

GLOBAL TEA HUT

國際茶亭

TEA & TAO MAGAZINE

June 2020

銀瓶
GINBIN





SHAN CHA

This month we cross the zenith of yet another spectacular year sharing tea. We will be drinking a rare and precious wild red tea that is its own species while we discuss the history, glory, art and craftsmanship of traditional Japanese silver kettles, which are called "ginbin." The tea world truly has so much to offer!

Love is
changing the world
bowl by bowl

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recycled & recyclable



Soy ink

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From the editor

In June the weather in Taiwan is getting hot. We start drinking the last of all our samples from this season's tea. In our free time, we like to drink fresh, organic sencha and gyokuro from Japan, young sheng puerh and some lightly-oxidized oolong. High Road is our favorite tea for this time of year. High Road is one of the those young sheng puerh teas that is so good it is better to drink young, even though it will age well. If it weren't so rare and costly, we'd drink it every day in this weather! A nice green or white tea, young sheng or lightly-oxidized oolong will breeze out your body in the heat and help cleanse the excesses that have collected over the winter, making us lighter in body, mind and spirit.

We have all had a hard year for sure. There is a lot going on in this world. For many of us, this is the first great collective adversity we have known in our lives. It can be helpful to drink lots of tea and put the challenges of this time into perspective. Our ancestors were perhaps much more familiar with collective adversity than we are. Understanding that such times are a part of the human experience is not a pain-killer, but it does show that we have the resources to face this challenge. We will have to grieve loss. This is part of living and dying. It always was a part of our lives—this collective hardship has just shined a spotlight on our mortality. It has reminded us that death is a part of life and is happening all around us. Our practices of cultivation are or are not in harmony with Nature and the times. We test their mettle through meeting the challenges we face as individuals and collectively. Such times are also a conch-horn summoning us to our practice—asking us to wake up and reminding us that the present is the only time to do our work. Nothing can be left for the future.

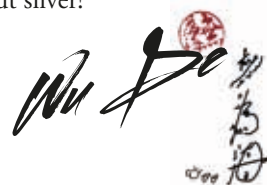
Such hard times also remind us of how precious life is. The sick and dying around the world do not begrudge those of us with a healthy body. We do not dishonor the dead by being healthy and alive. But we do dishonor their memories if we take it for granted. A sick and dying beauty would ask that we not take our time for granted. Life is short! Remember how much of a treasure a human life is! And remember to tell those you care about that you love them. In that spirit, let me say how much I love and honor all of you Global Tea Hut members and how your bravery, courage and love of kindness have inspired me and helped me get through the challenges and grief of these times...

In more mundane news, we have launched our new website and included all kinds of new subscription models. For the first time ever, we are incentivizing larger contributions in the hopes that we can raise more money towards building our/your new Center, Light Meets Life. Now, when you choose to subscribe at a larger donation, you will receive more types of tea in higher qualities and even a gift like in the old days. You can get up to three teas every month with a gift!

All the teas will be in the same genre as the Tea of the Month, allowing you to learn more through drinking rarer and higher-quality examples of that genre. Not all the extra teas will be of a higher-quality than the Tea of the Month; they may be chosen for other educational reasons, but since less people will be ordering these second and third teas, we can choose some rarer teas.

Also, we now have some digital options for those of you who want to read the magazine electronically. Global Tea Hut magazine is printed on recycled paper using non-GMO, organic soy-based ink, so its impact is small, but electronic reading does save on packing materials and shipping, all of which is good for the environment. If you are interested in more electronic reading in general, we would suggest you also contemplate the devices you read on. Oftentimes, the materials used to make an e-reader or other device are worse environmentally than paper, especially if one continuously buys new devices annually. Try to keep your e-reading devices for as long as possible, in other words, to enhance the impact that reading electronically will have on the environment.

This month, we are going to dive into "*ginbin* (銀瓶)" kettles. (Note: the "g" is hard, like in "goat.") Silver kettles are amazing, and have a mysterious effect on tea. Unfortunately, genuine antique *ginbins* have become quite expensive and there are also lots of fakes. For that reason, I stopped teaching about iron kettles (*tetsubins*) and *ginbins* during my lectures as I travel, and also stopped writing about them as well. I debated for a long time (almost five years) whether or not to have issues of Global Tea Hut devoted to them. I don't want anyone, anywhere to think that one needs expensive teaware to make progress in Cha Dao or even to enjoy tea. However, they are an important part of the history and art of tea, so in the end I decided to do both. We already covered *tetsubins*, so this is our deep-dive into *ginbins*. Now, throw a kettle on (silver or otherwise), and let's talk about silver!



—Further Reading—

This month, we recommend reading through the fire issue of August 2015 and the marvelous issue we created last October, 2019, featuring Japanese *tetsubins*, as that also provides some context for the history, art and craft of silver *ginbins*, as well as the relationship between the two in practice.

TEA OF THE MONTH



Over the course of this month, we will be drinking a glorious red tea that is very special. This is amongst the rarest, most precious, and yet simplest teas we have ever shared. It is the perfect tea to drink leaves in a bowl, offering many unexpected and unique flavors and aromas, as well as an energy unlike any tea we have ever shared. Unless you have had this type of tea before, you have probably never had anything like it...

As we have often discussed in these pages, far too many tea books and tea vendors promote the idea that “all tea is *Camellia sinensis* and the difference between genres is all in the processing.” First and foremost, this outdated approach to the classification of tea is completely industrial, using production exclusively to determine type. In other words, this taxonomy excludes Nature. This is appealing to the tea industry, but unfortunately does not reflect the natural world. It is not wrong to classify tea by production type, but it does leave out the variations of trees, environments and other ecological factors. Such a system is not completely “wrong”; it is just incomplete and potentially misleading.

In fact, not all tea is *Camellia sinensis*. There are actually dozens of species of *Camellia* used to make tea. Also, production itself is more complicated than just applying methods, primarily centered on oxidation, to determine tea types. This is because methods of production all evolved locally, utilizing specific varieties or species of tea, and while we can mimic the production formula elsewhere, each tea is really a combination of those local variety(ies) and the production methods. In other words, the production-centric system of classification that is “all in the processing” makes it seem like you can make puerh from Kenyan leaf, or Wuyi Cliff Tea in Taiwan, when actually these types of tea are a combination of Nature/environment/ecology/varieties and processing. In the end, each type of tea is its terroir: a combination of climate, ecology, variety, human culture and processing methods/skills.

The historical records of Taiwanese wild tea go back to the early eighteenth century. Of course, the date recorded does not necessarily reflect the origin of wild Taiwanese tea, which some claim is much older. Recent advancements

in genetic research have allowed biologists to more clearly demarcate the lines between varieties of the species *Camellia sinensis* and other species. Recently, it was discovered through DNA analysis that some of the old, wild tea trees in Taiwan are actually a completely different species of organism. Though these trees have been around for centuries, the discovery was “new” to us, and the tea was therefore renamed “*Camellia Formosensis*” after the island’s old name.

This amazing tea, called “Mountain Tea (Shan Cha, 山茶)” by locals, is said to have been drunk long ago by early settlers. Some aboriginals claim that it was the “Tea of the Gods (Shen Cha, 神茶),” drunk by their ancestors in ceremonies. These tea trees are actually the ancestors and heritage of the manmade variety we shared in January of 2020 called “Ruby Red (紅玉).” That tea, also known as “cultivar #18,” was bred using Shan Cha and *Camellia sinensis* var. *assamica* from Burma and/or Yunnan.

Shan Cha grows high up in central Taiwan, from 800 to 1800 meters. The oldest trees can grow above ten meters in height and live for centuries, if not thousands of years—we don’t know how long, as they have not reached their potential lifespan. Unfortunately, such wild, forest habitats are threatened, like many Nature reserves in the world. Our Tea of the Month, is, of course, a splendid exception to this. The farmer preserves several hectares of wild forest, only picking the tea once a year and leaving weak trees alone if they show signs of stress. This living tea is completely wild, propagated by seed naturally without human intervention, and grown in chemical-free and completely untended, biodiverse wilderness.

Shan Cha is processed like a red tea, similar to Elevation. It has a very different flavor and energy profile, however. Like Elevation, Shan Cha is uplifting and awakening, but it is darker and bolder, with stronger hints of raw, wild honey and a much more vibrant Qi. You may also taste subtle hints of the wintergreen flavors that are so prominent in Ruby Red, as this is its mother. This is the perfect medicine for any morning, connecting us to Nature in a powerful way. If you are interested in drinking more of this tea, it will be for sale on our website as well!



Shan Cha (山茶)



Nantou, Taiwan



Wild Red Tea



Taiwanese



~1,000 Meters





How to Hold the Bowl

如何握碗

BOWL TEA GUIDE

The simplest lessons are often the deepest. Holding a tea bowl is simple, and yet, like all things tea, full of extraordinary depth. There's nothing we love more than investigating all aspects of tea, which deepens our relationship to this amazing plant medicine. And because we are always students of tea, there is always something to be learned, even from the simplest act of holding a bowl correctly. In fact, you'll be surprised what's actually going on in the process of holding a bowl and partaking in tea. Before serving tea, we must learn to receive tea, and in order to receive tea we must learn how to hold a bowl. Holding a bowl is one of the first actions you'll participate in when inviting a tea practice into your life, and how you start anything determines how you finish it. "Advanced techniques are the basics mastered," so let's practice mastering how to hold a bowl!

First of all, using both hands when holding a bowl is important. This action keeps us centered and focused on the tea; it shows respect to our teaware, keeping it safe and facilitating connection. A simple example of this would be to consider shaking someone's hand singlehandedly versus using both of your hands to greet someone. Which one feels more connected? Not that a normal handshake is wrong, but the feeling of connection is greater when we engage both hands. It requires more of our energy and that energy exchange is evident, and that is why putting a second hand over

someone's when you greet them is more often reserved for those we know and love, are familiar with and to express more love and joy upon meeting. Holding a tea bowl with one hand is not only dangerous because tea bowls can be large for one hand (especially when full of hot tea), but it frees up our other hand to do something else, perhaps to wander, fidget, or worst of all, reach for your phone. Drinking tea is about doing one thing at a time. It is the antithesis of multitasking, and by using both hands to hold the bowl, we reduce the impulse to do something else because our full attention is right here in front of us, holding this amazing treasure, worthy of both our hands. Tea is a dear friend we cannot greet from a distance with one hand; we need a firm two-handed shake, showing our overflowing love and gratitude.

Reverence is the first virtue of Cha Dao. It is what makes tea drinking a tea ceremony. With reverence, the space is elevated, and we learn to find the extraordinary in the ordinary. Reverence also opens our minds and allows us to let a sacred intention into our hearts. In Cha Dao, every movement should be loose, free, gentle and soft, and yet have a weight, a gravitas to it. This comes naturally over time, but it all starts with the proper alignment of the heart-mind towards respect for the occasion, the tea and ourselves—it starts with a greeting, and one done with a feeling of honor to be together—us and the Tea.





Instead of referring to the right and left hand, we'll speak to your dominant and offhand so that these instructions are applicable to everyone. We always use our offhand as the foundation and the dominant-hand as the guide. The foundation offhand is flat, palm up, with fingers gently pressed together and held roughly near the middle of your chest. You may notice a little tension in your wrist to hold this flat orientation; that's good. It will feel natural soon enough as your flexibility increases (which comes from drinking lots of tea). If you were to position a bowl on this foundation, the foot of the bowl would rest roughly where your palm meets your fingers. This will depend on how large or small your hands are. There is a comfortable spot for everyone. The thumb then anchors the bowl by applying light pressure on the rim between 9 and 10 o'clock or 2 and 3 o'clock, depending on your foundation hand. Do not wrap your fingers around the base of the bowl; keep them level to the ground, straight, and gently pressed together. You should notice that this position is already very stable.

Your dominant-hand acts as the guide. Again, keep your fingers gently pressed together. Splayed out fingers look messy as if you were grappling with the bowl. This hand will wrap around the other half of the bowl, making contact at about 12 to 5 or 12 to 7 o'clock depending—looking like a claw as it comes in to guide. We usually drink from the 6 o'clock position. Again, adjust as necessary to find a comfortable posture depending on the size of your hands and bowl.

Breathe deeply and loosen your shoulders. Your elbows should not be too high and "winged" out,

nor tucked in too close to your body. With shoulders and elbows relaxed and hands near the center of your chest, close to your heart, the bowl should be centered on your body, held by both hands, feeling quite comfortable and stable. You may even notice that your general posture has improved, whether sitting on the ground or in a chair. This is one of the signs that you are holding the bowl correctly—it automatically aligns you. Everything about this posture says that you are here to drink tea with respect and presence.

