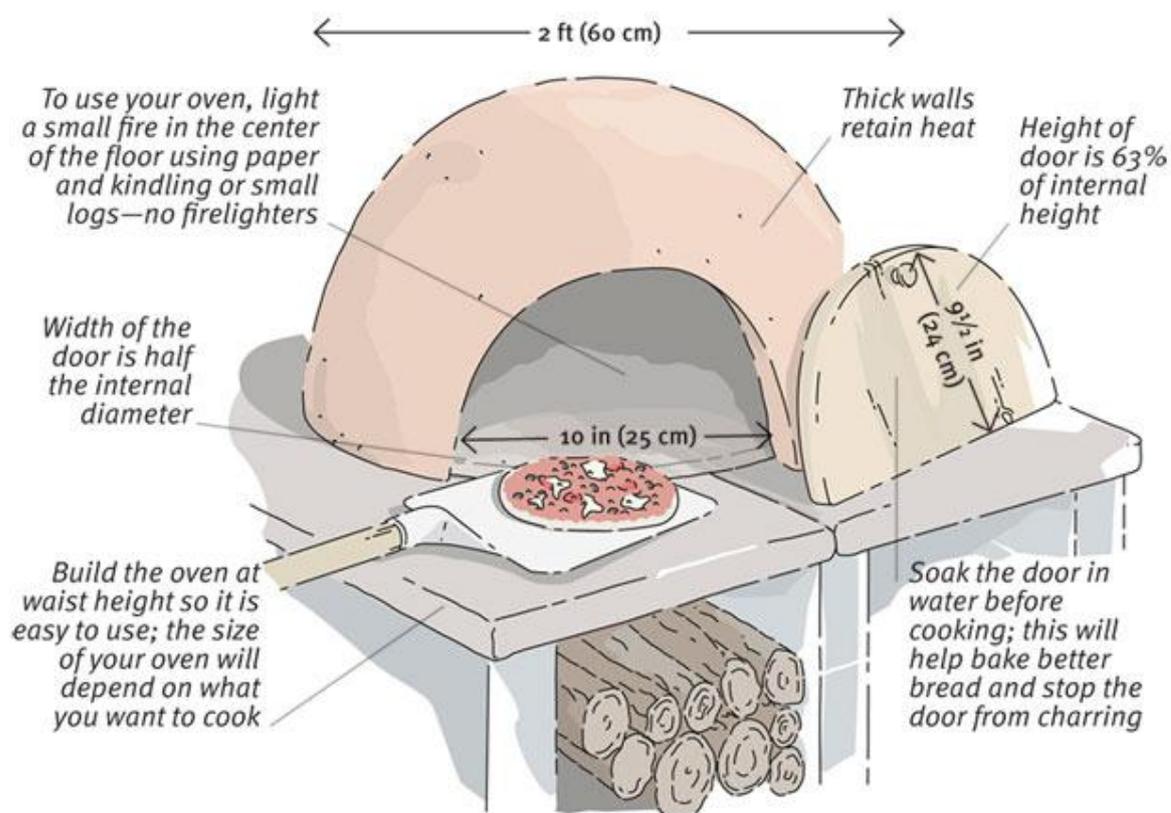


Earth Oven

An earth oven or cooking pit is one of the most simple and long-used cooking structures. At its simplest, an earth oven is a pit in the ground used to trap heat and bake, smoke, or steam food. Earth ovens have been used in many places and cultures, and the presence of such cooking pits is a key sign of human settlement often sought by archaeologists, and remain a common tool for cooking large quantities of food where no equipment is available.

To bake food, the fire is built, and then allowed to burn down to embers, and the food is placed in the oven and covered, this can be used for bread-baking...

Instructions for a semi permanent dome oven...



Each oven has its own unique cooking temperature. Light the fire inside the oven, leave the door open, and wait a few hours. When the soot goes from the inside, remove the coals using a shovel and start cooking.

