tips, techniques, and tools for getting the most out of your pottery wheel

from buying to trimming,
tips for the pottery wheel

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Throwing on the pottery wheel is exciting and fun. Once you can center, then you’ll never get tired of the many things you can create with the wheel. Here we’ve gathered some tips and techniques that make some of the trickier aspects of throwing much easier. If you want to throw sets on the wheel, here are some simple gauges for the potter’s wheel you can buy or make. Or for duplicating profiles, you can make wheel throwing templates. Another ingenious technique is to facet freshly thrown clay then continue throwing the clay and watch the pattern expand. Finally, you’ll enjoy the survey of trimming accessories for wheel-thrown pottery—maybe there’s a tool that’s right for you.

**Pottery Wheels: The What and Why Before You Buy** by Bill Jones

When you decide to buy a pottery wheel, you’ll be pleasantly surprised at all the options. We’ve gathered together some of the advice from seasoned experts Jonathan Kaplan and Steven Branfman to shed a little light on which pottery wheel may be best for you.

**Gauges for Wheel Throwing** by Bill Jones

Sooner or later every potter wants to make multiples of a form—a set of bowls, plates, mugs, whatever. Two basic measuring devices for throwing sets on the wheel are the Western pot gauge that measures pots from the outside and the Eastern tombo that measures pots from the inside.

**The Basics of Pottery Throwing Ribs** by Bill Jones

The best throwing tools around are our fingers but there are just some things they can’t do, and so we have throwing ribs—an essential tool for every potter. Pottery tools like throwing ribs provide an efficient and effective way for potters to remove moisture, control contours, and smooth surfaces. Here’s a look at these tools and where you can find them.

**How to Make Custom Pottery Throwing Ribs** by Robert Balaban

There are times when you may need a special tool when throwing on the pottery wheel. Robert Balaban solves this problem by making his own tools and here he details how you can do the same.

**Throwing on the Pottery Wheel with Templates** by William Schran

While throwing gauges can help you make pots that are the same height and width, templates will help you get the same profile. This technique involves using templates to repeatedly create an even, symmetrical form. These easy to make templates can be used to scrape the clay as it rotates on the wheel to create a smooth, uniform surface.

**10 Tips for Stronger, Smarter Throwing** by Claire O’Connor

Throwing good pots, especially of a larger size, on the pottery wheel is a challenge, but with these tips from Claire O’Connor, it can be easier than you might think.

**Trimming Accessories for the Pottery Wheel** by Frank James Fisher

Trimming the bases of pots on the pottery wheel is another opportunity to bring unity and beauty to your artwork. But different shapes and sizes of work create challenges, and if you throw a lot of large bowls and platters, pots with delicate necks, lids, etc., then you should evaluate these trimming accessories for the potter’s wheel.
When it comes to buying a wheel there's no shortage of choices. Ranging in price from a few hundred dollars to nearly $2000, potters wheels are separated by degrees of capacity, construction, and accessories. While there's nothing wrong with purchasing the wheel you used as a student, or happen to be using in a community studio, you may be missing out on an opportunity to find the ideal wheel for your needs. If you've limited yourself to one or two wheels, you may not know if a different brand or model would be even better, or whether those models are still in production. To find out which wheel is best for you, you must assess your needs and understand what wheels can offer.

Assess Your Needs
The two most important things to consider when purchasing a wheel are how often you'll use it and how much clay you realistically expect to throw at one time.

Assess the Wheels
Steven Branfman, in his book *The Potter's Professional Handbook*, describes the features you need to consider when looking at wheels.

- **Power**: A wheel's power in practical terms is a function of hp and torque. What you really want to know is whether you can apply the necessary force to the largest amount of clay you will work with and not have the wheel slow down or stop.

**Horsepower, Motors, and Electronic Controllers**

- **There are many types of motors** available for potter’s wheels and they are either set up for standard household alternating current (AC) or as direct current (DC). While AC models are relatively inexpensive, the motor speed is difficult to control because they have no permanent magnets. Although it isn’t possible to successfully vary the speed of an AC motor electronically, a mechanical speed control, such as a ring-cone or cone-and-disk, can be used to vary the constant speed (1725 rpm) of this type of motor.

