

EVALUATION AND PRESERVATION OF THE UJI-CHA TEA CULTURAL LANDSCAPE: HOW IS IT POSSIBLE TO PRESERVE LANDSCAPES THAT ARE ADAPTABLE TO CHANGE?

SHIMIZU Shigeatsu¹

INTRODUCTION

This paper discusses cultural landscapes, a type of cultural heritage that possesses characteristics of both intangible and tangible heritage. Intangible and tangible cultural heritage within cultural heritage studies have been discussed separately, partly due to the different academic backgrounds that have supported research on each type. However, these two heritages are inherently continuous. Understanding both heritages integrally will contribute to create a rich world for the preservation and utilization of cultural heritage in the future.

The author specializes in architecture, which is mostly a study of tangible cultural heritage. However, for the past decade or so, the author has been involved in research works for the practical preservation and utilization of cultural landscapes. Through the works, the author gained new perspectives on how to understand and preserve the architecture and cities, at the same time, on the potentiality to integrally understand the intangible and tangible aspects of cultural heritage.

Within cultural landscape research, the author has been particularly focusing on the research and consensus-building activities for the nomination of the Uji-cha tea production landscape (Shimizu et al., 2021). Uji-cha tea is produced in the Yamashiro region of Kyoto, a leading tea production area in Japan, as a World Heritage site. The cultural landscape of Uji-cha tea is a living landscape where the production has been continued until now, although it is changing minutely every day in people's livelihoods, selection of cultivated plants affected by condition of climate and land. World Heritage sites basically compose of heritage, mostly tangible heritage, rooted in the land, but the selection requires to register a changing heritage, while maintaining its identity, rather than registering invariable tangible heritage. This may be more similar to the concept of intangible heritage

¹ Professor, Kyoto Institute of Technology, Japan

than tangible heritage.

Applying the case of Uji-cha tea's cultural landscape, this paper explores the question how we can integrate tangible and intangible aspects of cultural heritage.

CULTURAL LANDSCAPES IN CULTURAL HERITAGE

Cultural heritage forms cultural landscapes. Cultural landscapes are a concept that has been basically discussed in the field of geography, and they have been regarded as landscapes that are created by human intervention in contrast to natural heritage. This concept was first introduced into the field of cultural heritage by UNESCO's World Heritage Convention, and it was defined as a new category of World Cultural Heritage in 1992. Currently, many cultural landscapes have been registered as World Cultural Heritage sites in various countries around the world. Cultural landscapes are valued and protected through various methods such as cultural heritage nomination and protection. A typical example is a cultural landscape formed in connection with agricultural landscapes that have been created by people working on the land and continuing production, such as vineyards, terraced rice fields, stepped fields, and tea fields.

In the World Heritage Convention, cultural landscapes are defined as follows. First, they are broadly defined as 'the combined works of nature and of man.' This means that they are not simply natural, nor they are solely the result of human intervention, but rather a combined work created by the interaction of nature and humans. This definition encompasses not only agricultural landscapes but also in a broader scope. The following three types are listed in the Convention:

1. The clearly defined landscape designed and created intentionally by man.
ex) gardens or planned cities
2. The organically evolved landscapes: those that have survived or fossilized, and those that are continuing. The former are landscapes that were once formed but have lost their original maintenance systems, while the latter are still actively managed, such as through agriculture or forestry.
ex) vineyards and terraced rice fields
3. The associative cultural landscape. It is associated with sacred natural elements, like mountains or rivers, or natural landscapes that have acquired cultural significance.
ex) Uluru (Ayers Rock) in Australia

Since the introduction of this category, over 50 cultural landscapes have been

inscribed on the World Heritage List, and this number is expected to increase.

