DAVIDSONIA

VOLUME 3 NUMBER 2 *Summer 1972*

CAMPUS PLANTS

Cover

Scene from near the lookout at the head of the Main Mall looking over Howe Sound toward Bowen Island

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Acknowledgements

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CAMPUS PLANTS

ROY L. TAYLOR

The University of British Columbia campus lies in one of the most favourable locations in the lower mainland of British Columbia. Its position on Point Grey which juts into the Georgia Strait provides an exciting view of the mountains to the north and west and on clear days Vancouver Island.

The initial plantings on the campus began in 1917 and much thought and careful consideration has been given to subsequent landscaping of the campus.

In the post world war II period Professor Frank Buck and later Dr. John W. Neill were instrumental in bringing many interesting exotic plants to the campus. Dr. Neill's work is best seen in the landscaping of the Vanier Residences and in the immediate area of the Faculty Club/Graduate Centre.

The plants of the campus are now used quite extensively by a number of different departments in both teaching and research and the continued interest and development of the landscape elements on the campus should provide additional material in future years.

The monument erected in 1922 to commemorate the generous action of student bodies in providing for their Alma Mater and citizens of B.C. in a way summarizes my own thoughts about the plants on the campus. The monument entitled "Tuum Est—It Is Yours" expresses not only the past contributions of students and staff on the campus but also those of future students and staff to the many beautiful trees, shrubs and herbaceous plants found on the campus. Every effort should be made to continue to protect and further develop the plant elements on our landscaped environment.

View of the Buchanan Courtyard with the Ladner Carillon Tower in background. Trees on right are Populus deltoides, Cottonwood. At the northeast corner stands one of the few remaining original Arbutus menziesii trees on the campus.

This summer issue of "Davidsonia" attempts to show some of the unusual as well as the common landscape plants at U.B.C. and the illustrated text has been organized according to campus areas. To help identify each area either pictures of buildings or works of sculpture found in the area are contained in each section. The emphasis has been placed on a pictorial presentation of the plants so that people who visit the campus will be able to enjoy and identify some of their favourite plants. The illustrations have been taken over a two year period and represent plants at varying stages of development and maturity according to the season.

The campus abounds in many excellent examples of ground covers and flowering shrubs and a visitor will find something of interest in every season. The native forest tree species of southern British Columbia can still be found in many areas of the campus and have been used to particular advantage near International House and the Nitobe Memorial Garden.

Buchanan Building—Sedgewick Library

This area on campus contains some of the oldest tree plantings and a small remnant of a much larger rock garden found immediately north of the Ladner Tower. This small garden has been retained during the construction of the new undergraduate library and continues to be a source of enjoyment to the many students and staff who use the area frequently.

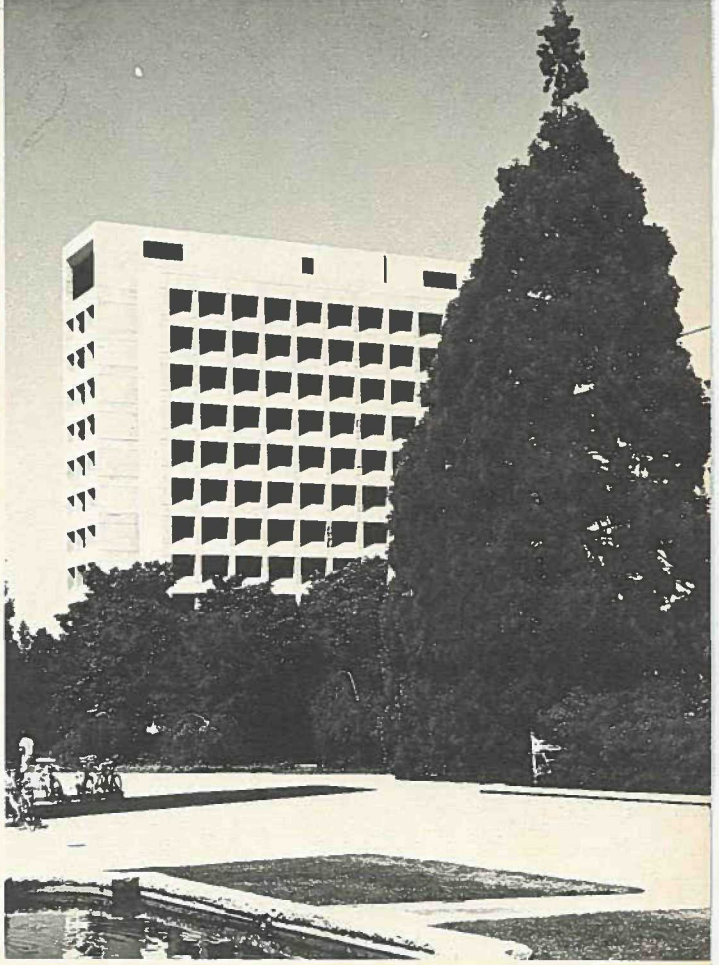
Opposite

A view of the Rose Garden and native stand of trees. The Rose Garden contains several well-known All America and award winning roses as well as a collection of miniature roses. The two shrubs seen in this photograph are the Provincial emblem of British Columbia, Cornus nuttallii or the Western Flowering Dogwood. An extensive collection of Rhododendrons are planted below the stand of native trees. Many of the Rhododendrons in this collection were obtained from Mr. & Mrs. Greig of Royston Nurseries on Vancouver Island.

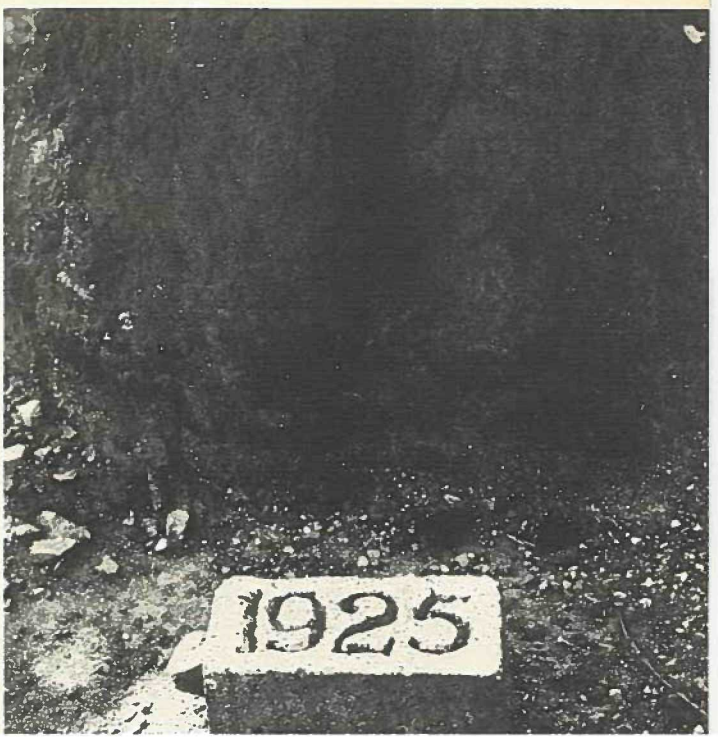
One of the numerous plantings in the Buchanan complex showing effective use of Cotinus coggygria, the Smoke Tree, and Populus deltoides, Cottonwood, with a ground planting of Yew, Taxus baccata 'Repandans'. The Cotinus with its burgundy foliage and fluffy fruiting inflorescences gives an appearance of a smoky bush in the fall months.

Catalpa Lane, one of the oldest avenues on campus. This is one area where Catalpa bignonioides is found on the campus. At the head of the lane can be seen two large Japanese Cedar, Cryptomeria japonica.

