GLOBAL TEA HUT TEA & TAO MAGAZINE 國黨黨事

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JADE SAP

This month we are branching out into new areas, regions, histories and traditions. May this issue mark a new trend, inviting more experts and authors to contribute to future issues so that we can explore more Japanese and even Korean tea, tea culture and wisdom. And what an amazing tea we have to enjoy this month!

love is changing the world bowl by bowl

FEATURES

13 Sencha: Terroir

By Tyas Sōsen

29 SENCHA: PROCESSING By Tyas Sösen







TRADITIONS

03 TEA OF THE MONTH *"Jade Sap," Sencha, Nara, Japan*

39 VOICES FROM THE HUT "Healing Through Tea" By Li Ying Lim (林麗穎)

45 TEAWAYFARER May Nogoy, USA/HK







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No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form or by any means: electronic, mechanical, photocopying, recording, or otherwise, without prior written permission from the copyright owner. n July, everything gets very hot in Taiwan. We start drinking lots of green tea, white tea and young sheng puerh. The latter is our favorite. An old-growth sheng like High Road or Boundlessness on a lazy, muggy afternoon in Taiwan is great. It expels dampness and makes you feel fresh. Aged Liu Bao is also surprisingly good for cooling you down as well and can make for a great tea during the summer. This is also a great time of year for tasting tons of oolong samples from around Taiwan, as the harvests all start to cool off from the processing (assuming they were traditionally-processed).

As you read this month's gorgeous issue, we will be conducting our first ever online tea course! There are a lot of pros and cons to doing online tea courses. Of course, sharing tea together in person is a foundation of learning. There is the silence, the true teachings transmitted through the Tea Herself (which are far more important than anything I have to say), as well as the fact that you have to learn as much or more from tasting as you do from a teacher. However, over the course of the lock-down we started doing weekly live broadcasts, which many of you have no doubt attended. We drink tea "together," then have a teaching followed by some questions and answers. These have gone wonderfully and unlocked some of the possible benefits of doing an online course.

The fact is that many people face too many geographical and financial barriers to attend courses in person. This community is global, after all. There is an argument to be made for requiring those sacrifices to learn, since doing so ensures that the student values what they learn and therefore has a better chance of integrating it into his or her life. However, there is also a strong reason to spread the wonderful practice of Cha Dao to as many people worldwide as we can—with the hopes that we can help heal our shattered spirits and the ecological crises we face as a species. Ultimately, the positive experiences we have had doing the live broadcast have made trying this experiment worthwhile. If it goes well, we will continue to offer more online courses on all things tea, including inviting some guest teachers.

The greatest benefit to online courses that I can see is that the practice and teachings will be landing into your own home, life and schedule. I think that could potentially be powerful. When people travel to a space and learn a practice, they have to then spend a considerable effort to assimilate the practice into their home and schedule when they return. I often encourage radical effort after a long Zen retreat, for example. But with an online course, you can learn at your own pace, in your own space, and the teachings may integrate more easily. We will see... As I said, this is an experiment. I am sure it will be an amazing experience for us all. Whether you are attending or not, raise a bowl for all those who are! This issue marks a significant milestone for us at Global Tea Hut. Since our inception more than one hundred issues ago, this magazine has focused almost exclusively on Chinese tea—history, culture, art, science and more. This has been circumstantial, though. We have had some issues that were exceptions, but mostly we have concentrated on Chinese traditions—always with the intention of expanding as soon as we could. However, we ourselves are a Chinese tradition and lacked connections and resources to find Japanese teas, for example, as well as solid information. Eventually, in line with what we say in our tradition, "as the person seeks the Leaf, the Leaf seeks the person," the right Japanese tea scholar found us: Tyas Sōsen.

Tyas is a wonderful tea brother with perfectly aligned ideals, refining his love for Japanese tea and tea culture with a commitment to sustainable tea production. His book *The Story of Japanese Tea* is a beautiful journey and learning experience—so much so that we asked him if we could publish a few chapters in Global Tea Hut, to which he happily agreed. Soon after, we were looking for a good sencha to share along with this historic issue (and a couple of other rarer teas for those who are subscribed at higher tiers). I learned so much from his book, which I suggest you also read—beyond the excerpts offered in this issue, there is a lot more to learn, including information on all types of Japanese tea (we decided to focus exclusively on sencha for this issue).

May this issue be the start of a trend, inviting in more teas from Korea, Japan and other tea regions in the world, as well as more expertise and authors to contribute their knowledge and wisdom to this amazing community!

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This month, we recommend reading through the May 2016 issue which is all about green tea. In that issue we discussed green tea in general and then covered Japanese, Korean and Chinese green tea. There is a lot of useful context in that wonderful issue.



ver the course of this month, we will be drinking Jade Sap $(\pm \lambda)$. This glorious sencha is named after an ancient descriptor used to celebrate fine green tea, starting as early as the Tang Dynasty (618–907). We are fortunate to drink this beautiful and cooling tea during the heat of the summer, allowing us to taste the fresh spring air and be reminded that even though so much is changing in the human world, the cycles of Nature turn all around our drama.

This tea comes from the Nara, Tsukigase area. The region is located just outside the border of Kyoto prefecture in the mountains. The northern mountain range is home to Minami-Yamashiro village, which is the most southern of all tea areas in Kyoto prefecture. And just across the border on the southern mountain we find Tsukigase village. This amazing tea was grown and processed by Fumiaki Iwata (岩田文明).

Since the village is situated at high altitudes for the Japanese tea landscape, its climate is generally cool. The altitude of the tea gardens reaches to around 300 to 500 meters above sea level. This means that in comparison to the lower tea regions such as Shizuoka, or the southern tea prefectures such as Miyazaki or Kagoshima, this area in the center of Japan begins the first harvest of the year one week to ten days later. The buds develop more slowly due to the cold climate. This results in a bolder flavor and sweetness, as well as a thicker liquor thanks to the long and harsh winters.

Our Tea of the Month is actually from 2019. It is often thought that only the freshest kinds of green tea should be consumed. Green tea is great fresh, but this doesn't mean that all green tea is only delicious when it is fresh, and will go bad over time. In fact, some green teas also have the tendency to get better after a brief, or in some cases a more extensive, period of maturation.

This maturation has a deep traditional significance, as all tea was aged in ancient times. It also allows the tea to settle, the flavor to soften and the stinginess of a spring tea to turn into a heartwarming sweetness. The reason why our Tea of the Month producer also favors letting some of his sencha teas age before officially selling them is similar.

With conventional farming methods, an excessive amount of fertilizer is used to give flavor to the tea. The fresh tea will have a thick flavor in the beginning, but gradually lose this flavor over time, and the tea will deteriorate. On the other hand, naturally-grown teas receive less or no fertilizer, and rely more on nourishment from their environment. In addition, these teas tend to be stronger in aroma, and it is this aroma that gradually starts to change when the tea is left to mature. The stingy, grassy-green taste of a spring tea settles down, the aromas deepen, and the natural sweetness of the tea increases. Among the teas Mr. Iwata produces, this is most commonly the case with seed-propagated or native trees, which are cultivated in natural conditions. Such sencha is deeper as a result of aging one year.

Mr. Iwata has been growing organic tea according to Japanese organic standards since 1984, but decided to eliminate all unnatural substances and especially livestock manure in 2011, going to a fully natural ecology for much of his land. Now he observes two main methods of cultivation:

Absolutely Natural Cultivation: These are native or seed-propagated tea trees cultivated on non-excavated land where the original topsoil is still present. These gardens are on original mountain slopes that have maintained their biodiversity and fertility, and don't require any artificial nourishment for the plants to grow. In this magazine, we often refer to this type of tea as "Living Tea."

Organic Cultivation: These gardens are cultivar species growing on excavated farmland where the topsoil has been lost, or the fertility of the soil is lower, and therefore requires a small amount of natural nourishment (fertilizer). This natural fertilizer mostly comprises of fallen leaves and branches, pampas grass and, to a lesser extent, pressed and drained extract from coleseed.

Our Tea of the Month of course falls into the absolutely natural and living cultivation category. It is from a "native" cultivar, though a repatriated or returned native species. It was grown from the seeds of the Yamatomidori cultivar, a cultivar developed from Nara's wild tea trees. Through planting the seed of this local cultivar, we believe that the tree has the opportunity to return to its ancestral roots, and allows us the opportunity to rediscover the traditional native tea trees that used to grow in the mountainous areas of Nara. And natural is always a positive thing!





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系茶 指南 TEA GENRES

A long with brewing guides, we thought we would devote some of these Tea of the Month sections over the next year to creating "Quick Guides" to various types of tea. Over the years, we have explored the genres of tea in great depth in the "Deeper Session" section of many Tea of the Month articles. But tea is complicated, and so we thought it would be helpful to boil down this information in a cauldron and serve up a single bowl that can be used as a basic review, a reference chart and an aid to study.

Green tea is one of the purest kinds of tea, and the least processed. It is often a Chajin's first love-the Tea whose aroma carries us to the places where names like "Temple Mist" and "Jade Sap" make perfect sense. Green teas often taste of such vistas as well, recalling clear stream water singing over stones, forest pines, or sometimes the lightest fragrance of a flower caught on the breeze, though not for long enough to identify it. There is a magic in these light aromas, and in the uplifting Qi that often sweeps us up off our cushions. Sometimes it is nice to return to our roots, remembering Nature through perfect fragrance. The freshness of green tea also reminds us of the weather, though it can also be great when it is aged. Let us all celebrate the poetry of tea fragrances this month, as we stray into old dreams of bright leaves floating around a cracked bowl...

The official beginning of spring in ancient China was the day the emperor sipped the first cup of the first flush of green tea, heralding the arrival of the New Year. Preserving the freshness is the key to all green tea processing. This is done by intruding but minimally. The two most important aspects of green tea production are reducing the withering/oxidation as much as possible and shaping the leaves in a way that suits their nature, color and fragrance. Green tea has been the most popular tea in China since the Song Dynasty (960–1279). In ancient times, there were loose-leaf green teas, but in the Tang Dynasty (618–907), it was compressed into cakes that were made of green tea powder, which were boiled. Then, in the Song Dynasty, the cakes were ground and whisked, like matcha. As we learned in the April 2017 Classics of Tea issue, the Ming Dynasty (1368–1644) emperor Taizu outlawed these cakes, and people began producing and consuming loose-leaf green tea again. In the early days, green tea was steamed, like it still is in Japan, but as new varietals evolved, so did unique processing methods. To this day, China produces almost two million tons of green tea a year.

Sadly, the most mainstream genre of tea, with such high demand, is also the least environmentally-friendly and sustainable, but there are many projects starting up that aim to change this. If Chinese green tea could go organic, it would be a great example to tea producers around the world!

Green tea is lighter than other teas because the processing is minimal. Plant cells have thick walls, and so without cellular breakdown, the tea does not release as much of its essence. It is impossible for tea to be processed without some oxidation; it begins oxidizing the moment it is picked. Also, the water content of fresh leaves is too high to process. If you fired or shaped such tea, it would break, being brittle from the water in the leaves. During the trip from the field (or forest, if it's living tea) to the processing area, the tea naturally withers, losing moisture and becoming soft enough for processing. Ideally, green tea should be processed quickly, ideally on the same day as plucking. However, some types of green tea are withered before drying. If there is withering, it will be much lighter than oolong or red tea.



Traditionally, the best green teas were made from buds only. The buds can be processed with less oxidation, retaining more of the essence of the fresh leaf. Buds are sweeter, with less astringency and bitterness, which is ideal for the processing of green teas. They are also young and therefore Yang in energy, which contributes to the magic of green tea. It takes tens of thousands of buds to make one jin (600 grams) of tea.

Over time, a greater demand for green tea has led to many kinds of green teas that are combinations of buds and leaves. In many instances, such blends or leafy green teas are inferior in quality. But as green tea has gained popularity, more regions are producing it and using many different varietals that weren't traditionally used in green tea production. Sometimes, depending on the varietal and terroir, a leaf/bud blend can actually be better than just buds, adding depth and Qi to a particular green tea. And rarely are mature leaves better, without the buds. A good example of this is "Peaceful Monkey Chieftain (Tai Ping Hou Kui, 太平侯魁)," which uses larger, mature leaves to produce a bold, yet sweet, green tea. But this is due to the fact that the tea grows in grottoes, receives less sun, and therefore the mature leaves are less astringent/bitter.

Unless there is a good reason, you can assume that a mixture of bud and leaves means lower quality/higher yield.



