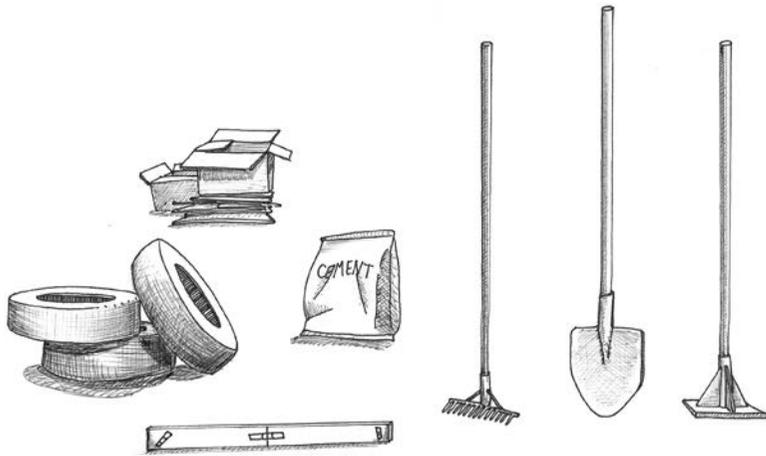


Tire

Using old tires as a container for rammed earth produces structures which have very good insulation properties as well as compression strength. They can be quite laborious to construct but they utilize materials which are free or inexpensive.

Because tire walls are so much wider than typically constructed walls, they do not require a foundation though the initial course of tires should be greater in diameter than all subsequent courses. The first course should also be dug into soil which is leveled and free of organic matter.

Building a tire house is especially ecologically friendly because it keeps non-biodegradable waste materials out of landfill sites. For example, one round tire structure, 4m in diameter, will utilize 250 tires and many more bottles of cans which you will need to fill in gaps between the curves of the tires. Those bottles/cans can be filled with dirt just like the tires or any other waste such as batteries, plastic, medical waste and whatever else can fit through its opening.



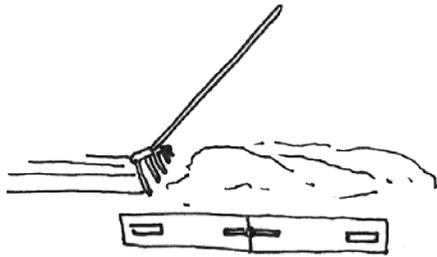
INGREDIENTS:

- Tires
- Level
- Rake
- Shovel
- Dirt
- Tamping tool
- Cardboard
- Cement
- Bottles/cans to fill gaps between tires.

MAINTENANCE: Much of the maintenance issues of structures built with earth-filled tires come down to the choice of plaster used. A tire construction does not require any more maintenance than conventionally constructed homes.

CONSTRUCTION TIME: A person working alone should be able to complete the walls of a rammed-earth tire construction in 2-3 weeks.

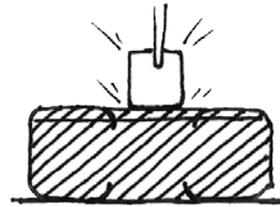
CONSTRUCTION



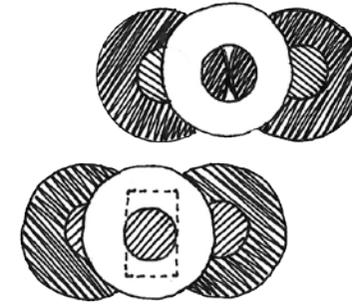
1) Start by leveling the ground where you will place your walls.



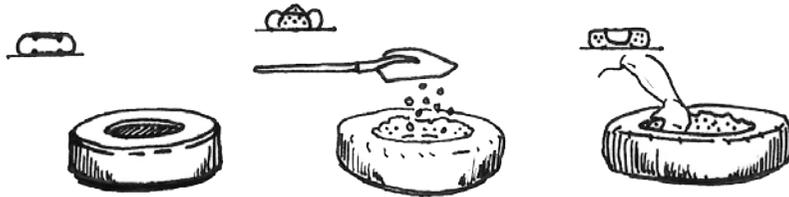
2) Lay out the first layer of tires where you want your walls. Build the south facing wall with glass.



