



Mountainous forest on Yaku Island ha



Chapter 4

Island on World Heritage List

Yaku

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To begin with, let's look at Yaku Island's early encounters with the outside world. In 1708, when Japan was a closed country, missionary Giovanni Battista Sidotti from the Vatican arrived at the south shore of Yaku to propagate Christianity. Complete with a topknot hairstyle, he had disguised himself as a samurai, but even so, he was captured and taken to Edo. Hakuseki Arai, who interrogated Sidotti, was impressed with Sidotti's wide range of knowledge and experiences. The details of that interrogation can be found in its interrogation record called *Seiyokibun*.

In 1914, American botanist Ernest Henry Wilson visited the island. At academic societies, he reported that Yaku had numerous plant species and peculiar and invaluable ecology. This was the first time Yaku had been made known to the outside world. The forests on Yaku contain many Japanese cedars over a thousand years old called *Yakusugi* cedars. Young Japanese cedars under a thousand years old are not regarded as *Yakusugi* cedars. Wilson introduced various stumps of those *Yakusugi* cedars to the world. Incidentally, in Japan, the biggest of the stumps he introduced is called the "Wilson Stump."

But Yaku was not famous until it became a World Heritage Natural Property. In December 1993, meeting the terms of the UNESCO World Heritage Convention, Yaku became the first site in Japan to be designated on the UNESCO World Heritage List as Natural Property. Yaku has won world acclaim for the ecumenical



Mountainous forest on Yaku Island has been nicknamed

value of its natural environment. The peculiarities of Yaku's natural environment and its unique value are summarized in the reasons for Yaku's registration on the World Heritage List. Here is a translated quotation from the summary.

Yaku is an island of towering mountains. In the middle of the island is Kyushu's highest peak, Mt. Miyaura, which is 1,935 meters high. As a result of factors such as annual rainfall of four thousand to ten thousand millimeters, it has extremely peculiar forest plants including *Yakusugi* cedars several thousands of years old.

Yaku's climate ranges from subtropical to subalpine with changing



"Alps on the sea"

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altitude from the coastline to the mountaintops. Accordingly, the vertical distribution of the island's vegetation is very noticeable. Plants such as banyan trees grow thickly in the island's subtropical zones in the coastal areas. Plants such as *tabunokis* (*Machilus thunbergii*), chinquapins and oaks thrive in the island's warmtemperate zones. Plants such as firs and Yaku-wheel trees are found throughout the island's temperate zones. And plants such as Yaku bamboo grass and alpine roses adorn the island's sub-alpine zones.

With a myriad of peculiar plants growing wild throughout all of the zones, the structure of Yaku's ecosystem is very peculiar. The island is the

northern limit for many species and the southern limit for many other species.

An especially outstanding natural feature of this region is the forests of aged and colossal Yakusugi cedars. These cedars are several thousand years old and have diameters of three to five meters. Ecologically and morphologically, from a global point of view, the forests are precious natural forests.

Moreover, Yaku is the habitat of Ryukyu robins, Izu Island thrushes and other nearly extinct animals and plants.

The islanders are happy that their island's natural environment wins high acclaim as one of the invaluable outstanding sites on the planet. Understanding that this natural environment is an important resource, they hope to raise their standard of living by utilizing it wisely as they increase its value.

Since the dawn of history, the islanders have been living in harmony with the natural environment and utilizing it wisely. Their daily lives are part of the workings of nature and cannot be separated from it. Let us now take a look at the daily lives of the Yaku inhabitants.

Lifestyle Transitions

Yaku is an island of towering mountain peaks and not much flat ground, which is why it is called "the Alps on the Ocean." Traditionally, the inhabitants of Yaku regarded the Yakusugi cedars as sacred and did not fell them. But in 1640, the islanders started felling them to produce small thick boards called *hiragi*, which became the island's main product. The boards were also used as tax offerings to the feudal lord.