- **The horsepower** on DC electric motors can be rated as "peak" or "continuous duty." Less expensive peak-rated motors provide horsepower only for short intervals – not a problem for the occasional thrower. Continuous-duty motors, on the other hand, while typically more expensive, can run fully loaded 24 hours a day without overheating. Temperature is the biggest cause of service problems and motor failure. Excessive running temperature severely degrades an electric motor. Because insulated wire is used to create the electrical magnetic fields that cause the shaft to spin, more heat builds up in these windings at slow speeds, and the insulation weakens over time. Once the insulation degrades, winding faults occur and the motor is compromised. Further, as motors overheat, the brushes wear quicker and this wears out the commutator. The larger the motor, the greater the number of windings and the better the insulation between them. Larger-sized brushes also run cooler, which allows for increased heat dissipation and cooler operating motors and hence longer motor life. Further, high-quality continuous-rated motors have a built-in cooling fan on the end of the shaft to further extend the life of the motor.

- **Electronic speed controls** use direct current (DC) motors, and a motor controller changes the household AC to DC. On potters wheels, they typically operate at 90 volts. When coupled with a foot pedal using a linear potentiometer, the controller allows a range of speeds with proper torque.

Motor controllers are solid-state electronic devices protected by a fuse or small push button re-settable circuit breaker.

There are two types of electronic motor speed controllers—SCR (silicon controlled rectification) and PWM (pulse wave modulation). While there are subtle differences between these types, they perform the same functions and are ruggedly constructed to provide many years of trouble-free service.
• Speed: Speed is related to power but is really a different performance issue. Your style of working dictates the speed or RPMs (revolutions per minute) of the wheel head you require.

• Control Sensitivity: Your sensitivity to extremely slow speeds and the degree of gradual increase as you apply it will dictate any concerns you have in this area.

• Smoothness and Vibration: Again, personal style and expectations will make this more or less of an issue.

• Weight: If you use 30 or more pounds of clay, the weight and stability of the wheel could be an issue. You don’t want the wheel crawling along the floor as you apply pressure to the clay.

• Wheel Head Diameter: Although you can use bats of almost any size, the diameter of the wheel head may be a concern. The smallest head is 12 inches, with heads going as large as 16 inches.

• Miscellaneous Features: Splash pan, integrated seat, attached worktable, adjustable height, choice of rotation (reversing switch), construction materials and finishes, are all options you need to be aware of and assess as to their importance.

Back Problems?
For potters prone to back problems, standing at the wheel to throw may be the answer. Most wheels can be purchased with optional leg extenders. Durable, stable, and easily adjustable leg extensions allow you to throw standing up, perhaps, the best thing many potters can do for their health.

Recommendations
If there is a pottery supplier nearby with a selection of equipment, they’re your best bet for answering your questions and trying out wheels. If there’s not a nearby supplier, visit local potters, schools, and studios to see the equipment they have. Ask questions about the operation, maintenance, and repair records of the equipment that interests you. Ask to try the wheel and be sure to bring your own clay! Why? It’s both courteous to the studio and sensible to test the wheel under as close to realistic conditions as possible.

The Internet makes it possible to shop around and find bargains on some wheels. Your local supplier not only service the wheels they sell, but they may also match an online price or order a particular model if they don’t have it in stock. Remember also that if you purchase a wheel that requires shipping, make sure you nail down all the costs for getting the wheel to its final destination.

A new potter’s wheel that fits your needs is a long-term investment you’ll certainly enjoy for many years to come.

This article was excerpted from Steven Bransfman’s The Potter’s Professional Handbook and from Jonathan Kaplan’s “As the Wheel Turns” reprinted from Pottery Making Illustrated.
Speed: Speed is related to power but is really a different performance issue. Your style of working dictates the speed or RPMs (revolutions per minute) of the wheel head you require.
More than likely you’ll get to the point where you’d like to throw multiples of an object. Getting work to look the same when making more than one of an item takes a bit of practice because it’s not as easy as it looks! To help assure you’ll get some sort of consistency on your next set of mugs or bowls, you need a throwing gauge—a way of keeping track of the measurements from the first piece to the last. There are several options for throwing gauges based on designs from both eastern and western cultures, as well as ad hoc solutions that use items around your studio.

The Western Pot Gauge
Production potters in Europe and America have used throwing gauges for centuries. These usually consist of an adjustable arm on a metal or wooden stand. The arm is adjustable in and out as well as up and down for both diameter and height measurements. An example of the Western pot gauge is the Fulwood Measure, which features a hinged pointer that folds back, away from the pot as soon as the clay touches it.

Japanese Gauge (Tombo)
The Japanese developed a throwing gauge for making duplicates that measures the inside dimensions of a form, unlike the western gauges mentioned above, which measure the outside dimensions. The tombo (which means dragonfly in Japanese) works well for throwing matching cups, mugs and bowls. Shaped like a lowercase t, it consists of a thin vertical piece of wood or bamboo that has a small hole or holes bored through it to accept a stick or dowel. The tombo is held by the top of the vertical stick. The length of the horizontal stick represents the diameter and the vertical length below this stick measures the depth of a vessel. The disadvantage of tombos is that they’re not readily adjustable. On the other hand, they are relatively inexpensive (and even easy to make), so potters usually have several tombos in their collection. Another advantage is that tombos can be used for throwing off the hump.

