DAVIDSONIA

VOLUME 1 NUMBER 2 *Summer 1970*

新渡戸記念庭園

NITOBE MEMORIAL GARDEN

Cover

A pen and ink wash by Mrs. Lesley Bohm of the Nitobe Memorial Garden. This Garden forms an important part of the Botanical Garden. Opened in May of 1960 the Garden represents an outstanding example of traditional Japanese landscape architecture. This number of "Davidsonia" features the Nitobe Memorial Garden.

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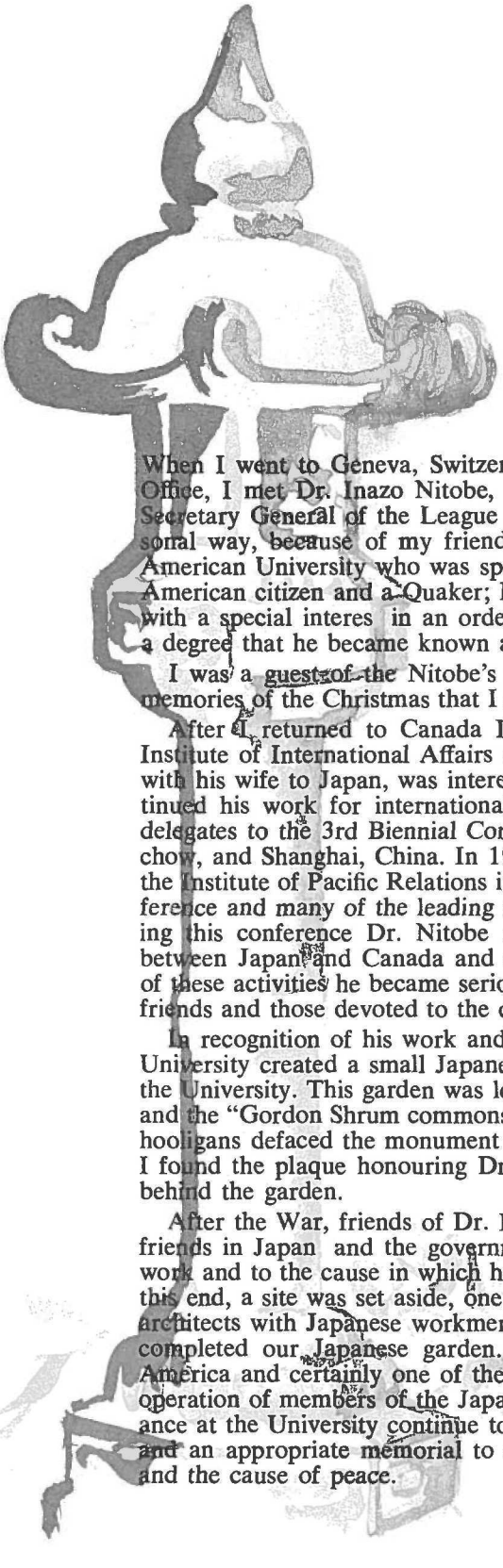
Acknowledgements

The pen and ink illustrations are by Mrs. Lesley Bohm. Dr. Norman A. M. MacKenzie, President Emeritus, kindly contributed his personal recollections of Dr. Nitobe. Dr. John W. Neill, Department of Plant Science, The University of British Columbia, and Director of Landscaping for the University at the time of construction of the Nitobe Memorial Garden, contributed the article on the history and development of the garden. Dr. W. B. Schofield, recent author of a handbook on the Mosses of British Columbia and member of the Botany Department at The University of British Columbia, has written about the mosses in the garden. The poem found on page twenty is an original and unpublished work by a former student at the University, Mr. Rod Humeniuk. Mr. T. Makihara prepared the Japanese calligraphy on the cover. The photographic credits are as follows: page 11, Dr. John W. Neill, page 15, U.B.C. Extension Department, all other photographs by Dr. Roy L. Taylor. Several other members of the Botanical Garden staff have contributed to this special number, but no one has contributed more to making the story of this garden a success than Mr. Tomomichi Sumi. Mr. Sumi has been maintaining the garden with care since it was opened ten years ago.



Dr. Inazo Nitobe 1862-1933

NORMAN A. M. MacKENZIE

When I went to Geneva, Switzerland, in April 1925, as legal advisor to the International Labour Office, I met Dr. Inazo Nitobe, a member of the House of Peers of Japan, who was the Under Secretary General of the League of Nations. I came to know Dr. Nitobe and Mrs. Nitobe, in a personal way, because of my friendship with Mrs. Nitobe's niece, Lydia Morris, a graduate of an American University who was spending a year or two in Geneva with her aunt. Mrs. Nitobe was an American citizen and a Quaker; Dr. Nitobe, as far as I know, was also a Christian and a Quaker with a special interes in an orderly and peaceful world and in the prevention of war. This to such a degree that he became known as an "Apostle of Peace."

I was a guest of the Nitobe's in their own home, on a number of occasions and have happy memories of the Christmas that I spent with them.

After I returned to Canada I became interested in, and an active member of, the Canadian Institute of International Affairs and the Institute of Pacific Relations. Dr. Nitobe, who had retired with his wife to Japan, was interested in similar activities and organizations in his country and continued his work for international co-operation and peace from that base. In 1931 we were both delegates to the 3rd Biennial Conference of the Institute of Pacific Relations, which met in Hangchow, and Shanghai, China. In 1933 he came to Canada to attend the 4th Biennial Conference of the Institute of Pacific Relations in Banff. This was a very important, interesting and exciting conference and many of the leading men and women of the countries of the Pacific attended it. Following this conference Dr. Nitobe remained in British Columbia working for better understanding between Japan and Canada and addressing public meetings in the interest of peace. In the course of these activities he became seriously ill and died in Vancouver on October 15th, 1933. All of his friends and those devoted to the cause of peace were shocked and saddened by this tragedy.

In recognition of his work and as a memorial to him, his friends in British Columbia and at the University created a small Japanese garden and erected an appropriate memorial on the Campus of the University. This garden was located in the area west of the West Mall where students' residences and the "Gordon Shrum commons" were later constructed. During World War II, ignorant and stupid hooligans defaced the monument and the memorial garden. When I came to the University in 1944 I found the plaque honouring Dr. Nitobe had been torn from its base and thrown into the bush behind the garden.

After the War, friends of Dr. Nitobe and members of the Japanese community here, others of his friends in Japan and the government of Japan agreed that a permanent memorial to him, to his work and to the cause in which he was interested, should be erected on the Campus of U.B.C. To this end, a site was set aside, one of the most distinguished of the Japanese landscape gardeners and architects with Japanese workmen were brought to the Campus from Japan and they laid out and completed our Japanese garden. This is one of the most authentic Japanese gardens in North America and certainly one of the most attractive. I am delighted that the University with the co-operation of members of the Japanese community and of students and staff from Japan in attendance at the University continue to look after this garden so that it is a place of beauty and peace and an appropriate memorial to a great man who devoted his life to the cause of his fellow men and the cause of peace.

Nitobe Memorial Garden—History and Development

JOHN W. NEILL

It has been said that a garden in Japan is a representation of the scenery of the country, though it is essentially a Japanese representation. Although it is an interpretation of nature, it is not intended to be a realistic reproduction. The significance of this form of art is best understood by the Japanese who by tradition have inherited an appreciation and enjoyment of nature as expressed not only in the garden but also in their arts and many of their customs.

