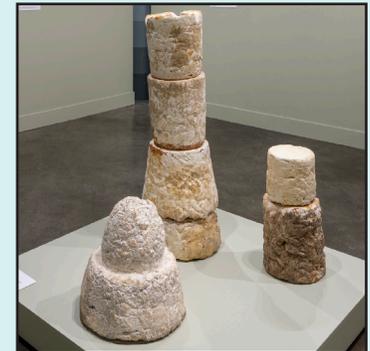


SUSTAINABLE BUILDING: SALT DOUGH BRICKS



PROJECT DESCRIPTION

[Survival Architecture and the Art of Resilience](#) introduces “circular” building designs and materials—and we aren’t (just) talking about their shapes! Such materials are considered “circular” because they can be sourced from, and returned to, the earth. For example, MCD exhibiting artist Phil Ross’s *Mycotecture* (2016) is made by growing mushroom mycelium inside molds—a process you can watch and even duplicate from this [MycoWorks Media](#) video, featuring Ross.



Using salt dough, made with just a few kitchen ingredients, build your own bricks and experiment with shape and construction.



This project takes a bit of time, so be sure to plan to set aside an afternoon or morning!

RECOMMENDED AGE/SKILL LEVEL:

Great for all ages. Adult supervision/help might be needed for some stages.

MATERIALS

- White flour- 2 cup
- Salt- 1 cup
- Warm water- 1 cup
- **Note:** for less dough, keep the same 2:1:1 ratio with smaller amounts.
- Bowl
- Mixing tool
- Tin foil
- Butter knife
- Cooking oil (a few drops to prevent dough from sticking)
- Mixing surface
- Baking sheet or tray
- Cardboard or other building base
- **Optional:** Food coloring or spices

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INSTRUCTIONS

- Gather your three ingredients. Combine flour and salt together. Then slowly mix water in.
- Once the mixture has begun to stick together, gather it up and knead by hand for 5–10 minutes. Knead by pressing the ball of dough firmly and gently down, and then folding it and pressing it again—either in the bowl or on a wood surface.
 - If the dough seems too dry, add just a little more water.
 - If you would like colorful bricks, mix in a couple drops of food coloring, beet juice or turmeric. Use gloves or a stand mixer to avoid staining your hands.
- Let the dough rest in a ball shape for 10–20 minutes.
- If you plan to bake your dough, preheat the oven to 250°F.
- After the dough has rested, place it on a nonstick surface:
 - If baking, use tin foil or parchment paper on a baking sheet.
 - If not baking, you may use wax paper or plastic.
- Press the dough flat with your palm. Use your finger or a rolling pin to press the dough firmly and gently until you have a pancake of dough that matches the thickness of bricks that you want.

We suggest approx 1/4-1/2 inch thickness

 - Try flipping your pancake over to make both sides a smooth as possible.



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- Coat a butter knife with a few drops of oil and cut parallel rows into your dough. The rows will be the width of your bricks.
- The metal butter knife worked slightly better for a smooth cut.
- Cut evenly along the rows to determine your brick length. You can estimate the length, or use a measuring tool to make them exact. Use the knife like a spatula to pick up and separate each brick as you make it.
- Use your fingers to gently smooth your bricks and pick extra dough off the corners.
- Gather up any extra scrap dough pieces/ends and ball them up. Set aside.
- Bake for 1 hour and 15 minutes.
 - If air-drying bricks set them set them aside to dry overnight.

Note: Drying may take longer than 24 hours, depending on your climate and brick size.

- *While bricks are in the oven:*
 - **"Mortar"** is the paste-like substance that binds bricks to each other. You have two options for your mortar:
 - Glue
 - Use leftover scrap dough. Simply add a *bit* more water and knead. Set aside in a plastic bag or wrap.
 - Create a base for your bricks:
 - Cut cardboard into any shape you like. Use paint, markers, stickers or magazine cut outs to decorate.
 - If using dough as mortar, covering the cardboard with foil is recommended to prevent wet spots.

Note: Sharpies work very well for decorating foil.



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- Pull bricks from the oven and let cool. Play around with structure ideas.
- When you are ready to build, gather your bricks, mortar, and base.
 - Press a line of mortar onto the base and place your foundational layer of bricks on top of it.
 - Press a bead of mortar onto the bottom of a brick and begin your next brick layer, offsetting the brick placement as illustrated. Place a small bead of mortar in between the consecutive bricks in order to fill an gaps. Repeat this step until you have reached the desired height.
- When you are finished building, smooth and decorate
 - Use a toothpick or pencil to pattern your mortar, or press it smooth with a fork or other tool.
- Allow your structure to dry - it will likely take several days.



ADDITIONAL RESOURCES

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Facebook & Instagram: @MuseumofCraftandDesign

Twitter @SF_MCD

Websites

Learn more about [Mycoworks](https://mycoworks.com).