QING MING

In the Chinese lunar calendar, Qing Ming (清明) is an important holiday. People pay a visit to their family tombs and clean them up before making prayers. It usually falls on April 5th each year, though it wavers like the moon. The highest quality spring green teas are often Pre-Qing Ming (明前). The leaves that sprout just before this time are more tender and sweeter, often with less bitterness and astringency. For that reason, they are valued in the market as the highest grade of green tea. The next highest grade is that which is produced a couple of weeks after Qing Ming, which is called "Pre-Rains Tea (雨前)." The buds from this flush are also often tender, but not as tender as Pre-Qing Ming teas. With climate change, agrochemicals and other human influences, much of the meaning and premium of "Qing Ming" is lost nowadays. Even leaving aside the many fakes, different regions have very different terroirs, which means different qualities of tea. Also, what is valued by the mainstream is often based on different standards than the tea lover has. Sometimes we value the energy (Qi) of the tea more than the flavors, especially when viewing tea as medicine. And all of this does not take into account the changes that have started due to climatic fluctuations and agrochemicals, especially chemical fertilizers, which change the time and manner in which tea bushes flush with buds. This is yet another sign that we need to change our ways!

GREEN TEA PROCESSING

There are many ways of processing green tea, based on local varietals of leaf and terroir—especially if we include the mastery of tea production handed down from generation to generation within our definition of "terroir." Green tea is most essentially defined by a lack of oxidation. The aim is to arrest oxidation as quickly as possible, and thereby preserve the freshness of the tea. Green tea is picked and is then exposed to some form of heat to arrest oxidation. This could be steaming, baking or pan firing. It is then dried.

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As we discussed earlier, some green tea is also withered briefly before processing. It is possible that a lot of green tea was slightly withered long ago. Perhaps green tea production was more akin to very lightly-oxidized oolong in dynastic times...

If the green tea has leaves along with bud, then after firing, it is rolled/shaped before drying. The rolling shapes the tea. The rolling for a green tea will always be significantly less than for other teas. All-bud green teas are not rolled; instead, they are shaped in the drying or left unshaped altogether.

The liquor of green tea can be clear to yellow, or even vibrant green, depending on local variations. The Qi often enters the body through the aroma and/or mouth. Whether the green tea is all buds, bud-leaf sets or just leaves will also determine how it is processed. The basic methods for hand-processing green tea are: pan firing, basket firing, oven baking and steaming. With the introduction of modern machinery, however, many of these steps have changed. Pan firing to arrest oxidation and de-enzyme the tea, for example, is nowadays often done in large, heated tumblers. Steaming tea is only done in Japan, which is how they arrest oxidation/de-enzyme their tea. The result is the dark green color of Japanese teas, as well as the bright green liquor and distinct flavors such teas offer.

There is great skill in processing green tea, since it is so simple. Sometimes we assume that mastery is in the more refined of the arts, but it is often the simplest things that take the greatest effort and skill. Great chefs don't need to cook with tons of spices all the time; they can also bring out the natural flavors of ordinary ingredients in unexpected ways. We once had a vegetarian chef stay at the center and he cooked up the carrots we eat regularly, only they tasted somehow more "carroty" than usual! They were delicious. And it was carrots, oil and salt-nothing else! Similarly, green tea at its finest is an expression of simple tea leaves as they are in Nature: bitter and astringent, with a transforming sweetness that lingers on the palate. And the simplicity shines when a green tea is good, like ours this month. Also, the health of the environment itself seems to be more clearly present in green teas.



If a green tea is all bud, it can take thousands of buds to make one caddy. The best tea is always hand-picked, but nowadays a lot of green tea is picked by machine, which tears the leaves. Also, some green teas are made of bud and leaf sets, usually to increase yield.

There are many ways to fire/de-enzyme green tea. Baking is one of the oldest. The tea cannot be shaped if the tea is fired through roasting. As appearance became important, panfiring grew in popularity. Steaming is also an ancient method still employed in Japan.

The most common method of drying is to roast the tea at low temperatures, often repeatedly. For some green teas, the shaping happens at this stage. Traditionally, this would have been done with charcoal, but nowadays is done with electric heat in most places.

The sorting and packaging are the last step in green tea production. The down-sorted tea in Japan is called "bancha," which was traditionally consumed by the farmers and their families, as well as poorer folk. It often contains twigs as well, which are often roasted or even fermented as black tea.

7/ Green Tea Quick Reference Guide





Tamaryokucha



Gyokuro



Bancha

Types of Japanese Green Tea

Hojicha: roasted bancha with twigs and leaves ("Bancha" is down-sorted tea)

Kukicha: made from sencha or even gyokuro twigs

Karigane: blend of high-grade sencha or gyokuro stems plus leaves

Genmaicha: a popular blend of sencha, puffed brown rice and/or popped corn

Kabusecha: shade-grown sencha, usually taken from the first plucking of the season

Tencha: the green tea which is eventually ground into powdered matcha

Shincha: the first plucking of the season. Often graded higher and sold for more

Kuradashi: aged sencha, which is surprisingly good, especially if it is living tea

Tamaryokucha: a specialty from the Kyushu region, a rolled and sweet tea

Gyokuro: shaded green tea with a rich "umami" flavor

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rewing Tip

Jade Sap is a beautiful, all-natural sencha. It can be brewed sidehandle or even gongfu. Also, there are many brewing methods created specifically for Japanese green teas. We suggest seeking out some Japanese teaware, teachers and maybe even online tutorials. There are many ways to brew sencha, as there are all types of tea. Tyas offers us the suggestion that we play, enjoy this month's tea and brew it in a way that makes us happy and comfortable.

The ideal brewing vessel for this month's tea would be a Japanese *kyusu*, which is a sidehandle pot. Nowadays, they often come with very fine filters built in, making them ideal for the fine needles of Japanese green tea. There are many types of clay and production methods for Japanese *kyusu*. Japanese green tea also responds well to porcelain, so you may want to find a porcelain teapot also to brew this month's tea. We have also had good results using *duanni* (段泥) clay from Yixing to brew Chinese green teas. It is lighter, holds less temperature and tends to enhance fragrance in a way that such teas appreciate. If you are using a bowl, a wider, more flared bowl will make a big difference. It also helps if the bowl is thinner—as thin as possible.

Water quality is absolutely paramount when preparing any light tea like a green tea. The light fragrance and soft grace of a green tea will only shine when the water is also light, full of Qi and without any flavor. It also should not be too hard, which will drag such a tea down. You may want to try some different bottled waters before brewing this month's tea if the spring water you are used to gathering is too heavy for such a delicate and fragrant tea. So much of the energy and power of green tea is in the fragrance, which means that the wrong water really can overwhelm such a tea, or at least prevent it from blossoming in the way it should. (Tyas also shares such experiments in his book.)

It is often suggested that we use lower-temperature water for brewing green tea. This is a general principle that can result in a nice cup or bowl. However, like all generalities, we have found that at least with green teas, this is not always true. You can use hotter water if the tea is very good quality—we have even experimented brewing such teas gongfu with very positive results. What happens when you use higher-temperature water is that you create a unique liquor that is different, not worse. Still, it may be better to start with cooler water.

In fact, a lot of Japanese green tea brewing traditions use a "*yuzamashi*," which is a type of pitcher used to cool the water way down before adding it to the delicate green tea. (We suppose that in a bind, any pitcher would do. One adds water that is brought to a low boil (shrimp- or crab-eye-sized bubbles) and then pours it into the *yuzamashi* and waits for it to cool to an even lower temperature before decanting it to the pot. The "right" temperature is, of course, found through feeling the pitcher with the fingers. As with all things tea, this is a skill one learns through practice. Remember, there are no mistakes in tea—only lessons... lessons and fun. As long as you are learning and enjoying yourself, there is no wrong way to make tea!

°CC,



Sidehandle

Water: spring water or best bottled Fire: coals, infrared or gas Heat: low heat, shrimp-eye, 80-85 °C Brewing Methods: sidehandle or gongfu (or Japanese method) Steeping: short steeping, then growing (no flashes for this tea) Patience: 5-10 steepings



Try cooling the water down before adding it to the tea. You can use a pitcher or even a bowl for this. Wait for the water to cool down to where you can touch the pitcher but not hold it long.



Sencha

蒸∧: Tyas Sōsen





We are so very honored to present some edited excerpts of Tyas Sōsen's book "The Story of Japanese Tea." It is a rich and beautiful book, and certainly worth reading in its entirety. To start with, Tyas and all of us in the Hut agree that understanding any tea means understanding the environment and culture out of which it grows. We, therefore, decided to start with sharing this author and expert's views on terroir in general, as there are many powerful insights in his discussion of these issues. In fact, his views are really applicable to all tea, not just Japanese tea.

n similarity to wine grapes, tea trees are sensitive to the circumstances of their surroundings. Weather conditions, altitude, the farms direct surroundings, soil composition, etc. are features that not only affect the taste and character of the final product, they often also imbue the tea with a distinct local trait—an individuality that can only be obtained at this specific farm. While the approach and convictions of the farmer also play a decisive role in the outcome of the tea, it is the natural environment that is emphasized by the generic term "terroir"-a practice borrowed from wine culture, becoming more wide spread in tea contexts as well.

The climate of the region affects the tree in either one of two ways: When the trees grow in a warm climate, their development is rapid, and will produce new buds early in the year. When the climate is cold, their growth will be tardy, but thanks to the long winters of such environments, the trees tend to produce more starch in their roots, rendering the final product generally sweeter as compared to warmer areas where the tea tends to grow bitter more easily. The direct surroundings of the farm also play an important role in the development of the tea trees. Surrounding forests may obstruct the sunlight on parts of the farm during certain times of the day; a river in the vicinity may produce beneficial dew and mist on the farms; while neighboring farms may enhance the danger of drift of unwanted chemicals or nourishment not commonly used on their own trees.

In addition to general characteristics of the whole region, each individual farm too proposes aspects that influence the output in one way or another. The expanse of one parcel inevitably influences the amount of produce that can be obtained, while the direction and angle of the garden influences the aspects of drainage and its exposure to sunlight—both aspects that immediately affect the outcome of the tea's flavor and aroma. The altitude of the farm is again significant for the climate and temperature at that specific garden. The higher the altitude of the garden, the cooler the climate will

be, resulting in similar features as those of tea gardens in cold environments, preventing tea trees with a weak cold resistance to develop in such environments. Another factor is the shape and direction of the farm. When a garden is positioned on a mountain flank, the direction of the rows of trees influences how water and nutrition is maintained or emanated. Vertical ridges allow water to flow downhill alongside the trees' roots evenly nourishing the plants, whereas horizontal ridges more easily halt or distort the flow forming a barrier to the fluids. A consideration of such must always be weighed against the benefits for the producer in terms of ease of labor.

Quality of the Soil

Mountains are creations of Nature that have taken millions of years to reach their current grandeur. Mountains are formed of layers of soil that can be traced back to different eras in time. These layers of soil are formed of a variety of soil and rock types, housing



different microcosms of bacteria and little organisms that produce nourishment for vegetation and regulate how nutrition is maintained or transported in the pores of the soil. These grounds constitute the fertile basis for the tea trees to develop, and simultaneously the difference in composition of each square affects how the leaf is nourished and what the quality will be at harvest.

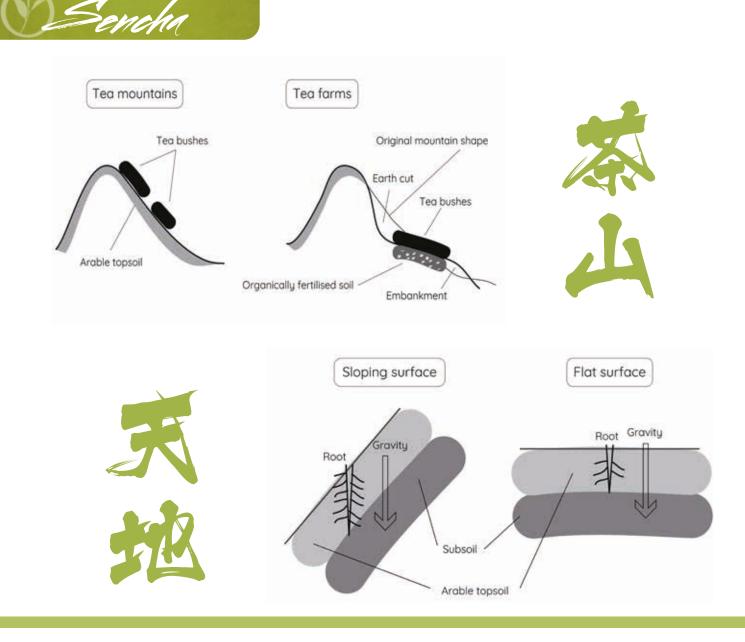
Soil is the foremost factor of importance for the growth of the tea tree. It provides a fertile environment with specifications that can only be obtained at this specific area. However, mountains are not easy grounds to work on, and mountain flanks can be steep, making them inaccessible to large machinery or equipment. Sometimes these areas are even difficult to access with man-held equipment, making it an economically risky undertaking for the producer. Therefore, more and more farms tend to move towards easier working environments, but in doing so, revert to leveling mountain flanks, or cutting out and embanking parts of the mountain to artificially create more accessible areas.

Unfortunately, such practices lead to loss of good fertile topsoil, and the creation of unfertile farms that, instead of being located on the mountain flank, become situated inside the energetic boundaries of the mountain. Such farms inevitably become dependent on artificial nourishment for there is no natural nourishment left in the soil, while the farm has been positioned in an energetically inactive inner-part of the mountain.

