

**THE FOREST OF THE EMPEROR:  
TAMA FOREST OF SCIENCE GARDEN**

*Adventure in Yokohama Citizen Forest» блогги муаллифи Наоми Тобитанинг (Япония) розилиги билан у томонидан тайёрланган ўрмонларни парвариш қилиш ва оддий фуқароларнинг сайрлари ҳақидаги материалларни нашр этмоқдамиз (<http://adventureyokohamacitizenforest.blogspot.com>). Унда ўрмонларни муҳофаза қилиш соҳасидаги маҳаллий ҳокимият органларининг атроф-муҳитни асраб-авайлашни фаол қўллаб-қувватлайдиган оддий аҳолининг ташаббуслари ўрин олган. Ўзи ҳақида Наоми Тобита блоггида шундай ёзади: «Менинг оилам Токиодан Ёкоҳамага кўчиб ўтди, унда мен 3 ёшда эдим. Ўшандан бери Ёкоҳама – менинг она шаҳрим. (Токиода тузилганим сабаб мен Ҳамакко бўла олмайман... Аммо ҳей, бу Япония!) Бу ерда менинг ўйин майдоним доимо ўзгариб бораётганини кузатдим. Умид қиламанки, Ёкоҳамага албатта қизиқиб қоласиз. Ҳурмат билан, Наоми».*

*Ниже мы публикуем с любезного разрешения автора блога «Adventure in Yokohama Citizen Forest» Наоми Тобита (Япония) материалы, посвященные уходу за лесами и прогулкам в них обычных граждан (<http://adventureyokohamacitizenforest.blogspot.com/>), которые активно поддерживают экологические инициативы местных органов власти в сфере охраны окружающей среды. О себе Наоми Тобита пишет в блоге: «Моя семья переехала в Йокогаму из Токио до того, как мне исполнилось 3 года. С тех пор Йокогама – мой родной город. (Хотя, я не могу быть Хамакко (видимо, уроженкой этой местности. – ред.), так как я родилась в Токио ... Эй, это (все равно. – ред.) Япония!) Я наблюдала, как моя детская площадка постоянно менялась. Надеюсь, вы найдете интересным местом Йокогаму. С любовью, Наоми».*

*With the kind permission of the author of the blog «Adventure in Yokohama Citizen Forest» by Naomi Tobita (Japan) below we publish materials on the care of forests and walks in them of ordinary citizens (<http://adventureyokohamacitizenforest.blogspot.com/>), who actively support environmental initiatives of local authorities in the field of environmental protection. Naomi Tobita writes in a blog: “My family moved to Yokohama from Tokyo before I became 3 years old. Since then, Yokohama is my home town. (Though, I cannot be Hamakko since I was born in Tokyo ... Hey, this is Japan!) I have watched my playground is changing always. I hope you find Yokohama interesting place. With love, Naomi”.*



As a sort of continuation of imperial motif, this week let us go to a forest not in Kanagawa Prefecture, but in Tokyo, although it locates in a neighboring area to the City of Sagami-hara 相模原市. It is Tama Forest of Science Garden 多摩森林科学園 in the City of Hachioji 八王子市. The access to this forest is easy. Please get off at JR Takao Station 高尾駅 of Chuoh Line 中央本線・中央線快速, and walk to the north, crossing Route 20. Within 10 minutes from the station, we are at the gate of the Science Garden: no parking here. Admission: for May-March, 300 yen for adult, 50 yen for grade schoolers and toddlers; please add 100 yen when you visit there in April. Next to this forest to the east is the Mausoleums of Emperor Showa 昭和天皇, aka Hirohito, and Emperor Taisho 大正天皇 who passed away in Hayama Imperial Villa 葉山御用邸 we visited last week. To the south is Mt. Takao 高尾山 that has 3-stars in Michelin International Guide. I've heard the Science Garden these days also receives some foreign visitors who detour from Mt. Takao ... The Garden certainly has occasional English signs for overseas guests, but it would be nice if we know a trick or two to enjoy walk there. So, let's enter this forest.



