Strength by DESIGN

by Elisa Helland-Hansen

For nearly forty years I have been dedicated to making functional pots for use in everyday life—for preparing and storing food, for social events, and for meals.

I seek simplicity in form and a quiet expression. Subtle traces from the process are visible in my finished work like finger marks on handles or seams from joining parts. My work has reached its goal when it is filled with food.

My interest in utility is closely related to my love of cooking and making food. It feels so fundamental; every human being has to eat from something every day. Among my favorite items to make are ovenproof oval bowls of many designs. I find the oval shape is beautiful for serving most any dish.

Benefits of Design

There are several aspects I like about the design of this bowl: first the pattern created by the coils wrapped around the form, and second the strength the coils provide to the exterior both physically and aesthetically. I enjoy when the light sifts through the ribs at the bottom of the bowl, visually lifting the form slightly from the table. I also like when I'm serving food and the shape of a rounded spoon matches the curve of the bowl.

Hump Mold

My first oval bowl of this kind was made about 15 years ago. The original plaster hump mold has been broken and glued back together, but's still in use.

I used a plastic drainage tube to make my hump mold, which is 19 inches long, 6½ inches wide, and 4 inches high (1). My hump mold is solid and quite heavy, but I added four angled holes, made from clay coils, to the wet plaster before it stiffened to make grips for pulling up the hump mold from the clay form.

Fitting a Template

To make a well-fitting template for the mold, start with a dry mold. Drape a thin sheet of clay over it, then cut and dart the slab to conform to the shape of the mold. When the clay has stiffened up a bit, cut a line through the clay at both ends of the mold up to where the shape flattens out. Have someone help

Plaster hump mold with angled finger holes to pull the mold up and out of the clay form.

Cut the slab approximately ½-inch larger than the cardboard template. Bevel the V-shaped ends at a 45° angle.

Score and slip the bevels, place the slab onto the mold, then shape it to the form.

Press the seams of the slabs together so they conform to the shape of the mold.

Smooth the join and compress the clay, pushing it against the mold with a rib.

Use a wire tool to cut off any excess clay along the edge to make the rim level, then smooth the edge.

Extrude long, even coils and split each coil precisely in two halves with a knife.

you lift the slab off the mold and let it unfold to a flat slab on top of cardboard or a similar durable material. Draw a line around the slab and cut out the shape. This will be the template for making the actual oval bowl.

Making the Bowl

Roll out a ¼-inch-thick slab. I use a heavily grogged (40%) fireclay, which is suitable for ovenware. You can use a finely grogged clay, which will reduce shrinkage and counteract warping, if you prefer a smooth surface. If your mold is smaller, the slab can be thinner. Place the template on the slab and cut ½ inch outside the cardboard along the parallel sides to ensure the clay will cover the mold completely (2). Be sure to cut the two V-shaped short ends at 45° angles so they can be attached later.

Let the slab dry to soft leather hard. It takes a little practice to learn the exact timing of moving the slab onto the hump mold. It needs to be stiff enough to lift up at the end without breaking, but still soft enough to be workable without cracking when stretch over the mold. I find it helpful to place a board that's slightly smaller than the mold onto a banding wheel and place the hump mold on top. This way I can rotate the form and access the rim.

Score the beveled V-shaped end cuts of the slab and add slip. Lift the slab at one end, then fold it over the mold with the bottom side toward the mold. Adjust the slab so that it lies symmetrically over the mold (3), then press the slab down in several movements until the clay is tightly draped around the mold. Press the scored parts together against the mold (4). Use a flex-

Brush thick slip onto the form in sections and press the coils onto the bowl.

Press each coil firmly to the bowl and ensure good attachment on every single one.

Using two flat boards, knock them several times horizontally to flatten the coils on the bottom.

The flattened coils on the bottom of the pot stabilize the form and allow it to sit flat.

Loosen the edge of the rim slightly from the plaster to enable the mold to be lifted up and separated from the clay form.

Make a horizontal line around the bowl with a needle tool fitted into a square board. Cut off the rim with a sharp knife.

ible metal rib to compress and scrape off excess clay to make the seam smooth (5).

Next, cut the rim of the bowl with a wire tool to create a level edge (6). Moisten the surface and use a soft rib to smooth the exterior. Let the bowl set up on the plaster mold for several hours.

