

Vince Pitelka, 2016

### Theory and Mechanics of the Teapot

The teapot is one of the more intriguing and challenging of utilitarian vessels. At its simplest it is still a complex form, and because of the articulation of parts is inherently sculptural. With each kind of pottery vessel, there are elements of ritual that accompany use. It may seem strange to use the term ritual, but this is one way of defining the difference between handmade pottery and factory-made ceramics. When people purchase a common factory-made vessel with only function in mind, daily use becomes a matter of routine rather than ritual – it simply serves its function. In contrast, at a craft show or gallery, people in search of useful accessories for the home are considering far more than simple utility. They are seeking life-enrichment and the enhancement of daily routine. When they select and purchase an item, subsequent use often becomes a form of celebratory ritual. Garth Clark says “Fine craft reconnects art and life.” Beautiful functional craft objects like fine utilitarian pottery take art off the wall or pedestal and put it back into everyday routine where we celebrate the objects as we touch and use them, transforming routine into ritual. As artists, the degree to which we consider this circumstance and invest our work with beauty and utility will determine how it is incorporated into the everyday ritual of people’s lives.

At a meal we each have our own cup, bowl, and plate, while the serving bowl, cruet set, platter, casserole, and pitcher enhance the shared ritual of gathering together with friends or family. The teapot carries this further as the centerpiece of its own ritual. No serious tea drinker would ever select a teapot solely on utilitarian function. Its use is too important. Even when drinking tea alone, the quality of ritual is inherent in a teapot. In many contemporary and colonial British and East Asian cultures the teapot is among the most important fixtures of daily ritual. The preparation for use and utilitarian function of a teapot involve elements of ritual that exceed those of any other common ceramic vessel.

After over a millennium of tea drinking in East Asia and at least half that in the West, the teapot is instilled with a great deal of aesthetic and utilitarian information. It communicates the qualities of shared use, personal or group ritual, and aesthetic and sensory enjoyment. Its articulated, multi-piece construction offers special challenges and possibilities for the sculptural manipulation of form in a functional vessel. Contemporary craft artists often carry this to extremes, creating teapots that are marginally functional or purely non-functional and become a sculptural object referencing the teapot. A gallery in Seattle sold a small Dick Marquis blown glass teapot completely covered with tiny American flag murrini for \$10,000. The customer brought it back a few days later upon discovering that the lid was permanently attached. She was going to brew tea in a \$10,000 art-glass teapot.

It is our objective to make teapots that look good and function well and thus encourage ritual of use. Consider that a well-designed and beautifully-made teapot displayed on a shelf or counter offers invitations. The aesthetic qualities attract our attention and invite us closer. The handle asks

us to pick it up. The lid invites us to fill the teapot with hot water and leaf tea or teabags. The spout invites us to pour the brew and enjoy a cup of tea. That's a neat concept, but to what degree does each teapot present these invitations visually, and just as important, to what degree does it follow through in fulfilling our hopes and expectations if we accept its offer? Is it comfortable to pick up and hold? Is it easy to remove the lid and fill the teapot? Does it pour without dribbling or spattering? Does the lid stay in place while pouring?

There is some flexibility. The user can be a little forgiving regarding ergonomics of the handle and lid, because quality of ritual use involves so many considerations. If we really love the appearance of a teapot, we're inclined to forgive a slightly awkward handle or difficult lid. But a teapot that dribbles and spatters has negated its own function and communicates poor design and craftsmanship. Too often, such a teapot is relegated to the shelf as a decorative object, forever branded with the memory of flawed function: "Yeah, it's a nice looking teapot, but it just doesn't pour worth a damn."