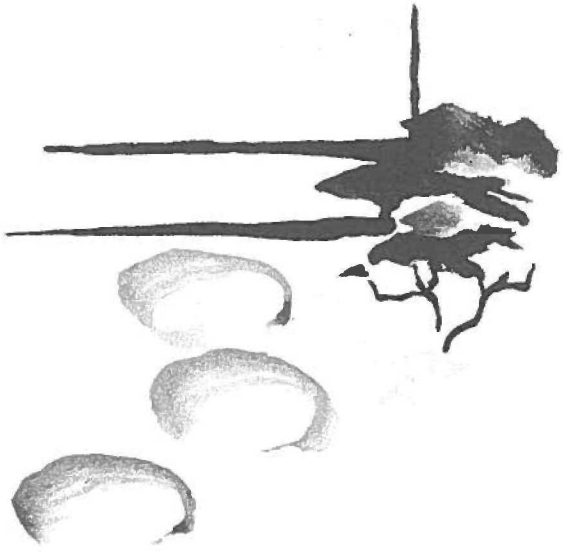
Was it possible, then, to have a successful Japanese Garden in Canada? This was the question asked by members of a President's Committee formed in 1959 to plan for such a Garden at The University of British Columbia. The committee consisted of interested Faculty members from various University departments, a representative of the Japanese-Canadian community, with Mr. Muneo Tanabe, then Consul for Japan in Vancouver as an ex officio member. All agreed that the secret of success was dependent on two principal factors: engaging a suitable landscape architect in Japan to assure authenticity in design and secondly, but equal in importance, maintaining an academic objective in the entire undertaking.

At this time a fund raising campaign was underway. The University assumed most of the cost of the Garden, but some grants were received from The Canada Council and The Leon and Thea Koerner Foundation. Contact was established with the Japan-Canada Society in Tokyo where over $21,000 was collected for the project, with the understanding that this amount would be used mainly for purchases of material in Japan for use in the Garden. Mr. Tanabe and Dr. George Ishiwara visited the various Japanese Canadian communities in B.C. and were successful in obtaining over $7,000. This amount was spent on purchases of plant material, lanterns, etc., mostly in Japan.

Through the good offices of the Consul, who later was appointed Consul-General, the Government of Japan selected Professor Kannosuke Mori from Chiba University to design the Garden. Mr. Mori arrived early in 1959 and was with the University until after the official opening of the Garden in June, 1960.

The University was particularly fortunate in this selection, for Professor Mori understood that he was to design and create a "Japanese Japanese Garden in Canada", not a "Canadian Japanese Garden". Having spent a lifetime in the academic environment, he understood, too, the need to relate his creation to the University community.

The site was selected, a forested area in the northwest section of the campus, along Marine Drive. This 2.2 acre portion of the University was judged to be safe for all time—no danger of intrusion by other buildings and services. It also was conveniently related to International House.



The design phase lasted approximately three months. During this time the Garden was planned in detail. Professor Mori was then persuaded to stay on to supervise its construction. That this was a wise decision became more evident as time went on. He personally directed the placement of each rock and the planting of each tree and shrub.

Stones for the Garden were selected from various sections of the Lower Mainland: large and small, colorful rocks from near Harrison Lake for the waterfall and stream, stones with character from Britannia Beach for the Tea Garden and local boulders for the margin of the lake.

Professor Mori explained his stone work in a letter to the author written a few days before his untimely death, after returning to Japan: "In the Japanese Garden at U.B.C. I was most interested in arranging the rocks. I tried a bold treatment with such monotonous stones as used around the lake, doing my best to arrange them with some freshness. I used my own method of arranging the somewhat colorful stones at the waterfall and streams, hoping that people who see them will understand that some aspect of polychrome can be found in a Japanese Garden. In the Tea Garden I used the river rocks which we brought down from Britannia Beach. They are too light and dry now, but after the trees in this part of the Garden grow to some size, the rocks will improve in appearance. I will be delighted if the beauty of the Garden is understood gradually by the people who see it."

Ten years of weathering and growth of plants in the Tea Garden have combined to enhance this very fine stone arrangement (photograph on page 12). It is in the opinion of many Mr. Mori's finest achievement.

During the early stages of construction the Garden took shape very quickly. The area of the lake was cleared completely, but a good deal of the natural forest was retained. Excavation from the lake, nearly one half acre in extent, was used to shape up the major "mountain" and the pleasant slopes along the lake. In this operation the balance of nature was retained. No soil was removed from the

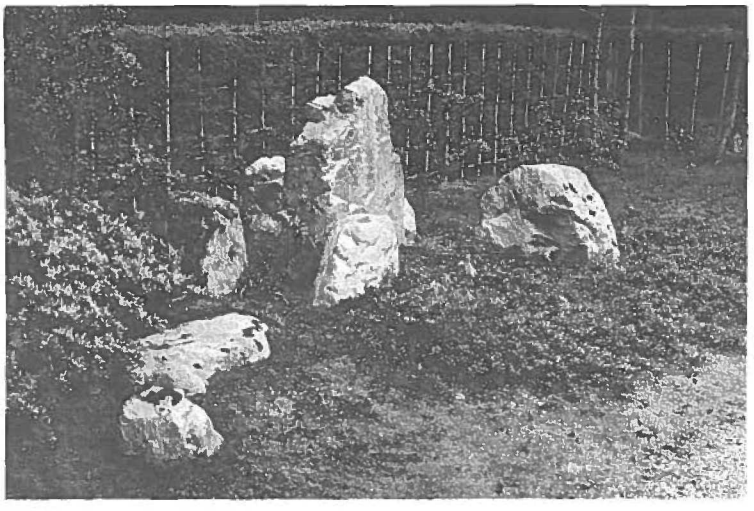
site and none was brought in. According to custom, one island was retained in the lake, later to be connected with the mainland by a bridge.

Once the contouring was complete the bed of the lake was completely waterproofed, using bonded sheets of asphalt felt. This seal proved to be inadequate, however, and the lake was later drained so that the entire area could be treated with a seal coat. No trouble has since developed.

Fish have since been introduced into the lake. In 1962, 10,000 goldfish arrived by air from Tokyo, and two years later 100 large, colorful carp were shipped over. These were purchased by the Japan-Canada Society in Tokyo. Most of the goldfish became casualties to the birds, but the large carp have survived, offering a colorful attraction to the visitors.

Water is constantly recirculated to the top of the "mountain", where it flows down the rock-lined stream and over the waterfall. Movement of water is from east to west in the traditional manner, excess water escaping through the iris garden to the west. Level of the water is controlled in the iris garden, so that they can be flooded when in bloom, as is customary.

The iris garden was not permanently planted until 1961. Arrangements were made with the Meiji Shrine in Tokyo, during a visit to Japan by Dr. Ishiwara and the author, for a shipment of some of their finest varieties. These are maturing nicely now and are at their best during the month of June.

