

# Yakushima's Kosugidani: Human Presence in an Okudake Woodland Landscape

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This paper is the second in a series looking at the way various woodland landscapes have been appropriated by different interest groups over time. Having focused on examples of change in forest landscape use on Yakushima up until the end of the Edo period in the previous paper, the emphasis here will be on looking at how a specific forest area has been shaped over time during the course of the twentieth century in particular, and how a woodland landscape of production and destruction has evolved into one of conservation into the present century. The example of the Kosugidani area on the upper Anbo river will be examined to show how the different values of various interest groups have affected the forest landscape.

## **Change in Woodland use on Yakushima during the Meiji Period**

As was outlined in the previous paper in this series, the Shimazu clan, Lords of Satsuma fief controlled the use of productive woodland landscapes very tightly during the Edo Period. However, after the Meiji Restoration of 1868, the sweeping political, economic and social changes that took place all over Japan began to have a strong effect on the way Yakushima's key woodland areas were managed. Fujiwara notes how Yakushima was traditionally one of the main five forestry areas in Japan and that its "forests were almost pure natural coniferous forests that had been preserved by the

strict cutting restrictions of the feudal Edo era governments (2002:11). As the Shimazu clan lost much of its former power in real terms during the second half of the nineteenth century, control of its former areas of hegemony fell into the hands of the state. This immediately resulted in dire consequences for the local inhabitants. Bureaucrats in far away cities made sweeping policy changes without recourse to an understanding of how islanders had managed to gain access to some areas of common forest under Shimazu rule. Areas that had provided locals with meager kindling and fuel in the form of charcoal were suddenly strictly controlled by the national government, and the local inhabitants found they were allowed no access to former common use forest in the maedake that they and their ancestors had utilized since ancient times. (Diagram Yakushima 2000: 56).

This situation led the villagers to form groups determined to wrest back their former rights from the state. They demanded access to forest that they had previously harvested, but found it increasingly difficult to take on the government in these cases where previously they had been able to consult the local representative of the Shimazu clan directly. At this juncture, new ordinances were put in place to assure financial benefit for the state from the Yakushima forests. Priority went to government-backed companies. In 1874, for example, a law was passed allowing Osaka merchants to harvest the giant cedars. Five years later Yakushima's land was clearly divided into government and privately owned zones, but these new laws for the most part failed to recognize the claims of the local islanders. Totman (1989: 192) points out that "when the Meiji government rationalized forest administration during the 1880s it precipitated widespread rural hardship and discontent by making sweeping changes in rights to common land". He also rightly notes how recent writers on the subject have seen government policy of the time as "exploitative and repressive" stressing how the "creation

of Japan's modern national forest system excluded many villagers not only from wooded common land, but also from forest land of other types that they previously has utilized".

As the nineteenth century drew to a close, the situation seemed no nearer a positive solution for the locals. A suit was petitioned on behalf of the islanders in 1900 to allow privatization of government owned areas with a view to allowing access for locals, but was rejected by the courts in 1903. Litigation continued however, and despite the setback, locals fought on with a further suit in 1904. This one rumbled on through the courts for the next 16 years. All in all, there were 18 separate hearings, before the islanders' hopes were dashed again. (Yakusgi Museum Bulletin 2000: 70)

This final defeat in legal terms for the locals marked a turning point for the areas of okudake forest west of Anbo along upper stretches of the Anbo river. Having won its case, the state was ready to use its power to gain access to the forest in a more economically viable way than had previously been possible. The beginning of the twentieth century had brought technological advances thus allowing previously inaccessible areas of prime yakusugi to be fully exploited, with the financial backing of the national governments' forestry departments.