Within the framework of World Heritage, cultural landscapes are often considered a midpoint between cultural and natural heritage, and they possess quite unique characteristics as cultural heritage. Essentially, they are formed through the interaction between nature and humans, combining the characteristics of both heritages. Landscapes are not created overnight; it takes a long time to form them. Therefore, they are constantly and slowly changing. This is quite different from the traditional approach to preserving tangible heritage, which emphasizes the importance of maintaining the status quo. Landscapes are rarely composed of a single element but are typically made up of a variety of components. These components interact with each other in dynamic ways. These characteristics of cultural landscapes can be seen as a combination of the physical aspects of tangible heritage and the phenomenal aspects of intangible heritage.

TEA CULTURAL LANDSCAPES IN THE WORLD

Tea has had a profound impact on world history and is deeply rooted in the cultures of many countries and regions. However, since tea cultural landscapes had not yet been inscribed on the World Heritage List, a thematic study on Asian tea cultural landscapes was conducted by ICOMOS to explore the possibility of such inscriptions. The results of this study were compiled in 2021. This book highlighted the cultural landscape of Uji-cha tea in Japan. Based on this study, the ancient tea forest of Pu'er in Jingmai Mountain of China, was inscribed on the World Heritage List in 2023.

Tea is primarily grown in Asia, Oceania, Africa, and the Americas, with some production in Africa and Europe (Figure 1).

Most tea plantations are open-air, and traditional tea plantations are often found in hilly areas. This is likely because tea plants thrive in well-drained soil and prefer areas with good ventilation and temperature differences.

Tea originated in southwestern China, and China has a long history of tea cultivation (Figure 2). Representative teas in China are Pu'er tea in Yunnan Province, Oolong tea in Wuyi mountain of Fujian, or Longjing tea in the west lake of



Figure 1 Tea producing countries in the world
(Source: Durighello et al., 2021)



Figure 3 Ancient tea plantation in the Jingmai mountain (©S. Shimizu, 2019)



Figure 4 Pu'er tea-producing traditional village (©S. Shimizu, 2019)

The production area of Longjing tea is located around West Lake in Hangzhou City, Zhejiang Province. Longjing tea is a type of green tea from which is extracted by stopping the fermentation of tea leaves by heating them. The cultivation method is similar to that of Japanese Sencha tea, and the landscape closely resembles the open-air Sencha tea plantations (Figure 5). Green tea is made by heating tea leaves to stop fermentation before processing, but the difference from Japanese tea lies in the heating method. In Japan, tea leaves are steamed and heated, but Longjing tea is roasted in a pot. Therefore, large tea factories are not necessary, and it is sufficient with a small tea factory attached to the side of a house (Figure 6).

Tea plants, as a species, have little variation. However, the processing methods and environmental conditions significantly influence the final product. Depending on the processing method, the same tea plant can produce a wide variety of teas. Thus, cultural factors also strongly contribute to the diversity.



Figure 5 Longjing tea plantations (©S. Shimizu, 2017)



Figure 6 Longjing tea processing factory (©S. Shimizu, 2019)

HISTORY AND CHARACTERISTIC OF UJI-CHA TEA

The Uji-cha tea is a beverage deeply ingrained in Japanese culture.

Uji-cha tea has made significant contributions to Chano-yu, a traditional tea ceremony. Since the 15th century, Chano-yu has evolved into a comprehensive cultural practice encompassing hospitality, food, clothing, and housing. Uji-grown Matcha tea, a premium green tea, has been the cornerstone of this practice. Although the number of people engaged in the Chano-yu has decreased, the cultural significance of this deeply rooted tradition in Japanese society is still profound.

Like the Chano-yu tea ceremony, there is another tea culture called Sencha-do, centred around the enjoyment of Sencha tea. Unlike Matcha tea, Sencha tea is enjoyed in a more relaxed setting, free from the confines of a tearoom. The culture of tea drinking is not merely a pursuit of high culture; it is deeply rooted

in everyday life of the Japanese people.

Japan has three primary types of tea: Matcha tea, Sencha tea, and Gyokuro tea. Matcha tea is a finely ground powder made from specially grown and shade-dried green tea leaves. It is whisked into hot water to create a frothy beverage. This unique tea is exclusive to Japan. Sencha tea, on the other hand, is made by infusing dried tea leaves in hot water, a method common to many teas worldwide. Gyokuro tea, a higher-grade tea, combines elements of both Matcha and Sencha tea production. The tea leaves are covered before harvesting to enhance their umami flavour, and then infused in hot water to create a distinctive taste.

