

GLOBAL TEA HUT

國際茶亭

TEA & TAO MAGAZINE
May 2017

A GUIDE TO AGING PUERH TEA 茶

“BREAKTHROUGH”
MENGKU MAOCHA AS A STORAGE CANDIDATE

DECIDING ON AN YIXING TEAPOT



BREAKTHROUGH

There is a vast encyclopedic body of folk wisdom surrounding aged and aging puerh that goes back centuries. It's a topic worth steeping every couple years, discussing how to age tea as we check in on our own stash and see how it's faring, and also decide if we want to store a tea like this month's tea long term.

*Love is
changing the world
bowl by bowl*

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Lauren Stern, USA



精神突破

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From the Editor

In May, the year's harvests start rolling in and the tea lover starts to wonder what kind of weather she'll be drinking this year, since the differences in tea from year to year have much to do with changes in the climate. We try new teas and compare them to the old, finding much joy in tasting new teas like puerh alongside their elders—examples from previous years. This offers us the chance to understand the mystery of age in tea. We return now to lighter teas: occasionally a lightly-oxidized oolong, young sheng puerh and more rarely a white or green tea as well. The weather in Taiwan is beautiful this time of year, and these light teas herald the change in season, as they have since ancient times.

We have just returned from the largest-ever Annual Global Tea Hut tea trip, which reminds us to take the time and celebrate all the marvelous connections that have happened through this magazine-experience. I travel around the world, "making friends through tea," and seeing how those friendships are the seeds for others to meet, the community grows and grows. We have come a long way from twenty members and a black-and-white newsletter! As the new teas come in, and I am tasting the potential candidates for our annual Light Meets Life fundraiser, I feel a dreamy, poetic grace for the abundance surrounding and flowing through our global efforts to awaken tea spirit. Returning to the tea, I remember how many more bowls and cups there are to share and smile, invigorated and inspired to work hard again. And we have some great teas coming this year for you, including one I call "the dream," as I have been working with a farmer in Yunnan for several years to get it right and have finally done so!

Some of you may not know this, but I have begun studying photography in my quest to express tea spirit through these pages—hoping that some of the sentiments of being at the Hut or in tea ceremony are displayed to those who haven't yet attended a session, and inspiring those that have to put another kettle on and serve some more tea. I know I have a long way to go in achieving those aims, but I have devoted some time, love and energy to improving the images in this magazine. It therefore brings me great joy to announce one of my favorite times of year, and an inspiration for this magazine and for me personally: the beginning of our 2017 Annual Photography Contest. Any of you, and even those who are not Global Tea Hut members, can submit one photograph that you feel expresses tea spirit, and we'll choose winners later in the year, who will receive many wonderful prizes.

As Global Tea Hut gathers momentum, we feel more of a pressure to build the new Center, Light Meets Life. I personally do not feel compelled towards "more" and am content with the Center we have, Tea Sage Hut. I know that once we do move, those of us who enjoyed this smaller Cen-

ter will wax sentimental about the "glory days" when things were smaller. Still, I understand the merits of moving to a course schedule, for the benefit of everyone in this global community, and those yet to come. Imagine receiving a catalogue of the coming year's courses with your December Global Tea Hut and leafing through it, choosing from week-long to intensive ten-day courses on Cha Dao, various brewing methods taught at multiple levels (like Gongfu Tea I, II, III and IV, for example), linear courses on Oolong Tea, or even The Seven Genres of Tea, and of course, gatherings and retreats... As we turn potential guests away due to the fact that the Tea Sage Hut is constantly over-booked, the pressure to create the new Center grows. We are therefore going to find a way to incentivize your help in spreading the word. As you help us find new members who subscribe to Global Tea Hut, you will be eligible to receive Light Meets Life teas, teaware, rarer teas we enjoy here at the Hut, paintings, books and ultimately, even a free trip to the Center! We are currently working out the logistics of tracking this. Stay tuned to our social media for more details.

This is an exciting issue, as the new *maocha* arriving from Yunnan allows us some perspective on elder teas, like our Tea of the Month this time. Drinking these new teas also has sparked interest in exploring the aging of sheng puerh a bit more in depth than we have before, including some articles on the changes in puerh during its infancy through its youth, middle and old age. We have devoted much of this issue to aging puerh—sourcing good tea, how and where to age the tea, and much more! This issue is a testament to our goals of including more and more perspectives in each issue of Global Tea Hut, offering articles by a greater variety of authors and translating more. Once again, we have to thank Wuxing Publications for all their support!



—Further Readings—

This month, we will have some extra articles translated on the topic of aging puerh tea, as there is really much more than we can include in this issue. The September 2014 Extended Edition on Puerh is good background reading as well.

**Further Readings are posted on our blog.*

TEA OF THE MONTH

Over the course of this month, we are going to be discussing one of the questions we get asked the most often: “How do I store my puerh tea?” And this complicated question actually unravels into many other questions, as well, like where to store your tea or which tea to choose in the first place. Actually, this topic exceeds the parameters of this issue, and we may have to have some more discussions on the topic in later issues as well, but we hope to offer some different perspectives on storage that will help you navigate the tricky, island-strewn waters of puerh storage. And what would Global Tea Hut be without a tea to help explore the issue with the senses as well? Our Tea of the Month, Breakthrough, is a 2015 *maocha* that we enjoy drinking and have just made the decision to move into long-term storage. This is poignant, as it allows us to discuss the motivations for that decision. After all, we all have limited space for long-term storage, so it is important to choose the right teas to age. Breakthrough is the perfect tea to sip as we discuss puerh aging and fermentation, choosing the right tea for aging and also the very early stages of fermentation, since it is around two years old now.

Before we turn to aging, though, we should get our review of some puerh basics out of the way. These reviews are important as they help contextualize our discussions. Also, it is important to return to the fundamentals, refining them as you uncover new layers and

hone your understanding. Reviewing is fundamental to proper study habits, and is a very important method of learning and retaining information so that you can pass it on to your guests, or whomever asks you about the topic. Furthermore, not everyone has been sitting in this Hut for the same amount of time—some are new here. For these reasons and more, it is important for us to review basic material before moving on to a discussion of aging.

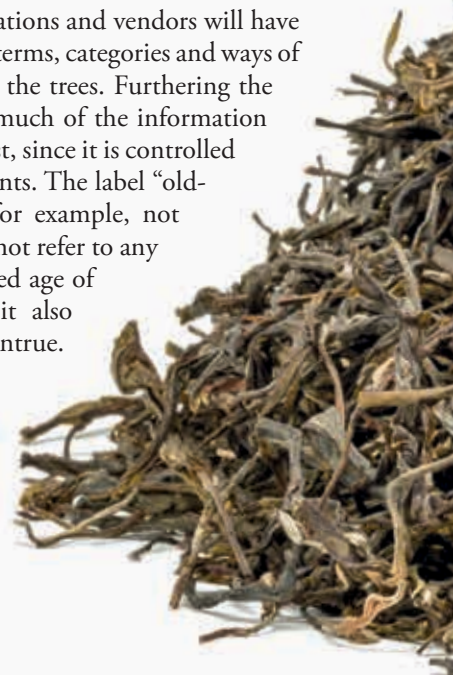
Trees & Gardens

Large-leaf tea varietals in Yunnan Province are concentrated in two main areas: western Yunnan and southern Yunnan. The Western Yunnan Tea Region includes the three prefectures of Lincang, Baoshan and Dehong, encompassing 19 towns and counties. It's the largest tea-producing region in Yunnan, making up 50.14% of the total area of tea-producing land, and accounting for 55.58% of Yunnan's yearly tea output. The Western Yunnan Tea Region has also been recognized as the most suitable area for growing Yunnan's large-leaf varietals.

Asia is the center of global tea production and accounts for 81.79% of the world's tea output. Overall, the areas where tea production is most concentrated are found in a band of latitude between 16° south and 23° north of the equator. Within this area, the Himalayas connect the world's two most important tea-producing

regions: India's Darjeeling and Assam, and China's Yunnan Province. After the Himalayas cross the border into China, they become the Hengduan Mountains: several parallel mountain ranges running from north to south. Together they form a U-shape, facing towards the Indian Ocean. Warm, humid winds blow across from the Indian Ocean to meet the majestic Himalayas and Hengduan mountains, creating a warm current in the surrounding area and forming an excellent biological environment. The world's top tea-producing regions are all located within this U-shaped area.

There is a lot of confusion surrounding the kinds of trees in Yunnan, and it can be difficult to navigate without standards. This means that different publications and vendors will have their own terms, categories and ways of explaining the trees. Furthering the problem, much of the information is dishonest, since it is controlled by merchants. The label “old-growth,” for example, not only does not refer to any standardized age of tree, but it also is often untrue.





Breakthrough



Mengku, Yunnan, China



2015 Sheng Puerh Tea



Bulang



~2500 Meters





There are way more cakes labeled “old-growth” than there is genuine old-growth raw material in the world, and by an order of several thousand times. At the Hut, we call tea “old-growth” when the trees are one hundred years old or more, and “ancient” when they get up near a thousand.

It is important to know that the size of the leaf does not help to determine if the tea is old-growth or not. Old trees still produce tiny, fresh buds, and small plantation trees also have large leaves. Tea in Yunnan is, after all, large-leaf varietals. This means that the trees are single-trunk, with roots that grow downwards; as opposed to small-leaf varietals, which evolved as tea moved north, naturally or carried by man. Small-leaf varietals have several trunks, with roots that grow outwards. Why the two categories are called “small-leaf” and “large-leaf” is because the leaves that are allowed to grow on the trees will be very different in size. In other words, you can pick small buds

from either, but if the leaves are left on the tree, the large-leaf trees will produce much larger leaves, which can be bigger than a person’s hand.

The issue is complicated, however, by certain so-called “dancing” varietals of large-leaf tea in Yunnan that branch right above ground into several trunks. It is also complicated by the fact that some farmers pollard their large-leaf trees. Pollarding means cutting the trunk so that it produces more trunks and then, the idea is, more leaves. There is, however, some research that proves that this doesn’t really increase yield. Pollarding is obviously not the healthiest option for the trees. It is also done sometimes to make picking more convenient, but we would choose to refer to that as “pruning,” to differentiate it from pollarding.

Another way of categorizing large-leaf tea is to call it “*chou mu* (喬木),” which means there is a single trunk, which grows up around a meter before branching. Though there are varietals

of large-leaf that branch lower down, there is still always a thick trunk, so the separation can be useful. Small-leaf tea branches immediately, like a bush. (Again, the “dancing” varietals of large-leaf tea trees are an exception, though their trunks are still thick just beneath ground level.)

To determine the age of a large-leaf, *chou mu* tea tree, you have to look at the thickness of the trunk, not the height. Tea can grow tall very fast. Even in ten years a tree can be several meters tall. You determine the age by the thickness of the trunk. The girth of the trunk is also relative to the varietal, but, in general, real old-growth trees have thick trunks. If the trunk has a diameter of two hands, you can be sure it is more than one hundred years old, and certainly old-growth. Over time, as you see more trees, you will get better at determining their age based on appearance alone.

But every shop owner in China who sells puerh has photos on their



phone of genuine old-growth trees that they are happy to tell you are the very trees that their tea is made from. Sometimes they even hang signs with their logos on the trees for the photo. This is very rarely genuine, however. Sadly, there is an ocean of plantation tea and only a small stream of genuine old-growth tea. Learning to taste and feel the difference will be paramount in your tea journey.

After the distinction between small- and large-leaf, it is important to understand the three kinds of tea gardens in Yunnan. Again, there is no standardization in this, so we have to create our own. Different authors and vendors, however, will describe and label these kinds of gardens in their own way. But once you have a basic understanding of these three, you will be able to navigate any discussion you have with a puerh lover or tea vendor about the kinds of gardens in Yunnan. We call the three kinds of gardens: plantation, eco-arboreal and forest.

野生茶道

Living Tea

Living tea has six characteristics:

1. Living tea is seed-propagated, as opposed to cuttings.
2. The tea trees have room to grow upwards to produce large crowns, and between trees, allowing the plants to organize themselves.
3. Living tea is grown in full biodiversity, surrounded by natural ecology.
4. Living tea is, of course, grown without the use of any agrochemicals (the “Terrible Trio”: pesticides, herbicides or chemical fertilizers).
5. The relationship between the farmer and trees is one of respect and reverence. Within the character for tea is the radical “human,” as Tea is a relationship between Nature and human.
6. No irrigation or fertilizer of any kind (even organic fertilizer) is used. This allows the trees to be independent, developing strong and deep roots, and connecting to the energy of the mountain.

A lot of tea and other agricultural products produced these days are like goldfish or poodles, in that the trees cannot survive on their own. Because they are irrigated, they never learn to grow deep roots and drink the mountain water; and because they are fed by fertilizer shipped in by humans, they are not grown on the mountain minerals and nutrients so important to the quality of tea (and the health of any organism). The health and quality of a tea is more in its terroir—environment, soil, climate, etc.—than any other factor.

When the tree is grown sterilely and not permitted the breadth to grow strong and independent, so much of the quality and characteristic uniqueness of the tea is lost to sterile, industrialized uniformity of cloned, flat and lifeless tea leaves and liquor.

That said, there is also a need for agriculture that compromises some of these characteristics to increase yield, not out of greed but because there are more tea lovers than healthy tea trees. Still, whatever compromise we make to increase yield, we cannot do so in an unsustainable way or future tea lovers won't have tea. For that reason, agrochemicals are out of the question.

Plantation tea is grown in rows, with tea propagated by cuttings all planted close together, usually in lower altitude, more accessible places, though plantation tea can be grown anywhere. The dangers of plantation tea are that this is where conventional farming is most predominant, which means the tea often is not organic and grown industrially. As such, this tea is rarely as healthy for people, and most certainly not for the environment. It also lacks sustainability. Such tea is not what we call “living tea.” Living tea has six characteristics. (See the sidebox on the previous page.)

The other issue with plantation tea, as far as puerh goes, is that it is missing much of what makes puerh tea unique. There is little by way of processing that defines puerh (a lower temperature/lighter de-enzyming, *sha qin* (殺菁), and sun-drying, both of which contribute to fermentation). Puerh is more defined by the rich biodiversity of the forests of Yunnan; the glacial water that flows there from the top of the world (the Tibetan Plateau, which extends into northern Yunnan); the old tea trees which live longer and have deeper roots than most all tea, changing the medicinal qualities of the

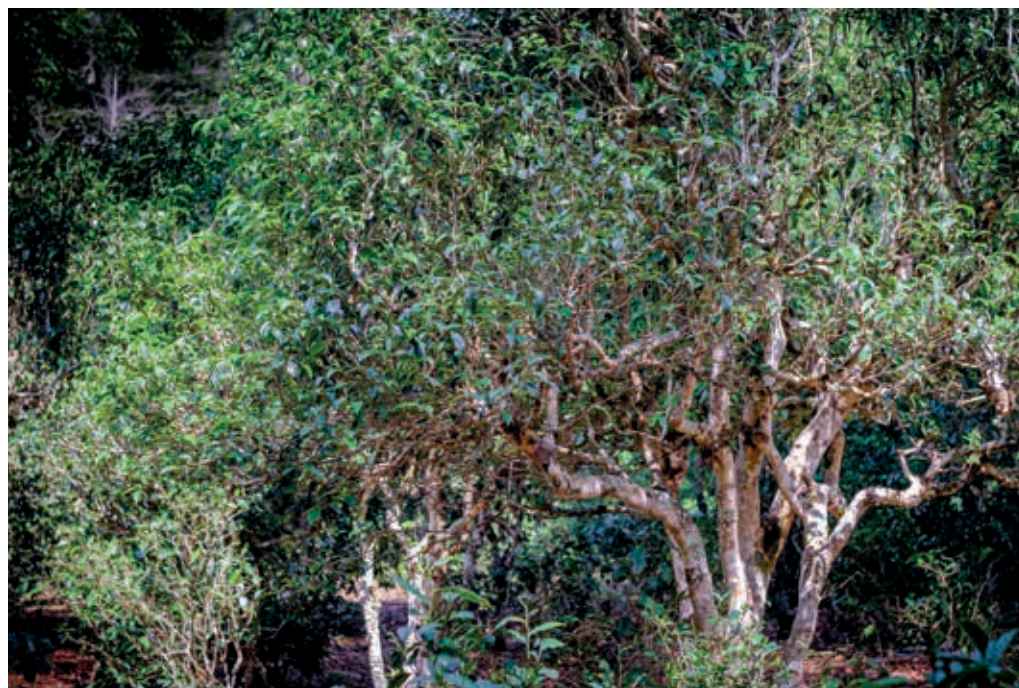
tea there; and, of course, the rich aboriginal cultural and spiritual heritage surrounding puerh tea. But all these factors are absent in plantation tea, which is made from smaller, younger trees, rarely in the forest, etc.

The second kind of garden, which we call “eco-arboreal,” is composed of living tea planted or wild right near the edge of the village. The trees grow up in biodiversity and live in a healthy environment, but not in the forest. These trees are just outside the village, and sometimes surrounded by other agriculture. These trees are more convenient to care for and harvest, since the farmers do not have to hike to get to them. They are still quite happy and healthy, and, as of now, small Yunnanese villages aren’t so bad to live just outside of, as many are still clean and in healthy balance with the environment. Not all eco-arboreal tea is clean, though. There is rarely ever any pesticide used with such tea, but some farmers do use weedkillers around the trees and/or chemical fertilizers to increase yield. In areas where these trees are surrounded by other crops, they can also be cross-contaminated, if the local farmers are using agrochemicals on those plants.

The final kind of garden is a forest garden. These can be wild or planted by people. These are gardens in the forest, often protected parks. The tea grows naturally, and in a full and natural ecosystem. Obviously, this represents the best of what puerh tea has to offer. Sadly, almost every puerh vendor in the world gives the impression that all his or her tea is of this variety, when very little of this kind of tea actually exists anymore. Many times you could hike into the forest and pass right by such a garden, if you didn’t know what to look for, since the tea garden would look just like all the other jungle you had passed by on the way there. These natural, forest gardens are what “bring Nature to society.” This is where the sounds of the forest can be found in the bowl.

Getting to know these kinds of tea and learn how to tell if the tea is really old-growth, and what kind of garden it comes from, is helpful, but also remember that, in this tradition, we have a saying, “as the person seeks the Leaf, the Leaf seeks the person.” Much of what kind of tea finds us will have to do with our approach to tea, our relationship to the Leaf and how we serve it to others as well.

