

# The Culture of *Rhapis* in Japan

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Plants belonging to the genus *Rhapis* are not indigenous to Japan. They are native to the southern countries of Asia, such as South China, Vietnam, Laos, Cambodia and Thailand, where some one dozen species have so far been described. The two apparently undescribed species from Thailand mentioned in PRINCIPES, Volume 17, No. 1, can probably be added. Of these fourteen species, only two are commonly cultivated in Japan. *Rhapis excelsa* (Thunberg) Henry in Rehder [*Rhapis flabelliformis* L' Héritier ex Aiton] and *Rhapis humilis* Blume.

*Rhapis excelsa* in Japanese is called *Kannon-chiku* and *Rhapis humilis* is called *Shyuro-chiku*, with the accent on the "o." *Kannon-chiku* means a bamboolike plant that came from Kannonzan, a temple (or a mountain) in the Ryukyu Islands (Okinawa). *Shyuro-chiku* means a bamboolike *Shyuro*, the name for *Trachycarpus fortunei* (W. J. Hooker) H. Wendland.

The first appearance of these two *Rhapis* in Japan is considered to be some time in an early year of the 17th Century. The name *Shyuro-chiku* appeared in a book dated 1666. In another book printed in 1694, there is a description, "Shyuro-chiku leaves are like Shyuro, stems like Bamboo." The name *Kannon-chiku* is seen in a book printed in 1709. Later, in a book dated 1818, it is stated, "A plant named Kannon-chiku came from Ryukyu. It is a kind of Shyuro." Records of this kind indicate that *Trachycarpus* came to Japan before the *Rhapis* palms. Incidentally, *Rhapis excelsa* was introduced to Europe from

Japan in 1774, *Rhapis humilis* in 1837.

The first landing of *Rhapis* in Japan is said to have been at the port of Sakai, near Osaka. It was in 1672 that merchants in Sakai were licensed by the central military government (Shogunate) to trade with Chinese merchants and the Dutch. Until that time, contacts with foreigners were allowed only at the port of Nagasaki. The time was the dawn of a new Japan after many hundreds of years of seclusion from the world outside. Naturally there was an intense curiosity for anything new and foreign.

The merchants of Sakai were soon enriched through the legal and illegal importation of the attributes of civilization. They proudly lived in the western mode, sitting in Chinese chairs and drinking port with Portuguese *vidrio*. In the drawing room of such a merchant, on an ebony table, also from China, one would find a *Kannon-chiku* planted in an imported pot. It matched well the exotic mood of the room, and the owner found it an ideal house plant as it would grow in the shade. He presented it to the feudal lord, perhaps also with wine and blankets, in appreciation of the authority to import rifles for his lordship. The lord marvelled at this exotic plant. It was in pleasing harmony with the typical Japanese rooms of his castle. Besides, the plant could be admired equally from all directions, the leaf stems radiating in six directions, spiraling up the trunk clockwise so the sixth leaf would come directly above the first. The feudal lord offered it to the Shogunate in the capital, Yedo, now



1. The President of the Japan Kannon-Shyuro-chiku Association at the awarding ceremony of the 9th All-Japan Concourse, Hamamatsu City, April, 1972.

Tokyo, as a plant of good luck and esteem. The Shogun, in his turn, presented offshoots of his plant to other local lords, who treasured the gifts as symbols of honor.

Thus, *Kannon-chiku* and *Shyuro-chiku* found their way into the gardens and drawing rooms of the aristocrats and the rich. As time went on, and as the plants became more popular, some Samurai of lower classes began to grow them for side income. It afforded also a good means for the Samurai to approach personages of higher rank, and many followers appeared. The restoration of Meiji in 1867 abolished feudalism and the caste of Samurai. This change brought the plant of lords within the reach of the common people. At about this time, the striped or variegated *Kannon-chiku* appeared. It was first mentioned in a book published in 1839. As to the first variegated *Shyuro-chiku* (*Rhapis humilis*), no date for its discovery is recorded, but as tradition says it was known in the early Meiji era, it is assumed that the striped *Shyuro-chiku*

was introduced sometime before the Meiji Restoration. (From "Kannon-chiku and Shyuro-chiku" by Y. Okita.)

To sum up, the popularization of *Rhapis* began approximately 100 years ago, after 200 years of cultivation restricted to the privileged class. During this period, propagation was by division, as *Rhapis* is not disposed to produce seed in Japan. The climate is blamed for this lack, but more probably it was due to the dioecious character of the genus. It is remarkable that in the days before thermometers, heaters and glass houses, the subtropical *Kannon-chiku* was kept alive during the Japanese winters.