Materials and Tools

Tape measure
Pen
Garden sieve
Rolling pin
Knife
Trowel
Clay (dig your own if possible)
Sand
Newspaper
Bricks or cinder blocks
Stone slabs
Wood

Build the Stand

1. Build a firm base. We used some spare cinder blocks. Keep it level and build the structure up to a comfortable working height for cooking.
2. Prepare a solid floor for your oven. It must have a smooth surface. We used a couple of old paving slabs.
3. Mark the centre of the oven. Make it as large as possible. Ours is about 2 feet in diameter.
4. Draw two circles, one 3 to 4 inches inside the first, to show the thickness of the walls. Note the radius of the inner circle.

Prepare the Clay

5. Sift the clay to remove pebbles and debris if you dug your clay from the ground.
6. Lay a big tarp on the ground and mix your clay — best done with bare feet.
7. Add sharp sand (about a bucketful) and some water if the clay is very dry. Mixing takes time and effort. Don't slip!
8. Keep turning and mixing the clay.
9. Test the clay to see whether it is ready to work with. Make a clay sausage.
10. Hold it with half in your palm and the other half dangling over your hand. If the clay bends but doesn't break, it's ready to use.

Make the Oven Base and Walls

11. Roll out a circular layer 1/2-inch thick on the internal circle of the base. Trim the edges with a trowel.
12. Wet the clay, and then smooth it with your hands. This will serve as a smooth base for sliding whatever's being cooked in and out of the oven.
13. Cover the circle with a layer of moist newspaper to stop any sand from sticking to it.

14. Pile on moist sand and sculpt the shape of the earth oven, making a dome that is a few inches taller than the internal radius of the oven.
15. Measure the height of the sand dome, which will be the interior height of your oven. Multiply this by 0.63 to get the height of the door.
16. Cover the sand dome with wet newspaper to stop the clay from sticking to it.
17. Shape the clay into sausages, then flatten and squash them into place. Start at the base and work around and up, to cover the dome.
18. Use the width of your hand as a rough measurement: the layer of clay should be around 3 to 4 inches thick.
19. Try to push the clay against itself, not against the mound of sand, as you add each piece. Cover the entire dome with clay, making sure it is still the same thickness at the top as the bottom. Wet your hands and smooth the surface of the finished dome.

Make the Door

20. Mark out the height of the door using measurements you made earlier. Our sand dome is 15 inches tall, so the door is just less than 9 1/2 inches in height. Mark the width of the door. Ours measures 10 inches — half of the oven's internal diameter and perfectly big enough for a small pizza to slide in and out.
21. Draw the shape of the door freehand with a pen. Use a sharp knife to cut out the door. Do this in two sections, cutting down the midline of the door.
22. Slide the knife under one half of the door. Slide the excess clay out. Repeat for the other half of the door.
23. Cut away the excess clay on the inside of the door to enlarge it slightly. Leave the oven for a few days to a week.
24. Remove the sand when the walls of the oven resist denting when you poke them.