The islanders lived daily lives in peaceful harmony with the mountains and ocean. Here is a quotation from *Sangoku Meisho Zue* (meaning "Pictures of Famous Sights in Satsuma, Osumi and Hyuga"), which is a record from the Edo Period:

"Yaku is completely mountainous with almost no fields. The islanders live abundant daily lives felling cedar trees on the mountains and catching fish at the sea. Being simple and honest, they don't close their doors at night or even pick up things on the roadside that belong to someone else."

But with land tax reforms in 1875, most of the land on Yaku became state-owned and off-limits to the islanders, except for residential areas and the outlying fields. A prohibition had also been placed on felling forest trees without governmental permission. The islanders managed to scrape together a living by fishing for bonito, which were numerous here in those days. But around 1900, new motor-

powered fishing vessels from mainland Kyushu began charging by and hauling away practically all the bonito. To eke out a bare existence, the islanders then started reclaiming fields and growing sugarcane and other crops.

The islanders began producing charcoal in the late 1920s when the off-limits prohibition was lifted on some mountains. They were also able to catch flying fish at sea. So their subsistence came to be supported by charcoal, flying fish, sugarcane and sweet potatoes. In fact, the lifestyle of the islanders was said to be "ten days on the mountains, ten days at sea and ten days on the fields." It continued that way until the 1960s.

But in the 1970s, the foundation of the island's industry was about to enter a great transition. The flying fish were disappearing. And the island's large-scale sugar factory and many starch factories were forced to close down as a result of low market prices.

Their farming industry started focussing on market crops such as garden peas and potatoes and on fruit such as Chinese honey oranges, *tankan* oranges and loquats. Moreover, a new industry to service the increasing number of tourists began. The islanders built new lodging facilities and focussed more energy into making craftwork with the precious wood remaining in the stumps of felled Yakusugi cedars.

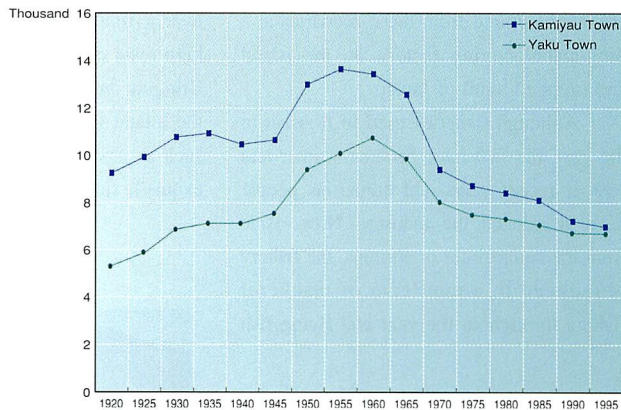
In 1964, Yaku received designation as a national park. In 1971, Yakusugi Land opened and improvements were made in

transportation to the island. An air route for a small YS-11 airplane was established and a high-speed jetfoil called *Toppy* went into service. Furthermore, registration on the UNESCO World Heritage List raised Yaku's appeal as a sightseeing attraction.

But with this transition, numerous sugarcane farmers abandoned farming and abandoned the island, which aggravated the depopulation that had begun in the 1960s when the young generation started emigrating to the major metropolitan areas. Yaku's population had reached its peak in

1960 with 24,000 people but thereafter diminished steadily. The aging of the remaining population has also become a grave problem.

In this milieu, the two towns on Yaku decided that their basic policy would be to promote tourism and primary industries, which are farming, forestry and fishery. The islanders have been busy keeping the sightseeing spots and transportation systems in order and have also been putting energy into producing fruit and market crops such as zedoaries and tea.



Population change on Yaku Island from 1920 to 1995 (compiled from censuses by the author)

Farming, Forestry and Fishery

Cultivation of Chinese honey oranges on Yaku began in 1924 when Kanenari Tsuzurabaru, who was a village assembly

member at that time, brought a Chinese honey orange tree back with him from Taiwan. The oranges did not win favor from the farmers at first but the number of farmers who cultivated the oranges increased gradually. Today the oranges are very famous throughout Japan as *Yaku ponkan*.