Potters and aficionados of fine pots talk about pots with attitude. Obvious examples are the wares of Josh DeWeese, Chandra DeBuse, and Ron Meyers. These fully functional pots make bold individual statements. That comes with focus and long, hard work, but every artist/artisan should look towards developing an individual voice. In this case we are particularly concerned about the qualities of "attitude" that attract attention and make people want to pick up and use our teapots. The best-designed utilitarian vessels often radiate an excitement and energy and seem waiting for an opportunity to serve their intended function. With these things in mind, we will investigate the interrelationship of body, foot, handle, spout, lid, and gallery with the objective of coordinating all into the design and creation of lively teapots that look good and work well

### ***Basic Things to Consider When Approaching Teapot Design***

1. Always consider the essential triad of the teapot - handle, rim/lid, and spout. How do they balance one another, and how do they work with the body of the teapot?
2. There is huge leeway in terms of body shape, but consider that teapots much taller than wide look like coffee pots.
3. The spout is the business end of the teapot. If the spout is visually awkward or too small, nothing else works.
4. The inside diameter of the spout must be no less than 3/8" at the smallest point to ensure reasonable flow.
5. If the spout tapers, the small end of the taper should be at the tip.
6. The tip of the spout must be level with or higher than the lid or tea will slosh out as you move the teapot.
7. The end of the spout must feature a sharp edge at the pouring point in order to break the surface tension so that tea does not follow the curvature of the tip and dribble all over the place and ruin your social standing. At the same time, the end of the spout should not be so thin and fragile as to be particularly vulnerable to chipping.

8. A side handle should be no larger/longer than it needs to be in order to keep the hand close to the center of gravity.
9. An overhead handle must allow ample room for removing/replacing the lid.
10. When a tea set includes a teapot and cups, a full teapot should fill all of the cups in the set to a reasonable level with some tea to spare.
11. The pattern of holes often seen in the wall of a teapot where the spout is attached does not function as a strainer except to keep tea bags from lodging in the spout. Make the holes at least 5/16" diameter so that they do not clog with glaze. If you want to use loose leaf tea, use a tea-ball or an appropriate strainer that fits inside the lid gallery and extends down inside the teapot (see below on strainers).
12. The lid should feature either a locking device or a lowered center of gravity so that it doesn't fall out when you pour the last of the tea. Locking devices can be awkward to install and use. Look at the lid variations in the text and the Val Cushing lid handout and identify the ones that offer a lowered center of gravity.
13. One of the objectives of a teapot is to keep the tea hot as long as possible, and thus most teapots feature a raised foot or added feet.
14. A wide flat bottom on a teapot is particularly vulnerable to cracking when the hot water hits it. If you want the appearance of a wide, flat bottom like a traditional stove-top teakettle, dome the bottom upwards slightly, or dome it downwards and attach feet around the outer edge of the bottom. In either case, the domed bottom is far more able to absorb thermal shock, and will reduce surface contact with counter/table and help the teapot retain heat.

### ***Handle Type and Location***

There are a variety of effective choices for design and placement of the handle. It can be mounted on the backside opposite the spout like a conventional pitcher handle. It can span the top of the teapot, and if so, it can be a pulled or handbuilt clay handle, or a commercial bamboo or metal handle or one you fabricated yourself. A top handle must be large enough to allow easy removal and replacement of the lid, but should not make a sweeping loopy gesture that competes with the shape of the teapot body. In any case, remember that the negative space inside the handle is critically important in the overall aesthetic design.

Taller teapots often have the handle on the back while low squat teapots usually have the handle overhead, although there are always exceptions in both cases. A handle overhead is often canted slightly towards the backside of the teapot in order to visually balance the spout. I prefer to use pulled handles for thrown teapots and a rolled coil or hollow tube handles for handbuilt teapots, but neither is a universal expectation. It is not difficult to make a very fine handle from a tapered rolled coil flattened slightly, or from a hollow tube formed over a dowel and rolled.

If you wish, you can install appropriate attachment lugs and use a metal, wood, or bamboo handle. In order to accommodate commercial teapot handles, the lugs must be installed so that the holes line up with one another and a dowel could pass through both holes at once with the lid off (if it extends above the teapot rim). For wood and bamboo handles, the hole in the lugs should be at

least ½". For wire handles the hole can be smaller, but under no circumstances should it be less than ¼" in order to prevent it from closing up with glaze.

A wide variety of handles are available online from Aftosa.com under "accessories" and from Chineseclayart.com, also under "accessories." Both sites have some interesting teapot handles. If you decide to go this route please search out the unusual handle. The most common type of bamboo teapot handle is a cliché that will place the stamp of the ordinary on your original work. Consider making your own handle out of vines (avoid poison ivy!), wire, and/or wood. If you are considering this, we can discuss the design and installation of attachment lugs.

