ENGINEERS WITHOUT BORDERS

WHEN SHANNON MAGARI '92 SUGGESTED TO THEN-DEAN ERIC SPINA THAT SHE WAS INTERESTED IN STARTING A CHAPTER OF ENGINEERS WITHOUT BORDERS AT SYRACUSE UNIVERSITY, HIS REPLY WAS SHORT AND SWIFT: "GO RIGHT AHEAD."

The biomedical engineering alumna, now Vice President of Health Sciences for the Colden Corporation in East Syracuse and a visiting scientist at the Harvard School of Public Health, was looking for a way to apply her engineering and her public health management skills to a humanitarian cause. With the support of then-University Vice Provost, Deborah Freund, the chapter was launched in 2006. Twenty engineering students were involved that first semester.

Since then, the chapter's focus has been planning, designing and implementing a project in Kenya—improving kitchen and storage facilities for the Into Abba's Arms orphanage—located north of Nairobi.

Ryan Jean '09, was one of four engineering students who traveled with EWB last January to assist with designing the project. He said the 20 children who reside at the orphanage, and about 10 staff, had to eat in the boys' dorm of the orphanage. Cooking is currently done with propane gas, and the pantry needs expansion. The students assessed the ventilation and took air quality readings using equipment donated from a local company. EWB members also interviewed the children and staff to get a better sense of what the needs are, and talked to contractors in the area about the materials available.

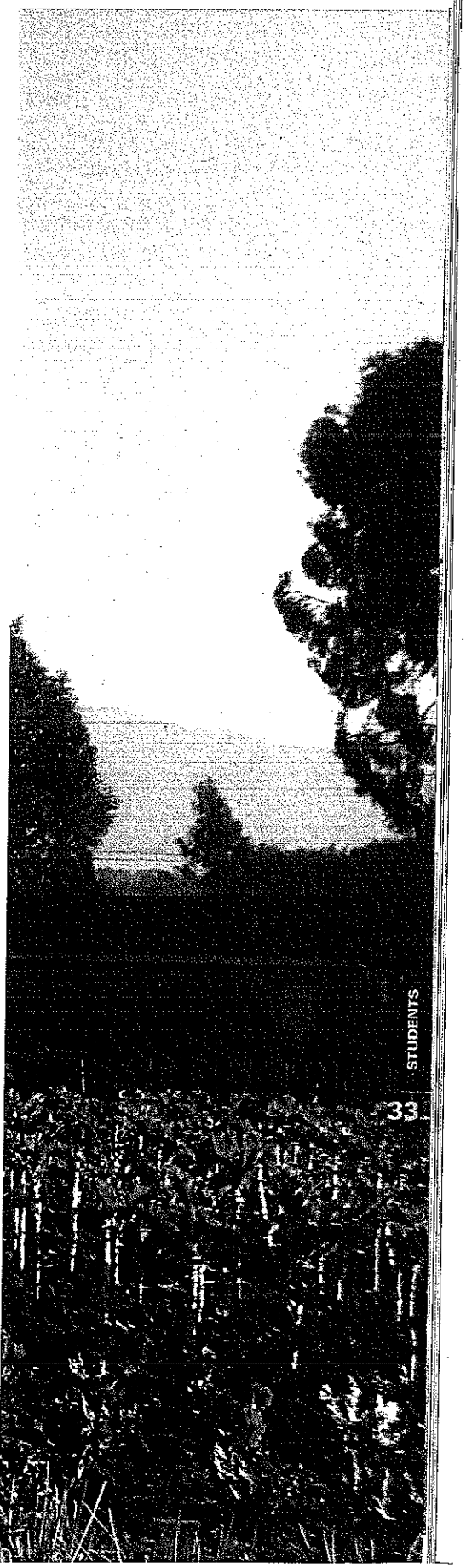
"As engineers, we want to get them the best thing we can," Jean says.

Kyle Kwiatkowski '09, says EWB is unique in that every aspect of a design project is coordinated by students. "Being involved with the Into Abba's Arms project was exciting—you're planning an international engineering project," he says. "It's interesting to see how all-encompassing a project like this can be."

For Magari, the project is a manifestation of a personal goal. "I'm on this mission to tell engineers that all projects are about public health," she says. "I wanted students to get some context for what they are doing (in class). Technology has an impact on the community in many ways."

Magari says the chapter is as committed to local humanitarian work as it is to international causes. Members of EWB have helped with the local chapter of Habitat for Humanity and the Adopt-A-Street cleanup organized by the university's Office of Orientation and Off-Campus Programs.

For Magari and the students, the experiences they had in Kenya revealed how, in less-technically driven societies, ideas still hold the power to make enormous changes to daily life. "It's mind blowing the opportunities that can come from relatively low-tech engineering solutions," she says.



