



**An exploratory discussion of the forest bathing effect in a disruptive environment:
inbound tourism and Japanese nature**

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Abstract

Forest bathing, or *shinrinyoku*, originated in Japan. It is a nature-based approach to well-being that involves a leisurely visit to a forest for relaxation (Li et al., 2018). There is a growing body of research that suggests forest bathing has various health benefits, such as reduced blood pressure, reduced stress, improved mood, increased flow of energy, increased capacity to communicate with the land and its species and an overall increase in sense of happiness (Ochiai & Oe, 2021; Oh et al., 2017). As such, forest bathing is not only a potentially useful therapeutic option but also has important health effects for the general population.

It is also interesting to note that Japan, the country that gave birth to forest bathing, is a sacred land for pop culture. For example, many anime, one of Japan's major cultural genres, use forests and other assets in the natural environment as important plot points. Accordingly, anime fans have been undertaking pilgrimages to visit the 'sacred' places that appear in such anime works. The pilgrims who love these animations also come from abroad as inbound



tourists. This paper proposes a discussion agenda with key points on the future of forest bathing tourism, bearing in mind the need to improve human health and focusing on the potential of forest bathing as a means of attracting tourists to Japan.

1. Introduction

There is currently significant public interest in the idea of well-being associated with nature. This trend has led to local and national initiatives being set up throughout the world addressing this need. One area that has garnered support in various fields, such as medicine, the environment and digitalisation, is forest bathing, or to use its Japanese Romaji name, *shinrinryoku* (e.g. Song et al., 2020; Tsutsumi et al., 2017).

Shinrinryoku is a nature-based approach to well-being that involves a leisurely visit to a forest for relaxation (Harries & Rettie, 2016). This project seeks to evaluate the opportunities and challenges presented by *shinrinryoku* in a mid-COVID-19 world. Japan is the spiritual home of this practice, whilst in the UK, *shinrinryoku* is a much newer idea but has an increasing reputation as a means of improving health.

At the same time, forest bathing, which is widely recognised and expected to have health-promoting effects, is deeply rooted in the lives of Japanese people, who understand its health-promoting effects empirically. Nature walks have been part of the lifestyle of all ages in Japan (Koohsari, et al., 2018; Kanazawa, 2021).

2. Forest bathing and well-being

2.1 What is forest bathing?

In 1982, Mr. Akiyama, the Commissioner of the Forestry Agency Japan, first advocated ‘forest



bathing' and established the concept of forest therapy (Li et al., 2007). It was originally a concept developed by the Forestry Agency created based on the idea that 'there is a unique direction with bactericidal power in the forest and being in the forest creates a healthy body'. It begins with using national forests and other natural forests to build a healthy body and to train both physically and mentally (Liu et al., 2020). According to Oe and Weeks (2020), Japanese people have developed modern civilization and culture based on the natural environment from ancient times. When thinking about human beings and our relationship with nature throughout our long history, it can be said that we currently live in modern urban civilization. Japanese live with an intimate view of nature that is different from Westerners: Even modern people recognise the comfort of the natural forest environment around hot springs.

Japan is one of the world's leading forest nations, with forests representing 75% of its total land area (Ochiai & Oe, 2021). This number is the same in Brazil, which has vast tracts of jungle in the Amazon basin. In China and the UK, the land area of forests is as small as approximately 10%, indicating that Japanese citizens have been saturated in forest nature.

This study considers how Japanese people have used forest bathing as a means of improving their health in daily life, especially during the recent COVID-19 disaster and while maintaining physical distancing during lockdown. In addition, we explore and discuss how forest bathing has taken root in people's lives and contributed to their health, focusing on factors peculiar to Japan and their relevance to religious minds.

2.2 Impact on well-being

For Japanese people, *shinrinyoku* is not a conscious act but a natural part of their daily lives. Nowadays, not only in Japan but also in Europe and the US, there is a growing body of research on the benefits of forests and the use of natural assets to enhance healing and improve health.

