

3 PERMACULTURE TALES FROM THE CARIBBEAN

By Mark Olalde

The Revolutionary

Berber van Beek is part of permaculture's growing popularity across the Caribbean. She is one of many practitioners attracted by the thoughts of food security and economic opportunity in a region increasingly impacted by climate change.

"That's mine, man! It's going to be mine," Berber says with her usual excitement, leaning off the porch of an abandoned house and eyeing the forest descending upon it.

"This is it. I can see it happening here," she repeats the thought and sighs in anticipation, envisioning her very own farm on this deserted island lot.

Berber's home country of Curaçao, a dry, wind-swept island just north of Venezuela, relies heavily on imported food and expensive water desalination projects. She is introducing some of the first permaculture courses to Curaçao to break those dependencies. According to the Food and Agricultural Organization of the United Nations, 7.5 million people in the Caribbean are undernourished, roughly 20 percent of the entire region, so locally grown food could be an initial solution.

Changing climate patterns increasingly threaten the island. The World Bank sites that the Caribbean's per capita carbon dioxide emissions increased nearly 7x in the last 50 years, feeding climate change and other environmental issues.

In the end, the vacant lot she wanted so badly did not work out, but as van Beek continues to dream of her own farm, she

practices permaculture in a small garden behind her rented home. A combination of drip irrigation and compost fuels the efforts. "Since I don't have a piece of land besides what I have in the backyard, it's my purpose to give education. That's what my power is," Berber shares.

In late 2014, she started her version of a permaculture design course (PDC) and has since taught more than 50 people on her island. Having cleared the hurdle of starting a class, van Beek's attention is already moving toward new initiatives. She sees permaculture as another tool for social responsibility and envisions school gardens, father-son bonding programs, and a large 'permablitz' to get whole neighborhoods thinking green.

In her late teens, she left Curaçao and bounced around until landing on the zero emissions "Tres Hombres" cargo vessel. Eventually, a stop in the Netherlands introduced her to permaculture.

"I thought, 'Man, this is what I was looking for, a positive solution for future problems,'" van Beek says, calling it the manifestation of "what I felt inside, always." Since then, she has worked on farms in Europe, Trinidad and Tobago, and Australia where she spent time working with Geoff Lawton. She realized permaculture's usefulness back home in Curaçao.

Prior to teaching classes, van Beek meets with her co-teacher to prepare their curriculum. They discuss the challenges of convincing others to take the leap into permaculture. Berber searches for the correct word to describe what turns people away.

"Uncertainties," the other teacher offers.

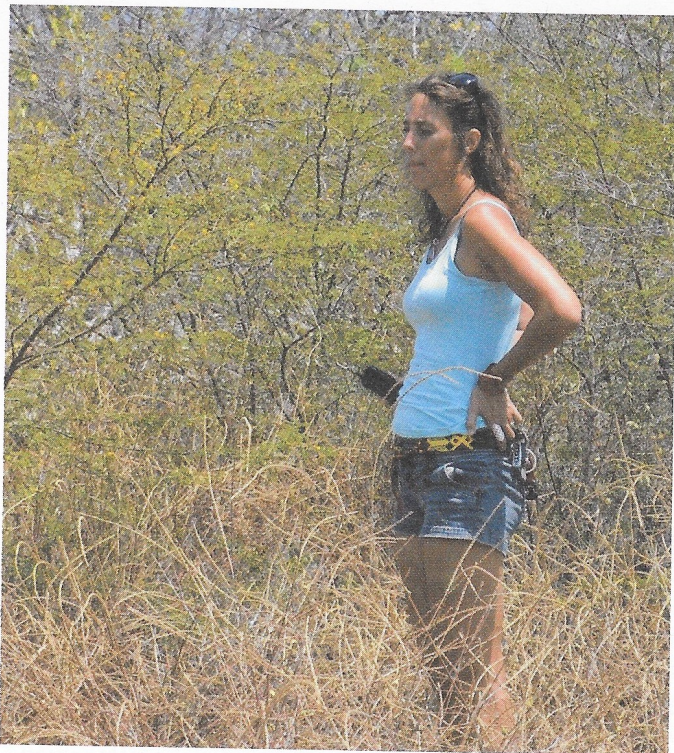
"Yeah," Berber finally accepts. "But there will be a tipping point."

The Teacher

On the island of Trinidad, the bastion of permaculture in the Lesser Antilles is a 30 acre farm called Wa Samaki, Swahili for "of the fish." The ever-unassuming Erle Rahaman-Noronha started the farm nearly a decade ago, repurposing an old citrus estate. Now, Wa Samaki has become a sort of proving grounds for Caribbean permaculturists. "In permaculture, they say waste is not a noun. It's a verb. It's something you do," Rahaman-Noronha says as he walks through the farm, pointing out different uses for detritus, like old cardboard used to smother weeds. "Whatever waste is being produced is basically a permaculture resource."

