

Food Friendly Flameware

by Dianna MacLeod



Over the last ten years potter Robbie Lobell has dedicated herself to making clay cookware: researching and experimenting with clay bodies and glazes tolerant of heat and cold; joining form with function in the service of food preparation; developing pots that bring pleasure to cooks and beauty to the table. Her decade-long effort has resulted in a line of flameware known as “Cook on Clay.”

According to Robbie, “Cooking, eating, and ‘tabletop culture’ are passions that led me to flameware. When I began, I knew I wanted to design and make cookware that would respond well to a variety of cooking methods: sautéing, boiling, broiling, braising, grilling, stewing, and roasting. Each of my pieces is designed for at least one of these cooking methods. Each of them is designed to be at home anywhere—stove, oven, microwave, refrigerator, freezer, and, most of all, table top.”

Robbie’s experience making dinnerware only partly prepared her for the challenge of crafting cooking pots. She was initially helped by mentor Karen Karnes, an innovator among studio potters making flameware vessels, who taught her about the materials appropriate for the task. As Robbie experimented, identifying her own visual vocabulary, she devised and pared down the form to its essentials, adding back only what was important to functionality until she achieved her goal of spare, simple, and economical.

At her studio near Coupeville on Whidbey Island, Washington, Robbie makes upwards of 1200 pieces annually. “Here on the island, a sustainable food system is being built that includes locally-raised lamb, beef, and goat as well as locally-grown fruits and vegetables. I believe that cooking and serving food in handmade pottery forges connections—with the farms that grow it, the earth that nourishes it, and the people who share it.”



Robbie Lobell’s flameware bakers do double duty as functional cookware and elegant serving pieces.

To meet increasing demand, Robbie and partner Maryon Attwood founded Cook on Clay in 2010. They combine beauty with utility in each piece and honor the pleasure in, and importance of, everyday tasks. The inspiration of place is subtle but discernible. “We strive to make Cook On Clay an American pottery enterprise that contributes to the Pacific Northwest’s economic vitality and artistic richness.”

Making a Flameware Baker

The design for the 10-inch square flameware baker is composed of four pieces: the bottom, sides (formed as one continuous thrown ring that is altered), and two asymmetrical handles, which are formed from one thrown ring cut in half. The baker is made from flameware clay.

Forming the Bottom

On a canvas surface, Robbie rolls out a 4-pound slab of flameware clay that has been processed in a pugmill to the correct softness. To ensure the slab is well compressed, she strikes it repeatedly by hand while shaping it into a 12-inch square. If not well compressed, the vessel could crack during the drying or firing processes, or while in use. She makes it larger than the finished piece to compensate for forming and sculpting as well as for shrinkage during firing.

Once she has achieved the desired shape, Robbie places metal guides on each side of the clay, suspends a wooden rolling pin on the guides, and rolls the clay to a thickness of approximately $\frac{3}{8}$ inch—rolling in one direction only while



1 Roll out a slab to an even thickness and smooth the surface with a rubber rib.



2 Throw a bottomless ring of clay to create the walls of the baker.



3 Angle the ring slightly outward. Create a bevel with a wooden knife as a cut-off guide.



4 Form the leather-hard ring into a square on a custom-made grid.



5 Trace the shape of the interior and exterior edges of the altered ring onto the slab.



6 Cut the slab to fit the altered square, score and slip the two parts, then join them together.

Flameware Clay

Editor's Note: The clay used to make flameware is specifically formulated to withstand the high thermal shock of placing a pot over an open flame. Clay recipes designed for ovenware are not the same as for flameware, as the former does not experience the same stresses. Normal clay bodies are not suitable for making flameware. To learn more about the requirements of a flameware body, the testing that needs to be done by each potter interested in developing a line of flameware to ensure its safety in use, and to see recipes that will help you get started, visit <http://bit.ly/pmiJanFeb2012> and click on the PDF versions of the Summer 1999 PMI article "Testing Ovenware" by Dick Lehman, and the PDF with Robbie's clay and glaze recipes and links to testing facilities listed under the description of this article. There's no reason to be afraid of making flameware, but you will need to be diligent and careful as you are ultimately responsible for the performance of the product you make and sell. Your research needs to include a lot of time to conduct thorough testing. The testing that needs to be done before a potter markets flameware includes physical thermal shock testing and dilatometry testing of the clay's and glaze's coefficient of thermal expansion. Both can be done for you at a testing lab. There is a directory of labs on the ASTM website: www.astm.org/LABS/search.html.

applying pressure, compressing the platelets of the clay to maximize its strength.

Robbie transfers the slab to a piece of drywall to ensure portability, provide a flat drying surface, and avoid stretching the clay. Since cookware must be free from ridges that would catch food, she smooths the surface using a rubber rib (*figure 1*). She flips the slab again, smooths the other side, and moves the drywall and slab to a grid surface like wire shelving or a wire rack to allow air circulation for 12–18 hours while the clay dries to leather hard.

Throwing the Sides

Robbie centers a 3¼-pound ball of clay on the wheel. She flattens and widens the ball simultaneously to eliminate air

pockets and prevent the form from mushrooming. Then she throws a ring that is 12 inches in diameter (*figure 2*).

While raising the walls, Robbie creates a flange at the bottom—to be attached to the slab—and a thick rim at the top. Using a stiff, straight-edged rib on the outside of the form and her fingers on the inside, she creates a flared wall. Lastly, she makes an undercut on the outside to guide the release of the form from the wheel (*figure 3*).