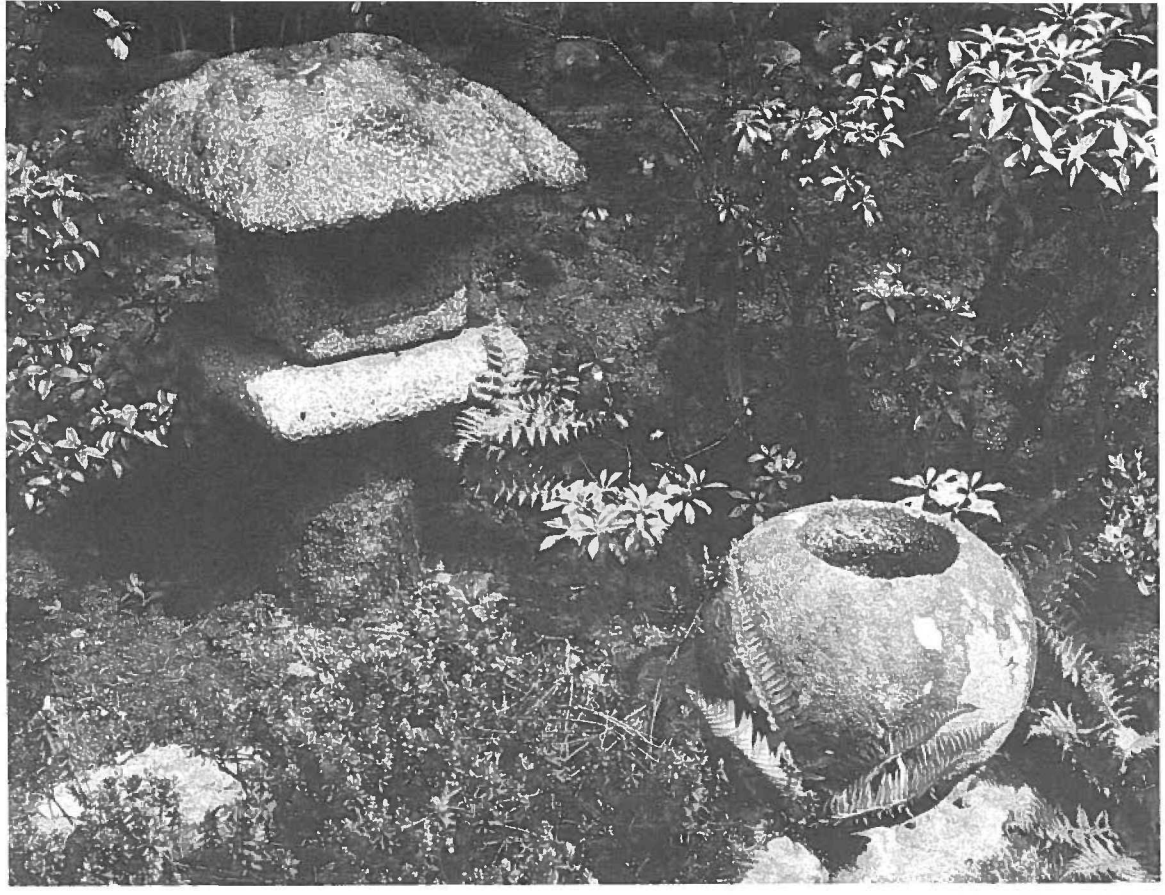


Tea garden

It is interesting to note that Professor Mori was quite content to use native British Columbia plant materials and other plants that are customarily used in our landscape. His opinion was that our forests are similar and we share with the Japanese people an appreciation of the broad leaved evergreen shrubs, azaleas and flowering cherries. Retaining some of the natural forest would help to give immediate scale to the garden and an early sense of maturity. He realized, too, that our native pines could be trained in the typical Japanese fashion, so there was no need to import them. Some of the Japanese Maples and Flowering Cherries, most of the azaleas, and a variety of other shrubs were brought over from Japan. Trees and shrubs from local sources included Douglas Fir, Hemlock, Vine Maple, Huckleberry, Salal, False Box, Oregon Grape, Labrador Tea, Kinnickinick collected from various sections of this area. Other plants were obtained from the University nurseries.

The first lantern to be placed and certainly the most impressive lantern in the Garden, was the Nitobe Memorial Lantern. It had been located elsewhere on campus. It was moved to the new location, in a setting of tall trees, a special point of focus and the reason for the name which was given to the Garden.

Most of the other lanterns were from Japan. These include the "snow scene" lantern on the island and two low, very old lanterns near the hand basins in the tea garden. Professor Mori agreed that three of the lanterns offered to the Garden by Miss Florence Fyfe-Smith were acceptable and



these were placed, one in the Tea Garden, the other two along the main paths of the Garden. They are of the "Kasuga Shape" type, as is the lantern near the entrance to the Tea Garden. The lantern at the south end of the lake is "Lemon Tree Shape".

These lanterns are architectural ornaments in the Garden. They have been selected to harmonize in scale and character with other features of the landscape, to symbolically light a pathway or, again symbolically, to cast a beam of light across the water. They customarily are not lighted. The "Snow Scene" lantern is said to best appreciated when covered with snow, as a fresh fall of snow brings a special delight to the Japanese Garden.

A fine, old Seven Storey Pagoda was placed above the path along the north side of the Garden. The Pagoda is Chinese in origin. Its use in the Japanese landscape can be traced back to the earliest Japanese garden development.

While the lanterns and plants were being selected, construction continued and attention was focussed on the bridges. The principal bridge is the gracefully arched "Earth Bridge". It was constructed in the traditional manner with bundles of faggots laid across a timber framework, then covered with several inches of soil and fine gravel. It is supported by granite pillars. The bridge leading to the island is of the level "Wooden Bracket" type. Most interest, however, is aroused by the "Yatsu-hashi" bridge, leading one through the iris garden in a leisurely zig-zag fashion. The simplest bridge is that over the stream leading from the waterfall. It consists of two level granite slabs placed side by side.

Paths were constructed, following Professor Mori's plan, to lead one through the garden, over the bridges past many viewing points. The visitor to this type of "stroll garden" is encouraged to follow the pathways in his own time, stopping to appreciate the vistas which open up before him as he crosses a bridge or catches a glimpse of the Tea House across the water. Bamboo hoops, similar to those used along the paths of the parks in Tokyo, serve as a polite remainder to the visitor that he should stay on the path.

That the gardens of Tokyo, rather than the ancient temple gardens of Kyoto, served as the principal source of inspiration to Professor Mori is obvious from the extensive areas of lawn in the Garden. All of the slopes leading up from the lake were seeded. The principal grass used was

Merion Bluegrass, thought to be similar in texture to *Zoysia* which is used in Tokyo, but not suitable for Vancouver conditions. This expanse of lawn helps to give scale to the Garden and provides an attractive setting for the cherries and mounds of azaleas when they are in bloom.

A sense of enclosure of the entire Garden was considered by the designer to be of great importance. A hemlock hedge was established along the east side and laurels were planted inside the fence which enclosed the whole Garden. Ten years' growth in this and other planting both inside and outside the fence have helped immeasurably to take the visitor away from his world into a little bit of Japan.

The fence leading from the entrance gates and around the Tea Garden, one of the features supplied by the Japan-Canada Society in Tokyo, is a "Nightingale Fence." It is constructed of irregular twigs (possibly *Ilex integra*) arranged vertically and held by horizontal cross-pieces of bamboo. At the entrance the fence is all bamboo, arranged vertically and tied together. The gate itself is a traditional "Thatched Roof Gateway".

Materials for the Gateway and the Garden Arbour were shipped over from Japan. The Arbour, overlooking the lake, is intended for resting after strolling and before entering the Tea Garden. Like the Gateway, the Arbour is rustic in nature, fitting well into the landscape.

