

Distributions

*This Spring, members of EWB-NEU traveled to both El Chaguite, Honduras, and Bbanda, Uganda.
See Page 3 for descriptions and accomplishments of these trips!*

A Quarterly Newsletter

Editor: Roxanne Meuse

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When in Honduras...

When traveling abroad, EWB students implement the designs that they had spent months working on, but once in such a new environment, there is still much to learn. This is a summary of a typical trip's events and experiences.

By Dan Sullivan

A usual trip to Honduras takes place in between semesters, either in April-May, August-September, or at the end of December. Generally, a group of five students and our Professional Mentor, Dan Saulnier, will travel for about 15 to 20 days.

The first full day or two are spent in the city which we fly into, San Pedro Sula, in the northeast part of Honduras. During this time, we complete a number of tasks, such as taking out and exchanging money, making arrangements for material deliveries, purchasing groceries, acquiring drinking water, and visiting some local contacts. Our friends in San Pedro Sula are extremely helpful and make the trip process much smoother.



Photo: A. Unger

Patty Barahona of Americans Caring Teaching Sharing (ACTS), joins us on occasion for our trips to the village. When she is unable to come on the full trip with us, she offers her help in grocery shopping and acquiring 5 gallon water bottles for our drinking supply. Rigo Romero, a long-time friend of Northeastern's Professor Furth's, oftentimes helps us with material

delivery, and he offers his companionship during our stay in the city.

Around mid-day, once we have completed all the tasks in San Pedro Sula, the truck is packed up and the drive to El Rosario begins. It is approximately a four hour trip, with a stop in the middle during which Dan Saulnier covers some of the important health and safety precautions. Upon arriving in El Rosario at the ACTS bunkhouse, our home for the next few weeks, we are greeted by the villagers who will be assisting us with various things over the course of our stay.

After unpacking and settling in, we begin determining the course of action for the next couple days, figuring out which tasks must be completed first. Dinner is generally served around 6 or 7 pm, graciously prepared by our friends Rosa and Santiago.

It is now time for the real work to commence. Each morning in the village, we are awoken by the peaceful crows of the roosters around 5 AM. Since many villages do not have electricity, and in turn no lights, they live by sunlight hours. The villagers begin working around 7 AM to take advantage of the cooler mornings. | *Continued on Page 2*



Photo: D. Sullivan



Photo: D. Saulnier

EWB-NEU members in El Chaguite, Honduras, are creating the foundation for the water storage tank.



...Do As the Hondurans Do

Continued from Page 1

After our breakfast (which consists of oatmeal, coffee or tea, and a rotation of pancakes, doughnuts, or eggs), we pack up the truck with all the necessary equipment and drive to the village in which we are working that day. Traveling to the village takes anywhere from 15 to 30 minutes, depending on the location. The roads are very windy and rocky, making the commute a slow and laborious process. Upon arrival in the village, we gather up the necessary team members and villagers, and we determine our plan for the day's work, which is subsequently commenced.

Everyone stops for lunch around 12, when the sun is at its hottest. For the travel team, lunch consists of *baleadas*, a refried-bean filled flour tortilla,

accompanied by avocados and hot sauce. After a few weeks of eating *baleadas* for lunch every day, we began to grow an affinity for them. Indeed, they are truly a unique and special treat. After lunch (and occasionally a short siesta), work begins again, and it is completed around 4 PM, when the sun begins to retreat. It takes some time to gather up all of our belongings and to regroup at the truck. We then drive back to the bunkhouse while it is still light outside. It is difficult enough to drive on the roads during the day, let alone at night.

The evenings begin when we arrive back at the bunkhouse and start to unwind from all of the activities and accomplishments of the past day. We eat dinner in the early evening. Dinner generally consists of a range of meals, from eggs to soup to pasta, all accompanied by a variety of fruits and vegetables. Since rice and beans are locally available, they are staple foods in our diet. After dinner, we talk about

plans for the next day's work and then begin to review calculations and designs that have changed or developed throughout the day. There is generally more work to be done than we have the time and manpower for, but we work into the night to complete as much as possible. Many evening work-sessions last several hours, sometimes going through the night and into the next day. Sleep is hard to come by, but we manage enough to ensure we are in good mental and physical health, as our full capacity is necessary for each day.

By the end of the trip, we are all very exhausted but happy that we could do so much. Nobody ever wants to leave. There is simply so much work to be done and so many villagers we can make happy. The smiling faces of the people we work with are what drive us to get up early, and work late nights. We love every minute of the experience. There is arguably nothing better in the world.