At that time, *Kannon-chiku* (*Rhapis excelsa*) was considered to be a dwarf variety of *Shyuro-chiku* (*R. humilis*) which had already been introduced and which could be planted out in gardens as it was the hardier. By and by, the difference between the two plants was observed, and in a recent book by T. Yoshida, the following characteristics are described:

	<i>Kannon-chiku</i> <i>Rhapis excelsa</i>	<i>Shyuro-chiku</i> <i>Rhapis humilis</i>
Leaves	Dark green, thick, minutely serrulate margin.	Light green, thin, faintly serrulate margin.
	Leaflets not many (maximum 12)	Leaflets many (maximum 32)
Stem	Height 2 m., diameter 2½–3½ cm.	Height 4–5 m., diameter 1½–2½ cm.
Root	Flexible	Less flexible and likely to break
Temperature	Cannot withstand minus 3°C. for more than 10 hours.	Withstands minus 8°C.
Varieties	86	9

There are more than 150 horticultural varieties of *Rhapis* now being cultivated in Japan, including seedlings and unregistered plants. Each registered kind is given a Japanese horticultural name, identified by the number, length, type, color and variegation, if any, of the leaves, and by the length and thickness of the petiole. These varieties are grouped into five clones:

Traditional clone—plants multiplied from plants imported in the old days from the Ryukyu Islands.

Formosan clone—plants imported from Formosa, or Chinese plants imported through Formosa.

Chinese clone—plants imported directly from China.

Imported clone—plants imported from countries other than Formosa and China.

Seedling clone—plants raised in Japan from seed.

In the old days any plant that looked like a *Kannon-chiku* was called by that name. There was no regard for names or origins. It is probable that other

species besides *Rhapis excelsa* and *Rhapis humilis* were imported and remain in the parentage of cultivated plants.

Between 1933 and 1939 some alert enthusiasts and nurserymen went to Formosa to collect *Rhapis*. At that time Formosa was a territory of Japan and there were no travel restrictions. These collectors probably brought back all of the different kinds of *Rhapis* being grown there at that time. Many of these imports were in a variety of leaf forms, and were sold at high prices as new kinds of *Kannon-chiku*.

The addition of these new kinds spurred to a peak the already intense interest in this plant. In 1938 the Japan *Kannon-chiku* Union was organized. Its first All-Japan Concourse was held in the next year, and the first Ranking Table was published in 1940. It contained 35 kinds of *Kannon-chiku* and *Shyuro-chiku*. The activity was great, and a real boom in *Rhapis* was under way. This, however, was quickly quenched by the outbreak of World War II in 1941, leaving behind it an episode when a profi-



2. At a contest hall.

teer of the boom donated the cost of an airplane to both army and navy. Many palms were destroyed during the war, but some plants did survive, and after

the cease-fire in 1945 cultural activity began again. By 1947 a new *Rhapis* association had been formed and named Nihon Kanso Kai (Japan Kannon, Shyu-



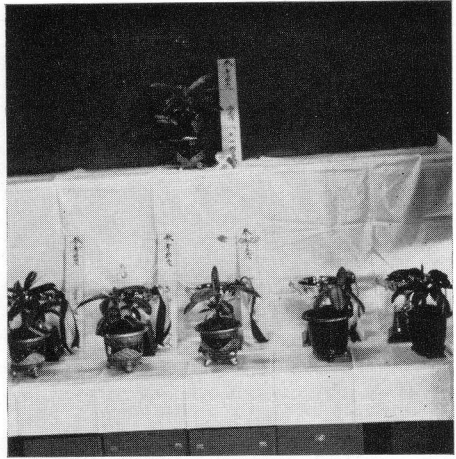
3. A main exhibition table with framed Ranking Tables.

ro-chiku Association). The ranking table was revised with 47 *Kannon-chiku* and 3 *Shyuro-chiku*, and the All-Japan Concourse was held in 1949, showing rapid revival of the feverish interest in *Rhapis*. Thus, the second boom began.

This time, variegated plants played the leading role. With improved techniques many variegated plants were produced from the Formosan clones, and exorbitant prices quoted for such plants inflated the boom until it was considered abnormal. At last, in 1951 a depression began and prices continued to decline until 1961. The reason was over-production of green plants from better heating systems and a large increase in the number of speculators. Some sophisticated collectors bought variegated plants reasonably during this period and carried them along until the third boom began. This one reached a peak in 1967, and then hit bottom in 1970. While it lasted, the fever was frantic and many beautifully variegated plants were developed and exhibited.

At present (July 1973) a fourth boom is getting under way. For the first time a new element is present—the purchase of *Rhapis* as an inflation hedge, as with gold or diamonds.