### **The Opening of Kosugidani**

Having lost their petition, the islanders continued to find life very difficult without clear access to firewood or charcoal for fuel. They were also unable to cultivate traditional small tracts of land that had once provided a meager supply of vegetables, but which now fell into designated state owned areas. They appealed to various agencies and finally a project was implemented to accommodate some of the wishes of the local inhabitants within a state owned forest. This new law was established in 1921 and

became known as the Kokuyurin Keiei no Taiko (Outline for Managing National Forests). While allowing the local inhabitants some recourse to small amounts of state owned kindling and the like, in real terms it allowed the government a mandate to set new agendas with regard to the removal of timber. Although there was a special provision prohibiting old living Yakusugi from being cut down, in reality the promise meant little. In 1921, there were still huge tracts of forest left for the government to harvest. Ignoring a small percentage of older trees was less an early implementation of conservation ideals, than a small gesture of appeasement, which as will be pointed out, was quickly reversed at a later date. In wider terms, the new law set in motion plans that were to change the okudake areas around Kosugidani forever.

A year later in 1922, the construction of a trolley rail was already under way. This project both physically and symbolically changed the landscape forever. Since the Edo period Anbo had been used as a convenient port for shipping out yakusugi hiragi shingles, and now with land issues finally resolved in favour of the government, the insatiable national demand for high quality timber could be appeased more easily on Yakushima through the opening of a trolley rail deep into the interior which would make transporting the huge slabs of timber infinitely easier than it had ever been before. A government owned ship waited at the port in Anbo to take the timber to the many markets on Japan's main islands.

The plan was to build a railroad 16 kilometers, parallel for the most part with the Anbo river to Kosugidani (The valley of the Cedars) and then further branch lines up to Ishitzuka, deep in the okudake. The first section as far as Kosugidani was realized by 1923. The rail ran up from the port at Anbo about 2 kilometers to the main goods yard at Naehata.



(The rail track's starting point today at Naehata, 2009. Author)

It then went up further into the mountains to the Arukawa area and on to Kosugidani. This meant the state could then send in workers to start cutting the valuable timber which, though mainly cedar, also included Japanese cypress and other sought after species.

It is important to stress that the village was unlike other villages on the island. Everything in it was state owned. The main areas of accommodation were constructed to house the project workers and their families using

government resources. There was no private land available. Living accommodation went up quickly. The valley, even at Kosugidani, is narrow, and houses clung close to the rail line or were put up on cleared areas of forest near to the river and the rail. The construction of the houses was basic in the Japanese style of the day, consisting of a small dark kitchen area, tatami on raised floors for sitting during the day and sleeping at night and naturally made of timber cladding. A local primary and junior high school were built in the widest part of the valley on more solid stone foundations and perhaps most importantly, the Shimoyaku Town Forestry Office was constructed 50 meters further up the railroad. It was from this building that the plans to regulate much of the village working and social life would emanate. Naturally, this was also the core operations headquarters for the demanding task of hauling the timber out. In less than a year the new village had sprung up from nothing showing exactly how with government influence a landscape can be in Crang's terminology "engineered" (1998: 7)

In many ways for the islanders, the opening of Kosugidani as a vibrant new logging community might have increased the sense that the woodland landscape was being well managed. At the same time (1924) 2,900 hectares of primeval forest were registered as a national monument, and 7,000 hectares of maedake forest were designated as common use forest. On paper, it seemed like all these plans were small victories in the battle to assure the future livelihoods of islanders. However, a more cynical view might suggest that these various concessions merely sought to deflect attention or criticism away from the new logging inroads into former areas of okudake. The benefits of the Kosugidani project were not even particularly geared to locals in terms of employment, as the government actively sought skilled labor with experience of deep forest logging, and so many workers were brought in from outside the island. The new technology associated with the

trolley rail and haulage requirements meant the hiring of many families from as far away as Osaka. Figures for later in the community's history (1960) state that less than 44% of fathers were island natives. 23% came from Tanegashima and 33% came from outside Kagoshima Prefecture. It is likely that in the early days with a population of only around 100 in 1923 that figures were similar. This meant over half the population were not natives of Yakushima, and so direct employment at the outset played a minimal role as far as local inhabitants were concerned (2003: 778).