The Fulwood Measure from Kissimmee River Pottery (www.kissimmeeriverpottery.com) is an example of a Western pot gauge. When the rim meets the hinged pointer, it folds out of the way.

The tombo measures the inside depth and width of a form. Two sources of tombos are Bamboo Tools (www.bambootools.com) and Chris Henley (inset) at http://hominid.net/toolpage2.htm.
Even though our fingers serve as our primary throwing tools, there are times when a throwing rib does a better job. Ribs are a potter’s best friend when it comes to defining profiles, wringing out water or adding decorative touches. In the beginning, actual animal ribs were used for this purpose—and hence the name—but now contemporary ribs are commonly made from wood, metal, and plastic.

**Uses**

There are many functions that ribs perform, which is one of the reasons they’re so important. The most common uses for ribs are for manipulating profiles and removing throwing marks while compressing the clay and removing excess water. When throwing porcelain, it’s often best to use a rib on one side of a pot and a sponge on the other, or even to throw with two ribs. The rib provides support, especially when making large voluminous forms.

Because of the variety of shapes available, you can find a rib to suit any profile you wish to make. Using a rib for the inside profile of a bowl can assure a continuous line from the bottom through to the rim. And using the same profile repeatedly helps in making multiples for sets. Specialized ribs with notched profiles can also be used on the exteriors of pots to add a decorative touch or even shape and refine the foot and rim.

When throwing large forms, too much water in the clay is a problem once you have the preliminary shape completed. How many times have you tried to get that final shape only to have the form collapse? To prevent this, remove all the slurry water using a sharp-edged metal rib to ‘wring’ the excess water out. This increases your chances of success and prevents distorting or collapsing the form. It also provides a way to get sweeping curves on bowls and platters.

**Tips**

Getting the most out of using a rib is simple. While you can generally get by without using a rib for small bowls, medium to larger bowls really benefit from this tool. The best way to use the rib is to have the wheel rotating at medium to low speed (the big-
ger the piece, the lower the speed), work the rib up from the bottom of the bowl, curving the clay outward a little with each pass from the bottom to the top. With your right hand, always follow the position of the rib with gentle sponge or finger pressure on the outside of the bowl, supporting the clay. Continue with successive passes until the bowl takes the shape you want.

Remember, when using a rib to shape a form, always hold it at an angle to the surface so it slides smoothly over the clay rather than scraping or cutting into it. After trimming, you can use ribs to eliminate trim tool marks, but you’ll need to be careful to hold the rib at an angle to prevent chattering and grog trails.

Metal ribs, while suitable for throwing, are commonly used in handbuilding for their ability to scrape clay, compress seams, and make sharp lines and cuts.

**Getting Specific**

After the first few weeks in pottery, you’ll want to look at having more ribs on hand than what came in the basic pottery tool kit you started with. If cost is a factor, you can find reasonably priced wood, rubber, and metal ribs that can serve your needs.

As you advance, you’ll find that specialty ribs for bowl interiors (from small to large and wide to steep), for making large or flanged plates and platters, defining corners, creating decorative profiles, and those designed to remove slip or trimming tool marks will make your work easier and expand your repertoire of forms.

A mixture of rigid and flexible ribs as well as an assortment of metal, wood, and plastic ribs can also accommodate most any situation in both throwing and handbuilding. Luckily, even the most expensive ribs are affordable and will last a lifetime (or until lost or borrowed).
How to Make Custom Pottery Throwing Ribs

by Robert Balaban

I’ve always looked for ways to improve the quality of my art by fashioning customized hand tools to facilitate the shaping my vessels. In these efforts, I’ve developed a simple system of constructing hardwood ribs for a variety of throwing purposes. This permits creativity to extend from the clay to the tools. Many studio visitors and students have enjoyed using or creating these tools and often leave the shop with a couple of customized ribs that make a lasting impression on their craft. Custom hardwood ribs are easy to create, and can be constructed in under one hour using skills that any potter can master.

