The Role of Garden Plants in Modern Culture
- Focusing Japanese Garden Plants -

Kaihei Koshio¹, Tae-Soon Kim², Jeong-Hwa Shin³, Won-Seob Song⁴ and Hee-Ock Boo⁵*

¹Department of International Agricultural Development, Tokyo University of Agriculture, Tokyo 156-8502, Japan
²PHYTO M&F Co. Ltd., BI Center, Chosun University, Gwangju 501-759, Korea
³Korea Basic Science Institute, Seoul Center, Seoul 136-713, Korea
⁴Department of Horticulture, Sunchon National University, Jeonnam 540-742, Korea
⁵Department of Biology, Chosun Universitry, Gwangju 501-759, Korea

Abstract - The recent disaster of earthquake and tsunami on March 11, 2011 severely attacked East Japanese cities and people, and in addition, the accident of nuclear power station will inevitably damage the agricultural activities there. The economical depression influences on the horticulture and floriculture industry as well, through the reluctant consumption all over the country. Such a situation reflects a conventional perception that the garden plants or ornamental plants have been regarded as a symbol of capitalism, representing the success, luxury, beauty or other metaphors indicating the winners of business war. But as the word “culture” means “cultivation” originally, horticulture or floriculture should have played some roles in cultivating lands as well as cultivation of human minds, leading to develop a modern “culture” which may lay emphasis on personality, originality, partnership, cooperation, diversity and so forth. In this article, a brief history of garden plants in Japan, as well as some current movements in Japanese horticulture and floriculture, is reviewed with some commodities which possess messages on creating a new humane culture.

Key words - Capitalism, Functionality, Imaginativeness, Message, Metaphor, Originality, Smallness, Symbol, Uniqueness

Introduction

Brief History of Japanese Garden Plants

The first description of resource plants: Chronicle of Japan VIII–I–V

In the myth of Japanese establishment, one story tells that the resource plants of Japan were prepared by “Susanoo who said that there were gold and silver in Korean Peninsula, but in our country we had no such treasures. Then Susanoo removed his beard and blew them, so grew cedar trees. He removed chest hair and blew them, so grew cypress trees.” As the myth mentions, Japanese cedar (Cryptomeria japonica) and Japanese cypress (Chamaecyparis obtusa) are thought to be originated in Japan and there found many great old trees. They have been used for a variety of purpose including the construction of houses, shrines, temples, bridges, as well as the prevention of flood.

Introduction of useful crops from neighboring countries

Many useful edible and ornamental crops such as radish, citrus, taro, and chrysanthemum were introduced from China, Korea or Southeast Asia before 5th century. Chrysanthemum is thought to be a symbol of Japanese mentality as indicated in “The Chrysanthemum and the Sword” written by Dr. Ruth Benedict (1946).

Chrysanthemum was adopted as an Imperial heraldry and it is also printed on Japanese passports (Fig. 1). The fact can be interpreted that all the Japanese are considered to be the subjects of Emperor, and thus some, including me, are reluctant to use this passport. Chrysanthemum fair was recorded to be held in Kyoto as early as in 1713. Certain varieties of Chrysanthemum have been used for edible purpose as well as medical purpose including anti-mosquito bite.

Pyrethroid was identified from Chrysanthemum cinerariaefolium as a powerful insect repellant ingredient (Fig. 2), which effects on nervous system of insects without harmful effects on human being. During 7–9th centuries, delegates dispatched to China brought back vegetables like eggplant, cucumber,
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pea and lettuce, and flowers like peony and morning glory. Morning glory seeds were at the first time introduced as a laxative. At the end of 12th century, Zen monk introduced the Bonsai (miniature potted trees) to Japan and during 15-16th centuries, the flower arrangement was developed along with the invention of tea ceremony. Wabisuke cultivars of *Camellia japonica* were bred for this special purpose at that time.

**Introduction of Japanese resource plants into Europe**

There are three famous books which introduced Japanese garden plants and ornamental plants to Europe during 18-19th centuries. Engelbert Kaempfer’s *Ameonitates Exoticae* (1712) introduced many Japanese plants to Europe including *Ginkgo biloba*. Johann Wolfgang von Goethe was known to have made a poem entitled with the exact scientific name of this tree. Kaempfer traveled Japan from 1690-1692 and the 5th chapter of his book was dedicated for Japanese plants. Those plants were not written in scientific names because he was born before Carl von Linné. Carl Peter Thunberg, a Swedish successor of Linné, visited Japan from 1775 to 1776 and collected 530 plant species on which he gave scientific names according to Linné’s method. He published *Flora Japonica* in 1784, 5 years after his returning to Europe. Philipp Franz Balthasar von Siebold (1796-1866) introduced many ornamental plants to Europe with their precise pictures in *Flora Japonica* written in 1824. He had a great interest in Japanese ferns as well and brought back many specimens to Europe. Many dwarf cultivars or rare varieties were mentioned in his book and it indicates the breeding activities of Edo era. Siebold mentioned that *Camellia japonica* is so to speak the rose of winter. He put a scientific name of a certain variety of Hydrangea as Otakusa according to the name of his Japanese wife. He insisted that the Japanese horticulture reflected the animistic attitude of Japanese, worshiping the dignity of nature, of its greatness or strangeness. Such a tradition is somehow still alive in modern horticulture in Japan.