After the clay has dried to soft leather hard, Robbie uses a fettling knife to separate the clay from the wheel and transfers the form to a custom-made grid mounted on a banding wheel (*figure 4*). Using her hands she coaxes the circle into a square, defining the sides and accentuating the corners before leaving the clay to stiffen to leather hard.



After initially joining the pieces on the top and bottom, use a rib to reinforce the seal.



Smooth the bottom of the form with a rubber rib, pushing the grog in and filling holes.



Refine the shape of the bottom using a rasp, then smooth the sides with a rib.

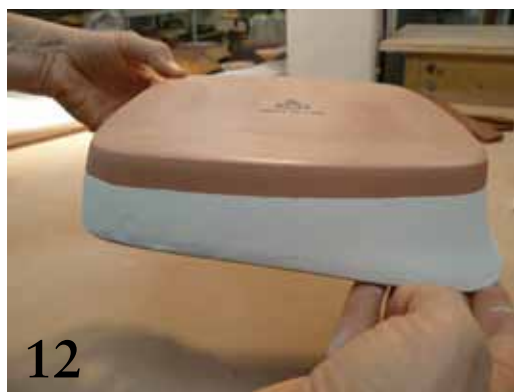


Attach the thrown handles near the corners for an asymmetrical design.



11

Use a rasp and rubber ribs to sculpt the handle into the shape you want. Dry slowly.



12

Apply wax with added alumina to the bottom of the pot to prevent it from sticking to the kiln shelf.



The finished, fired flameware baker, stacked with other designs in the Cook On Clay line.

Assembly

The next step involves turning the form over several times to address both the inside and outside, so foam and extra boards are kept handy to flip the form without distorting it.

Seating the ring on the bottom slab, Robbie uses a pin tool to trace the inside and outside edges of the ring onto the slab (*figure 5*). At the same time, she inscribes registration lines lightly into the surface of the slab and continues it onto the bottom part of the ring to help her realign the two later (see *figure 6*). After flipping the ring onto a piece of foam, she wets the bottom where it will be attached to the slab. Using a fettling knife, she cuts the slab to the drawn square shape, being sure the incisions are straight rather than beveled (*figure 6*). Using a flexible serrated rib, Robbie lightly scores the bottom of the ring and the area of the slab where the ring will sit; then applies a generous layer of slip to the roughed-up area.

With the help of the registration marks, Robbie realigns the ring and slab and checks for a proper fit. On the banding wheel, she applies pressure with her fingertips to seal the damp ring to the slab. Attachments and seams on flameware pots must be very strong, so extra care must be taken during this stage. Turning the form upside down on a soft foam surface, she continues to seal the connection between the altered ring and the slab. Flipping the piece once again, Robbie applies a small rib tool to the inside, reinforcing the seal and refining the shape (*figure 7*). Once again, Robbie flips the piece in order to shape the pot, pushing grog back into the clay to achieve a smooth, taut skin that reveals the musculature of both clay and form (*figure 8*). Using a rasp, Robbie shapes the bottom of the pot, shaving off excess overhang at the bottom and integrating the slight (10-15 degree) slant of the sides (*figure 9*). Rasp marks are smoothed out with a rib; divots are filled in. Using her fingers, she blends the edges into one sinuous line. “Everything must be soft, physically and visually. I want this pot to tempt someone to explore it with their hands, to trust it with their food.” **Note:** This smooth surface is as free of pores and small holes or divots as possible. This is important to the success of flameware as small openings can trap water that will expand quickly when heated over an open flame as it turns to steam. This expansion causes pressure and could cause cracks to form.

Handles

Robbie throws a tapered ring that’s 1½ inches tall, halves it, and wires it loose from the bat, then attaches each half to the rim of the square (*figure 10*). “The biggest challenge of creating a square baker was the handle. As I was attempting to work out this problem, I placed the handles off center by mistake. As it turned out, this was an innovation.” She stretches, compresses, and sculpts the clay to integrate the handles.

Final Shaping

While turning the banding wheel, Robbie uses a rasp to sculpt a continuous swooping line along the top of the form (*figure 11*). Alternating between soft and medium-soft rubber ribs, Robbie smooths the pot for the last time. “Smoothness is crucial in a pot,” she explains, “both for practical reasons and to make it appealing to touch and use.”

Glazing and Firing

After bisque firing the pieces to cone 08, Robbie is ready to glaze. “In keeping with the theme of simplicity, I use only three glazes—the earthy colors of my cookware are dictated by the material.”

Robbie coats the interior with a food safe iron-saturated glaze then waxes the interior to protect it from the second dip into the exterior glaze (*figure 12*). She also waxes the top rim and handles, as she intends them to remain unglazed.

“My pots are high-fired to last for generations,” she explains. Flameware recipes for mid-range firing can be formulated. Just be prepared to do extensive testing and research. Fired at cone 11, the flameware clay body becomes very soft; consequently, Robbie avoids using wads in her soda kiln. In order to prevent sticking during the firing, she coats her Advancer kiln shelves with a high-alumina wash while coating the bottom of the pots with a heavily-laden alumina wax. The pots emerge from the firing with flat bottoms, smooth surfaces and an interior waiting to be filled with food. ■

To see more of Robbie Lobell’s flameware designs, visit her website <http://cookonclay.com>.

Dianna MacLeod is a journalist and playwright presently at work on a novel involving an American chef, a British literary figure, and a Cornish historical house.