In 1972 a new star of the variegated *Kannon-chiku* was found among the seedlings raised by a Formosan enthusiast. It was brought into Japan, propagated and registered with the name 'Eizan Nishiki'. There are but a few plants, perhaps ten, of this kind in Japan, and it is the most expensive *Rhapis* of the present with prices quoted from \$20,000 to \$80,000 per plant. The next plant in rating is 'Nanzan Nishiki', another beautifully variegated plant from Formosa. It is more plentiful, perhaps with as many as fifty plants in the country, and the prices asked are \$15,000 to \$20,000. Going down



4. Prize winners and trophies.

the ranking table in descending order of importance, there are about forty kinds of variegated *Rhapis*.

The retail nursery catalogue prices of less important variegated *Rhapis* range from about Yen 500,000 = \$1,850 for a very good plant to Yen 200,000 = \$740 for a good one. The lowest-priced variegated plants from nursery catalogues are Yen 10,000 = \$37.50, and a large nursery in Tokyo requires a minimum purchase of \$1,000. Such is the scale of the *Rhapis* business in Japan.

Value does not depend on size, but on the refinement and elegance of a plant. A low-grown, densely foliated plant with evenly dispersed variegation on flawless leaves has the highest value. Parti-colored or over-abundantly variegated plants are evaluated only as mother plants for obtaining offshoots of desirable patterns. The way in which a yellow stripe is streaked on a leaf is frequently a matter of several hundred dollars.

As the variegated *Rhapis* are so much appreciated, many attempts have been made to induce variegation on green plants. Exposure to X rays or Gamma



5. An auction of professionals.

rays from Cobalt-60; Isotope bath; treatment with Alchyl compounds known to induce mutation, such as N. mustard dioxibutan, and anti-metabolic substances such as 5-Bromouracil; application of checking substance of nuclear fission such as colchicine, etc., etc. But all these trials were unsuccessful. (From "Kannon-chiku, Shyuro-chiku," by T. Yoshida.) Some scholars are trying to prove that the variegation is a work of a virus, but no conclusion has yet been given, and the cause of this phenomenon is a mystery for the moment.

The outstanding element in the culture of *Rhapis* in Japan is the standard practice of growing small plants only and always in pots. The finest exhibition plants range from 20 to 50 cm. (8 to 20 in.) in height. In semi-tropical and tropical countries when planted in the ground, *Rhapis excelsa* will reach a height of two meters, and *Rhapis humilis* a height of four meters. Japanese do not grow tall plants, which

are inconvenient to transport and to caress. When offshoots are wanted they are readily taken from small plants not over 50 cm. (20 in.) in height.

The pots used for *Rhapis* are so standardized as to be ritualized. They are of clay and are glazed black to gather maximum warmth from the sun. They come in sizes from 9 to 24 cm. (3½ to 9½ in.) inside diameter, and have large drainage holes. The form is urn-like with flat rim and a round bottom supported by three legs. Expensive variegated plants are usually contained in gorgeously decorated pots, with hand-painted, raised patterns, and often with gilt rims and legs. Such a pot will cost more than \$100. The beauty of the pot is not considered in the competitions, but naturally a pleasing match between pot and plant makes an elegant presentation.

The potting medium is coarse sand of weathered granite. This rather unusual medium, being without humus, imposes a stress condition on the plants.



6. *Rhapsis humilis* or *Shyuro-chiku* grown to mature size.



7. *Rhapsis humilis* 'Hakusei-den', a variegated clone.

This promotes deviations from the natural and normal foliage forms as well as striped variegations. According to Toshihiko Satake, the leading palm collector in Japan, when *Rhapsis* are taken from the pot and freed from, to quote him, "the severe potting condition consisting of the use of coarse sand" and planted in the ground, they will return to their original characteristics, even when their leaves are distinctly different from those of normal plants.

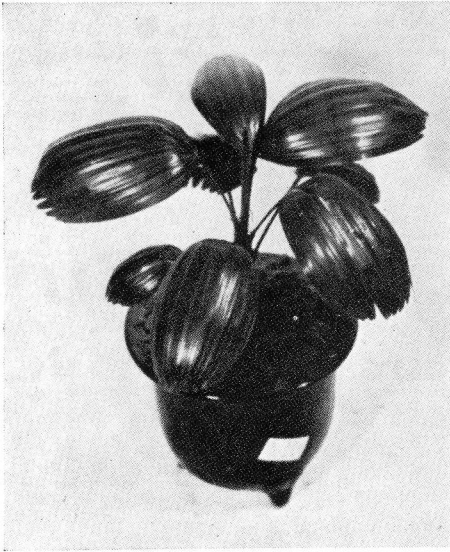
As for food, a liberal amount of manure is given to obtain offshoots from green plants, but it is given sparsely to variegated plants. In either case, because of the coarse medium, the effective elements of the manure are washed away by watering, and do not stay long in the pot. It is a secret of each grower how to give manures

and how often to water the plants. In spite of such care, some variegated *Rhapsis* will occasionally lose their striping or gradually enlarge the variegated portion until the entire leaf becomes albinized. Such a plant is called a weak plant, as against strong plants with a stable variegation.