Finishing Touches

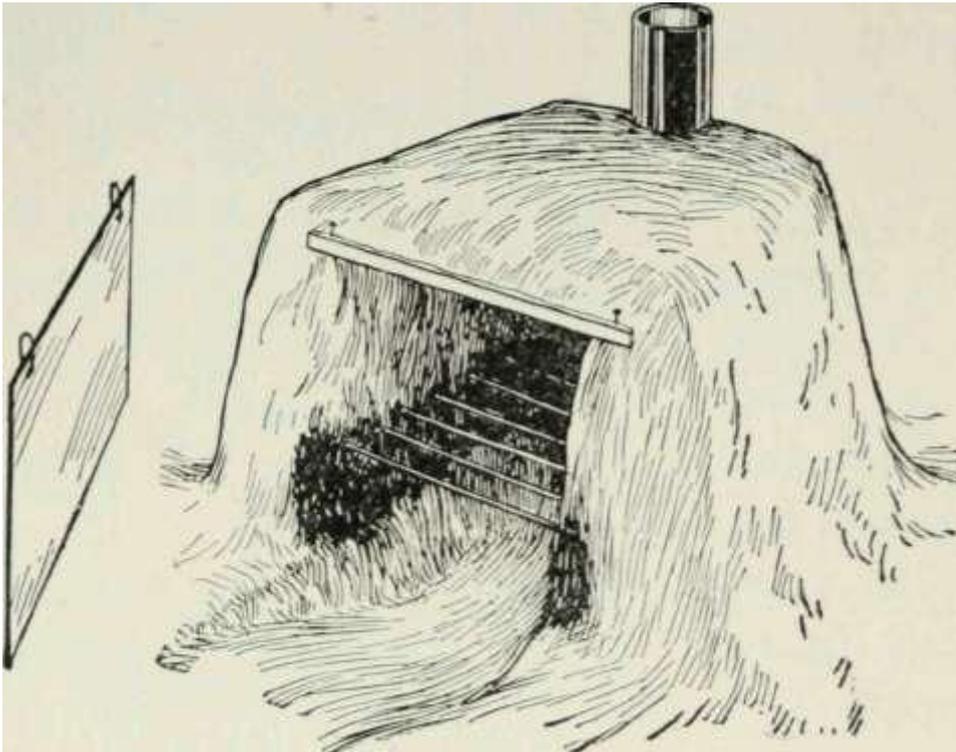
To repair any cracks that emerge on the oven as it dries: Wet the surface, then score it with a cross-hatch pattern. Apply more clay to the cracked area. Repeat if cracks appear after the oven has been used.

To fit a wooden door: Use a paper template to get the shape right. It doesn't need to be a perfect fit, however.

For a quicker temporary Camp Oven...

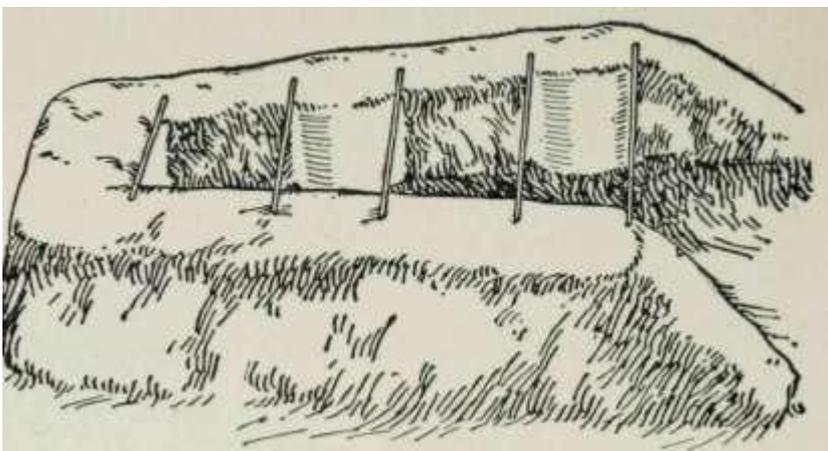
Materials.

- Length of pipe for smoke evacuation
- Sheet of corrugated iron for the roof
- Something to use as a grate – reinforcing bars or pre-existing found grate
- Tin cans to stand grate on
- Optional but handy – a few fire bricks.



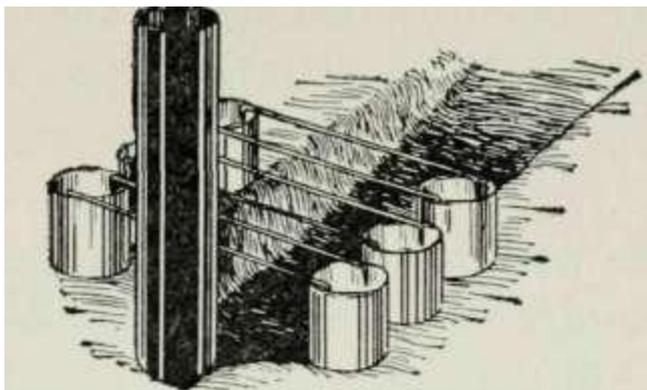
1.

Camp Oven Sheet-Iron Front



2.

Fireplace with Above Ground Fire-Pit



3.