The offhand will lift up the vertical plane towards your mouth. Remember to keep your foundation hand as flat and level to the ground as possible during the lift. It will naturally arch when it needs to, guided by the other hand. The dominant-hand will rotate the bowl on an axis, guiding the bowl to your lips. The axis of rotation is very minor when the bowl is full and increases as you drink more tea, emptying the bowl. Gracefully combining these two motions will really change the way you take tea into your body. With this much attention put into such a simple act, you'll wonder why you ever did it differently. You'll sit with better posture, breathe more deeply, and literally receive the tea into your body in a different way that is as clear as the liquor before you. Upright, relaxed, stable, centered and balanced are the qualities of holding the bowl properly.

Tea is excellent for bringing about balance into our lives at the physical, emotional, spiritual and psychological levels, and holding the bowl is no exception. You may not have noticed, but this foundation-guide method of holding the bowl reverses your general ten-



dency of using the dominant-hand as the foundation and the offhand as the guide. It reverses the Yin and Yang habits we establish in our daily lives. This will teach your body and mind a very subtle sense of balance. You may find yourself becoming more ambidextrous over many years of drinking tea. This is in part due to holding the bowl as suggested above.

Ergonomically, you'll also notice just how suited this posture is to holding a bowl and drinking tea. Our body is really designed to hold the bowl like this, lifting it up and placing it back down with ease and grace. It's especially noticeable if you are drinking tea while sitting on the ground. Feel how natural it is to reach for a bowl and automatically adjust to the correct position: bowl in both hands near the heart, shoulders, elbows and neck all relaxed. Then place it back down with an ease of motion that is fluid and ensures the safety of the bowl. This is really the most natural way of handling a treasured tea bowl.

In fact, there is an "on-ramp/off-ramp" method of picking up and placing back down the bowl. When picking up a bowl, the offhand becomes the "on ramp" while the dominant-hand slides the bowl up the ramp and into the correct posture. You simply reverse this to carefully place the bowl back down, guiding the bowl down the "off ramp" onto the table surface or ground, ensuring you always have three points of contact on the bowl. This means the strong hand, which acts as the guide, is switching to the foundation, and the offhand, which was the foundation, now becomes the guide ramp, which the bowl rises to and lowers down from. As an additional tip, after you have picked

up a bowl to drink tea, it's always best to hold the bowl until you're finished drinking. In other words, don't pick up and put down the bowl multiple times with one bowl of tea. Keep your focus on the bowl—use both hands, drink slowly and place the bowl back down once you've finished. There's no rush; it's part of doing one thing at a time.

Deeper still, holding a tea bowl is an expression of your state of mind that says to the world, "I am calm and awake, upright and relaxed, present and aware, receptive and reverent." These are the gestures that make holding a bowl of tea more than just holding a bowl of tea. What's on your mind at any given moment is your gift to the world. When you are resting in a "holding-the-bowl" state of mind, you are gifting the world all of the qualities that go with it. That's important to reflect upon.

Holding a bowl couldn't be simpler. But that doesn't mean we should overlook it or shrug it off as insignificant. Many of us live in extreme abundance and lead highly privileged lives. That there exists a beautiful magazine describing how to hold a tea bowl was unimaginable to our ancestors. At any given moment, we need to stop and ask ourselves how we can honor the sacrifice that gave us such abundance and privilege, because the general comfort we have in this day and age came at an extreme cost. Luckily, there are simple acts with the right frame of mind that bring worthiness to our good fortune. Never overlook the simple things in life. Sit down and hold your bowl of tea with all of your heart, and see if your bowl of tea shows up in kind...

Brewing Tips

冲泡技巧 完成好茶

Like Elevation, Shan Cha is the quintessential leaves in a bowl tea. You can also brew this marvelous tea in sidehandle or even gongfu, but the simple, natural elegance of this wild tea is so much more enjoyable when brewed with a few leaves in a bowl as you breathe in the rich biodiversity and glorious mountain forest that this tea came from. When brewing leaves in a bowl tea, the water will be even more important than in other brewing methods. Because the leaves are steeping longer, they will be less patient (meaning less steepings), and the effects the water has on the flavor, aroma and energy will be more apparent in the second, third and later bowls. Of course, the quality of water we use is incredibly important for all tea brewing, no matter what method we choose. Every cup or bowl of tea is 99% water, after all.

If you can, gather water from Nature yourself. Water gathered yourself from a spring will connect you to Nature, forcing you to go for weekly hikes that are also good for your spirit and healthy for your body. And, the more energy, time and love we put into our tea, the better it will taste, the way our mother's or grandmother's cooking is so good because of their love for us. If tea is a Dao, a Way, for you, the more you invest in the practice, the more the practice will transform your life.

Learn to taste water, comparing what you gather from Nature with various bottled waters. You cannot learn to taste tea without learning to taste water. The ideal water for tea has a high pH (around 7), is soft and slightly sweet, thick and smooth and has a lot of the right kind of minerals, called "Total Dissolved Solids (TDS)." Limestone and calcium are not ideal, as they make the water hard, damage teaware and make the tea flatter. Good water for tea quenches thirst easily and is somehow more absorbable by the body. We have found that the best waters can quench your thirst even when you are hot and sweaty with just a small cupful, whereas lower quality water passes right through you and you have to go to the bathroom right away, often still left feeling thirsty. Perhaps this also has to do with the way the water coats the mouth and throat. All of the "Ten Qualities of a Fine Tea," covered in many issues of Global Tea Hut, also apply to water.

When brewing tea leaves in a bowl, start out with just a few leaves. If you like your tea stronger, you can always add more later or in the next session. It is easy to add leaves, but a waste to take them out. We suggest around three full-size leaves when brewing Shan Cha in this way, for example. Only the first steeping should use hotter water, to help open the leaves up, and even then not nearly as hot as sidehandle or gongfu tea. After the first steeping, cool the water even more. Otherwise, our tea bowls get too hot and uncomfortable to hold. Finding the right temperature will take some practice!

It is useful to learn how to spin the leaves in the bowl at a forty-five-degree angle around the bowl. In the first steeping, this helps pull the leaves into the water. Otherwise, they just float at the top and do not start steeping. In later steepings, the wet, open leaves are clinging to the bottom of the bowl and oxidizing. Making them spin lifts them up, so they become part of the water again and start steeping evenly on all sides. We achieve this by pouring at an angle on the wall of the bowl furthest from you. This spot and angle are different for every bowl and kettle, but moving around with a slight stream of water until you find the right spot will prove helpful in the beginning. Eventually, you will learn how and where to pour and will be able to make the leaves spin each time with ease.



Leaves in a Bowl

Sidehandle

Water: spring water or best bottled

Fire: coals, infrared or gas

Heat: hot, crab-eye, roughly 85-90 °C

Brewing Methods: sidehandle or leaves in a bowl

Steeping: longer, flash, flash, then growing (only applies to sidehandle)

Patience: 5-10 steepings

茶 When brewing sidehandle, try keeping the lid off between steepings of red teas like this one, especially if your sidehandle is large. This will prevent the tea from steaming/cooking between steeps.



The image features three traditional Chinese teapots on a wooden surface. In the foreground, a dark, rounded teapot with a silver lid and a blue patterned handle. Behind it, a silver teapot with a wooden handle. To the right, a large, multi-tiered teapot with a bamboo handle. The text '銀瓶' is overlaid in a light gray font, and 'Ginbin' is overlaid in a large white font.

銀瓶 Ginbin

茶人: Wu De (無的)





Water preparation is paramount to developing mastery in the art of tea. After all, most of what goes into a cup of tea is water, and, for that reason, choosing good mountain spring water and preparing it properly are the most influential ways to improve one's tea. All too often, we have seen great teas ruined by poor water or inadequate kettles. Some tea houses mistakenly devote their time to seeking out and providing high-quality teas, which then never flourish because the water and kettle they supply reduces the tea to average quality. Similarly, many tea lovers never spend the money or time to research a good kettle, and/or find the best source of water, and consequently aren't getting as much out of their tea as they could. When you realize just how tremendous an impact a good

kettle can make, and that you technically only need to buy one to last you for the rest of your life—enhancing all the tea you'll ever prepare—finding the right one becomes paramount. There is an old saying that “average tea with good water becomes great tea, whereas great tea with average water becomes poor-quality tea.”

Many aspects of tea preparation are alchemical and elemental. The ancient Daoist mendicants utilized tea as a part of their spiritual regimen, leading to the transmutation of the immortalizing “Morning Dew (*gan lu*, 甘露).” The correct combination of the elements isn't just about the spiritual, internal aspect of tea either; it also leads to the most flavorful, aromatic and rewarding cup of tea. Lu Yu himself carved the trigrams that represent the elements onto his teaware, recognizing

the importance they play in a life of tea. Proper preparation is everything in tea, which is why it is called a “gong fu,” referring to something done with deep skill or mastery.

The five elements—water, fire, metal, wood and earth—are all important in tea, as is the way they dance and move amongst each other. Exploring each of them, and their complicated role in tea preparation, is an article for another day, but we can perhaps have a brief introduction here. Actually, translating the “*wu xin* (五行)” as “elements” is misleading. They are actually “states of change.” They represent transformations of energy, as opposed to types of matter or “essences,” which the word “element” conveys. The five elements represent so much in Chinese cosmology, from the seasons to the workings of our bodies, informing Tra-



點綴茶的母親

真理

ditional Chinese Medicine. In tea, the water and fire are obvious. The wood is the tea itself and the earth is the teaware (ceramics). Metal is the most sensitive of all the elements, which enters the art of tea through the kettle, of course. Metal also represents the brewing method itself, and in some cases the heart of the brewer. For the purpose of this article, however, we will just focus on metal's role as represented by the kettle. Perhaps in the future we can talk in greater depth about the "five states of change" and how they move and flow through a tea session...

Of all the five elements, metal is the most dangerous, potentially enhancing or destroying one's tea. In the disciplining, or controlling cycle of the five elements, metal governs wood. This means that metal disciplines wood, preventing it from reaching ex-

cess, or perhaps squashing its power if over-disciplined. (You can think of this as the axe cutting down the tree.) "Discipline" is a decent metaphor, since the right amount prevents a child from being spoiled, while too much inhibits their freedom and can cause them psychological problems. Similarly, wood (the tea leaves) can be held in its proper place, allowed freedom or censored by metal.

Many tea masters since the Ming Dynasty (1368–1644) have alluded to the dangers of metal teaware—and some even rejected the use of all metal in tea, since the Qi is so potentially harmful. The flavors of metal are strong and overpowering, able to ruin water and tea leaves both, let alone the Qi. Still, without metal, one is missing one of the elements that make tea so naturally holistic. For that reason,

we should only think about removing metal completely if we are unable to meet the strict standards required by this element, more than all the others combined. Metal in tea must be in the right place and of the right quality. We suspect that the reason that some tea authors spoke out so strongly against metal of any kind, while others like the great tea sage Lu Yu celebrated metal, has to do with the availability of pure and good metal during their times. If all that was around them was cheap, low-quality metal, perhaps even of the wrong kind, they would have certainly noticed its detrimental effect on their tea and warned others. Of course, there is also the possibility that the differences are just ordinary human opinions, which vary throughout time on any subject. Still, the obvious benefits of silver support the former reason.



Just as metal conducts electricity, so also does it conduct Qi. It is, therefore, important that all the metal we use be high-quality. Secondly, the metal must be located in the proper place during tea preparation: between the water and fire. Water and fire are both stronger than metal, so it has more difficulty overpowering them. Furthermore, it acts as a buffer between these volatile elements, bringing balance. The kettle, then, is really the only kind of teaware that should be metal. The other elements, like wood, which again is the tea leaves themselves, will be overwhelmed by all but the purest metal, and even then, still influenced more than is perhaps desirable. It is best to allow the metal to be represented by the kettle, between the water and fire.

What then is high-quality metal? It depends on the tea, actually. We have found that silver and iron are the best kinds of metal for tea—nothing else compares, really. One should remove all low-quality metals from one's tea space, especially alloys made from tin and other inferior metals. Cheap metal tea sinks, strainers and kettles can have a very harsh effect on one's tea. If you cannot afford a silver or iron kettle, we suggest removing metal from your tea preparation completely, using a glass or clay kettle instead. If you want to experiment with the detrimental effects metal can have on tea, get yourself a cheap tin strainer and pour half of your pot through it, pouring the second half directly into the cup. Then drink the two side-by-side.

