

STOVE TEAM INTERNATIONAL

## The Little Stove That Would

Nancy Hughes is on a mission to change the world.

HE IDEA CAME TO HER DURING a trip to Solola, Guatemala, with the Eugene-based Cascade Medical Team in 2003. She saw doctors treating children suffering from chronic upper respiratory infections and debilitating scars, mothers enduring back problems and hernias—all caused by carrying wood or cooking over an open fire in homes the size of a small bedroom. "A young Guatemalan woman with a baby on her hip came into the kitchen to ask, 'Can you delay dinner? I want to thank the team," Hughes recalls. The woman had lost the use of her hands as a result of falling into an open fire as a child, and members of the team had helped to restore their use.

"She had been without the use of her hands for sixteen years. Everyone was bawling," Hughes recalls. "But then I thought, 'This is stupid. We're coming down here for ten days to treat a problem we could be preventing."

The World Health Organization estimates that more than half the world's population—three billion people—cook their meals over open fires, on makeshift stoves that smolder all day. Hughes, at sixty-eight, spends most of her waking hours working to change this—and solve a few other problems, including indoor air pollution, deforestation, and unemployment—in the developing world, by helping local residents manufacture and distribute safe and efficient stoves.

At first, Hughes volunteered with Helps International, the parent organization of Cascade Medical Team, in its efforts to supply stoves to Central America. She spent her own money to buy stoves to distribute. She approached Southtowne Rotary Club in Eugene (where she is a member) about sponsoring a grant to buy stoves; she also applied for grants from Carlos Santana's Milagro Foundation and the Synchronicity Foundation. Even these efforts were not enough; she traveled to remote locations and joined other volunteers delivering the simple but life-changing stoves, going so far as to drag 100-pound stoves up steep muddy hills to the dirt-floored huts where they were needed.



The stoves were designed for safety, but they were difficult to move and weren't entirely addressing the pollution or deforestation issues as well as they might. Frustrated, she wondered if there might not be a better, more sustainable way to help. Some "differences of opinion" with the director of Helps dampened her passion further. She was on the verge of quitting. But not for long.

Gerry Reicher, who taught cognitive psychology at the UO in the late 1960s and '70s before leaving for organizational consulting work—and who Nancy calls "the brains behind the whole [stove] thing" remembers that time. "There were a bunch of us trying to talk Nancy into continuing her work with stoves," he says.

Another of the "bunch" was Larry Winiarski, who in conjunction with Cottage Grove-based Aprovecho Research Center (the name Aprovecho means "toward the best use"), had already been engaged for many years in developing stoves for the Third World. Using basic combustion principles, Winiarski, a mechanical engineer, had developed the "rocket elbow" design, which generates maximum heat from small amounts of fuel and creates little smoke, in 1982. Rather than pursue a patent, Winiarski made his design freely available—and the idea spread quickly.

On a trip to El Salvador in 2007, Winiarski met Gustavo Peña, who had lived in the United States and Canada during the country's civil war (he left after being hunted by death squads) and who had what Winiarski calls "a very neat combination of skills." The two men worked together to design a prototype for a new stove combining Winiarski's earlier design with locally available materials and a surface ideal for the area's foods. The result was the economical, lightweight, and portable Ecocina stove, which uses even less wood and creates less pollution than the rocket elbow. At Winiarski's suggestion, Hughes visited Peña in 2007, with the idea of helping him to finance and build a factory.

Around that same time, an article appeared in the Lane County Medical Society newsletter about Hughes' work with stoves "in memory of Duffy," (her husband, physician George H. "Duffy" Hughes, who died in 2001). The article resulted in a series of serendipitous connections that led ultimately to a \$10,000 check from the Milagro Foundation. In 2008, Stove Team

International was formed.

With broad philanthropic support, Stove Team has already helped to place 12,000 Ecocina stoves in Central American homes. With business models created by Stove Team board members, four factories have been launched in the region. Factories in Mexico and Ghana will begin production this year. There is interest from the Philippines, Ghana, Kenya, Uganda, Afghanistan, Haiti, Peru, Bolivia, and Paraguay.