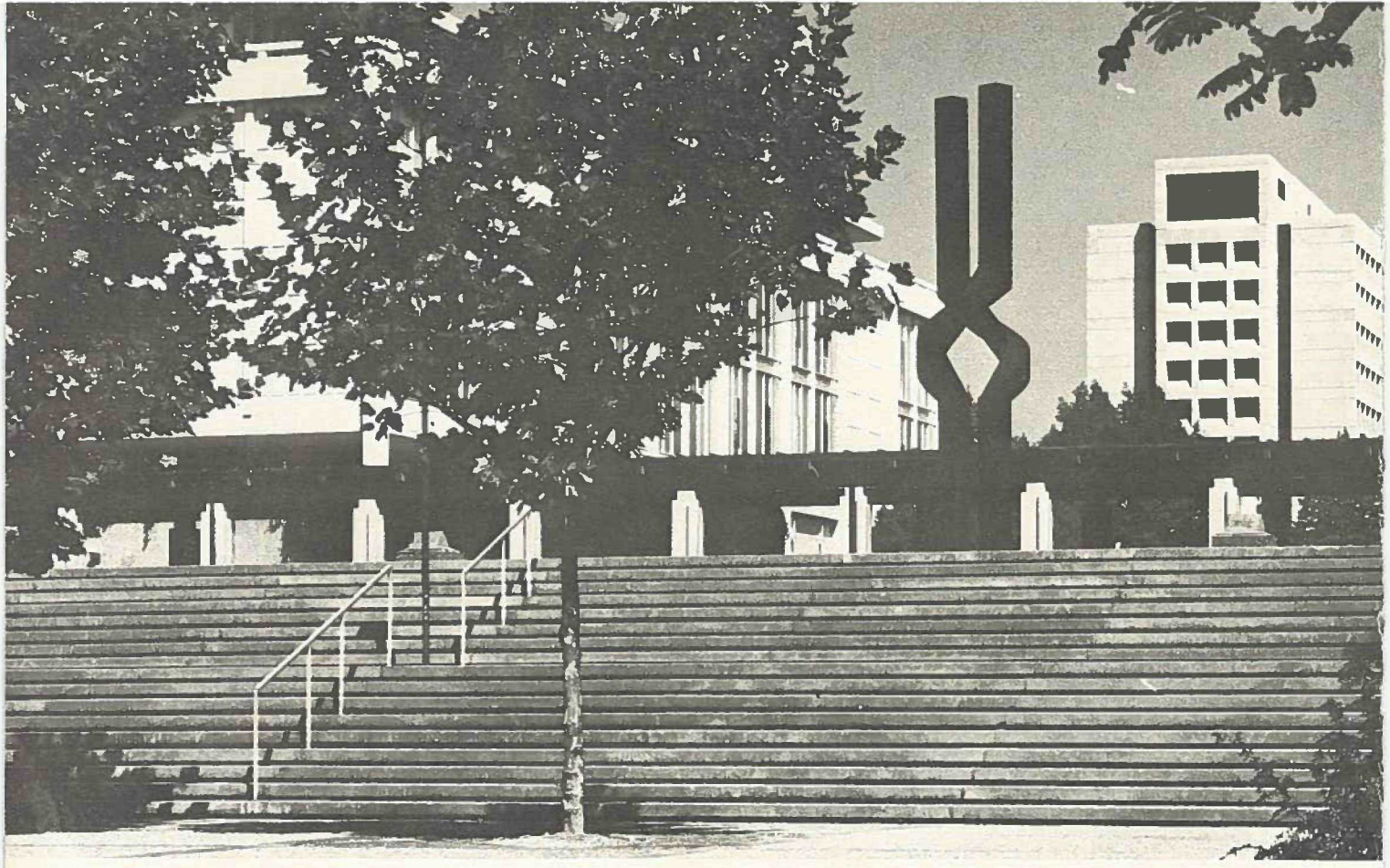
Sequoiadendron giganteum, Giant Redwood, at the northwest corner of the Main Libarry. The new Buchanan Office Building is seen in the background.



Cunninghamia lanceolata immediately northwest of the Ladner Tower. This is a fine specimen of Chinese Fir. Just to the right of Cunninghamia is the unusual Corkscrew Willow, Salix matsudana 'Tortuosa'.



The class tree of 1925. Each year the graduating class donates and plants a tree. Many of these trees are now important landscape elements on the campus.



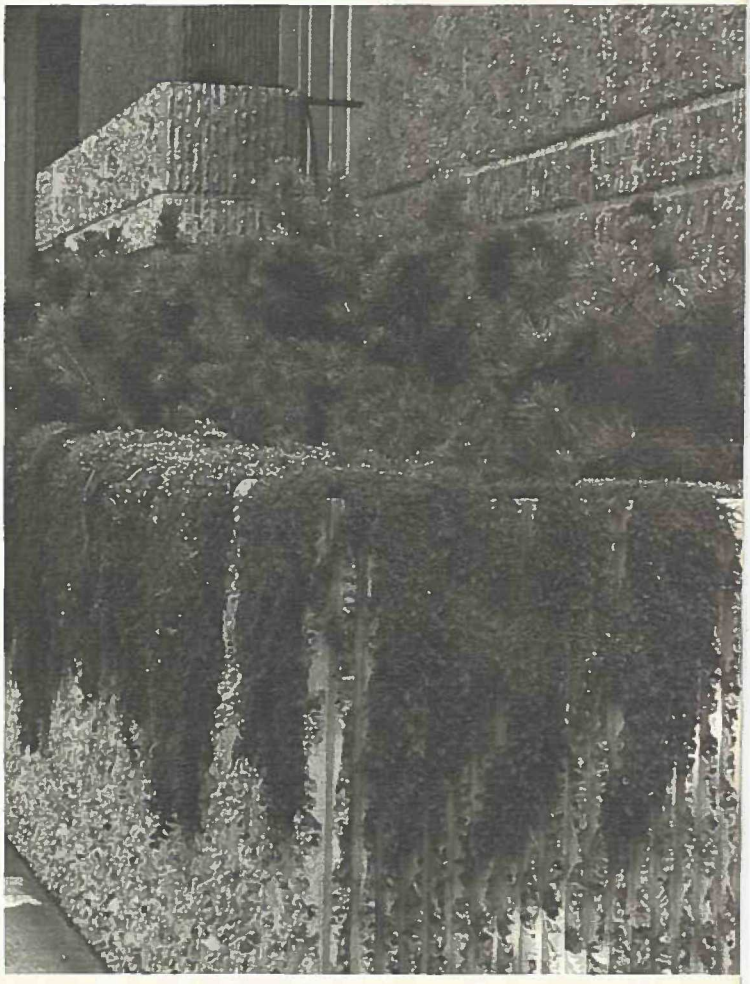
14

The steel sculpture on the plaza immediately below the Main Mall is the centre of an interesting landscape area on the campus. In the foreground can be seen the formally planted Plane-tree, Platanus × hispanica. On the right can be seen a few branches of Sorbus aucuparia, the European Rowan, which has colourful red berries in the latter part of summer and fall.

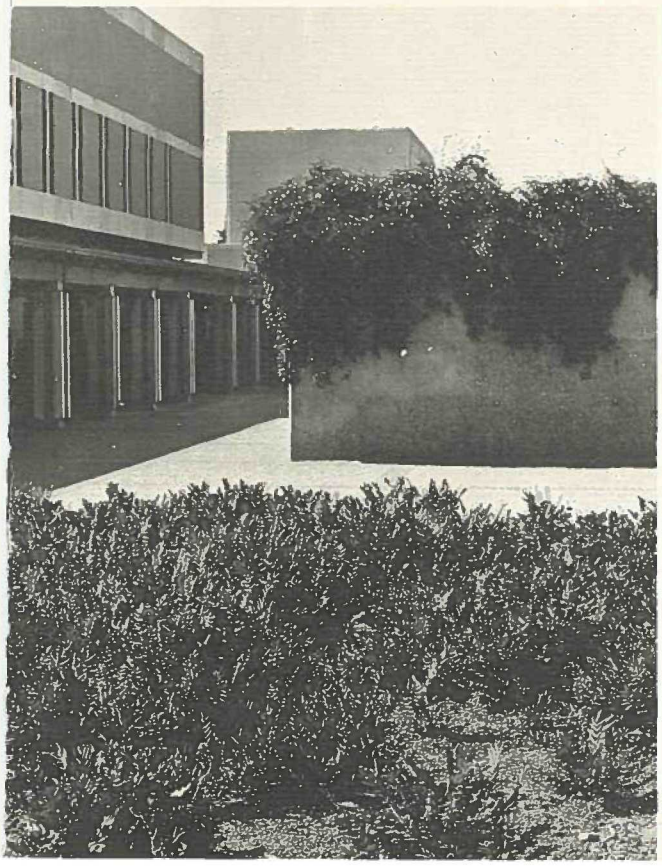
Lasserre Building-Music Building-North Administration Building

This area on campus is dominated by the plaza containing the untitled 23 foot steel sculpture by Gerhard Class. The covered walkway, which was initially designed as part of a system of walkways in this area of campus, has many formal planting arrangements. A number of these are illustrated. The upper end of the plaza area meets the Main Mall with its large dominant Red Oaks. One of the most interesting plants found in the immediate area is the Purple Leaf Birch, *Betula pendula* 'Purpurea', found at the south-east corner of the Lasserre Building. *Clematis montana,* Anemone Clematis, trails along the east side of the plaza area of the Lasserre Building. This is a very colourful walkway during early spring. Near the west corner of the Old Auditorium is found a planter of *Rhus typhina* 'Laciniata', an attractive cut leaf Sumac. A number of other interesting shrubs are found around the buildings in addition to some interesting climbers which were featured in a previous number of "Davidsonia".