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Various understandings and practices of forest bathing, reflecting the results of interdisciplinary research, are expanding their scope to include measurement of the benefits of forest bathing in traditional and digital spaces. This includes the commercialisation of forestry, traditional forestry in Japan, community well-being and forestry, the effects of forestry in digital spaces, the philosophical aspects of forestry, art and forestry and many other topics of interest to researchers (Bodkin, 2019).

For example, the National Health Service (NHS) in the UK is advocating ‘reconnecting with nature’ based on practices of mindfulness among the trees, with a view to using alternative medicine due to financial pressure. There is also an accumulation of empirical studies confirming the effectiveness of natural therapies using the five senses with epidemiological evidence (Ochiai & Oe, 2021). Besides the scientific evidence, there is also little room for debate as to the benefits we can derive from contact with nature (Will, 2020).

3 Forest bathing in Japanese people’s lifestyles

3.1 A social value

There have been few attempts to reassess the meaning of forest bathing from a community perspective or to consider its effects on people's mental health and well-being, which is the fundamental value of forest bathing. The Japanese-born concept of *sinrinnyoku* has since attracted much interest, mainly in Europe, and has been widely popularised and promoted in other countries. However, research on forest bathing that comprehensively considers the spirituality that is the foundation of the act and the spiritual value that forest bathing originally encompassed, and that takes into account the relationships with the forests that have been part of people’s lives, has so far not been undertaken in Japan.

3.2 Nature visits in the city: historic view

Here, we present a few examples of forest bathing from a historical point of view. Ohyama has been worshipped as a sacred mountain since ancient times. During the Edo period (1603–1868), when the mountain was at the height of its prosperity, it is recorded that 200,000 people visited every year. At that time, it was very popular to visit temples and shrines, such as through the Ise pilgrimage. Ohyama, which is only a couple of days away from the city of Edo, was loved as a great place to go for a holiday because it was so easy to visit. After visiting Ohyama, it was popular to go to Enoshima. This is also demonstrated in the classic Rakugo story ‘Ohyama mairi (pilgrimage)’. In April 2008, the Ohyama Pilgrimage was recognised as a Japan Heritage Site.



Figure 1 Forest bathing tour in the Edo period (Ukiyoe)

Adapted from Nihon Heritage Portal Site ‘Isehara City and the Mt. Oyama Pilgrimage, Destination for the Faith and Leisure of Edo’s Commoners’, Tokaido Gojusantsugi



Hosomizu-kai (Fifty-three Stations of the Tokaido Highway), Hodogaya, by Hiroshige (<https://japan-heritage.bunka.go.jp/ja/stories/story024/>) [Accessed 17 March 2021]

Oyama-dori stretches all over the Kanto region. It was so well developed that it was said that all roads lead to Oyama, and even today many stone monuments remain. Route 246 is one of the main Oyama roads. The road was the main way for people to visit Oyama.

Thus, historically, the experience of being in contact with nature has been deeply rooted in the lives of Japanese people. As shown in Figure 1, these experiences have been chosen as the subjects of ukiyoe woodblock prints, suggesting that our ancestors enjoyed the opportunity to get in touch with nature and seek healing as a familiar tourist activity.

3.3 Case study

3.3.1 Urban green bathing spots and values in Tokyo

In this section, we refer to two cases of green bathing in urban settings in Tokyo, Japan. It is worth noting that, according to Resolution 16/CMP.1 of the First Conference of the Parties to the Kyoto Protocol (COP/MOP1) and GPG-LULUCF, the definition of ‘forest’ in Japan is based on the following features:

- minimum area of 0.3 [ha];
- minimum canopy cover of 30 [%];
- minimum tree height of 5 [m]; and
- minimum forest width of 20 [m].