To provide one concrete example, at the natural farm of Mr. Fumiaki Iwata in Nara, absolute importance is given to the topsoil of all farms, and the soil in which the roots of the trees are nestled. Since the farm is located high in the mountains surrounding Nara, most gardens are positioned on steep mountain flanks. Fumiaki only uses a hand-held harvester for all his gardens. One of his farms has very distinct soil differences and the trees growing on this mountain flank, although they are growing right beside each other, each with their roots into a different composition of soil. The results are extraordinary as the same trees, getting nourishment from a different layer of ground, obtain a noticeably different flavor pattern.

The two types of soil that are accessible on this mountain flank are: 1) a geological composition dating back one to two hundred million years to the time when dinosaurs lived on this earth (Cenozoic Era), and 2) a geological composition dating from five to six million years ago when mankind started appearing on this planet (Mesozoic Era). What is interesting is that the trees growing on this specific mountain flank are divided in a group reaching to the soil of the Cenozoic era, while another group gathers nourishment from the Mesozoic soil, and yet another group has roots reaching into both types of soil, providing all three groups with utterly different specifications.

Another trait of the earth in Tsukigase is the soil that was created by Lake Biwa. In the past, Lake Biwa northeast of Kyoto is said to have reached into the Iga mountain basin, covering one area of what is now Tsukigase, which is also called "Old Biwa Lake."



The lake Biwa that can now be found in Shiga prefecture, used to (approximately three to six million years ago) stretch from Mie prefecture to the Iga mountain basin, and then gradually repositioned itself northward, where it made its way to its current location in Shiga, roughly 60km detached from its original location.

According to the book *The Moving Lake; Lake Biwa* by Takuo Yokoyama, Lake Biwa is believed to have originated approximately six million years ago. Its original location is said to have been the mountain basin in what currently is the western side of Iga prefecture in the Tsukigase rock formation. As a result, this means that the origin of lake Biwa is the area where this farm of farmer Fumiaki is currently situated. Moreover, it is this lake that has created the soil that is referred to above as no. 2), soil from the Mesozoic era. The earth shows remnants of a large

river running through the area, which can be derived from the variety of large round pebbles in the ground, in addition to an amalgamation of soils that are foreign to this specific vicinity, and must have been carried along from distant territories. Furthermore, at the bottom of the river a layer of thick clay (of the types used for pottery) has accumulated, and overall a varied range of minerals that differ in color and texture are included in the soil.

The producer strongly believes that it is the qualities of the soil in the first place that affect the specific traits of the tea grown in this area, and that this is exactly what makes the tea from this region unique. However, the uniqueness of the earth cannot be brought about in the tea when excessive fertilizer is mixed in with the soil, because the artificial nourishment would easily overpower the delicate traits of the ground. Therefore, the producer strongly believes that especially for this type of environment it is necessary to uphold natural production methods and manufacture a tea that is nourished by the energy and power that has garnered in the soil for hundreds of millions of years.

From the Roots Up

The roots of the tea tree grow towards gravity. The trees that grow on a horizontal surface first penetrate the shallow top layer of soft arable soil and then gradually reach the deeper layer of hardened subsoil. Topsoil is softer and contains more air, which makes it easier for the roots to penetrate and grow deeper. On the contrary, subsoil is a more densely compressed stratum in which it is more difficult for roots to spread into, which means the roots will be shallower.

大自然是最好的茶

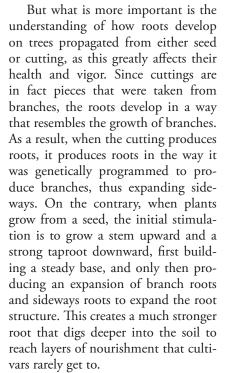


When trees are planted on a flat surface, the roots can grow only as deep as the subsoil and then have more difficulty to spread from there on. But when the trees are planted on a sloping surface-for example that of a mountain-then the roots can grow longer as they diagonally transgress through the topsoil. Having longer roots makes the trees stronger, more stable, and allows them to obtain more nourishment from the soil underneath. The trees that grow on sloping surfaces generally generate thicker, more robust and longer roots in comparison to the ones that grow on horizontal surfaces. Although such a sloping environment makes the mechanization of farming more difficult and demands more intensive labor from the producer, it allows the tea to become more energetic and well nourished by giving thought to the natural growth of the roots. Another feature of trees that are cultivated

on sloping surfaces is that the competition between trees to obtain sunlight is less. This creates a better environment for evenly divided photosynthesis.

Another consideration that is not often taken into consideration these days is the way roots develop depending on how the trees are propagated. Common tea farming practices rely on cultivars, which are grown from cuttings for the creation of new tea farms. Planting tea trees from cuttings maintains the exact characteristics of the specific cultivar they are taken from, which in turn allows the farmers to anticipate the growth and results of the whole tea garden at once. This means that when a tea garden is comprised of only the same species, the rows of trees grow at an even pace, produce an equal amount of crop and are invariable in color, taste and appearance. They are therefore easier to manage and produce a uniform product.

On the other hand, when trees are seed propagated, their consistency is lost. The trees return to their ancestral form and develop unique traits of their own. There is also the possibility that the seeds are affected by pollen, which again affect their DNA in a different way. To explain this phenomenon with an easy analogy, whereas cultivars are exact copies or clones of each other, a farm of seed-propagated trees can be seen as a house of children from the same parents: Each child, while maintaining some similarities due to their parental origin, develops unique traits of their own. Trees grown from seeds do not maintain the same characteristics as cultivars do even when they are taken from the same parent, and thus the color of the leaf, the speed with which the leaf grows, the amount of leaf produced and a variety of other specifications vary in comparison to each other.

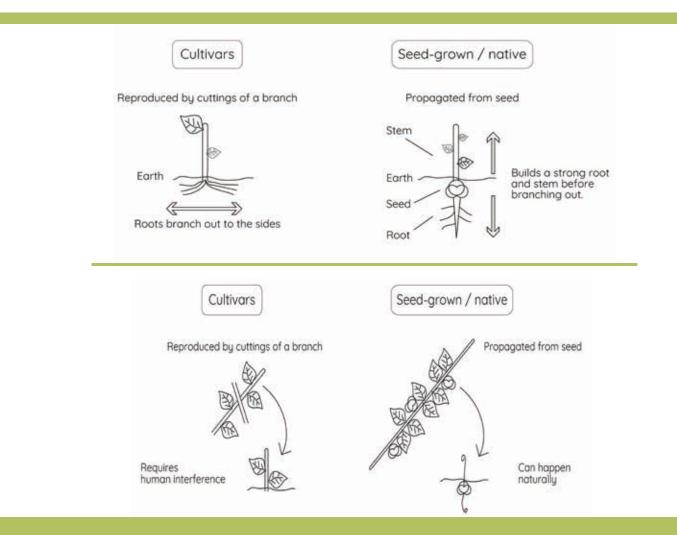


When the trees are at rest during the winter periods, they try to accumulate as much starch and nourishment in their roots as possible to cope with the winter frosts. It is this starch that is in early spring transported to the branches to produce fresh buds and leaves. When the vessels in which nourishment is gathered-in other words, the roots-are long and thick, the amount of nourishment that will become the source for the growth of new buds will become greater, and to a larger extent impact the traits in flavor and aroma of that specific tree. Simultaneously, when the roots of the tree are allowed to thoroughly penetrate the soil, which is rich and varied in minerals-take for example the soil from Old Lake Biwa-it is believed that the tea produced from such trees will thoroughly express the traits of the whole of the natural environment in which it was grown.

Understanding that the roots of tea trees grow in different ways when propagated differently also helps to understand that the surfaces on which the plants develop are of similar importance. While the shallow roots of a cultivar may only rarely reach the subsoil on a horizontally oriented farm, the roots of seed-propagated tea trees may rapidly reach the subsoil limits of rock. Although most manufacturers nowadays prefer the benefits of flattened land, and the equality of cultivars of which the roots needn't grow too deep to receive nourishment from the artificial fertilizers the farmer so scrupulously feeds them, I believe it is safe to say that seed-propagated trees cultivated on a slanted surface of a natural mountain slope grow stronger, healthier and more energetically, resulting in a more naturally authentic tea product, rarely in need of artificial additives.

Fertilization Practices

Manure for agricultural purposes is fundamentally comprised of three main chemical components referred to by the symbols "N-P-K." "N" stands for "Nitrogen," "P" stands for "Phosphorous," and "K" stands for "Potassium." In this combination, nitrogen is termed "leaf manure," in accordance with its efficiency in aiding the growth of large and soft foliage.



Phosphorous is accredited with its capacity to reinforce the growth of seeds, flowers and fruits, hence the attribution "berry manure." Potassium benefits the growth of strong and thick roots, branding it as "root manure."

These three components together form the foundation for the growth of any plant and it is through adjusting their proportions that a farmer can regulate the growth and outcome of his crops. The proportions depend on the requirements for each different plant species, and in the case of tea it is not the fruits of the plant, but rather the leaf of the tree the producer aims to obtain. Therefore, when creating suitable manure for a tea garden, the focus is placed on a high amount of Nitrogen with smaller amounts of Phosphorous and Potassium to serve as a support.

When the tea tree absorbs Nitrogen from the soil as nutrition for its growth, it transforms the substance into amino acids. These amino acids are transported through the stem and twigs to feed the development of new buds and leaves. In the early 20th century, Japanese scientist Kikunae Ikeda (池田菊苗, 1864-1963) discovered a taste in kelp stock, a seasoning often used in Japanese cuisine, that hadn't previously been named. This taste was attributed to a chemical component known as glutamate, which in essence is an amino acid similar to the L-theanine amino acid present in most variations of green tea. He attributed the name "umami" to his discovery and made it the fifth addition to the four tastes-salty, bitter, sour and sweetthat were already recognized. Umami is a savory taste that is not palatable by itself, but makes a wide variety of foods, such as tomatoes, mushrooms, seaweed, soy sauce and even Parmesan cheese, taste pleasant. It is said to have a mild but lasting aftertaste which is associated with induced salivation and a sensation of furriness on the tongue, stimulating the throat, the roof and the back of the mouth. A chef once told me that the presence of umami flavor in food could be sensed in the mouth as a light greasiness, often felt on the tongue and inner cheeks.

This feature is distinguishable indeed since most of the foods that contain umami don't contain any form of grease or oil otherwise. And it is this sensation of "deliciousness" that Japan's contemporary green tea consumers value most in their national beverage.

In return, the tea industry places immense focus on delivering a crop that is imbued with umami flavor, and to do so research on the use of manure to increase the amino value in the tealeaf has excelled in recent years. In post-war Japan a monosodium glutamate (MSG) sold under the brand name "Ajinomoto (味の素)" became immensely popular, and was indispensable in most households. MSG is known to contain high amounts of amino acids, and because of dependency on this flavor by the population, a range of biased tea vendors adopted the wrongful practice of adding Ajinomoto to their teas merely by means of appealing their product to the masses. Luckily such actions have now become condemned, but the focus on the umami flavor in tea remains strong.



In the past the amino value of the tea was regulated through shading practices protecting the leaf from photosynthesis, and by small amounts of organic fertilizer. Today the focus on soil amendment has become the foremost reliance for umami regulation. However, the use of fertilizer cannot be seen in disconnection from shading practices. When high amounts of nitrogen are added to the soil, the resources for the tea tree to generate amino acids increases, leading to a higher than usual amount of amino acids present in the tealeaf. Considering that amino acids are the main source for the creation of catechin through the process of photosynthesis, it is apparent that a higher amount of amino acid in the leaf would simultaneously point to a higher amount of catechin, and thus bitterness, in the final product. When intense fertilization is combined with dedicated shading practices, the high amounts of amino acids in the tealeaf can be contained. However in the case of sencha-which now too has become subject to a preference for umami flavor-no shades are used in orthodox farming methods, though some farmers are starting to do so.

In Japan it is common knowledge that mainstream gyokuro must be brewed at a temperature as low as 60 or even 50 degrees. Kabusecha should be brewed at approximately 70 degrees, and sencha should at the most be brewed at a water temperature of 80 degrees Celsius. Brewing these teas at a temperature warmer than indicated could mean that the final brew becomes too bitter to be palatable, and at the right temperature the amino acids that are desirable for a delicious taste are adequately released. These brewing methods originated as a result of contemporary fertilizing practices that artificially induce amino acids in the crops, thereby inevitably also engendering a larger amount of catechin in the finished leaf. Research has pointed out that although catechin doesn't release from the tealeaf under 80 degrees Celsius, amino acids continue releasing at any temperature.

Such brewing methods are an indication of the influence of contemporary cultivation practices on the consumption and appreciation of tea. And, to return to our main topic, the reason why a contemporary sencha shouldn't be brewed at a temperature higher than 80 degrees Celsius is merely because its growth under the open sky has converted most of the amino acids that were added to the tree through fertilization into catechin through photosynthesis. Moreover, since recent years, sencha producers now also have increasingly begun to apply brief periods of shading on sencha trees to maintain a higher amino value.