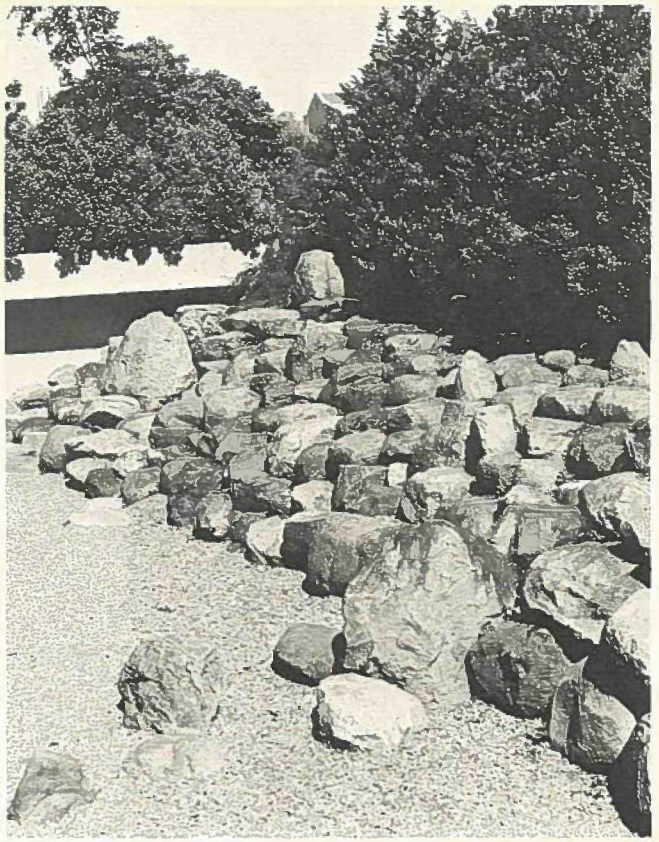
A row of upright pyramidal Carpinus betulus, Common Hornbeam. This attractive shrub row completes the north side of the Music Building plaza area. The ground covers consist of a variegated Elaeagnus pungens 'Aureus' and the common blue Periwinkle, Vinca minor.



The northeast corner of the Music Building featuring excellent examples of the trailing Cotoneaster dammeri with Pinus mugo.

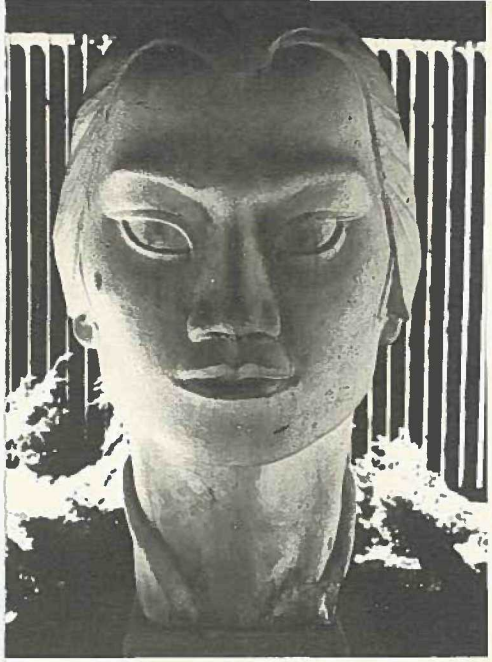


An attractive plaza planting of the low growing Cascades Mahonia, Mahonia nervosa. This planting is particularly colourful in the fall when the leaves colour and the glaucous blue fruit form clusters in the foliage.



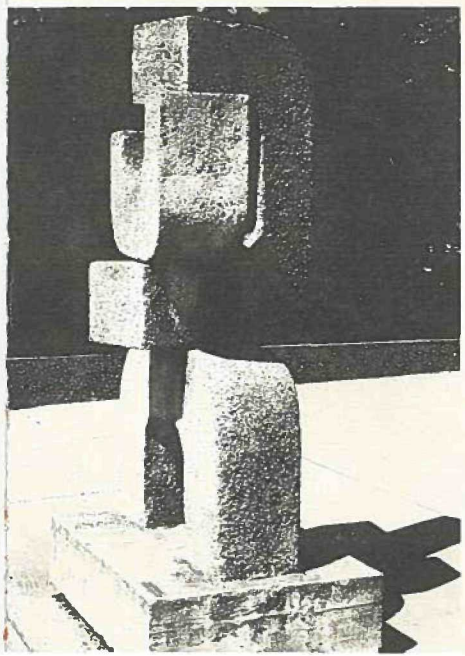
16

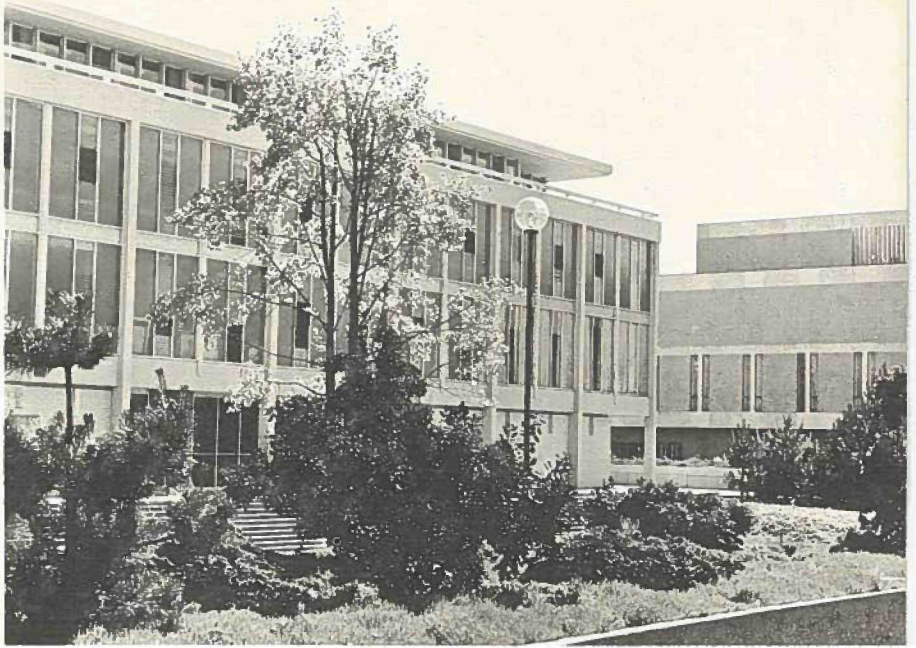
Immediately to the north of the Lasserre Building adjacent to the plaza near the President's Office is one of the most interesting landscaped garden features in the central core of the campus. This unique boulder garden is shown in the photograph above. The garden consists only of boulders with a gravel base and was designed by Dr. John W. Neill. It is an aesthetically pleasant landscape for the suite of offices facing the garden. The boulders for this garden were all obtained locally and the garden is enclosed with Moss Sawara Cypress, *Chamaecyparis pisifera* 'Squarrosa'. To obtain the best view of this garden one should see it from the lower office areas of the Lassere Building or from the steps leading up to the south entrance of the building.