Oven Fire-Pit, Smoke-Pipe and Shelf

The Camp Oven shown in **Figure 1.** is started in the same way as the fireplace in **Figure. 2,** except that a pit 5 or 6 inches deep is hollowed out in addition to building the above-ground fire-walls.

Figure 3. shows how the oven shelf is supported on tin cans; also, how a piece of stovepipe is stood erect at the rear end of the fire-pit, for the chimney. Fill the cans with wet earth tightly packed.

Set the pipe at a height just below the desired roof height (40-50 cm) using stones, firebricks, wet-logs – whatever can be found handy. Logs will burn through in one or two days and give a smoky flavour. Fire bricks make great supports but are expensive and hard to locate. The important thing is for the base of the pipe to be clear to 'draw' the fire. ie create a draft of air from the front to the back.

Pile up earth around the base of the stove-pipe, and build up the sides of the oven with earth moistened enough to make it pack together firmly.

At a height of 30-35cm above the oven shelf, level off the sides, and across them set a piece of sheet-iron (corrugated works fine) to support the top of the oven. Then cover this top to a depth of 10-15cm with earth. Bank up earth around the base of the oven to make the walls solid, and protect the tin cans that support the shelf-wires, with a covering of earth, so that the fire will not burn them through.

To use your oven...

Ideally the oven should be 'fired' 24 hours before it is first use.

Build up a fire and maintain it for at least an hour, switch to denser wood to form embers and allow the fire to burn down. Repair any cracks that form with wet earth as they appear.

Maintain a steady burn in the oven for 3-4 hours to 'cure' the earth walls, longer is better.

Allow the fire to burn down when not in use, but never let it go cold - you can transfer hot coals from a larger open fire with a shovel if you need to get baking fast if the oven is always warm.

Timing is everything!

If you want bread for breakfast, form your loaves the night before and leave covered in a tent. They will prove more slowly in the cooler night air.

Start your fire at least 2 hours before you want to eat. Let it burn down to coals for baking (baking time varies but should be around 15-20 min for bread).

Bread for the evening meal needs to be started about 4 hours before it is needed.

Cooking in the dark is incompetent

Plan your meal to be eaten and cleared away before dark.

Hawis de Werceworde Basic Camp Bread

(If you are gluten intolerant go no further...)

For two medium loaves

You need...

High Grade flour

Dry Yeast

Honey

Salt

- Shortening (Oil, lard, butter, dripping – it doesn't really matter
- 325ml Water approx.

Step One

In a small pot with a lid mix...

- 3tsp yeast
- 2 tsp honey
- 100ml warm water (should be just comfortably hot for you to leave your finger in for 30sec)

Stir well and leave to stand in a warm place until frothy (20-30minutes) Close to the fire is fine, but not in a draft and not so close that it will get too hot.

Step 2

In a large bowl mix 3c Flour (High Grade is best due to its higher gluten content) and 1½ tsp. salt, work in 3Tbsp. oil or butter or lard.

Step 3

- Tip dry mix onto a table or bench, must be working height and stable.
- Make a circular pile and then form a well in the centre
- Get a helper to slowly pour in the frothy yeast while you gradually work around the sides of the well flicking in the flour and forming first a batter and then, as your helper adds the remaining 225mls warm water gradually, a dough. Adjust the flour/water as the dough forms - it should begin to come together and stick to itself - not everything else.
- Keep working the dough until it is silky and elastic.
- Cover the dough with a damp cloth and leave in a draft free warm place to double in bulk. This can be anything from 20 minutes to 3 hours depending on air temperature, drafts etc

Step 4

- Once the dough has risen, this is called proving, punch it back down and knead for 2-3 minutes.
- Form into loaves and place on a baking tray
- Cover and leave to rise again (again a warm draft free place is desirable) – leave 20-30 minutes to double in size again