Choosing the Best Wood

I’ve experimented with several types of wood, from the most exotic (mpingo, purple heart, bocote, and cocobolo), to mahogany and cherry, coming my way from a woodworker’s scrap pile or from my own backyard. Maple, osage orange, black locust, and even mountain laurel also work well. Red or white oak and poplar are hard to use because they swell when wet and typically have large growth rings that make a consistent edge difficult to achieve. Usually any dense hardwood with resistance to water damage is appropriate. The best, cheapest, and locally available wood (not from the fragile rain forest) is American black cherry. The 5/16-inch thick stock is a good starting material. Slightly thicker or thinner material can be used depending on taste or task. If you buy wood, a couple of dollars of 5/16-inch wood can generate 10 to 20 ribs.

Generating & Transferring Designs

Creating different ribs for novel shapes or tasks can be done using paper, pencil, and a French curve or other guide or pattern to help generate that perfect curve or angle. You can also use computer drawing programs, draw free hand or simply copy more familiar rib designs and modify them to your needs or hands. I use a versatile French curve-style rib for working on the inside of vases and other forms. The first step in making this type of rib is to trace the template onto paper and secure it to the piece of wood.

Making the Rib

The next step is to cut the wood, using a hand coping saw, scroll saw or band saw (figure 1) and leaving the traced line on the rib to permit fine tuning later.

Caution: When working with power tools, read and follow all manufacturer safety materials before use. Dust from some woods can be toxic or contain allergens, therefore always work in a clean ventilated area with a respirator or dust mask for the cutting and sanding stages.

With the completed rough cut shape, the next steps are to finish the outline, taper the edge that will guide the clay, and generate a true sharp edge to create a smooth finish on the clay. The best tool to quickly accomplish all of these tasks is an oscillating spindle sander. It’s a rotating cylinder of sandpaper that moves up and down with interchangeable spindles of different diameters that can be used to refine the various curves of your rib (figure 2). Alternatively, different size dowels with sandpaper wrapped around them also work, they’re just slower.

Next, true the shape of the rib blank by sanding the rough edges using an 80-grit sandpaper. If you make a rib with an arc that’s smaller than the smallest spindle available, or have a square or triangle in the rib, these will need to be hand filed. For the French curve rib, make a groove using a 5/16-inch spindle to fit your index finger at the small end (see...
Sandpaper used alone, on a sanding block, or wrapped around a dowel for tight curves also works well.

Drill 3/8-inch finger holes where your fingers naturally grasp.

Taper the edge of the rib by angling the piece as it is brought to the sander and move with long strokes.

The finished rib with customized curves and finger holes.

Smooth each hole then tilt the rib to mimic the marks made by your fingers.

The finished rib with customized curves and finger holes.

figure 2) and to allow for leverage on the clay when pushing the larger belly end to the inside of a pot. This customizes the rib to your throwing style as well as your specific grip.

Now create a tapered edge to guide the clay using the largest diameter spindle or a sanding block. This is done by approaching the spindle at an angle with the rib blank and then sanding it down to a 45° angle. taper all outside edges of the French curve to accommodate all your throwing needs. The small circle on the end of the rib is also a very useful part, taper all edges here as well. Finish the taper on the larger structures, then make more severe tapers around any sharp features to help guide the clay through tight areas. Then round the all of the remaining edges for a better feel (figures 3 and 4).

To customize the rib even further, add finger holes to improve grip and leverage. Hold the rib as you would while throwing and mark the area around your fingers. (Clamp the rib flat to a backing board to drill the finger holes). The back up board ensures that the drill bit will not split out the back side of the rib (figure 5). Mark an outline of your finger’s grasp with a pencil then taper the hole for a customized fit. Return to the spindle sander and insert the ½-inch sanding spindle into the hole. Sand the inside of the hole and then angle the rib while it is on the spindle to generate an oblong tapered hole that matches the angle of your fingers (figure 6).

Finally, sand the rib by hand using 200 then 400 grit sandpaper—only a couple of minutes with each grit is necessary. A good trick is to then wet the wood and dry it. This causes any wood grain that might rise with water to do so and then you can sand this off for a very smooth and resilient surface.

Finishing Work
The finish you use can vary. Using bare, untreated ribs is fine if they are made with a strongly water resistant wood like teak. Alternately, different oils and several different waterproof varnishes can be used to seal the surface. I have found that the oil-based Minwax Clear Shield finish or marine varnish is very strong and the clay slips nicely along this surface. Follow the oil manufacturer’s directions on application and appropriate drying times. Finishes will still wear off and need to be reapplied.

Using these techniques, you can make a rib, try it out on the wheel the same day, make adjustments, finish/dry it overnight, and have it ready for the next day.

