

BUILDING WITH UBUNTU-BLOX (RECYCLED BUILDING BLOCKS)



UBUNTU INFO PART 3

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Ubuntu is an African word with a rich meaning that encompasses cooperation, humanity, and group solidarity for survival in situations with scarce resources. It is a good name for a self-help technology that can turn a problem into a resource.

Inventor and welder Harvey Lacey of Dallas, Texas envisioned the press and system to build with trash in response to the housing crisis after the Haitian earthquakes. Owen Geiger designed the press and wall reinforcement. Harvey has been hard at work refining and promoting and teaching ever since.

Check out the latest developments at the Ubuntu-Blox Project on Facebook, <http://recycledplasticblockhouses.com/ubuntu-blox/>, watch a 4 minute video about Ubuntu-blox in Haiti at http://www.youtube.com/watch?feature=player_detailpage&v=uVE5kO5AiX8 More files in this series available at the recycled plastic page at www.simplestructures.net or contact Harvey at ubuntublox@gmail.com

See other files in the Ubuntu Block Info series also available online soon to learn more about building with Ubuntu blocks.

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FINISHING

CREDITS

PLANNING UBUNTU-BLOX BUILDINGS



Must have straight walls

so the wires
can be
'tensioned'-
tightened to
stiffen walls

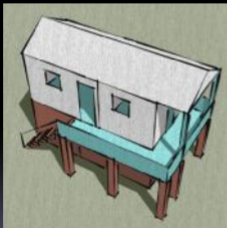


Single story for safe Ubuntu-blox buildings



Or the second story above a fire-resistant ground floor

IF BEDROOMS OPEN TO OUTSIDE STAIRS*



- * In a prolonged fire Ubuntu-blox materials might release toxic gases or melt

Build Ubuntu-blox on a non-flammable base wall

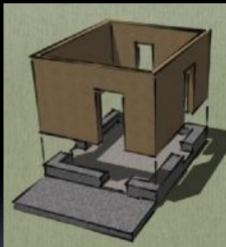


WHERE PEOPLE
COOK INSIDE

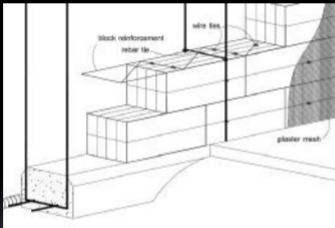


Heavy base to anchor Ubuntu-blox

against high winds



Exterior pinning stiffens Ubuntu walls



Use rebar,
pole, or
bamboo



FOOTINGS AND BASE WALLS



Rubble footings work well



With a grade beam to anchor the rebar



Familiar stone or masonry for a base wall

With vertical reinforcement anchored to it



Or use gravel and earth bags

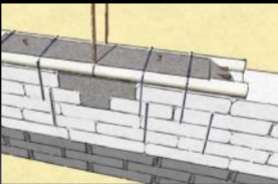
For a cheap non-flammable base wall (only gravel or stabilized earth fill where exposed to rain, snow, and leaks)



Anchors in earthbag for light-weight upper walls



Leave gaps for concrete
Hammer rebar through 2 courses
Fill gaps with concrete
Add form, rebar, pour sill, strap



BUILDING UBUNTU UP



Lay blocks with one baling wire side up



Tie each block to two horizontal wires

Tie horizontal wires to rebar at corner or end



Every second course tie verticals together



After 4 courses run horizontal reinforcement

3/8 inch
rebar

Or use 11
gauge
masonry
joint
reinforce-
ment



Overlap horizontal rebar at corners



Tighten horizontal wires to stiffen building



FINISHING WELL



Anchor frames for doors and windows to rebar



Attach ring beam to vertical rebar

Screw wood ring beam at corners and overlaps



Tie roof rafters to bond beam well

Hurricane straps hold the roof on



Use a light-weight roof for earthquake safety



Plaster mesh strengthens walls for high risk areas



Use plastic fishnet or galvanized chicken wire tied to rebar

For lower risk areas plaster attaches well to recyclable blocks or to non-recyclable blocks bagged in plastic mesh

Always plaster to preserve block strength



Use Ubuntu to build the economy as well as homes

AVAILABLE MATERIALS, EASY TO LEARN



Thanks to the many individuals and organizations that have backed Harvey Lacey's Ubuntu-Blox development and testing:

SMU Engineering & Humanity Week,
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Haiti Communautaire,
IOM

Thanks also to Owen Geiger of Geiger Research Institute of Sustainable Building www.GRISB.org and Kelly Hart of www.GreenHomeBuilding.com for invaluable support and advice.

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15,18, 22, 24- Patti Stouter

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10 right- Martin Hammer, Builders
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