茶 *This is an eco-arboreal tea garden. While the trees are at the edge of the village, and not as healthy as forest trees, there is still plenty of biodiversity in these gardens and the trees can also be old. This compromise is actually wonderful, as it allows for a higher yield of tea, but doesn’t compromise environmental integrity or tea quality. And many of these gardens have been handed down for generations, and are therefore treated with the utmost respect. From pictures like this, it is sometimes hard to tell the difference between forest and eco-arboreal gardens.*



森林村莊園一

Our heart will guide us to the right teas, just as the right teas will find the people with heart. When you respect Tea as medicine, and are committed to protecting the aboriginal culture and environment old-growth forest tea grows in, such tea will find you. Like we say, “as the person seeks the Leaf, the Leaf seeks the person.”

Processing

All puerh comes from Yunnan, the birthplace of tea. There are two kinds of puerh: sheng and shou. Sheng is the more traditional, greener kind of puerh. It is picked, withered, fired and sun-dried. Sheng tea is then naturally fermented over time, and the older the better. It miraculously mellows from green, powerful, astringent tea to deep and dark elixirs. It also changes from “cool” to “hot,” in the Chinese medical sense of the words. Shou tea goes through an additional step, after the ordinary steps listed above. It is piled under thermal blankets, in order to artificially ferment the tea. Traditionally, aboriginals in Yunnan had many ways to turn their tea to warm (again, in the TCM sense),



THE PROCESSING OF SHENG PUERH (MAOCHA)

採摘
Plucking

萎凋
Withering

殺青
De-enzyming

揉捻
Rolling

晒干
Sun-drying

茶 The two stages that really distinguish puerh processing from other kinds of tea are the firing and sun-drying. The de-enzyming (firing) is done at a lower temperature for a shorter duration so that the heat-resistant spores survive. The sun-drying then reactivates the fermentation. It is amazing that aboriginal wisdom incorporated this long before the microscopic world was discovered!



including baking, roasting, or even burying it in bamboo. However, the modern method of piling the tea was developed and then commercialized in 1973 by big puerh factories, in an attempt to reproduce the amazing effects that time, and natural fermentation, have on tea. Of course, they only succeeded in inventing a new genre of tea, rather than actually achieving what nature does over such long periods of time. Succinctly, the difference is that sheng puerh is left green, which means it ages naturally over time (which takes seventy years to reach full maturity) and shou puerh is artificially fermented in piles (which takes forty-five to sixty days to fully ferment the tea). This month's tea is a sheng tea: picked, withered, fired and sun-dried. It dates to the year 2004 and is from the Yiwu mountain region.

The most distinguishing steps in puerh production are the *sha qing* (kill-green) and sun-drying phases. The firing, or "*sha qing*," comes after withering. It is done to arrest the oxidation begun in the withering and to "kill" certain enzymes in the tea that make it bitter, which is why it may also be translated as "de-enzyming." In puerh tea, the de-enzyming is done at a lower temperature for a shorter duration, because some of these enzymes are important for the fermentation of the tea, which happens post-production (either naturally or artificially). This also ensures that heat-resistant spores will survive and flourish, as the bacteria and mold are the source of the fermentation. The sun-drying also facilitates and encourages fermentation by reactivating the microbial worlds that live in the leaves, going about their days in *Horton Hears a Who* style.

Sheng puerh made from old trees is typically only harvested in the spring, with the occasional buds in autumn as well. Old trees need to be left to their own devices to produce living tea. Using fertilizers or hormones to increase production will upset the natural equilibrium of the tree's ecological relationship to the soil, mountain and weather, and the trees will eventually die from such farming.

The harvested leaves are withered, indoors and out, fried to kill green enzymes and arrest oxidation, rolled and then sun-dried. The two identifying features of puerh production are the

frying and the sun-drying. The frying of sheng puerh is done at a lower temperature and for a shorter time than other kinds of tea. This leaves some of the bitter, astringent enzymes alive and active, which aids in the fermentation of the tea over time. The sun-drying also helps activate the fermentation, exposing it to the bacteria that will help in that process. In fact, the relationship that puerh has to microbial life is one of the main characteristics that define this genre of tea. At this point, the tea is called "rough tea (毛茶, *maocha*)," which means that it is essentially unfinished. Such tea is then pressed into cakes, sometimes blended with teas from other regions. In modern times, this is done at factories rather than at the mountain where the tea is harvested/produced, but traditionally the compression and finishing was also done on the mountain, using the same water to steam the tea into cake form as it drank when it was a part of the old tree, which is obviously ideal. This also means that, as it is being compressed, it will be exposed to its native bacteria.

Puerh processing is a very old and simple methodology. Different genres of tea have different measures of quality, based on a ratio of raw material to processing skill. Cliff Tea, for example, is measured at least as much in the processing as it is in the trees/leaves. But puerh is different. With puerh, the quality is much more in the trees/leaves, with tea from older trees having more breadth, wisdom and medicinal *juju*. Mountain, location and age of the trees will all play a large role in the price and quality of a puerh. Because of that, there is a lot of confusion and dishonesty surrounding regions and age of trees in the puerh market, with young, plantation-tree tea (*tai di cha*) being mixed into old-growth raw material, or tea from one region being brought to another and sold under false pretenses. This means that you have to have some experience tasting teas, knowing if it is organic or not, young or old-growth, and from which region (at least relatively). It also helps to have trusted sources, like we do at the Hut.

Nowadays, there is also a lot of confusion about blended versus single-region tea, as well as what defines "old-growth" puerh. It is good to have

some clarity on these issues, at least in terms of what we are writing about in the pages of Global Tea Hut. As for the first issue, there are great blended teas from the Masterpiece (1949–1972), Chi Tze (1972–1998) and Newborn (1998–present) eras of puerh. Sometimes, teas from different regions, or even the same region, enhance each other beautifully. All teas are technically blends, since different sides of the same tree will produce different leaves, let alone different parts of the same forest. Still, there is something to be said for single-region puerh since that was the way that all puerh tea was traditionally produced. All the teas from the Antique Era (pre-1949) were single-region. The terroir of a place, including the culture of how to process the tea, will then be homogeneous. This includes the genetic heritage of the trees, the climate and soil, the microbial environment so important to the tea's fermentation, and ideally also the spiritual/cultural rituals that surround harvest and production. As for what we mean when we call a puerh "old-growth," for us it means that the tea leaves were harvested from trees that are at least one hundred years old. We think that when you start talking in centuries, it's definitely "old-growth."

When drinking fresh-from-the-farm *maocha*, there are many criteria for finding the right tea to make into cakes: you can drink with an eye towards aging the tea (in which case, you will have to have had a lot of experience drinking aged and aging teas at various stages), learning about regions or creating cakes that can be enjoyed young. The best of teas will be great when young, middle-aged or vintage.

茶 *Living tea trees are teeming with a rich ecology of their own: moss, mold, fungus, orchids and insects all cohabitate within a wild tea tree like this one. This rich environment of microorganisms plays a major role in the fermentation of puerh tea post-production and is one of the magical qualities that makes puerh unique.*



Breakthrough

You may be wondering what Breakthrough has to do with aged or aging puerh. This tea is actually a wonderful opportunity to explore the issue. In Wu De's article on how to choose a sheng puerh for storage, he talks about which sheng tea to start the journey and also about tasting the tea at different times to make the final decision. For us, the two most important times to determine whether or not a tea is a good candidate for long-term storage are when the tea is new, and when it is two or three years old and starts showing the first signs of aging. Sometimes, this stage is more important for the final decision than the new tea.

Breakthrough is an autumn 2015 tea from Mengku (勐庫). Mengku is located in the Lincang city area, on the banks of the Lancang River, in Yunnan Province. The area is crisscrossed by mountain ranges, with a unique climate and abundant natural resources. Since ancient times, it has been famed for producing exceptional tea. The community of wild tea plants that grow at the Mengku Garden on Daxue (Big Snow) Mountain in Lincang form the highest altitude and most densely growing community of large-leaf trees discovered to date. The main peak of Daxue Mountain rises to 3233 meters above sea level; the community of old tea trees are distributed over an area of around 800 hectares, situated halfway up the mountain, between 2200 and 2750 meters in altitude. Here, the average annual temperature is below 11 °C, with yearly rainfall averaging around 2000 millimeters. These heaven-sent natural conditions create a veritable paradise for tea plants.

For a long time we have intended to store some loose-leaf autumn sheng puerh for ten to fifteen years to see what happens. We have some autumn cakes in storage, but no autumn *maocha* that we know conclusively to be autumn tea. As we will discuss later in the issue, autumn tea is not usually as strong or vibrant, and is therefore not often the best candidate for long-term storage. Breakthrough was a great, rich and vibrant tea from nice, organic eco-arboreal gardens and available at the right price as well. But would it age well?

This bright tea is a kind of test for us all to do together. As you progress in your understanding of puerh tea, you must learn to also evaluate sheng puerh in terms of its ageability. This is, of course, important when choosing a fresh sheng tea, but also after two or three years, and then again around seven years. Just because a tea is nice for drinking doesn't mean it is a great candidate for long-term storage. Breakthrough is a wonderful tea to enjoy, but the question is whether or not you would continue to age Breakthrough. Is it a good candidate for long-term aging? What do you think? Let us know via email or through social media.

Whether or not you choose to participate in this experiment, and learn how to judge the ageability of a puerh, you should still take the time to enjoy Breakthrough as well. This tea is rich, hovering between fresh, green sheng and slightly aged tea. It was stored pretty dry so far, so it is on the greener side of a two- to three-year-old Sheng.



Gongfu



Leaves in a Bowl



Sidehandle

Water: spring water, gathered or bottled

Fire: coals, infrared or gas

Heat: hotter, fish-eye, roughly 90-95 ° C

Brewing Methods: gongfu or sidehandle (gongfu, if testing for storage)

Steeping: long or short, to taste*

*long, one flash, then progressive, if gongfu

Patience: fifteen to twenty steepings

☞ Sheng puerh can take heat better than other greener, lighter teas. Amount is important, as this tea can be astringent.

Brewing Tips

If you are going to try to evaluate this tea for aging, we would recommend gongfu brewing. Otherwise, this tea will be nice as either leaves in a bowl or in a sidehandle as well. We have filled the can a bit higher this month, so if there aren't too many guests at your session, you could even try more than one method—perhaps evaluating the tea for aging in one session and just drinking for pleasure in another.

This month, we want to hone in an aspect of tea brewing that is so subtle, you may not have thought too much about it before now: the height and speed of your pour. Of course, the differences in how quickly you fill the pot and from how high the stream pours will be more influential and easily recognizable in gongfu tea. Also, bowl tea is more about ceremony and meditative space, and not really conducive to experimentation. That said, how you fill a sidehandle pot, and from how high, also can change the experience of the tea. And while we wouldn't recommend experimentation or focus on quality in bowl tea—since it is about creating sacred space, that doesn't mean the brewer cannot apply some simple techniques to also improve her guests' experience of the tea on a sensual level, including the way the water is poured.

As this topic is bigger than this section of the magazine allows, we want to focus specifically on a puerh tea like our Tea of the Month. Puerh actually responds better when the water is poured quicker and from lower down, with as large and fast a stream as possible. If you are brewing Break-through gongfu, we recommend taking the time to experiment a little. Try steeping one brew in which you attempt to fill the pot more quickly and from lower down, and another where you pour a thinner, slower stream from higher up, and see if you can tell the difference. If you wish, you can use the Ten Qualities of a Fine Tea to evaluate the two cups.

Of course, the height and speed of your pour from the kettle also affects the temperature at which the leaf steeps, and so a lower, faster pour results in hotter water, which is conducive to mostly all puerh tea, since it has thicker, tougher leaves that can take a stronger heat. As we have often discussed in previous issues of this magazine, your journey in tea brewing is one of understanding heat, water and leaves, not to mention the other elements. Tea brewing is an alchemy of all five elements (earth, water, wood, fire and metal) as well as a concordance of all our senses with Nature, utilizing each sense to prepare and enjoy the tea.



一千杯

明日的寶島



A GUIDE TO AGING PUERH TEA

—老 化 茶—

The aging of tea is a magical thing. Fermentation is the least understood of all aspects of our food production and consumption. The word “ferment” literally means “to boil,” the bubbling of fermenting liquid. Our ancestors believed this was a gift from the gods, and surrounded the transformation of fermented foods and drinks with ceremony. More than a third of what we eat and drink is fermented by microbes, and, by number, most of all the cells in our bodies are also bacteria. The microbial world is vast, and our journey into it is relatively recent, even though humans have fermented things long before there was even a concept of “microbe.” And as we do explore fermentation more, learning about the science of microscopic anaerobic change, we shouldn’t forget that understanding how something happens doesn’t make it any less awe-some, magical or mysterious. The alchemy of transformation through aging tea leaves will always be magical, no matter how much research is conducted or how much we learn about how the process works.

There are a lot of ideas out there on how to age puerh tea, what “wet” and “dry” storage refer to and what conditions produce the best aging process, including artificial means. We plan to expose you to some different perspectives on the issue, learning from the experience of various puerh lovers who have stored tea for some time. Though their opinions differ, they all have experience drinking mature puerh tea and in watching it age over time. Our goal over the coming years is to publish more and more perspectives on the topics we cover, including translations of Chinese articles. It is never enough to learn from just one source, and important for us to cover varying perspectives to offer a more holistic understanding of tea. In the case of ag-

ing puerh, it is important to note that experience in drinking lots of mature puerh, and in watching puerh change over long periods, is necessary. Without this, those who are writing about how to store puerh aren’t really qualified to teach. These days you can find a lot of information circulating online about the aging of puerh tea that is written by enthusiasts or vendors without experience drinking a lot of mature puerh, which means they haven’t a clear understanding of what represents well-stored puerh (the goals of storage, in other words), nor do they have experience storing tea for long periods of time, and therefore haven’t learned from all the mistakes one makes over time or how to correct them.

Any genre of tea can be aged, and if a fine tea is kept for a long period it will be marvelous, no matter what kind of tea it is. Oftentimes, the merchants of lighter teas, like lightly-oxidized oolong, green, white or yellow tea pressure the tea lover to drink the tea fresh, as though it has an expiry date. There is a magic in the freshness of such tea, and that is lost when aged, but such teas can technically be aged. That said, they take longer to reach maturity and will pass through a longer, awkward stage as they dry out, since they have a higher moisture content. Still, space is limited for all of us, not to mention the investment of time and energy spent aging anything for a long period of time. Therefore, such teas are rarely ideal candidates for long-term storage and the examples around were not intentionally stored, but rather left behind.

While aged oolong is magnificent, no tea ages like puerh. This is due to the microbial diversity found in the rainforests of Yunnan, where authentic puerh trees are found. Long before puerh tea is even picked, the leaves and trees are covered in hundreds of species

of molds, bacteria and fungi. These tea trees are teeming with life, covered in molds and insects. This relationship makes this tea much more conducive to post-production fermentation. As we discussed, the low-temperature firing and sun-drying facilitates this fermentation further.

It is very important to distinguish between short-term and long-term aging. We would define short-term aging as keeping the tea while you consume it, storing the tea in a jar and then drinking it. The main topic of this issue, however, is much more about long-term aging, which means intentionally aging tea for long periods. This could include oolong and other teas, but in this issue we are going to focus on puerh. The criteria for short-term versus long-term aging are very different. For short-term aging, which is essentially just storing the tea while you drink it, it is best to keep it in a jar, broken up if it is in cake form. As for long-term aging, this issue will explore that topic, and, as we mentioned, we will most likely have to continue to discuss it in future issues as well, since it is such a vast topic, and one with many different perspectives.

In this issue, we will have several discussions on puerh aging from how-to guides from several perspectives to the science of change within the leaf, or what we understand about it so far. In this introduction article, we want to focus on some of the more important questions that come up all the time via email, at Wu De’s workshops and here at the Hut, answering them as best we can. Let us know via email or social media if you enjoy this question-and-answer format, as we are discussing including one section of such Q&As in some of our coming issues. If your question isn’t answered here, it is most likely because it is covered in one or more of the coming articles.

Why age tea at all?

Master Lin always says, “If you want to be abundant, age tea.” As you progress on your tea journey, your own passion and taste will lead you to darker, traditionally processed, skillfully made or aged teas. Puerh transforms so powerfully over time, becoming a much more delicious brew, but also, more importantly, a deeper medicine for the soul. No tea is as conducive to meditation, ceremonial space or inner healing as aged puerh tea. It is as if the tea accumulates wisdom in that jar, as if the leaves and the species of microbes build temples in there and start sitting together.

If you don't age tea, you will pay someone else to. This is one of the reasons aged tea is so expensive: it requires a lot of time and energy to age it. You have to pay for the space and electricity. Also, puerh is a large investment these days. It used to be that young sheng puerh was very, very inexpensive and you could therefore store it simply, but since it is so costly these days, the storage facilities have also been upgraded with charcoal (to remove impurities from the air), and sometime controlled ventilation, proper shelving, etc. And all of that gets expensive.

If you want to have lots of aged tea to share and not feel like it is a very rare tea only for very special occasions, then you have to age it for yourself. Doing so allows you to be generous with such powerful medicine, sharing it freely and every day, which is the spirit of tea. Also, according to Traditional Chinese Medicine, aged puerh slows down senescence if you consume it daily, so having lots of it around when you are older might just grant you more longevity, tea gods willing.

What are the main factors of storage?

There is a lot we don't understand about puerh fermentation scientifically, as there have not been enough studies. Based on the experience of those that have aged it for generations, the most important factor is humidity. The microbes in puerh can defend themselves from foreign colonies to some extent, but they need airflow, comfortable warmth and humidity to thrive. As you will see in the articles throughout this issue, the right humidity is a debated topic. Our experience at the Center is that a humidity of 60 to 70 percent is ideal, with natural fluctuations. This is referring to the humidity in the room the tea is stored in, not outdoors, which may or may not be different, depending on how much air-conditioning and/or heating you use.

When does puerh reach full maturity?

Traditionally, puerh was thought to reach full maturity at seventy years. This is the point at which the physical appearance of the tea liquor will not change anymore. It has become a dark black that fades into brown, maroon and light brown with a golden ring at the edge. The tea will continue to change, especially in the way it stimulates Qi in us, as well as flavor, but does so at a very slow rate so that you really have to wait decades to have a noticeable difference, unless you are sensitive and focusing on very subtle changes. All astringency is now gone from the tea, which has become sweet, deep and dark with flavors of ginseng, medicinal herbs, sandalwood, plum and other analogous flavors.