To conclude, contemporary fertilizing practices depend on the addition of nitrogen to the soil to induce higher amounts of amino acids in the tealeaf. The preference for umami flavor with the consumer has sparked the tea industry to research methods to artificially encourage a higher amino value in the finished product, leading to practices that change the way tea is consumed and appreciated. In addition, this also generates a new problem, which is the environmental issues caused by chemical fertilizers and consequent pesticide application. I have termed this "the vicious circle of contemporary tea farming." Enhanced flavor through fertilization attracts more bugs. Therefore, when one wishes to obtain a tea with an enhanced taste, one must also deal with the increased threat from unwanted visitors, calling on the unfortunate application of agricultural chemicals to repel bugs and prevent disease, often starting a detrimental cycle of chemicals that degrades the environment and can also impact the health of the farmers who work there.



A CASE STUDY IN AGROCHEMICALS

amo (加茂) is a small town situated on the southern flanks of Kyoto's most meridional mountains through which the Kizu river (木津川; kizu-gawa) makes its way smoothly curving towards Osaka. As a former member of the Sōraku District (相楽郡), this town is the final stop on the border of Kyoto before reaching Nara prefecture, and simultaneously the most southern tea-producing area of Kyoto. It is in this area that Tokuya Yamazaki (山崎徳哉) manufactures his naturally produced tea.

The name of the farm, "Kamo Natural Tea-Farm (加茂自然農園; Kamo shizen nō'en)," alludes to his stern belief in the use of natural methods only, and the specific area where this farm is situated. As the son of a tea farmer, he grew up amidst the tea gardens in this rural area, and quickly became acknowledged with the orthodox farming routines in this region. In between harvests, weeds should be extinguished by employing ample weed-killers; in summer, bugs should be prevented by bestowing plentiful pesticides on the bushes; and the soil should be kept thoroughly fertilized with artificial chemicals for the best results. Such approaches have become common sense, and as a young farmer aspiring to take over certain parts of his family's plantation, he learned how to efficiently apply these chemicals as part of his daily training.

It wasn't long before these practices started to take their toll on Tokuya's health. During his youth, he had suffered various illnesses, some of which included acute stomach aches, or numbness and trembling in his hands and feet. He frequented doctors, but was never able to figure out the source of these recurring issues. The puzzling thing was that they somehow appeared each year during the same period in summer—a period that he later realized was when the application of pesticides was at its peak. When he started taking over the farm and took these chemicals into his own hands, so to speak, these issues and illnesses began to appear more frequently and more severely. His struggles now also included severe backaches, stress, loss of sight, etc. Yet, doctors remained clueless as to what the cause of the problem was.

Tokuya's issues became so troublesome that it began to limit his quality of life, and continuously receiving the same response from doctors also started to prove frustrating. He decided to investigate the source of his suffering on his own, and to his surprise, Tokuya discovered that others had also experienced similar symptoms. Furthermore, distinct research pointed to one particular source as the reason of this suffering: a chemical component named "dioxin" that can cause the symptoms he had been coping with. Digging further, he was able to identify this chemical as an active substance that is strongly represented in herbicides of the kind he had been using in excess. Further research pointed out that most of these symptoms were related to a chronic addiction or intake of an agrochemical (農薬; nōyaku) with the name "organophosphorus (有機リン; yūki rin)" of which the main component is a nerve agent named "sarin." To illustrate the toxicity of this particular chemical, sarin is the substance that was employed by the terrorists during the sarin gas-attack on the Tokyo subway in 1995, killing twelve people, severely injuring fifty, and causing vision problems for nearly 5,000 other people.

Having realized that the cause for his suffering was induced by the over-usage of chemicals by himself and the farmers in his surroundings, and having discovered that these chemicals contain absolutely deadly and dreadfully harming components, he felt urged to rid himself and his tea trees of these malicious products. To detox and recover his body, he took up sports again and began to rebuild his muscles.

The impact of this discovery was so great that Tokuya immediately terminated the use of fertilizers, pesticides and any other sort of chemicals on his gardens, harming the trees at first. The abrupt lack of nourishment, which the trees were used to, made them weak and vulnerable. Moreover, the fertilization that remained in the soil and thus in the leaf of the bushes attracted a variety of insects, which, since he had also omitted any kind of pesticide, were now free to indulge in the feast. In effect, this sudden act almost left one whole farm dead. Taking this as a learning experience, Tokuya opted for a gentler approach with his remaining farms and decided to first quit the use of fertilizer, and only in a later stage omit pesticides as well. Now, all his farms have been transferred to natural cultivation methods, and the farm that had almost gone extinct has now been revived to a healthy natural tea garden.

Today, Tokuya continues his efforts to produce a truly healthy and poison-free tea, and has begun to apply the same methods to other agricultural products. His experience and what this taught him is valuable information, which he enthusiastically shares with others in order to raise awareness about the issues surrounding agrochemicals. His hopes are that this may aid more farmers to recognize the source of their discomforts or diseases, and in the long run, that no one needs to endure similar hardships.

CULTIVATION METHODS

Conventional Farming

Serchi

Conventional tea farming (慣行栽 培; kankō saibai) is the mode for tea farming that is commonly applied in industrial and large scale, contemporary cultivating contexts. The tea that is available on the market in Japan is, by default, grown according to conventional farming methods, and thus it is this kind of tea that can be readily obtained at local supermarkets and prestigious tea vendors alike. This way of farming does not eschew the use of chemical fertilizers and agrochemicals such as pesticides and herbicides, and applies them in correspondence to the requirements for the seasons and environmental circumstances. Although the allowed substances are listed in an official decree issued by the Japanese government, there is no limit to the amount of and frequency at which these substances can be applied, leaving it up to the judgment of the farmers themselves.

The contemporary focus on a lush umami flavor in green tea is what demands from manufacturers a dedicated approach to enhance the amino value in the product they create. Apart from the traditional shading techniques, an advance in our understanding of chemistry has made it possible to devise substances that can artificially aid the producer with this objective. The downside of this, however, is that the tea industry is digging itself deeper and deeper in an endless vicious circle. The desire for a stronger umami flavor demands that the farmer employ measureless amounts of chemical substances to somewhat forcibly "fatten" his crops. Such juicy crops of course look just as appealing to insects that invite themselves to nibble away on the vulnerable tea buds prior to harvest. This nullifies the thorough care the manufacturer has taken in inseminating his garden and calls for more radical approaches. This time he sprays his garden with chemicals that repel bugs and other "pests" and "scourges."

The illusive ease with which he has been able to obtain a "more delicious" product now opens his eyes to other benefits, such as ease of labor, and similar "quick-win" approaches. (You could almost say that he begins to feel invincible and dominant over the forces of Nature.) The accumulation of such procedures deviates his tea manufacturing from growing a natural crop to using measures to deflect unwanted natural influences and give the illusion that the natural circumstances of the environment are completely in one's control. Mountains are leveled, the soil becomes unfertile, and the trees become dependent on soil amendment for their growth and survival. As a result, "tea" becomes molded into the form we wish it to become, while we neglect the original appeal of the tea tree itself. In addition, the farmer becomes dependent on fertilizer for his profits that are now based on the amino value in his crop, and the trees are at the mercy of agrochemicals to safeguard their survival. This vicious circle will continue to spiral down for as long as our preference is focused on obtaining a greater amino value in the tealeaf. And for as long as these practices continue to be employed, we continue to put not only the balance of our natural environment at risk, but we also gravely endanger the health of our fellow people, and that of our own.

Organic Farming

Organic tea farming (有機栽培; yūki saibai) in essence omits the use of any agrochemicals and most chemical fertilizers. Instead, substances that are "natural" (i.e. not chemically altered) are used. Examples of substances that are often employed by tea growers in Japan are animal- or plant-based fertilizers, such as livestock excrements, fish meal, bone meal, oil cake from rapeseed, compost, straw and other natural materials (e.g. fallen leaves and branches and pampas grass). Organic production in Japan is regulated under the "Japanese Agricultural Standards (JAS) Guidelines for Organic Foods" published by the Ministry of Agriculture, Forestry and Fisheries. The certification and assessment of products is conducted by Registered Certifying Bodies that conduct tests and take care of administration on behalf of the MAFF. The organic standards are defined based on a "positive list" system, which includes descriptions of products that are allowed for use on the field.

The main function of this standards system is to prohibit misleading labeling of products that are not organically produced at all. They set the standard for labeling procedures in order to protect manufacturers and safeguard the organic "brand," but fail to define a standard for what "organic" produce should be, while the education towards the people on how non-organic products affect our health and environment remains largely neglected.

The majority of consumers in Japan are convinced of the fact that everything that is produced on Japanese soil is good for their health. This blind trust in the country's policy and its manufacturers inevitably limits the possibility for a movement to promote organic products. The main appeal of organic products is that it is a healthier and more environmentally-friendly solution to the more perilous chemical applications that are commonly used. But, when the consumer is already convinced by the seemingly "safe" nature of products, and there is blind trust in supermarket shelves, then the need and opportunity for a market for organic products becomes limited. In effect, producers too become reluctant to even consider beginning manufacturing organic products.

In addition, organic tea is being looked down upon by the tea industry. Contemporarily, green tea is assessed in terms of umami flavor. Only if the amount of umami is high, and the sweetness is strong, then the qual-



ity of the product is considered positively. Bringing about a strong umami value in the tea largely depends on the amounts of added nutrition to the roots. Of course it goes without saying that chemically-altered products are much more effective in achieving this result. In the case of organic products, the capacity for flavor enhancement is comparatively limited, and as a result, organic teas are perceived as lower in quality by the contemporary tea industry. It has gotten so bad that organic teas are not even allowed a shot at the yearly tea auction, which is reserved for conventional producers, and frequented by large-scale industrial wholesalers and tea vendors.

When the consumers are not educated to understand the difference between conventional manufacturing and organic products, and the tea industry as a whole is not supportive of organic tea and dismisses it as inferior, then this truly makes it a scary and risky business for tea producers to go all-in on organic tea production. Yet, the preservation of our health and environment are not the only appeals of organic production. Tea in general can have a far greater appeal and capacity than the limited focus on umami flavor alone. When assessing organic tea, I feel that we need to change our perception and approach to the product. It must be looked at differently (i.e. as a different type of product) from conventional mass-produced teas.

A first step would be to stop comparing organic products to conventional products. An organic sencha should not be compared to a conventionally-produced sencha, and it is even more absurd to look for similar flavor patterns in the organic product. It is impossible to achieve the same lushness of flavor with organic growth as is common for conventional products. But is it even necessary to imitate a crop that in recent years has become possible to produce through artificial methods? Considering that over sixty years ago the use of chemicals on the fields and mechanized equipment in the factories weren't as widely spread as they are today. A hundred years ago, people wouldn't even have thought of the possibility for such approaches, and what we call "organic" now, and promote as a fashionable "brand," is what was universal in the past. That said, it is my belief that it is organic tea that is representative of Japan's more than eight-hundred-year-old tea growing tradition. In fact, what I believe is that organic tea shouldn't merely be "organic by certification," but "organic by being in harmony with Nature," just the way it has always been. Perhaps it is "conventional" farming that is really unconventional, even though it is no so mainstream.

Natural Farming (Living Tea)

Natural tea farming (自然栽培; shizen saibai) solely relies on the vitality of the plant's natural environment to provide the nourishment and protection for its growth. No agricultural products of any kind (not even organic products) are applied to the soil or roots of the trees, which allows them to develop as they would have been growing as wild entities on the mountain flanks. This method is more extreme than common organic practices but brings about an absolutely natural vigor in the finished product, complemented by a taste and aroma that can only be obtained in that specific area where those trees have been growing.

The producer in turn has the responsibility for this cultivation method to work to maintain an environment that can allow the trees to develop relying solely on their own vitality. Specifically, this means that the producer assesses the qualities of the grounds on which his trees grow. For example, similarly to residential grounds or sports grounds, farmland that has been leveled by heavy machinery is likewise only capable of housing weeds and grasses.

To the contrary, mountains provide fertile ground for the growth of trees and shrubs. This knowledge helps the manufacturers of natural tea to understand that their tea trees will grow better in environments that are similar to the rich environments a natural mountain flank provides. The simple reason for this is that, while in the natural world an abundance of different plants and living creatures exist in coexistence, the tea trees also, instead of growing in an environment by themselves, are likely to flourish better when growing in harmony with the surrounding ecosystem, benefiting from the advantages of the food chain.

However, natural tea farming is not a matter of entrusting everything directly and solely to Nature. Should the tea garden be left abandoned, it will quickly overgrow into mere forestland, and therefore at least requires the care and maintenance of the farmer. This is the difference between "wild growth" and "natural farming." When the farmer maintains a conscious care of his farm, only then can the tea garden develop its natural rhythm and balance.

Through the modernization of farming methods and the implementation of advanced machines, facilities, agricultural products, etc., people have become able to change and influence (dominate) the rhythm of the growth of the tea trees (and agricultural produce in general). It can be said that through the deviations that are inherent to such procedures, we have also become able to gain a clearer outlook on the true essence of tea and the values that are universal and unchanging throughout our existence. It is this essence to which manufacturers of a natural tea adhere.

