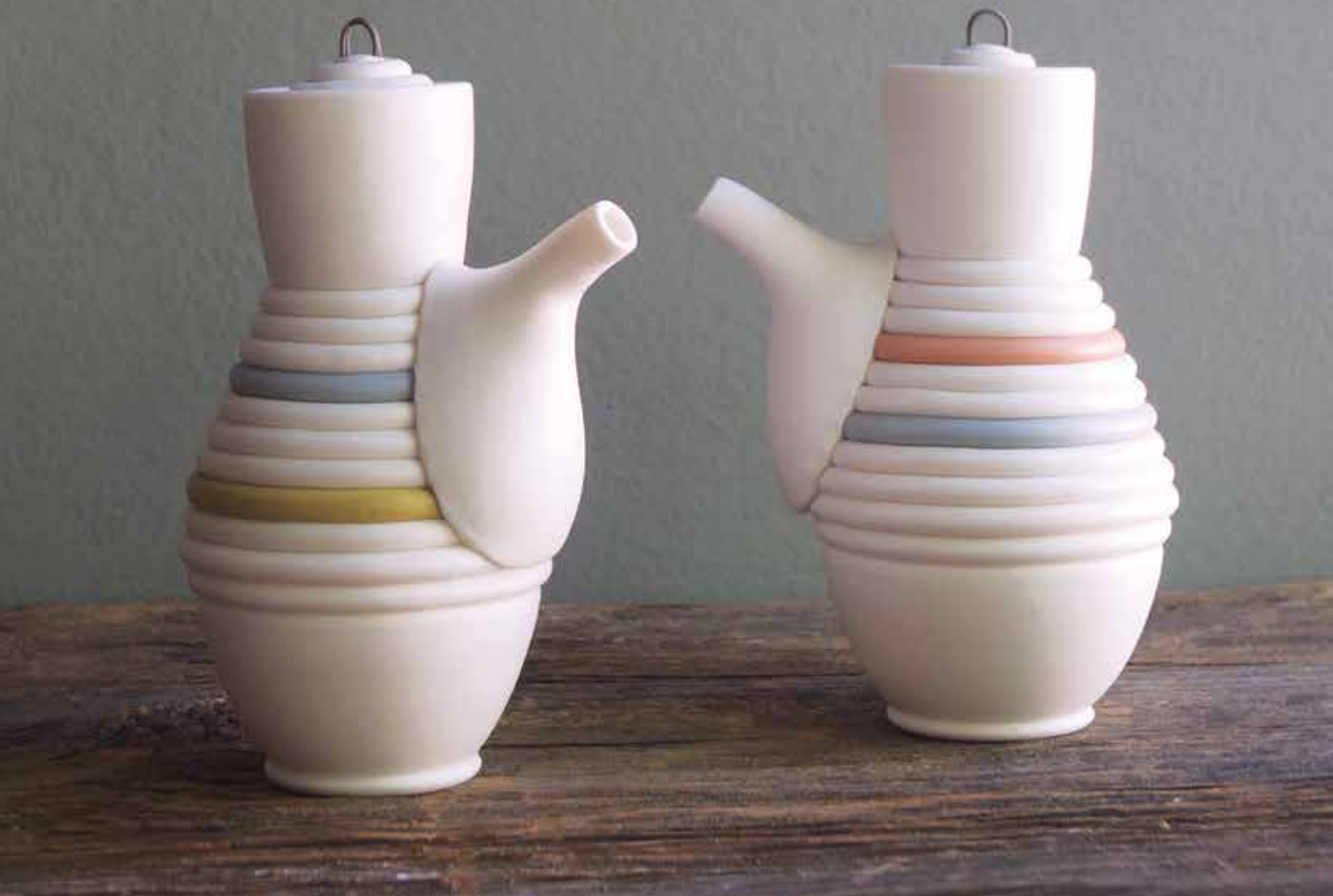
# EVIDENT PROCESS:
# Coiling & Throwing

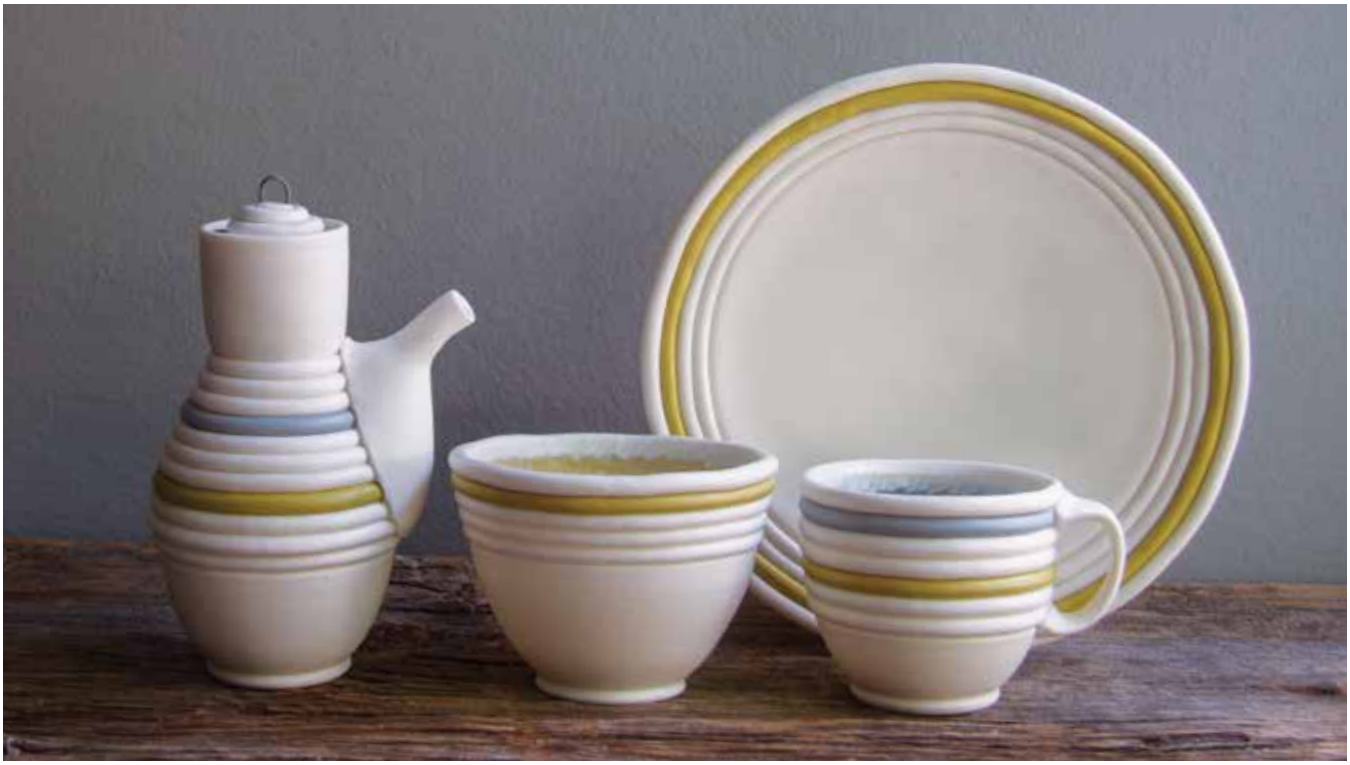
by Breena Buettner

Envision a cabin or a woven basket: both are constructed in a linear manner and demonstrate a labor of love. In the cabin, one log is stacked carefully atop the others, while in the basket, one pass of the weft continuously interweaves with the warp. Ceramic coils wrap, connect, and stack with one another in the likeness of both the cabin and the basket. All three craft forms create a linear aesthetic as their small, individual elements combine to make each form whole.

Similar in their structural concepts, the unadorned log cabin, woven basket, and coiled pot have no disconnect between form and surface decoration. With each form, the decoration comes from the construction or manipulation of its materials: the way the logs are jointed, the way the reed is dyed, or the way the coils are combined. Further, each manipulation or construction technique is just as apparent on the outside as the inside, which confers a sense of transparency and honesty. I strive to hone the honest qualities of these other crafts in my own work, and reference them because they illustrate the passing of time, and speak to both craft culture and utilitarian structure.