What are the stages of transformation?

Puerh transforms in five- to seven-year cycles, depending on the environment it is stored in. Some of the early shifts, after five and then ten years, can be what we call “awkward stages,” since the tea can sometimes taste strange, often of spices. At around fifteen and then twenty years, the liquor starts to turn more brown and the tea starts to really feel aged. The longer the aging, the more the process slows down. In other words, everyone can tell the difference between a one- and three-year-old tea, and same with five and ten. A ten-year-old and a fifteen-year-old are a bit harder to tell apart, and may require some experience with aging and/or drinking various vintages. Eventually, the tea is measured in decades.

Can I store puerh where I live?

The *only* place to have successfully aged puerh tea to full maturity is Southeast Asia, mostly Hong Kong, Taiwan and Malaysia. Traditionally, places like Jinhong in Yunnan were also used.

If you are aging nice, expensive cakes or aging in large quantities, we would suggest choosing a traditional location. However, in small quantities, it may be nice to see what tea aged in your home is like over time, and even if it doesn't turn out well, you won't have lost much. Also, check the humidity in your storage room over time. If it is too dry, the tea definitely won't age well.



Should I store puerh as loose-leaf or a cake?

Puerh tea ages much better in cake form. We have participated in many experiments tasting the same tea in cake and loose-leaf form after it has been aged to different degrees. The cake tea always ages better, which may be due to the fact that the steam during compression makes an ideal environment for the microbes to live and thrive in a cake. This also explains why teas with looser compression age better than those which are too tightly compressed. Loose-leaf tea tends to age quicker and becomes too wet very easily. It is much more difficult to maintain a clean storage in a jar than in a cake.

Puerh for drinking is the opposite: it is better to break it up. We have discussed this, and the results of our experiments, in a few past issues. After aging puerh for some time, the inside has not been exposed to oxygen and needs to breathe, so it is always better to break your cake up and store it in a jar, leaving it for a month or so before you start drinking it.

As you may or may not know, puerh lovers traditionally buy cakes they like in eight pieces (a *tong* and a cake). The bamboo skin wrapping of a seven-cake *tong* protects the tea from humidity and too much air, and once again we find bamboo to be the long-term friend of tea. Like most plants, the bamboo in Yunnan is huge, and as it grows it sheds its skin in large pieces that are then used to wrap the tea. Since the tea is better drunk all broken up and better aged in a cake, having a *tong* and a cake allows the puerh lover the best of both worlds. The extra cake then becomes a tester, which you can drink from every few years to determine when the tea has fermented enough that you'd like to start enjoying it. At that point, you can break up a cake from the *tong* and carefully reseal it, putting the broken cake in a jar. Sometimes, we keep the tester, as we may want a gap between the cakes we break up to enjoy, and can then return to the tester to decide when to dip back into the *tong* for a second cake.

What if my tea has mold on it?

Mold is not necessarily bad for puerh tea. All puerh tea has spores in it. The trees in Yunnan themselves are covered in mold. Most of us have been raised with some degree of germaphobia and will react to some mold on our puerh. But steeped in boiling water, all the mold spores will die anyway. As for the quality of the tea and its aging, it is natural for there to be annual frosting of some white mold. We want to make sure this doesn't get too strong, as it is a symptom of the fact that the tea is being stored too wet and therefore fermenting too fast. The mold is, in other words, a symptom rather than the problem. Some kinds of mold definitely can damage puerh tea. The traditional wisdom is that all white mold is okay, some yellow and gold, while black, orange, blue or green are bad signs that mean the tea has spoiled.

If you find mold, separate the affected cakes and brush them off. You can also leave them out in the morning sun before it gets too hot at noon. Make sure the mold hasn't spread to the nearby cakes. You should also move all your cakes to a drier location for some years, as the mold is a sure sign that your tea is being stored in a location that is too damp.

What about artificial storage?

We participated in some blind tea tastings for a couple different Chinese magazines, in which tea stored in such controlled environments was compared to that which was naturally aged. The difference was huge enough for us to warn against this. Find natural ways to increase humidity, like storage jars or different locations in the house. Traditionally, so-called "wet storage" in Hong Kong rarely used artificial means to speed up or increase fermentation. More often, these merchants would simply choose warehouses or rooms that naturally had higher humidity, like basements or buildings by the sea. The same is true for keeping tea drier when you live in a place that can be too humid, like Taiwan. We store the Center's tea on the third floor of the office, which is a bit drier.

How do I test the tea as it ages?

Every few years, try the tea and see if it is aging properly. You can look at the cake and smell the dry leaves, drink the tea and also examine the wet leaves. This allows you to shift the tea to drier or wetter conditions, if need be. Remember that storage is long term, so most imbalances can be corrected over time, especially if you check on the tea regularly (every two to three years) and thereby quickly correct it if it is heading down the wrong road.





THE CHANGES OF TIME

茶人: *Huang Chanfang* 黃傳芳

Master Huang is an important Taiwanese tea teacher we love. Over the years, he has shared lots of tea and tea wisdom with us. He has a very kind heart and down-to-earth way of communicating even complex ideas. His experience drinking aged tea, storing puerh and also processing newborn puerh tea for aging is invaluable to this issue. In this article, he shares his experience, as well as some of the science of what happens as the cell walls of puerh collapse over time. Our first two articles in this issue are about the experience of aging puerh, what happens along the way and some of what makes aged puerh so special.

In general, most people would prefer to buy fresh, new tea over aged ones. Consumers sometimes regard old tea as bland, tasteless liquor that has lost its original fragrance. In some periods and places, aged tea was regarded as a kind of herbal medicine. In Taiwan, however, oolong tea farmers' tendency towards greener oolong and *tieguanyin* has too often disappointed connoisseurs, who then began turning to other kinds of teas, like puerh. Puerh had been known to many Chinese as "the smelly tea." But now, puerh and other kinds of aged teas have found their way into mainstream tea circles—teas like *Hao Ji*, *Yin Ji*, *Chi Tze Bing* (Seven Sons), *Jin Cha*, *Tuo Cha*, brick teas, aged Liu An and Liu Bao, and aged oolongs. The increased popularity of these aged teas has led to a surge of puerh tea production and appreciation. Over the last few years, this growth has been like an army sweeping the tea world, on its way to conquering all other kinds of tea.

Few collectors of old tea are willing to sell the better vintages, even at the exorbitant prices teas like *Hong Yin* fetch nowadays. They know that the price will continue to grow each

year as fewer cakes exist in the world. Still, the financial opportunity available through storing puerh attracts new collectors and investors, and sets market prices. Whether for collection or investment, it is important that one has a basic understanding of tea and its fermentation when buying tea; knowing about the aging process itself will help inform one's purchasing decisions. There is a common saying amongst tea experts that "age doesn't mean quality" (*lao bu she hao*, 老不是好): poor-quality young tea becomes poor-quality old tea. Of course, aging can make any tea better than it is, and we forgive many problems in aged tea nowadays as quantities are scarce, but with more varieties of new tea available than ever before, we must take care when buying tea for storage. Investing in aged tea requires knowing how to appreciate a good tea, recognize quality and have at least a basic understanding of the aging process itself.

The tea that has risen most in price and become so famous is aged *qing pu* (清普, raw, sheng puerh). These are mostly the famous *Chi Tze Bing* of thirty to fifty years' age. However, when *qing pu* is new, its essence is cold and

its taste bitter and puckery. Except for the highlanders of the Tibetan plateau, who use raw puerh to aid digestion of their all-meat diet, very few consumers have interest in drinking young *qing pu*. The aboriginals of Yunnan would roast it before drinking, calling it "slab stone-roasted tea" ("石烤茶, *shi kao cha*"). The Tibetans traditionally mixed it with butter before drinking. These methods are done to change its cold essence to warm, and get rid of the negativities, like bitterness and astringency, in the liquor. Although many of these people might not have understood the theory behind why they roasted or mixed the tea, their ancestors passed down to them their experience and wisdom.

茶 From the top, these sheng puerh liquors are: 2016, 2015, 2010, 2000, 1992, 1980s and 1970s. This quite clearly shows the changes in puerh liquor as it ages.





The owners of teahouses in Hong Kong came up with their own solution to the problems inherent in new *qing pu*: they stored the puerh tea cakes for some time in hills and basements where the humidity was high, and fermented it through wetter storage. They found that this method of storage removed the bitterness and improved the flavor and liquor dramatically. If the “storage smell” was too strong, they mixed the tea with chrysanthemum flowers, creating another way to enjoy puerh, today called, “*Ju Pu Cha* (菊普茶).”

The craze for aged puerh in Taiwan has been *qing pu*. This is the tea that has become famous for its enjoyment and financial appreciation. Of course, its value is, in part, determined by the fact that there is less stock each year, but, nonetheless, the more important reason vintage puerh is worth so much is because of its mellow, thick, soft and elegant flavor that is beyond any other kind of tea. Its liquor is deep ruby and shimmers as such, attracting any tea lover’s attention. But how did the tea change so drastically? Once a cold, bitter tea that puckered the mouth, it has become smooth and deep. How did this miraculous transformation occur?

While *qing pu* ages, it is almost constantly in a state of change caused by cellular breakdown. All cells are protected by a cell wall. Some cell

walls in plants are very thin and fragile, like those of most vegetables, fruits and cereals. Just cooking it releases the valuable nutrients inside the cells, and these plants rot quickly and easily. Some cell walls, on the other hand, are not so easily broken down. Some herbs and spiral algae must be treated using a high-tech process in order to get the most out of consumption. Another way for firmer cell walls to break down is time, and aging of puerh occurs this way. Over the course of many years, the plant will oxidize and decompose, resulting in cellular breakdown. When the cell walls of puerh leaves break down, the material inside the cells is released. The more of this “vegetable fat” released, the smoother the tea will be. The more sugars that are released, the sweeter the tea will be; and the more scented oil is released, the more obvious the fragrance will be. Besides these flavor enhancements, amino acids and other trace elements are released from the broken down cells, all of which benefit the human body. Likewise, harmful ingredients found in tea, like caffeine and tannic acid, are volatilized by the decomposition. The jerky taste and pucker is gone, and the bitter coldness has turned into soft warmth. As the tea ages, the molecules shrink, making it smoother and more pleasurable to drink.

Temperature, humidity and oxygen levels play a significant role in the decomposition of tea. If any of these factors is slowed or sped up too much, the tea will not be as good. The same *qing pu* that has been aged in a way capable of attracting attention and investment, can turn people away if it is stored improperly. Collectors must study the proper procedure for storing their tea, to ensure that it will maintain its quality over time. More is understood about storage than ever before, and an increased amount of information is becoming available to the consumer.

People often ask what makes puerh tea so different than other teas, like *Long Jing*, Assam tea or oolong tea, as far as its “ageability” is concerned. One of the major differences between puerh and these other kinds of tea is that they are all single-breed. No matter how long these other teas are stored, it is still easy to distinguish which kind of tea they are and from where they came. One might even be able to predict their flavor in the future. But puerh tea is not nearly as simple; it is variant and difficult to ascertain. The flavor of puerh may change the next day. Sometimes every steeping is different than the previous one. A cake of puerh will have completely different flavors two years from now, and again in five and so forth. Why? Well, a big part of



茶 From right to left, you can see older and older vintages of puerh tea leaves—the same as the cups of liquor shown on the previous page. The first is a 2016, then 2015, 2010, 2000, 1992, 1980s and, finally, a 1970s tea. The changes over time are powerful. The leaves turn brown, the buds orange; and what was a bitter, astringent green tea becomes a dark, rich tea, with flavors and aromas of ginseng, Chinese herbs, sandalwood, mushrooms and other dark, earthy mysteries.

this mystery is answered in the origin of puerh tea. Puerh tea comes from a different type of tea plant than other teas: arbor trees. These trees have bigger leaves, with more variation in size, even on the same branch. Puerh tea is propagated sexually, rather than by cutting, which means that every single tree is a unique breed.

Although some genetic reproduction via cuttings is found on modern plantations, this isn't the way higher quality puerh teas, past or present, have been made. Much of these plantations began as a result of the rising demand and price index of the material used to make puerh tea cakes.

In the traditional way, tea is picked from a garden and placed together in a pile. The average *qing pu* cake may contain about 1000 leaves. Combined with the fact that every tree is an independent and idiosyncratic breed, this means that a cake could have anywhere from one to one thousand different breeds in it. If one tea garden produced 9000 cakes, it would be impossible to find two cakes identical in flavor or fragrance, though they would share the common characteristics of tea from that area. Only if all the raw material was taken from a single tree would the cakes be truly identical. However, to help maintain regularity in production, many cakes contain

a blend of raw materials. Tea masters choose different raw materials, some with strength of fragrance, some of flavor and some of sweetness, perhaps, and blend them together. Not only do they compliment each other, they also bring a kind of consistency to the production that is not otherwise there.

Whether blended or not, it is very difficult indeed to predict what kind of changes will occur in a cake over time, though blended cakes are even more difficult. Even if all the storage factors are perfect, the differences from cake to cake make any prediction near impossible. Generally, if tea is composed in a skillful and knowledgeable manner, using higher quality raw material, its essence will get better and better over time, as long as the storage environment is relatively healthy.

The difficulty in ascertaining what in fact will be a good tea years down the road has flooded the market with tons of very poor-quality *qing pu*. Producers take advantage of this difficulty and lack of consumer knowledge, selling large quantities of poor-quality puerh tea. This is also leading to a degradation of the environment, that is similar to what occurred with Taiwanese oolong. Consequently, many tea masters recommend that beginners start by learning about shou puerh. Shou tea is produced using a

process called “*wo dui* (渥堆),” which artificially ferments the tea leaves in a relatively short period of time. One needs to be careful that the process was done hygienically, as poor-quality shou tea can have harmful microbiotic activity. Still, determining which shou tea is good and healthy is a relatively easy endeavor, especially when compared to the job of determining which *qing pu* to store for later consumption. Since *qing pu* is not really healthy or enjoyable when it is too new (one should wait until it is ripe) and so difficult to purchase given the tidal wave of low-quality tea that has flooded the market recently, it is important that beginners buy in small quantities as they develop their palates.

Knowing how and why vintage Puerh tea ages helps inform the consumer about how to purchase tea for storage. The increased interest in Puerh has caused a rise in information and research globally, and we can only hope that this trend will continue. As we learn more about aged and aging Puerh tea, this genre of tea will continue to improve, ensuring that future generations are left excellent quality teas to inspire them—just as we inherited the great teas of our ancestors.





SUPERIOR PUERH LIQUOR IS RICH & SUBSTANTIAL

茶人: *Lian Jianxing*

There are many reasons puerh tea has been able to achieve today's level of prosperity. Those old tea hands, with their unique skills at tasting and appreciating tea are, however, undeniably the source of puerh's rise to fame. If we wish to see puerh continue to develop, we must elevate the tasting abilities and standing of these numerous tea drinkers. We must also continue to build upon our accumulated tea culture. Understanding what makes a fine puerh tea helps one to appreciate puerh, navigate the complicated puerh market and also make decisions about what puerh to store long term.

In many tea magazines, we find reviews of aged and new puerh teas. And the tea friends who are up to the task of evaluating teas certainly qualify as old tea hands. If we could analyze and rank their opinions, we could infer some commonly agreed upon standards for judging tea, and perhaps also discover previously unexplored areas of dispute. Establishing such criteria could naturally raise the standards for judging teas.

Among the terms often used to evaluate tea, "rich and substantial tea liquor" would seem to be among the essential aspects of superior grade tea, but to what exactly does this refer? Through what kind of concrete standard can we confirm whether a certain tea possesses this "rich and substantial liquor?" This question seems to be somewhat complicated.

First of all, it seems that the language used by our fellow tea tasters is quite varied. For example, all of the following descriptions have been used: "its character is thick and heavy," "its character is thick and rich," "the liquor is dense," "the liquid is thick and straightforward," "the base is deep and strong," "the liquor is dense and thick," etc. We could offer two hypotheses concerning these descriptions:

first, that these descriptions are related to the experience of the person doing the tasting; and second, that these different descriptions have similar meanings, or at least describe relative degrees of a similar experience.

All of these descriptions are of the form "noun + adjective." Consider the precision and richness of these descriptions. If they refer to the "tea's character" or "tea's base," they are excessively general and don't necessarily refer to judgment that took place during tasting. Using words like "quality" or "liquid" is too vague and does not specifically refer to tea. Because of this, we choose to refer to the "tea liquor," since this is a term which should be relatively clear and appropriate.

As for the adjectives that follow, "dense," "dense and thick" and "thick and heavy" are relatively similar in meaning to the idea of being rich in substance. "Deep and ample," "thick and straightforward," "thick and rich" and "thick and substantial" not only refer to a rich degree of substance, they also imply a great variety of contained substances. We choose to use the description "rich and substantial" to express these meanings. We hope that this discussion and our terms resonates with other tea lovers.

Thickness & Mouthfeel

Looking at the words "rich and substantial," we would expect them to be the opposite of "thin and empty." In this light, what kind of tea liquor can be considered "rich and substantial?" From a scientific and logical perspective, it seems that we should first establish an objective procedure for judging tea. Everyone will perhaps approach this procedure differently, but when judging teas from the same group there must be some uniform, standardized and objective evaluation. Only in this way does saying that a tea's liquor is rich and substantial have meaning.

Following this line of scientific thinking, we say that "tea liquor" refers to the result of infusing tea leaves in high-temperature water and those chemical compounds that have dissolved into the water. Then, saying that the "tea liquor is rich and substantial" ought to refer to tea whose portion of these chemical compounds is objectively judged to be higher than other kinds of tea when an equal amount is steeped for the same duration of time. The questions that follow from this ought to be handed off to experts involved in food science research. Exactly which substances are contained



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in tea requires scientific analysis, using instruments to extract, analyze and examine.

In reality, however, tea tasting experts rarely have backgrounds in the field of food science research. Their most common methodology is still based on drinking the tea. When a type of tea is said to have “rich and substantial liquor,” the meaning is likely a kind of feeling in the mouth and not a chemical composition. In other words, it is an experience that a person takes from the tea. It is not based on data analyzed from scientific instruments. It is artistic or aesthetic, rather than scientific or logical. Because of this, we are drawn into the realm of tea as art.