The final phase of construction consisted of erecting the Tea House and completing the Tea Garden.

The Tea House was completely prefabricated in Japan, knocked down and re-assembled on the site. Two craftsmen were selected in Japan and sent over for this task. The structure was a contribution from the Society in Tokyo.

The House is a contemporary Tea Ceremony House, constructed according to traditional design as specified by the Landscape Architect. It is used only on special occasions for Tea Ceremony. Although the entrance door is locked when not in use, the shoji, or sliding doors, are kept open during the summer months so that visitors may see the inside detail.

The normal procedure for Tea Ceremony is that guests would stroll through the main Garden, then enter the Tea Garden, going directly into the Tea House, leaving their shoes at the entrance. After some time in the main waiting room where they may look out into the Tea Garden, they leave through the sliding doors, stepping into garden slippers, then along the stepping stone path to a small waiting arbour. When summoned to Tea Ceremony by the hostess, they proceed along the path, dipping their hands in the Water Basin (Tsukubai), then through the small sliding doorway to the Tea Ceremony Room.

The Tea Garden—a complete garden within a garden—was designed with special emphasis on scale. More attention was paid to detail in the placement of stones, shrubs and small trees, in the skilful use of materials to create miniature vistas and in scaling down the taller elements by pruning. Here there is real unity in design, the house and garden together symbolizing the true spirit of the Tea Ceremony, peaceful contemplation with pleasant associations.

Great tribute was paid to Professor Mori at the official opening of the Nitobe Memorial Garden in May 1960. Many distinguished guests from Japan joined with members of the University community to celebrate the occasion. There was a Tea Ceremony, conducted by Mrs. Hara, an outstanding authority on this art and a demonstration of Ikebana, Japanese Flower Arrangement, by Mrs. Hiraga, who conducts a school of Ikebana in Tokyo. These two authentic events were arranged for the University by the Canada-Japan Society in Tokyo. The reception was held in International House.

In May, 1962 the University was honored by a visit from Dr. Iyemasa Tokugawa, President of the Japan-Canada Society in Tokyo and Mrs. T. Toko, the Secretary. At this time an anniversary celebration was held. The principal feature was the unveiling of a plaque near the entrance gate recognizing the achievement of Professor Mori. It is worded in English and Japanese as follows:

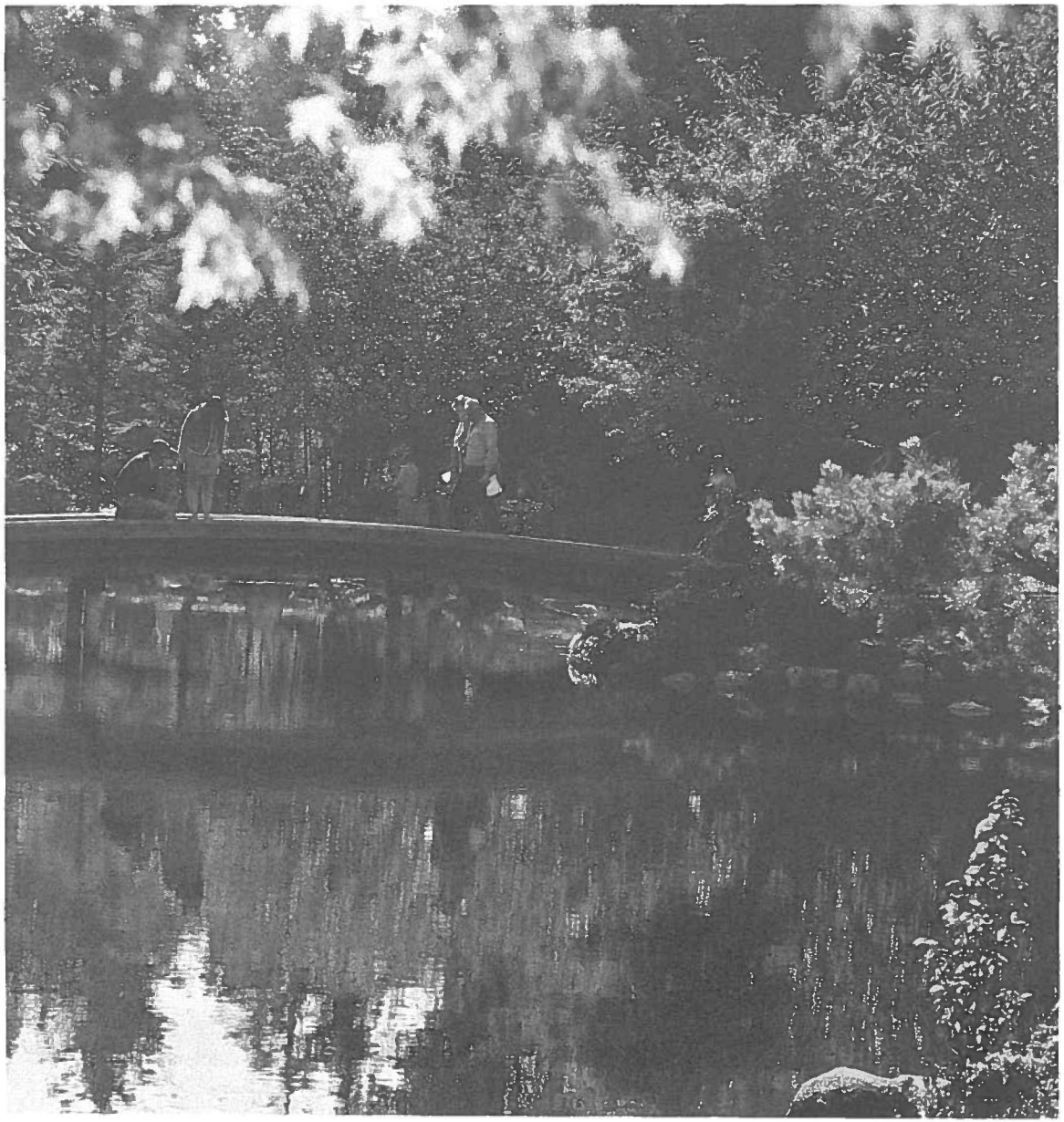
> "This Japanese Garden in Memory of Dr. Inazo Nitobe was designed by Professor Kannosuke Mori of Chiba University, a distinguished Japanese Landscape Architect, and was his last creative achievement. The creation of the Garden was made possible by the help of the Government and people of Japan and the Japanese Canadians of British Columbia."

Ten years have passed since the Garden was officially opened. These have been important formative years during which it has taken on a substantial degree of maturity. The University, encouraged by the academic members most concerned, has accepted the challenge to maintain the Garden in the best Japanese tradition. Mr Roy Sumi, who is responsible for its maintenance, was carefully tutored by Mr. Mori during his fifteen months with the University. He will impart to his successors the knowledge of the special techniques necessary to retain its character.