V-Notch Weir

Photo: R. Moynihan

Trip Summaries



Uganda

By Ryan Moynihan

In early May, students Ryan Moynihan and Kevin McMorrow, as well as our mentor Tim McGrath, had the opportunity to travel to Bbanda, Uganda for a second assessment trip. This smaller assessment trip focused on some very specific goals which our group believed was necessary in order for us to be successful in the first phase of our project. Primarily, we wanted to establish a village water board and explain to them our proposed implementation.

The Water Board consists of 17 elected members of the village who represent all religions, and one third of the members are women. The travel team held our first official meeting with the water board on May 8th, during which we presented our planned implementation for August and discussed potential borehole locations, as well as which school would be most appropriate for a rainwater catchment system. We were pleased to hear that the Water Board was welcoming of our plan and excited for us to move forward in August. They suggested two borehole locations of their own and asked that we build a rain water system on the Anglican Primary School.

While in Bbanda, we also inspected the village's current water sources and took water quality samples. We used a v-notch weir to measure the flow rate of the village's main open well and found it to be 10 gpm (gallons per minute). We also installed a solar energy monitor on top of the Catholic Church's Rectory where we stayed. This data will be useful in

determining whether or not solar power will be a viable source of energy for future implementations.

Although the majority of the trip was spent in Bbanda, the travel team also had the opportunity to visit a few nearby villages and examine their water systems. Most intriguing was the pumping, storage and distribution system in the village of Kakindu. The group studied this system from its source to the taps at which villagers collect their water for a small fee. We also examined in the detail the rainwater catchment systems on the rectory and schools in the village of Buyambi.

Overall, the trip was exciting and inspiring for the travel team and the Uganda design team as a whole. It was really helpful for us to put faces to names and to see Bbanda from the ground rather than a GPS map. We look forward to the success of our first implementation in August and towards reaching our eventual goal of clean, easily accessible water for all.

Honduras

By Dan Sullivan

EWB-NEU has been working in the mountainous Yoro District of Honduras for the past 6 years. During this time, we have successfully implemented water systems in the villages of Los Planes and El Tecuan, and our third and current project is a new water storage and distribution system for the village of El Chaguite.

When a travel team assessed the conditions of El Chaguite in Spring of 2008, they found its water system in complete disrepair. Due to population growth, the demand in the village had far surpassed the capacity of the existing system. The existing sourcebox was found to be fully functional and clean, but the rest of the system was not salvageable and needed to be replaced. The team collected GPS and survey data to design and model a new distribution system, one that took into account future population growth as well.

In December of 2008, a new team traveled to El Chaguite to implement the first phase of the project. The team worked with the villagers to upgrade the main transmission line and lay out the distribution system, including a new *rompacargas*, or break-pressure tank.

After an extended time away due to political instability, EWB-NEU returned to El Chaguite in April of 2010 to implement Phase II, a new water storage tank. The six-member team poured the reinforced-concrete foundation and hired a mason to finish the brick and mortar tank. Meanwhile, the villagers worked on finishing the distribution system lines. The team left the villagers with enough supplies and the right knowledge to finish the tank and pipelines.

The village is currently hard at work on completing implementation, and the system should be on-line in a few months. We are excited for the successful completion of the project, as it will make access to water much easier for the people of El Chaguite.

More Than Fruits and Flowers at Ugandan Market

By Kevin McMorrow

The Uganda Design travel team left the United States with the intention of providing our technical engineering skills, but in truth, it was impossible to prepare for our journey. Over the course of just ten days, I was able to try things that I would not have the opportunity to try while at home in the United States.

I believe that a traveler can get a real taste of a country's culture by visiting the local market, which is exactly what our team did in our first days in Uganda. We navigated through the crowded market in search of souvenirs, avoiding obstacles like corrugated steel and runaway chickens.

The noise and energy rivaled the floor of the New York stock exchange, and I was bumping into people left and right because I didn't want to take my eyes of the variety of goods. There were rows and stalls of spices and foods that I have never seen before; the entire area was a sensory overload of sights and smells. After passing a fifty-foot stretch of what seemed to be over one million sandals, we came to large mound of fried fish, as well as a tempting Ugandan version of a snowcone.

When we emerged from the market, we saw a cart that resembled a hotdog stand. The women behind it were selling *ensenane*, or grasshopper. Grasshopper is a customary snack prepared by removing the legs and wings and frying the body in an oil and salt mixture. I stuck my hand inside the bag of *ensenane* and jumped for my life out of nervousness. After a laugh, I went for it and popped one into my mouth. My fellow team members and I looked at each other in amazement. Are we actually eating grasshoppers right now and *enjoying* it?



Photo: R. Moynihan

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