This definition of forest is consistent with the existing forest planning system in Japan for minimum area, minimum canopy cover and minimum forest width. At the same time, the minimum height is not defined in the existing system, but considering the species and climatic

conditions of forests in Japan, it is very rare that the height of a forest under forest planning is less than 5 m at the time of maturity. Therefore, in Japan, the forests subject to forest planning are those considered forests under the Kyoto Protocol, and the forest registers are used as the basic data for reporting (Ministry of Environment, Japan, 2010).

According to this definition, it is not appropriate to call a narrow green space in the city centre a forest, as in the case presented in this section, and therefore this case will also be discussed as ‘green bathing in an urban setting’.



Figure 2 Toyokawa-Inari Shrine in the midst of Tokyo (Photo is adapted from Kanazawa, 2021)



Toyokawa-Inari Shrine in Akasaka is a shrine in the middle of the city centre, and even on a map you can see that it sits in a large business district. This shrine is one of the most visited shrines in Tokyo, not only by the residents of the neighbourhood but also by people from far away, who come to pray for its blessings. The term ‘forest bathing’ is usually associated with a visit to a deep mountain forest far from the city centre in expectation of the health-promoting effects of a deep forest. However, urban green spaces, together with shrines and temples, are maintained in Japan, and not only inbound travellers but also Japanese tourists are attracted by such spots (Gaubatz, 2004; Munich, 2000).

Toyokawa Shrine, which has the official name Toyokawa Inari Tokyo Betsuin, located in Akasaka, Minato-ku, is said to be a site with hidden power in the very heart of the city, and it is an example of how forest bathing is associated with religious values in the Japanese mind. It is also known as a branch temple of Toyokawa Inari in Aichi Prefecture, which was worshipped by warlords, such as Nobunaga Oda, Hideyoshi Toyotomi and Ieyasu Tokugawa (Toyokwainari Tokyo Betsuin, 2021). The chi emitted by the greenery in the precincts is worshipped throughout the country. Since the Edo period (1603–1867), belief in the shrine has spread nationwide among ordinary people as a god of prosperity in business, safety in the home and good fortune. As a second case, Sakurada Shrine, in the Roppongi area of central Tokyo, is shown in Figure 3.

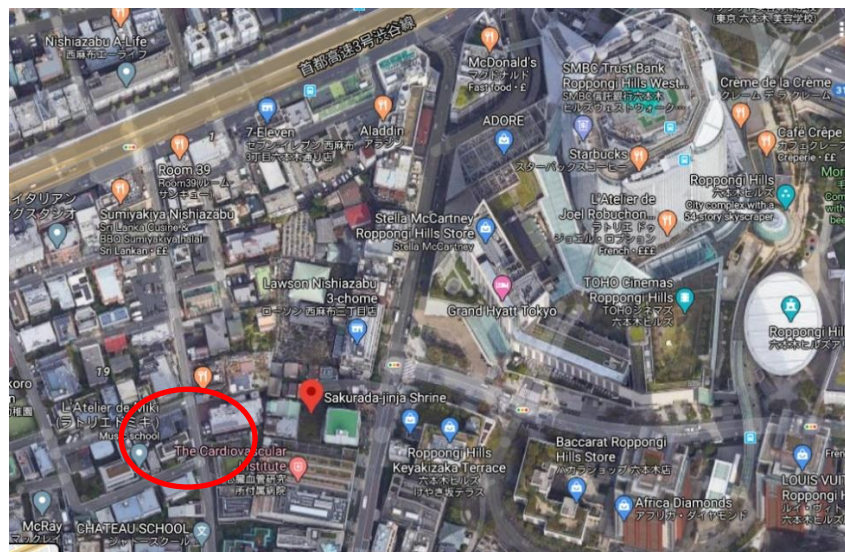


Figure 3 Sakurada Shrine in Roppongi, Tokyo (Photo is adapted from Mikata Labo, 2018)

