



Sunset's classic
adobe oven

www.sunset.com/home/oven.html

Your step-by-step guide to building and using your own backyard adobe oven

In response to reader requests, we decided to bring back one of our most popular projects: the adobe oven, first featured in our August 1971 issue. It's modeled after mud-brick ovens used around the world, from the Southwest to Mexico, Italy, and France.

Building it takes about two days of grubby work; it speeds up building to have two or three people making the thick-walled adobe shell, the mass of which stores the heat of the fire.

The reward: wonderfully rustic pizzas, roasts, vegetables, and crusty loaves of bread from your own backyard. To get started, click on the links below.

SUNSET'S ADOBE OVEN

Materials and tools

You'll find most of the materials you need at a home center or building supply yard, except for the cardboard barrel, often used by movers. (You cut it in half lengthwise and use it to form the oven's curving top.) Look in the yellow pages under Barrels & Drums for a local source.

- 14 concrete building blocks (8 by 8 by 16)

- 14 concrete cap blocks (8 by 2 by 16)
- 68 firebricks (2 1/2 by 4 1/2 by 9)
- One 28- to 30-gallon cardboard barrel
- One empty 1-quart can
- 6-foot square of 6-inch wire mesh (used to reinforce concrete driveways)
- 10 feet of 30-inch-wide chicken wire
- 4 feet of rough-sawed redwood 2-by-4
- 2 feet of redwood 1-by-3
- 16 1 1/2-inch deck screws
- 3 feet of 6-inch-wide aluminum flashing
- Eight large wheelbarrow loads of adobe soil (heavy clay garden soil)
- Three bags Portland cement
- -foot square of 1/4-inch galvanized wire mesh
- Exterior latex paint
- Optional: 24 precast 1- by 2-foot concrete steppingstones

You'll also need a tape measure, hacksaw, pencil, circular saw with masonry bit, wire cutters, saber saw, drill, screwdriver, large wheelbarrow, hoe, shovel, sturdy rubber gloves, sponge, small piece of scrap lumber or plywood, old towels, and plastic tarp.

Construction and text by Peter O. Whiteley, Sunset Magazine

ADOBE OVEN PROJECT

Step-by-step directions

Materials and tools

Find a safe, level location in your garden for the oven. Building code requires oven to be a minimum of 10 horizontal feet from any combustible surface, such as fences or walls. Also, check with local officials on property line setback requirements.

We built our oven on a 6- by 8-foot base of red concrete steppingstones--an optional layer. The rest of the base is stacked but mortarless, which allows for easy disassembly at some point in the future.

1. Arrange the 8 by 8 by 16 blocks on the ground to make a 32- by 54-inch base.
2. Cover with an identical layout of cap blocks.
3. Add layer of firebricks.
4. Cut the barrel in half lengthwise with a hacksaw (see materials and tools). Center empty quart can on closed end of a half-barrel; trace and cut out circular shape. This hole will be the vent.
5. Score and cut two firebricks in half with a circular saw (halves measure 4 1/2 inches square).

6. Starting at back end of base, make three U-shaped layers of firebricks to support the half-barrel. Each layer is three bricks long and 2 1/2 bricks wide at back end. Position barrel on bricks. Mix 3 parts adobe soil to 1 part Portland cement, add water, and mix with a hoe and shovel to the consistency of thick oatmeal. Be warned: it's tiring and muddy work. Test that the mix holds together by squeezing it.

7. Cut a 3- by 4-foot piece of the 6-inch wire mesh and shape it so it arcs over the barrel by about 1 inch. Bend and tuck excess under bricks at side. Repeat with at least one layer of chicken wire, bending and folding edges over the rear and open end of barrel.

8. Make door: Cut three 14-inch-long pieces from redwood 2-by-4. Join them together with screws running through two parallel lengths of redwood 1-by-3 across the front. Cut top into an arch that measures 14 inches tall at the peak and conforms to the basic shape of the open end of the barrel. Shape handle from excess 2-by-4, and screw to 1-by-3s. Center and tack flashing around door perimeter. Insert the can in the hole cut in rear of barrel.

9. Mix 3 parts adobe soil to 1 part Portland cement, add water, and mix with a hoe and shovel to the consistency of thick oatmeal. Be warned: it's tiring and muddy work. Test that the mix holds together by squeezing it.

10. Working from the base up, pack the adobe-cement mixture firmly over and through the layers of mesh, leaving no air pockets. Pack mixture around the can, wiggling and rotating it to keep it from being trapped in place. Form arch for door by squeezing mixture into the chicken wire, and periodically inserting the door (with flashing attached) to check fit. Continue adding mixture until the coat is 4 to 5 inches thick overall. Let it dry slightly, then smooth the surface with a damp sponge and a wood "float" made with scrap lumber. (Photo at left is front view; photo at right shows the back.)