Robert Balaban is a functional potter and teaches classes in his studio. He not only creates ribs from dead trees found in the woods, but he also specializes in creating safe glazes from the natural products in his gold producing backyard in Maryland.
Throwing on the Pottery Wheel with Templates

by William Schran

This technique involves using templates to repeatedly create an even, symmetrical form. In the coil-building exercise, you position the template next to the pot as coils are added, making certain the pot conforms to the profile of the template. The template is then used as a rib to scrape the surface as it’s rotated, creating a smooth, uniform surface.

Making a Template

Any number of objects can be employed to design templates that have a variety of shapes. French and ships curves, found in drafting or mechanical drawing sets, are excellent tools for creating profiles for wheel-thrown vessels. A variety of calipers can be taken apart to create any number curved forms. Lids of various sizes can be combined to create a mixture of curves. This process can also be used to produce templates with more complicated and compound profiles with relative ease.

To incorporate this technique into wheel-throwing, I began testing various materials that might serve the function of a template. Sheet plastic, a durable material that can easily be cut and shaped, turned out to be the best material. Searching through scraps available at local glass supply and repair shops, I found pieces of ¼ in. and ⅛ in. sheets that could be readily shaped into the desired profiles by

Assortment of bottle forms made with templates.
cutting them with a power saw and handsaw. The edges can then be smoothed with fine sandpaper.

Creating the Form

To use a template, as in the wheel-throwing project for the set of cups, prepare several balls of clay weighing between $\frac{3}{4}$–1 lb. each. Throw a basic wide cylinder. Check the interior diameter, height and width of this basic form with calipers.

Tip: Make a template for the basic cylinder form as well as the finished piece. The first template, showing the right width and shape of the ideal starting cylinder, can help you get the right basic shape.

Once you have your cylinder ready, lubricate the interior of the pot, but do not lubricate the outside. Avoiding excess water results in a stronger form that can better withstand manipulation and alteration when using the template. Position the bottom of the template so that it’s just touching the bottom of the pot and rests on the wheel head. The template should contact the wheel but should not be pressed against it. Hold the template at approximately a 45° angle, abutting the rotating clay, such that the clay moves away from the edge of the template. The template should not be held at a 90° angle to the pot as this may lead to inadvertently shifting the template into the movement of the clay.

The fingers of the interior hand slowly move up, pushing the clay out to the curve of the template. As the pot widens, the hand must move up along the interior of the form more slowly so that it remains symmetrical. After reaching the top, the profile of the pot and template should be compared. If the pot does not match the template, move the fingers of the interior hand down from the top to the bottom, pushing out where necessary, to conform to the profile of the template. This is often necessary for shapes with wider diameters. Refine the rim with a sponge or chamois and the cup is complete.

Large or Complex Forms

Templates are also useful in creating larger pots, particularly bottle shapes. The profile template provides a method to quickly create multiples of the same form, but also the opportunity to explore changes to certain areas, such as the neck and rim. The process of working with larger forms follows the same steps as you would for cups, except the neck and rim are made without the template, after the basic shape has been defined.

To get started, make another cylindrical shaped pot, leaving the top portions of the wall, including the rim, thicker than the rest of the pot. Position the template and push the clay out to conform to the shape, moving fingers on the interior up and down as necessary. After creating the desired curve, pull up the upper portion of the wall to thin it out and narrow it in using a collaring movement. Note: It is very important to continue moving your hands up while collaring in to maintain a curve or arch in the shape of the wall. A wall that becomes too horizontal or flat during the collaring and thinning process may be pulled down by gravity and collapse. In order to collar in the pot, use the middle fingers and thumbs to constrict the neck. As you create the neck, pressing down on the rim with the first finger of the right hand helps to maintain a level top.

Use a flexible rib after each collaring process to refine the shape and maintain the desired curve. Using the rib also removes excess water and compresses the clay. After narrowing the diameter of the pot, the wall has been thickened and can now be pulled up thinner. As the top becomes too narrow to insert a sponge to remove lubricating water from the interior, switch to using slurry to lubricate the clay instead. This allows your fingers and tools to continue shaping the clay without building up excess torque that might twist or tear the clay wall. Using slurry on the exterior, instead of water, provides a stronger clay wall.
Template held against basic cylindrical form.

Pushing clay out to the template.

Hold template at an angle against surface during forming.

Larger forms also begin with a basic cylinder form.

The interior hand slowly moves up, pushing the clay against the template.

The interior hand moves from the top to the bottom, making certain the pot conforms to the template.
10 Tips for Stronger, Smarter Throwing

by Claire O’Connor

We're all equal but we're not all the same. Some of us are tall, some short, some slight, some strapping, either in our physical prime, or worn a bit by life and living. Regardless, everyone who works with clay and wants to make a large project on the wheel (from tall vase or jar to large platter) needs to get the hard physical labor done. Our differences present challenges; our smarts and resourcefulness find solutions. Here are ten of my ideas seamlessly (and shamelessly) mixed with smart ideas I've learned from others.