*The entrance to the Science Garden*

Although the name of the place is “Garden,” it has 50ha of expansion, and only 20ha is open to the public. Strange public garden, isn’t it? It is actually one of the 7 forests of the National Forest Research and Management Organization 国立研究開発法人森林研究・整備機構, a leading research center for Japanese forest and forestry. The Garden’s mission includes a role as a research field for studying the natural forests in suburban area. Yep. Please use your Google satellite image, and we can find the place surrounded by residential suburbia. Still, only permit-holders can enter 60% of the Tama Forest of Science Garden that contains rare virgin forest of Kanto Region 関東地方. There, temperate evergreens, like *Abies firma*, *Castanopsis sieboldii*, and *Quercus salicina*, cohabit with boreal deciduous trees, such as *Kalopanax septemlobus*, and *Prunus verecunda* (Koidz.) Koehne. All the population centers of Japan south of Hokkaido 北海道 have a long history of heavy forest usage during pre-fossil energy era, which created a vast second-growth forest made of *Quercus acutissima*, *Quercus serrata* and the others for charcoal baking. Still, this pocket of Tokyo keeps the virgin forest ... Strange place, isn’t it? The reason lies in the Mausoleums next to the Science Garden.



*Liriodendron tulipifera* at the entrance of the Garden. Of course, they were imported from the USA. I’ll explain why it’s here next.

Historically, the area was the property of Yakuohin Temple 薬王院 of Mt. Takao that protected the forest until around 1600. Then, the owner of the mountains in Tama 多摩 and Tanzawa 丹沢 became Tokugawa Shogunate 徳川幕府 that heavily reforested the area and prohibited cutting trees surrounding Tokyo for security reason. In 1868 at the time of Meiji Restoration 明治維新, the ownership of the area changed again from Shogun to the Emperor. Specifically, for the forest of the Mausoleums and Science Garden, the place was assigned to be a research forest of the Imperial Household where princes regularly visited and had tea in a château within the forest. In 1945, the original elegant manor (cum office for the research institute) was bombed out by Americans and the owner of the

forest became the Ministry of Agriculture, Fishery and Forestry. Even though, in 1965 the newer “office building” was rebuilt with a porte-cochere, which still stands in the secluded area. After 1988 the place became “Science Garden” and in 1989 Emperor Hirohito passed away. 3 years later in 1992, the Garden’s 20ha was open to the public. Such “exclusive” history of the place gives its characteristics: in a closed 60% there remains a virgin forest, and opened 40% of the place is a home of “exotics” of the 19<sup>th</sup> and the early 20<sup>th</sup> century for Japan.



*Please purchase your ticket at the booth on your right of this photo. Thank you.*

First, when you enter the Science Garden, please don’t forget to visit the Forest Science Museum located in front of the gate. The idea of this Garden for visitors is, “please figure out the way to enjoy the forest by yourself using the information provided in the Museum and in the panels in situ of the garden.” So, collecting the information in the Museum is crucial. Although they do not have fully-translated brochures and maps, the building has several English exhibits and ppt. print-outs to grab for overseas visitors. (Japanese map for the open area can be downloaded from here; Japanese brochures can be downloaded from here.) There you’ll know 40% of the Garden is made of 3 arboreta and a flowering cherry preservation forest. Arboreta have 500 species of 5000 individuals, and their cherry is 500 lines of 1400 individuals. As the place was for the Imperial Family of Japanese industrial revolution, the guardians of the forest collected (1) from all over the world trees quick to grow and easy to utilize for Japanese industrialization, and (2) from all over Japan beautiful cherry trees for the garden to be a national custodian of cherry blossoms as the Japanese national culture. The museum also explains animal life, such as Japanese giant flying squirrels, observed in 50ha of the Science Garden. Let’s collect all the materials provided, especially map, use bathrooms, and start our strolling.



As this is a museum of the National Forest Research and Management Organization, they try to send messages for the importance of forestry. This exhibit is to tell the 21st century kids “sometimes furniture can be made of wood”.



The drawers are to touch seeds of gigantic trees planted here.

As this was a forest of the imperial family, all the roads in the Garden are really well-maintained even if some of them are pure mountainous trekking road. There is no commercial facility. Rule: no camp fires, no alcohol, no partying, no collecting fauna or flora, no trashing, and no smoking. Also, no pet is allowed to enter the premise. In short, if you need to have a quiet, meditative, slow walk in Tokyo’s suburb, this is the place for you (except April; more to it below). There are 3 arboreta; Arboretum #1 locates in the south of the museum, and the other two are in the north adjacent to the flowering cherry preservation forest. The trees in any arboretum were collected in order to identify the best trees for human usage, especially for construction materials; it’s the 19<sup>th</sup> century’s thinking. So, here we can find *Sequoia sempervirens* (Lamb.) Endl, *Metasequoia glyptostroboides*, and *Picea koyamae* (that is critically endangered species). They are standing VERY TALL with naturally growing local trees such as *Quercus salicina*. All the trees were identified as “useful for human industrial activity” and numbered with explanatory panels. Also, for seasonal or occasional incidents such as early spring flowers of herbaceous plants, summer insects, and activities of