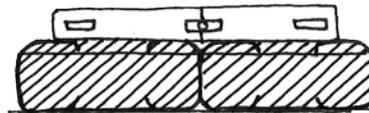
5) Fill core of the tire with soil and tamp it down so that the soil is packed tight.



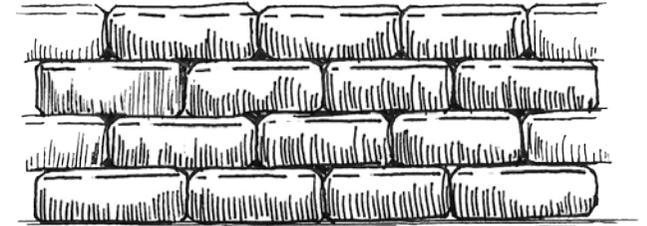
7) Lay the second layer of tires. Place cardboard, or something else, to cover each tire hole for all tires above the first level.



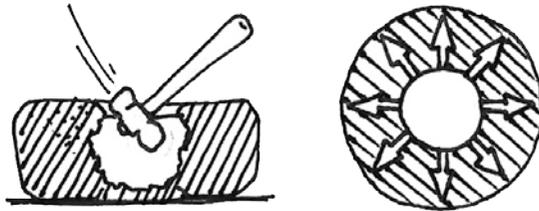
3) Start filling your tires and pushing all of the fill into the edges of each tire. The first layer of tires can also be filled with gravel to prevent moisture from wicking.



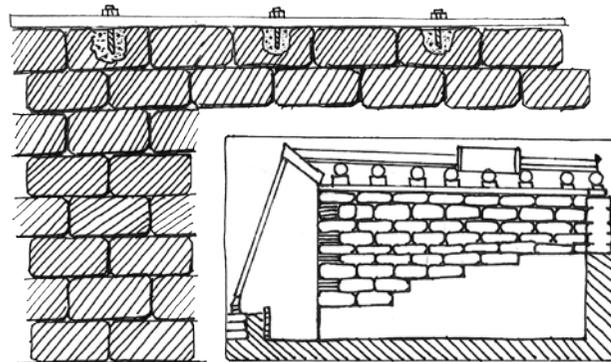
6) After you have packed down all of the tires in your first layer, check to make sure that they are level, tamp down any bumps you might have.



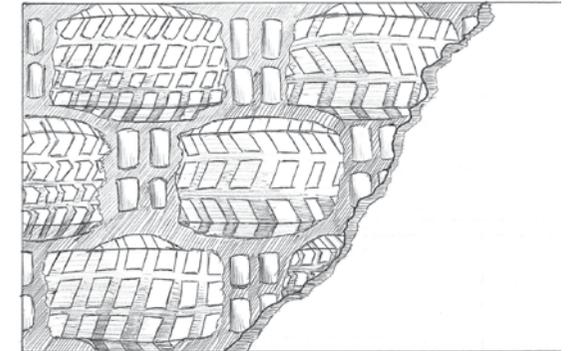
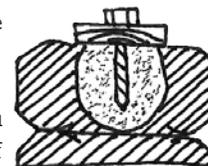
8) Continue filling tires, tamping the soil, and leveling until you reach the desirable roof level.



4) Use a hammer or tamping tool to pack the soil into the crevice(s) of the tire(s).



9) In the top layer of tires, you will need to have a core of cement which you can attach a wooden beam or board to which will give you something to attach the roof and ceiling to.



10: You can fill in between the curves of the tires by using packed aluminum cans or bottles to create a relatively flush wall. The entire wall can then be covered over with a mud, lime or cement plaster.