Hand rolling porcelain coils is a meditative part of my process, and is my favorite part of making functional ware. People often learn coil-making techniques in introductory clay classes, as I did, but then leave it because it's challenging to create a coil with a consistent thickness and build a piece with a sense of maturity. After years of coiling in high school and early in college, I moved on to wheel throwing for this reason. Not to mention, I fell in love with wood firing and couldn't possibly fill a 60-cubic-foot wood kiln with coil-built pots of the craftsmanship that I desired. I spent a lot of time wheel throwing and now feel pleased to combine it with my love for coil building, ensuring my practice involves techniques that I truly enjoy.





## Hand Rolling Coils

I have developed a technique to build with coils on top of wheel-thrown elements through an ongoing process of trial and error. There isn't a substantial amount of coil work to reference in literature, so I've been left to my own devices. By connecting the two forms, I aim to create surfaces that contrast yet compliment one another. The wheel-thrown element provides a smooth, refined area for the eye to rest upon, leaving the coils to be the focal point that draws one's eye in and around the piece.

Spritz a small amount of water on a drywall wareboard and roll out enough coils to build for your form, then let them rest (1). The coils should be the thickness of a standard pen. After the clay is slightly less impressionable, roll out any undesired areas of thickness to create an even coil. When rolling the coils, keep the clay moving only under your palm, never rolling out to your fingers, which can create uneven areas. Be careful not to allow for much rotation in your wrist, and keep at a 45° in relation to your forearm. The majority of the movement should come from your elbow and shoulder socket, as your hand moves in a zig-zag motion from the center of the coil toward the right, and then back to the center of the coil toward the left. The coils must remain soft, so wrap them in clean plastic while you continue to work.

## Connecting a Coil to a Thrown Bowl

Combining the handbuilt with wheel-thrown elements can be a bit tricky with moisture levels being so variable, but here is what I've discovered with this process.

Begin by throwing a small bowl form with 10 ounces of porcelain. Leave enough clay at the bottom to be trimmed away later and pull up enough clay to the top for a thick, rounded rim. My porcelain is rather sensitive to drying, so I leave the bowl upside down on plastic to keep the rim from hardening too much, then focus on getting the bottom of the bowl to a soft, leather-hard stage to later trim a rounded foot ring.

When attaching the coil to the bowl, try to keep the silhouette of the growing form going in the same outward direction; this helps alleviate a visual disconnect as you switch from one method to another and one surface pattern to another. Dab the rim of the bowl with water, score it, then measure out a coil (2), twist off the extra clay and combine both ends to create a continuous coil (3). Use your finger to blend the connection, then smooth with a wet finger to make it seamless. Adjust the coil back in place on the bowl, and use the thumb on your dominant hand to compress the coil downward, bending some of the coil into the interior rim of the bowl (4). Use your opposite hand to keep the coil from moving inward too much. Position your left middle finger in the seam to keep the coil from moving outward, and your left index finger on top to keep the coil from moving inward while being compressed. Continue this coil stacking process.

## Colored Porcelain

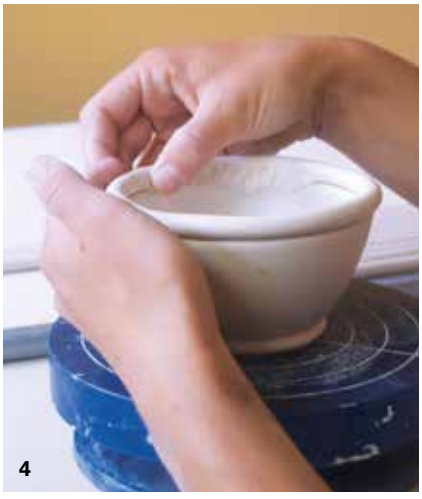
I enjoy color theory and experimenting with the interaction of different colors. In my studies, I've found that colors interact with white differently than any other color, and bring out a unique brightness. I began incorporating a gray coil in hopes that the colored coil would be seen in its purest state, not too influenced by the pure white.