All the variegated *Rhapsis* registered by the Association are considered to be strong plants. A condition of regis-



8. A clone of *Rhapsis excelsa* called 'Nanzan-Nishiki' is also variegated.



9. 'Mangetsu' is a clone of *Rhapis excelsa* from Formosa.

tration for variegated plants is that similar variegation should appear in at least three consecutive propagations—mother plant, offshoot and grand-offshoot.

The association Nihon Kanso Kai, or the Japan Kannon, Shyuro-chiku Association, is conducted by a forty-member board of directors, supported by 1500 direct members and a chapter in almost every prefecture in the country. A general meeting is held every year in November, when a nomination committee is elected to examine the applications filed for registration. The committee also compiles a new Ranking Table for the next year. The newly registered plants are introduced on the left column of the Ranking Table, and the ranking order of other plants is revised. The Association also holds an All-Japan Concourse from time to time, and generous prizes are given to the winners. The 8th Concourse was held at Hama-



10. *Rhapis excelsa* 'Zuiko-Nishiki' is grown in quantity.

matsu City in 1972; the 9th will be in Sakai in April 1974.

Apart from this association, scientific study of *Rhapis* is being conducted by a few scholars, of which the foremost is Toshihiko Satake, a director of The Palm Society. He has assembled one of the great collections of palms, with more than 450 species. Among the *Rhapis* are more than 40 kinds when species and varietal clones are counted together. The number of species of *Rhapis* is unique, and most of them do not appear to be in horticulture outside of his collection. Among them are the following:

<i>Species</i>	<i>Origin</i>
<i>Rhapis filiformis</i> Burret	Kuangsi, China
<i>R. gracilis</i> Burret	Kuangsi, China
<i>R. laosensis</i> Beccari	Laos
<i>R. micrantha</i> Beccari	West Tonkin
<i>R. multifida</i> Burret	China
<i>R. robusta</i> Burret	China

*Rhapis* with distinctive stable foliar characteristics designated informally as *R. "elegans," R. "grandifolia," R. "minor,"* and *R. "ptychophylla."*

Mr. Satake considers that the countries of origin given for these palms are correct but that some of the names of the plants are assumptions due to the incomplete taxonomy on the genus.

A recent solicitation of representa-



tive nurseries in Japan showed that these species of *Rhapis* are not available from them. On the other hand, they do offer many kinds of named clones.

In a recent letter Toshihiko Satake stated that when the Ranking Table for *Rhapis* was first published 15 years ago he procured all of these plants listed for observation in cultivation. After growing them for some time, it became impossible to differentiate between most of them. Even the plants that deviated the most in appearance from that of the typical *Rhapis excelsa* form returned to it when planted in soil.

He went on to say that there are, none the less, plants that are stable and hold their variegation even when planted in the ground. In the unstable plants the white or yellow striping will burn and turn brown in bright light. This will happen even with stable plants except for the following three: 'Zuikon Nishiki', 'Nazan Nishiki', 'Eizan Nishiki'. The stability of the first includes hereditary traits. Mr. Satake stated that he set seeds on this kind and obtained seedlings which were variegated white and green.

There are many reasons why *Rhapis* palms are so popular and so widely grown in Japan, and to an extent not found elsewhere. To begin with, these oriental palms in Japan combine very nicely a hobby with a profit. Further, the development of the variegated leaf changed a plain, all-green plant with inconspicuous flowers into one of vivid,

decorative value. Of course, the activity of the *Rhapis* Association is an important supporting factor.

The principal reason, however, is that in Japan *Rhapis* are grown in pots and are not planted out. This makes it easy to shelter the plants inside during winter and for people without gardens to grow them. Besides, with the plants close at hand close observation with better care is easy.

A pine tree in the garden will reach ten meters without particular care. This does not satisfy Japanese lovers of plants. They want to bring into their rooms a fifty-year-old pine tree potted in a small container, and to be able to live with it in close proximity. The unique art of "Bonsai" was developed for this purpose. The meaning of "Bonsai" is literally tray-culture, referring to the traylike, shallow containers used. A pot of *Rhapis* is not Bonsai in a strict sense, but it is called that in a wider meaning. This is natural, as many of the techniques of growing Bonsai are used with *Rhapis*.

For these many reasons *Rhapis* is not grown tall in Japan. Very recently, however, with Japanese living more westernized, demand has appeared for full-grown *Rhapis* for the decoration of halls and entrances, and some nurserymen have started production of such plants in large containers. These are all-green plants at present, but some day a big, variegated *Rhapis* with beautiful stripes may win the first prize at the Concourse.