Around 1970, the islanders adopted

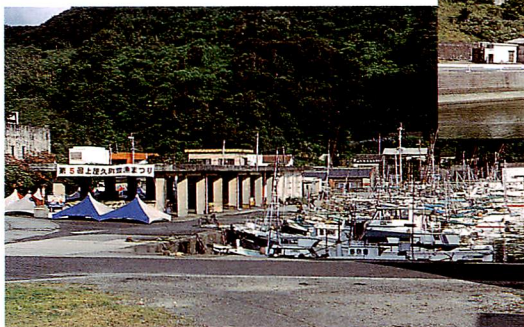
the *tankan* orange, which is marketed in a different season than the Chinese honey oranges. They now produce as many *tankan* oranges as they do Chinese honey oranges. However, Yaku macaques have been sneaking into the orchards and causing increasing damage in recent years. Farmers set up nets and electrified fences around their orchards, but that did not solve the problem. The Yaku macaques now get in through the gutters.

Zedoaries, which are used as raw material in manufacturing gastrointestinal drugs, are grown on all Yaku farms. Drugs are manufactured from these zedoaries at a drug-manufacturing factory on the island and supplied to all of Japan.

Although fisheries used to flourish in the past, the fish have become scarcer and scarcer recent years and numerous people have abandoned the industry. Now, aside from the aquaculture of shrimps, the fishery is reduced to a modicum of mackerel fishing throughout the year and flying fish

fishing in May and June. Consequently, the island's mackerel processing plant at Isso doesn't have enough raw mackerel to process its quota of dried mackerel. It now has to purchase raw mackerel from places around Makurazaki on mainland Kyushu.

Besides that, there are about twenty workshops on the island that process Yakusugi wood to produce exquisite craftwork. Law prohibits the felling of Yakusugi cedars so the only available Yakusugi wood is that which remains in the stumps of trees already felled. The wood in the stumps is finely lined with over a thousand annual growth rings. Its high resin content prevents it from rotting. Bringing out the best of such characteristics, the island craftspeople produce craftwork such as jars and house furnishings with an exquisite finish.



Fishing port, Kamiyaku



Mackerel processing plant, Isso

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New Direction of Tourism and Service Industry

The number of visitors to Yaku for sightseeing has increased from 54,590 in 1975 to 153,503 in 1999, almost a three-fold increase. The increase was most dramatic in 1989 when the high-speed jetfoil *Topy* came into service. Statistically, two-thirds of the visitors during that period came by jetfoil while the remaining one-third came by airplane. But with the advent of the jetfoil, the increase in visitors using jetfoil was very noticeable.

July and August have the highest monthly number of visitors. May has the next highest. The monthly number of visitors during the winter period from December to the end of February is less than half as that of August, which is the peak month. There is no big difference in the ratio between male and female. In the age breakdown, the largest segment of visitors is from twenty to twenty-nine and the next largest segment is from ten to nineteen. In the breakdown for number of lodged nights, the largest segment is for two nights, followed by the segment for one night, and further followed by the segment for three nights.

Over ten thousand tourists are estimated to go mountain climbing to see an impressive Yakusugi cedar named *Jomon-*

sugi, which is a sightseeing highlight on Yaku. But it takes a whole day to complete this mountain climbing course so many general tourists prefer to visit Yakusugi Land, Shiratani Unsui Valley, and other sites accessible by bus.

Yaku lodging facilities have a total capacity to accommodate 2,124 people (as of November 1997). The main facilities include 43 Japanese-style small inns called *minshukus*, 9 Japanese-style inns called *ryokans*, and 6 western-style hotels. Other lodging facilities include one communal lodge run by the local administration, one privately run youth hostel, four pensions, and two no-frills hotels for traveling businessmen. The rapid increase of *minshukus* during the 1990s indicates the rising importance of the tourism and service industry to the regional economy.