To create colored coils, mix Mason stain into the clay at a ratio of 10 grams of stain to 8 ounces of clay (5). Use small amounts because it's less intimidating if you want to experiment. Rather than create a clay slip, I start with a rough pinch pot filled with a few spritzes of water and dry pigment, then hand wedge the pigment into the clay. Roll out the colored coils of clay onto a dampened drywall board that isn't being used for the pure white porcelain (6). Add the coils to the stack as desired (7), being careful not to smudge color onto the outer face of the white coils.

Hand roll colored porcelain coils to have an even thickness throughout.

Add the coil to the rim using your other hand to guide its placement.

Twist off the extra clay in the coil and connect the ends to create a coil ring.



Use your thumb to compress the coil downward to the rim of the bowl.

Hand wedge Mason stains into the porcelain with a small amount of water.

Hand roll the colored porcelain coils on a separate board from the white porcelain.

Attach the colored coil in the same manner as all others.

Measure the top of the coil form at its widest point with calipers.

Throw a bottomless cylinder with a gallery for a lid.

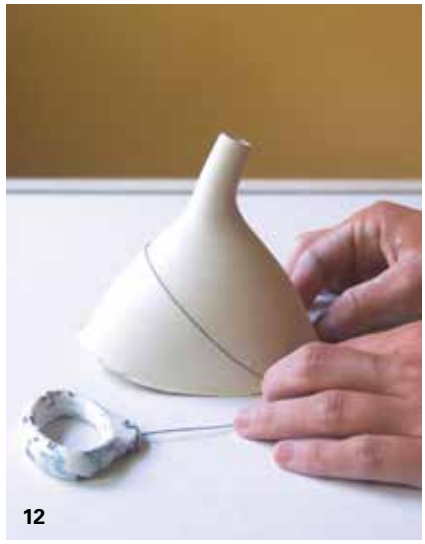
## Throwing a Spout and Gallery, Coiling a Lid

Once you've completed the coil-built section of the form, use calipers to measure the outer diameter of the top coil (8). The spout, and what I like to call the topper (which includes the lid gallery), are the final wheel-thrown elements of the form. Use 6 ounces of clay to throw a bottomless cylinder with thick walls. Use a needle tool to cut away ⅓ of the rim, leaving roughly 4 ounces of clay that would otherwise be too small to center. While supporting the interior and exterior of the wall, press a right-angled rubber rib downward to form a gallery for a lid (see 9). Use the calipers to double check the measurement of the width of the base of the topper (9). Throw the spout with about 8 ounces of clay. I use the opposite end of the needle tool to help compress the interior walls of the spout once it's too skinny for fingers; this also aids in creating a sharp rim for the tip of the spout to help prevent dripping of liquid when poured (10). Once the spout has stiffened up a tad, push in two sides of the base to create an oval, then use your palm to gently angle and curve the tip of the spout.

Before joining any thrown element to the coil-built section, let all pieces equalize in moisture levels, in a humidity-controlled


Throw a spout. Use the end of a needle tool to compress the tip of the spout.

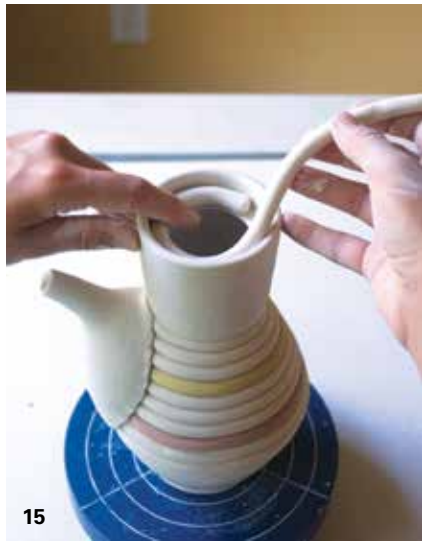

Attach the topper, then use your fingers to compress the interior walls.




Use a wire tool to mark a diagonal line on the spout, then cut on the marked line.


After marking the placement of the spout, cut out a slightly smaller hole.