Step 5

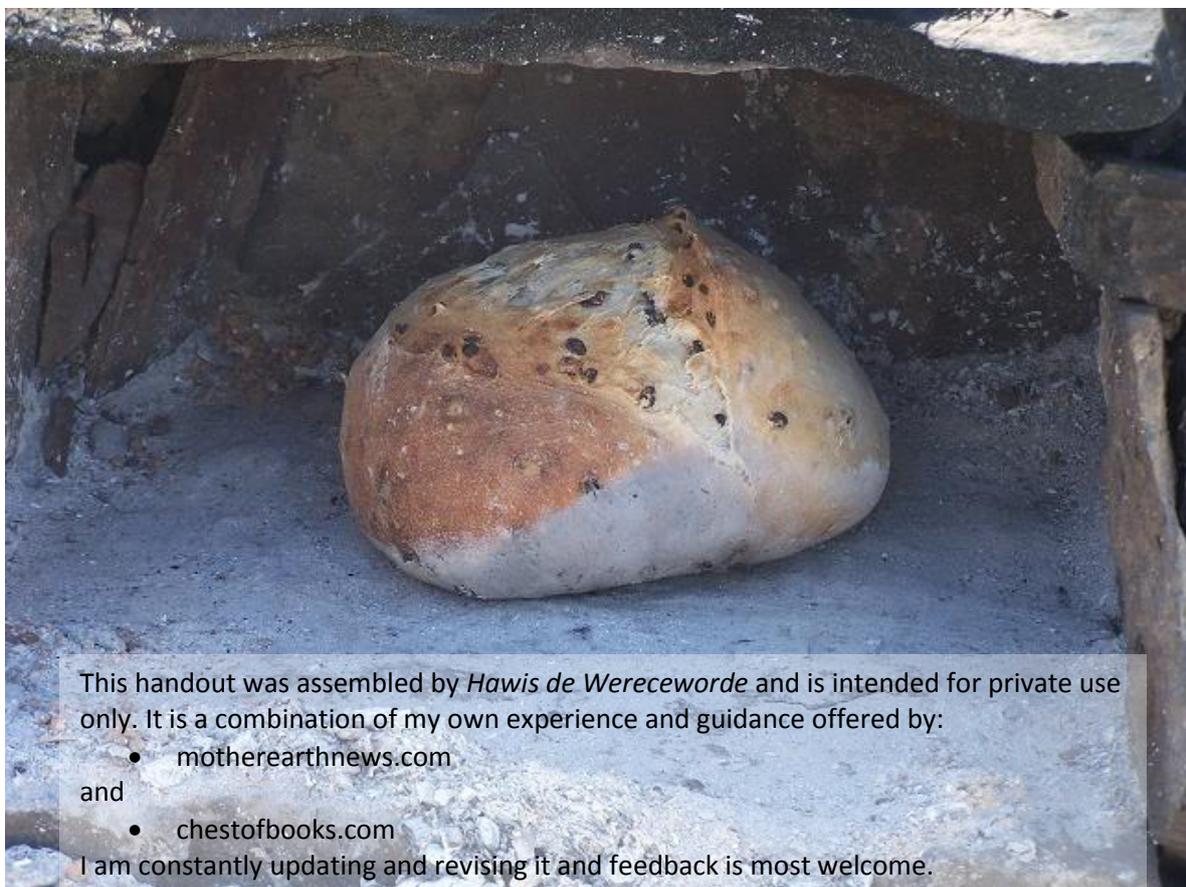
Bake – ideally the oven will be at 200 deg C – I have no idea how to explain how to judge this... it is not so hot as to burn your hand but would be uncomfortable to leave it in there more than 10 sec. This is something that experience will teach.

Seal the oven door with flour and water dough and 80% cover the top of the smoke pipe to maintain the heat in the oven for 15 – 20 minutes.

Cooked bread is golden brown and sounds hollow when the base is lightly tapped with your knuckles.

Every oven is DIFFERENT !!!

Learn its quirks and make them work for you.



This handout was assembled by *Hawis de Wereceworde* and is intended for private use only. It is a combination of my own experience and guidance offered by:

- motherearthnews.com

and

- chestofbooks.com

I am constantly updating and revising it and feedback is most welcome.