habitat.

"It's a teaching tool... too many Native Americans in Latin America, as in North America, have forgotten their own medicinal plants. I've gone...to teach Mi'kmaq Indians about Mi'kmaq medicinal plants. They've forgotten them. If they learn to love these plants as their grandfathers did, maybe the next generation can save us."

Dr. Michael Balick, Vice President and Chair of Botanical Science Research and Training as well as Director and Philecology Curator for the Institute of Economic Botany at The New York Botanical Garden, has also worked and lived around the world. "What we find is that for the 2.5 billion people on this planet who use plants as part of their primary healthcare, those plants are disappearing. I hear stories from elders that I work with in the Pacific, in India, in the Amazon and in Central America ... that they have to walk further and further... into the forest as the plants become scarcer. Now a place like this is a sanctuary for the genetic material of those plants and we can look ten or twenty years into the future when there may be a shortage of genetic material. And so botanical gardens such as this one are a genetic ark for medicinal plants. Another important reason for having this garden is as a teaching facility. We would have to walk for days and days, climb mountains, cross rivers, to find the diversity of plants found here. It's like having a living textbook at your disposal. And you can teach herbalists,



Surprisingly, even in a country renowned for its environmental conservation techniques, Costa Rican rainforest still falls under the flames of slash-and-burn agriculture.

you can teach physicians, you can teach students, you can teach the local children about nature.

To teach and to preserve, Dr. Ocampo has partnered with ethically minded herbal supplement company New Chapter® and the company's firm manager Susan Farrell, to create The Sacred Seed Sanctuary on New Chapter's biodynamic estate. The Costa Rican estate, called Luna Nueva (New Moon), sits adjacent to the Children's Eternal Rainforest in Costa Rica, welcoming the local and the international community daily. "I believe

that we are going through what two-time Pulitzer prize-winning Harvard professor E.O. Wilson calls a *biological extinction*," Tom Newmark, President and co-CEO of New Chapter says. "For this reason, we have created *Sacred Seeds*." Imagine a bottle. Only small amounts of liquid can fit through the neck of the bottle at one time. If life as we know it is that liquid and we are indeed passing through such a bottleneck, not only will few species make it through at once—in the event of an emergency exit—but also those that do pass through will survive in a limited gene pool. Inbreeding will inevitably follow.

"We want to help shepherd through as many species possible, as it is we humans who have created these circumstances," Newmark says. The hope is that the Sanctuary will help culture and biodiversity pass through the bottleneck, perhaps even widening the crossing.

While plants may not be the cutest or cuddliest poster-children for conservation, they truly are at the base of terrestrial and invertebrate existence. All systems of life depend on the plants for food, building material, clean air, clean water, and medicine. Surprisingly, even in a country renowned for its environmental conservation techniques,