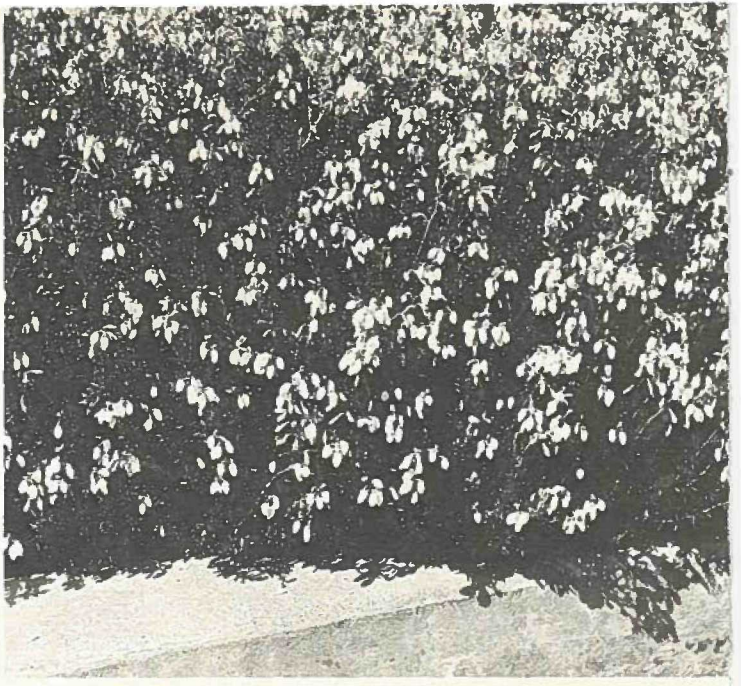
Left: Asiatic Head sculpture by Otto B. Fischer-Credo. This interesting sculpture dominates the north end of the covered walkway near the Music Building. Right: The north plaza of the Lasserre Building showing statue entitled "Fertility" by Jack Harman. The mounds in the plaza are covered with English Ivy, Hedera helix.

Left: A concrete sculpture entitled "Three Forms" by Robert Clothier found on the north plaza of the Lasserre Building. Right: One of the large planters of the Lasserre plaza containing a specimen of Cotinus coggygria, Smoke Tree. Heather, Erica carnea, is also found in the planter. The tree in the background is Liriodendron tulipifera, Tulip Tree.





Cotoneaster salicifolia var. floccosa, a plant with attractive new leaves that are upright in the spring and become horizontal as they mature. Plants produce abundant clusters of red fruit giving fall and winter colour.



Daboecia cantabrica, Irish Heath, a close relative of true heather which produces a fine show of colour either white, pink or red in the late summer.

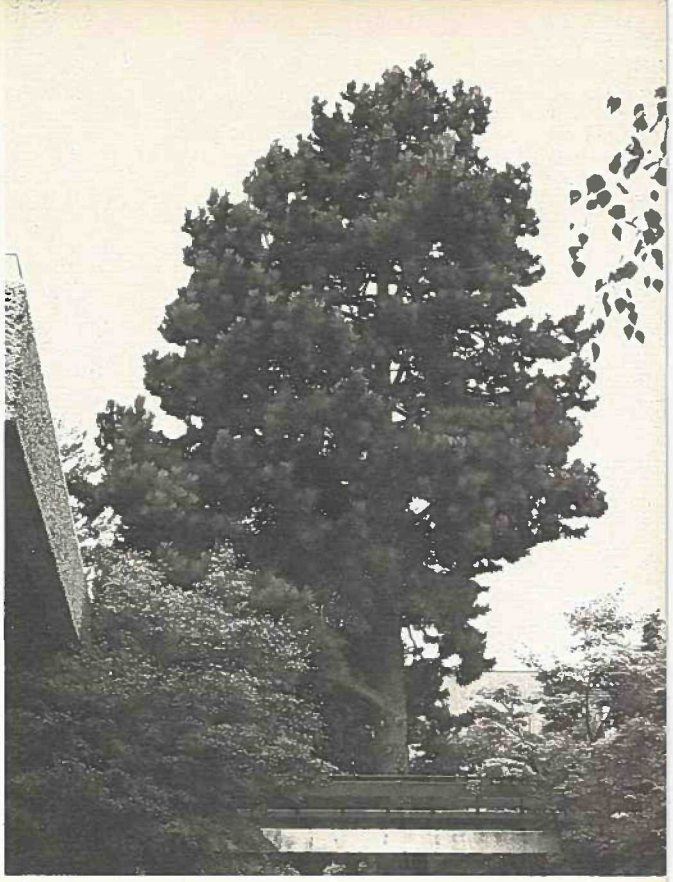
On this page are found a number of important ground covers used in the main part of the campus.

Arctostaphylos uva-ursi, a native member of the Ericaceae in B.C., known as Kinnikinnick. The example shown is from a circular planter behind the theatre. This particular planting is outstanding for its complete cover.

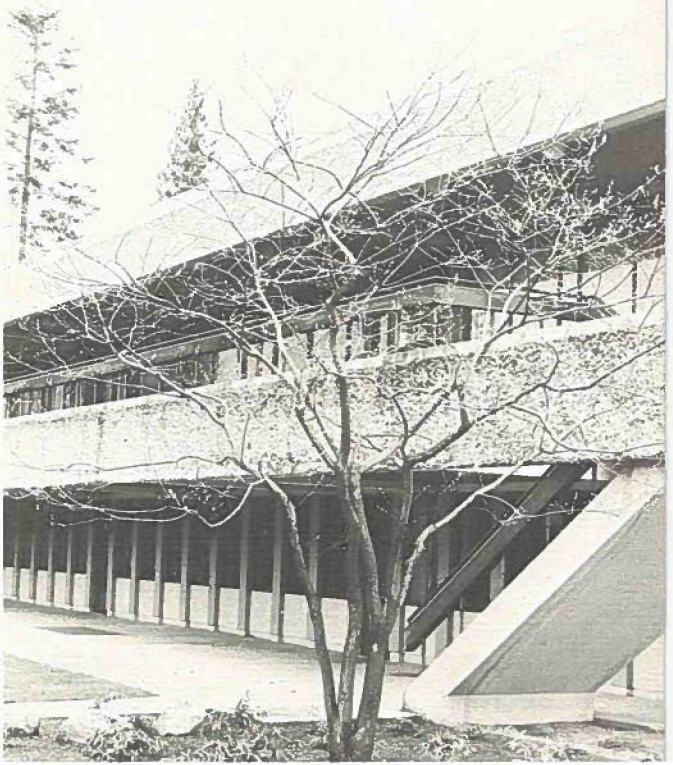
Hypericum calycinum, St. John's Wort. One of the most widely used colourful ground covers on the campus. This addition to our landscaping in British Columbia is the direct result of the influence of the California landscape school.

Ponderosa Cafeteria Area

The gardens in this area were designed by Dr. John W. Neill. The name of the cafeteria is derived from the fine specimen of the native Ponderosa Pine, *Pinus ponderosa*. The specimen tree stands in a depressed garden immediately in front of the cafeteria.



Bank of the lower garden of the Ponderosa Cafeteria planted with the Japanese Maple, Acer palmatum. In addition, two species of Cotoneaster are used as the dominant ground cover; Cotoneaster salicifolius 'Repens', and C. horizontalis.

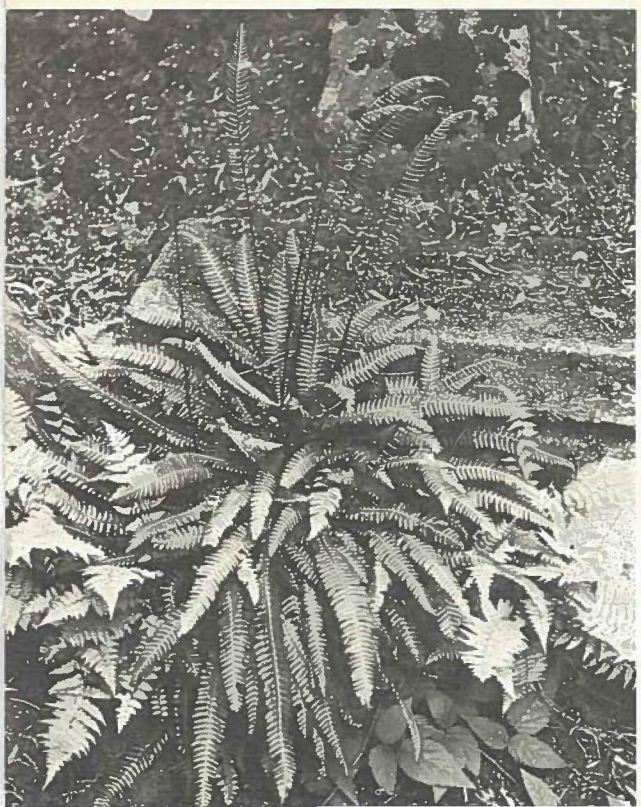


An interesting ornamental tree, native of China but widely planted in Japan, growing at the corner of the Ponderosa Cafeteria, Sophora japonica, the Japanese Pagoda Tree.