"The stove is a tool that people use all day, every day," says Hanibal Murcia, a Honduran stove manufacturer.

Murcia's factory is a family enterprise, with his wife and son participating. "We have five employees, including three rural people. . . . I am paying local taxes and government taxes, but most important, we are having a positive impact on the climate conditions and social conditions in our region and on our planet."

Murcia is grateful for Hughes, Winiarski, and other volunteers he calls his "new friends." Their efforts, he says, are "a great example of work and love." Gail Norris '62 is responsible for planning every aspect of a Stove Team volunteer trip. Norris, who majored in Spanish and French at the UO and now works both as a substitute teacher in Eugene and part of the year as volunteer coordinator for the Oregon Bach Festival, describes the experience. "You're not on a vacation at all, except in perhaps the strictest sense of the word, which is to vacate your normal life. It's a very rich experience. It will change the way you look at the world." No suntan lotion and poolside novels here. "Guatemala alone needs two million more stoves," Norris says. With her assistance, more than seventy-five volunteers have paid their own way to Central America to assist in Stove Team's mission.

Roz Slovic traveled in November to Honduras with other Stove Team volunteers. "I like to travel and learn," says Slovic, who retired in 2010 from the UO's College of Education after more than fifteen years as a senior research assistant in the Department of Special Education and Clinical Sciences. "And this was truly a trip with a purpose."

One day, the group arrived early in the morning at Hanibal Murcia's factory. The structure is in a flood zone; one group built a loft to raise stoves off the ground while

another group prepped the foundation and poured a concrete floor. Slovic spent a full day assisting a factory worker with stove assembly. Two women cut wires for stove inserts all day; several more served as Spanish interpreters.

In El Salvador, Peña has eighteen employees, sixteen in production and two in the office. He continues to assist Stove Team in training other factory owners. "I am determined to continue working with Stove Team International, so that the project grows up around the world," he says. "There is no way to pay [back the help we have received] except to help others."

Stove Team International recently began more actively pursuing connections at the University of Oregon—creating what Hughes calls a "brain trust"—in the fall of 2010. "There's a huge amount of brainpower and resources there," she says. She's fostered relationships with the Holden Leadership Center and worked with students in Assistant Professor Gabriela Martinez' documentary production class.

"I truly think Stove Team deserves to

be supported in any shape or form," says Martinez, who grew up in the highlands of Peru and has seen firsthand the negative effects of open fires. In 2006 she worked in the highlands of Guatemala producing a documentary, Respire Guatemala, on what she calls "the pressing problem" of indoor air pollution.

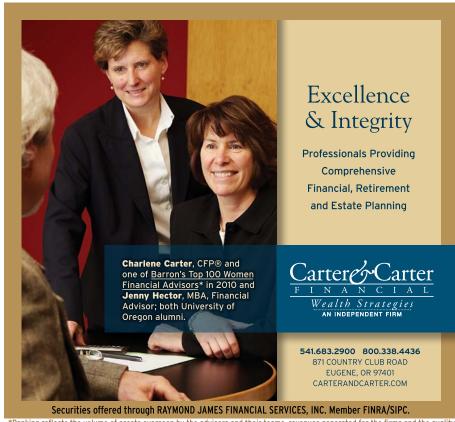
The Environmental Protection Agency Partnership for Clean Indoor Air (PCIA) will award Hughes its 2011 Special Achievement Award in Developing Local Markets. "We applaud your commitment to improving health, livelihood, and quality of life, particularly of women and children," the award letter says.

"I don't have to worry about a lot of things," Hughes says. "I can just live, safe and secure—so what else should I do? Play golf? We are so bloody privileged—why shouldn't I do this?" @

— Zanne Miller, MS '97

## Web Extra

See video of Nancy Hughes and the Ecocina stove at OregonQuarterly.com.



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