Coil Decoration

Using softer clay (of the same clay body), extrude round coils that are approximately four-feet long. The thickness of the coil should not exceed twice the thickness of your bowl's rim. Slice each coil in half without distorting the shape (7). Measure the curve of your bowl and cut the coils slightly longer than that measurement.

Brush thick slip onto the middle part of the bowl, then wrap one sliced coil over the slipped area and press it firmly onto the shape without distorting the coil (8). Continue to add new slip and coils at regular intervals until the bowl is covered (9).

Once all the coils are attached, check each one to ensure a secure attachment, especially at the curves, so they won't pop off during drying or firing. Brush a slip over the whole piece and let it dry to a soft leather hard—stiff enough to be removed from the mold without distorting the shape, but before cracks appear due to shrinkage.

Leveling the Bottom

Take the mold off of the banding wheel, set it onto a flat surface, place a flat board over the bottom coils, and knock it several times with another long board to flatten the coils on the bottom (10 and 11).


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Smooth the edge of the rim several times with a rib and plastic sheet, then roll a colored slip onto the rim.


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After glazing the interior, push the bowl down in to a vat of glaze up to the rim to coat the exterior.

Gently turn the mold over, loosen the edges from the mold and pull the mold up by using the finger holes (12). Sometimes a crack forms at the curves. These can be easily mended, as long as the clay is still workable, by dripping slip in the crack and compressing it firmly. Use clay and a rounded rib to seal up the inside seam of the bowl.

Trimming the Rim

Measure the lowest height of your bowl and make a marking guide by drilling a hole into a square stick at the low height measurement and sliding a needle tool through the hole. Place the bowl on a flat, level board that's slightly wider and longer than the bowl. Place the board on a banding wheel and mark a horizontal line at this height with the needle tool around the whole bowl keeping the stick vertical while spinning the bowl (13).

Use a sharp knife to cut the edge of the bowl horizontally along the marked line. This will level the rim. Scrape the rim, then use a soft rib to smooth it, being careful to avoid distorting the coil pattern. To finish the rim, I use a strip of plastic to soften the edges.

To create a colored rim, apply a contrasting slip with a sponge roller (14). Now you can let the bowl dry. Place something flat on top of the bowl while it's drying to prevent warping, then bisque fire the bowl.

Glazing and Firing

I start the glazing process by using wax resist on areas where I don´t want any glaze. That can be both the flat rim and the bottom of the bowl. Without the wax resist, I find it difficult to clean off the glaze on the bottom because of the coils.

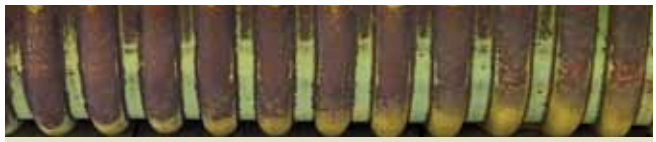
Next, glaze the interior with a food-safe liner glaze. Wipe off any excess glaze on the exterior or the rim. Let the liner dry completely before glazing the exterior.

Pour an exterior glaze into a large, plastic tub. Press the bowl down horizontally into the tub until the glaze reaches the rim (15). Lift the bowl up by pushing your fingers against the interior walls. Spraying is an alternative method for exterior glazing of this type of pot. If you spray the glaze, you won't need to make or have such a large volume of glaze.

The exterior glaze I use on most of my pots is a dry slip glaze that was introduced to me by English potter John Maltby in 1977 while I was still a student. It's applied on bisque ware and creates the best colors over a white slip containing alumina.

Oval bowl, slump molded with slabs, added coils, fired to cone 10 in a reduction atmosphere.

I glaze fire my oval bowls to cone 9 in a reduction atmosphere, but the 1-2-3 Maltby Slip Glaze works in neutral and oxidation atmospheres as well. The glaze is very sensitive to both thickness and atmosphere and produces a variety of hues according to the application and firing method.



1-2-3 MALTBY SLIP GLAZE
Cone 9 Reduction

Custer Feldspar	1 part
Whiting	2 parts
China Clay (Kaolin)	3 parts

Add small percentages of different coloring oxides to produce color. Apply over a white slip containing alumina to achieve the best color results.

Elisa Helland-Hansen was born in New York City and raised in Norway. She graduated from Bergen National College of Art and Design in 1978, was a ceramics professor at HDK in Gothenburg, Sweden for five years, and has been a full-time studio potter in Bergen for 35 years. She recently moved to Rosendal in Hardangerfjord and built a new studio. To see more of her work, check out www.elisahh.no.

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