

Material Analysis

What production methods are available for building with raw earth?

The following five products are available:

- COB (filled with plants)
- Rammed earth
- Poured
- Infill Material
- Compressed Earth Blocks (CEB)

According to the graduation report of van Vilsteren (2019) the soil around the camp mostly contains clay. This causes bad irrigation of the ground. However, clay is a good material to build houses with. So this means the soil of Zaatari is suitable for construction.

For this project, two methods are chosen. Based on the limited skill of the craftsmen that will be on the building site. The methods will be CEB (Compressed Earth Bricks) and rammed earth.

Rammed earth will be used for making the foundation. The CEB-bricks will be used for making the modules.



Figure 1: COB Bricks (Cornel, 2017)



Figure 2: Rammed Earth (Silva et al., 2014)



Figure 3: COB (Earth Architecture, 2021)



Figure 4: Poured (Home, 2020)



Figure 5: Infill Material (Hueto et al. 2021)