Natural tea farming is by no means a return to a nostalgic past. It is an approach that incorporates essential values that are based on our history and our contemporary condition, and that provide us the tools to understand how to "let tea be tea," and to "let people be people." It is only because natural methods were part of the lives of our predecessors-since they lived in harmony with their natural environment more than we do now-that we tend to see natural farming merely as a nostalgic escape. But in fact, it is the belief of such contemporary manufacturers that, to remain sincere towards our natural environment is the only appropriate way to connect the present to a bright future for our grandchildren.

When you look closely into a tea tree grown naturally, like our Tea of the Month, you can feel the vibrancy of the plant. You also notice that it is a little world unto itself, with other plants, moss, fungus and lichens growing around and through the tree, as well as a home for myriad little creatures like beetles, katydids, ladybugs and spiders who make their home in this biodiverse tea tree world.













In 1953, the Japanese tea cultivar registration system, administered by the Ministry of Agriculture, Forestry and Fisheries (MAFF), was established, and cultivars were for the first time officially recognized and listed for proper nationwide use. In the 1960s, the government developed and established a pragmatic standard for reproducing cultivars from cuttings, and by the 1970s the majority of newly exploited or replanted tea gardens made use of cultivar cuttings. The major tea region of Shizuoka saw the largest transformation of tea gardens, shifting from native- or seed-grown trees to the growth of Yabukita cultivar plants in the period between 1975 and 1980. In succession, this development rapidly spread throughout the whole of Japan, resulting in the implementation of the Yabukita cultivar exclusively on 77% of contemporary tea farms, and 83% of all tea farms that employ tea trees of any kind of cultivar. At present, the MAFF has registered sixty-two cultivars that are especially suitable for tea manufacturing throughout Japan.

Sencha

Specifications of Cultivars

For the most basic division, tea cultivars are divided into four classes; one for each specific group of tea species-sencha, gyokuro and tencha, kamairicha, and black tea-that are being produced in Japan. Each group has its specific characteristics for the outcome of the tea, and therefore cultivars are at first divided into these groups in accordance with their aptitude to produce the most desirable outcome for that tea. To further specify, the cultivars that are considered suitable for the manufacturing of sencha are selected based on the prospect of a delicious sencha fragrance. Cultivars that are employed for the cultivation of gyokuro and tencha are selected with a focus on the tree's resistance to darkness since these plants tend to reside under dense shades during the most

important period of their growth. In addition, these trees must produce a deeply dark leaf to match the desired appearance of both prestigious brands. The anticipation for kamairicha cultivars is the capability of bringing about a fragrant aroma through pan firing. And, black tea cultivars are best when the amounts of catechin in the leaf are high, and when they possess capacities to bring about a strong flavor and fragrance through fermentation.

But cultivars do not come about naturally. Cultivars are bred at national research centers where each plant undergoes a rigorous set of tests and evaluations to estimate their capacity as a preferred tree for either one of above-mentioned categories. The evaluation may take years to discover a species that matches the desirable criteria to register it as a distinguished variety, and is commonly conducted in six stages of which the final stage is the official registration with the MAFF registration body of tea cultivars.

Initially, cultivars with favorable attributes were selected from a tea garden of seed-grown trees. However, contemporarily many cultivars have already been brought to existence, and new cultivars aren't simply singled out. The practice has come to include methods of artificially breeding trees by crossbreeding and cross-fertilizing tea seeds of exceptional lineages with notable form and traits. The seeds obtained are then planted and cultivated to become full-grown tea trees from which a small amount of tealeaf can be obtained and is processed in small amounts as green tea. This initial batch of tea is then sampled and analyzed through tasting.

From the trees that have proven worthy during the initial tasting diagnosis, cuttings are taken from which seedlings are produced. These seedlings are during their initial growth then tested for their competence during vegetative reproduction. Successively, the seedlings that have passed the tests are planted in a tea garden where they are tested for their characteristics during development as a mature tea tree. Finally, before deciding if any of the trees that have passed all the tests are worthy for registration, cutting seedlings of the selected candidates are submitted to the primary research centrums in tea-manufacturing areas throughout Japan to further test their qualities in correspondence to the respective regional weather and environmental conditions. Should the trees demonstrate the petitioned personality, they are then enlisted for nationwide recognition as a tea cultivar through registration with the tea cultivar registration system.

Although the sought complexions of tea cultivars may vary for each region or purpose they are being bred for, the elements that are taken into consideration during screening are similar for most varietals. During the six stages listed above, cultivars are tested for the following areas. Regarding cultivation and farm management, the trees are tested for the tree's form (樹姿; jushi), stretch (株張り; kabuhari) and potency (樹勢; jusei). The designations for the tree's form are divided into "an open stretch (開張; kaichō)," "intermediary shape (中間; chūkan)," and "perpendicular (直立; *chokuritsu*)." The tree's stretch is marked "narrow," "intermediary" or "wide," and its potency is either "weak," "intermediary" or "strong."

The plants are also tested for strength, weakness or averageness in enduring cold and withstanding damage through frostbite, in addition to a variety of common bugs and diseases. Since the focus on the spring harvest in Japan is strongest, trees are also tested on the rapidity with which they awaken from their hibernation, produce young buds and become ready for harvest. The most common system is devised on the threefold "speedy (早生; sosei)," "seasonal (中生; chūsei)" and "tardy (晚生; bansei)" growers. But more indepth records take the Yabukita cultivar as the criterion to determine the estimated amount of days the examinee is harvest-ready prior to, or after, this vardstick cultivar. The differences can range from one or two days to a period of over ten days. Also a matter of



scrutiny for the producer is the yield of each respective cultivar, which is also measured in terms of "scarce," "average" and "good," with reference taken from the Yabukita species, which is an average cultivar in all areas.

Finally, the teas produced from the examinees are subjected to comprehensive tasting with assessment of their qualities in seven areas, each graded on a scale of 5/5. The tested traits are: "astringency," "umami," "bitterness," "sweetness," "aroma," "liquor color," "luster" (of the dry leaf) and "appearance" (also of the dry leaf). Based on this observation, it is decided for which type of tea the cultivar is suited. While some cultivars are only suited for the manufacturing of a single type, other species may be versatile and possess an appeal for the manufacturing of any type of tea. These judgments are regularly complemented by comments that further specify the traits or points of caution for each individual cultivar.

To summarize, for each cultivar it is known what the tree and the leaf looks like and how they grow; what the manufacturer may expect from the plant as to growth and yield; how well the tree grows under certain conditions; how it lends itself to the processing of a certain type of tea and what may be expected as the outcome in terms of flavor. It is these indicators that a tea farmer takes into consideration when he plans to exploit new farmland or replant a garden that is growing old.

Benefits & Detriments of Cultivars

When new tea gardens are planted, manufacturers select cultivars with an eye on the tea to be produced; the methods they use to manage and cultivate the farm; the size of the tea farm; the area's climate, etc. As seen above, cultivars are chosen based on their suitability to a specific class of tea, but other factors such as adaptability to the region's climate also play a decisive role in the survival and successful cultivation of a tea tree. For a producer in the south of Japan, where the climate is warmer and thus proves less threatening to exposing the tea trees to cold and frost, the preference often goes to early growers with a good yield. In contrast, manufacturers in colder mountainous areas by default base their decisions on the species' resistance against cold and frost, which leads them to favor tardy growers since warmer times also arrive later in such regions.

Another advantage of working with cultivars is that tea manufacturers with a wide area of tea gardens under their care and various plots of land to manage often resort to working with different cultivars. When the trees on all their gardens are of the same species, they often start to bud at the exact same time. This may cause the producer to have to harvest all plots of land simultaneously, which causes a tremendous work overload, which he cannot possibly manage himself, nor can he find enough labor to aid him in this overwhelming task. Cultivars are divided into three groups: "speedy," "seasonable" and "tardy" growers, which provide immense benefits for the producer in terms of time management during harvesting periods.

By choosing a variety of cultivars that bud at a marginally different pace, the producer can manage his tea gardens so that different gardens don't sprout at the same time, but rather in succession. This enables him to spread his period of harvest out over a wider span of time, limiting the amount of work to be done in one day, in order to more efficiently manage the whole of his farm and plots of land. And it is this specific trait that has made cultivar species become more favored over native and seed-propagated trees.

Take for example the Yabukita cultivar. This species was discovered by Hikosaburo Sugiyama (杉山彦三郎) at the tea garden north of his bamboo grove, which explains the name of the tree literally signifying "North of the Bamboo Grove (やぶきた, 薮北)." His research revolved around the discovery of species that can produce quality buds and leaves for the manufacturing of tea, which led him to the discovery of "speedy," "seasonal" and "tardy" growers among different tea varieties. He also made the discovery that when seeds taken from cultivars are planted again, the characteristics of that specific cultivar are lost, which made him aware of the necessity to reproduce cultivars from cuttings in order to maintain their traits. For his research, he gathered plants from areas throughout Japan, which he then planted in the experimental tea garden where he monitored the plants, noting their specifications down in search of the best suitable varietals for tea. It was at this garden that he discovered the Yabukita cultivar, which is currently in use at 70% of the gardens for green tea production in Japan. This cultivar was chosen as a promoted species in 1945 and was registered as #6 in 1953 under the Japanese tea cultivar registration system. Currently it is taken as the yardstick to measure the velocity with which other cultivars produce new buds and become ready for harvest. This cultivar is average in all areas, especially renowned for its strong growth and good yield, as well as durability against cold and frost, making it a versatile and highly-adaptable tree in different environments.

However, its superiority is not necessarily based on its taste and aroma. Rather, this cultivar is praised for its stable amount of produce, adaptability to different weather conditions and average flavor, making it not only a tree that can grow just about anywhere, making it an easy plant to manage for the farmer, but also a variety that lends itself to human interference to modify taste through fertilizing and blending practices by virtue of the plant's mediocre flavor pattern. Accordingly, the choice to use the Yabukita cultivar at most tea farms throughout Japan is not a choice made in consideration of the preferences of the consumer, nor is it a distinction made to discern the cultivar's surmounting characteristics and potential to produce a unique unparalleled product. In fact, it is a choice on behalf of the manufacturer and the industry that evolved around the manufacturing of tea in Japan. The consideration of the manufacturer is the ease of cultivation and harvest of the trees he chooses. In addition, the consideration of the mainstream industry is more a matter of how a generic flavor can be obtained, as this facilitates the mass production of a commodity with an equal taste that is predictable and appealing to the greater public.

Cultivars were initially discovered and registered for their adaptability to different climates and for their range of unique tastes and flavors. Nevertheless, the industry has moved towards a focus on mass-production and economization, inevitably reducing the potential of tea products manufactured, limiting them to monotonously unified tastes and aromas. While cultivars possess great appeal and distinct characteristics of their own, most large-scale tea manufacturers tend to neglect their potential. It is the small artisan tea producers that take great joy in experimenting with different cultivars to learn from their different behaviors and to bring products onto the market that present a uniqueness and diversity to the more curious consumer.









After terroir, we can learn more about the way Japanese sencha is processed, which also continues from the land, climate and philosophy with which it is grown. Tyas reminds us that the advance of technology is not necessarily a bad thing, so long as it is guided by wisdom. He also has some powerful teachings to offer on tradition and why it is relevant in this modern age. We hope that after reading this article, you will have a greater appreciation for Japanese tea craftsmanship and a desire to explore more—perhaps with the "The Story of Japanese Tea."

he process of rolling tea for the manufacturing of sencha after the freshly-harvested tealeaf has been steamed was invented in 1738 by Nagatani Sōen (永谷宗円, 1681-1778). Prior to this discovery, it was mostly tencha (used to produce matcha) that was produced in Japan. Rolling the leaf allowed for a better release of flavor when infused (as opposed to whisking a bowl of powdered tea), and this practice of infused tea had during this period become popular among the literati who favored Chinese arts and practices. Hereafter tea masters perfected their own styles for rolling tea and educated pupils in their methods. This resulted in the development of a wide array of individual "schools (流派; ryūha)" of hand-rolling methods. In 1905, the decision was made to create a uniform style in Shizuoka in which tea masters could obtain a national certification. This style took the best approaches from the different existing schools and combined them together in a consolidated technique. Over time, the manufacturing meth-

ods of the national style became the basis for the development of mechanized equipment.

The first machine for tea manufacturing was invented and patented by Kenzō Takabayashi (高林謙 三, 1832-1901). He first succeeded in developing a machine to steam tea leaves, and then in 1896 he developed the first tea-rolling machine. The rights to his inventions were purchased by Kōsaku Matsubayashi (松林幸作), who mass-produced and marketed the equipment in Shizuoka. Until equipment for the later half of the production process became available, initially only the first half, which included the rough stages of steaming and rolling, was conducted by machine, and the latter half, including more dedicated rolling techniques, were conducted by hand.