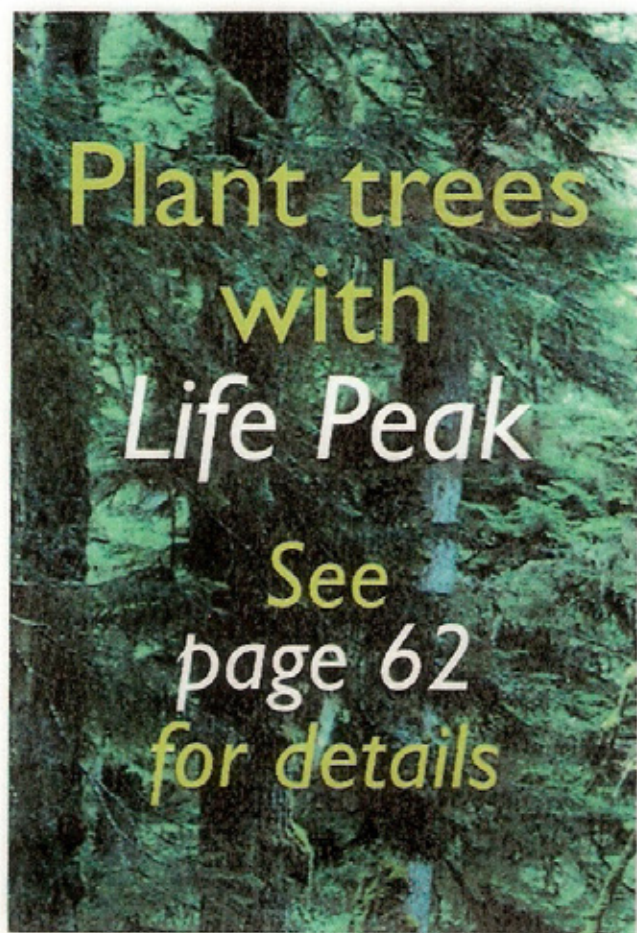
www.lifepeak.ca

GOOD TO KNOW

To get to know "Pura Vida," Luna Nueva welcomes visitors year-round and you don't have to be a budding ethnobotanist to go! The eco-lodge features a conference center; a naturally fed pool and hot tub, and offers capacity for up to twenty-five people in cabinas built from local fallen timber. Activities include tours of the Sacred Seeds Sanctuary and the biodynamic farm, rainforest hikes to waterfalls, and sloth, monkey, frog, toucan, and butterfly sightings. Food is mostly locally grown and organic.



Costa Rican rains fall at different times of the year depending where you are. At Luna Nueva near Arenal volcano, the rainy season lasts roughly from May to November. But days any time of year can start out sunny and turn rainy, or vice-versa. Such is the climate of a tropical mountainous country. It is always good to travel with a rain slicker, waterproof shoes, and an umbrella. Luna Nueva offers free rubber boots for rainforest walks and eco-friendly shampoos, sunscreens, and insect repellents that biodegrade quickly.



Costa Rican rainforest still falls under the flames of slash-and-burn agriculture. Plants that previously enjoyed high cultural and medicinal status now wither unnoticed or are so far away in the forest that no one can find them.

One such species that goes unnoticed by locals but not by the international market is *Dracontium gigas*, a fantastically exotic-looking plant. The *gigas* is nearing extinction because of the unsustainable harvesting of its roots which are used as a sort of natural Viagra® in Japan. The *gigas* grows a straight and strong cylindrical stalk at an incredible rate of half a meter per month. "Because of its style of growth, the Japanese men think it will encourage a similar effect in their bodies," Dr. Ocampo says.

No scientific data supports this use, yet the plant has all but disappeared from the Peruvian Amazon. "The unfortunate thing," Dr. Ocampo says, "is that in three years, indigenous peoples in Peru and Costa Rica could have a sustainable harvest, and a sustainable income." But because of the Japanese demand and the distancing of people from nature, people are literally ripping the plants out of ground, throwing them into canoes, and selling them by the scores to middlemen who make twice the profit.

So what can be done? Dr. Ocampo and Steven Farrell feel that awareness of gardens such as the Sacred Seeds Sanctuary will bring about positive change. To that end, the garden enjoys visitors of all ages from all countries. Dr. Ocampo, Farrell, and New Chapter encourage the planting of such sanctuaries around the world.

"Sacred Seeds has always been about sharing the plant seeds and sharing the cultural knowledge. I don't understand keeping food or cures from other people. When we share the diversity of life, it only gets richer," Dr. Ocampo says. A shared richer and more diverse life is, to borrow the Costa Rican national phrase "Pura Vida," the pure life.

HELPFUL WEBSITES:

http://www.new-chapter.com/ginger_farm/index.html
Luna Nueva's site with information about the biodynamic farm and its projects. Contact Steven Farrell at lunanueva@racsa.co.cr for arranging tours and visits to the Sacred Seeds Sanctuary and Luna Nueva. Transportation from North America directly to the farm is easily arranged.

http://www.acmcr.org/rain_forest.htm
www.rainforestkid.com

http://sciweb.nybg.org/science2/Profile_15.asp
This is the New York Botanical Garden's profile on Dr. Michael Balick. Links to his work on the relationship between people and plants are provided.

<http://www.ars-grin.gov/duke/>
This is Dr. Duke's official site and contains ethnobotanical information on medicinal plants from all over the world.