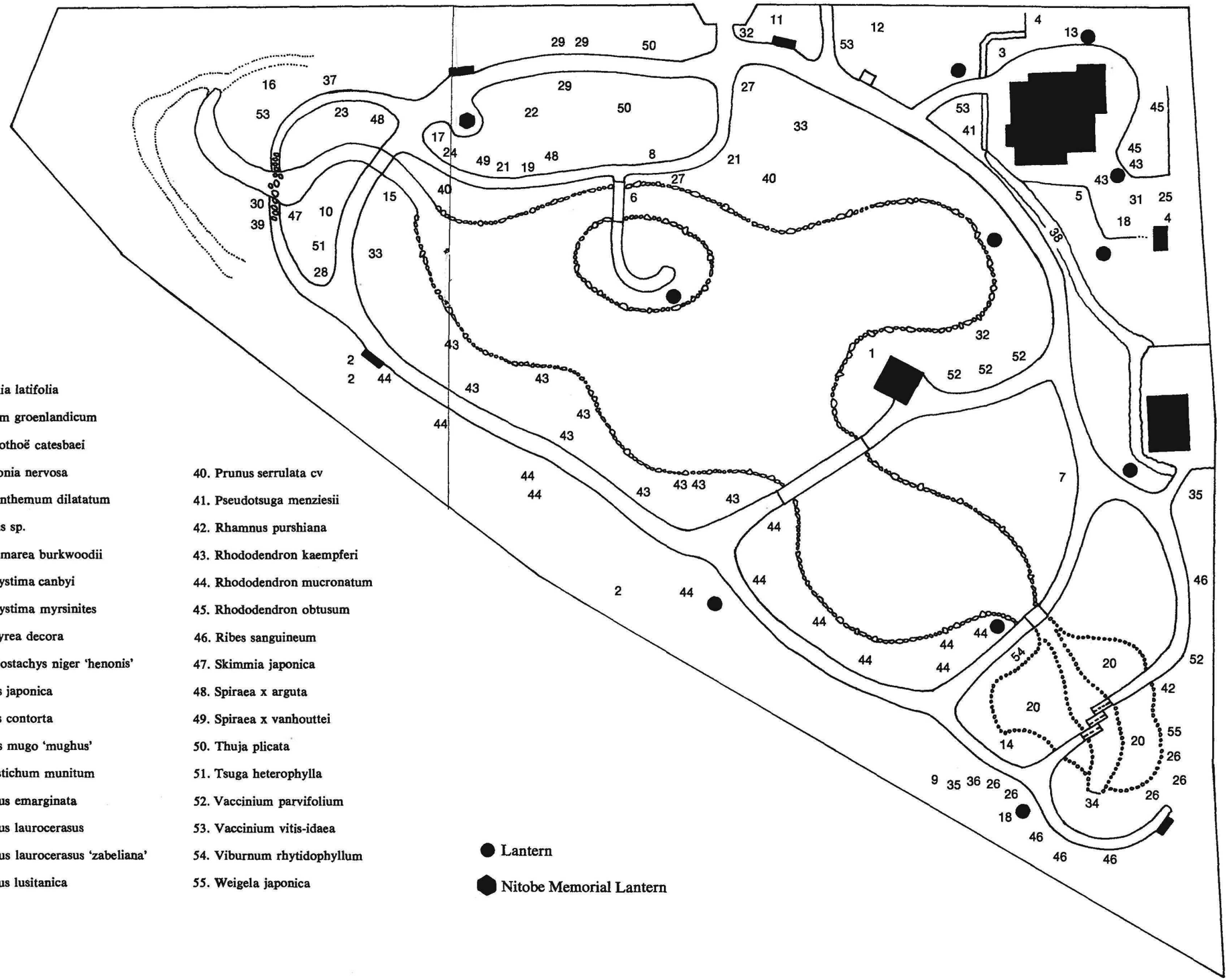
The Nitobe Memorial Garden is an integral and very important part of The University Botanical Garden. It is used by and serves as a source of inspiration for faculty and students in Asian Studies, Fine Arts, Architecture, Landscape Architecture and other University Departments. It is a favorite spot for relaxation and contemplation for countless students and staff members.

During the first year of operation the Garden had over 40,000 visitors from the general public. In 1969 over 80,000 came to experience "a little bit of Japan" in Canada.

All who knew him regret that Professor Mori did not live to return to Canada to see how his great creative achievement has developed, for it is truly a *"Japanese* Japanese Garden in Canada".



MAP OF GARDEN



KEY TO SELECTED PLANTS

1. Acer circinatum
2. Acer palmatum
3. Arctostaphylos uva-ursi
4. Arundinaria japonica
5. Arundinaria veitchii
6. Athyrium filix-femina
7. Aucuba japonica
8. Berberis buxifolia 'nana'
9. Blechnum spicant
10. Chaenomeles lagenaria
11. Chamaecyparis pisifera 'filifera aurea'
12. Cryptomeria japonica
13. Daphne cneorum
14. Elaeagnus pungens
15. Escallonia rubra
16. Euonymus alatus
17. Gaultheria shallon
18. Hypericum patulum 'hidcote'
19. Ilex crenata 'convexa'
20. Iris kaempferi
21. Kalmia latifolia
22. Ledum groenlandicum
23. Leucothoë catesbaei
24. Mahonia nervosa
25. Maianthemum dilatatum
26. Malus sp.
27. X Osmarea burkwoodii
28. Pachystima canbyi
29. Pachystima myrsinites
30. Phillyrea decora
31. Phyllostachys niger 'henonis'
32. Pieris japonica
33. Pinus contorta
34. Pinus mugo 'mughus'
35. Polystichum munitum
36. Prunus emarginata
37. Prunus laurocerasus
38. Prunus laurocerasus 'zabeliana'
39. Prunus lusitanica
40. Prunus serrulata cv
41. Pseudotsuga menziesii
42. Rhamnus purshiana
43. Rhododendron kaempferi
44. Rhododendron mucronatum
45. Rhododendron obtusum
46. Ribes sanguineum
47. Skimmia japonica
48. Spiraea x arguta
49. Spiraea x vanhouttei
50. Thuja plicata
51. Tsuga heterophylla
52. Vaccinium parvifolium
53. Vaccinium vitis-idaea
54. Viburnum rhytidophyllum
55. Weigela japonica

Mosses – Their Use in a Japanese Garden

W. B. SCHOFIELD

The uses of mosses in traditional Japanese gardens enhances the atmosphere of tranquility within a small space that one often encounters in nature deep in the mountain wilderness. In British Columbia, as in Japan, mosses are a significant element of the natural vegetation. Mosses for the garden are selected so that they not only enhance the beauty of the garden, but also with the view that they will persist in that environment without excessive control.

In the Nitobe Memorial Garden, there are nearly forty different kinds of mosses. A very few of these were intentionally planted, and some were introduced accidentally with the woody plants with which they were associated in nature. In many cases they persist only near these shrubs and trees while in other cases they have invaded favourable sites elsewhere in the garden.

The mosses intentionally planted in the garden are the "hair-cap" mosses, *Polytrichum juniperinum* (male plants shown in photograph) and *P. commune,* both are most successful. These two

Polytrichum juniperinum
"Hair-cap moss"

species form extensive carpets under the pines, extending out into the island and toward the small waterfall. Others are the rock mosses *(Rhacomitrium* and *Grimmia)* and are found growing on the boulders that have been carefully "Planted" in various areas in the garden. The "hair-cap" mosses are transplanted in a similar manner used for a rooted plant. Sods of the moss, including several inches of earth, are transplanted to scattered patches in the location that will ultimately be carpeted by them. When these plants have established themselves they slowly invade adjacent terrain to form a continuous turf. When the turfs become too large they can be clipped back, and the shoots will form new denser turfs. Very little pruning has been done to the mosses in this garden.