The mechanization of the manufacturing processes has enabled producers to process more tea leaves at once and speed up the process tremendously. This has eliminated the necessity for freshly picked leaves to sit idly during transport after picking, and in waiting to be processed at the factory.

In the past, tea had to be transported on foot, and since the distance between farm and factory could be quite far, it wasn't uncommon for the leaves to begin to oxidize during this journey. Moreover, since only a few trained professionals could process the leaf, harvested batches commonly had to wait for several hours before they could be treated. It is obvious that during these periods of idleness, the leaves would gradually commence to wither. But rather than to throw them on a pile or let them sit in the baskets in which they were carried, it was customary to spread them out on large withering and drying beds. This would allow all leaves to dry evenly, while manufacturers could process each batch of tea individually without having to rush.

Until machines became available, withering was a stage that was part of the traditional tea manufacturing cycle, and what this process did for the quality of the tea is unlikely to be comparable to the Japanese green tea



we know today. Although I haven't had the opportunity to taste a tea produced several hundred years ago, I base my findings on a sample that has been produced according to similar methods. Withering the tealeaf allows for a floral or fruity aroma to develop and renders the tea to be somewhat equivalent to what we know as oolong in flavor and aroma. It produces a lightly oxidized variant of green tea with a much more outspoken aroma, often referred to as floral and sweet.

Machines have allowed us to speed up harvest and production, and boosted the amount of crops that can be gathered and tea that can be produced. This has made tea available at a wider scale and in larger volume. In addition, the labor necessary to work in the field and the intensity of this work has been greatly reduced. But machines haven't only changed the tea industry for the better. The ease, comfort and tremendous benefit that this equipment has provided us with has come at the cost of several traditional practices, flavors and customs.

The outlook of a tea garden has shifted from individual trees to stretched-out lanes of trees for the ease of production. Withering methods have become abbreviated for the sake of freshness of the tea, and a new focus on a lush umami flavor. And the custom of seasonal working women from the city who come to the mountains during harvesting season to help harvest the tea has been replaced by the helping hands of a few local housewives, who aid in the hand-picking of top-grade matcha and gyokuro at the few farms that maintain traditional harvesting methods, whereas most other growers harvest their crops with the aid of mechanized equipment and therefore don't need pickers of any kind. These are but a few ways tea manufacturing has changed in recent years, and if we look out upon the long history of tea manufacturing in Japan since the advent of a grounded tea culture following the introduction of tea by Zen monk Eisai in 1202, then these changes are but one moment in the lifespan of Japanese tea.

For example, when Eisai presented monk Myōe with tea seeds he had obtained during his studies in China, Myōe planted them in Togano'o where he erected a tea garden. The tea produced here was so delicious that the area was revered as the sole production area of "true tea (本茶; honcho)." When later tea manufacturing was expanded to the surrounding areas of Uji in Kyoto, this tea was perceived as "non-genuine tea (非茶; hicha)" until artificial methods were developed to imitate the good conditions of Togano'o, and to produce an indistinguishable quality elsewhere. It is from this time onward that the production of tea in Uji began to prosper and became known throughout the country. This episode marks one of the major innovations in Japanese tea history that allowed the tea industry to prosper, and such innovations are required to inspire traditions to be transmitted to the next generation.

I believe that tradition must evolve with its time and must adjust to contemporary needs for it to remain pertinent. Without this flexibility, it will stagnate and lose relevance, causing it to disappear. "What makes this tradition relevant?" is the foremost question a proponent of tradition should be asking themself in order to figure out what can be done to pass the heritage on to the next generation. However, while a tradition may live, change and improve, the underlying ideals and beliefs should remain untainted.

Sencha

A tradition exists in the values it proposes for our current time. And in fact, those values are universal and enduring. The practices that have been constructed around those values, however, may change and require to be altered to fit our contemporary needs. And it is the shape and the form that exists as the outer body of the tradition that creates the doorway to those underlying principles. This outer body needs to be flexible so that it can be adjusted to our present-day requirements, while it maintains the access to the underlying joys of our human existence.

To illustrate, consider these questions: "Why would someone want to practice handling the Japanese longsword when there is no use for such a weapon in today's society?" or "Why would you wish to become skilled in the rite of tea, when tea compounds in which such a service can be held have become a scarce architectural feature in today's houses?" Similar questions asked to practitioners in one or more traditional arts will likely be responded to with answers such as: "It provides meaning to my life," or "It gives access to a source of energy, which aids me on my spiritual path, and on the journey of life."

This is no different for the tradition concerning tea manufacturing in Japan, and to thoroughly understand what has caused tea to survive throughout the ages as a national beverage, I believe that we should look to discover what tea essentially is and why it has gained its traditional values. When tea was initially imported into Japan, it was understood that tea was a divine product presented to us by Nature. For us to be allowed to consume tea was to receive this divinity and with it the energy and power of Nature and the Universe that created it.

Tea is a product of the leaves of the tea tree—not the seed, nor the fruit,

nor the flowers, nor the roots. In other words, tea is not a product from the parts of plants that in other instances are commonly believed to possess divine powers. Tea is a product from the leaves of the trees, which is a distinguishing feature. Very early on it was discovered that this leaf possessed powers that could cure poison, prevent other minor illnesses and function as an aid in our spiritual pursuits.

Tea is a divine beverage that carries within it various benefits-physical, spiritual and in taste and enjoyment. It receives these divine powers from its natural surroundings, which is an idea that is strongly supported by Japan's indigenous religion, Shinto. Shinto teachings emphasize the divinity of Nature itself, and the belief that all objects, places and creatures possess a distinct spiritual essence. It is a cultural trait of the Japanese people to have always coexisted in harmony with their natural environment, and even today reverence for the seasons, and seasonal features such as cherry blossom viewings and the appreciation of the maple leaves in autumn are celebrated on a national scale. Moreover, Japan has always relied on farming activities primarily, making the dependence on Nature even more prominent. Therefore, receiving something from Nature is equal to receiving the energy of the spirit that resides within the product itself.

This answers the question: "What makes tea relevant in today's age?" Tea is divine and natural. It imbues us with a renewed vitality and strengthens us against illnesses to come. Tea provides us with spiritual refreshment and relaxation, and when shared with others, it helps us establish a pure and unlimited, essentially human interaction with each other. Tea is valuable and prominent in the present day and by engaging in its tradition, we benefit greatly from its advantages.

Sadly, I see tea traditions disappearing. Contemporary tea manufacturing, for the most part, is shifting towards underlying ideals that are rooted in consumerism, capitalism, mass-production, exploitation and is gradually winding away from the divine and natural origins of the product. Production methods have changed; the landscape of tea farming and the intensity with which the trees are exploited has changed; the perception of how a tree should be treated has transformed, and with it the taste and the energy of the tea as well. Producers are becoming lazy; farms are being constructed and cut out of the mountain flanks; and chemical products are used to induce taste. We have come to believe that Nature can be controlled, and that life can be created using modified substances, while we in fact neglect the whole of the environment.

When a farm is artificially flattened or cut out of a mountain flank, the fertile topsoil is removed, and the farm rests on an unnatural bed of "dead" soil. In effect, the farm becomes dependent on fertilizer to artificially keep the trees fed. When the trees are harvested three to four times a year, they become exhausted, and in order to keep their yield up, nutrition needs to be artificially added. Such methods make us feel that we have conquered. Each year the yield goes up, the leaves produce more flavor, and the product becomes better valued on the market. But what is being forgotten is that such practices stand in contradiction to the traditional values inherent in tea and the culture it propagates. We are in fact neglecting our national environment and deviating from the divine character of the tea. While tea is believed to be a product of Nature, what we receive as a product today is mostly altered due to human interference and has become ultimately artificial.

Nevertheless, the methods described hereunder are by no means unacceptable. It is the people who operate the machines that embody the values and thoughts that guide the tealeaf to a finished product, and it is for them to remain aware of the kind of product they wish to create. In this way, each tea produced at a different farm by the hands of a different manufacturer will inevitably become a different product in comparison to other commodities produced in the same way. The tealeaf itself has already been influenced by its terroir to express certain characteristics, as well as the specific traits that different cultivars lend the tealeaf. In the factory, too, each manufacturer operates according to his own feeling and intuition. While the machines may be the same, and standards for processing tea exist, weather conditions still play a role during the manufacturing stage.

Additionally, each producer has his own individual vision of the product he wishes to produce, and it is all these factors together that guide every single batch of tea to a unique conclusion.

Therefore, the methods and measurements indicated below are but standard indicators that are adjusted according to the situation, and based on the manufacturer's discernment. Sencha is not the same sencha everywhere, and this one type of tea is ultimately a variety in itself.

The Steaming Method

The steaming method is the most common method applied in Japan to halt the oxidation in the tealeaf right after harvest for green tea production. This is necessary to maintain the green color and freshness of the leaf, because when the leaf isn't fixed immediately after harvest, the tealeaf will wither and oxidize and it will gradually turn brown. To produce oolong or red tea, fixing is done at a later stage, but it is essential to do this as early as possible to maintain the youth of the leaf to produce green tea. In other countries, fixing is often done employing a large iron cauldron or wok, which is positioned above a direct source of heat. In Japan this method is only used when producing pan-fired tea, also referred to as "kamairicha."

The processes for rolling green tea developed in the mid-18th century, and have been perfected and standardized as hand-rolling techniques since then. Hand-rolling is an art that is currently only maintained by artisan tea producers, and the batches of tea produced through these traditional methods are commonly submitted to competitions (often exclusively for this purpose), during which skill and craftsmanship is assessed and rewarded.

Today's mechanized line of production for green tea responds to the different directions and kneading methods that are applied to the tealeaf when processed by hand. Mechanization developed out of traditional processing. In order to provide a clear idea of why the different rolling stages, and the variety of equipment is needed, I will briefly describe each hand-rolling stage below, as well as add a note on how each stage relates to its mechanized counterpart. Then I will explain the mechanized production line.



A Freshly steamed tea leaves. This is the method of de-enzyming used in Japan since ancient times.

PROCESSING SENCHA BY HAND

Steaming

The steaming process (蒸熱; *jonetsu*) is necessary to halt the oxidation in the freshly-picked leaf. If the leaf is not processed with heat, it will gradually wither and oxidize, and the color will turn brown. This is how oolong and red teas are initially produced. In order to maintain the freshness of color and taste of green tea, steaming must be applied as soon as possible after harvesting.

The steaming process only requires ten to twenty seconds. Afterwards, the leaf is spread out to air and cool down. In the past this process was conducted by hand in bamboo sieves above a tank of boiling water. Currently, regulated equipment is available through which steaming temperatures and duration can be observed more accurately.

Airing

Airing (茶振るい; *chaburui*) is conducted in order to evaporate the remaining moisture on the surface of the tealeaf. The freshly steamed leaves are picked up in small batches and gently thrown up in the air. This motion is repeated until all the moisture has disappeared.

All hand-processing stages are conducted on a large table that is heated from underneath. The heat of the surface on which the tea rests aids with drying the leaf. While the different methods of processing are also a means of shaping the leaf, ultimately the goal is to extract the moisture from the leaf and dry it until its moisture content has been reduced to between 5 and 10%.

The airing stage corresponds to the "initial beating" stage of mechanized manufacturing during which large spatulas rotate inside a drum, beating the leaf and scooping it round to float up and down inside the barrel.



Hand-rolling combines the oils of human skin with the juices of tea; it also adds heart and spirit to the tea. This pile of hand-rolled tea will be unique from a pile rolled by someone else right next to it. And if this is done in a traditional way, it lends the tea breadth and power and method that no machine can reproduce.

Kneading & Rolling

The next step, kneading and rolling (回転揉み; kaiten momi), is intended to extract the moisture that remains within the leaf by pressing it out onto the surface. To do so, small heaps of leaf are packed together and rolled in a rotating motion against the surface of the table. By adding gentle force to the leaf, moisture will once again appear on the surface, causing the leaf to stick together. This is the sign to revert once again to the airing stage to allow the moisture on the surface to evaporate. These two motions (kneading and airing) are repeated until the leaf is almost completely dry. The state of moisture can be checked by picking up the leaf between forefinger and thumb, pressing it slightly. If the leaf still feels soft and sticky when pressed, it means that it is still moist inside.

This stage coincides with the motorized kneading machine, which forces the tealeaf down a round embossed surface, rolling the tea in a circular motion for fifteen to thirty minutes. In addition, this stage also has the function to crush the molecular structure within the leaf, resulting in an easier release of flavor when brewing the tea. The longer the leaf is rolled, the more flavor will be released during the first infusion.





c k This is the board used to shape the sencha when it is hand-processed.

Straightening

The straightening $(\pounds \succeq \grave{\exists}: tamatoki)$ stage has no specific correspondent in the factory. This stage and the next (straightening and final rolling) are combined in the "agitation" stage. When hand-rolling, the airing and kneading stages are conducted in alternation. However, during the mechanized process, airing and kneading are only conducted once. The "agitation" stage aids with the final evaporation of moisture on the leaf and combines straightening the leaf with a final round of rolling.