Substantial Tea Liquor

According to individual subjective sensory experiences, rich and substantial tea liquor should likely be further divided into saying “the tea liquor is rich” and “the tea’s nature is substantial.” Saying a tea possesses a rich liquor indicates that it provides a full and satisfying feeling as it enters the mouth. The opposite of this is thin tea liquor, which is hard and sharp. A tea with substantial character is one whose

content is abundant, meaning it possesses ample fragrance, stands up to multiple infusions and possesses various charms. The opposite of this is a tea whose character is empty, meaning its flavor is weak, it does not stand up well to multiple infusions and its appeal is one-dimensional.

Substantial character is a necessary condition for quality tea, but tea with substantial character is not necessarily quality tea. Quality tea must also avoid problems during the production process, must be properly stored as it is aged and must be brewed with water and utensils at appropriate temperature. Furthermore, it should be consumed when the external environment and the spirit are in balance.

Rich and substantial tea liquor implies a number of things. The specific sensory experience includes: fragrance, bitterness, astringency, flavor, the overall harmony of the tea liquor (called “yun (韻)” in Chinese, which literally means the tea “rhymes”), Qi, etc. Each of these details should be analyzed in detail, if we are to provide a thorough discussion of the tea’s numerous characteristics. However, we have decided to begin with perhaps the most important factor of richness in tea liquor: thick content.

Rich Tea Liquor

We believe that thickness of tea liquor is caused by more than one factor. However, if a certain tea contains high amounts of thick substance, it will most likely provide a sense of thickness.

This thick content visually resembles a sticky, frozen, congealed substance. This substance perhaps best resembles a soup that has been thickened with corn starch or wheat flour; or the surface of a cooled soup made from large bones boiled over a long period; or smooth and cooling midsummer products, such as vegetarian gelatin, agar or jelly.

All tea leaves possess a thick component. According to Taiwanese tea farmers, Taiwan’s high altitude teas possess relatively ample thick content. The reason for this is that higher altitude teas grow slowly, so they are able to accumulate high levels of thick substances. Sampling tea, in practice, indicates that spring tea buds possess high levels of thick substance. This is likely stored up by the tea trees over the winter, concentrating higher nutrient levels in the spring buds. It is perhaps also related to relatively high concentration in these teas, compared to volume.

Yet another observation technique is to place an appropriate amount of tea leaves into a porcelain *gaiwan*. If a tea possesses sufficiently high thick content, from the first infusion onward the leaves will appear to stick together and will unfold at an even and slow pace. If observed, this indicates relatively high thick content and most likely a quality tea. From a reverse perspective, what happens when we knead withered tea leaves? If the thick content is sufficiently high, the leaves will easily roll into long and slender stripes, and the hands rubbing the tea will also feel quite sticky.

Some people believe that this thick content refers to the transparent layer floating on the surface of the brewed tea. If this thick material is a transparent layer, though, then the tea and the thick layer should be clearly separated like oil and water. Pouring the tea into a transparent glass container, however, we found that the color and luster of the tea was uniform throughout. In other words, the thick substance must have dissolved into the water. Looking at the levels in tea liquor and the so-called “thick, transparent top layer,” we can still say that high-grade puerh produces a clear and transparent brew, with plentiful layers and a good level of transparency.

Qualities of Thickness

That sticky, as if frozen, congealed substance can be more concretely observed through the appearance of saponin in the tea liquor. This so-called “saponin” refers to the tiny, pure, white frothy substance that is created as water is poured over the tea leaves. Some tea drinkers believe the saponin released along with the first infusion is very desirable and drink this first infusion of the tea. Other tea drinkers are more concerned with hygiene and use the first infusion to wash the tea leaves. As a result, they place relatively less emphasis on the appearance of saponin.

To more easily observe the saponin, we lift the teapot when pouring into a teacup. The lengthened column of water stirs up a greater amount of saponin. When the pour is completed, its distribution over the surface of the tea can be observed in real time. Based on

multiple observations, we have reached the following conclusion: if the glutinous content is relatively weak, this saponin froth will be relatively coarse and easy to disperse. It will also easily slide to the sides of the cup. If the glutinous content is relatively high, the created saponin broth will be relatively fine and may stay fixed to the surface of the tea in the center of the cup.

If a tea's liquor has high thick content, shaking the tea cup will only slightly change the position of these bubbles in the brewed tea. The entire cup of tea has a thickness similar to a thickened soup and still feels this way after numerous infusions. If we use light to analyze the surface of the tea liquor, we notice that the surface of the tea rises and falls in irregular form. This is due to capillary action of the saponin foam and fine hair on the surface of the tea leaves.

If we calmly let a cup of highly thick tea cool, we will discover that even after one or two hours the saponin froth maintains its original appearance. It will not significantly dissipate or change position.

Some tea drinkers are accustomed to using the first infusion to wash the tea leaves. If one follows this method, we suggest allowing the water to slightly overflow from the top of the teapot. The tea, carrying a large amount of saponin froth, will flow over the edges of the teapot and into the tea tray. If the tea possesses high levels of thick content, the saponin foam will also appear to stagnate on the surface of the tea tray.

Experience of Thickness

Observing the tea's saponin, as well as the appearance of these linked pearls, can give us a handle on a tea's amount of glutinous substances. These are visual perceptions of beauty. In terms of drinking tea, the sensory experience of tasting tea remains the most important factor.

Tea drinking relies on more than simply *cou gan* (口感, flavor or feeling in the mouth), as this is restricted to the mouth and ignores the sensory experience of the throat, upper jaw and nasal cavity. It is also naturally unable to express the reaction of other parts of the body, such as the esophagus and

the stomach. A complete tea tasting experience is a journey of the whole body and mind. Only this level of experience is able to truly move a person.

To this day, we have maintained the belief that tea that feels smooth in the throat ought to be rich in thick substance. A tea that is rich in thick substance will, likewise, reduce the feeling of astringency on the surface and base of the tongue. At the very least, it provides a buffer of time and space, allowing the tannins in the tea to transform.

Some people say “if it isn't bitter and it isn't astringent, it isn't tea.” Others amend this to say that good tea's “bitterness has *hui gan* (回甘), and its astringency dissolves into the mouth.” Others further amend this to say “waiting for the bitterness and astringency to be transformed is not as desirable as modifying tea production and brewing techniques, and thus reducing the unpleasant sensation caused by the bitterness and astringency of the tea.” None of these viewpoints are incorrect, and we can see that the wording is being revised and made more accurate. We can also see the manifestation of the continuous refinement of the art and culture of tea.

Holding a mouthful of tea, let it gently rest on the surface of the tongue and then slightly lift the tip of the tongue, allowing the tea to follow the surface of the tongue into the throat. If it is rich in thick substance, the tea feels like a continuous column sticking to the base of the tongue and sliding down the esophagus and into the stomach. It leaves a sticky and thick feeling in the mouth and throat, which is not related to salivation. It is simply the thick quality of the tea adhering to the mouth and esophagus, and leaving them feeling warm and moist. Perhaps this is so-called *run hou* (润喉, moistening of the throat).

As the tea moistens the throat, the thick substances are able to interact with a greater portion of the body's sensory organs. Other substances found in abundance in the tea also have a greater chance to undergo a follow-up transformation. For example: *hui gan*, dissolving of the astringency, fragrance lingering on the lips, returning fragrance in the throat, etc.

Good tea should be richly thick. This quality is maintained as a tea ages. There are admittedly many factors that

醇厚豐富



allow for top-grade, old puerh to reach the sublime level in which it melts in the mouth and feels as if a spring is bubbling up from beneath the tongue. This thick quality, however, is likely a key element.

Experience indicates that thickness diminishes in tea leaves that have been moistly piled together. The result is that the brewed tea is likely to harden, weaken and change the quality of the water. This diminishes the grade of the tea. Inappropriate temperature or moisture during the course of a tea's storage may also lead to a corresponding phenomenon.

Fine Tea

If the quantity of thick substance in a particular tea is high, then the probability that it is rich in other compo-

nents is increased. However, if the tea is only high in thick content and weak in other areas, the brewed tea may provide a satisfying sensation but have very one-dimensional change.

Rich and substantial tea liquor is essential for top-quality tea. This is especially the case when tasting tea outdoors, since the open environment and air flow can easily carry away the fragrance of insufficiently substantial teas. If the tea has a richness that penetrates to the bone, then, as it glides into the mouth and throat, one can calmly feel it spread throughout the body. That kind of mental serenity concentrates one's vitality, and leaves the body and mind comfortable and carefree. It is a moving experience that allows people to forget their concerns and savor the long-lasting aftertaste.

Naturally, dry-aged, high-grade, sun-roasted old puerh has rich and

substantial liquor when brewed. Early puerh materials were mainly from large trees that benefited from the protection of a pristine natural environment and very little human interference or destruction. This has caused these trees to retain a rich composition of materials. These components are stable and concentrated deep in the tea leaves, naturally aiding their gradual transformation over time. Top-grade old tea has undergone the pure refinement of life and has cast away the undesirable, leaving its indomitable essence. It is like when Sakyamuni Buddha came out of the mountains and explained the Buddhist teaching that aimed directly at the core of life. Drinking top-quality old puerh can drive people to tears.





Gongfu Teapot

功夫茶壺

Yixing teaware is found almost everywhere that tea is cherished. To appreciate and collect tea is also to collect Yixing pots. They have been an integral part of the Chinese tea ceremony for generations. They are often exquisite works of art, displaying some of the finest craftsmanship in pottery, and, yet, beyond their lovely exterior and classic color, they are also functional. No one would argue that tea is not improved through the use of Yixing. Brewing a tea in a well-seasoned Yixing pot definitely enhances all aspects of the experience, from the flavor to the aroma, and even the aesthetic of your tea space. And the miracle is that the more we use the Yixing ware, the more the teapot becomes shiny, glossy and smooth—exhibiting an even greater degree of beauty. Per-

haps no other kind of art can become such a part of our daily lives, and through that, appreciate in value and elegance. For that reason, many old or well-crafted Yixing teapots are priceless. To the tea lover, a favorite pot is like an old friend, and therefore worth much more than gems and jewelry. Sometimes people wonder about the reputation of Yixing pots. Why do they improve tea so much? And how does one go about choosing one?

There is both an artistic and a functional standard for evaluating Yixing teapots. Artistically, it is important that the pot be well-formed and aesthetically appealing. It should refine the tea ceremony by appearance alone. Beautiful pots add to the ambiance of tea and lend elegance to an otherwise mundane activity. There are four levels

of craftsmanship that we use to discuss Yixing pottery:

Mass-produced Pieces

These are manufactured, daily productions made in the hundreds with little to no skill. The variety is simple and the clay inferior. They are made to offer pots to a larger consumer base at more affordable prices. Large factories employ a lot of potters to work in shifts, throwing pot after pot. Other teapots are slipcast, created by pouring clay into a mold.

Handicraft Ware

These pieces have a finer technique. Generally, they are of very decent quality. They are hand thrown or sculpted,



DECIDING ON AN YIXING TEAPOT

茶人: Han Chi Lo

There are a lot of choices when it comes to Yixing teapots, and so many are made from imported clay, rather than genuine Yixing ore. An important skill in one's road to gongfu is the ability to choose the right purple-sand pot. This article brews a general liquor of the main criteria for choosing a pot.

and some time is taken to ensure the quality and limit the amount of each. They also display a greater variety of design and form, though they are often imitations of historic pieces or cultural trends through time.

Special Artistic Piece

These pieces are made by celebrity potters. They are often expert craftsmen, and the function as well as beauty of the pot will demonstrate this. This class of teapot is a collector's favorite. The rarer they are, the more they will increase in value through use and time.

Master Artistry

Some devoted artists exceed even their contemporaries. They have gone

beyond simply making pieces of art to a state of mastery. Many of these pots are worth so much that they aren't even used, but exhibited in homes or museums.

Choosing a Teapot

When choosing a teapot, one can try to learn about its provenance. Many collectors start their study of Yixing by learning to recognize some of the chop marks on the bottom of the teapots. The chop will either be the name of the artist, or perhaps the factory itself, in the case of mass-produced or handicraft pieces. Nonetheless, it helps to have a teacher to guide our purchases in the beginning. Most often, anyone can distinguish the mass-produced pieces from the other

categories, though the discrepancies between the finer groups are more difficult to discern. Still, even mass-produced pieces aren't necessarily undesirable, depending on one's preference of style and budget. It is important, however, for the consumer to know what it is they are buying. For that reason, it's better to buy from a vendor with a good reputation and more transparent product information. Without any help, it's best to just handle the pot for a while, and use one's senses to assess its artistic quality and function. It should have a fine form and structure, with nice proportions between the spout, handle, lid and bottom. The skill of the craftsmanship should be apparent from sight and touch alone, at least to the degree that one can know whether it is handicraft or a higher grade.

Of course, the price and personal perspective will also play a part in the selection. It should be functional, and suit the needs of the user in regards to volume, kind of tea and aesthetic representation.

Functionality

The second criterion for the appraisal of Yixing, functionality, is really not separate from the artistic standard. Many of the values that make a teapot of high functional quality are also related to its artistic worth. Unless one plans to collect the pot and not use it to actually brew tea, the function and artistic value will both be important. These days, most collectors like to talk about three different aspects of a

teapot's faculty: clay, shape and technique. The first of these is the clay. One of the major reasons that Yixing has become so famous is that the clay from Yixing Province has a very unique composition. Most kinds of clay have traces of lead in them, which make them unhealthy for daily use. For that reason, potters fire their pieces a second time, using glaze. The glaze is brushed on like paint and has a similar constitution to glass. It fills the pores of the clay and coats it with a layer of protective, smooth finish that removes the threat of the lead, making the cup, bowl or pot functional. Moreover, the variety of colors, techniques and formulas within the glazes add another level of creativity to the artistic process. The clay from Yixing, however,

is naturally lead-free. This rare purity allows the craftsman to skip the glazing process altogether and just fire the teapots once in order to harden them. The clay is then left in its natural, porous state. The plethora of pours then begin to absorb the oils from the tea that is used, improving the taste of later brews more and more as the pot gets more "seasoned." For that reason, tea drinkers use only one pot for each kind of tea that they enjoy, since a green tea would be ruined by a pot that was seasoned with puerh.

Clay is Everything

A fine teapot inevitably comes from superior clay. There is a vast array of clay within Yixing Province; including red, purple, black, brown, green, blue, etc. And each variety of clay has its own characteristics. Some clays go together with certain kinds of tea better. Much of learning the differences between clays is simply about handling them. Teapots are made to be touched. They enjoy being held, and show their appreciation through a brighter surface. If the clay is refined manually in the traditional fashion, it will be worth more. Much of the differences between the mass-produced pieces and the higher grades is just that, the practical pieces are made from machine-processed ore, often mixed with chemicals that alter the color and decrease the cost of the natural materials. Sadly, since the mines were closed in the late 1990s, genuine purple-sand ore from the Yellow Dragon or Blue-Green Dragon mountains grows rarer and rarer. Nowadays, all of the mass-produced pots are made from material imported from other areas of Jiangsu, or even Anhui.

茶 These three pots are one of Wu De's favorite shapes: the Arhant shape. An Arhant is a Buddhist saint. They are said to resemble a person sitting in lotus posture. These three pots were all made by Master Chen. The difference between them is all in the clay. All three are genuine purple-sand clay, mined in the 1980s. The grade, however, improved from back to front. The closest pot is amongst the purest zisha clay we have seen in the modern era.





茶 A set of five classic shapes from the late 1990s.

Lu Yao Chen is one famous clay master who refines clay by hand. He said that when he sees ore of very fine quality, he never hesitates to buy it, no matter the price. “As the ore decreases, the highest quality ore will only increase in value. I think it’s important that it be refined by hand, the way it was done by my father’s father.” It will take a beginner some time to recognize the qualities of clay, but one should be able to recognize the poorer clays by sight and touch alone—and sometimes, but not always, by their price tag. Occasionally, we ding the side of the pot with the lid and listen to the sound. Higher pitched ringing means that the pot will be better suited to tea with a strong aroma, like green teas; and a lower, deeper thud means the pot is good for teas with stronger flavors, like oolong and puerh. Choosing a clay that is suitable for the tea that will be brewed in it, as well as a nicer quality clay, that is, if possible, hand-refined is a good place to start, when determining which pot to employ.

Shape

The second aspect of function is the pot’s shape. Of course, much of the shape is relevant to the creative movement of the artist and the opinion of the collector. But there are some aspects of shape that are important to function as well. As with the clay, some shapes work better with certain kinds of tea. For example, one may not want to use a pot with a very small opening to brew striped tea like Wuyi Cliff Tea. Otherwise, one would have to crush and break the leaves to get them inside. Ball-shaped oolongs, on the other hand, work better in a rounder pot, which gives them room to open up completely and in unison. Remember that some of the potters who make teapots don’t drink much tea themselves, and therefore aren’t familiar with all the habits involved. Some teapots look nice and have a nicely shaped appearance, but aren’t functional at all. One should make sure that the spout pours properly and fluently, as well as

that the handle is comfortable and the pouring motion is easy. If the pot is newer, it may have a built-in strainer, to prevent the spout from clogging. Inserting a metal one is sometimes necessary, but not as desirable. In the end, no aspect of the pot should be awkward to handle or use on a daily basis, unless the pot is meant to be artwork for decoration. The beauty of a teapot finds its ultimate expression in the tea ceremony itself. It should have a suitable capacity relative to the amount of tea desired, be of an appropriate height and shape for convenience and display, and have a tight lid and a spout that pours like a gentle river over rocks. In that way, the essences of its artistic and functional qualities are free to articulate their grandeur. When the shape of the pot is symmetrical, balanced and harmonious, a Chajin feels motivated to pick it up and use it to prepare tea, inspired by the aesthetics and craftsmanship of functional art.