Other tourism-related industries include the Yakusugi wood workshops mentioned earlier and souvenir shops. There are also several dozens of guides who take tourists to see places such as Mt. Miyanoura, which is the highest mountain. They also take tourists up a mountain to see the famous tree named *Jomonsugi*.

Bringing out the best of Yaku's outstanding natural environment, the islanders place prime importance on environment-protective tourism called "eco-tourism." This ecotourism is a new form of tourism based on the wisdom of people who have merged with their natural environments in their daily lives.

Administrative Action

The national government, Kagoshima Prefecture and the two local administrations (of the town of Kamiyaku and the town of Yaku) on the island have worked enterprisingly in the movement to have Yaku designated as a World Heritagesite. Kagoshima Prefecture was especially enterprising as it promoted the "Yaku Island Environmental and Cultural Village Concept."

This concept is not the development or environmental conservation of conventional ideology. It is a concept that aims to actualize a new relationship between man and nature, which is the ideal state of coexistence. The concept concerns Yaku, where support and enrichment of each other's livelihoods is demanded while preserving the lush natural environment. The basic idea behind the Yaku Island Environmental and Cultural Village Concept is to re-create the region under the concept of "coexistence and recycling."

Kagoshima Prefecture, taking the role as the base of operations, constructed two centers on Yaku and is promoting the concept. One of the centers is the Yaku Island Environmental and Cultural Village Center, which is in the town of Kamiyaku. The other is the Yaku Island Environmental and Cultural Learning Center, which is in the town of Yaku. The former is a museum-like place that presents a

total view of Yaku's exceptional natural environment and the daily lives of its inhabitants. The latter is a facility with lodging accommodation where visitors can learn about and experience the environment in light of the concept.

In addition, the national government has constructed the Yaku Island World Heritage Conservation Center in the town of Yaku. And the town also has constructed the Yakusugi Museum, which mainly exhibits the history of Yakusugi cedars. Let us now take a look at a new movement that has begun a few years ago in the towns of Yaku and Kamiyaku. The movement aims towards becoming a society that practices recycling.

Yaku Island, which is designated on the UNESCO World Heritage List as Natural Property, promotes the harmonious coexistence between man and nature and is trying to accomplish zero emission. So in March 1999, the administrations of the towns of Kamiyaku and Yaku drew up a zero-emission plan, aiming to become a society that practices recycling of resources. In 1998, the islanders were able to recycle only 15.3% of their garbage, but with the new plan, they are aiming to recycle 99.2% by 2003.

One example of the efforts is the equipment brought into the town of Yaku to regenerate disposed cooking oil into diesel engine fuel for automobiles. Another example in the town is the recycling of Styrofoam. Styrofoam is collected separately from other garbage, dissolved

in chemicals, and then shipped to a private company in Kagoshima City.

Composting for kitchen refuse has been conducted in the town of Kamiyaku since 1998. Until then, kitchen refuse had been incinerated as burnable garbage. But that forced a temperature drop in the incinerators and raised the possibility of dioxin generation. So they started separating kitchen refuse from other garbage and composting it. The compost obtained is sold at 200 yen per 15 kilograms.

Aside from that, the use of electric vehicles is promoted in the town of Kamiyaku in order to reduce the use of gasoline, which emits carbon dioxide. Three service stations have been established in the town to recharge the batteries for the vehicles.

An officer in the village office's



Yaku Island Environmental and Cultural Village Center

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environmental planning division says, "Yaku may be a tiny island that is no more than a dot on a map. But we will approach this task with persistence that impresses the world as we become a sustainable society that practices recycling."

Returnees and Newcomers

Around 1970, many people who had emigrated from Yaku Island returned to the island and played a vital role in saving the island's eligibility for the UNESCO World Heritage List.

