The use of Nettle Fibre in Japan

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Japan is a country rich in wild fibre-yielding plants, such as elm, lime, paper mulberry, kudzu (Pueraria lobata), wisteria, ramie, and nettle. With these fibre plants comes a long tradition of using the fibre to make paper, rope or cloth. These skills were developed by poor and frugal people who owned no land and were forced by their circumstances to make use of wild plants for many of their needs. Nothing was ever wasted. The fact that today it is hardly possible to see any nettle textile from the past in Japan is probably because the cloth was used for many purposes during its lifetime. It is likely to have started as a sleeping mat or cover, then as it softened with wear it was made into clothes, underwear or baby clothes and finally burnt as a deterrent to mosquitoes. The value of all cloth was also reflected in the practice of making saki-ori whereby old cotton cloth was torn into strips and then re-woven into new fabric often using a bast fibre warp.

Although little nettle fibre cloth remains from the past, a fragment of textile made from akaso (Boehmeria sylvestris) has been found in the Fukui Prefecture. It is dated to the early Jomon period (approximately 10,000 BC) and is known as the Torihama fragment. It was woven from nettle fibres (B. nivea) that had been well pounded to remove the bast and at the time of excavation resembled a woollen sweater. The threads retained their elasticity and were still able to absorb moisture.

Cotton was first introduced into Japan during the fifteenth century. It was possible to cultivate this plant in the western area of the country although it could not be grown in other parts such as the north, along the Sea of Japan and areas surrounded by high mountains, so the dependence on native bast fibres continued. As the availability of cotton yarn and cloth spread it was often combined with bast fibres to make clothing. Hemp was also cultivated but not necessarily available to all, and the ongoing cultivation and processing of ramie (B. nivea) can be traced back to 1660. During this time the centre of production for ramie was in Yachi-go in the north of Tokyo. Unfortunately because nettle and other bast fibre clothing was linked with poverty an element of shame was often attached to
its wear. Wealthy people wore clothes made from silk or cultivated ramie that could be bought on the open market. These particular textiles were often dyed other colours, whereas the humble nettle remained in its natural state because it was only used for ‘utility clothing’. However its hardwearing properties were highly valued and in some instances preferred to cotton fabric when it was available. In 1959 the village of Ohara in the Ishikawa prefecture was drowned when a dam was built on the River Dainichi. In this village nettle fibres were once woven into a particular type of cloth called irazakuri that was thick and hardwearing. Tsunejiro Itô, who lived in the village, remembers this cloth. ‘Irazakuri was very strong and was a must for heavy labour such as in charcoal making, a major source of income in the village’. One name for irazakuri was inakishinaizai, because even though it might be worn carelessly or recklessly from the day it was made it would last three years without the need for any mending. The use of nettle fibre by the poorer people may well have continued until well into the twentieth century, even though cotton became so widely available. For example, in the Tohoku area nettle fibres are said to have been used after the second World War, as the whole area became so poor that people could afford nothing else.

There are approximately 37 members of the Urticaceae family growing in Japan. The Japanese word for nettle is inakusa, although this name is used in some areas specifically for U. thumbergiana. Other Urtica species include U. playthylla found growing mainly in Hokkaido and used by the Ainu people, U. takadaana, U. sikokiana, U. augustifolia and U. lacteifolia. Other fibre yielding nettles belong to the Boehmeria and Laportea genera. The nettle species U. japonica, now known as B. japonica, is recorded in 1855 as being used to make line, cordage and cloth. The most productive wild nettle plant as far as fibre is concerned is Laportea microstachya; The Japanese name for this is miyamairakusa. The Japanese word miyama means ‘deep in mountains’ and it is certainly true that this particular plant seems to grow in the lush, damp and shady undergrowth of the woody mountains. The more prolific B. Sylvestris (yamnara, alake or wild ramie) grows in a wider variety of habitats, although its fibre yield is poorer and the plant therefore less favoured, in spite of its stingless stems. This particular plant was only used for fibre when miyamairakusa could not be gathered or was not locally available, particularly in parts of Honshu.