Although these teas have different production methods, brewing styles, and cultural associations, they share a common characteristic: the process of steaming the tea leaves immediately after plucking to prevent fermentation. This steaming process, which is quite rare in tea production worldwide, is a hallmark of Japanese tea and unites these three distinct types of tea under a single category.

Over the past 15 years, there has been a growing global interest in Matcha tea, leading to a Matcha tea boom. While it was once considered a luxury drink for special occasions, in recent years it has become popular in casual beverages like tea lattes and is used as an ingredient in sweets, rapidly expanding its market.

On the other hand, Sencha tea consumption has been gradually declining. There is a growing trend towards convenience, seeking quick and easy ways to prepare tea, such as tea bottle. This is a significant shift from the traditional style.

The primary production area of Uji-cha tea is centred around Kyoto Prefecture, located near the geographic centre of the Japanese archipelago. The southern part of Kyoto Prefecture, including Uji City, is known as the Yamashiro region where is an origin of the Uji-cha tea.

Tea was first imported from China to Japan in the 8th century. At this time, tea was consumed by boiling an extract from the tea leaves. Later, in the 12th century, tea imported again from China (Song Dynasty) was Matcha tea, which was then repeatedly refined in Japan to become the Matcha tea today. The greatest innovation in Matcha tea production in Japan was the method of covered tea plantations, which was born in Uji City. In this method, the tea plantation is covered to block sunlight during the sprouting period of new buds. This method made it possible to produce Matcha tea with a deep green colour, no bitterness, and full of umami flavour. On the other hand, in China, Matcha tea has virtually vanished.

In the 17th century, tea was once again imported from China (Ming Dynasty), and this became the origin of today's Sencha tea. Initially, the tea was brownish, but a manufacturing method called the 'Uji method,' which can extract beautiful green tea, was invented in Ujitawara area, resulting in the green Sencha tea today.

In the 19th century, the cultivation of tea under shade and improved processing methods combined to create Gyokuro tea, a high-grade green tea. This development also took place around Uji City.

Through multiple introductions from China and subsequent cultivation and refinement in the Yamashiro region, centred around Uji City, tea evolved into unique Japanese varieties such as Matcha tea, Sencha tea, and Gyokuro tea.

LANDSCAPES OF UJI-CHA TEA

The Yamashiro region (Figure 7), the centre of Uji-cha tea production, is a hilly area with an altitude of about 10 to 680 metres. Two rivers, the Uji River and the Kizu River, and their tributaries, which flow through the area, have carved out valleys, forming several valley lines (Figure 8).

This area, includes famous tea-producing areas, such as Uji City and its neighbouring cities of Joyo and Yawata for Matcha tea production, as well as Wazuka Town and its surrounding valleys of Ujitawara and Minamiyamashiro Village for Sencha tea production. Additionally, the locations of tea wholesalers' settlements