Most clay kettles also have metal in them, in the form of iron. In fact, the best clay kettles will have a very high iron content. Our Light Meets Life kettles are around seven percent, but some kettles are much higher, bringing the metal element into the tea as well. This can be easier to use, since the metal is diffused amongst the other minerals of the clay, and therefore mitigated by the earth as much as the water and fire.

As metal has the most potential to dramatically affect tea, you will notice huge differences when you remove low-quality metal from your teaware. For example, tea masters have for centuries lined their tin or pewter tea canisters with paper or bamboo for the same reason. (They only used tin or pewter in those days because they

could create them with a much tighter seal than ceramics, which is important for storing oolong. Nowadays, we can also get ceramic with tight seals.)

Since ancient times, most tea masters have agreed that silver and gold are the ultimate refinement in tea preparation. We have had the fortune of trying water prepared in a solid gold kettle as well. While the water was slightly better than that prepared in silver, it was not worth the *extreme* difference in price. Furthermore, such gold kettles are very rare. For most all of us, silver is therefore a much better option. In his book *The Tea Sutra* (茶經), Lu Yu said:

For the best and longest use, the kettle should be made of silver, yielding the purest tea. Silver is somewhat extravagant, but when beauty is the standard, silver is the paragon of beauty. Likewise, when purity is the standard, silver yields such purity. Consequently for constancy, long-term use and supreme quality, one always resorts to silver.

Even then, tea masters understood the magical effects that silver has on water, as well as the aesthetic grace that a beautiful silver kettle brings to the tea table.

Of course, there are many qualities of silver, ranging from the silver-plated kettles of Japan and England, to the solid, hand-crafted antique pieces made in Japan. There are also mold-casted and machine-made kettles. When all factors (excluding cost) are considered, we have found the traditional hand-forged Japanese kettles to be the best choice for tea lovers. Hand-forged *ginbin* really are the only true *ginbins*!

The Japanese were masters at every craft they explored, and silver was no exception. Much of the silver mined in Japan was unusually pure to begin with. The masters then further refined it through secret smelting and folding techniques passed on from teacher to student. The folding of the silver was perhaps similar to the steel-forging techniques used to create Japanese swords, also masterpieces, that are considered by historians to be of a higher caliber than contemporary weaponry. A lot of *ginbin* scholars and collectors do not focus on where the silver was mined, as there is no verification for this, and instead focus on purity.

The silver mined in the World Heritage Site of Iwami is particularly pure, and comes out pure from the earth. Many veins were 95 to 98% pure. Though mining officially halted prior to the start of WWII, some scholars suggest that it continued in secret long after. Due to the other minerals within the silver, this unique metal from Iwami tarnishes purple or blue, unlike other silvers in the world, which tarnish black. It is purer, brighter and softer than other silver as well. To us, it seems obvious that the silver which is purified over millions, or even billions, of years within the earth is very different than that which is purified by humans. Not all kettles come from Iwami, and there is no mark to prove one does, but we believe the sensitive Chajin can tell the difference by more than just color alone. There is a distinct energetic difference and also a brighter quality to the water.

The Japanese made their kettles from a single sheet of this pure silver. Very few of them were cast in clay molds that were only used once. Almost all of them were hand-hammered—slowly formed into bright and functional masterpieces. When you look at them closely and notice all the amazing work that went into hammering the body, joining the spout and handle—often with handmade pins or joints—they are truly awe-inspiring. Some of them took weeks or even months to create, and it is perhaps only the Japanese devotion to perfection and mastery that could have focused so much time and energy into a craft, as they did with most all aspects of their lives.

The kettles come in wooden boxes that usually give the artist's name, sometimes the date and even the name of the kettle itself if it was given one. There are nickel kettles that are silver-plated, and some cheaper student-made pieces that are much cheaper than the masterpieces. The pure-silver kettles have a mark on the bottom signifying their quality level, an important characteristic to look for. It is important to be careful of these, and—as with all antiques—seek out the guidance of an expert when purchasing a silver kettle, especially since they are so expensive. Also, there are more and more mainland Chinese fakes flooding the market these days.

The purity of the silver cleans the water, making it brighter and sweeter. We have experimented in several ways over the years, including several comparisons using people who do not drink tea and have no particular sensitivity or refined palate. One experiment was to line up four identical porcelain cups and ask the participants if they found any of the waters to be “different.” All four waters were room temperature, and three of them had been poured from the same clay kettle, while one had sat for about ten minutes in a Japanese *ginbin*. We conducted the experiment about seven times, each time with three to four different participants—none of which were tea lovers or had any experience with silver. We found that an overwhelming 96% of the time, the participants could pinpoint the water that had been in the silver kettle. We then trained them, explaining the experiment and pointing out some of the characteristics of the water that had been in contact with the silver, at which point they could find the water without fail. And this was unheated water that had merely sat in the kettle for some time!

We have also experimented by taking a *ginbin* around to various tea lovers’ houses and shops—all of whom were unfamiliar with such silver kettles. We then asked them to prepare tea in their usual way, using all their own teaware, a tea they were very familiar with, as well as the water that they generally use. The only difference was that we substituted the pure-silver kettle for the one they ordinarily use. We then asked them to report any differences they experienced. All fifteen of the tea lovers with whom we tried this, unanimously agreed that the tea was better, brighter, sweeter and had more *hui gan*. About half also noticed that the tea was more patient.

The water from a *ginbin* even looks a bit different. If it is put in glass, side-by-side with normal water, it appears slightly shinier, especially at the top. The real difference, however, is in the flavor and Qi. The silver-induced water is sweeter, softer and smoother in the mouth. It tastes “purified,” for lack of a better word. We have also found that teas prepared with this water are always more patient, yielding almost twice as many steepings. The pour from a *ginbins* is unlike any other kettle

on earth. Of the hundred best spouts we have had the pleasure of using, the top fifteen would all be *ginbins*. You haven’t really felt water “placement,” versus dumping or pouring, until you have tried a *ginbin*. The water flows out smooth as silk, soft and elegant, and you can control it with the subtlest gesture—it responds perfectly to the slightest movement of your hand.

The Qi of the water prepared in a pure-silver kettle is also light, smooth and refined. It rises up, making teas shine, and causes the vibrations and flow of Cha Qi to become softer and smoother. It is especially suitable for green, white, yellow and light oolongs, refreshing them in an amazing way. The water seems to rise up, with a buoyant Qi that makes one feel as if floating. Silver is a very Yin metal, and the soft hammering of a sheet to form the *ginbin* is also very Yin, bringing the metal to its softest point. This means that silver kettles are upward-facing, bringing Yang energy to the water. The water from silver is very Yang, moving up brightly and clearly, which is why these kettles are so good for white, yellow, green, lightly-oxidized oolong or young sheng puerh. This brings out more fragrance, as it adds metal, which is pungent. These teas are fragrance first teas, which is why silver works great with them, as it enhances the aroma. Iron *tetsubins*, on the other hand, are melted and cast in great Yang fire and brimstone, poured with force and steam, power and heat, bringing them to the zenith of Yang energy. They are, therefore, downward-facing. *Tetsubins* are very Yin, grounding and pulling the tea down into the earth, and adding sweetness (and also earth energy). This is why they are good for black tea, aged sheng, shou or aged oolong. Traditionally-processed oolong, Cliff Tea and all red tea are right in the middle, so they can be used by either type of kettle to create a different, as opposed to better or worse, type of session. Not to confuse you, but aged oolong and aged puerh also really can be brewed with either, and different tea lovers will suggest one or the other depending on preference. We prefer iron for such teas, as they add a deeper heat, extracting more than silver and the grounding energy suits the tea, but some like the sweetening and purifying effect silver has, especially on wet-stored puerh.

It is best to use silver kettles in conjunction with a hot plate that has an electric element rather than a conduction heater. These heaters that conduct electricity interfere with the Qi of the water. We recommend infrared heaters, as they are the closest to charcoal. Silver kettles can be used with charcoal, as long as the flame is not too strong, or alcohol, but this may mark the bottom—though we are experimenting with placing a sheet of iron over the coal to heat the silver on. Of course, charcoal will make the best water, but you will have to decide on your own whether to use it or not, since it may mark your kettle and decrease the value. They are very expensive, after all. We tend to stick to infrared burners with our *ginbins*.

There is a jeweler’s cloth that polishes silver nicely, though you should only use this on the outside of the ket-

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tle. Otherwise, it is better to leave the cleaning to experts, making sure your kettle has been scoured before you purchase it. It is also helpful to dry it, wrap it in cotton and return it to the box after each use, in order to prevent oxidation and reduce the frequency one needs to polish it. Many times, the patina on an antique *ginbin* can be decades or even centuries old. We would, therefore, think very carefully about polishing them before you do, especially since you may not get that color back in your lifetime! We tend to leave ours alone, and let their age and wisdom shine...

Spending some time learning about different water sources and ways of preparing it can have a greater effect on your tea than any other aspect, perhaps even the leaves themselves. The effects of silver on the water for tea is really amazing, and worth looking into, if

you can find the chance to save up for a *ginbin*. We have found that the value of the kettles continually appreciates, making them a solid investment as well. Tasting the smooth and sweet water, and the magical way the Qi of the silver subtly transforms a familiar tea into something exquisite, one can't help but feel a sense of awe for the mountain smiths who hammered and forged these exquisite pieces.

However, it is very important to discuss the fact that *tetsubins* and *ginbins* are very expensive these days, and there are also the pitfalls of forgeries to navigate. For that reason, I stopped teaching about them for a long time. We even spent years debating whether or not to devote an issue of Global Tea Hut magazine to either of them, eventually deciding that it was okay. But only with the important caveat that you don't need expensive teaware

to have a tea practice, or even to get great at tea brewing. The most important element is a different kind of metal: the heart of the brewer and the heart of the drinker. No amount of expensive teaware will make up for heart. I would rather have tea in the simplest cracked bowl, but made by a heart that is still and full of a love of kindness, any day of the week. I have tasted fine tea, worth thousands of dollars and made with silver kettles and antique pots and cups, and I have drunk tea from a Hello Kitty pot with just one cracked bowl shared between us. Both are in the spirit of tea. Tea is in the heart, not in any of the treasures we use to honor the liquor that conveys the essence of Nature. And that essence is always conveyed, if you are listening...





The Fragrance of Pure Silver

茶人: Liang Jun Zhi (梁俊智)

This beautiful introduction dives headlong into the science and subjective experience of what makes traditional ginbin special. There is a lot of room for experimentation and a lot of worthwhile questions asked in this article—about tea preparation and kettles/water in general, and about ginbin specifically. There really is no substitute for brewing. The truth is in the cup. We hope that at least some of you will be inspired to learn more about ginbin, and if you can afford one, try the effects they have on tea.

Silver kettles, also known by their Japanese name, “*ginbin* (銀瓶),” are fairly well known among today’s tea lovers. As their name suggests, they’re made out of silver, and when used to boil water for tea, they have a unique effect on the character of the tea liquor—its fragrance, flavor and mouthfeel. Silver kettles offer us a different choice alongside other common water-boiling vessels, such as pottery, iron and electric kettles.

Early on in the history of silver pots in China, most of the known examples were from Japan. This has led to the erroneous belief that this type of pot originated in Japan. In reality, there are many historical records of gold and silver tea vessels, such as teapots and kettles, in early China. For example, Tang Dynasty (618–907) silver and gold vessels have been unearthed from the underground tomb of Famen Temple in Shaanxi, and records also appear in books from the Tang and Song (960–1279) Dynasties, such as Su Yi’s *Tang Dynasty work Sixteen Types of Boiling Water for Tea*, Song Emperor Huizong’s *Treatise on Tea* and Cai Xiang’s *Record of Tea* from the Song Dynasty. These vessels were already plentiful in China during the Tang and Song Dynasties.

As a result of the Taika Reforms in Japan during the Tang Dynasty, envoys were later sent to study Chinese culture and brought the techniques for making silver and gold teaware back to Japan. Ever since then, the tradition of using gold and silver teaware in Japan has continued to this day.

In China, on the other hand, changing dynasties and evolving tea drinking customs resulted in gold and silver tea vessels slowly falling from mainstream favor after the Tang and Song Dynasties, to be replaced by vessels of other materials such as porcelain and purple-sand clay (Zisha). Today, the majority of silver teapots in circulation are Japanese-made, and silver teaware crafting has become a fixture of Japan’s traditional arts and crafts. So Japanese silver teaware has a lot of recognition within its genre, whether in terms of continued crafting tradition, technical progress, the training of craftspeople or the industrialization of production.