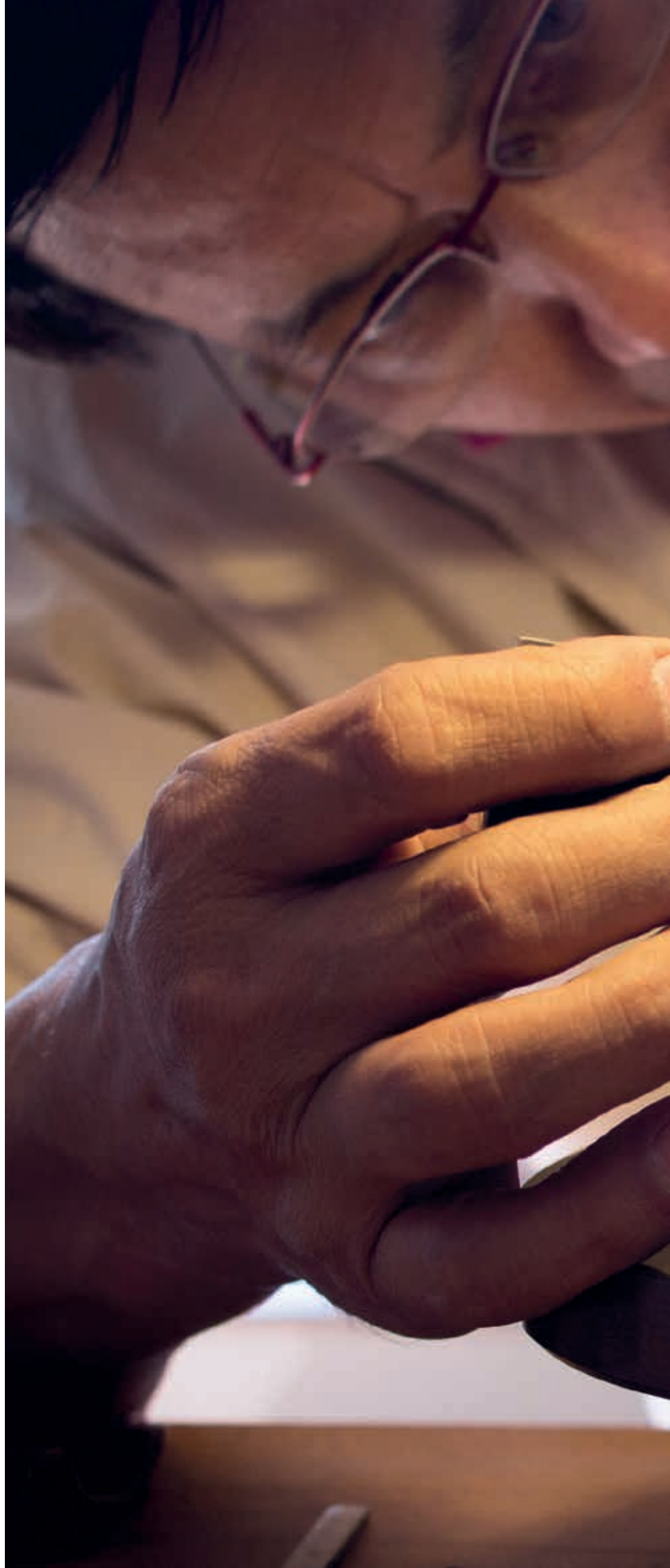
Craftsmanship

The final factor involved in judging the functionality of an Yixing pot is the technique used to create it. Was it thrown on a wheel or hand built? One can see the rings inside if it was thrown (rare and inferior, when it comes to Yixing teapots), and, with some acumen, begin to recognize the skill of the potter. The spout and handle should be precisely in line, and the lid should fit almost perfectly into the opening. The greater the craftsmanship, the more these aspects will stand out. The design and form are also helpful clues for determining the provenance of the piece. The value of teapots, like other art, is often based on the artist's reputation. However, it is a Chinese tradition for students to copy the work of masters, so one must be cautious when purchasing these expensive masterpieces. Some of the technique, therefore, is purely to increase the appearance of the pot. They are decorated with calligraphy, painting, engraving, decorative nature and many other motifs. One should look for technique and method that is unique and creative while at the same time functional—inspiring in appearance and employment.

In the end, a lot of choosing an Yixing pot boils down to predilection. When choosing a pot, a person needs to find one that they like, since they'll be the one using it day in and day out. One's taste, budget and tea preferences will all play vital roles in shopping for a teapot. The basic guidelines outlined here—like having a lid that fits nicely, a melodious sound when dinged with the lid, a proper spout that pours nicely—all of these are just strategies that are, in the end, secondary to your own feelings. Many collectors, when asked to show their favorite pot, will reach back into their shelf and pull out some small and cheap first purchase that served them well for many years and was like a friend that supported them as they grew in understanding of tea and teaware both.



茶 Master Zhou crafting a fine teapot out of forty-year-old clay. His concentration (samadhi) is powerful to watch.







STORING PUERH TEA

茶人: He Jingcheng 何景成

Storage methods are a common topic in the tea market, as tea merchants and puerh drinkers are all concerned about how it affects the quality, characteristics and price of the tea. There are many approaches to storing puerh, from “dry” storage and “wet” storage to Hong Kong-style, Taiwan-style and Guangxi-style storage. Of course, because of the differences in geography, climate and other circumstances in these various places, the storage methods developed there all produce slightly different results.

Yunnan puerh began life as a humble farming product. In recent times, however, it has gained widespread recognition and appreciation among tea drinkers, thus turning over a new page in puerh's splendid history. Why a new page, you may ask? Hasn't puerh only just become popular in recent times? Well, this is because puerh has a richer history than some may realize. During imperial times, it was once gifted as a tribute to the Emperor, and became the object of scholarly musings; in those days puerh must have been very highly regarded. As for why it subsequently all but disappeared from the annals of history and was relegated to the status of an everyday drinking tea for ordinary people throughout Guangdong, well, we won't get into that for now. Instead, let's discuss a more practical and oft-pondered aspect of puerh tea: the question of storage.

Perhaps we should start by talking about some details of puerh history that may not be known to many tea merchants or puerh drinkers, and are worthy of some consideration. Most old puerh on the market today are from before the founding of the Republic—some of these highly prized old brands include the Songpin

(宋聘號), Tongchang (同昌號) and Jingchang (敬昌號) names. Up until 1992, these now-prized teas were more or less all just lying quietly in the storehouses of Hong Kong's teahouses, taverns and restaurants—out of sight, out of mind. It wasn't until mid-1992 that people suddenly began searching all over for these old teas that had lain forgotten for half a century. When the owners of the tea started receiving inquiries about their puerh, they were astonished: how could anyone be interested in these old teas that had spent so many years stuffed away in a storehouse?

In any case, now that there were people interested in these long-neglected teas, the owners invited these few new customers to the dusty old storehouses to take a look. The strange thing was that the group of customers (none of whom were tea merchants) expressed great enthusiasm for the formerly unappreciated tea, and set about running to and fro choosing teas, completely oblivious to their dusty surroundings. When they had chosen their tea and it came time for bargaining, they were at a loss for where to set their starting price. On the tea market at the time, these puerh cakes were a priceless treasure.

Why were these teas considered so priceless? Well, because they quite literally had no established price. In the world of business, high demand makes something valuable; yet there had been no demand whatsoever for this tea for a good many years. So how was one to set a price? Nevertheless, both parties somehow agreed on the sale, and the customers happily took away the tea. Afterwards, the newly fledged tea merchants would advertise each tea as sourced from such-and-such a “dry storehouse,” so ever since then, the term “dry storage” (*gancang*, 幹倉) has been in circulation on the tea market, and has become synonymous with quality puerh. As to whether the conditions in these “dry storehouses” were actually particularly dry—well, that's another question.

The other, somewhat controversial, storage method is “wet storage” (*shicang*, 濕倉); namely, deliberately storing the new puerh tea in a sealed space with high humidity for a long period of time. The purpose is to ensure the tea leaves absorb the moisture from the environment, leading to faster aging. After a certain amount of time, the tea leaves are turned over to ensure that they absorb the moisture evenly, which aids the aging process.

宋聘號



茶 Above is a Song-pin cake from the early twentieth century and below is a Tongchang cake from even earlier. Drinking fully mature puerh is an important part of understanding how to age tea.

同昌號



After around three years of this so-called “wet storage,” the tea is transferred to a well-ventilated, preferably fairly dry place to be stored for a further year or so; this is commonly referred to as “removing from the storehouse” (*tuicang*, 退倉). This is done so that the circulating air can cleanse the tea of any moldy scents that it may have developed during the period of wet storage.

Of course, a moldy fragrance can sometimes mean that the tea has, in fact, grown mold. When the tea is stored in dry, ventilated conditions for a long enough time during this “removing from storage” stage, it’s possible to get rid of almost all mold or other unintended scents. Occasionally, you might find that a tea merchant has not allowed the tea to sit out the

appropriate time in ventilated storage, out of haste to sell it, resulting in a slight moldy scent still being present.

Why, then, is wet storage so controversial? The reason is that the degree of humidity is a vitally important element in the aging process of puerh tea. We can tell this by looking at samples that were aged in various different locations.

For example, you can see this difference very clearly by comparing puerh that was stored for twenty years in Kunming, Yunnan, with tea of the same vintage that was aged in Guangdong. Kunming’s climate is dry throughout the year, so the tea ages very slowly; whereas, in Guangdong there’s a very clear distinction between the dry and rainy seasons, and the tea shows a pleasing development after aging.

So, humidity has a considerable influence on how the tea changes throughout the aging process. You could say that the window for dry-stored tea was really the past thirty years or so; now, almost all puerh teas have undergone wet storage, and those that have been purely naturally aged are as rare as phoenix feathers. These days some tea drinkers have turned their attention to seeking out high-quality puerh teas that have undergone wet storage followed by ventilated storage. In the end, the question of wet versus dry storage really comes down to individual preference.

In recent years, because people have started paying attention to this question of wet and dry storage and because the price of puerh just keeps rising, many tea drinkers have taken



to seeking out puerh teas that they can age themselves to enjoy later. This is not to be discouraged, of course, but you do have to be very careful when attempting to age puerh yourself, so as not to waste all your efforts by spoiling the tea. In this spirit, the following are some recommendations to consider when storing your own tea.

Puerh discs, cakes or bricks can be simply stored as they are in their original packaging (be it box, tube or wrapping). The main considerations are to make sure the tea is not placed directly against a wall; is kept away from direct sunlight, strong odors and moisture; and is moved to a different spot every now and then. When the time comes, you'll have a lovely aged tea to drink.

Storing loose-leaf tea, on the other hand, can be a little more complicated.

First of all, you must prepare a container that is clean and free of odors, such as a metal tea canister, or a porcelain or purple-sand clay jar. Next, you'll need to line the container with some material to absorb any moisture, such as the paper or bamboo leaves that are used to wrap compressed tea cakes. Lastly, put in the tea leaves, then simply put on the lid of the jar or canister—no need to seal it completely. As for where and how to store it, this is the same as the above steps for compressed tea.

I have been a drinker of puerh ever since childhood, and have slowly progressed from being completely clueless to having some small understanding of things puerh. As I see it, puerh's journey from languishing in forgotten basements to basking in the lime-light that it enjoys today is thanks to a

combination of its rich character and favorable circumstances. I also believe that, in choosing a puerh from the great variety available, there's really no need to overly concern ourselves with the question of wet versus dry storage. All we need to do is simply choose a tea that suits our individual taste, and then enjoy drinking it.





PERSPECTIVES ON AGING PUERH

茶人: *Huang Haoran* 黃浩然

Puerh tea is widely known in Taiwan today. This is quite a contrast to just a few short decades ago in the early 80s, around the time that oolong and artisan teahouses were gaining popularity throughout Taiwan. Back then, puerh was almost considered unfit for serving in public; the one exception was Hong Kong-style teahouses, where the serving staff would enthusiastically recommend puerh tea to help create an authentic Hong Kong atmosphere—it would be scented with chrysanthemum flowers. Very few people brewed it at home though, and not many dedicated tea merchants offered it for sale. To borrow a common phrase from the time, puerh tea was “stinky” tea; in other words, it was associated with moldy or otherwise unpleasant scents. As you can see, it didn’t have a great reputation, and wasn’t considered suitable for refined teahouses. One could occasionally find it for sale on the old streets of Keelung Harbor or in the Juejiang shopping center at Kaohsiung, but even then the merchants would only introduce it to their oldest and most familiar customers. Artisan teahouses

that offered puerh were even scarcer, and few people in tea circles had any experience of puerh. All the puerh in Taiwan at the time was sourced from merchants in Hong Kong, or through people of Hong Kong origin living in Taiwan. Of course, all puerh-related knowledge was passed on through these middlemen too. So, it was quite a surprise that puerh culture took off in Taiwan and gained such recognition. One could liken it to the situation of Yixing purple-sand clay pots; if they had not gained such a following among Taiwan’s tea circles, they may never have made the journey out of China and become renowned for their quality throughout the world.

This surge in puerh popularity shows no sign of stopping, and has even spread into Korea, Malaysia and back to mainland China. However, there is a hidden drawback to all this fervor: across the whole puerh market, from Yunnan to Guangzhou, Taiwan, and so on, there is no real consensus regarding the definition, classification and desired qualities of puerh. This has resulted in much confusion, with merchants all saying different things and

some important concepts remaining murky and poorly defined, so many consumers simply aren’t sure who to listen to. Perhaps one of the most harmful misconceptions is the idea of “wet” versus “dry” storage, which has negatively impacted many tea sellers and collectors, and deserves to be addressed. In the following article, I’ll share some of my personal thoughts and learnings that are the result of many years of research and experimentation with both puerh and oolong teas.

First of all, we must establish an accurate and objective basic principle: puerh tea can be stored using different methods and for different periods of time to produce many completely different flavors and styles. In this respect, puerh is similar to Taiwanese oolong: the same batch of newly produced *maocha* can be made into at least five different oolongs, distinct in mouthfeel, taste and aroma, depending on factors such as storage temperature, aging time and roasting methods. The key to this is understanding the chemical and physical changes that the organic substances in the tea undergo throughout



this process. The difference between oolong and puerh is that the changes in oolong take place using “fire” (radiant heat or hot air) as a catalyst, whereas puerh makes use of the natural environment. So, we should avoid being reductive or narrow in our vision of puerh tea, and instead, we must approach it with an open mind and a sense of reverence, with an intent to explore and understand. So, what exactly are the influences of vintage, aging time and environment on puerh? Do you have a preferred vintage? Or, like me, do you find that puerh teas from all different vintages have their own unique character and worth, provided they are stored suitably and brewed at just the right temperature?

The second factor, which is the most important and the most difficult to understand, is storage: how should one best store puerh to age it to perfection? Can you just store it any old way, or must you follow the “dry storage” method that’s popular these days? And what exactly is this “dry storage” method, anyway? Does it really mean that even a little humidity is unacceptable during aging? This can be quite per-

plexing for tea sellers and consumers alike. I was also confronted with this during the early days of my puerh research, and I often wondered why applying the theory of aging oolong tea to puerh leaves had completely the opposite result to the desired one—after all, both varieties are still tea leaves, aren’t they? It wasn’t until I later recognized the interconnection of two related chemical processes in puerh tea—oxidation in the leaves and fermentation caused by *aspergillus* mold—that I finally understood the complexity of “post-fermentation” in puerh. It isn’t just one process or the other, but rather, the two interact differently in different environments, to trigger a series of complex chemical changes.

So, to decide how to store your puerh, you first need to understand the principles behind its fermentation, as well as what state the tea is presently in; then, you also need an idea of what direction you’d like the tea to develop in, to achieve the desired flavor. Since it’s a very broad topic, and I only have the space of one article, I’ll stick to explaining the theory of fermentation in puerh, and sharing a simple method for storing new sheng puerh.

As a simple way of explaining post-fermentation in puerh, let us turn to a useful analogy that will help us analyze this complicated topic: the “bicycle theory.” In order to be quick and energy-efficient, a bicycle must fulfill a few basic conditions:

- 1. The front wheel moves first and sets the back wheel in motion.*
- 2. The front wheel must be big, and the back wheel can be smaller.*
- 3. The size ratio of the front and back wheel must be appropriate.*
- 4. The chain must be the right length.*
- 5. The relative proportions of the front wheel, back wheel and chain must be adjusted to suit the road conditions (uphill or downhill).*

Of course, in reality the fermentation of puerh is a lot more complex than this analogy can express, but it's still useful as a simple comparison for the overall process. In our analogy, the front wheel represents fermentation caused by aspergillus fungi, while the back wheel represents fermentation due to oxidation within the leaves. The "chain" that sets off their interaction, then, is the temperature and humidity of the storage environment.

First, let's talk about the fermentation that is triggered by aspergillus mold. This is fermentation in the standard sense that most people are familiar with that takes place in alcohol, miso and other fermented foods. This process relies on the outside influence of a fungus (yeast, for example) to act on the carbohydrates in the food. For this type of fermentation, controlling the temperature and humidity of the surrounding environment is extremely important. Without sufficient heat and humidity, it's impossible to achieve a sweet, flavorful product. Puerh tea is no exception. Humidity is particularly important, as a certain degree of humidity is required to activate the fungi from the surrounding air, or the microorganisms present in the tea leaves since the manufacturing process, and allow them to reproduce. The secretions of these various fungi (the bulk of which are aspergillus molds) transform the organic substances in the tea—such as amino acids, cellulose, starch and pectin—into monosaccharides and then polysaccharides, giving puerh its rich, deep flavor.

While the tea is undergoing fermentation from these fungi, the polyphenols in the tea are also undergoing their own process of fermentation—that is, oxidation. As the fungi in the tea metabolize, they produce heat, and the heat, in turn, speeds up their growth. As this cycle intensifies, it causes the polyphenols to begin oxidizing. On top of this, the black aspergillus mold present among the fungi secretes an enzyme called polyphenol oxidase, which causes the polyphenols to undergo oxidative polymerization—in other words, further oxidation. These dual influences trigger a whole array of changes in the organic compounds in the tea, which bring out a pungent, vegetal aroma. Then, compounds such as amino acids and beta carotene, the

"pioneers" of fragrance in tea, continue to oxidize and change the aroma still further. This is why puerh is known for becoming richer and more fragrant as it ages.

This is the difference between puerh and other kinds of tea—puerh needs a certain amount of humidity for these chemical changes to take place; whereas, with other teas, such as oolong, it's the exact opposite: humidity must be avoided at all costs. If you stored oolong in the manner of puerh, exposed to the air or some degree of humidity, after a while, the tea would become sour and astringent, and the liquor cloudy. Left even longer, the flavor would become weaker and weak-

er, with more unintended, "messy" flavors. This is due to differences in the processing methods and in the tea leaves' DNA. The native Yunnan tea trees used to produce puerh are of the original large-leaf variety. Their leaves contain a special type of cell that aids the growth of beneficial fungi; under the right environmental conditions, this allows unique local varieties of fungi to flourish. The humidity is essential for these fungi to propagate.

