Building Communities Through Coffee



IPRO 333

Where Did We Start...

TRADITIONAL

- **PROS** - Inexpensive - Local materials
- **CONS**

- Local labor

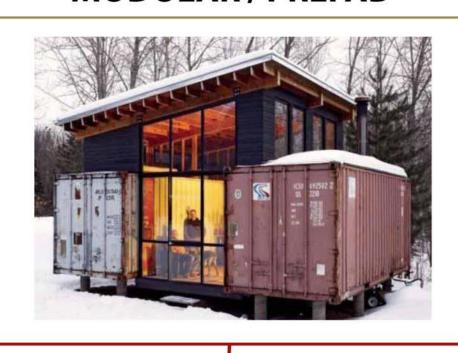
- Optimum storage environment?

NON TRADITIONAL



- Suited to accept utilities - Controllable environment
 - **CONS**
- Some imported materials
 - Imported labor
 - More expensive

MODULAR / PREFAB

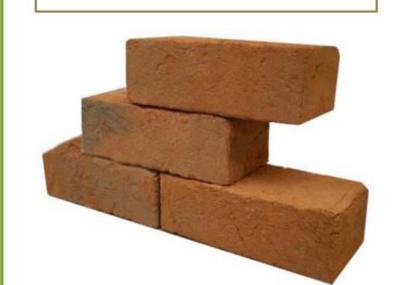


-poor road infrastructure--transport costs--labor/maintenance challenges-

-traditional materials--non traditional construction--labor/maintenance-

Our Material Palette...

CLAY/EARTH BRICK



- **PROS** - Traditional Construction - Local materials - Local labor
- **CONS** -Optimum storage environment? - Questionable Lifespan

ISSB



- **PROS** - Added strength over
- bricks - Local materials -Local labor
- Fast installation
- **CONS** -Optimum storage environment? - Some Equipment Needed

EARTHBAG



- **PROS** - Provides wall and roof as
- structure and enclosure - Flexible design options
- -Flexibility of bag infill - Local materials
- Local labor - Long lifespan
- **CONS** - Long construction time

RAMMED EARTH



- **PROS** - Local materials
- -Local labor
- Can have long lifespan
 - **CONS**
- -Labor intensive
- Long construction time - Need mechanical
- equipment for sufficient strength
- Specific soil types needed

Moving Forward...

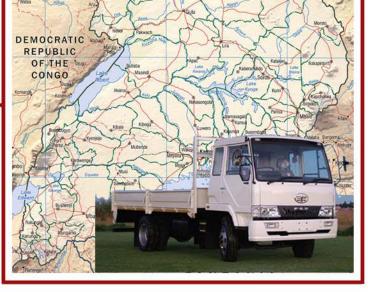


LOGISTICS - Where are the materials coming

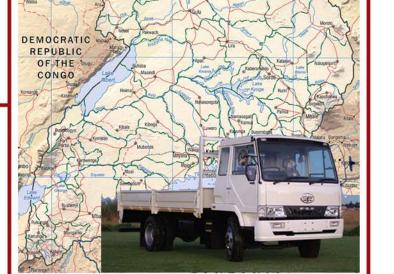
from, and how do they get to the site?

Solution? HYBRID DESIGN

REFINE DESIGN - Do we have all the components? The right materials? Are all stakeholders considered?



LABOR FORCE - Who do we need to build it?



CONSTRUCTION METHODS - How do we build it? Formwork, scaffolding, process, equipment and tools, etc.





COST AND OWNERSHIP - How many bags of coffee does Crop to Cup have to sell? Who maintains the building?

One Example Design Concept...



Overall Design Goal

The goal of this design was to make it as simple, safe, and costeffective as possible for ease of both construction and everyday use. Local farmers will bring their coffee crop to the sampling space where it will then be sampled for quality and paid for accordingly. The idea of this central storage space also offers the farmers an opportunity to meet and interact with other locals, thus promoting community. The staff of the storage center will store the samples in the corresponding space in the office while the remaining crop will be placed in the adjacent storage spaces.