Score, slip, then gently compress the edges of the spout to the coils.




Roll out a few short coils and measure one inside the gallery of the topper.


Continue to make a small lid that's compressed with your thumb on the inside.


Push two pieces of nichrome wire, side-by-side, into the center of the lid.


Push a piece of wire in the gallery, above the lid, opposite the spout, for a lid catch.

damp box if possible. Damp boxes have been a life saver as I've worked this way with porcelain; they give you an added bonus of being able to press pause at any point in the process. Depending on the amount of moisture in the plaster, this can help to slowly and evenly dry pieces. Once the topper is of equal dryness to the coils, use a rib to round off the sharp edge of the base that was on the wheel. Slip and score the base and the top coil, then attach (11), wiggle, and compress the two together. Using your index or middle finger, compress the interior of the base to the coiled section as you would compress a coil to coil. Don't wipe away the slip from the seams just yet.

Use a cutting wire or string to mark a diagonal line on the spout that's symmetrical on either side (12), then cut along the line using a scalpel. Put a small amount of slip on the newly cut base of the spout and place it on the form to mark the area that should be cut out to create a pouring vessel. Use a scalpel to make the cut out (13) then slip and score the the spout and the perimeter of the cut out. Attach, wiggle, and firmly press the spout to the main form. Use the flat part of your thumb to compress the entire edge of the spout to securely attach it to the coils and into their seams (14). Leave excess slip around seams.

To create a coiled lid, lay a coil on the interior of the topper, nestled into the gallery (15). Twist off ends and join together to create one small continuous coil ring. Continue this coiling process to close in the lid form (16). Instead of a traditional knob, I use nichrome wire, which can be fired in the kiln, to create a small handle with negative space that also mimics the shape of a coil. Round the nichrome wire over the handle of a small paint brush and cut with wire cutters. Create two identical pieces and press them into the soft, leather-hard clay next to one another to also mimic the coil seams (17). Cut a smaller piece of wire to create a lid stop inside the rim of the topper; it must be placed on the opposite side of the vessel from the spout to keep the lid from falling out while pouring from the ewer (18).

## Smoothing Out the Joints

I have resolved some porcelain cracking issues by waiting to wipe away the wet slip in the joints. Sometimes it's tricky to join two separate porcelain pieces together, especially if said pieces were formed differently. The damp box really saves the day at this stage. Let the seams full of slip set up in the damp box overnight so that the moisture can equalize in a controlled, humid environment, and the slip can become a similar consistency to the clay itself. Use a rubber sculpting tool, rather than a wet sponge, to pull away the excess slip and reform the coils where the attachment took place. The sharp tip of the sculpting tool aids in recreating the sharp seams between coils. My undergraduate school professor, Elmer Taylor, would be horrified if he knew how much time I spend fussing over this part, but I find it oddly satisfying.

## Finishing the Coiled Surface

The porcelain that I use vitrifies at cone 5 or 6 and has a 0% absorption rate. I often feel like the fired clay is more similar to glass than typical clays. The porcelain is extremely smooth, white, and even has a satin sheen when left unglazed. Glazing the exterior of the coils would conceal the aspects that I love the most: the sharp seams between the coils, the subtle unevenness in the coils' thickness, and the soft shadows cast over every curve. These elements are incredibly important when the goal is to create a soft, honest vessel. The only finishing done to the piece after it's formed and the joints are smoothed is the use of a makeup sponge to smooth out any undesired markings. After firing to cone 6, I use a range of sandpaper (progress from 60 to 120 to 220 to 300 grit) to smooth any grittiness in the clay.

A love for wood firing and raw clay consumed my life for five years, and I want to keep many of those conceptual elements alive in my work. The two most important being that the pieces show the passage of time and have an honest, unassuming showing of material.

*Breena Buettner has a ceramic studio in Helena, Montana, where she balances her studio time with work and enjoying the great outdoors. She graduated with a BFA from the University of North Texas, did post-baccalaureate studies at Northern Arizona University, and now exhibits her work locally and internationally. To see more of Breena's work visit, www.breenabuettner.com or find her on Instagram @breenabuettner.*