On the upper reaches of the rail where most of the large trees were being cut down, skilled labor was particularly important. Men, using axes and saws at this time cut the trees into manageable size pieces which were then loaded by ropes and cables onto the trolleys and sent down the steeper incline of the tracks at 23 degrees on a system similar to a cable car where one trolley would go up as another loaded with timber would come down the incline. There were no breaks on the trolleys themselves at this point, and only the cable on a top winch operated by a single employee would slow down the heavily weighted trolleys on the descent of the steep sections of railroad. In the very early days oxen or horses were used to pull trolleys on some sections, but gasoline run trolleys were introduced in 1926.

By 1927, the small community was starting to cement its place in the okudake landscape. The school, which had begun with just one teacher and 12 students, conducted its first graduation ceremony.



(The remains of the school gates, Kosugidani 2009 Author)

A small shop had been set up in the village, though for many every day items, it was necessary to take the trolley 10 miles down to Anbo. There was of course no road in or out, so the railroad was a lifeline for the community with the outside world. The trolley served two main purposes with the transportation of goods and people equally as important as the removal of timber from its source.

### **Pre war and Post war Kosugidani**

There were two clear stages of development in the Kosugidani community. The first was the pre-war build up when the population grew rapidly from an initial 100 souls to around 300 by 1940. During the 1930s as demand for timber increased dramatically all over Japan, most often for



military needs, the numbers involved in cutting back timber in the okudake increased on Yakushima too. The methods with saw and axe remained fairly primitive, but the labour was skilled and hardworking and so the amount of logging grew little by little. By 1940 the men were felling high up in the Ishitzuka region, but as the war dragged on, more and more resources were required on the battlefields, including able bodied men, so some left to join the military, and with acute food shortages and a lack of man power in Kosugidani, the population dropped rapidly returning by 1945 to its Taisho era numbers of around 100. Between 1944 and 1946 the railroad stopped hauling out timber altogether, and conditions for the remaining population became very difficult. At an altitude of between 600 metres and 1500 metres, living was especially tough during the winter months when snow often fell and temperatures dropped as low as minus ten on occasions. With food in short supply, and the buildings unheated and without electricity at this time, everyday life was a struggle for those who remained.

The second and perhaps more important stage of development covered the post war period from 1946 to the late 1960s. On a local level, Kosugidani office attempted to rebuild the community and start again the process of timber removal, while also reforesting areas with fast growing sugi and hinoki. Fujiwara remarks that there was a need at this juncture "to restore the forests that had been harvested to provide wood for wartime military use. (2002: 13). The demand for Kosugidani's timber was great with rebuilding projects taking place all over Japan. In particular, skilled workers were again sought. Some, with experience gained in former colonies like Taiwan came to Kosugidani to work, and as demand for timber escalated, the community's population also increased dramatically. By 1953 the population had more than trebled again to 360. There were many new technological advances in this phase of the village's history. Diesel trolleys

were introduced, as well as the provision of electricity in Kosugidani and Ishitsuka hamlets. The population jumped past 400 by 1955, as the changes to community life really had an immediate effect.

This can be seen through some of the surviving documentaries available from this period, produced mostly by NHK. In one of its regional films from 1953 entitled “Minamikai no Yakushima” we can still see glimpses of the last remnants of the old logging world. Men with axes and saws work at the bases of huge cedars and then climb the trolley cars with the logged timber back down to Anbo. Within a couple of years, this way of logging, which dated back to before the Edo period was gone. In the next decade as Matsumoto points out “harvesting began to be conducted on a full scale. Chain saws were introduced and clear-cut logging of the trees including broadleaf trees began in earnest. At this time, forest resources were strongly sought after to speed Japan’s economical growth” (2000: 49)

In less than 5 years logging shifted from a viable regenerative rate to this mass clear-cut style. The introduction of the chain saw was the key development in this increased logging activity, and the impact on the forests was immediate. The speed with which trees could now be felled meant dramatic changes in the amount of timber coming out of the Kosugidani area. By 1957 the chain saw was in regular use. Although the American prototype was heavy and unwieldy, it meant amounts of timber hauled out soared as the natural stands of cedar diminished rapidly.