The remnants of the old estate are nearly wiped clean after he planted 2,500 trees, planned wildlife corridors, and dug ponds to conserve groundwater. He even fostered the growth of a wetland along one edge of his property to clean the pollution from trash thrown into local waterways.

Along with several other Trinidadian permaculturists, Erle teaches permaculture design courses at Wa Samaki. Numbers are up this year, with several dozen participants. "We are seeing a shift in consciousness, I believe, and finally people are putting time aside to really look at permaculture and learn about it," he says.



Berber van Beek eyes a vacant lot she had hoped to purchase and convert into a permaculture farm.



Erle Rahaman-Noronha weighs produce he sold from his farm in central Trinidad.



A white-faced capuchin monkey stares out of its cage at a wildlife sanctuary, which rents space on Erle Rahaman-Noronha's permaculture farm. Planned wildlife corridors run through the 30-acre farm, attracting animals ranging from caimans to more than 40 varieties of birds.

According to the Inter-American Development Bank, two-thirds of the rural population in Latin America and the Caribbean remain in poverty, and that population, which accounts for a large number of island residents, spends between 50 and 80 % of its income on food.

"Most of us earn money to buy

food. If you grow your own food, you immediately take away some of that urgency to make money," Rahaman-Noronha says. "That's the radical part."

A meal at Rahaman-Noronha's house is around 75 percent home-grown, with fish and produce supplied by his large aquaponics system. He also rents out space to environmental start-ups. A wildlife refuge center uses one section of the farm, rescuing howler monkeys, ocelots, and other animals. Another section holds beekeepers' apiaries, serving the additional purpose of pollination.

The ideas behind Wa Samaki travel through the Caribbean with classes Rahaman-Noronha teaches in Grenada, St. Lucia, and elsewhere. He is two years into consulting for a quarry rehabilitation program in Barbados, working to replant on formerly stripped land.

As Rahaman-Noronha nears the back corner of the farm during his walk, he comes across ground caving into the adjacent property. The

neighbor's land management has been poor, it seems, and erosion is claiming productive soil. He briefly contemplates the stark difference along the property line. After a moment, Rahaman-Noronha turns to walk back through the young forest covering Wa Samaki. "New customers," he smiles.

The Mother

"There was suddenly light above me, and I knew the roof had been ripped off," Dawn Francis remembers as she drives her children home from the black sand beaches of the island of Dominica.

Francis recounts growing up in the small Caribbean nation known as 'the Nature Isle' for its lush forests covering the sides of its many mountains. Seasonal hurricanes brought the threat of food and water shortages to the island's roughly 70,000 residents.

For the past five years, Francis has been practicing permaculture on her 2.5-acre farm called D-Smart Farm, motivated to protect her children and grandson from ever having to face

the hunger that storms can bring.

According to data from the National Oceanic and Atmospheric Administration, 150 years ago the Atlantic Basin averaged 7.2 tropical storms per year. Between 2010 and 2015, there was an average of 15 tropical storms per year.

In 2015, tropical storms slammed into Dominica. "Imagine, we were locked in for a week by landslides at either sides of the road. However, we were not hungry, as we ate off our land. So did our animals and our guests," Francis says proudly.

Before committing to her farm, Francis spent 20 years working at a bank. She turned to writing poetry in her spare time. Francis surprised herself with verses like: "The Earth calls to me, and I need to feel the mud beneath my feet." She realized what she really needed was a change in profession.

Grants and loans from the United Nations and from a local initiative for young farmers helped her get D-Smart farm running, and it has been profitable since. She grows food to eat, turns around a crop of lettuce every four or five weeks for sale, keeps accommodations for tourists, and rents out space to a local Subway sandwich shop to raise their chickens.

A permaculture design course at Wa Samaki honed Francis's farming skills, but she says that before the times of government fertilizer subsidies, traditional Dominican farming relied on many methods similar to permaculture: the use of indigenous plants, no synthetic compounds, and rainwater harvesting methods.

"It's not a new idea. It's a new word," she explains.

At D-Smart Farm, Francis strategically positions specific plants to repel crop-eating insects, uses chicken manure for fertilizer, keeps an herb spiral, catches rainwater coming off her home's roof, and composts. School children take field trips to the farm, while Francis and her family help schools grow their own gardens. Much of her



Dawn Francis displays a worm bin used for composting.



Dawn Francis runs the 2.5-acre D-Smart Farm among the mountains in the Caribbean island nation of Dominica. It's both a business and a way to provide her family food security.

work is outreach, as she tries to convince the rest of the island about the possibilities offered by permaculture's self-sustainability, even if it means just growing one potted plant.

For, we can all be gardeners. As Francis likes to say, "Start with yourself, start with your family. Try to grow your own food. Yes, you do have a space. Everyone has a space. You have a porch. You have a cup."



Mark Olalde is an international investigative reporter who has covered environmental topics in the Caribbean, the U.S., and southern Africa. He is currently based in Johannesburg, South Africa, where he produces multimedia pieces on the country's abandoned mines.