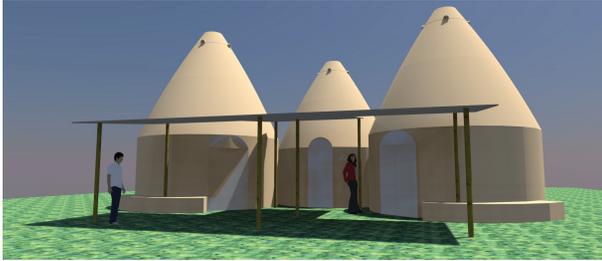
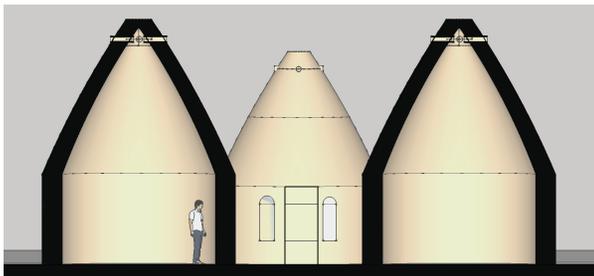


# The Building

"Banda"



The Banda utilizes passive systems to create secure community storage. This will be constructed using sealed earth filled bags. The dome shape allows the material to become a self supporting structure that removes the need for external supports. To assist climate control, PVC pipes are incorporated into the structure. This allows for air to circulate through the building thus keeping the interior cool and removing dust. Two of the domes used for storage of coffee crop are oriented so they can be easily expanded. This orientation enables a secure entry point because it is visible at all times. The smaller third dome holds coffee samples for tasting and serves as the record keeping office of the facility. The area in front of these domes includes a weighing area. In addition it also acts as a designated community gathering space. The large roof overhang not only creates shade but also provides space for farmers to socialize.



# Culture

Building Communities

## Uganda:

Recovering from the Idi Amin Regime during which over 300,000 people were murdered.

Delays are inevitable because there are over 50 languages spoken and multiple translations are required.

Tribe is the ultimate community and no other unit has more importance.

Africans will reach out with friendship first, if they receive a cold response they will lose trust.

Corruption is related to poverty.

The older one gets, the wiser one becomes.

Be trustworthy and deliver what is promised.

Do not be overly sensitive to criticism or advice.

Patience is the key to successful business in Africa



## Ethics:

To deal with the many ethic issues encountered during the course of the semester, the culture group hosted an Ethics Roundtable. Ethics experts were invited to critique IPRO 333's ideas and identify areas that required more research. They identified the retailer, the government, and other coffee buyers as stakeholders not previously considered. They recommended that the farmers have an option to buy the building from C2C after it's completion. Additionally, they confirmed the logic used to choose materials for the Banda.

# Logistics

Material Considerations

The logistics group considered a number of different material options for the project. A material matrix showed the earthbag was more logical than timber, ISSB, rammed earth or concrete. The earthbag is a new material currently used in Uganda. Polypropylene bags are filled with earth from the site and stacked in a masonry arrangement. The walls serve as both structure and thermal mass, negating the need for additional insulation. Earthbags do not require skilled labor, ideal for a small isolated village.



Part of the coffee production process is drying. Currently Crop to Cup buys coffee with 22% moisture, the ideal moisture is 17%. In an effort to streamline coffee production the logistics group explored drying options. Solar panels and electricity proved to be unfeasible. There are two other options: desiccants and non-electric solar power. Further research is required but currently desiccant drying has the most benefits, including time and cup quality.