### ***Built-In Tea Strainers, and Whether to Glaze the Inside***

As mentioned above, the pattern of holes in the wall of many teapots where the spout is attached should not be expected to serve as a strainer to retain tea leaves, because only the tiniest holes would serve that function. Some potters feel that creating one large hole leading to the spout disrupts the structural integrity of the teapot body, and of course a network of holes also keeps teabags from lodging in the spout. A built-in strainer is a significant undertaking, and is never glazed. Many East Asian teapots are unglazed on the inside and never washed with more than hot water. Aficionados claim that a teapot unglazed on the inside produces superior tea after a break-in period. My suspicion is that this practice originated before the age of metal tea-strainers as a practical way of keeping a clay strainer from glazing shut. In order to function properly with loose-leaf tea, a clay strainer must have hundreds of tiny holes no larger than 1/16" in diameter. It would be virtually impossible to keep glaze from closing over such tiny holes. Also, the area where the spout is attached is generally not enough surface to accommodate enough holes to serve as an effective strainer, and thus built-in strainers generally take the form of a hemispherical shape protruding into the inside of the teapot and pierced overall with a network of closely-spaced tiny holes. These are very time-consuming to make – an effective strainer has hundreds of tiny holes drilled at the hard-leather-hard stage. You're talking hours of work to make a single built-in strainer if you really want to do it right.

The best contemporary East Asian teapots often feature a removable metal or clay strainer of deep cylindrical shape with a thin flange rim that rests on the gallery beneath the lid. The body of the strainer extends down into the water, placing the tea leaves in the water but confined to the strainer. Commercial metal strainers of this type are readily available, and if you want to use one, get the strainer first, figure your clay's shrinkage rate, and design the teapot to fit the strainer. If such a strainer is handmade of clay it must be left unglazed, and again the holes must be no larger than 1/16".

If you are thinking of leaving the inside of a teapot unglazed, consider using porcelain or a gritless stoneware. Either will give a far more pleasing unglazed surface. The famous Chinese Yixing teapots are unglazed inside and out except for occasional use of a fluxed oxide stain to emphasize surface relief on the outside. Yixing teapots are made of a very fine brown porcelaineous

stoneware that gives a pleasing appearance and texture, but is also especially appropriate for highly-detailed surface carving at the hard-leather-hard or even bone-dry stage.

### ***That's an Air Hole, Not a Steam Hole!***

I often hear people mention the steam-hole in the lid of a teapot, but its function is to admit air rather than let steam escape. If the lid fits snugly and the lid seat is wet it can form a remarkably airtight seal. If no other air entry is provided, the teapot will gurgle and spatter while pouring, as air bubbles come back up the spout to displace the escaping tea, just as happens when you pour liquid quickly from a small-necked bottle. The air hole simply admits air to displace the tea that is poured out. The air hole is always in the lid, and should be no less than 3/16" in diameter. Be sure to clean all glaze out of the air hole with a wet pipe-cleaner after glazing the lid.

### ***Conclusion***

There is excellent imagery and information on teapots available in a number of books including *The Teapot Transformed*, *The Eccentric Teapot*, *Tempest in a Teapot*, and *500 Teapots*. You can also look at contemporary teapots and tea sets on gallery websites for the Crimson Laurel Gallery, Trax Gallery, Charlie Cummings Gallery, Akar Design, Anthony Schaller Gallery, Ferrin Gallery, and Red Lodge Clay Center Gallery. You can find endless imagery just by doing a Google image search for "pottery teapot," but if you do so, take advantage of the opportunity to level a critical eye and examine all that is right and wrong about each teapot. I am continually amazed by the number of poorly designed teapots on ETSY, personal websites, or gallery websites, and in particular ones with a spout far too large in diameter or with the tip so low as to render the teapot nonfunctional, or with an awkward and/or seriously oversized handle. With what you are learning here, you have the potential to make teapots as good as any you can find in the above galleries.