

Wheel-throwing Basics: Instructor: Sam Morgan

Note: Throwing techniques can vary from potter to potter, but below are the basics to how I throw.

Clay consistency:

The clay must be soft and very easy to shape in your hands. Rarely, I have found students using clay that's too soft. If you have difficulty getting the clay centered, you push and push but the clay won't budge, the reason maybe the clay is too stiff. Read: "Softening and reclaiming your clay." Note: So that you won't have to muscle the clay, the more clay you're throwing the softer you want the clay.

Steps to Centering:

- 1) Make sure your bat is not warped and fill gaps in the wheel-head pegs so the bat won't jostle while you throw.
- 2) With masonite bats, dampen them slightly before placing your clay ball. With plastic bats, do not dampen.
- 3) Place the clay ball firmly on the bat. Now, wet the clay and both hands with water. Remember to always keep your hands and the clay wet from here on.
- 4) Have the wheel turning very fast counter clockwise. Place your hands on top of the clay and press down. Do not press on the sides yet.
- 5) Once it feels like the clay is securely attached to the bat, keep the left hand on top and move the right hand to the side of the clay mound. Remember to keep using water on your hands and on the clay.
- 6) As you center, keep your hands touching each other/locked together. Also, both elbows need to be anchored to your thighs or your middle. Don't let your elbows rock your thighs. Keep the legs still!
- 7) Imagine there's a golf ball in the very center of the clay mound and you are trying to squeeze your hands around the clay in an attempt to reach that golf ball. This pressure needs to be forceful and steady. The clay will want to make your hands sway. You need to keep your hands stiff to prevent the swaying but also be forceful to make the clay conform to your hands and become centered.
- 8) Optional: Coning the clay can aid the centering and will help warm-up the clay. (Warming-up the clay helps align the clay particles, which will help the clay perform better.) Place the left hand on the left side of the clay mound, the right hand on the right side. Squeeze the hands together as you slowly work your way from the base of the mound to the top. You may need to make a few passes in order to complete this task. Note: Avoid creating a hole in the center of the mound. The hole will cause you trouble later.

Once you have your cone, lock your hands together and place the left hand on top of it and the right hand to the side. Press down with your left hand as you prevent the side from wobbling with your right hand. Keep going until the clay is back to a mound form. You can repeat this step a few times. Now you can repeat step #7 a number of times until the clay is centered.

9) How to tell if your clay is centered: Place your right index finger at the base of the clay mound where it meets the bat. Keeping a close eye on the tip of your finger, bring the finger slowly up the side and across the top of the mound. In the spots where you see the finger oscillate, the clay is off center. If the clay is perfectly or almost perfectly centered, go on to pulling the wall. If the clay is not centered, go back to step #8 or #7 but on step #7 apply pressure on top and on the right side as described but apply a little more stiff pressure in those areas where the clay is still off center.

Steps to Pulling the Wall:

- 1) The wheel should be spinning fast but a little slower than when you were centering. To make the hole down the center of the mound, start by joining your hands and anchoring your elbows. Next, use your thumbs or the index and middle fingers of both hands to force a hole right at the center of the mound. Make sure to keep the clay and both hands wet. Keep pushing down until you reach the desired depth. Make sure you've left enough clay on the floor to trim a foot and not trim through the base.
- 2) Compress the floor by pressing a few of your fingers from the center of the floor and slowly moving them to where the floor meets the wall. Move your fingers back and forth a few times. This will level out the floor and will reduce the chances of the floor cracking.
- 3) Once you are done with the floor, place your left finger tips inside, where the floor meets the wall. With the right finger tips, place them on the outside of the wall, where the base meets the bat. You will notice a natural vertical stagger between the two hands. Maintain a slight stagger as you pull, keeping the left hand slightly above the right.
- 4) The left hand will be used as a supportive/backing. The right hand will be doing most of the work in pulling. Keep the left hand stiff and prevent it from moving towards the center, which would make the floor get narrower. Also, prevent the left hand from moving further away from the center, which would make the floor get wider. The right fingers must push the clay to thin out the wall. As you are applying pressure with the right hand, slowly move both hands up the side of the wall, making sure the throw-rings that are created overlap. (Note: To thin out the wall at the base of the pot, it requires a lot more force from the right hand. Easy off that pressure once you've gotten above the floor or you'll tear through the wall. Remember to regulate your force.) Once you have reached the top, repeat step#4 again and again until you have the desired wall thickness. A skilled potter only needs 3-4 pulls to reach the proper wall thickness. The end result should be a thin even thickness throughout the wall from top to bottom.

Note: For bowls perform each pull allowing the hands to sway to the right each time, which will cause the wall to flare slightly. Also, bowls need more clay to be left where the base meets the wall for support or the wet pot will collapse. Once the pot is leather-hard, the extra support won't be necessary and therefore that extra clay will need to be trimmed away.

Note: For cylinders, most cups, vases, jars, etc. (vertical pots), after both hands have cleared the floor, allow the hands to steadily move towards the center on each pull. This will make the rim much narrower than the base. Your actions are necessary to counteract the centripetal force that causes the top to flare. Ideally, once you've reached the 3rd or 4th pull, you should have a straight cylinder.

