

A practical model for “One Health Masterplan” with application of research result

One Health Forest in the country side of Kyoto

On going project in a satoyama area where had contributed to establish ancient Japan as independent and high developed country and also for construction of former capital, now we see as Kyoto, and supported life of emperor and people in the capital. The theme is a health, circulation of nature and resource, healing and well-being for people and local community. The site owner family, Inanami family, have developed this area for a long time and one ancestor had established the sericulture industry in the Meiji era (1868-1912) and contributed for local employment. Also he had made a local primary school and community centre on their private property and land, and also served as the mayor of Yuge Village and the mayor of Kitakuwada County. Once this forest was filled by diverse trees, flowers and plants, living creatures and mountain spring water, however, due to the prosperity of the forestry industry, which was the main industry of Keihoku, artificial cypress forests were planted several decades ago, and the diversity of the forest gradually disappeared. The forests have been left unattended for many years and have gradually fallen into disrepair. However, the forest still provides water, wild vegetables in spring and persimmons and chestnuts in autumn, and has the potential to be used effectively as a place of relaxation for city dwellers.

Now this project is ongoing with participants to create safe and secure food producing area that grows with the power of nature, a rich healing place for people, plants and living creatures, and as a demonstration site of cutting-edge research like as hypersonic sound effect and microbial environments, etc, and the project contributes for sustainable local living landscapes.

In collaboration with researchers and experts in all fields, we also collect data on health, such as heart rate, brain waves, blood pressure and sleep efficiency, and update this data to create more effective programmes and environments. As of June 2023, the project has started with tours of wild vegetable harvesting including a guide of history and traditional culture around this area and healing retreat programmes (A), collaboration with local organization for Japanese traditional crafts to plant some trees and proposal of high quality life style (B), making ideas for thatched modern house and tea ceremony house (C), making some products using thatch (D), converting from rough grasses ground to a garden with mountain water in front of the house and some buckwheat and vegetable fields around the house (E),



(A) Healing forests where people can connect with nature and themselves and refresh their body and mind. (in progress)

• Kurort walking

Moderate load walking increases the heart rate, improves immunity and cures illnesses. In Germany, it has been scientifically proven and is used as a treatment method that can be covered by health insurance.

• Forest bathing

Forest bathing including the result of research on hypersonic sound effect (hypersonic sound is sound above 20 000 Hz, which is in the human hearing range, and reaches the brain through the skin, and is effective in improving immunity, reducing stress, improving mental illness and activating the natural sensitivity of humans. The effect is proven by researchers. Even now, just walking in the forest is a refreshing environment, but if the forest becomes a place overflowing with a diversity of plants and living creatures through this programme, it will produce even more hypersonic sound and lead to better mental and physical health for people).

• Yoga and meditation

Help to improve physical and mental health, refresh the brain, and inspire ideas and inspiration.

• Tea ceremony and other traditional activities

Japanese traditional culture helps to heal mental and improve physical health.