A number of mosses have invaded the Garden, finding it an especially favourable site for growth. These are encouraged to persist since they do not affect the growth of the other plants and supply an attractive ground cover in shaded sites where many plants will not grow well. Thus, near the teahouse there are extensive turfs of the pale green moss *Pohlia annotina;* along the path *Dicranum howellii* has formed expanding mats and under the deep shade of the taller needle-leafed evergreens *Mnium glabrescens* forms rich green carpets.

Near the margin of the ponds, especially among the rocks, there are many different mosses. The free availability of moisture and favourable light conditions provides a suitable environment. These supply a variation in colour from the lawns and shrubbery and also supply a site in which other plants may grow.

The Iris in Nitobe Garden

The Japanese iris are of the large flowering type in shades of blue, purple and white and can usually be seen at their best during the second and third weeks of June.

Their cultural requirements are minimal, demanding only an ample supply of moisture during the growing season and replanting every four years to ensure a yearly succession of large blooms. The beds in the Garden are flooded just prior to flowering following a traditional Japanese cultural practice, but this flooding procedure is not essential to the good growth and development of the plants.

Replanting is best carried out immediately after flowering. This is accomplished by lifting the old plants and transplanting the young rhizomes on the outside of the plant in small groups. As the number of flowers per plant will be reduced in the year following transplantation, it is advisable to divide a proportion of the plants each year to ensure a maximum display throughout the planting.

A balanced fertilizer is applied in the early spring and a second application is made immediately after flowering when the flower stalks are removed. A top-dressing of well-rotted manure is applied in November. This feeding program provides adequate nutrition for satisfactory growth.

In the late fall, the foliage is tied up and the beds are weeded and lightly cultivated. A covering of leaves is put on the beds prior to winter to protect the plants from hard frosts.

The iris in the Nitobe Garden were obtained from the Meiji Shrine in Tokyo and consist of the following Japanese varieties of *Iris kaempferi* Sieb.:

Gosechi No Mai	Omurasagi	Yuhgata	Muragarashi
Izumi Gawa	Satsuki Bare	Hokan	Sanowatari
Mikasayama	Sui Bizin	Mana Zuru	Shirotae
			Tsurugino Mai

Change

For each his own, a life he lives,
a life but full of trials and change.
a life of change!

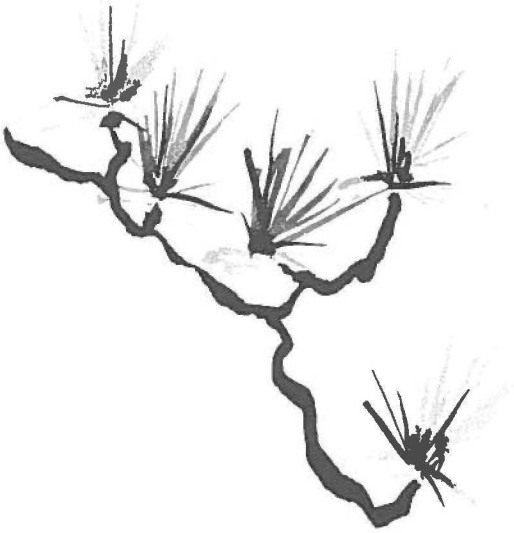
A change of place, a change of time,
a change by having but a single new idea,
a change by feeling a new sensation,
a change by having a new horizon,
put forth to him by fate alone.

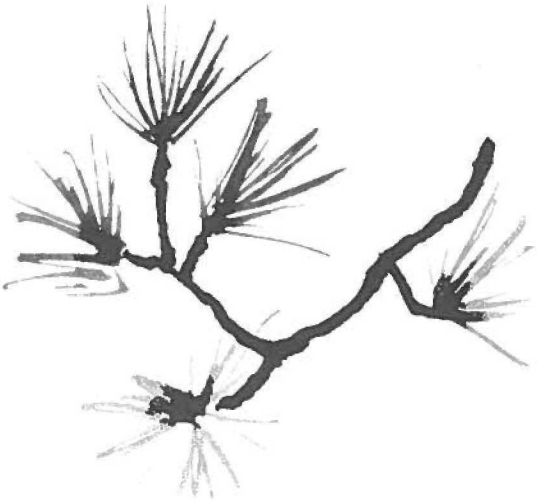
May he walk a different path,
step before a culture ancient.
Set amid the towering pines,
Rising like a cloud of friendship,
Above a sea of asphalt dark.

As he walked beneath the archway,
past a stone with a story to tell,
how it was placed there by a man still known,
to a man long, long since gone.

Past a wall of pine, like soldiers,
dividing once but to the right.
Past a row of maples gentle,
seeking sunlight through branches,
of the many towering pines.

Beneath their feet the Gaultheria laughing.
I need not thee, I grow in shade or sun.
Round a corner in the path
standing noble like a tower,
a lantern, tall and stern and grey
built in memory to one who fate
has given but a better purpose
building bridges across an ocean
bridges of friendship and hope.





But in one dark stormy era
Vengeance, Vengeance, was the cry.
Now in sorrow, darkness present
broken window, broken light

Yet in majesty I do stand
For the thought, you cannot break.
I am omnipotent!

Past a hill yet torn by nature
to a stream, set nearer by
across a bridge of stone placed
one by one, like an idea—
that grows across a sea of ignorance,
past the water rushing by
singing songs of past glories
of the samurai.

Past a maple arching, spreading
with its coat so scarlet red,
to a bridge, like a stag leaping
across a lake where goldfish feeding,
past a row of cherries pure,
to a heaven.

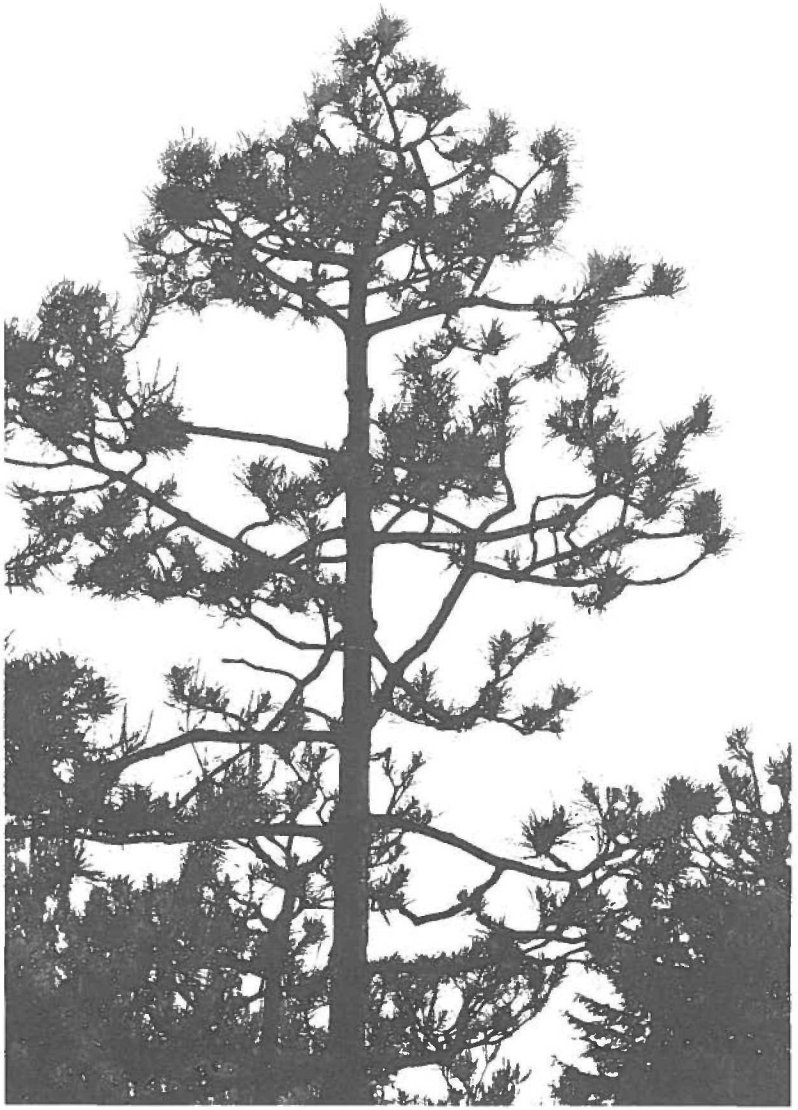
Set among the clouds above
to a teahouse, silent, empty
now that samurai is but gone.
But nay—listen carefully to the music
Happy days are here again.
But in memory of a culture
and a friendship long and dear.
Fellow citizens come, do homage,
Homage, homage, true and dear
to the people who build bridges,
to the samurai who lies dead.
Arise—for you are dead in body only,
Arise—and spread the word
Keep the flame of bridges building
strong in all men's hearts
So yet another symbol may start burning
in the garden of the samurai.