A colourful shrub scattered occasionally throughout the campus Weigela florida 'Variegata'. The variegated foliage provides an interesting contrast against dark green shrubby background.

A colourful shrub used extensively on the campus with pink flowers Weigela florida. This shrub is easily grown with minimum care and is a most attractive plant against walls or tree backgrounds.

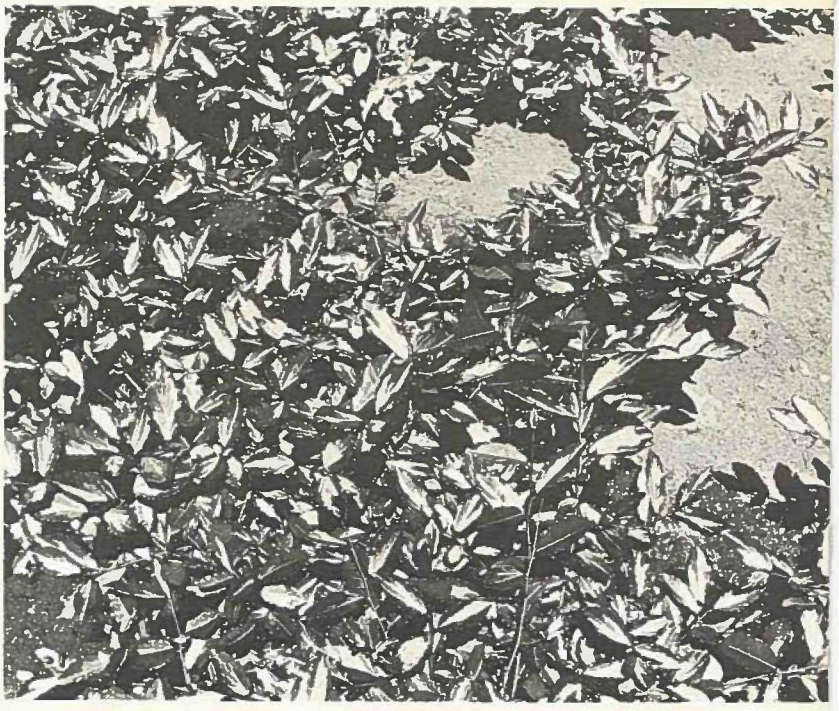
Blechnum spicant, the Deer Fern, a native fern of the Pacific northwest that has become an interesting component of many of the landscape areas particularly those in wooded or shaded areas.



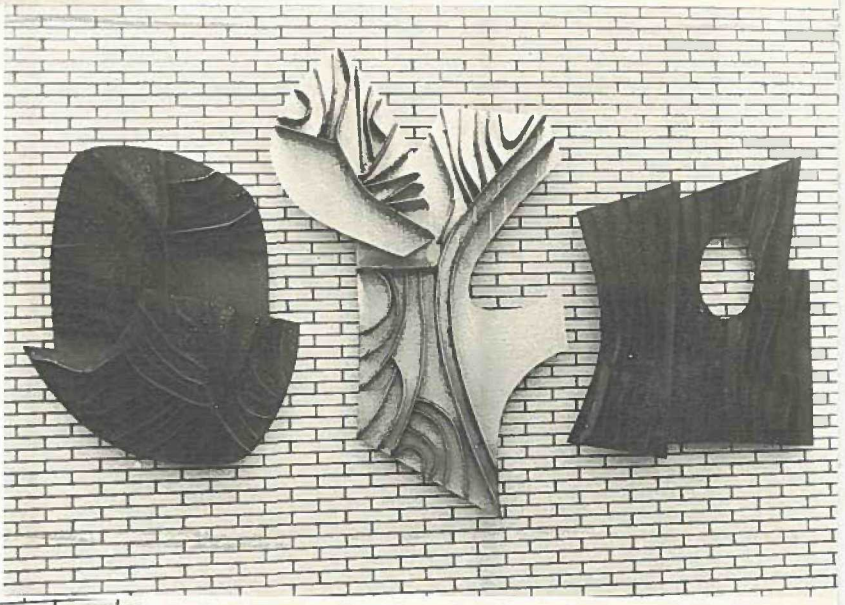
Barberry, Berberis verruculosa, a slow-growing decorative Chinese shrub which has deep yellow or orange coloured flowers early in the spring and deep blue fruit in the fall.

On the right can be seen one of the most pleasant walks on campus during the early spring months and a walk that provides an excellent cool retreat during the late summer. The location is on the north side of the Ponderosa Cafeteria. On the left of the photograph can be seen a row of the numerous flowering cherries, Prunus serrulata, on the campus that bloom profusely during May and June. Below the flowering cherries are beds of Cotoneaster horizontalis. On the right side of the street are graceful European Birch, Betula pendula. This sidewalk leads to the Vanier Student Residences.

In the photograph seen below right is shown one of the more unusual shrubby ground covers found on the campus, Elaeagnus pungens 'Aureus'. This plant should probably be more widely used for its variegated foliage characteristics. The leaves remain bright and shiny throughout the year and the yellow variegation produces an attractive contrast to the green foliage.



Education Building Area
At the left can be seen the unusual four tree cluster of Black Locust, Robinia pseudoacacia 'Umbraculifera', which is found at the intersection of University Boulevard and the Main Mall immediately to the northeast of the Education Building. The under-storey planting is the widely used Zabel's Laurel, Prunus laurocerasus 'Zabeliana'.



22

An untitled metal sculpture by Paul Deggan found on the wall near the east entrance of the Education Building.

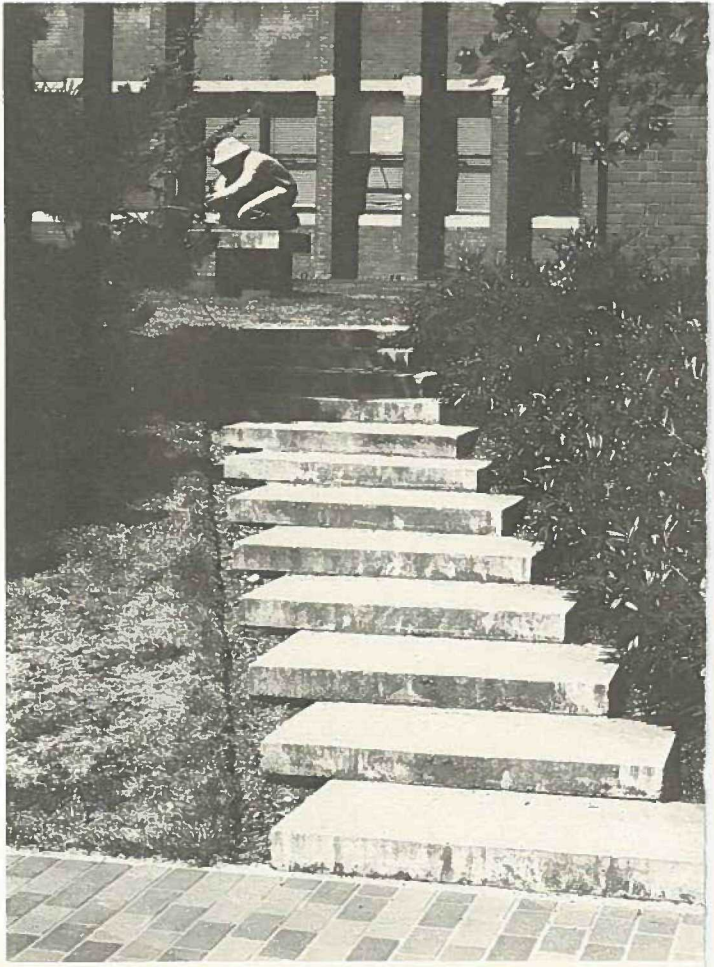
A planting of Juniperus squamata 'Meyeri' along the shaded east side of the Education Building. This popular juniper was introduced from a Chinese garden in 1914. Mature shrubs reach a large size.