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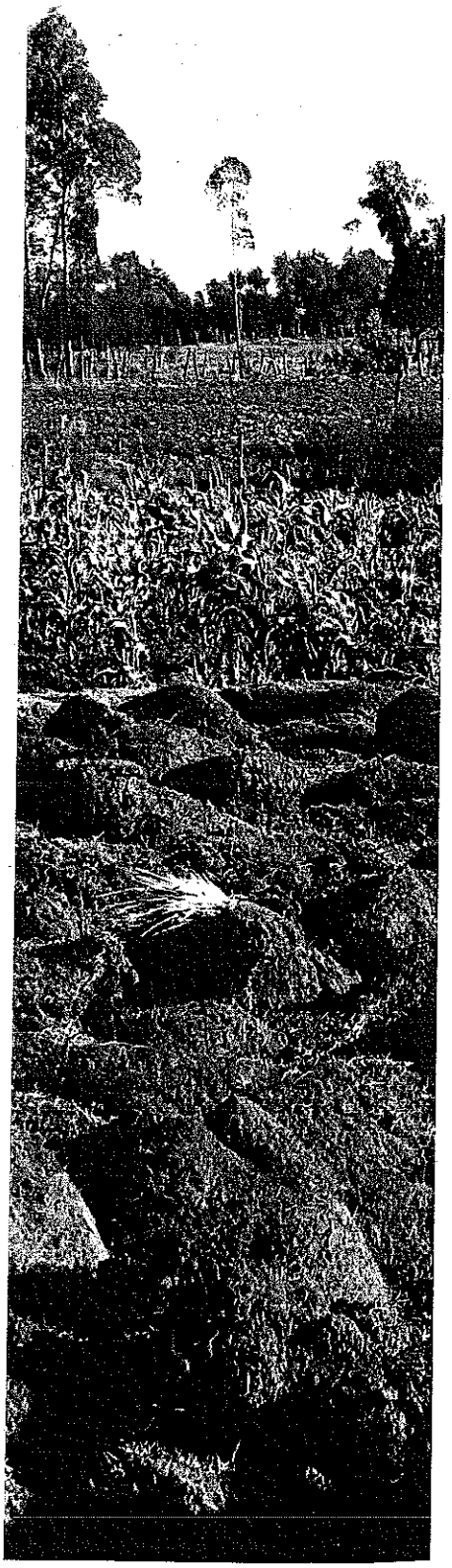

But the logistics of planning even a simple engineering project in Kenya are challenging, and costly. In order to return to Kenya and complete the project, the chapter needs to raise about $50,000.

"We need to raise a lot of money in probably the worst economic times," Magari says. "But fund raising is part of the process; this is a great learning opportunity for the students."

Jean and Kwiatkowski have devised a multi-media presentation targeting local businesses and organizations. "We want to get in and show people what we've done," Jean says.

Last March, the two seniors launched their fund-raising efforts with a presentation to village residents in Cazenovia. "We had a great response," Kwiatkowski says. "People were very supportive, and there was a sense that they want to see us do well with this."

Three years after she made that initial suggestion, Magari says she is so glad she did. "I love to teach, and this is one way I am giving back."

I. Holly Rosenthal, director of strategic initiatives for LCS, was recruited by Magari to help with advising—particularly in regard to fundraising. She was among those who traveled to Kenya last winter.

Rosenthal says because of her involvement, her perspective on hands-on learning has become more focused. "I think every student should have an experience like this. I walked away feeling proud of the intellect, the smarts, and the compassion these students have. I loved it."

Rosenthal said what struck her most about the Kenyan orphans was how appreciative they were—not just of what the students where trying to do for them, but of the time the students spent with them. She remembers a 17-year-old who bonded with Jean and Kwiatkowski. "He just could relate to them, and he felt he could share things—it was just about being guys."

Jean says he learned as much about interpersonal relationships as he did about engineering from the trip. "These kids are in an orphanage, but they live together as a family," he says. "They are just the happiest people you've ever seen. The whole idea of possession, of material things ... it's not a concept there."

It appears that EWB will hit the ground running. An enthusiastic slate of officers has been nominated, and interest is rising. "The momentum is there," Magari says. "We had 35, 40 students at our last meeting."

Jean's role with the chapter will soon end, but he says his EWB experience has influenced his career aspirations. After going to Kenya, and using his skills for a humanitarian cause, he knew he wanted to work abroad after graduation.

"I want to get out there and get my hands dirty," he says. "EWB has certainly played a role in that."

Rosenthal says EWB is just one of many projects the University offers for students to take their studies beyond the Quad, and that's a message she hopes young people—especially those assessing their career options—receive. "These kids and what they are doing, it's just an example of the rich opportunities that exist here at the University," she says.