During kneading and rolling, many of the individual leaves will have curled up. These need to be undone before moving on to the final shaping stages. The process is arduous and intensive, because each individual leaf must be picked up by hand, uncurled, and laid back down. This process must be repeated until all leaves have been inspected. It goes without saying that machines can't inspect each leaf as precisely as can be done with the naked eye. Therefore, this stage constitutes a large difference in quality and appearance of the tea between hand manufacturing and machine processing.

Rolling-Out

For the rolling-out $({}^{\mathcal{R}}\mathcal{P} \stackrel{*}{\Rightarrow} 0)$; *momikiri*) stage, the heat of the table is turned down, and the uncurled tea leaves are rolled back and forth in a straight line. While the rolling aids further extraction of remaining moisture, its foremost purpose is to shape the leaves into straight, long needles.

Again, where part of this motion is conducted in the "agitation" drum, it is mostly during the "shaping" stage that the actual shape of the leaf is formed. Some manufacturers finalize the shape of the tea during this stage. Others opt to employ a wooden board as a final tool to obtain a better and thinner shape.

Board Shaping

During board shaping ($\hbar \sigma$ ϑ); *itazuri*), a wooden board with horizontal grooves is employed to better regulate the direction of the rolled leaf, and in effect obtain a thinner and sharper shape. The purpose of this stage is ultimately the same as the rolling-out stage. During the mechanized "shaping" stage, large brushes wipe the tealeaf back and forth over a grooved board in order to create their needle-like shape.

Drying

Drying (乾燥; *kansõ*) is the final stage. By the time the leaf is rolled and shaped, it still maintains approximate-ly 10% moisture. To improve the shelf life of the tea, it is recommended to dry it further until only 5% moisture remains. The drying is commonly conducted in an oven or similarly heated space. After this step, the tea is ready for consumption.

MECHANIZED PRODUCTION OF SENCHA

Fixing

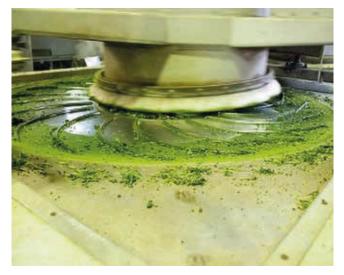
For the manufacturing of green tea, the freshly obtained tealeaf is heat treated by applying steam directly to the leaf as soon as possible after it reaches the factory. Heat treating the leaf is commonly referred to as "kill-green (殺青; sassei)" and is conducted to fix the tealeaf and thereby halt the activity of the oxidase enzyme to maintain the tea's vivid green color. For Japan's mainstream green tea variations, it is the steaming method that is commonly applied. The duration during which the leaf is exposed to steam is brief, but depends on the disposition of the leaf to be treated. Commonly a "regular steaming interval (普通蒸し; futsūmushi)" or a "profound steaming interval (深蒸し; fukamushi)" are employed. For the regular steaming interval, the tealeaf is steamed for a period of approximately twenty to forty seconds. The profound steaming interval measures between forty and one hundred and twenty seconds.

A longer steaming time renders the leaf softer and more prone to crumbling. Although it is considered more suitable to employ a shorter steaming time, just long enough to halt the oxidation, and simultaneously maintain the original form of the leaf as closely as possible, a longer application results in an enhanced, richer and mellower body. Conversely, a shorter time will express a stronger and richer aroma in the final product. These aspects must be considered in relation to the raw leaf that is being processed, and the final product a manufacturer is aiming to obtain. Based on these deliberations, the producer adjusts the steaming duration and heat of his equipment.

After the tealeaf is steamed, it must be cooled down. The purpose of cooling the leaf is initially to make sure no unwanted oxidation occurs due to excessive heat remaining in the leaf, but it also creates the opportunity for the tea to already release and vaporize some of the excessive moisture remaining on its surface. During the steaming stage, external water has been used to treat the tealeaf, and some of the steam will have condensed onto the surface of the tea, which adds to the amount of moisture that must be dealt with during the successive kneading and drying stages.







本 The upper left photograph shows the steaming machine used to de-enzyme, or "fix," the tea, which arrests oxidation and kills a green enzyme in the tea that makes it bitter. That is why it is called "kill green (sha qing, 殺青)." The bottom left photograph shows the spatulas inside the mechanized drum for the "initial beating" of the tea. This dries the tea and brings out the internal juices, making them available to hot water once the tea is brewed. These spatulas beat and unravel the tea as it rotates around the drum. Above is a Japanese rolling machine used to break down the cells of the tea. This machine is very similar to the type used in Taiwan and China to produce oolong and red tea, pressing the tea against metal ridges as it is rolled around in circles. In the case of sencha, this occurs for roughly twenty minutes before shaping.

煎茶機械化製程

Initial Beating

Kneading

During the initial beating (粗揉; soju) stage, the steamed tealeaf is transferred into a horizontally-placed cylindrical rotating drum in which the leaves are unraveled, beaten and simultaneously dried by the application of hot air. Spatulas rotating on the central axis of the drum are used to exert tolerable force on the leaf while whipping and beating it in order to press internal saps and juices onto the surface of the leaf, which in turn is dispersed by the application of hot air. The main purpose of this stage is to initiate drying the tealeaf. The leaf is on average beaten for thirty to forty-five minutes. The temperature of the hot air at the origin is set at approximately 95 degrees Celsius. During the whole process, the manufacturer keeps an eye on the body temperature of the tealeaf, which should remain around 35 degrees Celsius. Even though this process is mechanized, it still requires the skill of the manufacturer to watch the tealeaf and monitor it with his senses to determine when to move on to the next stage depending on the raw material and the desired outcome.

Kneading (揉捻; jūnen) is performed on a tea roller that gathers the tealeaf in one lump to then, in a circular motion, roll the leaf horizontally over a rolling board. This machine is similar to the rolling machines used in other tea-growing areas of China and Taiwan for the production of oolong and red teas. The brushes on the upper moving part of the machine gently exert downward force on the leaves while the whole mass is tumbled over the rolling board's embossing. During this stage, no additional heat is applied. The main purpose of this process is to break the cell walls of the tealeaf in order for it to more easily release its flavor, as well as its saps for the ease of manufacturing during the following stages by making sure that the moisture is evenly spread throughout the whole lump of leaf. Customarily the leaf is rolled for around twenty minutes, but the longer the leaf is rolled for, the better the tea will release its flavor during the first brew. This is also a consideration the manufacturer must make. It is not always a good thing for the tealeaf to release more during brewing.

ADDITIONAL THOUGHTS ON STEAMING

hen the steaming period is pronounced, and rolling is applied longer than usual, the inner cell walls of the tealeaf will be broken much more acutely, which will result in a stronger release of flavor and a deeper liquor color. However, this isn't always a good thing. When the tealeaf is treated too long, it will crumble and fall apart, creating dust and disintegration. Therefore, it is a decision the manufacturer needs to make thoughtfully by thoroughly examining the traits of the tealeaf he has at hand and by keeping in mind the final product he will be producing.

In the northern regions around Shizuoka, manufacturers take strong preference in the "long steaming period" to produce a tea with a stronger initial flavor and deeper green liquor. A reason to do so are the amounts of sunlight the tealeaf receives during the day, rendering the leaves coarse and bitter more easily. In this case, the "regular steaming period" is insufficient to produce a palatable tea. On the other hand, in the Kansai region around Kyoto and Nara, it is the "regular steaming period" that is used, taking into account the sufficient deliciousness of the raw leaf in an attempt to hone those traits in the finished product.

Final "branding" provides another point of discussion. While "branding" in the Kyoto area is average and commonly maintained to a sensible yet inconspicuous level, the enhanced aroma through "branding" in, for example, the Yame region in northern Kyushu must be sufficiently conceivable. And yet again, Nara tea farmer Fumiaki Iwata, who made our Tea of the Month, chooses to keep his teas free from any fiery fragrances that are not inherent to the plant itself. During one of the many discussions I had with him, he explained to me why he chooses not to "brand" his teas. "I choose to as best as possible safeguard the authentic flavor and aroma of the agricultural produce when it progresses through the initial manufacturing stages. This gives a character that is relatively like the taste and aroma of the raw leaf when it was obtained in the field." To Fumiaki, a tea must taste as natural as possible, and that is why he prefers to omit any aspects that are too indicative of human involvement during the processing.

Agitation

The horizontal drum for agitation (ψ / R ; $ch \bar{u} j \bar{u}$) is again equipped with revolving kneading arms to toss and stir the tealeaf. The interior of the metal drum is lined with strips of bamboo against which the shriveled leaf is pressed and unraveled. Hot air again assists with the release of moisture on the surface to further dry the leaf. This stage is used to tidy the appearance of the leaf and get it ready to be shaped during the final rolling stage. Since the leaf still contains a large amount of moisture, this stage is also functional for the drying of the tealeaf. Agitation is conducted for approximately forty minutes, while the exhaustion of the machine should not reach above 34 degrees Celsius. The manufacturer will attempt to maintain the body temperature of the leaf at around 36 degrees Celsius.

Shaping

Shaping (精揉; *seijū*) is the final rolling stage of the manufacturing process, and it is during this process that the finishing touches are applied. During this stage the tealeaf is given that thin needle-like shape that is distinctive of Japanese green tea varieties. The tea leaves are flicked over the bamboo-covered rolling board by brushes that sweep back and forth in one single direction. This aids to evenly roll the leaf to straighten them out in order to adopt their needle shape. During this process hot air of approximately 90 degrees Celsius (measured at the source) is added, and the body temperature of the tealeaf is maintained at approximately 40 degrees Celsius. The rolling is operated for around forty minutes.

Drying

Drying (乾燥; kansō) is the final stage of the whole process. During this stage the rolled and shaped tealeaf is for a final time dried in a dedicated drying cabinet or oven. The leaf is inserted into the chest in drawers with a steel gauze net at the bottom to let hot air pass through. The air in the cabinet is measured to reach approximately 80 degrees Celsius, maintaining the body temperature of the leaf at around 70 degrees Celsius for an average of thirty minutes. The leaf that upon entry still contained about 10 to 13% moisture will dry to reach the preferable amount of 5% at the end of the treatment. This enhances the shelf life of the tea and allows the producer to "brand" his tea by altering the intensity with which he fires his finished tealeaf. This branding is commonly known as "hiire (火入れ)," and varies greatly according to the manufacturing region and person who is operating this stage. It has also come to be seen as a measure of skill of the producer and a way to mark a finished product. A strong "branding" will result in an enhanced toasty-ness, nutty-ness and sweetness, whereas a shallow "branding" will better maintain the authentic traits and "green-ness" of the original tealeaf.



This is the agitation drum, used to shake the tea for forty minutes before the final rolling/shaping. It has revolving arms inside to toss the tea and bamboo strips to press the tea against.





X Manufacturer observing the shape and dryness of the tealeaf during the final shaping stage.



c x To the left is a sencha made with normal steaming; to the right is deeper, longer steaming

lices from the flat

This month, we have a beautiful, very personal and heart-opening story that many of us can relate to. Li Ying is candid and honest in telling her story of facing her inner demons through a tea practice. So many of us have come to the rim of this bowl to heal, whether it be a specific issue or just to get more in touch with ourselves and heal our relationship to the natural world. There is much in her story that will resonate with all of us. We should honor her with a bow, for her courage and for sharing her experience, strength and hope with us all.

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

HEALING THROUGH TEA ※A: Li Ying Lim (林麗穎)

hen we tune in to the body, we still the mind and allow the wisdom of the body to come through. This is how we can establish a beautiful connection with food and health. This is how we can hold fast and steady in the midst of a bombardment of information and social media standards and continue to return again and again to our own bodies to listen. Quieting the mind through Tea and meditation, we can hear the whisper of our souls more clearly-allowing us to trust our bodies to send signals about what to take in, that which is truly nourishing and feeds our cells and souls... Hello, my name is Li Ying, and I am a recovering anorexic.

You may ask: What does that have to do with Tea?

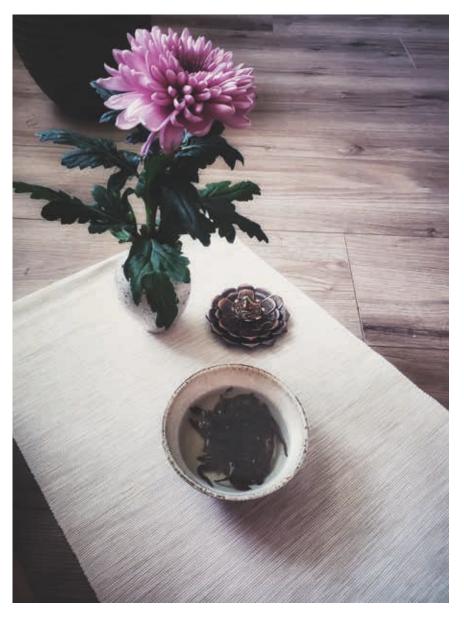
To which I can only answer: So, so much, my dear Tea family. So, so much! In a typical human moment, as I would call it, I might often wish I had discovered Tea much earlier. However, as with all things in Nature and life, and, indeed, the lore of "Kaizen," we never stop learning, and that is the beauty of life. I would not change a single thing given the chance...

