

BARRELS OF HOPE FOR HAITI

Kenscoff, Haiti,
August 2010



Nicholson and Jobe pictured using a speed square and measuring tape that we brought.

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Hard hats were not required or requested but they brought them anyway because these guys were ready to work. They brought some of their own tools too like shovels and this square. We basically gave them the measurements and they crafted the door and window frames.

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Digging earth for earth bags. Spots must be chosen that are relatively close to the site footprint. For first layers of bags, one can use rubble from destroyed buildings.

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Sewing of the earth bags. Started with what we had on hand which was some random piece of wirey metal with thick twine. These guys pretty much stayed at this task the entire 3 days and developed their own team and style to sewing these bags. Sewing quickly evolved from crude to utilitarian by using real needles and poly line and developing a way to hold the bags by sewing “handles” at the end of each seam.

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Aja and I. Aja was team spirit leader throughout our 3 days. He helped get lunch prepared, played the drums on occasion, even led us in an original song about earthbag building one day while we waited for the rain to pass

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First few rows of our 8'x10' (interior footprint) shelter. Me holding homemade tamper made of rebar into a concrete mold which appeared to be the rubber bowl of a toilet plunger.

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Stacking bags. Bags must be layered in brick pattern for strength and there must be vigilance about this. Half bags (boot sac!) $\frac{3}{4}$ bags and quarter bags are sometimes used to fill in places that a full bag would leave unstable seams.

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Barbed wire that was used in between each row horizontally. Wire was also used in the last rows to hold it to the bond beam by weaving the wire vertically between the stacked bags.

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Frames going into the house. At the base of frame, the house must be carefully leveled and we leveled the layers at every third row for speed. Door frame here regrettably bowed because of pressure of the weight of the earth bags. Better practice is to use filled bags in the door frame as “place holders” and remove them when ready to put door frame back in.

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These guys did not get paid, but instead received certificates for attending and learning the process of earthbag construction.

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Framing up the windows. Man in red shirt was a carpenter and measured, cut, leveled, braced and installed these with his “team”.

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Le Blanc, Jacob Cravey of Earth Givers. Earth Givers and Barrels of Hope coordinated this effort together to bring a demo shelter to Wynne Farms in Kenscoff, Haiti. Kenscoff is located in the mountains and this shelter was built about 500 meters from the top. Despite having to climb from town, we had about 20 people on average show up each day. The reason for this is the reputation of the farm and it's owner, Jane Wynne who helps the community out whenever she can. The week prior to our arrival, Jane had put on her annual summer camp which engages 1,200 local children in agriculture, dance, music and sports. We hope that this shelter will be replicated by locals who attended the construction.

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Here's the team at the end of day 2

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Tamping the rows. All rows are lain with two strands of barbed wire and each row must be tamped to drive the barbed wire into the bags, level each row, and create a more stable and compact structure. Tamping earth with a high clay content like ours in Haiti makes a more stable structure vs. high sand content which can slump.

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Putting up the roof. Bond beam was tied to bags and rebar that went through each corner and roof trusses and purlins were tied to bond beam.

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Creating our exterior plaster. Poly bags will degrade with exposure so the houses must be plastered over. Our house used a mix of concrete, earth that had a high clay content, sand and sifted limestone taken from some exposed limerock 5 meters behind this house

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Aja, his sister and her mother, Leafette, and myself

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My modest tent accommodations in front of Jane's house that her father built.

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Nicholson!

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East side of house with rubble fill at base.

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West side of house with chicken wire lath over bags and plaster over the lathe.

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The house almost completed. Bamboo benches in front are in and concrete plaster is going on