Of course silviculture techniques were put in place to assure new crops of trees. Knight notes (1998: 111) how by the mid-sixties new plantations in Japan accounted for 30% of forested areas. Hinoki (36%) and sugi (35%) still made up the majority of the trees because of short rotations and superior timber prices. However the fact remained that natural forest was being cleared too quickly and older mature trees were becoming more difficult

to obtain. Their worth to the government was obvious. One large piece of Yakusugi on a trolley was said at this time to fetch 3,000,000 yen, a huge amount of money, which naturally the workers at Kosugidani saw almost nothing of.



(Domaiboku Cedar on trolley, Yakusugi Museum 2009 Author)

Following the “Kokuyurin Seisanryoku-zokyo Kaikaku” (Increase in Strength and National Forest Productivity Plan) in 1957, full-scale logging meant the population boomed again and by 1960 Kosugidani had reached its zenith of 540 inhabitants. The tide had turned and sustainable levels of logging were being well and truly ignored as demand for the cedar

continued to be insatiable in this period of strong economic growth in Japan. At this time the special provision of 1921 prohibiting logging of old living Yakusugi was lifted. A clear cut disaster was taking place as modern machinery meant the amount of timber harvested rose from 16,000 cubic meters in 1943 to 180,000 cubic meters in 1966. This level of logging was unsustainable.

In 1960, wood imports were liberalized. The volume of imported wood increased faster than expected, as Fujiwara points out (2002: 15). This meant a general decline in wood prices. Yakusugi was however seen as a decorative timber, so continued to be cut down wherever it was found. Fujikake (2002: 69) notes how the value of timber relative to forestry wages peaked in the same year. In a sense these two points show that just as Kosugidani had reached its peak period in production terms, the writing was on the wall for the future of the village. Cheaper imports and an inability to keep domestic labor costs down heralded a swift decline in the community's usefulness to the government from 1960 onwards.

The next NHK feature from 1964 is an interesting study when compared to the previous programme of a decade before. The feudal air of 1953 has been replaced by the programme makers keen sense of "modernity" in the picture of Kosugidani they wish to portray. In many ways, the theme of modern life in a rural idyll is what is hinted at in the film. Children board the trolleys for school (some came down from Ishizuka 4 kilometers by trolley, before walking uphill the same route on the way home). The school numbers reached a peak in that year with 138 students, 94 in elementary school and 44 in Junior High (Matsumoto 2000). In the film, no doubt conscious of the film-makers on a bright sunny day, the students are smiling. Wives, dressed in their 'modern' floral print western dresses chatter happily as they board the trolleys for Anbo and the weekly shopping excursion. The sense of

Japanese “*furusato*”, a community at one with nature, is cleverly hinted at, and yet the reality of the situation is perhaps more obviously expressed by the shots of the workingmen. They seem less animated as they are packed off to the logging fields. The sense that their work was hard and dangerous comes to the fore as we see them astride the large logs hurtling down the railroad with only a rope brake in their hands.

The robust nature of the people and the vitality of this community is expressed in this short film, but the realities of the struggle of everyday life are conveniently overlooked. Kosugidani was never a sunny idyll. Yakushima is one of the wettest places in Japan and Kosugidani averaged over 8,000 millimeters of rain a year. Mean temperatures of 14 degrees were much lower than the traditional coastal villages and during some winters deep snows could paralyze the every day life of the community. In 1963 during a very bad winter Ishitzuka had over 3 meters of snow, and the main village of Kosugidani at a much lower altitude received over a meter. The trolley rail stopped running for 40 consecutive days and food shipments could only be brought in by helicopter. Looking at detailed maps of the layout of the community, we can only imagine how hard real life was in such conditions with small timber dwellings crammed closely together along the rail, river and onto the slopes immediately behind.