Over the past hundred years or so, Japanese society has undergone several major changes, from the feudal system of the Edo period to the constitutional monarchy of the Meiji era to the democratic society of today. Many different artisans, famous masters and studios

emerged throughout these eras, all producing different types of silverware according to the changing times.

For those who are first discovering the world of Japanese silver kettles, this enormous diversity can be confusing, not to speak of the many other products out there that are made to imitate Japanese *ginbins*. Distinguishing them has become ever more difficult. So, in this article I will present a detailed, step-by-step look at silver kettles, covering various related topics. I hope that it will be a useful introduction to the basics.

Tea & Kettle

Silver kettles are used to boil the water for brewing tea. So, before discussing them specifically, we need to understand the role that the water-boiling vessel plays. It’s often said that “water is the mother of tea.” Most tea lovers are aware that aside from the innate characteristics of the tea itself, the water used also has a significant effect on the tea liquor. So the vessel used for boiling the water is the final piece of the puzzle when it comes to producing great water for tea.

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As Xu Cishu (許次紓) puts it in his Ming Dynasty (1368–1644) *Commentary on Tea: Water-Boiling Vessels*, “Tea’s flavor depends on the water, the water needs the vessel, the water boils thanks to the flame. All four are essential; if even one is lacking, the tea will be wasted.” The “vessel” that he mentions refers to the vessel used to boil the water; the water must be heated in a vessel before it can be poured out to steep the tea. The fact that it is mentioned among these four indispensable elements is testimony to the importance of the kettle.

Function of the Kettle

The purpose of a water-boiling vessel is not simply to heat the water. In fact, vessels made of different materials will activate the properties of the tea in different ways. There’s a phrase in Chinese used to describe this: “*fa chaxing* (發茶性),” literally “to bring out the character of the tea.” This phrase is likely quite unfamiliar to many among us, so before explaining what it means

to bring out the *chaxing* — the character — of the tea, we first need to understand: what exactly does *chaxing* refer to? This is how the renowned tea-loving Emperor Song Huizong (Zhao Ji) explains *chaxing* in his *Treatise on Tea*: “With tea, flavor is paramount. Four elements make up the complete flavor: sweetness (*gan* 甘), fragrance (*xiang* 香), weight (*zhong* 重) and smoothness (*hua* 滑).” Great tea liquor is a result of these four elements. The four elements refer to certain qualities of the tea. “Sweetness” actually encapsulates two different but somewhat intertwined concepts in Chinese: *gantian* (甘甜), which is a sweet flavor in the same sense it is understood in English, and *huigan* (回甘), which actually refers to the sort of tingly, minty-fresh aftertaste or mouthfeel that some teas can produce. (We find that most Western authors and tea vendors reduce “sweetness” to only one of these or mistakenly translate “*huigan*” to mean sweetness, which it does not; it isn’t really a flavor at all, but rather a sensation.) “Fragrance” is fairly self-explanatory, while “weight” refers to the

thickness or density of the liquor, and “smoothness” to the smoothness of the texture. Thus, *chaxing* refers to the four sensory qualities of sweetness, fragrance, weight and smoothness in the tea liquor. So *fa chaxing*, “bringing out the character of the tea,” means activating these four qualities in the tea and bringing them out to best effect.

Ginbins

Today, silver kettles are a favorite of many Chajin. Aside from their appeal as collectible, another reason is the effect they have on the water and tea. The difference is clear when compared to other types of kettles. Throughout China’s history, there have been various points of view on selecting water-boiling vessels, summarized by a few quotes here:

茶 Northern Song Dynasty—Emperor Huizong (Zhao Ji), says in his *Treatise on Tea*:

The kettle should be of gold or silver, and can be large or small.



茶 Northern Song Dynasty—Su Shi (Su Dongpo) wrote these lines in a poem entitled “Cooking Tea in the Examination Hall”:

*Crab eyes give way to fish eyes;
Then comes the whisper of
wind in the pines.
Powder flies from the grindstone,
fine pearls falling;
Liquor whirls around the cup,
foam as light as snow.
Boiling water rushes
from the silver kettle;
Why do the ancients say
that silver is second best?*

茶 Ming Dynasty—Tu Long wrote in his *Notes on Tea: Selecting Vessels*:

*Ordinarily, small kettles are best,
as they aid in regulating the heat of
the water. They are suitable for both
whisked tea and steeped tea. If the
kettle is too large, and the water is left
to sit in it while you drink your tea,
the flavor will spoil. So, those who
are serious about the quality of their*

water are encouraged to use gold and silver vessels.

茶 Ming Dynasty—Gao Yuanjun states in *Tea History* that:

For tea kettles, gold and silver are best, while porcelain comes second.

茶 Qing Dynasty—Liu Yuanchang says this in *A History of Tea*:

In ancient times, gold and silver pots were used. Gold is the mother of water.

The above examples happen to mention various types of silver tea vessels, and all agree that silver vessels are excellent for boiling water and are overall one of the superior choices for teaware. It's unfortunate that none of them clearly describe the result that silver vessels produce, nor their effect on the tea liquor. Presently, the effect of silver kettles is still a subject of much debate. I have collated the opinions of a number of my tea friends who have

been using silver kettles for a long time (ten years or more), and their thoughts about the effect of silver kettles can be crystallized into five main points: the tea liquor has a pronounced fragrance; a sweet, refreshing flavor; a dense, thick texture; a smooth mouthfeel; and reduced astringency.

These qualities are often seen when using silver kettles, and are mainly caused by silver ions. This is supported by current research: silver very gradually releases silver ions into water when exposed to it. This science corroborates the knowledge of the ancient Phoenicians who lived along the Mediterranean coast; although at the time they didn't fully understand the reason, they discovered that dropping a silver coin or utensil into a water tank would prevent the growth of bacteria.

The elements and compounds already in the tea interact with these micro-molecular silver ions to produce the four properties that we discussed earlier. The sweetness is produced by the increased amino acids that the tea releases. Also, the fragrance and flavor are greatly enhanced.

This is because the aromatic substances in the tea are volatilized; the “weight” is increased because soluble substances in the tea contribute to its denser texture; and the smoothness is a result of the pectin in the tea creating a smooth mouthfeel.

From this, we can see that the effect silver kettles have in “bringing out the character of the tea” is a result of the interaction between silver ions and the chemical substances contained in the tea itself. This produces the qualities of sweetness, fragrance, weight and smoothness. So, silver kettles will result in a more fragrant tea liquor with a smooth, sweet taste and a thick, full-bodied texture.

Experiments

To illustrate the effects of silver kettles on tea liquor, I gathered various water-boiling vessels such as a silver kettle, an electric tea kettle and an iron kettle, and conducted an experiment with two groups. I observed the color of the tea after brewing to see if the

choice of water-boiling vessel had any impact. I wanted to see if there was any object evidence beyond my opinion.

Experiment 1: Silver kettle versus electric tea kettle

I used two different kettles to boil the water for brewing the tea: a silver kettle and an electric tea kettle.

Tea type: 5 grams of red tea. Brewed in a lidded cup, as show below.

Brewing time: 60 seconds for the first steeping, and an additional 30 seconds for each subsequent steeping. So the consecutive steeping times were 60 seconds, 90 seconds, 120 seconds, 150 seconds and 180 seconds.

Result: See the results below.

Comparing the color of the tea liquor across the first five steepings, the difference in color was most obvious with the first steeping. The silver kettle produced a darker-colored liquor than the electric tea kettle.

For the second steeping, the silver kettle still produced a darker liquor, while for the third to fifth steepings, the color was much more similar between kettles, with only a very faint difference.

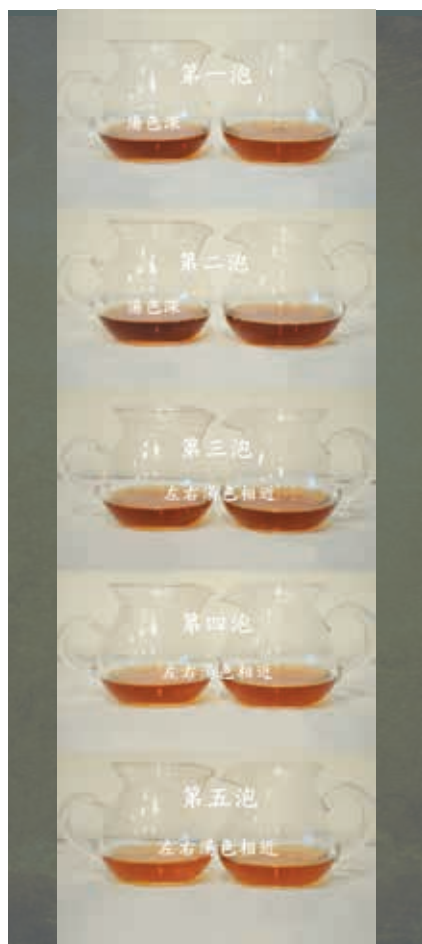
Experiment 2: Iron kettle versus electric tea kettle

As with the previous experiment, I used two different kettles to boil the water for brewing the tea, as shown on the next page at the bottom: an iron kettle and an electric tea kettle. This helps add context to the silver test.

Tea type: 5 grams of red tea. Brewed in a lidded cup, as shown.

Brewing time: 60 seconds for the first steeping, and an additional 30 seconds for each subsequent steeping. So the consecutive steeping times were 60 seconds, 90 seconds, 120 seconds, 150 seconds and 180 seconds.

Result: See the next page.



茶 The weights and steeping times were controlled, highlighting the kettles as much as possible. The left column of glass pitchers show the liquor from the ginbin; the right is the electric kettle.



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The results of the second experiment were that for steepings one to five, both kettles produced the same color of liquor, with almost no discernable difference.

Generally speaking, the factors that influence the color of the tea liquor include the level of oxidation in the leaf, the amount of tea leaf used, the water temperature, the water quality, the volume of water and the steeping time. This experiment controlled for all these variables, so they were identical between rounds.

Under normal circumstances, the expected result would be the one we saw in experiment 2: both kettles would produce the same color of tea liquor.

The key reason behind the change of color in experiment 1 is the silver ions released as the silver kettle heats the water. The silver ions increase the soluble substances in the tea, which results in a deeper-colored liquor. From the results of this experiment, we can see that the tea liquor brewed using water from the silver kettle really is a different color than the tea from the

other two types of kettle. Even the fragrance, flavor and texture are different. Unfortunately, language has its limits, and it's impossible to truly share the subjective experience of the differing sensory experiences with you through words on a page, so I have chosen to show the difference in color here to illustrate the effect of the silver ions.

Factors That Influence the Effect of Silver

As described above, silver kettles will very slowly release a minute quantity of silver ions into the water. By “very slowly,” we mean that silver will not start to affect the water immediately after coming into contact with it; rather, the silver needs to sit in the water for quite a while before it will start to release the silver ions. I have experimented with putting a lump or disc of silver into some water when boiling it to brew tea, then observing whether it had a similar effect to using a silver kettle; I was not able to detect any change.

Because silver is a stable metal, it doesn't release silver ions immediately even when placed in water. Given this, why does using a silver kettle to boil the water have a noticeable effect?

According to current knowledge, the factors that can influence the rate at which silver releases silver ions in water include the purity of the silver, the temperature, the area of contact between the silver and the water, and the technique used to make the kettle. The manufacturing technique is a key factor, and can be divided into two main types.

Casting

Generally speaking, the main crafting methods for silver kettles are casting and forging. Casting involves pouring the molten silver into a mold and waiting for it to cool—this is the same technique that is used to make cast iron kettles. The difference is that pure silver, which melts at high temperatures, has more internal cohesion than molten iron.



茶 Once again all the factors were controlled to focus on the differences between the kettles. The left column of pitchers hold the liquor from the tetsubin; the right is from the electric kettle.



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This means that no matter how you shake it around, the silver will coagulate into a blob, a bit like an egg yolk (shown in the photograph below). Unlike molten iron, it won't become completely liquefied, so it doesn't have the fluidity of water or other liquids.

So when the molten silver is poured into the mold, it behaves a bit like thick melted chocolate: as it slowly settles into the mold, the temperature will drop below melting point and it will start to set before it has completely filled up the mold. The end result is that when the mold is opened, the piece may have holes or indentations that are impossible to predict, or may even completely fail to form the proper shape.