migratory birds, the Museum sticks laminated mini-panels here and there into the ground. The explanations are written in Japanese, but at least their Latin names are in alphabet. Carrying your smart phone or pad may help if you want to know more in your own language. (In the end, the Garden is surrounded by residential areas of Tokyo. No telecommunication malfunction exists.) The Garden also has panels called “Posts in the Forest.” They show how some trees and plants have been used in Japanese daily life. In one of those exhibition panels, I experienced differences due to wood when I wrote in pencils made of several wood materials. Amazing! I tell you. Walking good roads that run between large and tall mainly coniferous trees, I found the arboreta of the Science Garden gave us a feeling of open space, even though the actual acreage is only 7ha. It’s a forest not possible to materialize naturally in Japan, but an artificial creation ...



*One of the main roads within the Garden. The structure over there is for the maintenance crew.*



*A permanent exhibition panel in the Garden. It explains very poisonous *Toxicodendron orientale*. Whoops.*



*Metasequoias are standing tall here.*



*Posts in the Forest explaining pencils. Writing with a pencil of Japanese Yew is really DIFFERENT. The panel explains more than 90% of Japanese pencils were of Japanese Yew once, but now the market is dominated by “Made in China”. A likely story.*



*This laminated paper explains the place with observation opportunities for lots of insects.*

Beyond the #2 Arboretum, adjacent to Arboretum #3, there is 8ha of the flowering cherry preservation forest. It is a living encyclopedia of Japanese cherry trees. Annual visitors of the Tama Forest of Science Garden are about 40 thousand on average. More than 20 thousand come here during April. The reason? To see beautiful cherry blossoms, of course. And so, admission during April has a surcharge of 100 yen. As you may imagine, during April, the Garden is uber-congested and people frown at fellow visitors using tripod for photos as they block the roads. It's your choice to come here during April to admire beautiful 500 kinds of cherry blossoms with a packed crowd. The area was designated in 1966, more than 50 years ago, as the preservation forest of genes for famous cherry trees collected nationwide. Actually, all the numbered trees, cherry trees or otherwise, of this research forest have already undergone DNA sequencing to study further their traits. It becomes a kind of curse. The beautiful cultivated flowering cherries have their lifespan of 50 to 100 years. Many trees in 8ha are entering their twilight years. When I visited there, my senior forest instructors immediately noticed many cherry trees were in critical condition. Mr. Toru Koizumi, Research Specialist of the Science Garden, told us of course the Garden was aware of the situation, but there was a particular difficulty. As the mission of the place is to preserve the DNA of those trees, replacing decaying trees must be with trees of the same DNA, i.e. clones. And not all the trees are easy to propagate by cloning. The work of the researchers these days becomes a race against time ... In May after cherry



blossoms, the slopes of the cherry preservation forest were in fresh green of strategically planted cherry trees ... I guessed the scenery must have been gorgeous in April, but it's a highly controlled environment up to the DNA level ...



*Idyllic, isn't it? It's a valley with artificially planted flowering cherry trees.*



*At least this cherry tree has suckers for the next generation.*

From the hiking road of #3 Arboretum, we can observe a staff gate for the Mausoleums beyond Takao Road. Emperor Hirohito was famous as a botanist. His son, the current Emperor, was probably influenced by his father in this respect and became an ichthyologist (and so his love for Hayama Imperial Villa). Hirohito was more inclined to flora, loved to go down on his hands and knees searching for Lichens, and roared at the bride of his son (i.e. the current Empress) when she allowed gardeners to mow the ground of the Imperial Palace. I surmise the rebuilt

“office building” with a porte-cochere in the Tama Forest of Science Garden was for him to enjoy his private pleasure. And this is a strange forest ... primeval part, a highly artificial cherry forest, and arboreta with non-native species are mixed together with at most care. Yeah, unlike the forests of deep Tanzawa, it’s a forest giving us the feel of openness, thanks to the careful maintenance ... Isn’t it like a life of an emperor? As a scientist, how did he feel the Science Garden that is controlled at the level of DNA? We can actually visit the Mausoleums year round (information is here), but it’s like visiting a Shintoism Shrine, not for walking in the forest which is off-limit. The forest of the Mausoleums should of course be perfectly taken care of ... for the gone Emperors. Is it the forest which can give a sense of liberation, with an intensive human engagement?



*Could you see a fence over there? That’s for the Mausoleums.*