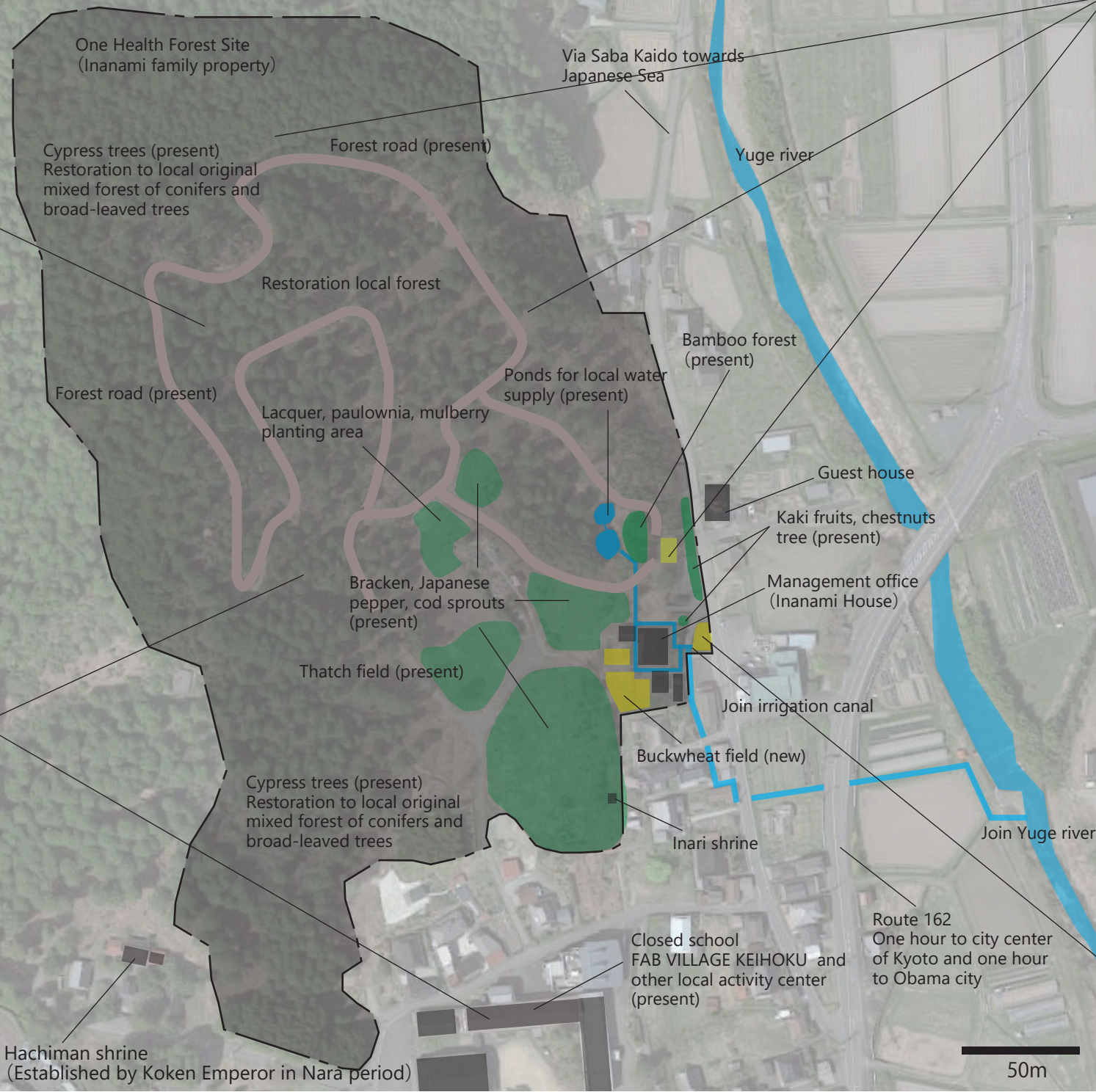


(B) Restoration of local mixed and rich diverse forests and proposal of high quality lifestyle (in progress)

From the ancient time, Japanese traditional culture, capital, city, region, life style have been produced by forests and natural materials. In addition to the present cypress trees, the project plants lacquer, paulownia, mulberry and other local original trees.

The project builds a model residence that proposes a locally-produced and consumed, enriched lifestyle surrounded by high quality craftsmanship, and an improved natural environment.

The cypress trees on the site will be effectively used for construction and fittings, and after logging, a vacant lot will be daringly created to encourage the transition to a local forest through natural succession. In addition, the thatch from the thatch field is used not only for roofing materials but also for interior and exterior materials, furniture, fittings and products. Regular maintenance and management of the forest and thatch fields will help nurture the ecosystem, purify the soil and groundwater, while producing high quality timber and thatch. Thatch has a higher carbon dioxide absorption and carbon fixation capacity than forests. It can also contribute to a better cycle of the environment and human health. The micro organisms in thatch improve people's immunity, inhibit pathogenic bacteria, and create a microbial environment similar to being in nature while indoors. Research has shown that even babies and people with insomnia can sleep soundly. After several years or decades of use, the thatch will be used as fertiliser for the fields on the site. The trees, thatch, soil and bamboo on the site are used to promote natural cycles while the rich soil, water and micro organisms nurtured here are used to produce safe, delicious and hassle-free food. The nutrients from the soil and water pass through the garden and are connected to the downstream areas of the river and the sea via the irrigation canal, the Yuge River, the Katsura River, the Yodo River and Osaka Bay, enriching the creatures in the river and sea and returning to the blessings of people, thus improving the forest-source-ocean connection.