Figure 7 Location of Yamashiro region

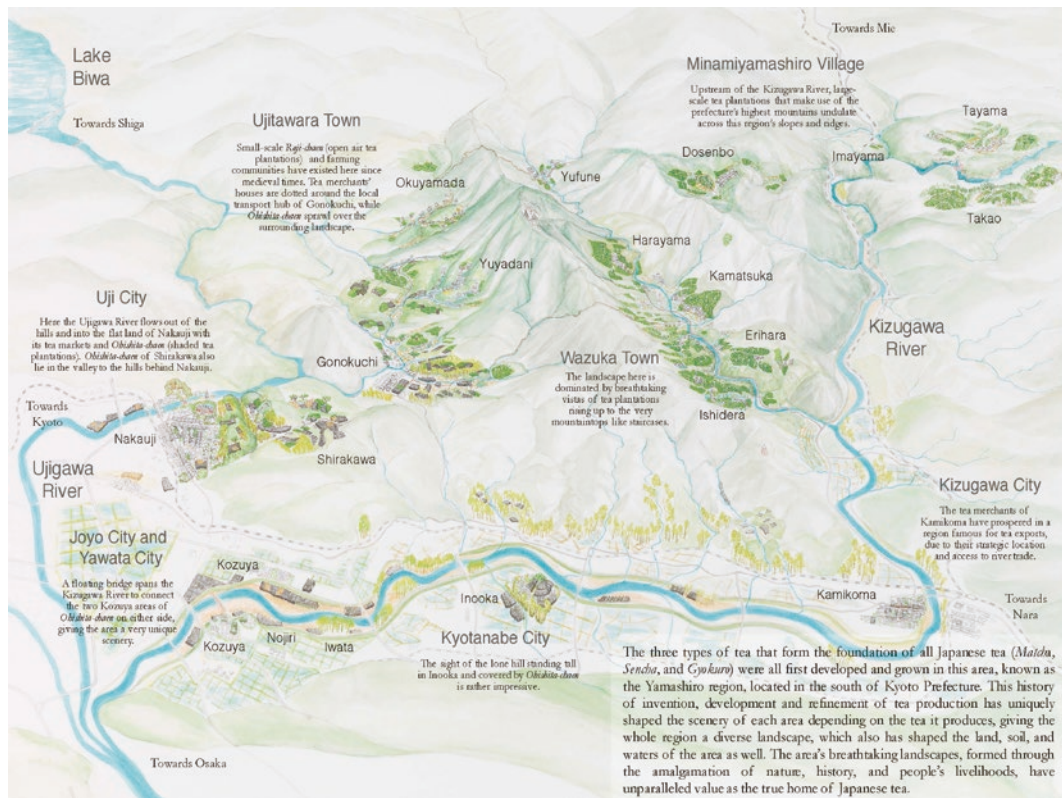


Figure 8 Illustration map of Uji-cha tea cultural landscape (Source: Nara National Research Institute for Cultural Properties)

are scattered in Uji City, Ujitawara Town, and Kizugawa City.

While the tea-producing areas of Uji City extend over a wide range, considering how the two rivers have carved valleys through the hills, and how these rivers converge into a single river, this region unifies whole natural geography.

The production landscape of Uji-cha tea can be broadly divided into the landscape of Matcha tea production and the landscape of Sencha tea production. These differ significantly in terms of the tea plantation landscape, and because the tea manufacturing process, the shape of the tea factor, and the form of the village are different.

The landscape of Matcha tea production is distinctive in both its tea plantations and tea factories. Tea gardens for Matcha tea production are covered to block sunlight during the period when new buds appear, from March to May. This is called 'Oishita tea plantation' (Figure 9). Its origin dates back to the 16th century, and traditionally, it was covered with reed screens and rice straw. Today, many have changed to synthetic fiber coverings, but some tea plantations that use this traditional method of covering are being maintained. The consumption of the highest quality Matcha tea is limited, and the area of the tea gardens is also very



Figure 9 'Oishita' shaded plantation for Matcha tea producing, outside (left) and inside (right)
(©Kyoto Prefectural Agriculture, Forestry and Fisheries)

small.

After tea picking, the tea leaves are immediately processed in tea factories owned individually by tea farmers. After steaming the tea leaves, they are dried in a brick drying furnace. Drying furnaces, reaching 15 metres in length, are installed within the houses of tea farmers, creating a unique scene inside and outside of the tea factories (Figure 10).

The landscape of Sencha tea production differs from that of Matcha tea production in both its tea plantations and tea factories. Tea plantations for Sencha tea production are not covered and are open-air (Figure 11). Traditionally, tea plantations were formed on the mountain slopes, and the tea plantations set up in the valleys had less sunlight hours, naturally creating the effect of a covered tea plantation (Figure 12). In the Uji-cha tea production area, there are many places where tea plantations are opened up to the top of the mountain on steep slopes, creating a spectacular landscape. In the past, tea leaves were picked by hand, but now machine harvesting is the mainstream. The shape of the cut of the



Figure 10 Drying furnace for Matcha tea processing in Uji City
(©Kyoto Prefectural Agriculture, Forestry and Fisheries)



Figure 11 Open-air plantation for Sencha tea producing in Wazuka Town (©Kyoto Prefectural Agriculture, Forestry and Fisheries)

tea ridges differs between hand picking and machine harvesting, and the tea plantation landscape has its own individuality corresponding to each method.