Rod Humeniuk,
1968.

Pruning Of Pines – Japanese Style

Needle bearing conifers form an important part of the Japanese Garden. Their care demands a significant portion of the maintenance time devoted to the development of the garden. Of particular importance is the method of pruning of the pine trees.

Pines should be pruned in such a manner to show the form and structure of the trunk and branches of the individual tree. Traditionally, two styles of pruning are used. The first method gives a very clipped and formal appearance. This is achieved by removing the central or terminal growth on each shoot. The second method, the "Tokyo style", provides a more natural and less formally grown appearance (photograph illustrates this style of pruning). To achieve this form, the growth is kept very open and only the current and previous year's needles are allowed to remain on the tree.

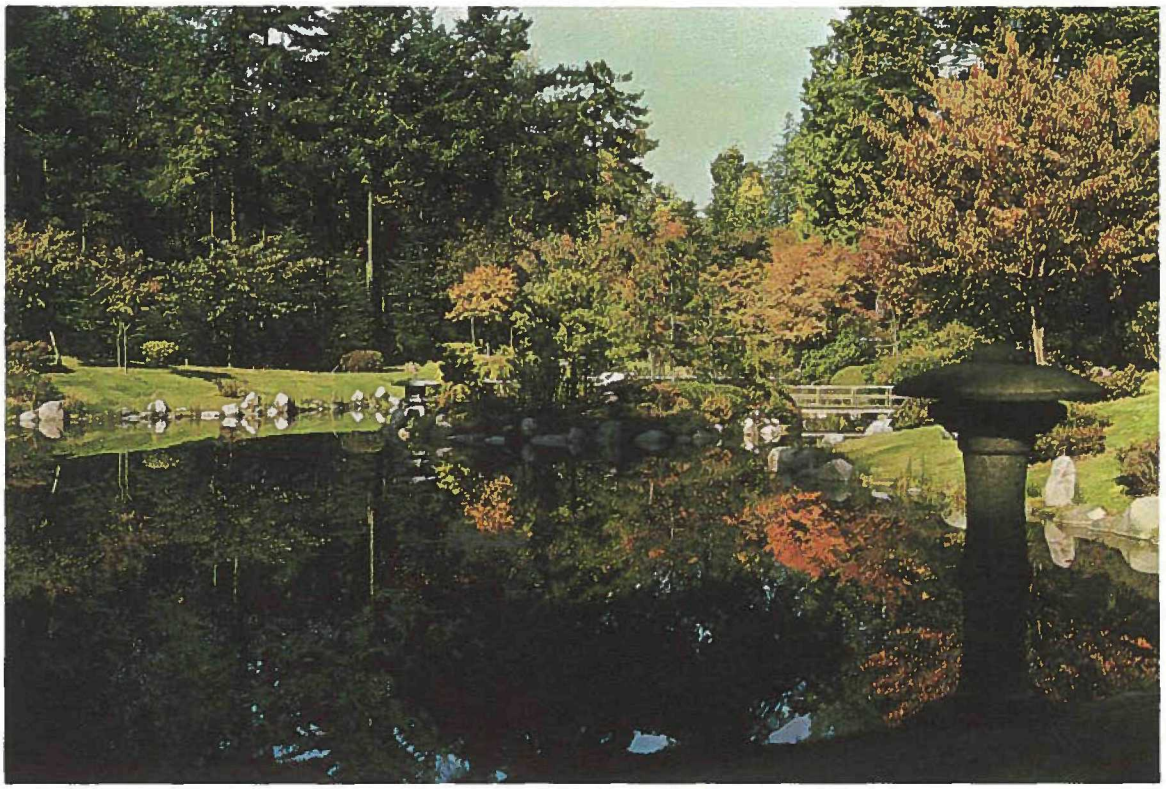


The pruning of the trees is initiated as soon as the trees have been planted. A complete branch on opposite sides of the tree and at different levels on the trunk may be removed to relieve the uniformity of branching and help to expose the basic structure of the tree. The clustered growth on the ends of the branches is then thinned out and all side branches between this point and the trunk are removed.

Thereafter, annual pruning is done in May when the new growth or candles are fully developed. Clusters of candles are first thinned out to leave two or three candles, then two thirds of the growth on the remaining candles is pinched out. All three year old needles and any shoots which develop along the branches are removed. In early August any shoots which have grown out of proportion to the balance of the tree are cut back or may be removed if the growth is being crowded on the branch.

Fall Color in the Garden

The two color periods in the Garden are during the spring months of April, May and June and again in the fall months of September, October and November. It is in the fall that the most vivid colors are seen. The three species of maples, *Acer macrophyllum, Acer circinatum* and *Acer palmatum* provide a great variety of colors. The cultivated cherries also add a splash of orange and red. Two native species, the Red huckleberry, *Vaccinium parvifolium* and Bitter cherry, *Prunus emarginata* give color to the deep green of the coniferous woods surrounding the garden.