In many ways, this film from 1964 and one 5 years later in 1969, filmed in colour for the first time, captured both the heyday and the death throes of the community. The clear cut logging could not last for long and as the decade of the sixties came to a close, a number of separate forces, some of which have already been mentioned, combined to make Kosugidani untenable as a community.

### **The demise of Kosugidani Village**

Totman (1989: 182) states that “the technology of forest exploitation was a key variable, and certainly the survival of forest vitality was aided by the limitations of a primitive technology applied to impenetrable mountains.” This was very much the case for Yakushima throughout the Edo period and well into the twentieth century. It could be argued that the railroad linking the Okudake with Anbo port, making the haulage of valuable timber out much easier, was ironically, the first reason for the inevitable decline of Kosugidani, as well as its *raison d’être*. Even more important was the introduction of the chain saw that speeded up the felling process to levels previously undreamt of. Added to these reasons, Knight notes (1998: 112), “by the 1970s foreign timber came to displace domestic timber” meaning that forestry started to “greatly diminish as a source of employment in upland Japan”. Demand for wood based fuel also fell rapidly as new sources of energy such as gas and electricity became widespread.

As well as these economic factors, fledgling conservation movements had begun to hold sway in the minds of the Japanese public. In 1967, Jomonsugi, the venerable old cedar became famous across Japan, and Yakushima received more outside attention than ever before. With the opening of the coastal road around the island in the same year, and the airport four years previously, tourism was starting to play a part in the economic future of the island, and clear cut logging of the “pristine” cedar forests that travellers wanted to see, became a politically charged debate.

A combination of all these factors meant that by 1970 Kosugidani had become a “*midori no sabaku*”. The community was a green desert that was no longer profitable. Its great cedars, the timber once so highly prized, had been decimated. The village had no economic relevance to the new decade and so the state decided it was time to draw a line on the short history of

the community.

As the whole of Kosugidani was government owned, the dismantling of the village was done in a very efficient way. Housing was demolished quickly and the timber from it sold privately on the island. Families were relocated gradually during the early months of 1970. Over a third of the population of Kosugidani left the island. Some returned to towns like Chiran in Kagoshima Prefecture. Others were found places to live and employment in Anbo and Kurio districts on the island. On the 18<sup>th</sup> August the forestry office closed. The previous spring, the schools had held their final graduation ceremonies. The forestry office building and the schools were torn down too. On the 27<sup>th</sup> August, the last few people left the community for good and the forest started to take back the village site. (Matsumoto 2000)

### **Kosugidani since 1970**

In the last four decades since its closure, the Kosugidani area has continued to play a different, but increasingly important role as what Knight terms a “post industrial forest.” He quotes Mather on this point in showing how places like Kosugidani can now offer “a wider range of social and environmental benefits” rather than being forests still geared to “the production of wood for industrial purposes” (1998: 110). The railroad has been a key point in this new role for Kosugidani, as it is now used in certain sections as the main trail allowing day tourists and serious hikers alike access to the route towards Jomonsugi and other remaining great cedars in the okudake. With an average incline of only 4 percent, the railroad is an easy walk for most hikers who make it that far into the forest, and its upkeep is assured while the government still uses the rail track with small diesel locomotives in order to maintain a power plant further up the line, and to haul out the last remaining domaiboku. These great stumps of Edo

era felled cedars have for the past 30 years supplied the Yakushima craft industry with enough superb shaped and finely grained timber to maintain large numbers of craftsmen and women on the island producing souvenirs for the tourist industry which range in price from 200 yen key holders to 2,000,000 yen hand carved pieces of furniture.

In a way, the cedars are now playing a dual role, as valuable revenue in the form of tourist souvenirs and perhaps more importantly as Forbes points out (2005) as “a valuable resource (again economic) in living form.” The one cloud on the horizon in terms of the woodland landscape as a post-industrial forest is how to keep the balance in terms of conserving this resource for future generations. The numbers of hikers on the railroad path through Kosugidani are increasing year by year. Figures from May 2009 saw over 1,000 people on the track in a single day for the first time ever.