After tea picking, Sencha tea is processed in tea factories individually owned by tea farmers, just like Matcha tea, but the processing method is different. After steaming the tea leaves, they undergo a complex process of hand-rolling and drying on a '*hoiro*,' which is a drying furnace. Currently, machine-made tea production, in which this process is individually replaced by machines, is the mainstream, but hand-rolling techniques are also being passed down.

The author has been working continuously to value, protect, and promote the nomination of Uji-cha tea production and its landscapes, with its rich history,



Figure 12 Traditional open-air plantation in a valley in Ujitawara Town (©S. Shimizu, 2015)

scenic beauty, and cultural significance, as a Cultural Landscape on the World Heritage List. The Outstanding Universal Values are as follows:

1. Evidence for the Origin of Unique Cultural Tradition of Japanese Green Tea and the Succession of its Traditional Producing Methods
 - Introduction of Chinese Tea and Succession of Lost Method
 - Invention of Original Producing Method: Shaded Plantation and Uji Processing Method
 - Invention of 3 types of Japanese Green Tea and Spread to throughout Japan
2. Land Uses and Landscapes Reflecting the Production of Japanese Green Tea
 - Natural Environment + Producing Methods + Distribution, Consumption
 - Plantations, Farmers Villages, and Merchants' Towns
 - Organic Evolution through Rationalization and Mechanization
3. Contribution to the Formation of Tea Drinking Culture
 - Chano-yu with Matcha and Sencha-do with Sencha and Gyokuro
 - Spread and Generalization of Sencha Drinking

In points 1 and 3, the value is placed not on tangible cultural heritage but on intangible cultural heritage. While the physical aspect of a landscape is important, the system that creates it is even more crucial. Landscapes are constantly undergoing subtle changes, and their physical aspects are momentary reflections of the layers of human life and nature that have accumulated and evolved over time. In other words, this perspective treats tangible and intangible cultural heritage as a unified whole, suggesting a comprehensive approach to understanding cultural heritage.

PROBLEMS IN UJI-CHA TEA LANDSCAPES

Lastly, let's consider the challenges involved in valuing and preserving the traditional cultural landscape of Uji-cha tea. Same as other cultural heritage criteria, it is crucial to maintain both authenticity and integrity in the protection of cultural landscapes. Given the strong connection between cultural landscapes and nature, biodiversity conservation is particularly important. Therefore, these perspectives are helpful when addressing the challenges related to the cultural landscape of Uji-cha tea. The challenges can be broadly categorized into four areas.

The first is the ongoing process of urbanization. Tea plantations are located in the outskirts of major cities like Kyoto, in areas where urban and rural areas intersect. While there was once a period of rapid development with residential and industrial complexes being built in these areas, the threat of new developments in current tea-growing regions is relatively low. However, with the construction of new expressways, there is a possibility of increased industrial development in the future, necessitating careful monitoring and control. In Japan, it has become

increasingly difficult to construct traditional wooden buildings due to changes in building regulations. This has led to challenges in controlling the design of new buildings.

The second major challenge is the decline in the demand for Japanese green tea. Specifically, there has been a significant decrease in the consumption of Sencha tea. The global Matcha tea boom and its increasing use as a food ingredient have driven up demand for Matcha tea. As a result, there has been a shift from Sencha tea to Matcha tea production, with many tea farms converting their Sencha tea fields into Matcha tea fields by simply adding shade covers. This has led to changes in the tea landscape. However, since this conversion only involves adding shade covers without altering the fundamental quality of the tea fields, it may not be a severe change, as it is possible to revert these fields back to Sencha tea production in the future.