Sakurada Shrine was originally established in 1180 by the decree of Minamoto no Yoritomo as Kasumiyama Sakurada Myojin outside the Kasumigaseki Sakurada Gate but was moved to its present location in 1624. When Yoritomo donated 30 kan of rice field in 1189, he planted cherry blossoms along the shore of Mikanda to distinguish it from the fields of ordinary farmers, which is said to be the origin of the name ‘Sakurada’ (Sakurada Shrine, 2021). In 1590, when Tokugawa Ieyasu was transferred to the Kanto region and the government was established in Edo (present-day Tokyo), the residences of various feudal lords began to line the Kasumigaseki area near Edo Castle. Later, in 1624, the shrine was



moved to its present location, where it remains today. It is said that, at that time, shrine parishioners moved their residences along with the shrine, and up to the present today, the neighbourhood of the shrine is called Azabu Sakurada-cho and hosts a certain number of people (Tachibana, 2021).

Thus, the shrine's origins date back to the Edo period, and although it has undergone many migrations, the area around it is part of the redevelopment area of metropolitan Tokyo. As can be seen in Figure 3, it remains a small green space within the city. In addition to its location in Roppongi, the pop-culture centre of Tokyo for inbound travellers, Sakurada Shrine is said to be associated with Soji Okita, the leader of the Shinsengumi's first squad (Mikata Labo, 2019). The shrine is also known for its annual Shinsengumi-related red seal book, which attracts a steady stream of Shinsengumi fans.

3.3.2 Anime tourism with nature

One of the important elements used to promote Japan's tourism resources is anime tourism. As the name suggests, anime tourism is a form of travel based on visits to spots featured in anime, a formal expression of the so-called 'pilgrimage to sacred sites'. Anime tourism, also known as 'holy land pilgrimage', originally began as a means for fans to enjoy themselves in private. However, as the anime industry was actively exported overseas and matured as a popular form of entertainment in Japan, it became the spearhead of Japan's Cool Japan movement, and anime tourism was promoted with government support (Cabinet Office Japan, 2016).

In 2016, as part of the Cool Japan strategy, it was decided that anime tourism would be promoted by the public and private sectors, and the Anime Tourism Association began to certify 88 anime holy sites across Japan, with the theme of developing the anime industry and local communities (Anime Tourism Association, 2021). The idea is to 'sanctify' real spots that appear

in anime so as to attract visitors and to develop the sites as new tourism resources. This clarification of sacred places and the networking of sacred places have helped promote the attractiveness of Japanese regions not only to anime fans but also to inbound tourists interested in Japan's natural assets and culture. Further, it has communicated the undiscovered charms of Japan's forests and natural environment both within and outside the country. Figure 4 shows one of the 88 anime sacred spots from *Encouragement of Climb* (Yamano Susume) in Hannoh city, Saitama, Japan.

Examples of Anime story with nature

- Totoro
- Yamano susume
- Ano Hana
- Silver spoon etc.

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Figure 4 A sample of anime tourism spots (Encouragement of Climb: Yamano Susume)

4. Conclusion: future research opportunities

Re-evaluating forests as part of Japan's cultural and natural assets and incorporating forest bathing activities into inbound tourism policies will provide a useful guidepost for considering the nature of tourism in Japan. In order to do so, we plan to analyse the potential of tourism with a focus on natural assets based on the collection and analysis of quantitative data and to analyse and discuss in detail the issues raised in this study.

More concretely, we are considering two possible research directions. The first is to examine the impact of the value of Japan's natural assets (including pilgrimages to sacred anime sites) on behavioural decisions by examining the intentions of inbound tourists who actually intend to visit Japan based on primary data. It is expected that this work will enable us to organise a novel research topic, which is the title of this study: 'tourism with forest bathing as its core'. Second, while medical and epidemiological evidence has already been gathered on



the health effects of *shinrin-yoku*, we will not limit our study to actual natural spaces but will also examine the impacts of digital nature and live streaming in virtual spaces on inbound tourists and their health. We will further discuss the impact of virtual tours on the decisions of inbound tourists to visit real destinations.

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