The Main Mall

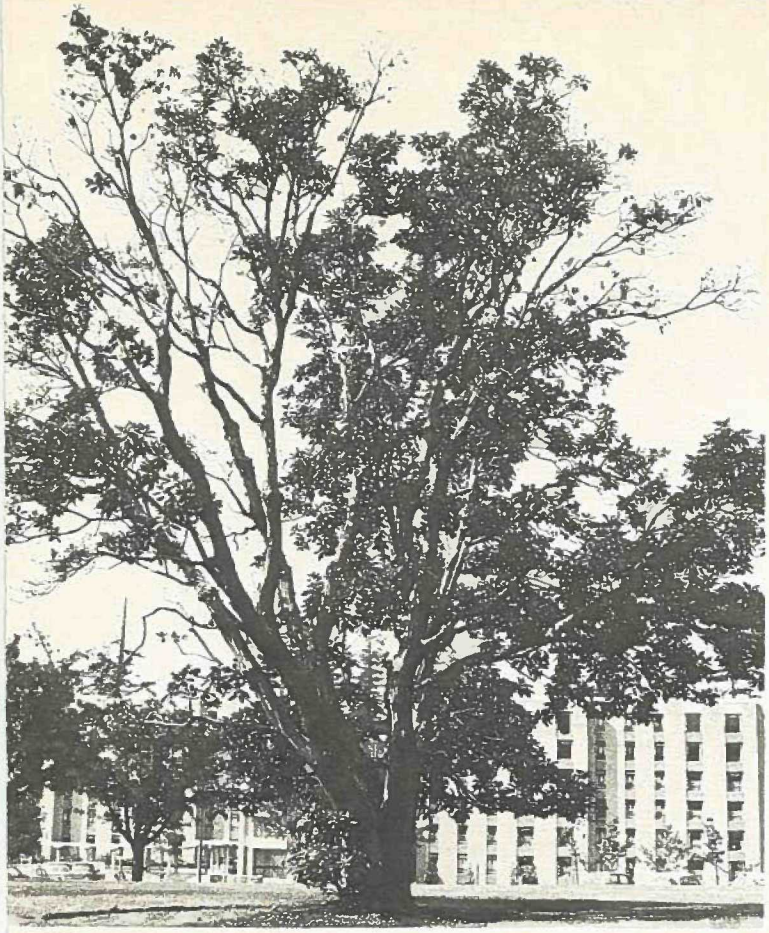
When the initial landscape plan for the campus was made in 1913 a central wide mall was designed to serve as the principal axis for the construction of the new University campus at Point Grey. Although there have been major modifications of this original plan the central axis, namely the Main Mall, has been retained on the campus. At an early stage in the development this main mall was planted on either side with the Northern Red Oak, *Quercus rubra*. The particular picture shown here was taken in front of the new MacMillan Building looking north. Recent construction of the new undergraduate addition to the Sedgewick Library has maintained the continuity of the Oaks along this mall by placing them in thirty foot caissons with the building depressed beneath the mall. It is hoped that these Oaks in the caissons will continue to prosper so that the continuity of this important landscape view of the campus will be retained. Mature trees have reached a height of over 30 meters.

MacMillan Building of Agriculture and Forestry

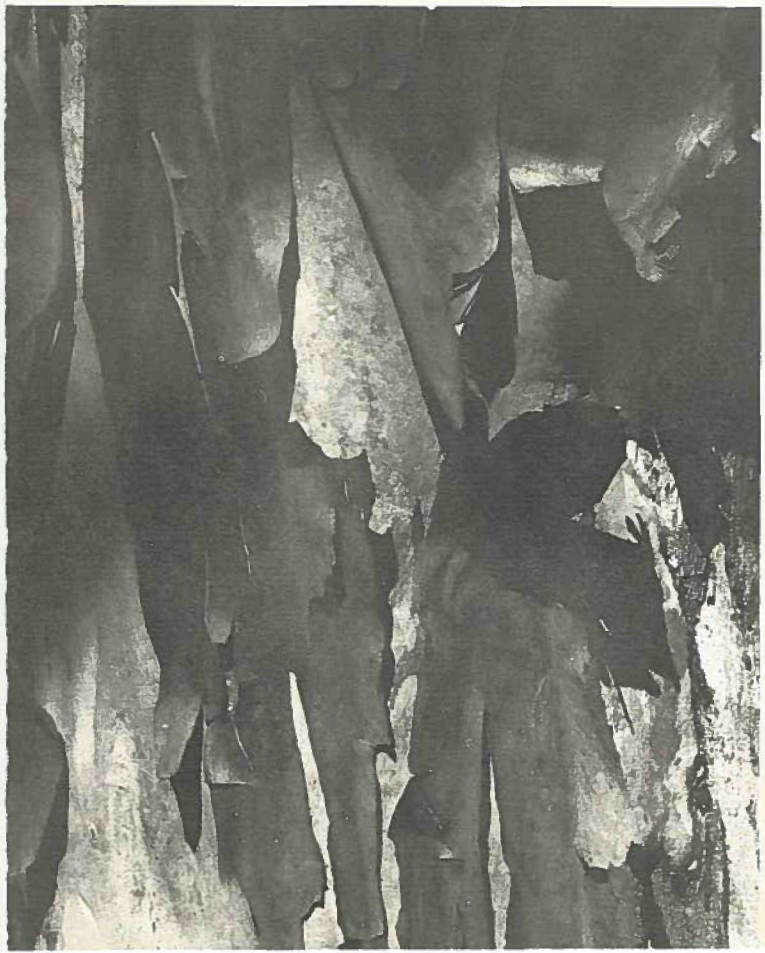
A new building complex opened in the late 1960s constructed of bricks from Sumas Mountain clay. The interior courtyard features an untitled diorite sculpture by George Norris. The photograph on the right shows diagonal series of steps that lead into the courtyard. The shrubs adjacent to the steps are Zabel's laurel, *Prunus laurocerasus* 'Zabeliana'.



Untitled statue by George Norris.

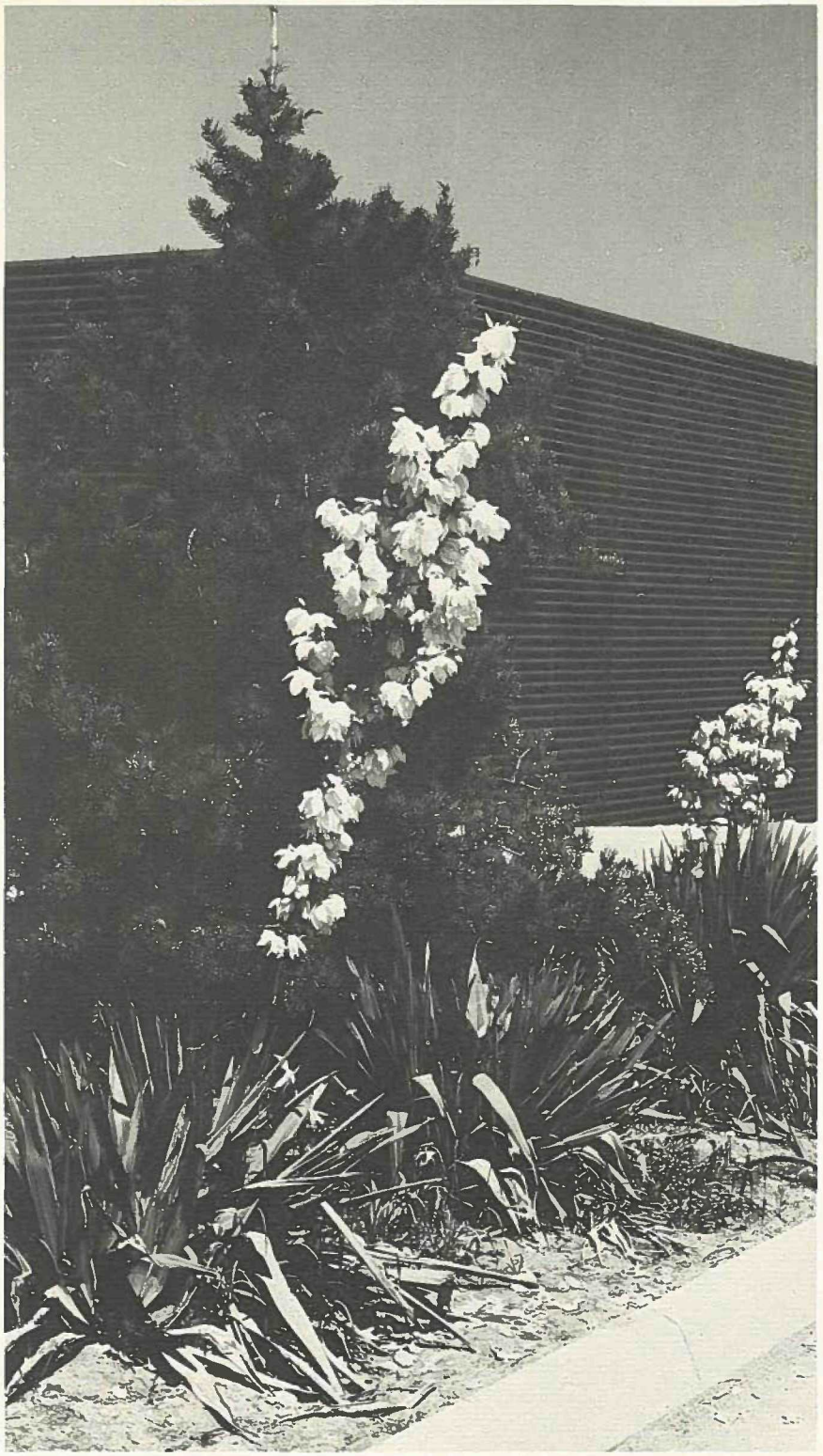


A large specimen tree of Arbutus menziesii, the Pacific Madrone, located immediately south of the MacMillan Building.