11. Wiggle the door and can, then cover the oven with damp towels and plastic tarp. Keep towels damp and oven covered for at least a week while adobe hardens and cures (check daily). Remove flashing from door

12. Paint adobe shell after building first fire.



ADOBE OVEN PROJECT

Oven heating guide

[Cooking phases](#)

[Roasting vegetables](#)

[Roasting meats](#)

The first time you build a fire in the oven is exciting. Remove the can from the rear vent, and cut and fit a piece of the 1/4-inch wire mesh over vent to act as a spark arrester. Build a small fire and keep it burning steadily so the adobe warms slowly and bakes out any remaining moisture. Hairline cracks will likely develop when the oven is heated, but they can be sealed with coats of exterior latex paint later.



Norman A. Plate

The next time, build a fire as directed for cooking to test how the oven holds heat. The oven's surface will become hot to the touch. Let the fire die down, use a hoe or shovel to pull out the coals into a metal bucket partially filled with water, sweep off the brick surface with a damp broom, and check the temperature with an oven thermometer. Initial temperatures will often be about 700° – too hot for cooking.

Block the vent hole with the can or a damp rag, and remove and soak the door in water. Replace the door and periodically monitor the temperature for several hours to get an idea of how your oven performs. Leave oven door open for cooling.

COOKING PHASES

The first three hours, heat oven

0 to 10 minutes: Screen vent and open door. In center of oven, mound 6 to 8 sheets of crumpled newspaper. Lean 2 or 3 handfuls of kindling wood, including some 1-inch-thick pieces, tepee-style against the paper. Ignite paper, and when kindling is burning well, lay 2 or 3 more handfuls of kindling on the fire and top with 3 or 4 logs (3 to 4 in. thick and about 1 1/2 ft.).

20 to 40 minutes: When logs begin to burn, add 6 more logs (4 to 5 in. thick), but be careful of heat from oven door – it can singe hair. Toss about half a 10-pound bag of charcoal briquets between logs. Let fire burn about 1 hour, then add remaining briquets. Burn until most wood is gone, about 3 hours total. Occasionally poke fire to keep air circulating.

At about 2 hours and 50 minutes: With a shovel, scoop hot ashes into a fireproof metal container partially filled with water. Quickly clean oven floor with a wet mop or wet towel tied to a pole.

2 hours and 50 minutes to 3 hours: Set oven thermometer on floor just inside door. Close door; block vent. Check after 10 minutes. Temperature should be between 700° and 650°; then it drops quickly to 600°.

The next four hours, bake

About 4 hours: During the brief period of high heat, bake pizzas.

About 5 hours: In the next phase, put meats and vegetables in to roast. Bake bread when oven heat is most constant. Meats brown best when oven starting temperature is 500° to 450° and heat is regulated by the oven door. But for roasting that requires less attention, wait until temperature drops to about 400° to allow more time for meats to cook.

About 5 1/2 to 6 1/2 hours: Bake bread when oven heat is most constant

Second-generation
Adobe Oven Bread

PREP AND COOK TIME: About 3 1/4 hours, including about 1 1/2 hours for rising

MAKES: 1 loaf, about 2 1/2 pounds

2 cups warm (about 110°) water

2 teaspoons sugar

1 package active dry yeast

About 4 1/2 cups all-purpose flour

3/4 cup whole-wheat flour

About 1/2 cup cornmeal

1 teaspoon salt

1 tablespoon olive oil

1 large egg, beaten with 1 tablespoon water

1. In a large bowl, combine warm water and sugar. Sprinkle the yeast over the water; let stand until yeast softens, about 5 minutes.

2. Stir together 4 cups all-purpose flour, the whole-wheat flour, 1/4 cup cornmeal, and salt. Add 1/2 the flour mixture to bowl. Beat with a spoon or mixer until dough is well moistened. Stir in remaining flour.

3. *To knead with a dough hook*, beat at medium speed until dough begins to pull from bowl sides and is not sticky when lightly touched, 10 to 15 minutes. If dough sticks, beat in more all-purpose flour, 1 tablespoon at a time. Remove dough hook.

To knead by hand, scrape dough onto a well-floured board. Knead until very elastic and no longer sticky, 10 to 15 minutes. Add flour as required to keep dough from sticking to the board. Wash and oil bowl, then return dough to bowl.

