

Earthbags Buildings

As an approach to build the refugees' shelters

Abstract:

Construct the residential buildings in the crises considers as one of the major problems for the countries, which need to provide affordable shelters within limited time especially in the refugees' cases, earthquakes, floods or any emergency crises.

The paper suggests to use the earthbags buildings as a solution.

Earthbags system considered as one of the Flexible –form Rammed Earth technique which lays on mixing earth components, soil and dirt with little amounts of water.

Earthbags method begins with filing the soil into the bags before drying as the same with the rammed earth, then laying the bags and compact them with tampers, two strands of 4-point barbed wire are laid in between every row which act as mortar, that helps to raise the tensile strength of the walls, finally the bags corbel to form the domes.

The paper focuses on studying the Earthbags building techniques to use in the refugees' shelters, and comparing with the compressed earth blocks to show the deference in the time of building process, in addition to the community participation which adds values in the crises cases.

The paper presents some examples of building with earthbags system and finally concludes to a methodology to apply the earthbag system on the refugees' shelters.

Key words:

Earthbags Buildings- Refugees' shelters- Compressed earth blocks.