So, we can conclude that humidity is vitally important for the proper post-fermentation of puerh. What would be the result if you took a newly produced sheng puerh and kept it for a few years in a cool, dry place? For this,

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we can return to our bicycle analogy: without humidity, our front wheel (the fermentation from those aspergillus molds) cannot start turning, so we'd be left to rely on the back wheel (that is, the oxidation of the polyphenols) to turn on its own. This results in the tea leaves taking on a brighter yellowish- or reddish-brown color, and as the leaves continue to lose moisture, the surface of the tea cake hardens and the aroma changes from a vegetal scent to a sweeter fragrance. The tea leaves become more tightly coiled, and, at first glance, it looks as if the tea will be even nicer for drinking—but in reality, the result is quite the opposite. The color of the liquor is bright and clear, but the

tea lacks nutrients. At first taste, the liquor is slightly sweet, but not sweet enough to have the proper appeal, and when the tea cools down, it becomes quite astringent.

If the tea is stored in these conditions for even longer, more than ten years, for example, the color of the tea will become darker and redder; the flavor, on the other hand, will grow more and more insipid. This is because when tea is stored under these conditions, the heat in the surrounding atmosphere is not sufficient to raise the temperature of the tea leaves and trigger the oxidation of the organic compounds in the tea, and all those simultaneous physical and chemical

changes that we discussed are unable to happen the way they should. Instead, the amino acids and carbohydrates in the leaves are consumed as “fuel” in the reactions that do take place, which is a great waste of the beneficial organic compounds in the tea. According to our bicycle theory, we could compare this to a bike whose back wheel is too large—this causes the front wheel to stop moving. Just how is one supposed to pedal such a bike and get the wheels revolving as they should? My sincere hope is that you, reader, may gain some insight from this analogy and save yourself the heartache of wasting your tea and effort due to unsuitable conditions!

At Least a Tong and a Cake



Over time, a puerh lover learns some lessons the hard way. One of the best pieces of advice we wish we could impart to our younger selves starting out on a tea journey is, as Wu De often says, “hit it hard!” When you find a puerh you like, buy lots. This means that you should know your tea budget and devote some percentage of it to aging tea for your future—your retirement in tea bliss. Otherwise, you will find that teas you love always go up in price over time. You buy a cake, drink it all, and then return to the tea shop to get a second, only to find the price has doubled. You think that is too much and buy something else instead. Then, years later, your friend makes that same tea for you again and you are blown away, determined to buy another, even if it is double. But, alas, now the price has quadrupled and you feel like shooting yourself in the foot for not buying five cakes when it was only double. Enough of such experiences and you learn to “hit it hard!”

Traditionally, puerh lovers always buy at least a *tong* (筒) and a cake. A *tong* is seven cakes of puerh

wrapped up in bamboo skin. Bamboo and tea have been married for centuries. Bamboo is odor free and protects tea. It has been used to store different kinds of tea all throughout China. The bamboo skin will protect your puerh from excessive humidity and mold, as well as disasters, like collapsing shelves, flooding, etc.

The reason puerh lovers buy at least a *tong* and a cake of teas they enjoy has to do with the way puerh tea ages. Through many experiments, tea lovers have found that puerh tea ages much better compressed in cakes than loose leaf. Loose-leaf tea is exposed to more oxygen and gets too humid easily. Also, the steaming and compressing creates the perfect environment for the microorganisms to do their work. But aged puerh is so much better when it is broken up. In the October 2015 issue of Global Tea Hut, Shen Su did the experiment of tasting broken versus compressed puerh. After the tea has reached a desired level of fermentation, it is always advisable to break it up and store it in a jar for at least a couple weeks before drinking. This exposes the inside to air and gives the tea breadth, making it more full-bodied and aromatic.

As you can see, a cake which you drink from is therefore not ideal for storage or drinking: storage because breaking into it compromises the environment and speeds up fermentation, and not ideal for drinking because puerh cakes are better broken up. And this is why we traditionally buy a *tong* and a cake. The extra cake can be like a scrap cake that you taste every few years just to see how the tea is aging and make a decision on when you want to start enjoying your aged puerh cake. After enough years have passed, you return to this eighth, scrap cake and decide that the time has come—the tea has reached the desired level of fermentation. At this point, you can take a cake out of the *tong* you have in storage, protected so nicely by the bamboo skin, which closes back up neatly over the remaining cakes, and break that cake up to store in a jar for a few weeks before drinking. If you want a gap between when the jar is empty and the time you break up the second cake from the *tong*, you can always return to your extra scrap cake again to decide when that should happen. Take our advice and buy a *tong* and a cake of the puerh teas which really speak to you!

Now that we've discussed what *not* to do, what *are* the ideal conditions for storing puerh? It's important not to lump all puerh teas into one category here, because there are many kinds and stages of puerh. However, for newly produced sheng puerh in particular, here are some basic recommendations:



1. *An enclosed space is preferable.*
2. *Avoid direct sunlight.*
3. *A humidity of around 80–95% should be maintained for at least one to two months out of the year.*
4. *Store the tea in its original box or cylinder; no need to break up the cakes.*
5. *Old and new tea can be stored at the same time.*
6. *During aging, try to enter or open the storage space as little as possible, to avoid disturbing the tea's fermentation process.*
7. *During the initial period of the aging process (at least three to five years) it's best to allow the tea sufficient time for the chemical changes to take place before moving it to a different place.*

Wrapping Up the Tong

Of course, some of us may have trouble achieving all of these conditions—with the outrageous housing prices in Taipei, for example, even the most dedicated Chajin would be hard-pressed to find a separate space in their house just for storing tea! On the other hand, Taiwan's humid, subtropical climate means that no matter if you're in the north or south, at least one-quarter of the days in the year will be hot and humid. So those of you in Taiwan can simply put your batches of tea in cardboard boxes and place them in a cupboard or basement.

If you're storing the tea in an open room, remember to keep it away from windows—the corner of the room is a good choice. Avoid turning on the air-conditioning if possible—there's no harm in letting the indoor temperature and humidity vary according to the weather outside. It's best to seal the cardboard box up, with no holes or openings. After being kept like this for three to five years, the tea will have changed substantially, with the astringency and sharpness of the new tea mellowing out considerably. The tea

will take on a sun-baked aroma that evolves into a subtly sweet, fruity fragrance, and the liquor will be amber or light brown in color. The flavor will become sweeter and smoother, and the overall composition of the flavor will show a pleasing development. Once a puerh displays all these signs, it has completed the first step of post-fermentation, which will form a solid foundation for further aging.

You can brew puerh at this stage in its maturation using medium-temperature water (90 °C or so), which will produce a sweet, refreshing liquor. Or, you can consider letting the tea continue to ferment in the same location or move it to a different place with a fairly high temperature, to allow continued aging and oxidation to further change the composition of the flavor. You can choose how to adjust the process based on your own tastes.

So, in summary, the changes that puerh undergoes during post-fermentation are many and complex, and certainly can't be conveyed in just a few words. This article is but a brief outline of the general principles—an offering

of a small portion of my own learnings on puerh. My main goal is to clear up the confusion surrounding “wet” and “dry” storage, and to provide some clarity on the steps in the post-fermentation process. It's important for us, as lovers of tea, to understand this, as mistakes in selecting the storage environment could mean wasting much time and money; even ten or twenty years on, when we ourselves are showing some signs of aging, we might still never get to enjoy a cup of truly great puerh! It is also my heartfelt wish that you, puerh lovers, not be content with just reading the packaging and listening to what other people tell you; but rather, that you might put in some more time and thought to research and observe puerh's changes for yourself, and experience its differences and subtleties. Just think: if you start with the same puerh tea, you can speed up its evolution, or shorten aging time, and get different results, simply by changing the environment. In the life of a tea lover, is this not a wonderful thing?



茶 These cakes are successively older towards the bottom. The first is Forest Bridge, our 2016 Light Meets Life cake; the second is from 2006; then, 1999, early 1990s and the bottom is a 1980s 7542. With the last three, you can see how much humidity makes a difference, as the last two were stored much drier than the third to last from 1999.





STORAGE TECHNIQUES

茶人: Zhan Shunqian 詹順騫

In the last ten years or so, a puerh craze has spread from Hong Kong to Taiwan, so these days almost everyone is familiar with the tea and its properties. During this past decade, knowledge of puerh in the tea industry in Taiwan has gone from almost zero to being quite plentiful, and has also crossed the channel over to mainland China. Now, the puerh market is flourishing, but the one area where knowledge is still lacking is the matter of storage methods. These methods have evolved from those used in Hong Kong's old storehouses to become the modern techniques that we use today.

The puerh tea that came to Taiwan from Hong Kong in the early days often had what was referred to as a “stinky” aroma—this was indicative of less than ideal storage conditions, which led to the tea being contaminated by other scents. This misled many early consumers into believing that puerh tea was supposed to smell this way. It wasn't until the last few years, when Taiwan began promoting dry storage for aging puerh, that opinions began to change. In the early days in Hong Kong, nearly all puerh tea would undergo a period of wet storage in a basement or other humid place, to speed up fermentation and give the tea liquor an aged flavor. Nowadays, it is better to call such tea “Hong Kong” or “Traditional” storage.

But these storage methods also changed the style of puerh tea and made it lose some of its original character; in addition, the proportion of tea leaves that were damaged or spoiled during the storage process was around 30%. This would represent a very big loss, so those damaged leaves were included in the tea that was sold, to bring in more value.

Of course, tea merchants and consumers didn't know this, so they were deceived. Even now, in this age of

information transparency, it's taken people a long time to cast off this fog of misperception and realize that this flavor was a product of the specific humid storage conditions in Hong Kong, and not a characteristic of puerh itself. So, here in Taiwan, I have put a lot of effort into recommending puerh that has been aged in dry storage. Although puerh is post-fermented, it still retains the character of the original tea; the more appropriate the storage, the more appealing the end product.

Driving the Trend

In the early days, there wasn't a lot of acceptance of dry-aged puerh in Taiwan. Then, as now, if one hadn't ever come across dry-stored puerh, there was no opportunity to experience the true grace and charm of puerh tea. Consumers were generally used to drinking quite soft, mellow teas, and dry-aged puerh is unable to reach that level of mellowness in less than ten years; it starts out quite sharp, and only after twenty years or more does it begin to mellow slightly.

So really, it takes around twenty years to produce a tea that most people will find easily palatable. From a busi-

ness perspective, storing tea for twenty years before being able to sell it isn't very feasible, yet it had to be done in Taiwan. So, in the beginning, it was very difficult to promote dry storage in Taiwan. Tea merchants had to suffer the torments of time; and time was also necessary to prove the success of the method. After the ten years had passed, the puerh tea aged in Taiwan would begin to display different characteristics, thanks to these different storage techniques.

The Need for Warehouses

In the early days in Taiwan, there wasn't a particular principle behind puerh storage; it was simply about finding a place to stack all the puerh that had been bought from Hong Kong. As the volume of imports increased, there was no longer enough space for all the tea, and the value of tea leaves was also on the rise. It was only at this point that the tea merchants began to realize the importance of dedicated storehouses. So, the need for tea warehouses grew out of the need to run a sustainable tea business. When establishing the first storehouses, tea merchants really had to have long-term vision.

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They also had perseverance. Without dedicating themselves fully to the occupation of selling tea, it would be very difficult for the business to last.

The construction and layout of the tea storehouses came about through a process of trial and error. The Taiwanese methods were based on the experience of Hong Kong merchants, then improved upon. In Hong Kong, the tea was generally stacked into piles; this was a good way of saving space, even with large volumes of tea, and also aided the post-fermentation of the tea leaves.

Trial and Error

In early storehouses in Taiwan, the tea was stored on iron angle shelving to be able to stack it and aid the post-fermentation process. Many different merchants used this method. However, a year later, these iron shelves were eliminated, as tea merchants continued to ponder more efficient storage methods.

So, with the combined goal of aiding fermentation and increasing space efficiency, the experimentation led to the adoption of the storage method that's still used now: steel angle shelving. Each shelf can take quite a lot of weight, so through a lot of calculations, today's tea merchants are able to achieve very efficient warehouse management, in terms of both keeping track of inventory and classifying goods.

The problems faced by early warehouse operators, such as excess humidity or insect damage, have all been addressed by modern storage methods. During this early period of experimentation, new methods were developed by trial and error; when a new problem arose, they found a new solution. Of course, I'm only able to describe the innovations that have happened up until now—who knows what superior methods may be developed in the future?

A modern tea warehouse must account for the necessary hardware, plus the need to protect the tea leaves

from excess humidity and unintended odors. When the tea is stacked to a certain level and the warehouse temperature is higher than the outdoor temperature, the tea leaves will tend to absorb all available moisture, and can easily become moldy if it's too humid.

The storage facilities must be kept dry and well-ventilated. During the damp "plum rain" season, more dehumidifiers must be added; while in the summer when it gets too hot, fans are needed to increase air flow. To avoid insect damage, mosquito lamps are used, and the whole facility must be carefully monitored to make sure no water leaks in from outside. If there's ever a problem with any of these, it must be fixed as quickly as possible.

Storage Experiments

The tea merchants also noticed that post-fermentation could produce different results in teas that were stored in different places. As soon as a puerh cake is produced, it begins to oxidize, and this process of fermentation continues indefinitely, at all times, unless it is artificially stopped by sealing up the tea. In Taiwan, there are no artificial methods used to increase the degree of fermentation of the tea—the methods used to achieve the ideal post-fermentation are all natural.

Once you have stored all your tea leaves in one place, it's important to check that the only scents in the warehouse are the fragrances of the tea—the tea leaves must not be exposed to any other odors. In Taiwan, a basement is a good choice of location to store tea, as it stays warm in the winter and cool in the summer.

The main thing to be careful of with basements is the humidity. To combat this, we installed an extractor fan in the basement and made sure the entrance has plenty of ventilation, to ensure sustained air flow. A few years into this experiment, we found that it was beneficial to the development of the tea. When adding new teas to the basement, they're also liable to be susceptible to humidity, so it's important to monitor this regularly, checking on the tea every few months.

If a tea is unsuited to being stored in the basement, then you'll need to move it upstairs. The temperature on



茶 If you are in a drier climate, using a jar like this one made by Petr Novak to store puerh tea can help. Puerh actually ages better when there is more around—the more puerh stored together the better. An unglazed jar will absorb the aroma of the tea and echo it back to the cakes, to some extent mimicking many cakes together. Jars also can increase humidity. However, if you are in a very wet place, jars can also trap humidity and create a wetter environment. When we use jars, we keep them full, and then replace space with rice paper as we drink the tea.

the top story is comparatively high, so the tea will change more rapidly. To really understand tea storage, two factors are essential: time and practical first-hand experience.

A Chajin's Dedication

Once the storage facilities are all properly set up, the only thing left to add is the care and dedication of the people who look after the tea. Taiwan's tea warehouses are very clean and pleasant. Each layer in the stacks of tea is the height of two cylinder-shaped tea packages. Every half a year, the loose-leaf tea must be turned over, as loose-leaf is the least well-ventilated while fermenting, so every single bag of tea must be flipped. Puerh cakes, by comparison, are moved once a year. Thanks to this, there has been no sign of mold in Taiwan's tea warehouses. In dry storage warehouses, one can determine the tea's current stage in the aging process by analyzing its scent. The further along it is, the richer and

more fragrant the aroma; and when a lot of tea is stored in one place, the whole warehouse becomes like a giant air conditioner, which is beneficial for the fermentation of the tea.

Only when the outside conditions are particularly unfavorable (such as in the plum rain season) does special caution become necessary. And the cleaner the warehouse is kept, the less chance there is of the tea leaves absorbing unwanted odors. When new and old teas are stored together, this will benefit the oxidization of the new tea. So, all the teas from Taiwan's storehouses have a special sort of fragrance: the scent of a Chajin's care and dedication.

Nowadays, many Chajin are wholeheartedly committed to professionalism and to further developing and promoting puerh tea. This is a way of preserving traditional Chinese culture and honoring the efforts of our forebears; if those who came before us hadn't produced such excellent puerh, how would we of future generations have the opportunity to taste such wonderful aged tea?

The aroma of tea is not just the fragrance of the leaves themselves; it also contains the traces of the toil and dedication of those who came before us. Today, living in such prosperous times, we have all the more opportunity to create a bright future for tea, so that the Chajin of the future may also have the chance to drink a wonderful cup of puerh and feel the heart and dedication of their forebears. This is a beautiful inheritance; may we all work together to pass it on!



✿ *This is a large warehouse in Guangzhou, where several thousand tons of puerh tea are aged professionally.*





PUERH STORAGE IN MALAYSIA

茶人: Qiu Jinquan 邱錦泉

The four main areas where puerh tea was traditionally aged were Hong Kong, Guangzhou, Taiwan and Malaysia. Each place takes pride in the way tea turns out locally. Of these four, Malaysia offers the most unique storage conditions, since Hong Kong, Guangzhou and Taiwan are relatively close together and similar in temperature and humidity. Malaysian stored tea is very special and certainly worth exploring in an article and if you can drink some tea stored there!

Malaysia is made up of two main landmasses, separated by the South China Sea: East and West Malaysia. East Malaysia is made up of two states, Sabah and Sarawak, which are located on the island of Borneo. West Malaysia (or Peninsular Malaysia) is made up of 11 states and one federal territory (Kuala Lumpur), and is situated on the Malay Peninsula. Malaysia has a tropical monsoon climate, which means that it doesn't have four distinct seasons. Thanks to the southwest monsoon, though, it does have a relatively dry season from May to September. From mid-November to March, the northeast monsoon brings a lot of rain to most regions, especially Sabah and Sarawak in East Malaysia. By mid-August, the east coast of West Malaysia is universally more humid than the west coast, thanks to the frequent rains. The daytimes in Malaysia are hot and dry, and the evenings are pleasantly warm. The average yearly temperature is between 25–30 °C, and the average humidity is around 60–80%. So, the temperature and humidity remain fairly constant all year round. And many tea lovers think this is ideal.

With the goal of finding out more about how puerh tea is stored and aged in Malaysia, I talked to a tea master with a wealth of experience on the subject: Master Lin Pingxiang (林平祥). He has spent many years immersed in the world of tea and has a lot of knowledge and experience of Malaysia's geographical environment, and of storing puerh. According to Lin Pingxiang, most Chinese immigrants to Malaysia settled in West Malaysia, so naturally there were more lovers of Chinese tea there, too. Malaysian society is made up of many cultures and ethnicities, and Malaysia also went through a period of British colonization, so the Chinese merchants living in Malaysia were a lot more open and accepting toward other cultures than some of their contemporaries who settled in other countries.