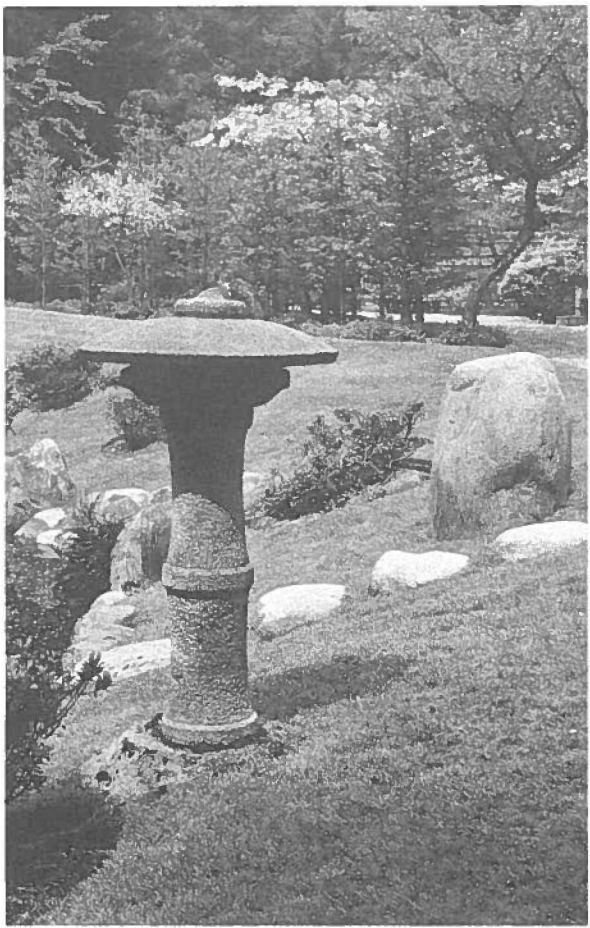
The Fish

Perhaps the most frequent questions asked by people, particularly school children touring the garden, concern the fish found in the main lake. The first fish put into the lake were a shipment of some ten thousand goldfish in 1962. These fish were donated by the Japan-Canada Society of Tokyo and were airlifted to the garden in February. Four varieties were included in the shipment: Shubunkin, Comet, Wakin and Ryukin. It was not long before the Blue herons of the adjacent coastal marine tidal flats found these fish and they were nearly all lost.

In April 1964, the Japan-Canada Society of Tokyo sent about 100 carp similar to those found in the Imperial Palace in Tokyo. The carp were approximately 12 inches long. Most of these fish have survived, but have not been reproducing in the last few years. A few carp from the Fraser River were introduced several years ago.

The fish are not permitted access to the lower iris garden area by means of a screen at the outlet to the main lake.

Lanterns in the Garden



Botanical Garden News and Notes

Seed Exchange Program — The Botanical Garden Index Seminum for 1970 offers 755 species for exchange. Seeds for this year's program were all collected during the 1969 season. Some 476 institutions received our 1968 Index Seminum and a total of 7,389 packets of seeds were distributed to 289 institutions

New Nursery — Clearing and initial land preparation have now been completed on a 5.25 acre site in the south campus of the University for a new Botanical Garden nursery. The site will be the home of the permanent planting of the Rhododendron species which have been accumulated at the University during the past 20 years. Propagation and development of woody plant material will be carried out in the nursery for the various components of the Botanical Garden. Care has been taken to retain a goodly number of fine native tree specimens that will serve as protection for growing material. Native trees on the site include: *Acer macrophyllum* Pursh 'Big-leaf maple', *Alnus rubra* Bong. 'Red alder', *Picea sitchensis* (Bong.) Carr. 'Sitka spruce', *Prunus emarginata* (Dougl.) Walpers var. mollis (Dougl.) Brewer 'Bitter cherry', *Pseudotsuga menziesii* (Mirb.) Franco 'Douglas fir', *Thuja plicata* D. Don 'Western red cedar', *Tsuga heterophylla* (Raf.) Sargent 'Western hemlock'.

Burnaby Rhododendron Show — The Botanical Garden participated in the annual Burnaby Rhododendron Show held on the week-end of May 8-10. The exhibit featured Rhododendron species with labels indicating the species, taxonomic postion in the genus and their geographical origin. The display was awarded The Vancouver Chapter of the American Rhododendron Society's Park and Tilford Cup for best special display in the Show.

Miss Evelyn Jack — A 1970 Gold Medal Award Winner of the American Rhododendron Society — At the annual meeting of the National Convention of the American Rhododendron Society held in Vancouver on May 16th, Miss Evelyn Jack, a member of the Botanical Garden Staff, received the highest award of The American Rhododendron Society. The award was made for her outstanding contributions to the propagation and development of Rhododendrons, particularly the propagation and distribution of species in the joint program of the Rhododendron Species Foundation and The Botanical Garden of The University of British Columbia.

Delegates to the convention had an opportunity to visit the species nursery and view the many collections of Rhododendrons which Miss Jack has successfully propagated and grown in the University nursery.

Members of the Botanical Garden are extremely pleased and proud to note the recognition given Miss Jack by The American Rhododendron Society.

Nitobe Memorial Garden Council — In the fall of 1969, a council was established to maintain the continuity of development of the garden as conceived and designed by Professor Mori. The council meets at least twice a year to review the progress of the garden. Present members of the council are: Dr. John W. Neill, Associate Professor of Plant Sciences, U.B.C. (Chairman); Dr. Roy L. Taylor, Director of the Botanical Garden (Secretary); Mr. Kenneth Wilson, Supervisor of Operations, Botanical Garden; Dr. John F. Howes, Associate Professor Asian Studies, U.B.C.; Mr. Donald M. Matsuba, Architect; and Dr. George A. Ishiwara, Director of Canada-Japan Society of Vancouver.

CLIMATOLOGICAL SUMMARY*

Data	*March*	*April*	*May*
Mean temperature	43.5°F	46.3°F	52.65°F
Highest temperature	56.0°F	58.0°F	71.0°F
Lowest temperature	27.0°F	34.0°F	39.0°F
Grass minimum temperature	13.0°F	22.0°F	28.0°F
Total rainfall/No. days with rainfall	2.70"/9	4.08"/13	.99"/9
Total snowfall/No. days with snowfall	NIL	NIL	NIL
Total hours bright sunshine/possible	178.0/361.16	178.8/404.02	244.7/468.03
Mean mileage of wind at 3'	74.5	88.5	71.2
Mean mileage of wind at 40'	111.1	130.0	102.2

**Site: The University of British Columbia, Vancouver, B.C., Canada.*
Position: lat. 49°15'29"N; long. 123°14'58"W. Elevation: 342.6'.

Botanical Garden Staff

Director
Dr. Roy L. Taylor

Supervisor of Operations
Mr. Kenneth Wilson

Research Scientist
Dr. Christopher J. Marchant

Research Assistant
Mrs. Sylvia Taylor

Secretary of the Office
Mrs. Morag L. Brown

Seed Exchange Program
Miss Evelyn Jack

Plant Accession System
Miss Margot van Santen

Senior Gardener
Mr. James O'Friel

Gardeners
Mr. Leonard Gibbs
Mr. Sam Oyama
Mr. Tomomichi Sumi
Mr. David Tarrant

The Opening of Nitobe Garden

On Tuesday, May 3rd, 1960, the Nitobe Memorial Garden was officially opened at The University of British Columbia. The Chairman of the program was Dr. Norman A. M. MacKenzie, President of The University of British Columbia. Three people closely associated with the Garden spoke at the occasion of the opening. Dr. John W. Neill, Director of Landscaping, Professor Kannosuke Mori, Landscape Architect in charge of the project and Dr. George A. Ishiwara, President of the Canadian Japanese Citizens' Association. The official opening of the Garden was the responsibility of Mr. Muneo Tanabe, Consul for Japan. Dr. Norman A. M. MacKenzie responded to Mr. Muneo Tanabe. Following the ceremony of the official opening, three events took place at International House. Guests were invited to tea and a demonstration of the tea ceremony by Madame Soko Hara, Head of the Urasenke School of Tea Ceremony. Madame Hoei Hiraga, Head of the Ogasawara School of Flower Arrangements, illustrated some of the traditional methods of arranging flowers in Japan. This summer in June 1970 we will commemorate the 10th anniversary of the Nitobe Memorial Garden with an informal commemorative ceremony to be held in International House.

DAVIDSONIA

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