So, in order to successfully cast the kettle in the desired shape, other metals are often added to increase the fluidity. Of course, this decreases the purity of the silver, which means that cast silver kettles are often less pure than kettles forged from silver sheet. The effects on tea liquor will also be noticeable. There is a subjective and objective difference

between these two very different methods of making a *ginbin*. We will focus on the objective differences here.

Forging

The difference between forging and casting is that forging doesn't involve pouring molten metal into a mold. Rather, it makes use of the metal's malleability to shape the kettle out of sheet metal using physical force such as beating and hammering. Currently, forged silver kettles fall into three main categories:

1. *Completely handmade: these kettles are beaten into shape completely by hand.*
2. *Partially handmade: these kettles are machine-worked to achieve the basic shape, then are refined by hand.*
3. *Machine-made: these kettles are totally machine-processed.*

A detailed discussion of these three types is beyond the scope of this article, so we will leave that aside until next time.

Forging & Silver Ions

Why does forging have such a critical impact on the effectiveness of silver kettles? As described above, forging makes use of the metal's malleability, gradually beating the pot into shape out of sheet metal. During this process, the more the metal is beaten, the harder it becomes. This is because when the metal is subjected to outside force, the crystals within the silver move relative to each other, which causes stress in the metal. The more the silver is beaten, the more pronounced the movement and the more stress it produces, which is why the metal becomes increasingly harder. If the stress continues past what the malleability of the metal can withstand, then the sheet metal will fracture.



✂ To the direct left, we see that the state of melted silver is like egg yolk, congealing together. Below, we see a cast silver kettle with a purity of 99.9%. You can clearly see the difference in the color and texture of the silver, especially when compared to the *ginbin* shown to the right on the next page, which is hand-forged. The silver very different in color, crystalline structure and a subjective feeling of "purity," like white snow. Also, if you look closely, you can see the hammer marks. Scientifically, the cast kettle actually has a higher purity of silver. The hand-forged one to the right is 97.5%, but it still feels and looks more "pure." The water from these two different types of *ginbin* is, in our experience, very different and also affects tea liquor differently.



So, once the metal has reached a certain degree of hardness, it needs to be heat-treated to avoid it breaking. This step is called “annealing.”

Annealing involves re-heating the metal to a certain temperature, which alleviates the tension in the metal. It reforms the crystal structure so that the metal regains its original softness from before it was beaten. To put it simply, once the beaten metal reaches a certain hardness, it must be annealed; after annealing, the silver sheet will regain its original softness and malleability, readying it for the next round of hammering.

A fully hand-made silver kettle requires about twenty rounds or more of beating to form it from the original silver sheet into its final shape. How often it is annealed varies depending on the individual requirements of the pot; some pieces are annealed after every round of shaping, while some are only annealed every two to three rounds.

From my personal experience of hand-making silver *kensui* (建水, Japanese-style rinse-water receptacles), I’ve

found that the whole process, from silver sheet to finished product, requires around eighteen rounds of beating, and ten or more rounds of annealing. So you can see that the process of annealing is employed frequently when forging silver kettles.

The reason that forging has such a crucial influence on the effectiveness of a silver kettle is that every time the crystal structure within the metal is reformed through the annealing process, the atoms within the silver are rearranged. Producing one hand-made silver kettle generally requires tens of thousands of individual blows and several rounds of annealing. The finished product, although it still looks like silver, has a different internal structure and atomic arrangement than when it started out as a silver sheet. Various other properties are also changed—for example, it will now release silver ions at a faster rate than before the forging process.

To look at it from another angle, the forging process “activates” the silver in a certain way and speeds up its release

of silver ions. Silver purity being more or less equal, forged silver kettles produce better tea than cast silver kettles, and fully hand-made forged kettles are superior to partially hand-made or machine-made ones. I think it would be fair to say that the best *ginbins* are all hand-forged.

Choosing the Right Tea

For those who use silver kettles, the most important questions are: “Will silver kettles produce better tea?” and “Which teas are they are best suited to?” Will a silver kettle improve a certain tea, or quite the opposite? In fact, the answer lies in the quality of the tea. From the explanation earlier in this article, we know that silver kettles’ ability to bring out the character of the tea mainly comes from the silver ions that are released as the water heats. The combined effect of the water temperature and the silver ions releases and combines various substances in the tea.





茶 These photographs offer us a glimpse into the process of hand-forging a ginbin. This skill, like all tea skills, can take decades to master properly. One kettle can take days, weeks or even months to complete. There is also a change in the silver, physically and energetically, from all the hammering and annealing. Maybe some of the energetic difference, like all things handmade, comes from the heart, devotion and skill of the maker. Overall, we find the differences in ginbin production to be commensurate with the differences between hand-made and mold-made Yixing Zisha teapots.

This increases the amount of soluble substances and resulting in a more fragrant tea, a sweeter and smoother liquor with a more full-bodied flavor.

Put simply, the silver ions don't change the original character of the tea; they simply make the qualities of fragrance, sweetness, weight and smoothness more pronounced. So the silver ions effectively act like a magnifying glass, amplifying both the good and bad qualities of the tea.

With good quality tea, a silver kettle's magnifying effect can bring out the merits of the tea, making for an extra fragrant, flavorful liquor. Thanks to their silver ions, silver kettles can actualize the tea's innate qualities, an effect that cannot be found with other types of water-boiling vessels. Because of this "magnifying glass" effect, veteran tea drinkers will often use silver kettles as a tool for judging the quality of a tea, leading some to nickname silver kettles

the "magic mirror" of tea. There really is no greater way to test a tea's merits.

To summarize the experience of many silver kettle enthusiasts, there are two opposing camps. Some see silver kettles as an excellent vessel for boiling water, particularly good for bringing out the distinct flavor of the tea. Others, however, feel that these kettles don't produce ideal results when brewing tea; sometimes the liquor they produce is fantastic, and other times it's quite poor in quality. From this comes the saying "the silver kettle chooses the tea." In reality, you simply need to understand the characteristics of silver kettles and their effect on tea, and you'll understand how to choose the most suitable teas. It's just like Zisha (purple-sand) clay pots: there are various different kinds of clay, such as *zhuni* (vermillion), *duanni* (yellow) and *hongni* (red), and different types of tea are best suited to each kind. If you un-

derstand the relationship between the tea and the type of clay, then you won't use an ill-matched combination of tea and pot that would have a negative effect on the tea liquor. So, which types of tea are best suited to brewing using a silver kettle? Because there are so many different teas out there, I will simply offer a few general principles for you to consider, based on my own years of experience.

Young & Greener Tea

From the point of view of the age of the tea, silver kettles do well with new tea and aged tea that is almost fully post-fermented. Silver kettles give an extra boost to the fragrance and sweet, refreshing flavor of young teas. I once did an experiment with some of my tea companions: we chose some Taiwan-



從天堂通過心靈到大地

ese high mountain oolong and paired it with a Qing Dynasty (1644–1911) *zhuni* clay teapot, and set up two experimental groups using a silver kettle, a pottery kettle and an electric tea kettle to boil the water. When comparing the two groups, the high mountain oolong brewed using water from the silver kettle showed a more pronounced high mountain character, sweet fragrance and cool, fresh *gan* sensation, earning the praise of everyone who took part.

We can also take another type of tea as an example: old-growth Yunnan puerh. This tea is grown in an exceptional natural environment; the ancient trees, many of which are over a hundred years old, all have lush foliage and deep roots which allow them to fully absorb nutrients like minerals and trace elements from the deeper soil layers. All this results in a distinctive full-bodied tea with a wonderful flavor. For many years, my friends and I

have been using silver kettles to heat our water for tea. When drinking new puerh spring teas such as Lao Ban-zhang, Bohe Tang or Yibang Mao Er-duo (“Cat’s Ear”) tea, we’ve found that the silver kettles truly elevate the qualities of the tea: the thick, viscous texture of the tea liquor from old-growth trees; the unique fragrance and smooth mouthfeel. So, if we consider the water-boiling vessel only, silver kettles are an outstanding choice for brewing young old-growth sheng puerh.

Old Tea

By “old tea,” we mean aged tea that has been stored well and has nearly completed the post-fermentation process, and does not need the additional “beautification” that some other types of kettle can provide. Some examples

are antique puerh, masterpiece-era puerh that is more than seventy years old (full maturity) and old loose-leaf puerh, as well as oolong that has been aged for more than fifty years and other vintage tea varieties like Liu An or Liu Bao. Aside from enhancing the wonderful “aged” fragrance of these teas, it also increases the amount of soluble substances in the liquor, lending an extra layer of complexity and refinement to the rich, condensed flavor of these old teas and making them even more enchanting.

Many kettles improve old tea. Iron tetsubins, for example, add flavor and sometimes depth. We have found that the purity, fragrance and flavor of old tea are all amplified greatly when using a silver kettle. We would therefore recommend that you try one with your aged tea if you can find one at a price you can afford. You may find that you never want to return to your old kettle.

CONCLUSION

結論

Although silver kettles are now used by many Chajin and tea enthusiasts, there are still many differing opinions out there regarding these kettles. In light of this, this article has aimed to provide readers with an understanding of the real-life effects of silver kettles when used to boil water for tea. We've discussed the way that silver kettles enhance the character of the tea, and the function of silver ions in bringing out the characteristics of fragrance, sweetness, weight and smoothness. There are many more subjective effects *ginbins* have on tea, but I have left them out of this article as they are hard to convey without sitting, sharing tea and discussing the experience of using a *ginbin* together.

The *ginbins* out there on the market can be roughly grouped into different manufacturing methods: cast, forged and machine-made. Silver is a stable metal that gradually releases silver ions, and kettles made in different ways release silver ions at different rates. So, people who use these kettles will notice different results depending on the individual kettle, which explains the varying range of opinions about them.

Despite these differing takes, if we compare cast, forged and machine-made kettles, only forged *ginbins* undergo a beating process involving more than ten thousand individual blows, plus several rounds of annealing, which leaves the internal structure and atomic configuration different from ordinary silver. When altered by this process, silver releases silver ions at a faster rate. So, if we take manufacturing method as the sole factor, forged silver kettles are more effective at bringing out the character of the tea. If cost isn't a factor, a hand-forged *ginbin* is really the best there is.

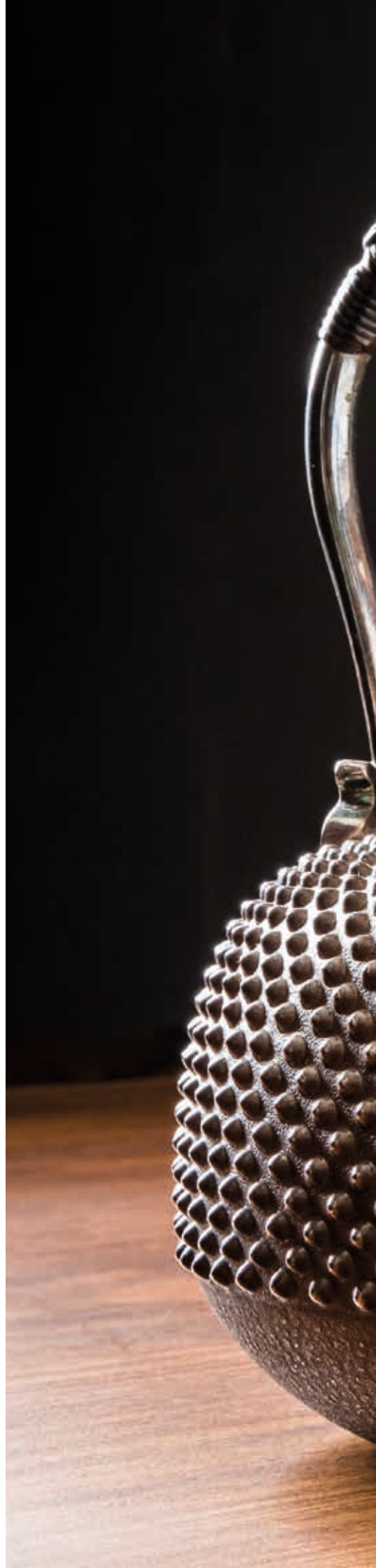
Another factor that can influence the user's opinion of silver kettles is the type of tea selected. Because of the "magnifying" effect caused by the silver ions, silver kettles generally tend to give the best results with young tea and

very old aged tea. So, under the amplifying effect of a silver kettle, both the "new" and "aged" qualities of the tea become more pronounced, which can lead to a conflicted flavor and variable quality in the tea liquor.