The characteristic peeling bark of the mature trunk of Arbutus menziesii.

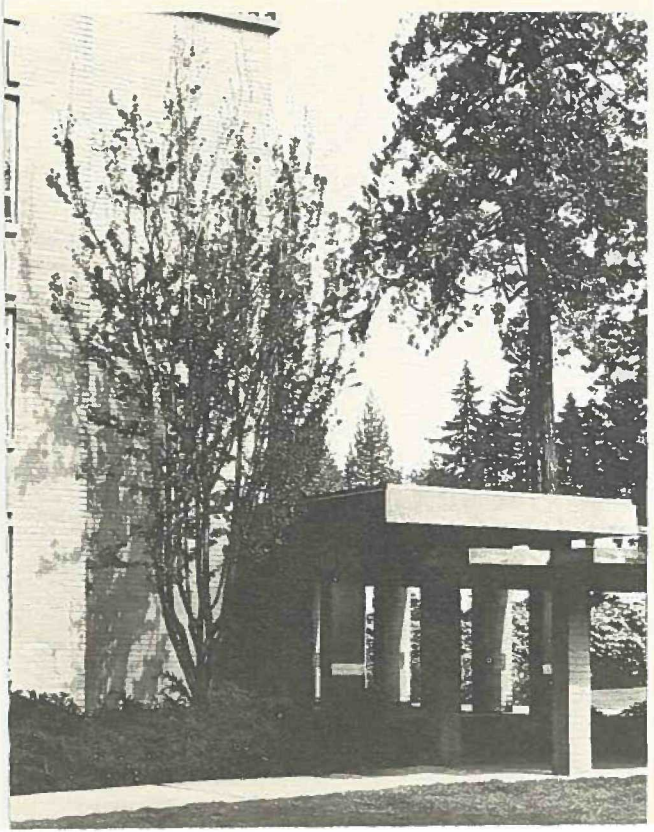
Yucca filamentosa, Adam's Needle, a commonly used plant throughout the lower mainland of British Columbia, but rare as a landscape element on the University campus. A small collection of Yucca is found near the southwest corner of the new rusty steel Mechanical and Civil Engineering Building.

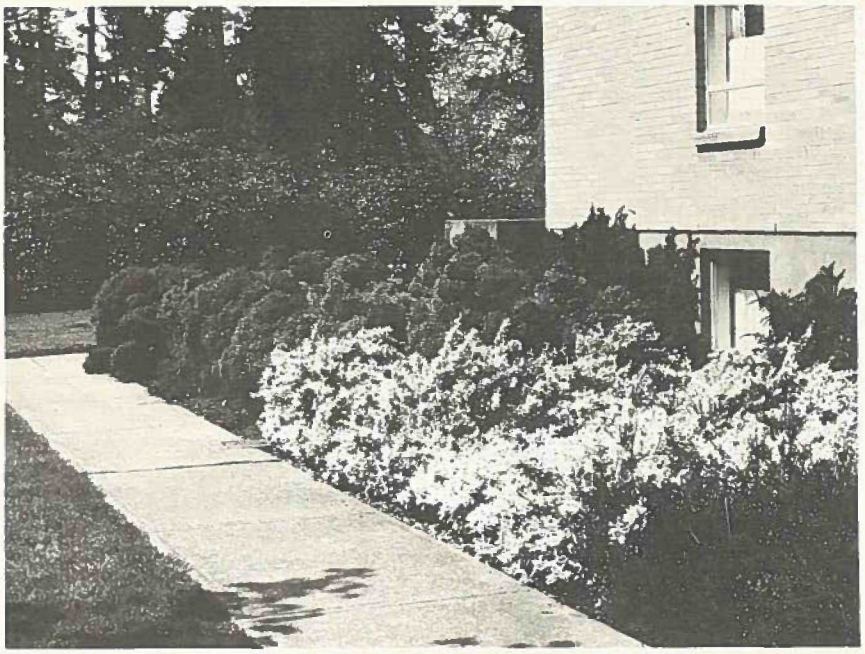


Vanier Student Residences

The Vanier complex of student residences found in the lower mall region of the northwest part of the campus contains excellent examples of plant combinations used to provide a pleasant environment for student residences. This area on the campus has been established for nearly fifteen years and many of the trees and shrubs are now reaching a mature form. This pleasant area on campus was designed by Dr. John W. Neill. The upper photograph shows one of the many curving walkway systems leading to the residence areas with Rhododendrons on either side of the walk. Rhododendrons are used extensively as an attractive foliage component of this residence complex and in the early spring through to early summer the Rhododendrons provide a spectacular show of flowers. The dominant tree seen in the photograph is *Populus trichocarpa*, Black Cottonwood.

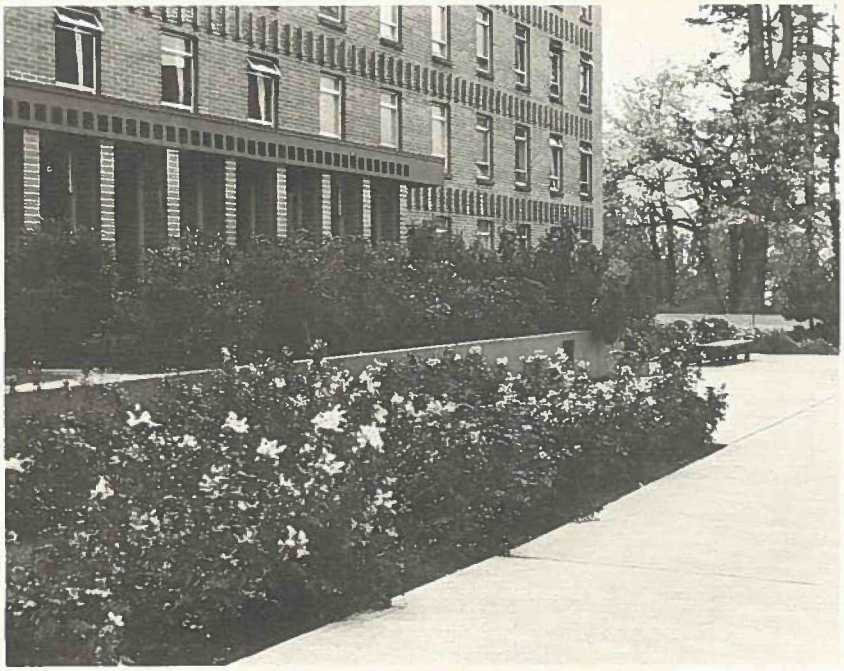
In the photograph below the careful planning of the many garden areas in the residences is exemplified with the fine ground cover of *Cotoneaster horizontalis* and a single specimen tree of *Crataegus monogyna* 'Stricta' accentuating not only the plantings but the buildings themselves. The residential complex was designed by Thompson, Berwick, Pratt & Partners and is made of a warm coloured brick manufactured from Sumas Mountain clay.