4. Cover bowl with plastic wrap and let dough rise in a warm place until doubled, 1 to 1 1/4 hours.

5. Briefly knead dough with dough hook or on a lightly floured board to expel air. Shape dough into a smooth ball or oval loaf. Set smooth side up on

a baking sheet dusted with about 2 tablespoons all-purpose flour. Dust loaf top lightly with more flour, drape with plastic wrap, and let stand until puffy, 30 to 40 minutes. Refrigerate loaf if it is ready before adobe oven is.



Brush with beaten egg before slipping loaf into the oven.

6. When adobe oven has cooled to about 350°, transfer loaf to a cornmeal-coated bread paddle. Make slashes about 1/2 inch deep across the loaf top in several places with a very sharp knife or razor, then brush with beaten egg; take care not to let egg run onto paddle.

7. Slip loaf from paddle onto clean oven floor. Close oven door. Check temperature in 5 minutes; if above 450°, remove door until oven drops to 350°, then close. After 10 minutes, spray loaf all over with water; close door. After another 10 minutes, spray loaf with more water; close door.

8. Continue baking until loaf is rich golden brown and sounds hollow when tapped, 40 to 60 minutes more. Pull loaf onto oven hearth to cool. Serve warm or cool.

Per ounce: 71 cal., 7.6% (5.4 cal.) from fat; 2.1 g protein; 0.6 g fat (0.1 g sat.); 14 g carbo (0.8 g fiber); 60 mg sodium; 5.3 mg chol.

Recipes by Betsy Reynolds and Jerry Anne Di Vecchio

Flat Bread Salt Pizzas

PREP AND COOK TIME: About 20 minutes

MAKES: 4 servings

1. Cut a thawed 1-pound loaf of frozen bread dough into quarters. Shape each portion into a ball.
2. On a lightly floured board, pat each ball into an 8-inch-wide round and rub lightly with olive oil (about 4 teaspoons total). Sprinkle rounds with kosher or coarse salt (1/2 to 3/4 teaspoon total).

3. If desired, cut 1 head roasted garlic (see [Adobe Oven Vegetables](#)) in half, squeeze out pulp, and pat equally over bread rounds. Sprinkle lightly with dried thyme (about 1/2 teaspoon total).

4. Set rounds, 1 at a time, on a cornmeal-dusted bread paddle.

5. When adobe oven is at 550°, slip rounds directly onto clean oven floor. Leave door open and cook until bread is browned, about 5 minutes. Rotate with paddle if necessary to brown evenly. (You can bake pizzas at cooler oven temperatures, but they take longer to cook and don't brown as well.)

Per pizza: 352 cal., 26% (90 cal.) from fat; 8.7 g protein; 10 g fat (1.9 g sat.); 55 g carbo (2.4 g fiber); 730 mg sodium; 5.7 mg chol.

easy

I'm not alone in my passion for the crusty, hearth-baked qualities that stone, brick, or adobe ovens impart to breads and pizzas. But building one of these ovens outdoors—which I have done several times for *Sunset* (most recently with senior home writer Peter Whiteley, for our [August 1998 centennial issue](#))—is no small task, and installing a professional unit in your kitchen is costly and demands a lot of space.

Now, however, you can get stone-oven results at home using an oven insert called the HearthKit. The kit consists of three thick ceramic pieces—one the width and depth of your oven (you order by size) and two that fit vertically alongside the oven walls. Once the ceramic insert is heated as directed, you slide the loaves, pizza, rolls, or containers of foods (casseroles or meats) onto the ceramic floor (misting the oven with water, if you choose, to enhance crust development). The insert effectively re-creates the balanced heat of a hearth oven. The HearthKit oven insert costs about \$230 in cookware stores; for more information, call (800) 383-7818 or go to www.hearthkitchen.com.

ADOBE OVEN MEATS

Starting oven temperature: 500° to 450°

	Weight	Approx. time	Doneness (cut to test)
Chicken	3 to 4 lb	45 min. to 1 1/4 hr.	Breast white at bone in thickest part 160° at
Turkey	12 to 14 lb.	about 2 hr.	breastbone in thickest part 135° at bone in thickest part (medium-rare)
Leg of lamb	5 1/2 to 6 1/2 lb.	1 1/4 to 1 1/2 hr.	135° in center (medium-rare)
Beef rib roast	about 10 lb.	2 1/2 to 2 3/4 hr.	135° in center (medium-rare)

1. Rinse meat, pat dry, sprinkle with salt and pepper, and set poultry (breast up) or roasts (fat side up) on a rack in a close-fitting shallow pan.

2. Push meat in pan to center or back of oven. Cook with door open until temperature drops to 350°, then close door. Check in 5 minutes; if over 400°, open door and let cool to 350° again. Close door. Check every 30 minutes during last hour. For more meat, use 2 cuts the same size.