1 Selecting and Wedging Clay

Experiment until you find a clay body that works for you. If you’re throwing big, try using softer clay and throw it dry (or with less water) to avoid degenerating it to mush. Wedge using the weight and strength of your whole body on a wedging table of the proper height. Ideally, the table height should be equal to the distance between fingertips and floor (figure 1). If that’s not available, raise your body using an aerobics riser or wide, heavy cinder block. Or you can move down to a clean cement floor and wedge as usual.

Now that you’re down here, or up there, you’re ready to wedge. Bernard Leach (A Potter’s Book) was confident potters could wedge up to 30 pounds of clay. I say 20 pounds is more manageable. The hardest part is getting the spiral or ram’s head started. So start smaller, with about 5 pounds, and periodically add in 1–2 pound slices (figure 2).

2 Throwing Posture

Posture at the wheel is important. Sitting at the level of the wheel head (or slightly higher), as close to the wheel as you can get, with a straight back, and arms locked on your body is healthy, safe, and makes efficient use of bone, muscle, and gravity. You can also prop or mount a mirror in front of you to avoid resorting to the hunched-over side view to see the lower profile of your pot. Some (including potters, their mothers, and their health-care providers) swear that throwing while standing or using an alternative sitting position like a raised seat and/or raised wheel is best. If there are no extenders available for your wheel, cinder blocks or a platform built to your needs will do the trick. Some who stand find that positioning their back against a wall provides a brace and more strength. Standing on a foam rubber floor mat minimizes stresses on legs and feet.
3 Centering the Clay

Whether sitting or standing, it’s important to center smart. Many people firmly slap a revolving lump of clay to adhere it to the wheel head or bat. With several extra rotations and firm, open-handed slaps (always aimed in and down) you can also accomplish a lot of the early centering (figure 3). Your next step is to press firmly with your fingers on the base of the slowly rotating lump of clay (figure 4). This helps fix the clay onto the wheel head and, with several extra rotations, can do some of the centering. The final centering comes next. If you’re standing, brace your elbows against your abdomen. If you’re sitting, place your left foot up on a brick to keep your thigh parallel to the wheel head and high enough to brace your elbow against it. Brace your right arm against your right leg, and you’re ready to center. It’s important to move your body as a unit so that you have more leverage over the clay. Press in on both sides to move your clay into a cone shape (see figure 6), and lean in, using your body weight to press the cone down. This process of creating and then flattening a cone shape aligns the clay in a spiral shape, and makes it more workable.

At this point you can either begin throwing or you can go bigger by adding a cone-shaped mass to the top of this first piece of centered clay, slapping it into shape and closer to centered (figure 5). After securely connecting the two, press in from both sides to shape the whole mass into a cone (figure 6), then press down on it to compress, widen, flatten, and finish the centering for the whole mass.

The base is hardest part to center. So, without shame or embarrassment, grip your wooden potter’s knife firmly in both hands with the tapered edge held parallel to the clay and positioned slightly above the uncentered section. With the wheel spinning, slowly move the tool down into the uncentered clay, making a small groove, and follow the groove to the wheel head to shave off the bumpy stuff (figure 7).

With your mass now centered, flattened, and broadened to the intended final dimension of the base, create a center hole using your thumbs or two fingers. Despite what you see on some YouTube videos, always keep your hands together when opening the floor of the pot after creating the center hole and whenever possible as you are pulling up the walls while throwing. Remember, the parts of smart potters’ bodies work as coordinated units. I find the best opening position is both hands at 6 o’clock (figure 8). In most cases, my left hand is relatively passive with my right hand doing most of the pressing and pulling. If you are left handed and your wheel spins clockwise, reverse this order.

4 Throwing Speed(s)

In life and in pottery, there are no absolutes. I rarely say “always” or “never” except when it comes to addressing the issue of wheel speed. Excessive speed can be dangerous. If you value your hands, wrists, and arms—and if you want to master that revolving mass of clay—use moderate and slow speeds. More on exceptions to my absolutes later.

5 Sectioning Tall Forms

Throwing tall forms is a challenge. However, you can get as tall as you want (or your kiln allows) by joining sections. I certainly didn’t invent this magic but here is a way to do it that I find useful. On a bat, throw two or more cylinders (all with floors, which help to retain the shape
Cut away uncentered bottom edge of the mound with a wooden knife tool.

Open the ball of clay using both hands positioned at 6 o'clock.