Tea comes in a myriad of varieties, all with their own distinct flavor and character, so it's very difficult to do justice to every tea with a single type of water-boiling vessel. Various types of clay, including Zisha purple-sand clay, all have a different effect on the tea, so each is naturally better suited to different types of tea. It's simply a matter of first taking the time to understand the characteristics of the vessel and the tea so as to choose an ideal match. In this way, we can bring water, tea and vessel together to produce the elusive perfect brew.



✿ This is one of our favorite *ginbin* here at the Center. It is very old, completely hand-forged and makes exquisite water. It has a "singer" in it, which is a small protrusion with holes that makes the kettle sing when it boils and also changes the energy of the water. We will talk about "singers" and other details of *ginbins* in a future, part two issue of Global Tea Hut devoted to silver kettles.







The Craft & Quality of Silver Ginbin

銀壺的工藝和品質

茶人: Liang Jun Zhi (梁俊智)

Here we go deeper yet into the portal of silver ginbins, exploring the silver purity and crafting techniques used to make ginbins. After the articles in this issue, we can then turn to the decorations and details of the craft in a future, part two, ginbin issue of Global Tea Hut. The art and craft of any area of tea is unbelievably vast, and the more you study, the deeper the tradition, science, knowledge and skill goes, dating back centuries in the case of ginbins. Still, this issue is a marvelous introduction to the topic, and offers the context from which a deeper conversation can be had in a future issue.

In the previous article, I introduced the basics about silver kettles, including their essential characteristics and their effect on tea. In this article, we'll continue to discuss the question: What are silver kettles? We'll look at topics such as the standard and definition of "pure silver," as well as the different types and shapes of silver kettles that exist.

As their name suggests, silver kettles, or "ginbin (銀瓶)" in Japanese, are vessels made of silver and used for boiling water for tea. The name can also refer to silver teapots for brewing tea. However, we can give them a more precise definition: "a kettle or teapot made out of silver and crafted using metalwork techniques such as casting, forging or machine-spinning." Most of the examples familiar to us today are pure silver pots from Japan, and the purity of the silver is widely considered a criterion for judging the quality of these vessels. Since some readers might

not be familiar with the concepts surrounding what qualifies as pure silver, I'll start with an explanation of this point.

Pure Silver

Ordinarily, when we talk about "pure silver," we're referring to the current international standard of 925 sterling silver. Sterling silver dates back to 13th century England, where a silver content of 92.5% was officially designated as the standard for pure silver, and items meeting this criteria were stamped with the word "Sterling" and a lion's head insignia. The use of the 925 designation originated with the jeweler Tiffany & Co. in 1851, when the company began engraving the numerals on each item to indicate the composition of the metal (92.5% silver and 7.5% other metal). It grad-

ually became the standard designation for pure silver throughout the western world.

In reality, the standard for what constitutes "pure silver" varies to an extent from place to place. For example, Tiffany & Co. found that 999 silver was too soft for use in jewelry and other items, and easily became bent or misshapen. So, they began using 925 sterling silver to increase their silver products' durability and luster.

Up until recently, the standard for pure silver in modern-day Japan, as designated by Japan Mint, was 1000 silver—in other words, almost 100% silver (with a 0.002% margin of error). From April 2012, in order to conform with international standards, the definition was changed to 999 silver—metal that contains at least 99.9% silver. Therefore, purity and what that means has changed over time, making the situation rather confusing for collectors of kettles.





Generally, people tend to take the term “pure silver” literally and think of it as referring to 999 silver. If you are looking for a definitive standard for pure silver, then yes, 999 silver is the most fitting answer. But in reality, other definitions have arisen depending on the time period, location and other surrounding circumstances. So, “pure silver” doesn’t necessarily designate 999 silver; it can vary depending on the situation. In the following discussion of pure silver as it pertains to Japanese silver kettles, we’ll see an example of this.

Japanese Ginbins & Purity

When it comes to the Japanese *ginbins* around on the market, from the Edo period through to the present day, standards regarding what constitutes pure silver vary according to the vintage of the piece. These pots can be roughly divided into three categories based on the indicator of silver purity.

In traditional metal crafting in early Japan, the name “Nanryo (南鑠)” was the most common designation used to represent pure silver. This name is often seen on the pieces of famous masters from the Edo, Meiji and Taishō eras, such as Nakagawa Joekei and Kitamura Shizuka. Generally speaking, this type of kettle doesn’t bear any inscription indicating that it’s pure silver, or any other descriptor related to the quality of the silver; instead, they are engraved with the signature and seal of the maker. The quality of the silver was instead indicated by writing “Nanryo” on the wooden box that the kettle was packed in.

Most silver pieces bear inscriptions such as “Pure Silver” or “Made of Silver.” This practice dates back to the Tenshodo company during the Meiji era.

Tenshodo was not a traditional metalwork studio, nor is the name associated with a specific master craftsman; rather, it was a company that employed various artisans and metalworkers to produce silver implements

according to demand. Essentially, it functioned as a sort of specialty store that sold silver and gold items. To differentiate their products on the market, the company began marking its pieces with the type of metal, the degree of purity and their logo as a guarantee of quality for their precious metal products. Since Tenshodo, similar brands and merchants of precious metal arts all adopted this type of practice.

Indications of Purity

In 1929, the fourth year of the Shōwa Era (1926–1989), due to the proliferation of counterfeit goods with low metal purity, the financial authorities announced new regulations for the authentication of precious metal products. The task of testing metal purity and establishing a symbol for it was entrusted to the Japan Mint. The regulations did not make it compulsory for precious metal items to be taken to the Mint for testing; rather, people could take their items in on a voluntary ba-



茶 Often, antique ginbins will just have the name of the “house (號)” on them, like a brand. Many such pieces were actually made by several apprentices working together, which allowed the factory to produce more kettles each month. That way, the apprentice who showed some skill in making spouts would be assigned to doing that, etc. The master would then work on his own kettles, while also pausing to walk around the workshop and help the apprentices. To the far left on the opposite page, we see a glorious example of a master-made kettle that was completed by hand. To the immediate left, we see an example of a studio or “house” branded seal under the lid of a kettle that was most likely produced by apprentices, though the master may have touched all the kettles. Below left, we see that the name of the studio is also written and stamped onto the wooden box used for the kettle. Bottom right is the master’s signature. This is the underside of the lid of the kettle shown on the opposite page. All these kettles come from the famous “Zhong Chuan Jing Yi (中川淨益)” studio.



sis to be inspected and marked with the symbol if they passed. The mark indicated “999 Pure Silver”; from left to right, it included the name or description of the material (“Pure Silver” or “Made of Silver,” for example), the Japanese flag and the numerals representing the purity of the silver.

These three elements are common ways of indicating silver quality in Japanese silver kettles. For the first two categories, since these pieces date back a long way, they only have words such as “Pure Silver” or “Nanryo,” so it’s very difficult to estimate the actual purity. According to a report I read by a Japanese expert, among the kettles of these two types that have been scientifically tested, the silver purity generally fell somewhere between 925 and 975. So according to the international 925 standard, these pieces qualify as “pure silver.” However, as we shall see, this qualification varies.

People who use or collect Japanese silver kettles are usually quite concerned about silver purity, believing that the higher the silver purity, the

better the tea. Some people also think that the purer the silver, the higher the value of the piece. There is certainly some logic behind these two ways of thinking, so I will elaborate on these below.

1. Silver purity and actual effect on the tea liquor.

Once the silver purity reaches a certain point, such as 925 silver and above, the difference in the flavor of the tea becomes quite negligible and is not easy to discern. At this point, the differentiating factor that influences water quality is the other metal added to the silver—copper, for example. For those with very sensitive palates, this leaves a slight taste in the water which comes from the oxide in the added metal. Because the alloy metal is added in such a tiny ratio, most people won’t discern this taste without a very careful side-by-side comparison. Of course, as the silver purity increases, the ratio of the other metal decreases, so the flavor

caused by the oxide in the metal will naturally diminish.

2. Silver purity and actual price of the kettle at the time of writing.

The international price of 999 silver at the time of writing this article (January 23rd, 2018) was US \$17.11 per ounce, or 3.25 Chinese RMB per gram. Based on this, the price per gram was US \$0.5500992, or 16.17 New Taiwan Dollars (rounded to two decimal places) according to the exchange rate at the time. So if we compared the actual prices for 1000 grams of 999 silver and 925 silver (which would actually contain 925 grams of silver), they are actually very similar.

According to this, the prices for 1000 grams were 1213.75 New Taiwan Dollars and 263.25 RMB. But if we take into account the processing costs for 925 silver at the time, the price of 925 silver was actually slightly higher than that of 999 silver. So the difference in price between 925, 975 and 999 silver is really not large.

So, in light of the two points above, once a silver kettle reaches a certain degree of purity, the exact figure really doesn't make a big difference to its price or its effectiveness. What really influences these things is the crafting technique used to make the kettle. Below is a clear overview of silver kettle crafting methods.

Categories & Types of Ginbins

In terms of crafting method, the silver kettles found on the market today fall into three main categories, which we can cover now in greater depth than in the last article.

Cast Ginbins

The casting method involves pouring hot molten silver into a prepared mold then waiting for it to cool into its final shape. This is the same method used for Japanese *tetsubin*—cast-iron kettles. These days, the casting pro-

cess is widely used in making various metal implements and parts, and there are many different casting techniques and variations. Among the silver kettles that are around today, there are two main types that are most often encountered: sand cast and wax cast kettles. Both techniques are commonly used for Japanese silver kettles.

Sand Casting

This technique uses a sand mold, which is a bisque-fired (unglazed) mold usually made from a mix of casting sand and clay, consisting of two halves which fit together either horizontally or vertically. The mold has an opening for the molten metal to be poured in, which is called a "sprue." After the metal has been poured in and allowed to cool, the finished piece can be removed from the mold. Silver kettles made using the sand-casting method can be identified by the same characteristics often seen in Japanese cast-iron kettles (*tetsubin*): the first is a visible line on the kettle where the two halves (left and right or upper and

lower) of the mold joined (see the image below) and the second is a round hollow on the base where the metal was poured into the mold.

Wax Casting

In this process, the shape of the kettle is first modeled out of wax, then covered in casting sand and heated. As it heats, the solid wax melts and flows out of the sand shell, leaving an empty mold. Then the molten silver is poured in. After it cools, the outer layer of sand is removed to reveal the finished piece. The wax casting method has several distinguishing characteristics, listed below:

1. *Single-use molds: The cast item is enclosed by the sand mold, so to take out the finished piece the mold must be broken off and destroyed. So, each mold can only be used to produce one piece.*
2. *Lack of join line: Since the mold is formed in one piece and not in two removable halves, there is no join line on the finished piece.*



3. *Three-dimensional patterns or designs: With the sand-casting method, designs or writing can be added to the kettle by carving them into the sand mold before it is fired. By comparison, with the wax-casting method, three-dimensional patterns or designs can be modeled directly in wax. These result in a more three-dimensional, raised effect. For example, in the popular “beast head” style of pot, the sculpted animal which forms the kettle’s spout is almost always wax cast, whether in iron or silver.*

Machine-Spun Ginbins

Spinning is a common modern method of machine-producing kettles. A sheet of metal (which is often circular) is fixed to a mold in the spinning machine; the machine rapidly spins on its axis, turning both the mold and the sheet metal. A cutting tool puts pressure on the sheet metal, causing parts of it to change shape. After many rounds of this shaping process, the sheet metal gradually conforms to the shape of the mold, forming its final shape. Usually, the mold in the spinning machine will

be switched out several times according to how the shape of the piece is progressing. Molds with varying curvature are used to form the final shape of the piece. For silver kettles, an array of different molds will be used to spin the kettle to the required shape.

In principle, this spinning process is very similar to the process of hand-spinning pottery on a potter’s wheel: it combines pressure and a spinning motion to shape the vessel. Because of this, machine-spun implements are similar in appearance to hand-spun pottery, displaying traces of the manufacturing process in the shape of concentric circles.