As a result, Malaysia's local Chinese population were familiar with a wide variety of beverages, from coffee and English-style "black" tea to puerh, green tea and oolong. Because of this, they didn't tend to strongly prefer any one type of drink or tea culture, and tea leaves tended to simply be stored in natural conditions. By contrast, in Tai-

wan, one must look after puerh very carefully during storage, to prevent the changing seasons from influencing the character of the tea.

Across the sea in Hong Kong, according to Lin Pingxiang, tea merchants have a lot of practical experience when it comes to storing puerh, so they've developed a very comprehensive and expert set of storage techniques. Most tea lovers in Malaysia choose to store their tea in their own houses, as they're generally not as short on space as their counterparts in Hong Kong and Taiwan. According to Master Lin, any space with good ventilation and no odors is suitable for storing tea. But, he warns, one does have to be careful with most modern houses in Malaysia, especially one- or two-storied terraced houses, as their rooves are somewhat lower and the ventilation not as good as that of old-style houses. This means that the temperature inside the house can tend to rise in the daytime. So, he recommends that if your house has rooms at the front, middle and back, rooms in the middle are the best option for tea storage. This is because they are the least influenced by changing outside temperature,





smells and humidity. In two-storied houses, the ground floor will tend to be more humid than the top floor.

Master Lin also believes that “raw” sheng puerh *maocha* and old tea should be stored differently. Sheng puerh is best stored in a slightly more humid place to aid the aging process, whereas old tea prefers a drier climate to stabilize the changes in the tea. Of all the places in Malaysia, he finds that Ipoh in northern Malaysia and Sungai Lembing in Pahang State are particularly good for aging sheng puerh cakes, because they have a higher concentration of negative ions due to their low-lying geography. On the other hand, districts closer to the central mountain ranges, such as Bentong and Kuala Pilah, are excellent for storing old puerh tea, as they have a relatively low humidity throughout the year.

Master Lin also pointed out that some houses and shops in Taiwan are equipped with a basement, and a small number of tea lovers and merchants will store their tea there. In these cases,

thanks to their careful monitoring of the tea, it tends to age every bit as well as tea leaves stored in other environments.

As well as Master Lin Pingxiang, I also once had the good fortune to interview Mr. Ya Shun (亞順), the business manager of Perak State’s Qiu Ming Tea Company. Drawing from his many years of experience with aging puerh, Mr. Ya told me that many people are in the habit of putting sheng puerh cakes on an aluminum shelf to age in their original cardboard box. However, unless the tea has already had at least five years of aging, he recommends foregoing the box and placing each cylinder of tea cakes individually on the shelf for optimal results. He also advises that, if you are storing the tea in cardboard boxes, you shouldn’t place the boxes right next to each other, but rather, you should leave around an inch of space between the ends of each box to allow the air to circulate properly. Ventilation is a key to successful puerh storage.

Puerh tea packaging, especially that of traditional bamboo leaf-wrapped puerh cakes, has a lot of artistic merit. Because of this, Mr. Ya Shun encourages people who only need to store a small volume of tea to display the tea cakes in their original cylindrical packaging in the living room. Your average living room will tend to be free of any strong odors, and the puerh tea will add a certain feeling of culture to the atmosphere as well as looking decorative. Of course, if you want the absolute best result from your puerh, Mr. Ya still advises a separate storage space if possible, as this will allow the aromas from the tea to mingle together, which is beneficial for the evolving character of the tea as it ages. According to this advice, I myself (located in the Kuala Lumpur area) store my tea in a separate space of its own.

I advise storing sheng puerh and shou puerh cakes separately. It’s also good to store a reasonable amount of tea in one place, as this will allow the aromas from the tea to mingle. It’s also



important to move the tea to a different place at regular intervals according to the passing time and changing humidity, to allow all the tea leaves to develop and change evenly. When storing tea leaves, Malaysian people are careful to keep them away from the floor and walls, no matter what the storage location. Add to this the consistent year-round temperature and humidity, and Malaysia really does make for an excellent natural storehouse for puerh. Master Lin Pingxiang has conversed with many overseas tea merchants and Chajin over the years, and has found that they have a deep appreciation for puerh aged in Malaysia—in fact, some of them have gone so far as to buy houses in Malaysia specifically to store tea.

Most Chajin from around the world who have tried Malaysian-aged puerh also tend to agree that it is of a very consistent character and an excellent natural flavor. Some friends and I once took a few puerh cakes that had been aged in Malaysia to Yunnan's Heyang

Tea Factory (云南和养茶厂) to share with the factory director Dong Guoyan (董國艷). Director Dong was once the deputy director of the Hai Tea Factory, then later took on the joint role of board member and deputy director of the Liu Da Cha Shan (“Six Great Tea Mountains”) tea company, and is now a board member and director of the Yang Tea Market; so countless puerh tea cakes have been produced by her own hands and under her supervision.

The puerh cakes we took over to share with Director Dong were ones that she had compressed herself. After drinking the tea from these Malaysian-aged puerh cakes, she expressed great surprise: she had drunk tea from the same batch of cakes that had been aged elsewhere, and found that the tea from the cakes aged in Malaysia was superior in flavor, with a natural fragrance that was both fine and rich.

As we've seen from these examples, Malaysia provides an excellent environment for aging puerh compared to most other countries. Although local

Chajin do not really have a concept of “storehouses” as such, and puerh storage methods are still in a stage of discovery and experimentation, there have not as yet been any incidents of people setting up morally questionable “rapid aging” storage warehouses. According to Master Lin Pingxiang's observations, the growing demand for puerh in recent years has inspired many local Chajin and tea sellers to pursue more specialized and scientific storage techniques. When coupled with the already ideal climate and environment, this will be instrumental in taking the refinement of Malaysian puerh to a new level. It's very heartening to see the effort and dedication that today's Chajin and tea industry professionals are putting into advancing puerh tea culture in Malaysia, and to witness their common hope for the future of puerh.



STORING PUERH TEA AT HOME

Normally, most tea drinkers buy tea when their stash at home is finished, and it's no different for beginners who have started to enjoy puerh tea. They may buy different kinds in small quantities to try different brands and varieties, but they don't drink that much tea so a small amount of each kind is reasonable for them. Eventually, some of these tea drinkers will fall in love with the elegance, rich depth and tremendous variety of experience that puerh has to offer. They will become "aficionados" and begin to drink puerh every day. In fact, once hooked, the passion for tea rarely lets go. Many will drink tea for the rest of their lives. The change from interest to obsession is usually rather evident, as the collection grows and shelves go up, are filled, and so on—until a room or two is needed, and there's puerh coming out of the cracks in the walls.

Why We Collect Puerh

One of the first realizations that a person comes to when they start dabbling in puerh tea is that the tea pro-

duced from a specific year, having its own special flavor, will not be available forever. Productions are limited, and the harvest changes every year, even if the same factory gets its raw material from the same place. Any given puerh tea, once out of stock, can never be replaced. And even if the same tea is still available, the price will be substantially higher as years pass; and sometimes the price will rise to a point that is higher than the collector's evaluation and appreciation of it, which only leaves him or her feeling frustrated. Therefore, most puerh tea lovers choose to store their own puerh tea at home, in order to secure their future stock.

Soon enough the puerh tea connoisseur has stacks and stacks of tea, and continues to buy large quantities of tea. The cakes eventually begin to occupy a lot of space, until they have to delegate a place for "tea storage." Similar to an oenophile setting up their own wine cellar, collectors set up puerh tea cellars. After some years of storage, the collector will quickly understand the many benefits that his or her "tea cellar" offers. For example, while others are complaining about the inflated prices of certain vintages, he

or she has more than enough for daily consumption and often even enough to share with friends. The teas that one loved when they were young are much richer, subtler and more enjoyable when they are aged. Personally, I am proud of my collection. I bought many older vintages long ago when they were cheaper and can now enjoy them on a regular basis; meanwhile, most collectors are struggling just to afford a single cake. Also, as these teas appreciate in value, they represent a financial asset that can be sold, if the need arises.

When an enthusiast reaches the point where he or she decides to set aside a space for the storage of puerh tea, the first critical question is, "How to properly store puerh tea at home?" Some experts believe that puerh tea is easy to store and that there is no skill involved: you just put stacks on a shelf, and voila! Others say that puerh tea needs proper ventilation and exposure to humidity. Actually, inappropriate storage methods or an unsuitable environment will have disastrous effects on puerh tea, leading to deterioration rather than excellence. It would be a pity to discover several years later that one's tea is undrinkable. Furthermore,

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poorly stored puerh tea is not only a waste of money; it’s a waste of time. One can always earn the money lost, but there is no getting back the mis-spent or squandered vintage in the tea. Sadly, one would then have to pay the market price for the well-stored puerh tea—the same tea they themselves bought ten years ago and wasted. Standing in the store amazed at the drastic increase in price over just ten years, the vision becomes even more distraught. Every one of us would like to be spared from such a fate. But even when the collector realizes that tea shouldn’t just be tossed onto shelves, all kinds of important questions arise concerning what exactly is “proper” storage. Humidity is needed, but how much? Exposure to oxygen, which means proper ventilation, but how much and what’s the best way to achieve this? Many experts have different answers to these questions. Sometimes certain aspects of storage are relative to the taste of the collector. I hope that my experience storing puerh tea at home will help those who are just beginning to create their own storage environment. I will divide the discussion into two parts. This first part will deal

with the prerequisites for home storage of puerh tea, and later, in another issue of this magazine I’ll offer Part II, focusing on the important details that one needs to pay attention to during the long period of storage.

The Purpose of Storing Puerh Tea

It is important to understand clearly why connoisseurs, collectors and vendors store puerh tea. As mentioned above, this saves the collector a lot of money on tea, since they will appreciate in value and only be more expensive in the future. The financial investment also attracts many, including the vendors. But why are puerh teas stored at all? Why did the practice even begin?

In point of fact, puerh tea is not drinkable when it leaves the factory. There are some varieties that offer a decent cup right away, and some occasionally are enjoyable to certain tea lovers, depending on taste. However, the most fascinating aspects of puerh tea are the sensations offered in a sip of well-aged puerh tea. Young teas cannot

compare at all to the rich, smooth, elegant, sweet broth and comfortable aftertaste of older teas. Young teas must undergo a natural aging process that normally takes fifteen to thirty years. Aficionados are often not willing to buy a tea unless it has matured enough to drink, which is one reason why vintage puerh is so expensive. Because of the time factor, which incurs the cost of capital and interest, it would be impossible for puerh tea vendors to survive if the stock in the warehouse couldn’t be sold for a profit that validates the storage time. Thus, storing one’s own puerh tea is actually saving the “storage cost” that you would be charged had someone else kept the tea. Simply put, the main reason for storing puerh tea is that it is far more enjoyable when it is aged. Just as an old wine is more delicious than a new one, aged puerh tea is the real reason that most of us started collecting in the first place. It was the rich brown cup and deep flavors and aromas of our first experience with aged puerh that enticed us to start collecting. Aged puerh is a marvelous experience, and there are very few teas as fulfilling or full-bodied as aged puerh!

Basic Criteria for Storing Puerh Tea

Even with only a few cakes of puerh, the storage environment requires careful attention. Otherwise, the tea, a handful or a ton, may degenerate. In order to age puerh tea properly, pay attention to the following basic criteria:

- 1) *Humidity of 70%–80% (exposure to high or low humidity is not recommended)*
- 2) *Adequate ventilation*
- 3) *Proper wrapping materials*
- 4) *No odor, regardless of whether it is pleasant or not*
- 5) *Temperature of 20–30 °C*
- 6) *No exposure to visible light (a dark environment is better for aging puerh tea)*

First: Humidity

Humidity is perhaps the most important aspect of storage. Cakes stored in an environment with too little humidity won't ferment, and if the humidity is too high the quality will decrease over time. It is consequently important for the collector to be able to discriminate the affects of different humidity levels. Learning with your own senses will teach you far more than any amount of books or articles will ever be able to do. One way to experiment is to take an inexpensive tea cake and expose it to humid air on a rainy or foggy day. On a very rainy day, with the windows open, the humidity will usually be around 80% to 90%, which is too high for puerh tea. You will find that a tea cake exposed to humid air becomes soft, no longer crispy to the touch. If you break it apart, you will find that the tea leaves are also soft and don't break apart as easily. This indicates that the tea cake is too damp. If one were to then wrap up the cake in that state, the water trapped inside would lead to a decline in quality over time. Feeling and drinking a damp cake in comparison with a dry one will help a collector recognize the variations that excess humidity can cause over time.

Leaving an inexpensive cake out on a rainy day teaches collectors about the effects of too much humidity, and gives them some experience touching and handling tea that has been over-humidified. However, if you buy more than a stack of puerh tea, checking the extent of humidity absorbed by tea cakes wouldn't be possible without breaking apart the bamboo bark wrapping. Therefore, it isn't easy to tell whether there is anything wrong inside the cakes. Usually, puerh tea lovers would like to keep the original outlook of the *tong*, because the value of a wrapped *tong* is worth more than seven individual cakes, and the bamboo bark helps protect the tea over time. In that case, the only way is to check the wrapping materials themselves, feeling whether they are still hard and crisp. By itself, this isn't enough because some kinds of wrapping materials are more resilient than the tea cakes inside; the tea might be wet while the packaging is perfectly dry. Therefore, we must smell the stack to see whether there is any unpleasant odor. If there is water trapped inside a stack of puerh tea, the smell of the stack will irritate the nose and be unpleasant. If the storage conditions are good, the aroma from a dry stack of cakes is very attractive and fresh. The longer one collects puerh, and the more they go into the storage room to touch and smell their teas, the more they will be able to notice even slight changes and correct them accordingly. Try smelling the damp and dry cakes, drinking them and handling them repeatedly. One may even smell the damp cake as it sits out, noticing the changes each hour of wet storage brings.

Do you need a dehumidifier/humidifier?

Some people are of the opinion that the greater the humidity, the better. They argue that a dehumidifier is not required because puerh needs humidity to age. Of course, it does need humidity, but how much is healthy and whether fluctuations are important is a relevant issue to those with a serious investment in puerh. As mentioned above, the optimum range of humidity is around 70% to 80%. It may be a good idea to get a hygrometer to measure the relative hu-

midity in your storage area. If the humidity gets near 90%, or if there is a lot of precipitation during a particular season, you will need a dehumidifier. The dehumidifier shouldn't be overused. It would be unwise to run the dehumidifier constantly, creating a space that is too dry. This is as undesirable as higher humidity. When the humidity gets higher, run the dehumidifier until the humidity returns to the desired range and then shut it off. Tea collectors living in places like Beijing or Canada, on the other hand, may have a hard time storing puerh tea. It may be possible to use a humidifier, as long as it is not pointed at the tea, to try and generate more moisture. However, I must stress that areas with low relative humidity may not be suitable for puerh tea storage. Humidity is why puerh has traditionally been kept in places like Hong Kong and Taiwan. Those living in dry climates may be better off purchasing vintage puerh, or perhaps trying to rent or purchase some storage space in a better environment.

Some people try methods of natural correction to alter storage conditions. They will use chalk or charcoal to absorb moisture when it is too wet, and I have even heard of others using buckets of water in a dry climate. I think that the charcoal and chalk, as long as they are odorless, are acceptable methods of correcting excess humidity. I prefer a dehumidifier, because it is more accurate and convenient. However, I wouldn't recommend adjusting low humidity by allowing water to evaporate in the room. Such a method may cause more harm than help.

Second: Ventilation

Some experts suggest that removing the wrapping materials from the tea cakes will accelerate the aging process. However, I am of the opinion that the risk of exposure to excess humidity outweighs the potential benefits. In fact, removing the wrapping may be detrimental to the aging process. Puerh tea does need adequate and appropriate ventilation, but, like most other aspects of the storage process, there must be a balance between too little and too much oxygen. If puerh tea is exposed to a lot of moving air, the tea will become weak and the sensations, tastes and



aromas will lose their poignancy. This happens because the oxidation process inside the leaves occurs too fast. Most puerh collectors who are serious about drinking vintage teas agree with this experience. Really, slight ventilation is more than enough for aging puerh tea. It is unnecessary to remove the wrapping. The tea should be placed in a room that gets fresh air several times a week. An open window, or even a door that opens into a larger room that has open windows, will allow more than enough air into your storage room. If you are young enough, you might even want to slow down the aging process. Every tea has a climax—a peak time when it is best appreciated. Generally speaking, puerh tea aged for 30 years is already very good. Some tea will be better stored for much longer, and others don't need as long. Much of that aspect of storing tea takes quite some time to discriminate, and is also often determined by the taste of the individual. Over time, we all learn patience, choosing when to break apart an aged cake for enjoyment and what degree of fermentation we like.

Third: Wrapping

My Friend's Storage Mistake

I have a friend that stored a few tea cakes at home recreationally. One day, he brought over two interesting tea cakes. He had bought two identical late 1980s tea cakes which were clean and properly stored by the vendor. However, several months after buying the two cakes, my friend realized that one of them no longer had the same clean and dry character as the day he bought it. It was very musty and wet. He was surprised that the cakes' conditions would be so different after only some months, especially since they had both been stored under the same roof. After I asked him for some more details, the picture became clear. My friend had left the tea cakes on a table for several days after purchasing them, in order to look at them. He had bought the tea in spring, and the humidity in Hong Kong at that time is higher than the rest of the year. Consequently, the elevated humidity had affected one of the two cakes. The other tea cake did not

have the same character, because the vendor had given him a paper box for each tea cake and he hadn't opened one of them. It was the open one, exposed to the extreme humidity, that wasn't as good. However, leaving the opened cake on the table in spring wasn't ultimately what made the two cakes so different. If he had dehumidified the tea cake before repacking, it would have corrected the exposure to higher humidity. His fatal mistake was that he trapped the excess water inside the tea cake by wrapping it up.

My friend's experience illustrates that wrapping materials are important during the course of puerh tea storage. They can save your tea, not to mention a lot of heartache. Even though the storage environment of Hong Kong and Taiwan are often too humid, the wrapping papers, materials, boxes and/or bags serve to protect the tea cakes (and your heart) from excess moisture.

One needs to be careful about what wrapping materials are put on the tea and the condition of the cakes just prior to packaging, which is something many people don't think of.