The extraction of fibre from nettles in Japan today is not widely practiced. It would appear that there remain only a few people who have any knowledge of this tradition. Fukuoka Hare is a specialist in handcrafted textiles and it was her aim to extract and work with the fibre from the nettle species L.microstachya. She was first inspired after discovering two shirts in an old farmhouse. One was made with a cotton and silk warp and nettle weft. The other was partly eaten by rats, so she attempted to renovate it. She was helped by Suruga Teiken, who went into the mountains to collect large quantities of
the nettle plant, and then experimented to find the best way to remove the fibre. The timing of the harvest seemed to be governed by the environmental and economical factors of the area rather than by the conditions of the climate. According to Suruga-san the stems of L. macrostachya harvested at the end of September are harder and the fibre, therefore, more difficult to remove than those picked some weeks earlier. Also the earlier harvested fibres are whiter. It is certainly easier to locate the plant in the undergrowth when it is in flower. The chosen stems are thick and with as few branch nodes as possible as these cause the fibre to break.

I had the opportunity to accompany Suruga-san to the mountains of Hanamaki in order to collect L. macrostachya. All the way up the bumpy mountain track I noticed the above nettle and also wild species of Boehmeria growing. The atmosphere of these mountains was warm and humid and the wooded areas bordering the track a pleasure to venture into.

We prepared dramatically for our harvesting of the nettles. Wellington boots (to protect against snakebites), rubber gloves (to protect against nettle stings), sleeves rolled down, scarf round the neck, insect repellent sprayed over us and finally around our waist we hung smoking gadgets to deter biting insects even further. The whole procedure was more akin to preparing for a religious ceremony!

The thickest stemmed plants were chosen for cutting and Suruga-san showed me how to strip the outer bast from the stems. First the leaves are pulled off and the bast peeled from the stem in strips. This is considerably easier to do than with the European Urtica dioica nettles. The strips of bast are carefully bundled, keeping all the red root-ends together. The bundles of bast are then soaked for a short period of time. On the occasion that I witnessed this the bast was soaked for just a couple of hours. Each strip is then stretched by hand, fibre side down, onto a smooth plank of wood. The root end is held securely over the edge of the plank and the outer layer of green bast firmly scraped off with a metal scraper. The scraping continues until the green colour is removed from the length of fibres and they are almost completely white. The fibres are then dried and made ready for processing.

To turn the nettle fibre into a workable yarn the dry strips of fibre are split with the fingernail to make single threads. These threads cannot be spun so are spliced together. Fukuda-san first dipped her fingers in water then wood ash to stop the threads from slipping as they are spliced. The length of threads is then plied and dyed and those to be used for the warp are starched using a mixture of flour, water and a little oil. This method of starching is also used for hemp and ramie fibres. To starch the thread it is first coiled into a basket, drawn through the starch liquid and then twisted on a spinning wheel to make the threads more even. It is not necessary to twist the weft threads. Fukuda-san has achieved these threadmaking techniques through trial and error and by drawing on her
considerable experience. Barber has described a similar ancient Egyptian practice of wetting and dampening flax fibres to enable splicing and twisting of the threads\(^{3}\). The Egyptians made looped bowls for holding water that the thread could be drawn through. A bowl of the same type has also been used in Japan for working with the nettle *B. nipponica*. The thread is drawn through the bowl before it is twisted on the spinning wheel. These particular bowls have been labelled as ‘spinning bowls’, but Barber thinks that ‘fibre-wetting bowl’ is a more appropriate name\(^{3}\). What is clear is that similar methods and equipment are being continually reinvited to deal with bast fibres that have been processed in a particular way. The fibres remain intact in their bundles and, therefore, it is not possible to spin them in the traditional way. The cloth that results is quite stiff, but I believe that this is so because of the nature of the extraction process. The breaking down of the bundles into individual fibres by retting results in a softer and finer material. Elsewhere a retting process was sometimes carried out on the waste bark remaining after it had been scraped away from the fibre bundles. It was soaked in a river or pond for fifteen days, pounded with a bamboo stick and then spread out on a board and submerged in water long enough for the outer bark to disintegrate. The remaining soft cotton-like fibre was used to stuff zabuton and to provide sanitary material used in childbirth and at home\(^{33}\).

Why has such a tradition become forgotten? With all her expertise, it is Fukuda-san who should have the last word. She says that first the plant discourages from picking because of the stinging and during the harvesting season there is a moth called Tsunagi-ga that has a very painful bite. The time for harvesting also coincides with the busiest farming season. As for turning the fibre into cloth, there are too many time-consuming processes and there is no market for nettle fibre because it has never been used for luxury textiles.

There is a danger that the tradition of nettle fibre use in Japan will be forgotten. Hopefully this will not happen. As in other parts of the world there is a growing interest in understanding and preserving traditional crafts and practices.

In spite of its traditional link with hardship and poverty and the fact that it is time-consuming to process, the use of nettle fibre in Japan is historically fascinating and the final result is always an interesting and high quality textile.

References
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