**The proliferation of horticulture in Edo era**

In Edo horticulture, people enjoyed the variation of ornamental plants which may express the cultural background to evaluate personality, originality, strangeness or rareness in addition to beauty. A wide variety of morning glory is now contributing to the genetic study of flower morphogenesis.

**Horticulture before and the midst of War time**

After the opening of a country to the world, Japanese government laid a great emphasis on enriching the nation and building up the defenses, which resulted in the neglect of horticulture. My grandfather, for example, was criticized as a betrayer by his neighbors when he grew poppy flowers instead of sweet potato in his small garden. People lost their warm heart to love flowers and neighbors in such hard days, which finally led to the reckless invasion war.

**Garden plants and ornamental plants after World War II**

Consumption of garden plants and ornamental crops increased along with the economic growth and came to represent the richness or wealth. The rich were proud of their large gardens (Fig. 3) planting invaluable trees (Fig. 4) and presented luxury flowers of Phalaenopsis (Fig. 5), Cattleya (Fig. 6), or Cymbidium as a gift.

**Horticulture and floriculture in future**

The recent economic depression, along with the frequent
natural disasters like earthquake and tsunami this time, brought about the ice age of horticulture and floriculture as if it were in the war time. However, I think gardening and flower culture should not be a pure business of only pursuing profitability, but rather be a recovering process of our humanity in this very modern age. In Japan, the life style of most of common people is represented by less places to grow plants, less money to buy plants, less rooms to display them and less time to enjoy them. In my opinion, horticulture and floriculture reflect our level of humanity, and thus the garden plants should play a role in changing such situation by creating a new culture. Such a culture de novo might well prepare another viewpoint than capitalism, such as 1) smallness and high portability, 2) metaphors or messages, 3) originality or uniqueness, 4) imaginativeness and 5) functionality, rather than 1) greatness, 2) luxury and 3) colorfulness or beauty as pursued before.

Smallness and high portability
Smallness and high portability meet with our modern way of living in simple house and also contribute to the aging farmers to reduce hard labors handling with heavy plants. Small plants make efficient use of spaces and alleviate heavy labor of the aged farmers. In this green house, some orchids are grown on the trays, and others are hung on the walls or the edge of shelves, with ferns under them (Fig. 7). Space is efficiently used in cubical way.

An orchid in a coffee cup (Fig. 8) achieves both portability and fashionability, at the same time fits with the casualty of common people. Neofinetia falcatacan, a Japanese original orchid, can be hung on a wall after attaching to tree fern or cork (Fig. 9). This type of products has a metaphor of unity or harmony as well as the effort of clinging on against an unstable condition.
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Fig. 7. Efficient use of green house with small pots and a variety of plants with different characteristics in requirements for solar radiation.

Fig. 8. Orchids in coffee cups.

Fig. 9. Orchid united with cork.

Fig. 10. Orchid on the board with a direct message.

Fig. 11. Making use of recycled glass wastes as planting material.

Fig. 12. *Pyrrosia* sp. var white tiger.

Metaphors or messages

Garden plants and ornamental plants have a potential to express some metaphors or messages to the people in sorrow, unrest, lonely and depression. They can be comforted by plant themselves and/or with direct letters (Fig. 10).

Fig. 11 shows *Sansevieria trifasciata* planted in media made from recycled glass. These media remind us an importance of recycling, though the media might not be the best for the plant growth itself and it costs rather expensive.

On the contrary to prior decades, we can now connect with ferns to ourselves which usually grow in dark or shadow condition, not usually gathering footlights so much. When we observe ferns like in Fig. 12, we promote ourselves to decide to live steadily and work honestly neglecting the eyes of other people.

Originality or uniqueness

Mass production is out of fashion now and originality or uniqueness is more important factor reflecting the individualism
Fig. 13. *Leptotes bicolor* planted in a stone.

Fig. 14. *Epidendrum* planted in cork.

Fig. 15. A variety of *Lepisorus thunbergianus* appearance.

or citizenship in the society of diversity, rather than the uniformity in totalitarianism. For example, the combination with stone (Fig. 13) or cork (Fig. 14) makes each product unique with some natural atmosphere.

Imaginativeness

Garden plants and ornamental plants have their own metaphors which can make us creative, feel some humor and enjoy our daily lives. The variation of *Lepisorus thunbergianus* (Fig. 15) makes us imagine how the single plant species widely change
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Fig. 16. A variety of Pyrrosia hastate with different origins.

Fig. 17. Collection of bee swarming by Cymbidium floribundam.

its appearance and also sets us free from uniformity. It also makes us feel the importance of minority or rareness in which sometimes even deformation turns into invaluableness.

The slight changes and their symbolic figures of Pyrrosia hastate (Fig. 16) originated in Japan, Korea and Mongolia can be a metaphor of originality and commonness among three countries and at the same time reminds us brotherhood between each other.

Functionality

Garden plants and ornamental plants sometimes possess other functions than just being observed, which can be another attraction to the consumers in coming age.

Cymbidium floribundam is used to catch a bee swarming (Fig. 17) and its role is estimated to increase due to the colony collapse disorder of the insect. Tillandsia usneoides can be enjoyed as an air cleaner inside the room, with its elegant fragrance from small and cute flowers (Fig. 18).

Acknowledgement

Special thanks are dedicated to my father, the chief of Koshio Tropical Island, who offered many rare plants as the materials of this article.

Literature Cited


(Received 22 April 2011; Accepted 23 May 2011)