Make several sections with bottoms to join together for tall vertical forms.

Add a clay coil to the rim of the first section after scoring and adding slip.

Score, add slip, and center the second cylinder onto the prepared base.

Join the sections by blending clay from the added coil up and down.

of the cylinder and can be cut out later) with the same diameter but slightly thicker top and bottom. The tops and bottoms of sections must be perfectly level (figure 9). For the completed cylinders shown here, the top section is 10 inches tall and thrown from 7 pounds of clay, and the bottom is 11 inches tall and thrown from 7½ pounds of clay. In this case, the cylinders are thrown a bit thicker so I can carve and manipulate it later. After throwing the sections, leave each cylinder in place on their bats, allowing them to stiffen to a soft leather hard. The base section can best bear the weight of the additions if it’s slightly stiffer.

6 Putting it Together

With the bottom section still securely attached to its bat and back on the wheel head, score and slip the top (I use magic water or vinegar) and add a generous, soft coil of clay. Next, score the top of this coil and add slip (figure 10). Place the second cylinder in a centered position on the prepared base (figure 11). Depending on its stiffness, you can remove the floor of the added section before or after positioning it. Join sections by blending clay from the added coil up and down into the top and bottom on both the inside and outside (figure 12).

Add sections as desired but make sure you can easily reach the joint of the bottom section of each from the inside as you work. Cover securely in plastic (a minimum of 8 hours or more) while moisture migrates throughout the joints. Next, using fingers, knuckles or a rib (figure 13) further throw and thin or refine the joints; smoothing, adding height, and removing evidence of the seam if desired. Finish the lip, trim away excess clay from the bottom, and dry very slowly.

7 Tooling/Trimming/Turning

Like many of you, I really like tooling, including trimming away excess clay to reveal the final shape, and carving and texturing the surface of the clay. However, there are some challenges and, of course, some good solutions for overcoming them, especially when it comes to trimming. You can prepare for centering your leather-hard, inverted pot during the throwing phase. With your wet, soft, newly thrown piece slowly rotating on the wheel, use your wooden potter’s knife to shave off any uneven, uncentered clay from the foot. You’ve now created a perfect circle at the base to use for centering the piece once you flip it over to start trimming. Flip your piece upside down, center it and fasten it to the wheel head using a film of water, soft coils of clay, or a chuck. Now you’re ready for the first step—leveling the surface of the base. You can reduce the resistance, and consequently unsteady hand, by using a sharp, very pointy trimming tool to do this (figure 14). With the wheel at a fast speed and with the pointy end just touching the surface, shave off tiny bits. Gradually lower the tool until you have a perfectly level base. With the base surface leveled, proceed as usual using your favorite trimming tool (figure 15).

8 Outside Influences

Learn to talk while throwing. Your new best friend could be sitting or standing next to you in the studio or at a workshop. And during quiet times, remember the magic of music. In fact, according to research, (http://bit.ly/sciencedailymusic) listening to your favorite music boosts performance and eases the hard stuff.
9 Keep Healthy and Fit

Protect yourself from the wear and tear of pottery processes. Start by logging time and actions at the wheel. Record details of about three days of wheel work. What are you doing, when do you get tired, and what gets sore? From that, you can figure out the timing and schedule your breaks at least ten minutes before your next ache typically occurs. Take that break. Get away from your wheel. You can go do a glaze test or pull and attach handles, have a snack, etc. Better yet, take a vigorous walk. You’ve heard this before a million times—get regular exercise. My personal favorites are yoga and swimming for the stretch and strength of muscles and joints.

10 Branching Out

But wait...”What about plates and bowls?” You might ask. Well, frankly, I learned my best and smartest solutions from Yoko Sekino-Bové. Luckily, you too can benefit from her wisdom by reading her article on throwing large, low work on page 17 of this issue.

On average, most of us are not average. Our uniqueness and equality aren’t in doubt. And, we’re potters, ergo we’re resourceful. So try my ideas and experiment with your own. And when you find something that works for you, share it with others.

Claire O’Connor teaches pottery for children, adults, and senior adults. She has graduate and undergraduate education in anthropology, educational psychology/adult education, and ceramics. She currently has a studio at the Northern Clay Center in Minneapolis, Minnesota. Contact her via email at oconnorpottery@gmail.com.
Trimming Accessories for the Pottery Wheel
by Frank James Fisher

Trimming the bases of pots is another opportunity to bring unity and beauty to your artwork. But different shapes and sizes of work create challenges, and apparently I wasn’t the only potter who longed for an easier process. Innovations have shown up in the studio, such as the Giffin Grip®, the no-skid Grabber Pad® and the latest arrival, the Trimming Disc. If you throw a lot of large bowls and platters, pots with delicate necks, lids, etc., then you should evaluate the trimming accessories described here—a select group of products, each with a range of applications.