How to Prepare New Tea Cakes

Much of what applies to cakes that have spent some time in storage also applies to newborn tea. The cake needs to be inspected to see how it has been stored and its moisture content. Even recently compressed tea cakes may have higher water content, because steam is used in the processing to soften the tea leaves for compression, and the cakes sometimes leave the factory without having been sufficiently dried. The tea cakes are dehydrated on large racks in a special drying room. Generally speaking, this dehydration process takes several days. However, every now and then, the tea factory may have a lot of orders to handle, and they, therefore, don't have enough time for proper dehydration. As a result, some cakes have high moisture content when they are wrapped up and shipped from the factory. This doesn't happen with tre-

mendous frequency, but it does occur. If you have bought a cake that is damp, or if you have purchased a cake that has been through some wet storage, one should treat it before putting it into storage. One can use a dehumidifier in a controlled space to decrease the humidity significantly. The cake should remain in this space with low humidity for several days, in order to evaporate the water trapped inside. The wrapping materials are often partially waterproof, so it's a good idea to uncover the cake for the duration of this dry stage. This is, in fact, what the factory had already done in the dehydration room. The cakes are left opened and unwrapped on the racks as they dry. In the absence of a dehumidifier, the next best thing is to wait for a clear day when the relative humidity is lower and place the cake on an open windowsill. This could even be done periodically until the cake is dry enough.

Not all wet-stored teas are bad. Sometimes one may find a good deal on a cake with some wet storage, or perhaps one of the cakes that he or she has kept themselves has become a

little wet. If there is any whiteness on the cake, it can be brushed off with a toothbrush to make it clean and beautiful again. The tea can then go through the same process mentioned here, before storage or drinking.

Cardboard Containers

In my opinion, cardboard containers are a good choice to store your puerh tea collection. Cardboard is useful, because it preserves the tea and also can be written on for classification. The cardboard allows different teas to be stored adjacently, without any dissemination of odor. If your puerh tea collection is large enough, you should put the same series together in the same box. For example, the *Green Big Tree* tea cakes from the same year should all be placed in the same cardboard container. However, if this is not practical because you don't have enough of a particular tea, you may still place puerh tea cakes with similar compositions and dates together in the same box. Raw tea cakes within five years of each other are fine together. However, if you didn't purchase the

Ventilation & Rotation

Even though puerh tea needs to adsorb enough water for aging, the water should not stay too long in the tea cake. For beginners, I would suggest only opening windows during clear days in the fall. On stuffy, rainy days, one should never try to ventilate the tea.

Most well-aged puerh vintages come from the tea warehouses that used to be so predominant in Hong Kong. At that time, tea vendors did not intentionally let fresh air in, but those cakes have still become masterpieces. However, in order to make the cakes have even aging conditions, tea vendors at that time did rotate the tea from top to bottom. I believe that this also improved the overall aging condition of the warehouse. Therefore, from my point of view, rotating the position of puerh is more important than ventilation, in the long term.

The major difference between puerh tea stored by private tea col-

lectors and that stored by tea vendors is amount. Large tea vendors have huge tea warehouses, which are storing several hundreds to thousands of baskets or boxes (traditionally, 84 tea cakes per basket or box). Since the amount of puerh is enormous and the puerh will not be sold immediately, it may have to stay in the warehouses for the coming five to ten years. After that amount of time, the taste of the puerh stored on the top and at the bottom of the pile would certainly be different because of the differences in ventilation. Therefore, conscientious puerh tea vendors will hire workers to rotate the position the tea in order to assist the aging process. Since this is a huge project, puerh tea vendors usually make rotations every two to three years, depending on the warehouse.

For private tea collectors, since their collections are not as large as tea vendors, it is not necessary to rotate the tea so frequently. I would advise

private tea collectors to move their tea collections every 5 years. One advantage of tea rotation is that it allows one to check the storage conditions of the tea. In a period of twenty years, four rotations aren't that inconvenient if they can really help the aging of one's cakes. These rotations should be performed in the fall because the humidity and temperature are more moderate. Make sure that the dampness of the tea cakes is low enough for repacking. Otherwise, one will make the same fatal mistake made by a friend of mine, in which the water absorbed from the air was trapped inside the cake when it was repacked (I discussed this in more detail on the previous page).

If one learns about puerh, there really is no harm in keeping it in closets or drawers, because one will know how to correct any abnormal aspects of the environment. However, this really requires practical experience (and maybe even a few tears) to learn.

cakes new make sure the dry storage and wet storage cakes are kept separately because they have different flavors and smells. Some may argue that if a cardboard container is used, the tea cakes will be contaminated by a paper smell. This may be true if the cardboard is of poor-quality. It is worth the extra money to buy better boxes without much of a paper odor, though a little smell won't harm the cakes. Later, when it's time to appreciate the cakes, a few weeks of open air will remove any traces of the cardboard smell. Puerh has been wrapped in paper for many years, and some of the greatest vintages are still without a trace of odor, even after decades. The paper wrapping is often composed of more natural fibers, and are sometimes even handmade. It is possible to find cardboard boxes of the same caliber.

Fourth: Unwanted Odors

Tea, as a leaf, has the amazing ability to absorb the ambient flavors and smells of whatever is placed near it. Therefore, if you store your puerh tea

cakes next to an aromatic essence, the tea cakes will have that fragrance. With certain kinds of tea, this added flavor is quite nice, but if one keeps puerh tea near any odor—pleasant or unpleasant—they are risking the loss of their tea. Perhaps the added flavor will enhance the tea, but actually, in almost every instance, odor transfer results in a tea of far lesser quality than one stored away from all such interference. For that reason, puerh tea cakes should *never* be kept in the kitchen. Kitchens are full of oils, odors and other influences that will definitely affect the tea over time. Likewise, if you keep your puerh tea in a metal or plastic box, the tea will eventually be infused with that odor. In the same way, if you put raw tea and ripe tea together, both teas will end up having strange odors; raw tea and ripe tea have their own special aromas, and if they are stored together they will contaminate each other. Usually, since the odor of ripe tea is stronger than that of raw tea, the raw tea is affected more for the worse. The principle is that puerh teas with similar aromas should be placed together. Accordingly, one should be very careful

to keep their tea in a completely odor-free environment.

Tea is very sensitive, and the fact that odor influences it so easily is a testament to this fact. We should therefore aim to keep our tea in clean and clear environments. This will always produce the best tea over time.

Fifth: Temperature

Proper temperature is also important for storing puerh tea. The temperature should be around twenty to thirty degrees Celsius. If the climate is too cold, the microbiotic activity and decomposition will occur much slower. The heat helps inspire this process. This factor is less discussed than humidity and oxygen, though it is still important. Environments with adequate humidity are usually in warmer climates.

Four Seasons & Storage Cycles

A relatively constant temperature is essential for puerh storage. This does not mean that the temperature should never change. Actually, puerh tea requires different temperatures during different seasons. Constant temperature means that the temperature in the storage environment should not fluctuate too much within a short period of time. Differences from season to season are acceptable, even necessary, but one needs to be careful of any quick rises or drops in temperature. Places where the night is much cooler than the day, for example, are not ideal. This is yet another reason why the traditional areas of puerh storage are so perfect. The temperature changes between seasons in places like Hong Kong is smooth and gradual, and provides the tea with an aging cycle that has different stages throughout the year. Spring has a higher humidity that freshens the cakes and allows them to absorb enough water for the rest of the year. During the summer, the higher temperature will cause vigorous changes inside the tea leaves as they respond to the added temperature, coupled with the moisture that was taken in during the spring. Then, after the stress of spring and summer, the tea starts to take a rest during autumn, which acts as a buffer, with mild temperatures and humidity.

Storing puerh in closets and drawers usually requires that one follow similar guidelines. First of all, one should be concerned about the odors from the closets or drawers when they are new or when they had stored something else previously. One should make sure that the closet or drawer is completely odor free. Some woods used in the construction of shelving units or drawers have been painted or stained, and have a distinct odor, even when new. Of course, anything else that was stored in them would also have left its odor behind. The collector will have to find a way to air them out and remove any odors. Another problem with closets and drawers is ventilation. Unless one has a habit of opening the closet or drawers regularly, the air inside them may not be enough. If a strange odor gets trapped inside, the tea will definitely be ruined. One will have to make sure that they are opened to allow the tea to breathe.

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In winter, since the temperature is low and the process is slowed down, the tea can, in a sense, hibernate. The hibernation prepares it for the next year. The temperature and humidity changes during the four seasons in places like Hong Kong or Taiwan create a perfect aging cycle. It is no coincidence that all the great vintage teas were stored here. It is almost magical how the absorption of moisture, heat, rest and then hibernation cycles through the year, fermenting the tea as Nature herself seemed to intend.

As I mentioned earlier with regards to humidity, I would advise tea lovers to only store puerh tea if the area they live in has four seasons with gradual temperature fluctuation. Otherwise, it would be more time and cost effective to buy aged puerh tea for consumption. If you factor in all the time, machinery and electricity you will need to create an artificial environment with the proper elements, it would approach or equal the cost of vintage teas. In the past, people have argued that one could use air-conditioning and other machinery to create fine vintage tea, but this idea has lost validity in recent years. Once these collectors began to experience how slow the aging process was, and how inefficient, the theory was tossed out. Furthermore, it is doubtful that such teas, even given adequate time, would be nearly as good as those stored naturally.

Although the most suitable aging environment is a natural environment, it is not practical for all Hong Kong puerh collectors either. Hong Kong is small and real estate is expensive, so living space is often cramped. Therefore, some people have had no choice but to place their tea at the office. I will discuss how to store puerh tea at your office in Part II of this series. Many people in Hong Kong also store tea throughout their house, since they can't afford a specific place for tea alone. They put the tea in the living room or the bedroom. This is actually not good if there is an air-conditioner in the room. Air-conditioned environments cause temperature fluctuations that are detrimental to the tea. One turns on the air-conditioner at night to get a good sleep and then turns it off in the morning on the way to work. I personally have experience with the effects of this improper storage.

If you have enough puerh tea, an independent room for storage is ideal. It allows one to regulate the humidity and temperature much more easily. If it is wet outside, one may simply turn on the dehumidifier and close the door of the storage room, creating a dry environment that isn't influenced by the climate outside. A storage room or closet will also be very convenient to handle the cakes, check on them and organize them by kind and date.

Sixth: Light

Not much is known scientifically about why light is detrimental to the storage of puerh. The idea is based more on the experience of several experts and collectors alike. Perhaps the light encourages unhealthy mold growth or even dries the tea out too much. Nevertheless, several experts have done experiments or recorded accidents caused by long-term exposure to light. It's much better if all of your tea is kept somewhere dark, with little to no light exposure. Many of the warehouses that puerh tea was traditionally stored in had no windows at all, and the lights were only turned on periodically, when the collector came in to check on the tea.

Storage Conclusions

After reading so much information, you may wonder how long one needs to wait for the harvest. The flavor of raw puerh tea cakes are changing every year. In fact, newly made tea cakes aren't undrinkable. They are just not as tasty, smooth or rich as the well-aged vintages. If one enjoys the green taste of newborn puerh, there is no reason why one should wait. Enjoy the tea now. However, from most connoisseurs' point of view, the most fascinating aspect of puerh is the rich and smooth broth offered by a marvelously aged cake—a peaceful bliss, comfortable feeling and sweet aftertaste that lasts for quite a long time. Therefore, the term “drinkable,” in the connoisseur's eyes, often means that the cake has reached this maturity.

I first started storing tea in 1993, and my first cake was the Zhongcha

Brand Traditional Chinese Characters Seven-son Tea Cake (“Traditional Character”). It is now 14 years of age. It already offers me a pleasant and soft, slightly green, honey taste. However, the bitter astringency is still there, though not as bitter as in its first five years. Following this trend, I expect that my Traditional Character cakes will be very tasty when they reach 20 years of age. Still, I wouldn't advise drinking a lot of these immature raw tea cakes, because they are too green to appreciate. It is nice to taste the changes, but better not to waste too much of these '90s cakes, and save them for the time when they are truly mature.

In the meantime, while storing raw puerh, one will need some ripe puerh, wet-stored puerh, or even some well-aged tea, if one can afford it. Self-stored puerh is mostly for future consumption. If one does not appreciate the green taste of newborn tea, saving them and finding some of these alternatives is better. Although I have a lot of newly made raw puerh tea cakes, I seldom brew them unless I want to trace their aging process. My daily puerh favorites are 1970s Zhongcha Brand Simplified Chinese Characters Seven-son Tea Cakes, 1970s Yellow Mark and 1980s 8582 Seven-son Tea Cakes. In short, puerh tea cakes should be appreciated at their appropriate ages.

I hope that my experience storing puerh tea at home will be of some benefit to others who also wish to start a puerh collection. There is great joy in this hobby, and an even greater reward years down the road when it comes time to harvest one's delicious aged tea. The guidelines discussed here will help prepare one to face the challenges that decades of storage will surely present. There is no way to cover all the possible problems that one will face, but learning from experience will be better anyway. Every real collector has paid a tuition somewhere along the way. Despite my own losses, I still feel that collecting puerh tea is very rewarding. Through puerh I have made great friends and many lasting memories. Hopefully, you will also find such treasures in the world of puerh tea!





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 Lauren Stern.

It began when I was a little girl in the 1980s. My father returned home from a trip to Asia with a tea set (one I still have!). A few nights later he shared with us what he experienced, what was to become my first of many Tea Ceremonies to come. I remember our family sitting in silence, in glowing candlelight, huddled around a small kitchen table in our apartment on the Upper West Side in New York City. The ritual, the ceremony, the gestures, the meaning—it was an island in time, and I was floating in a cloud canopy, high above the concrete jungle I called home. It reached such a deep part of my little heart, and I am constantly grateful for my parents' desire to seek out meaningful ways to invite the holy and sacred into our home, and inspire us to do so in our own ways as my sister and I grew. A few years later, at the age of thirteen, Shunryu Suzuki's book, *Zen Mind, Beginner's Mind*, fell into my hands at a bookshop. I immediately understood that something very profound had been awakened and would continue to awaken in me.

Tea. I see how She has woven into and out of my experience over the years. How even when I have forgotten Her, She has remembered me, returned to me. An invitation like an ancient song, never asking from me more than I was willing or ready to offer. I have had to grow into what it means to be in a right relationship with Her, and learn more each day. This love has been an intricate re-weaving, a slow remembering, a willing unfurling into a deeply rooted unknown becoming. Over the years, opportunities to sit with and drink fine living Tea kept showing up. Each time I reached out to grab a hold of Her, doors closed, information would become scattered or hidden, and She would run a bit farther out of reach. About a year ago, I completely surrendered to Her. I stopped running after Her and instead, I built a real space for Her in my life and home, and I invited Her in. In this slow way, with this kind of careful approach and patient, loving courting, over time, things began to change.

With each sip I hear Her whisper, "What does she wish to become?" It is as though together, we are in the process of returning, of remembering, of discovering what we are made of and why we are here. Each day choosing how we will walk upon this Dear Earth and how we will treat each one we cross paths with. She reminds me to be light, to share more than I think I am capable of sharing, to love more than I think I am capable of loving. To embody that love. Oh, there are so many gifts! I have only just recently, while drinking tea, remembered the details of my first assignment as a first-year undergraduate student in architecture school—a tea bowl. How perfect, my introduction to



 Lauren Stern

architecture, to creating space, was in fact about learning to make space for Tea. And, how my true return to Tea was through building a Home for her. That is some deep-deep right there! After a twelve-year break from the world of architecture, I am finding my way back, to start work on a tea and bath house project. I know this beautiful return is because of Her, and Her gentle way of reminding. Her lessons practically, majestically and magically unfold, blossoming in ways I shall never hope to secure words for, as some words are best left dancing somewhere wild, unknown, and in between.

One of the biggest gifts She has given me is the opportunity to be a part of this Global Tea Hut community. The integrity and dedication to heart-path that this lineage led by Wu De holds is a rare and exceptional offering. Creating space for and witnessing others first encounter Her in this sacred and intentional Way lifts my heart each and every time. Since my stay at the Tea Sage Hut in February, I have been changed, and I am even more inspired to grow my capacity for loving, sharing and serving tea. I am so grateful for the life-long friends I have made and have yet to meet within this grace-filled Tea community. I am currently in the process of moving back East, but when I land on some land, you, dear friend, are welcome by my fire to share tea anytime.

Inside the Hut

COMING SOON TO GLOBAL TEA HUT MAGAZINE

茶主题: Qimen Red Tea

茶道

茶主题: Dehong Purple-Bud Red Tea

茶主题: Chajin Stories/Biographies

茶主题: 2017 Annual Trip



Our app will be out any day now. Help us activate it with lots of energy. We spent a lot of time and energy making this possible for you, so help us by investing some time in making it a wonderful experience.



Thanks so much to all of our hosts throughout March and April in Australia and New Zealand. Also, heartfelt gratitude to all of you who attended events and supported us, making it such an amazing tour!



Don't forget, we are broadcasting live videos at the beginning of every month on our Facebook & Instagram. This is a great way to connect with us, learn together and ask any and all questions. Check it out!



If you want to host a local Global Tea Hut gathering where members get together and drink the Tea of the Month, we would be honored to support you with an extra tin of tea you could share at such meetings.



Along with the color-coded labels, we have also changed the glue on the tea tin labels so that from now on you can peel the label off easily, without leaving any white sticky stuff, and reuse the tins—to take tea out on a picnic, share some tea love with a friend or store your favorite teas for later.



Help us spread the word. This is our year. If you know of a location where we could put some magazines and people would really read them, we would be happy to send you some copies for free.



Wu De will be in New York in June, with many workshops in Brooklyn and a few other locations. Check the website for more details and locations:
<http://www.globalteahut.org/wudeteachings>

Center News



Before you visit, check out the Center's website (www.teasagehut.org) to read about the schedule, food, what you should bring, etc. Wu De will be traveling a lot in 2017, so check his schedule on the site if you are interested in seeing him while you are here at the Center.



We are switching to a ten-day course schedule at the Center, offering two per month starting in June. This is a great amount of time to get an immersive start in tea ceremony and will help the Center's flow as well.



We are still open to having one or two more long-term residents at the Tea Sage Hut. We are especially looking for those with experience in photography/videography. If you have these or other skills to contribute and can work out your own visa situation, please send us an email for more details.



We are going to host a ten-day tea course at the Center on tea and Qi Gong, starting on September twelfth.

May Affirmation

I let go.

This is a journey of letting go. As I let go, I get lighter and travel more freely. Am I holding on to things that are burdening me? What is preventing me from letting go? What stands between me and true freedom?



www.globalteahut.org

The most well-aged 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.

GLOBAL TEA HUT
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