Shaping:

The roles of the hands are switched now. The right hand is for support and guidance and the left hand is for forcing/moving the clay. Have the hands directly across, not staggered at this stage. Of course, the left hand is on the inside of the pot and the right hand is on the outside of the pot. Slowly, push the clay out, controlling the degree of force in order to affect the shape of the pot. Move your hands slowly up and down the pot as you shape. Once you are satisfied with the form, decide if you want to leave the throw-rings. If you want them removed, use a rib to compress the surface while the wheel turns.

Cutting the pot from the bat:

This is done most easily when performed immediately after you've thrown the pot. Remove any remaining water and slip from the pot's floor and off the bat. Finally, stretch the cut-off wire tightly and draw it across the face of the bat to free the pot. Let the pot stiffen before removing it from the bat.

Getting the pot to leather-hard:

- 1) Ideally, leave the pot on the storage shelf uncovered for a couple of hours before putting plastic over it. This will prevent the rim from distorting from having the plastic touch. If you need to apply the plastic immediately, let the plastic fall gently on top of the pot and then gently adjust the sides of the plastic trying not to distort the pot.
- 2) Removing the plastic to allow the pot to dry in intervals of a few hours is best. As soon as the pot's rim is leather-hard you can remove the pot from the bat and have the pot dry some more upside down. This will help the drying of the floor to catch up with the rim. Remember to monitor the drying. Once the clay has gotten too dry, you can't rewet the clay to get it back to leather-hard.

Trimming the pot:

Trimming removes the excess clay that is no longer necessary for supporting the form and to finish/enhance the shape of the pot.

- 1) Once the entire pot is to leather-hard, you should trim the foot.
- 2) Have a bat properly secured to the potter's wheel.
- 4) Center the pot by placing it upside down on the bat.
- 5) Have the wheel spin slowly. Gradually bring your right index finger closer and closer to the right-side of the base just below the distorted area from the cut-off wire.
- 6) When your finger touches the pot in one small spot, take note of where that spot is and stop the wheel immediately. One trick is to coordinate the wheel speed, when your finger touches the clay in that one spot and stopping the wheel. When you get really good at it, by the time the wheel has stopped, "the spot" where your finger touched the clay will be at about 10 o'clock. (FYI, There are a number of other methods to center a pot for trimming.)
- 7) Lightly push the pot towards the center from the side where "the spot" is. Now repeat steps #5-6 until the pot is centered, meaning your finger will not skip at one spot. Place wads of clay all around the pot and the bat to secure it. Be careful not to shift the pot in the process.
- 8) Pick a trimming tool that will trim only a small bit of clay away at a time. A large trimming tool will require you to put too much pressure on the clay. This could cause the pot to distort or crack. Set the wheel speed to medium-fast for trimming.
- 9) Hold the tool firmly with both hands or have your hands joined and the tool in your right hand. Keep your elbows anchored to your body for stability, just like when you throw.
- 10) Trim away narrow ribbons of excess clay at the base, foot and the underside of the floor. Make sure you don't trim clay away where the foot-ring will be. The final step is to use a larger trimming tool to trim away the little ridges produced by the smaller trimming tool.

Note: Long ribbons of clay trimmings that stick to the side of the pot is a sign that the clay is still too wet or on the wet side of leather-hard. Long ribbons of trimmings that don't stick to the pot means the clay is at a perfect leather-hard. Trimmings that break, crumble or come off in short segments is a sign that the clay is too dry or on the dry side of leather-hard.

Softening and Reclaiming your clay:

If your clay is too stiff or you have scrap clay that is wetter than leather-hard but too hard to reuse, you can reclaim the clay yourself.

- 1) Cut-up the clay into golf ball size pieces and put them in a leak proof plastic bag. Do not compact the clay. You will need them to stay separated.
- 2) Add about ¼ cup of water for every 10 pounds of clay, more or less depending on how dry the clay is.
- 3) Making sure to keep the clay pieces loose, close the plastic bag and store for at least half a day.
- 4) Wedge up the clay and use it but if it is still too dry, repeat steps 1-4. If the clay is now too wet, wedge some stiffer clay in to get the right consistency or do the below.

If you have very wet soggy clay from failed attempts at throwing, it can be wedged in with some stiffer clay or smeared thinly on a plaster surface to dry out. Allow about 20 minutes on each side, depending on how wet the clay is and how much of it you are drying. Once it's dry enough, wedge the clay before using.

Tips and Basic Trouble Shooting for Wheel-throwers:

Make sure the clay is soft enough.

Each step affects the next so try to perform every step properly.

Always keep both hands and the clay wet.

While touching the clay, do not move suddenly for you will throw off the clay. This means to take your hands off the clay very slowly and put them back on the clay very slowly. No fidgeting while touching the clay!

The potter's wheel should spin slower and slower as the pot develops:

- Centering- wheel should spin very fast
- Making the hole- wheel should be going fast
- Pulling the wall- wheel should go at a medium rate
- Shaping- wheel should be going slow
- Trimming- wheel should be going medium-fast to fast

Correct problems such as the clay going off center or wobbles right when you see them or they will only get worse.

A cracked floor may be due to water being left on the floor, poor compression and/or a thin floor or a very thick floor.

The wall being thicker on one side or taller on one side is caused by the clay being off center at some point in the throwing.

Cracked rim could be caused by trimming a pot with a dry or thin rim.