Trimming Disc
For many years, potters placed a jar lid on the bottom of their pots while trimming. This trick made it possible to hold work down with a finger or two, eliminating the need for clay wads to secure the work to the wheelhead. Robert Piepenburg has improved on this technique with his Trimming Disc, a device that works like a small lazy Susan. The small ball bearings in the disk provide a smooth no-friction spin as your fingers press down on the tool, securing the pot without using clay wads. This tool is useful for large or small platters and bowls, as well as steadying tall forms. One advantage of the Trimming Disc is its versatility. It works efficiently as a stand-alone trimming method and also as a useful accessory with the Grabber Pad and the Giffin Grip.

The engineered grips on the bottom part of the Trimming Disc secure it to the pot, while the top part spins easily.

Giffin Grip
The Giffin Grip, developed by Brian Giffin in the 1980s, is essentially a trimming chuck. The Giffin Grip attaches directly to wheel heads of varying diameters, and includes three sturdy brackets that grip the wheel head with a tight friction fit. The Giffin Grip centers and holds leather-hard clay in a three-pronged vice with three constricting hands mounted on rods of varying length. The main attribute of this tool is the way it automatically centers your work. Place the inverted pot near the center, turn the upper platen and the three grips or arms pull the pot into the exact center. Give the platen a quick tug and the pot is secured. There are a variety of bottle suspended, secured and ready to trim in a Giffin Grip.
of fixtures included to secure plates, bowls and even tall vases to the platen. With a Giffin Grip, a narrow-necked bottle can be suspended upside down for trimming the base, something that can otherwise only be done with a clay chuck. When trimming jar lids, I use the Trimming Disc in combination with the Giffin Grip (see above).

Grabber Pad

The Grabber Pad is one of those simple, but great ideas as it eliminates the need to secure your pot to the wheel head with clay wads. It is made of a nonskid material that’s adhered to a bat that fits on a wheel head equipped with standard bat pins. You secure it to your wheel head using the pins as you would secure any other bat. The Grabber Pad’s non-skid material has a tacky, thin foam feel to it. It’s ideal for low-profile forms such as bowls and platters. Once the pot is centered, it’s not going to slide. The tacky surface overcomes the pull of centrifugal force, though I still like to keep a hand on the bottom of the pot. Since I use my hand as a steadying point for my trim tool to work against, Piepenburg’s Trimming Disc also works well with the Grabber Pad. One aspect of the Grabber Pad that I like is that I control the final centering of my pot. If I have a bowl with an off-center base, I can center the bowl by eye rather than by the outer diameter of the rim. It gives me flexibility to experiment with asymmetrical rims. The Grabber Pad used to come with concentric grooves in the pad’s surface to help you find true center easier, but you can add these circles with a Sharpie permanent black marker.

Oversized Trimming Bat

Sometimes you just want to throw big, but trimming large platters and bowls with wide diameters requires special equipment. To solve this problem, purchase a 24-inch diameter laminate-covered particle board disk from a lumber yard, cabinet shop or home center (call first to check availability). Cut two 12-inch square pieces of ¾-inch thick plywood and screw them to the bottom center of the disk. (Note: I have a Shimpo wheel and I needed two square pieces to clear the splash pan. Measure the depth of your splash pan before adding spacers.) After finding exact center, drill two matching holes 10 inches on center to accept bat pins. After assembling the parts, brush on two coats of exterior primer, followed by several coats of marine paint, which is formulated to resist water and the damage it can inflict on wood.

Final Thoughts

I have found this group of trimming accessories to be capable of handling every clay vessel I have created. I’m sure there may be forms in my future that will challenge this system, but the flexibility this combination of tools provides should meet that challenge.

When trimming with a Grabber Pad, invert the piece and center using the rings as a guide.

Oversized platter fastened with wads of clay to a handmade oversized bat.

To trim jar lids, I secure the jar with the Giffin Grip and position the Trimming Disc on the center of the inverted lid.

Assemble your oversized bat following this diagram.
“Some days I’m standing up, some days I’m sitting down when I throw. So being able to adjust the height of the legs in nuanced ways is a real advantage... I also love the large aluminum built-in splash pan. It gives me something very stable to lean my body into as I’m throwing. It gives me extra stability and a little extra strength.”

Steven Hill

Visit skutt.com/video/hill to see video of Steven discussing the ergonomics of throwing.