Current vegetation

Edible plants (e.g. bracken, Japanese pepper, cod sprouts, bamboo shoots, royal fern, sweet Japanese persimmon, sakaki, chestnuts, fig, akebi, loquat, chicory, solomon's seal, dandelion, Japanese mugwort, butterbur sprout, Japanese butterbur, wild strawberry, etc)

Usable for tea and medicinal herbs (e.g. canada goldenrod, horsetail, dokudami, mugwort, etc)

Usable plants (e.g. paper mulberry, ramie, paulownia, flowers for tea ceremony, etc)

Progress items to be planted

Edible plants (e.g. buckwheat, rice, water bamboo, watercress, water parsley, sunflower, taros, sweet Japanese persimmon, astringent persimmon, etc)

Planned site : Kamiyuge-cho, Keihoku, Kyoto

Site area : approx. 6.5 ha

Regreen

Master plan based on harmony with nature



(C) Architecture with cutting-edge research and traditional wisdom (start within 2023)

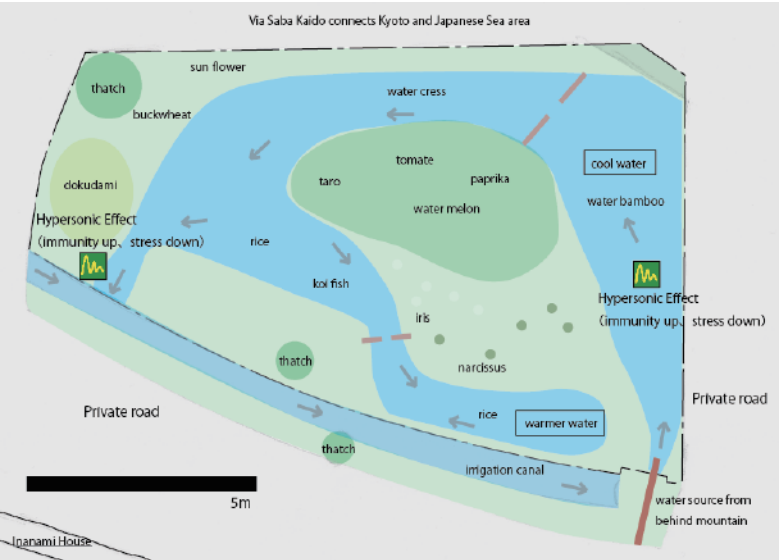
The project cuts cypress trees down on the site and lumbers are milled on the site using a portable sawmill, and the findings of research as like hypersonic sound effect and microbial environments are applied to thatched modern healthy house as model of verification test. The project includes an accommodation facility, a tea ceremony room, and an exchange facility. This will allow the forest to grow into a forest with a balance of conifers and broad-leaved trees due to local vegetation and a cycle, which will be passed on to future generations. The data measuring on microbial environments have been progressed in Inanami House and other thatched houses in this area already and some thesis are published by researchers. In this project, we focus on application of research and take data on practical model to further update.



(D) Thatch furniture, building materials and products (in progress)

Using thatch from the thatch field of the site to make things that can be used in daily life. By partnering with companies to create local employment by making use of the existing sales network. Thatch can contribute to people's mental and physical health, the global and local environment, and improve water retention capacity. Trial of some products have been made already and making further ideas.

Ex) thatch healing charm, thatch bedding, pillows, canopy capsules, insulation, interior materials for buildings and cars, remote working huts, pet huts, waste stations, etc.



(E) One Health Garden (in progress)

A healing garden for people and creatures with mountain water that never dries up all year round. The area used to be overgrown with grass, but water has been drawn in to create a variety of environments, including cold water flows place, warmer water flows place by stored and sunlight, land, water and in-between, and has become a home for living creatures such as water striders, frogs, dragonflies and newts.

Hypersonic sound is emitted from flowing water, which can contribute to mental and physical health. The cultivation of crops that can be grown without much care, such as water bamboo, watercress, Japanese parsley, water spinach and rice on the water's edge, and taro and buckwheat on the land, has been carried out, and this entire garden and forests are to be turned into an edible place.

By the improvement of the forest and the surrounding environment through workshops, including the garden inside the house and the condition of the under the ground, the whole site will be a place of healing open to the community with natural sunlight and wind flow comfortably.