The third issue is the shortage of successors, which is a problem common to agriculture in general, and it is not just a problem for Uji-cha tea or Japanese agriculture, but a global issue for agriculture. Regarding Uji-cha tea, the inheritance of traditional cultivation methods and processing methods will be greatly affected by the shortage of successors, but for the time being, generational change is taking place, and a path to inheriting authentic methods is being maintained.

The fourth is the alteration of the landscape due to the rationalization and mechanization of production. This is perhaps the most challenging aspect of preserving a cultural landscape. Cultural landscapes are inherently dynamic, evolving constantly and maintained through active farming. As such, they are inevitably subject to changes driven by the demands of the times. A prime example of this is the replacement of traditional coverings for tea plantations with synthetic fabric, the installation of frost proof fans to protect tea leaves, and the shift from manual to mechanized tea processing.

While traditionally, tea farmers have been keen on using natural materials like straw to cover their *Oishita* tea plantations, in recent years, many farms have switched to synthetic materials. This shift can be attributed to the decreasing availability of natural materials and the increased labor required to use them. Although synthetic materials may seem more convenient, they can potentially affect the quality of the tea, such as its colour and flavour. Despite these challenges, there are still tea farmers who continue to use traditional methods, believing in the superior quality of tea produced using natural materials.

Regarding frost proof fans, they are a unique feature of Japanese tea plantations that are not seen in tea plantations in other countries, and their significance is sometimes pointed out, especially by foreign experts. To prevent tea leaves from

discolouring due to frost before harvesting, tea has traditionally been cultivated in areas less susceptible to frost. However, frost remains an inevitable problem, leading to the widespread installation of electric fans in tea plantations since the 1970s to stir the air and mitigate the damage by frost. Some argue that these fans negatively impact the landscape, while others suggest that they allow for tea cultivation in areas previously unsuitable for tea production. Actually, the effects of these fans are quite limited, primarily adjusting local wind patterns, and do not significantly alter the tea production ecosystem. The implications of such rationalization in tea production and its effects on the landscape require further discussion.

From a tourism perspective, it is problematic that agricultural tourism is still underdeveloped in Uji-cha tea production areas, leading to an immature relationship between production and tourism. Cultural landscapes can be seen as a form of regional branding, and tourism is not necessarily at odds with production but can create a synergistic effect. However, due to the underdeveloped state of tourism, there remains a sense of aversion to tourists. Moreover, if the area is registered as a World Heritage Site, an increase in tourists is expected, potentially leading to overtourism. To address these anticipated issues, a more mature attitude toward tourism and a stronger reception system is required.

CONCLUSIONS

This paper summarizes that a cultural landscape is a mixed heritage with tangible and intangible cultural aspects, exhibiting characteristics of both. In the case of Uji-cha tea, physical elements manifest as the landscape, but the underlying processes are the unique tea production methods associated with Matcha tea, Sencha tea, and Gyokuro tea. Furthermore, when considering the entire process from distribution to consumption, the cultural preference for each type of tea guarantees its production volume, thus determining the scale of the tea plantations and the resulting landscape. The value of Uji-cha tea's cultural landscape is derived from the fusion of these tangible and intangible aspects.

The concept of 'allowing for change' lies at the intersection of tangible and intangible heritage. While the preservation of tangible heritage is often predicated on maintaining the status quo, making allowances for change is less common. However, cultural landscapes are inherently dynamic and require us to devise preservation methods that accommodate change. As the case of Uji-cha tea demonstrates, certain changes are necessary to sustain agricultural practices, but accepting all changes could undermine the values that have been traditionally formed. The key lies in determining the appropriate balance in allowing for change.

From the perspective of tangible heritage, this presents a new challenge to heritage preservation methods. From the perspective of intangible heritage, it provides a channel for understanding intangible heritage in relation to the culture rooted in the land. Cultural landscapes offer a methodological framework for comprehensively understanding cultural heritage, encompassing both tangible and intangible elements.

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