I discovered Tea-or more likely, Tea called out to me—in late 2019 when I was still living and working in Hong Kong. As a Malaysian-Chinese transplant, tea as a beverage was something common, and I used to call myself a "tea snob" for sussing out "good tea." (Think: flavored tea and fancy triangular tea bags with herbal infusions, and lots of green tea. Key weakness: gyokuro.) Oh boy, and what a surprise I was in for when I sat for my first ever tea ceremony at Fivelements Habitat with my dear Tea sister May Nogoy (this month's TeaWayfarer). The nonverbal transmission I received during that single sit was so transcendental-so beyond even this version of me, who abides by a daily practice of meditation and a strong affinity with spirituality—that I went back a month later to revisit that experience. At that point I was very certain that Tea had called me forth. I knew that I had to serve, and thus began my journey down this beautiful Way of Tea that we are all traveling together...

Now, fast forward a few months later, with a daily practice of meditation and tea ceremony, I have found a way to feel a deep and profound connection with Nature, and hence a connection with my heart. From here, I have found a way to love myself, love life and feel into all of my imperfections-as well as the perfections that stem from these very same imperfections. By living the Dao, I find myself easing into difficult moments breath by breath through what I learn from setting up each and every chaxi: patience, love and self-discipline through mastery. As Wu De says: "Approach Tea as an aspect of self-cultivation, using the mindfulness of our Tea practice to live more peacefully and true to our guiding principle. We also focus on Tea as a Way of finding harmony within and without; connecting to Nature through the mountains in the leaves; and connecting to others through our service." The Dao becomes us when we live it. Learning to serve Tea with reverence, patience and love, I also learn to take care of myself and others with reverence, patience and love.



Voices from the Hur





About four years ago, I was nowhere near such sentiments or states. In fact, I was living with a blackness in me, a haranguing sergeant who saw every flaw in me and picked me apart. I used to think the criticism was doing me good, and that nothing worth having should come easily. All the societal conditioning that seeped into my pores had, in effect, transmuted itself into a sickness of the mind that set me on a perpetual cycle of self-flagellation.

I guess it all slowly began with a very strict form of calorie restriction... gone too far. I initially just wanted to fit into a dress for a dinner party, back when I was in university, but eventually I started exercising more, eating less, and then, when I came back from the UK (where I studied for three years) and started working at a job for which I had no passion, and was fresh out of a relationship on top of that, I also developed a one-meal-per-day habit. Honestly, it is quite amazing thinking back because I really wasn't even hungry... I ran two to three hours in the park before heading off to work-that meant waking up every single morning at 4 or 5 a.m.-and sustained myself on dried fruits that I would masticate and then throw back out into the bin. When that caused a major tooth and gum problem, I switched to pure water all day and ate a bowl of cereal at night before bed. I slept every afternoon on the weekends, as I was sapped of energy once I finished working out...

This story and illness speaks volumes of what a human mind is capable of. The body can be pushed very, very far if we put our minds to it, and in its bid for survival it can do so very much. And yet, all I was really doing was flagellating my body by burning my muscles without allowing them time to heal—and by telling myself over and over again how disgusting I was, how imperfect I was and what a failure I was if I did not complete this circuit, or if I ate more than needed...

With Tea, I have finally found a way to drop down deep into my body and reconnect with Nature. Through Her I am able to bring myself back again and again—stronger each time—to appreciate the body beyond its physicality; to see its spiritual energy and to appreciate its strength and tenacity and to overturn the impositions that social norms have placed upon me and caused me to descend into numerous eating disorders over the past ten years. It was through Tea's eyes that I saw how disconnected I was from my body. It was remarkable when I connected the



dots and saw how my low self-worth and low self-esteem were so deeply rooted in this very disconnection.

When I dropped to my lowest weight (32kg), I was also suffering from a foot injury that did not allow me to run anymore. (See again how amazing the body is at keeping us alive? Never, ever underestimate something as seemingly innocuous as a flu; it is most likely a cry out to you to take a break.) I had to go for IV drips every weekend and take tons of pills and injections and creams for my hormones and vitamin deficiencies. My foot injury kept me from exercising, which was a real cause of distress because the treatments had opened up the floodgates. In my eyes, it was my worst nightmare materialized: I could not exercise, but I was eating like a glutton! How terrifying, how lost I was... I knew no satiation, only hunger, and would eat everything that came into my sight. One time, my father found me half-unconscious next to the toilet bowl. I had finished a whole baguette on my own...

The binges went on for months while I began to see a hypnotherapist, Kate. She helped me to overcome my fears and pass through to a space that allowed the light to shine on all of the nitty-gritty things that had caused me to feel that perfection was the world and imperfection was me apart from it. I realize now that perfection is unattainable, and it is okay to be wrong and to make mistakes. We own our faults and imperfections and build our days from these foundations. I learned the art of letting go and began believing that I could be loved-that I am worthy of love. So many years of desperation, of seeking for approval, crumbled

and were swept away like dust... It was a revelation that shone light onto my dystopian world—it was a light at the end of the tunnel, in other words.

In a world where materialism is rife. Tea gives me strength to move beyond all of that. Realizing that I had been holding so tight to preconceived beliefs was key to release. Sometimes we don't even see our issues until the universe holds a mirror up to us by putting us in a contrasting situation. With a certainty that none of these preconceived notions matter, I can take comfort in simplicity, steeping tea leaves in some hot water boiled over a flame. Safe in the knowledge that my life can unfold so beautifully in the teachings of the Way of Tea, presided over by the loving gaze of my higher self/inner being/ the universe, I allow abundance and all that is for my highest good to enter.

Coming from a history of IV drips, hormone injections and countless hypnotherapy sessions, Tea is a welcome breath, a mediation even—of the body and heart.

Voices from the Hut

I have had my ups and downs since then, but I have slowly picked up the habit of eating when I am hungry and stopping when I am full. I repeat mantras every night before bed to remind me that I can have it all, that food is not going to take over my life, and that there is so much to live for out there. I have so many things to do, so many goals to achieve, and so many friends and family with whom I should spend time, that I will not allow my fear of food to take away from me. Practicing the fine art of gratitude also helps as well. Try it: List three things about which to be grateful every day. Being grateful simply for being alive, for being healthy and for having such supportive friends and family, can truly turn your perspective around. I hope you can see it, if not now, in time ... And I suppose these thoughts have helped to strengthen my will to liveto truly live and savor every present moment.

We often see ourselves as infinitesimal beings in the whole of the universe, but the infinitesimal is made of stardust and we shine with our own light in our own way. When we sit with discomfort-as I do once in a while in meditation-we allow ourselves to sit with stillness, and in stillness we can find a means to clarity and acceptance. With the Tea spirit I can accept the beauty in simplicity and come back to my heart space with no judgment, because Tea always teaches me such. She humbles me and has filled my roots, drawing them deeper and deeper into the soil of my inner being. When I am sitting in silence with Tea, I feel an immense gratitude, love and light, as my inner eye opens to absorb the bright, endless abundance of light showering down on me, transmuting me sip after sip... I don't know what it is, but She never fails to weave Her magic, quietly, to allow the essence of my higher self to come through-my higher self that always knows that I am abundantly blessed and loved, and resonates with the Universe's unconditional love for each and every one of us. Many of us may feel alone and forlorn in this world at times, like we need to keep

giving and compromising to be loved and acknowledged. But how about instead of all that pandering, we choose to sit still, root in and just have a bowl of tea?

I was called to talk about my eating disorder past, but I want to also note that an eating disorder will always be present, whether we are "healed" or not. It is always there and on good days, I talk to that voice and soothe it to somnolence; on bad days, it can be a battle, a fight to hold onto the ledge so that I will not fall back into that black hole of self-harm, harangues and ultimately, self-flagellation that often manifested itself in starvation and over-exercising. But I am ever hopeful and at peace, knowing that Tea is with me every step of the way, teaching me Her way in finding beauty and light in simplicity, and in connecting me ever more with my heart, mind, body and soul.

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All of the photography in this article was made by the author. We appreciate and celebrate that she mentioned how the creativity of chaxi can also be such a wonderful healing practice in itself, teaching us to celebrate the moment and ourselves, as well as our guests if there are any. It is always inspiring to see what a person lays out to sanctify their space in their own way.







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 May Nogoy.

was born and raised in the US as a first-generation Filipina. Growing up, I would prepare my Mamma's daily tea and recall how such a simple gesture could make her feel so happy. Later in life, I came to appreciate tea as a beverage of different traditions reflective of the culture and land in which I lived. I first moved to Hong Kong in 2001 from San Francisco to teach Yoga as a way to both help discipline my studentship and at the same time offer something purposeful to the world. I have since become a wife and mother. My love for Yoga and family has been a compass in navigating life's investigatory enlightenment process. And slowly tea has steeped into my heart-home as well, helping me discover a newfound sacred approach to living.

Apart from teaching, practicing, directing wellness programs and facilitating healing sound journeys, I also serve in tea ceremony Meditations within our tea "Spirit Space" here in Hong Kong throughout the week. I have so much gratitude for dear tea sister Resham Daswani who leads our local tea community, as well as for serving me my first tea ceremony. Situated at the center of the busiest part of town, we welcome guests to commune with tea as medicine in silence mostly for their first time, which often iterates in tears of clarity familiar to my own upon my first sit. We are together sharing in Cha Dao, honoring ancestry and connection to Nature, celebrating presence, and creating sanctuary during such transitory times in Hong Kong and the world. Our hearts overflow with gratitude as our minds empty in purification with the revelatory oneness with Nature that we are. We continuously soften in spaces without words and judgment. And yes, Tea is always the root weaving upon our ancient embroidery. We are fortunate to be near Taiwan, which has afforded the welcoming of beloved tea brothers and sisters that serve at the Center to visit and help guide us. This year we were blessed to welcome Wu De himself accompanied by Shen Su for a week of talks and tea service. And earlier this year we welcomed our tea sister Tian Wu. It is precious to share tea with Chajin from the world transiting through Hong Kong, and to visit other tea-rich lands.

Sitting the course with Wu De at the Tea Sage Hut, we touched upon varietals of tea, qualities of finely brewed tea, brewing techniques, but also had the opportunity to experience living in a way of service that the Center embodied so beautifully. We helped cultivate the garden that sustained our food, shared morning meals in silence, served in the production of Global Tea Hut Magazine, collected spring water barefoot upon the mountain and ended our days with late-night tea practice. Some of my fondest Global Tea Hut memories thus far include our Annual Trip in 2018, recalling our cloud-walking moment on the mountain when everyone disappeared into the



🛣 🗛: May Nogoy, USA/HK

mist, and remembering the humble tears from Master Chen of Anxi's eyes as he expressed his thanks for our appreciation of his wild mountain tea. The realization of just how much generosity, love and attention is required in harvesting and processing our tea has birthed much reverence for the leaves we steep in our practice.

Through the study of Zen, I am discovering spirit in the simplicity of elements in relationship along with an ecological green movement of Chajin serving a higher cause. I'm grateful to Wu De, for his lifetime of relentless service to the vision of Global Tea Hut, making all these wisdom teachings accessible to the world for generations to come. Still at the foot of my service, yet look forward to the rest of our days unfolding. Dear Chajin, if the Eastern winds catch sail of your heart, you are most welcome for a sit at my table. Here's to sharing bowls and bowls of our favorite sustainable living tea. I've enjoyed sharing about myself, but wouldn't it be lovely if we could instead sit together steeping tea in quietude? Till then, I am raising my bowl unto all of you.

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Coming Soon to Global Tea Hut Magazine

茶主题: Incense & Tea 茶主题: Gongfu Tea



- 茶主题: Classics of Tea
- 茶主题:Music & Tea

We have many new subscription models available on the website, including digital. The higher subscription tiers are very much akin to the Expansion Packs that we used to offer. The added donation not only allows us to get closer to building Light Meets Life, it also means you will get one or two rarer and better quality teas that follow the topic of the month, offering even more learning opportunities. This month, for example, you would receive another organic sencha and a shaded gyokoru to drink and learn from.

The new website has a pretty expansive community page with events, testimonials and a directory of those serving tea. There are many ways to participate located on that page. If you have been a member for at least a year and are serving tea regularly in your area, you can email us to join the directory. If not, be sure to check if anyone is serving tea in your area and help support your local tea community! If you would like to leave a testimonial about your Global Tea Hut experience, you can also email us. It helps!

We are hosting live weekly broadcasts throughout the summer and will continue to do so on Sundays (except during the online course). Join us for some tea and teachings!

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

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

Affirmation

I am renewed

Am I caught in old patterns? Each day is a new day. Each day contains challenges for growth and joy if I notice it. I celebrate this new dawn and all its growth and joy! Center News

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

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

We are so very happy about this first-ever online course. We hope to continue these digital courses into the near future, since we don't have a Center to host you. At least we can learn together online. Let us know if you have any ideas.



www.globalteahut.org

The most simmered 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.