Since the 1960s, which marked the high growth period of the Japanese economy, numerous young people emigrated from the island to the major metropolitan areas. During the same period,

however, many remaining islanders went on felling sprees, cutting down the Yakusugi cedars one after the other. This was unfortunate because the Yakusugi cedars, which are over a thousand years old, are the islanders' heritage of unparalleled importance.

Yakusugi cedar logging did temporarily support the livelihood of numerous islanders, but at that pace, the Yakusugi cedars would soon be exhausted and Yaku would lose its invaluable natural resource. So, unable to remain indifferent to the bleak future, some of the emigrants returned to the island around 1970. The



Newcomers settling down on Yaku Island

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returnees established a group called "Save Yaku" and incited a movement to oppose the felling of Yakusugi cedars.

Meeting resistance from the intent Yakusugi lumberjacks, the movement did not progress as smoothly as they had planned. But as a result of the movement, the west forest road area and some other natural forest areas were protected from the lumberjacks and a prohibition was later placed on the felling of Yakusugi cedars. It was this movement that

initiated the movement to have Yaku designated on the World Heritage List.

Another example of outside influence is the remarkable increase of newcomers who have been settling down on the island these recent years, especially since 1990. The population on Yaku had been steadily draining until that time, but during the nineties, immigration exceeded emigration in some years. In fact, the total population is now steadily increasing, especially in the town of Yaku.

Most of the newcomers are married couples at the retirement age who had been living in major metropolitan areas. Dreaming of life in Yaku Island's lush natural environment, they purchased land on the island and moved in and settled down. Some of the newcomers work at a hotel or run a *minshuku*-type inn, but most of them are retired. However, some of the retirees do light work such as harvesting Chinese honey oranges or

Reasons for newcomers to settle down in Yaku Town (compiled from the author's inquiry conducted in July 2000)

Reason	No. of households
attracted to the place when visited for sightseeing	5
attracted to its natural environment, such as sea, mountains, rivers, fishing sites	4
looking for a place to live in a warm climate	4
possible to pursue a self-supporting life-style	2
the island is famous as a world natural heritage	1
bought land when visited the place	1
relatives live here	2
looking for a second job after retirement	1
local people are friendly	1
Total	21

tankan oranges.

But unable to understand the traditions and customs of the regional society, the newcomers sometimes come into friction with the native islanders. But on the positive side, the newcomers are adding new stimulus to the island

community. They help the native islanders create their websites and help them solve the various problems involved in the e-commerce for their farm products. The newcomers also work at solving the island's bridal shortage problem.

Education for the Future

Yaku uses its globally recognized lush natural environment as its main resource. To protect that environment, Yaku aims to become a recycling society that does not produce garbage. For Yaku, environmental education for the children, who bear the future, plays a vital role in its regional development. It also plays a vital role in creating ecotourism, which is the new kind of desired tourism.

Unusual for Japan, environmental science has been newly added to the curriculum at Yaku Senior High School, which is the only senior high school on Yaku Island. The faculty there has begun to foster the needed specialists in all aspects of environmental problems in the future.

Kagoshima Prefecture's board of education systematically conducts a program at the Yaku Environmental Culture Learning Center in the town of Yaku. In the program, students from

elementary and junior high schools throughout the prefecture visit the center and experience and learn about the environment on Yaku Island. They lodge in facilities that make the best use of the environment. The center has become a main base in the environmental education program that the prefecture conducts. It is especially valuable for the elementary and junior high schools of the prefecture as a familiar environmental education facility that can be used for everyday and special events.

The direction that Yaku is taking is, as the prefectural and local administrations indicate, to protect its valuable natural environment as its main resource, to use it wisely, and to develop its primary industries (farming, forestry and fishery) in harmony with the natural environment. Yaku is not only developing an outstanding environment, but is also actualizing a new tourism industry of ecotourism, for which the daily lives of the islanders play an important role. Yaku is now moving tentatively in that direction and its progress will become the center of public attention.