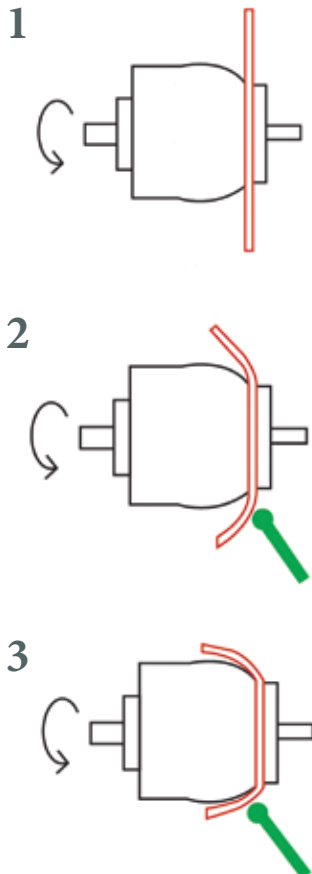
Advantages:

The advantage of machine-spinning is that it’s very fast. With silver kettles, it only takes ten minutes to achieve the basic shape of the pot. Contrasting this with hand-forging, which often takes several days, weeks or even months to make one kettle, there’s really no comparison in terms of efficiency. So in terms of manufacturing costs, compared to hand-forging, machine-spinning not only saves labor hours, but it

also makes the manufacturing process much less challenging, so artisans no longer need to train for many years to learn it. So of course, the price of these kettles is also lower. In Japan, this type of spun kettle had already begun to emerge during the mid-late Shōwa era, and today this method is very widespread. Observant Japanese silver kettle collectors or enthusiasts may wonder: why is it that the same type of silver kettle or teapot (kyūsu) can vary so wildly in price between each studio or artisan? The mystery behind this is simply the difference between hand-made and machine-made vessels.

Forged Ginbins

Of the kettles we see today, many are lauded as “hand-forged.” So, what is hand-forging? Put simply, it involves hand-beating sheet silver with a hammer against various types of anvil. After repeated hammering, various parts of the kettle take shape: the main body, the spout, the handle, the lid and so on. Finally, these parts are all welded together to form a finished vessel that is ready for decoration.

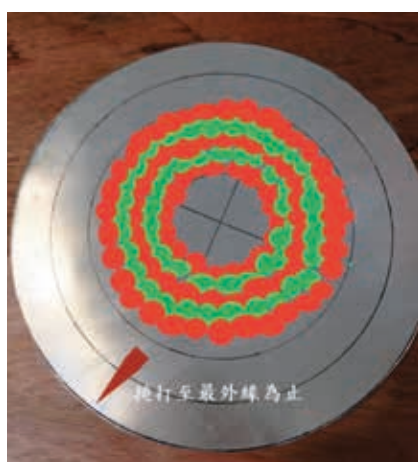


茶 On the opposite page we see two cast ginbins. The right one is sand-cast, and the arrow points to the joint (not to be confused with the joint of a hand-forged ginbin). The left kettle is wax cast, as is evident from the details. In the diagrams to the immediate left, we see the process of making machine-spun ginbins. The red represents the sheet of silver. As the machine is spun a tool is pressed against the silver (shown in green) and the silver is bent into the desired shape. Below we see a finished machine-spun ginbin. The arrow points out the details to look for. One can clearly see the spin marks on the finished piece.





茶 To the left we see a diagram of the tools used to hand-forge ginbin. The bottom left photograph shows the direction the hammering happens, from the center to the outward edges. Below we see details of the piece slowly taking shape after days, weeks or even months of hammering (thousands of blows) along with regular annealing. On the top of the opposite page, we see details of the differences between a machine-spun and half-hand-forged ginbin. The hammer marks and spin marks of the two pieces are quite distinct and easy to see. However, if you look more closely, you can still see the spin marks underneath the hammer marks (right). The bottom two pictures are a fully hand-forged piece. This brings up an ambiguity in ginbin production. There are half-hand-forged pieces that incorporate as much annealing and hammering, or close to it, as fully hand-forged, and thereby affect tea the same. Then, there are also hand-forged pieces that are then burnished smooth, making the hammer marks faint or even removing them entirely. We will cover decorations, burnishing and more in a future, part two issue devoted to ginbins.



Compared to the machine-spun kettles described above, hand-forged kettles are much more time-consuming to make. We can take the main body of the kettle as an example of this. The bottom left image above represents the process of one round of hammering: toward the bottom of the kettle, the hammering is done in sequential circles up to the outermost edge. The trajectory of each circle is marked in red and green. The red and green dots differ in terms of size and placement—this indicates variations in the force and placement of the artisan's hammer blows. When the dots fill the surface up right to the edge, this indicates the completion of one round of beating. The whole process, from silver sheet to a fully-formed kettle body, usually takes more than twenty rounds of the beating sequence similar to that described here. Such a complicated beating process takes far longer than the time needed to create a kettle body using the machine-spinning

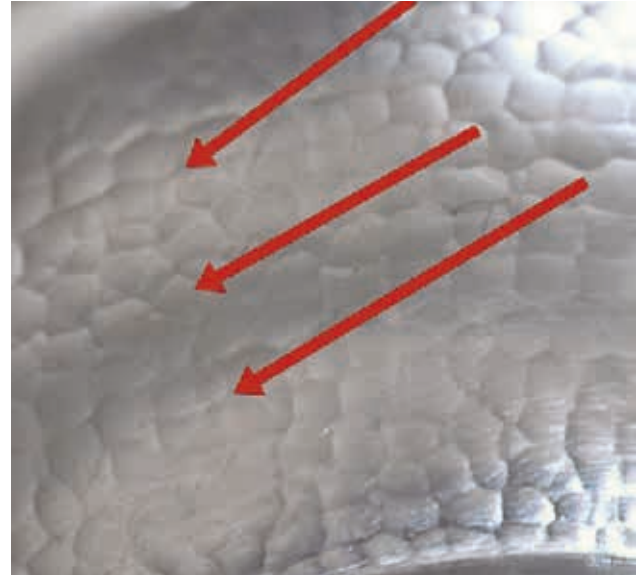
method (just ten minutes). In fact, it can take up to months to finish a single hand-forged kettle.

Aside from being time-consuming, making hand-forged kettles requires a lot of skill and training. Besides the body of the kettle, the artisan must also learn how to make the spout, handle and lid, plus how to weld them all together. In the past, Japanese metalsmiths underwent rigorous training; each skill took years to refine. To train a master artisan to the point of being able to independently forge all the parts of a kettle (body, spout, handle, lid) and weld them together into a finished piece, would take a decade or more. Because of this, another way of managing workflow arose: dividing the work to mass-produce kettles. This involved delegating each kettle part to a specialized artisan to produce a standardized end product. The advantages of this approach were that each metalsmith no longer needed to dedicate so many years to training,

and it allowed for faster mass output. Many historical Japanese silver kettle workshops employed this approach, so many of their kettle styles are extremely similar. Pots that were made by one individual master would usually be stamped or engraved with the maker's signature or personal artist's seal.

Partial Hand-Forging

With partial hand-forging, the body of the pot is machine-spun to quickly achieve its basic shape, then the details and individual parts are finished by hand. Strictly speaking, these kettles are machine-spun, but they also undergo hand-beating and refining at the end, so they're categorized as partially hand-forged. Because they can be produced very quickly, greatly reducing labor hours, they can also be sold for much lower prices. Many of the lower-priced new silver kettles available today are made using this meth-



od. For example, looking at the top left image above, the goal of leaving hammer marks on the inside of the kettle is to cover up the circular traces left behind by the machine-spinning process. If you look closely, though, the machine traces are still faintly visible.

Identifying Technique

Identifying Cast Ginbins

Because pure silver does not become fluid enough when melted, another metal is usually added before casting to improve its fluidity. Aside from substantially decreasing the purity, adding another metal to form an alloy also makes the material much harder than in kettles made with the other two production methods. The surface of cast silver kettles will display holes of various sizes, called sand holes. The sides of cast silver ket-

tles vary in thickness, and on average are thicker than those of forged or machine-made kettles. This means that cast silver kettles tend to be the heaviest of the three types.

Identifying Machine-Made Ginbins

Machine-spun kettles display circular marks on the inner and outer surfaces, which are the main identifier of a machine-made pot. With some of the new silver kettles on the market, these circular traces are polished away. Nonetheless, there is another way to identify machine-made pots: since they are shaped using even pressure during the machine-spinning process, they are almost completely symmetrical in shape. Of course, anything handmade will leave traces of the uniqueness of its creation. In fact, it is this spirit which makes such pieces so attractive, as they will always be unique, truly one-of-a-kind master-

pieces. We think this also influences the tea we prepare in subtle ways.

Identifying Forged Ginbins

With hand-forged kettles, there will always be some small discrepancies in the force and placement of the hammer blows. Even the most experienced artisan will have some degree of inaccuracy compared to a machine. So, hand-forged kettles can be identified by the hammer marks on their surface and traces of the anvil on the inside (arrow above). Even after the surface is polished up, you can still identify a forged kettle by looking from the center and comparing the left and right sides; they will be slightly different. The craft marks and hammer marks will also be visible, especially on the inside of the kettle. The easiest way to identify a fully hand-forged *ginbin*, though, is to look for the idiosyncrasies of the artist.

CONCLUSION

結論

Generally, any discussion of silver kettles is bound to involve the purity of the silver; perhaps this is due to the influence of Japanese pure silver kettles. In terms of the definition and standards for “pure silver” in Japanese silver kettles, the indicators of silver quality have varied by time and place over the last hundred years. Some examples of these indicators are “Nanryo Silver,” “Pure Silver” and the symbols used by the Japan Mint. Other than the Japan Mint’s numerical engravings, neither of the other two indicators, “Nanryo Silver” or “Pure Silver,” give a clear idea of the exact degree of purity. At the time they were used by metal artisans and workshops, these words on their own were recognized as sufficient guarantee of quality and trustworthiness.

But these days, this is no longer the case, as using the “Nanryo” or “Pure Silver” descriptors doesn’t tell people much about the actual silver quality. The only truly objective method is to test the purity using modern scientific instruments. According to one report by a Japanese expert, kettles that were tested bearing the “Nanryo” and “Pure Silver” inscriptions generally had a purity of 925 or above. By today’s international standards, this counts as pure silver.

Aside from purity, the key factor that really impacts the value of silver kettles as collectibles or useful implements is the crafting method. In terms of their effectiveness, in the first article on this topic, we covered the fact that forged silver kettles are superior for bringing out the character of the tea than cast or machine-made ones. The reasons for this are discussed in that article, so I won’t elaborate on them here.

In terms of the three types of kettles we’ve discussed in this article—cast silver, forged silver and machine-made—it’s not hard to see that hand-forged kettles take the most time and labor to make. In today’s scale economy,

where the pursuit of efficiency and mass-production are at the forefront, the craft of hand-forging silver kettles can no longer keep up with the times.

So why is it that, even today, hand-forged kettles are so popular among enthusiasts? The reason is simple. Although casting and machine-spinning make it easy to mass-produce and replicate kettles at a reduced cost, these methods simply can’t match the texture created by tens of thousands of individual hammer blows, or the beauty that the artisan imparts to the shape of each kettle. The heights of artistic and technical accomplishment pursued by the most renowned historical silver kettle artisans can be plainly seen when gazing upon one of their forged kettles. Hand-forged kettles are central to Japanese silver kettles as a genre.



茶 The pour from a silver ginbin is out of this world. This one is amongst the best we have at the Center in terms of pouring. If you look carefully, you can see the smoothness, silkiness and the slight twist of the flow frozen in time in this photograph. The amazing softness extends through the handle as well: the slightest gesture changes the speed and direction of the pour in a sometimes surreal way.







Voices from the Hut

For this month, we asked Erika to write about her amazing project to create an audiobook version of Tea Medicine. This project started out to help one Chajin, and has ended up changing the lives of many tea lovers around the world. Oftentimes, when we serve with a love for kindness, our project grows beyond our wildest dreams! If you would like to help bring this project to completion so we all can listen to the book that was recorded by Global Tea Hut members around the world, please visit this project's GoFundMe at bit.ly/TeaMedicine.

If you would like to contribute some writing to Voices from the Hut or have an idea for an interesting topic, you can reach Matthew on the Global Tea Hut app (in the "Voices from the Hut" section), on Instagram (IG: [foldedleaves](https://www.instagram.com/foldedleaves)), or at the email: voicesfromthehut@gmail.com. We cannot wait to read all the exciting articles to come!

THE VOICES OF TEA

茶人: Erika Houle

One of the greatest joys in being a part of this global community is finding support for and connecting through creative ventures—from collaborative *chabu* pieces to curating unique events. A number of you have participated in what has become a community project, turning the book *Tea Medicine* into an audiobook. Many of us have come to this community through Wu De's writings, like *The Way of Tea* and *Tea Medicine* or other books. The former is a great primer for folks new to Tea, while the latter dives a bit more deeply into what it means to approach Tea as a spiritual path and is a starter guide on how to begin to practice Cha Dao.