(The shrine at Kosugidani 2009 Author)



While there have been a number of suggestions for making greater use of the Kosugidani site, there is a worry over environmental issues. A campsite for schools has been one suggested function for the site, but so far opposition to further spoiling of the forest has meant Kosugidani has yet to become a re-invented landscape. Walking along the railroad today it would be quite possible to miss the few remaining signs that Kosugidani village had ever existed. The small shrine that pre dates the settlement is still there, although the great stone steps are gradually crumbling into the forest like a Mayan temple. Apart from a few remnants of stone foundations used for the school and forestry office, no solid remains of the village exist outside the rail track itself. Most of the sites of former housing have been replanted and the forest has grown rapidly in the past few decades. If anyone happens to trace the old outlines from former maps they might be able to make out the odd former vegetable patch or village well from indentations. Here and there forlorn pieces of bathroom tile, missed in the clean up operation shine azure blue in the deep mossy green undergrowth. Left to submerge under new layers of the forest floor, they are fast becoming the next layer in this woodland landscape as palimpsest, with Kosugidani turning into what Crang (1998: 22) termed a "landscape as the sum of erasures, anomalies and redundancies over time."

In terms of the future landscape of Kosugidani, the current tourists bring with them a whole gamut of conservation problems and it is important that lessons be learnt from the twentieth century in terms of keeping things at a sustainable rate. If the forests become flooded with visitors (and new roads up to easy access points have already caused considerable opposition in some quarters) the fragile nature of the landscape may well be put in jeopardy again. Concerns about the human impact on the forest have grown of late as Yakushima's popularity as a tourist destination has soared since



(Crang's landscape as palimpsest in Kosugidani village.

Bathroom tiles being swallowed by the forest 2009 Author)

being given World Heritage Site status in the early 1990s. There is perhaps a glimmer of hope however, that with careful use the railroad laid out in 1922 as a means of cutting down the cedar forests, could help to save the remaining areas of beauty by channeling tourists along its length and so protecting other less used trails. If this is the case, then the legacy of Kosugidani will perhaps be a positive one.

### **Bibliography**

Berque, A. (1997) "Japan, Nature, Artifice and Japanese Culture" Pilkington Press,

Northants,

Crang, M. (1998) "Cultural Geography" Routledge, London.

Diagram Yakushima 2000 Yakushima Environmental Culture Foundation

Forbes, G. (2005) "A Japanese Framework for Environmental Protection" in Kagoshima Junshin Bulletin No.35 Kagoshima pp.135-141

Fujikake, I. "Forestry Labour" in Iwai, Y. (ed) (2002) "Forestry and the Forest Industry in Japan" U.B.C Press, Vancouver. pp.67-83

Fujiwara, M. "Silviculture in Japan" in Iwai, Y. (ed) (2002) "Forestry and the Forest Industry in Japan" U.B.C Press, Vancouver. pp.10-23

Knight, J. "The Forest Grant Movement in Japan" in: Arne Kalland and Gerard Pearson (eds.), *Environmental Movements in Asia*. Richmond: Curzon, 1998, Chapter 5, pp.110-130.

Matsumoto, K. (2000) "The Permanent Exhibition Guide Manual. Yakusugi Museum" Yaku-cho, Anbo, Japan.

Matsumoto, K (2000) "Mori to Hito no Rekkishi" (In Japanese) Anbo, Japan.

Schama, S. (1995) "Landscape and Memory" Fontana Press London.

Totman, C. (1989) "The Green Archipelago: Forestry in Pre-industrial Japan" University of California Press, Berkeley.

Yakuchokyodoshihensaniinkai Yakuchokyodoshi Daisankan 2004 Yakushima Yakucho pp.778-785 (In Japanese)