This project began as a gift for one person and has blossomed into an ongoing endeavor with much greater reach. A couple of years ago I met and befriended a young DJ at the college where I work. He had been struggling with the structure of our academic institution and often found solace in my office. As with many schools, there is little acknowledgment of students'

efforts if they do not meet the professors' expectations within the classroom context. This young man was full of personal initiative to create his own DJ business, but not necessarily to follow the prescribed path of the curriculum. This lack of acknowledgment within his social realm led him to numb his isolation by self-medicating with drugs and cigarettes. We became friends because I saw him as he was and celebrated his musical curiosity. As winter approached he spent more and more time in my office, passing time between classes and thus minimizing his trips back to the dorms. The long walk back to the dorms on icy paths was dangerous for him, as his vision is limited. A hot kettle only an arm's reach away from my desk, we enjoyed bowls of tea to stay warm. We shared our personal forms of medicine with one another: as he filled my Spotify account with his latest mixes, I poured bowl after bowl of tea.

After only a couple weeks it became apparent that he was ready to learn how to brew. I sensed he wanted

to repay the generosity and serve tea for me in return. So, I pulled out my *chabu* and bowls and showed him the basic steps of brewing leaves in a bowl. We took care to go slowly and practice the form, as his vision was limited and his hands cramped from a congenital condition. It didn't take much time to show this self-reliant young man the various steps; despite—or perhaps because of—a limited sense of vision, he was keenly perceptive and took to the process with a calm heart. Equipped with the tools, he came by regularly to brew tea for himself and his friends whenever I had to step away for class or a meeting. It seemed as if each lift of the kettle improved his posture, each washing of a bowl refined his fine motor skills, and each warming sip of tea soothed his anxiety and brightened his face. Over the next few months, while everyone else worried about this young man, I saw his eyes light up and his overall health improve. Such is the magic of tea, as many here can no doubt testify to. We are all touched in such ways.





My new friend was so in tune with the healing effects of Tea that I felt compelled to share some of the deeper wisdom found in *Tea Medicine*. However, his limited vision made sharing the printed book impossible. So I reached out to Wu De for permission to record it as an audiobook; he agreed, and each morning I began going to work early in order to use our sound recording booth to record. However, I was in a rather tumultuous time in my own life and found recording my own voice to be too challenging—it really helps to have someone else wearing the headphones to check for quality while the narrator focuses on the meaning of the words they are reading. Because of this, the idea of recording the entire book on my own felt insurmountable, so I decided to reach out for help. Inspired by the author's note that "this book contains the Tea wisdom from an entire community," I decided to open up the project to the community. Each chapter was to be recorded by a dif-

ferent Chajin from all over the world, where tea has traveled!

Since I am based in New York, about half of the chapters were recorded with New York Chajin in a corner of my apartment. Most of the time I would come home from a day at the office, prepare a sweet treat for my guest, and have a warm kettle ready right when they arrived. On one occasion, when the narrator preferred to record in the comfort of her home, I packed up the gear and traveled to her. However, instead of me serving the narrator tea before recording, she ended up serving me! These opportunities to warm up for a special purpose by sharing tea helped us to bond more deeply.

Some folks showed up to their recording session having practiced. Others arrived open to start fresh and take my guidance. Reading aloud can be nerve wracking enough for most people, but now these beautifully modest Chajin were also being recorded! How-

ever, motivated by the joy of spreading Tea wisdom, each narrator set aside self-consciousness and overcame their fears. My very first narrator came without having practiced at all. He read very slowly to remain steady, and I could feel his earnest desire to pour his heart into the words despite a deep nervousness. Instead of stopping him midway due to a shaky performance, I simply held the space as he climbed the mountain on his own, witnessing his great effort.

It was an honor to quietly hold space for this friend, and for each narrator who recorded with me as they found achievement on their own. With each slip of the tongue, I filled my heart with Kuanyin's compassion in order to provide support. When they really got stuck, I lightened the mood with a joke or gave reassuring guidance. Some narrators who had started out nervous said at the end of our recording session that they had so much fun that they wished it wasn't over.

Tea Medicine Audiobook

Join our campaign to raise completion costs for an audiobook version of *Tea Medicine* by Wu De. Once completed, the profits from this audiobook will go to support our new donation-based Tea & Zen Center, Light Meets Life. Please share this campaign with your fellow tea lovers, friends and family!

For each donation of \$40 or more, you will receive a digital copy of the audiobook.

bit.ly/TeaMedicine

I even snagged a few recordings with the folks at the Tea Sage Hut during my last visit to Taiwan. Since their lives revolve around Tea and Zen, their readings were particularly imbued with the meaning of the lessons expounded in *Tea Medicine*. The rest of the chapters were individually recorded by various Global Tea Hut members around the world, each of whom had either been nominated or volunteered themselves to lend voice to this project. Their recordings contributed diverse accents and a particular, delightful charm.

Soon enough, the chapters were all recorded, save for just a couple. Due to the twisty turns of our lives, gathering recordings from around the world turned out to be a much slower way to go about things! However, I am glad the project took this turn—the collaboration has deepened our community ties and enriched my life greatly. Simply knowing that we made something together to share our love of Tea brings

each of us closer together, and my collaborators know I am always on hand to return their generosity and share my unique skills. I have had the opportunity to practice beginner's mind listening to the text countless times, and instead of getting bored of hearing the words over and over again, I find myself giving attention to the particular manifestation of each take—the Tea wisdom contained in the text leaving the page and finding new life in each narrator's voice.

While the recording process is complete and editing has begun, there is still a way for you to be a part of this project and to support Light Meets Life! Since the chapters were recorded on different types of equipment and in a variety of locations, we have hired a professional sound engineer to edit and master the audio for a final polish. You can participate by contributing to the GoFundMe pre-sale campaign to cover the completion costs. Global Tea Hut members can get a copy of the audio-

book with only a \$40 donation. Since GoFundMe protects your privacy, make sure to send an email to teamedicineaudiobook@gmail.com to confirm your contribution. Your assistance in spreading the word is also helpful! If you share via Instagram, the link is in my profile (@mondundsonne). The proceeds from the audiobook will go to support your future tea center, Light Meets Life.

With a heart full of gratitude I would like to thank all of the participants for sharing their time and voices. I bow to each of you for your support thus far and for all of the support to come. Your generosity will spread Tea wisdom to new audiences and provide future ongoing support for Light Meets Life.



TeaWayfarer

Each month, we introduce one of the Global Tea Hut members to you in order to help you get to know more people in this growing international community. It's also to pay homage to the many manifestations that all this wonderful spirit and Tea are becoming as the Tea is drunk and becomes human. The energy of Tea fuels some great work in this world, and we are so honored to share glimpses of such beautiful people and their Tea. This month, we would like to introduce Katrine Friis Olsen.

I wouldn't be able to tell you when Tea first entered my life. As the most consumed beverage in the world besides water, and being born and raised in cold Northern Europe, my mum often drank red tea as black as coffee—almost rivaling the color of proper black tea, and making the misuse of the term somewhat understandable, at least in her case. But the realization that there was something special about this Leaf happened in my early teens, and came enclosed in a simple brown paper bag full of beautiful curled-up leaves. So different from the teabags I knew, these leaves looked foreign, like a window into another world, places of adventures, misty mountains and the kind of stories you write books about... A tea seed was planted, filling my cold Danish winters with aromas from the Far East while reading my mum's old leather-bound books from a time long past of arduous travels, great discoveries and a place I would eventually call home.

I first fell in love with Japanese tea. Popularized by the health wave during my late teens, and inspired by my cousin's manga-period, I discovered green tea and particularly matcha. The whisking, the bright green liquor and the large rustic bowls looking crude yet feeling so warm and natural in my hands, my fondness of “*wabi*” was born before I knew what to call it. This became a daily ritual into my twenties—my first vague step into tea as ceremony.

But it would take a long time of traveling and uprooting my life as I knew it to reveal the turning point in my journey, as serendipitous events eventually had me moving to Hong Kong, an old trading port intimately linked to the story of Tea. Suddenly those misty mountains that the little girl had once only dreamt of were all around her home, and a culture steeped in Tea was waiting right outside her doorstep...

This soon became apparent as an odd coincidence was that my new roommate suddenly took over a tea company and gave me an unexpected opportunity to do a formal tea course, learning about processing and categorization, and that led to my first meeting with gongfu tea. By now Tea seemed to be seeping into every corner of my life.

Naturally, this led me to our dear tea sister, Resham, and “Global Tea Hut” would time and again show up in various ways and conversations. The day I was finally able to attend a beautiful early morning ceremony served by Jaanus and Connor, although completely new to me, felt like the most natural thing in the world. My busy “doing” mind welcomed the stillness and this unexpected integration of body and mind through the Leaf, opening my eyes to Tea not just as a hobby or a healthy beverage, but as a mindset, a Dao. That day became my first as a Global Tea Hut member, and going home, I knew I was about to write a very different chapter in my Tea journey.

Since then, the “Great Connector” has connected and re-connected me to many essential things in life that years of traveling and moving halfway across the world had caused me to lose or



茶人: Katrine Friis Olsen, Denmark

forget: reconnecting to Nature and community, and putting aside my goals and my striving—surrendering to the moment. Now She is my grounding at work, my reminder to show up with more love, kindness and patience towards others and a deep sense of rooting that extends beyond physical location, while also teaching me valuable lessons about the culture in which Tea and my husband were born, my roots and love for Hong Kong and its people growing deeper with every sip. Cha Dao has meant a much-needed quiet in my life—like the pebbles on the beach rounded by the gentle waves, Tea has softened the sharp edges I had come to see as a “necessary part” of my job and fast-paced city life. Tea is also a standing invitation to stillness and a conversation about what this human experience means without all the fluff we surround ourselves with. To me Tea is a realization that I'm deeply connected to and inseparable from the world around me, the investment banker as well as the fallen leaves—my second best antidote for the occasional loneliness of traveling.

The best thing about Tea is being able to visit so many of you around the world, sharing a few bowls in silence and watching my jet lag evaporate like morning dew on a crisp Danish spring morning. I hope to repay all your kindness and hospitality one day. My Hong Kong home is always open, and the kettle is never far away from the stove.

Inside the Hut

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We need your help to get to a place where we can build your permanent Center, Light Meets Life. (And we do hope that you feel that our Center is yours, not ours.) Help us to spread the word about Global Tea Hut and Light Meets Life. As subscription increases, and tea/teaware sales rise, our financial power grows, and we move closer and closer to phase one, which is to purchase land. Once we have land, we think that the next phases of construction will happen faster and more smoothly.



Have you seen the new website? We hope it is an improvement for you all. We have some plans for the community section of the website, so stay tuned for some new ways to participate.



There are many new teas on the site, including some amazing new aged puerh teas. Friends continue to donate teas to us, hoping to raise money for Light Meets Life.



Our annual photography contest is on! One entry per person until August 31st. You can change your entry at any time if you want to. Visit the community section of our website to learn more and see entries, or email: teaphotocontest2020@gmail.com



We have a ton of new subscription models on the website. You can now order more and rarer teas to come with your Global Tea Hut magazine each month. There are options to receive a second tea, or three teas and a gift! We also have several new digital options, ranging from just the magazine to receiving the tea in the mail with a digital copy of the magazine emailed to you, saving the environment and our energy. Contact us if you have ideas for promoting these new options or if you want to change your current subscription.

Center News



Now that movement restrictions are lifting, we have started weekly trips out to visit possible sites where we could purchase land. We hope to find the right spot by the end of the year. We will share photographs and videos once we do find a potential spot!



We hope you stay excited for Light Meets Life. We want to involve you in the planning of what we hope you feel is your Center. The more form Light Meets Life takes, the more real it becomes. Please contact us with ideas about what you envision for the property and for the experience at ten-day courses. Perhaps you have an idea for a type of course you would like to see when we open. Please share your ideas with us. We hope to create a whole new calendar and curriculum for Light Meets Life. And it is your Center, after all!



We are still in rest and retreat mode right now, diving deeper into our practices and recuperating after years of service, all with the intention of gathering our strength to make Light Meets Life the best Center ever!

June Affirmation

I am bright and shiny

Do I spend time judging myself? I have done the best I could. My body, mind and spirit may be dented and dinged, but are bright and shiny, full of light and radiant.



www.globalteahut.org

The most shiny silver tea magazine in the world! Sharing rare organic teas, a magazine full of tea history, lore, translations, processing techniques and heritage, as well as the spiritual aspects of Cha Dao. And through it all, we make friends with fellow tea lovers from around the world.

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