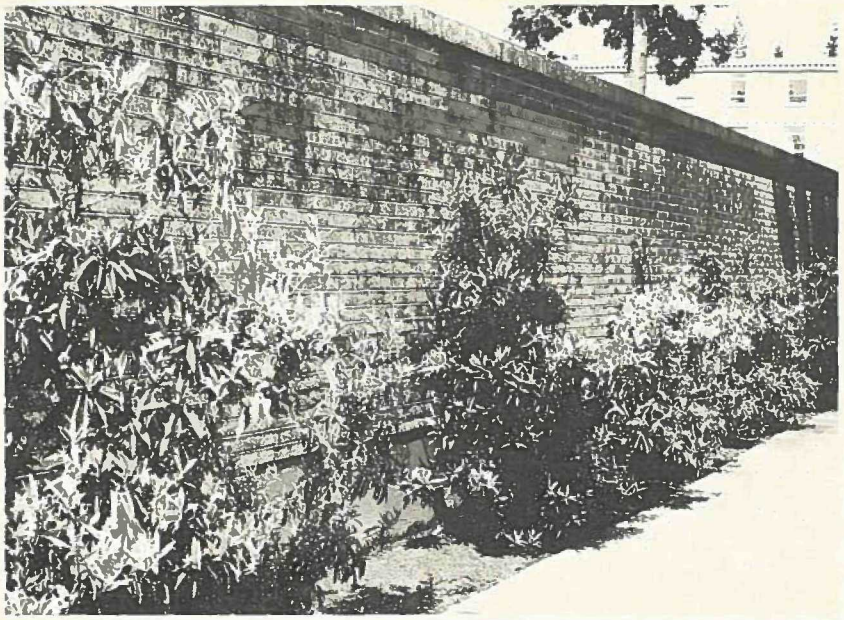




A combination ground cover planting featuring Chamaecyparis pisifera 'Squarrosa', Euonymus fortunei 'Gracilis', Cotoneaster horizontalis, Calluna vulgaris 'Goldsworth Crimson'.

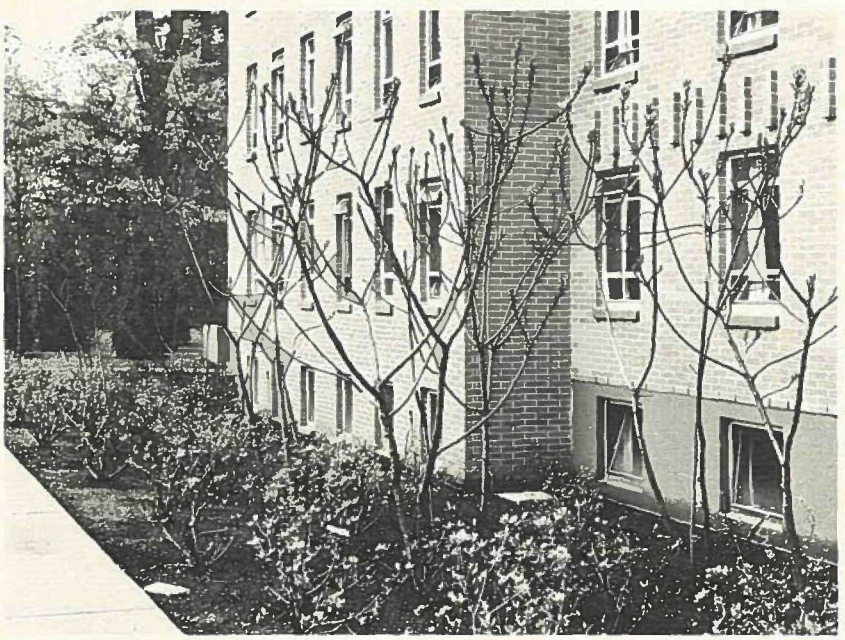
Combination planting with the upper planter containing Rhododendron smirnowii and Viburnum rhytidophyllum and the lower planting containing the Tall Oregon Grape, Mahonia aquifolium.

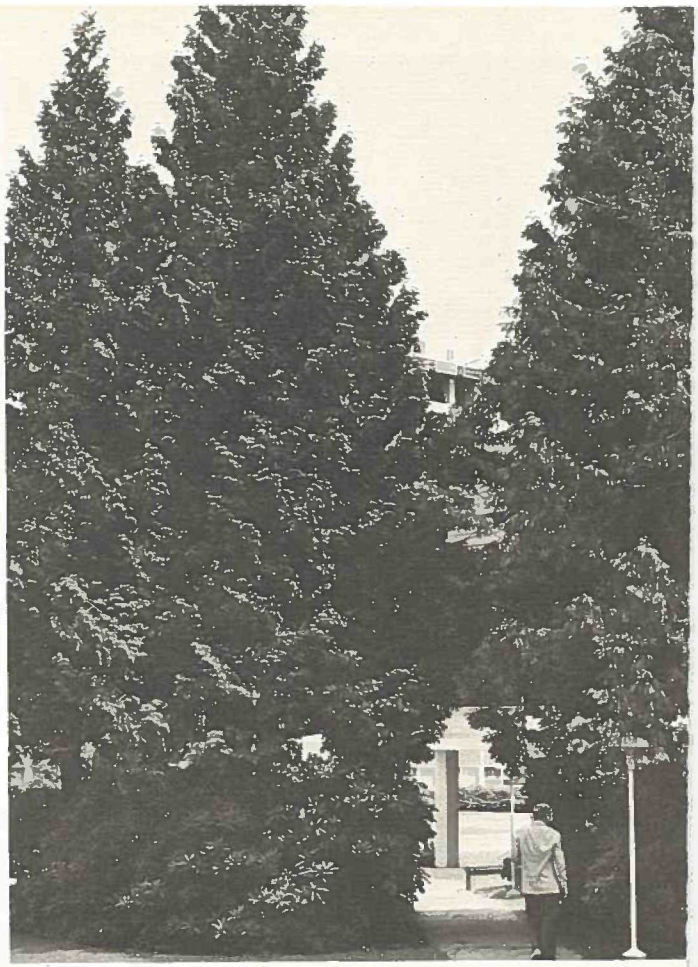




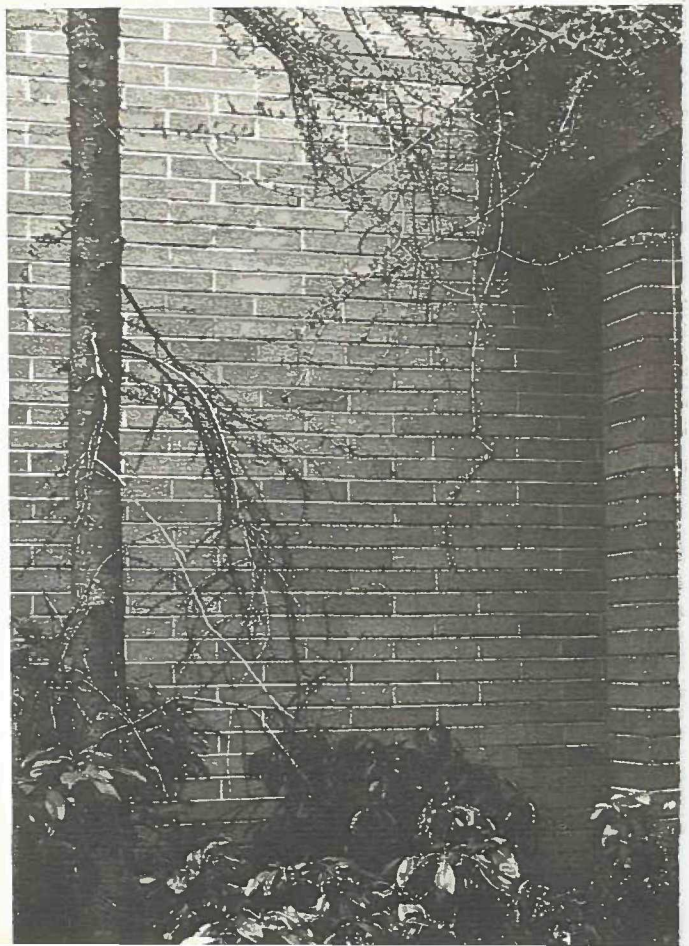
Stranvaesia davidiana, Chinese Stranvaesia, an unusual Asiatic shrub that is found in many combination plantings. This particular planting shows how effective this shrub can be, placed along a northerly exposure. The shrub is used for its form and for the colouring of the leaves and fruit.

Stag's-horn Sumac, Rhus typhina with Cornus alba 'Sibirica', Westonbirt Dogwood, an interesting combination of two shrubs used as a decorative bed with screening attributes for residences.





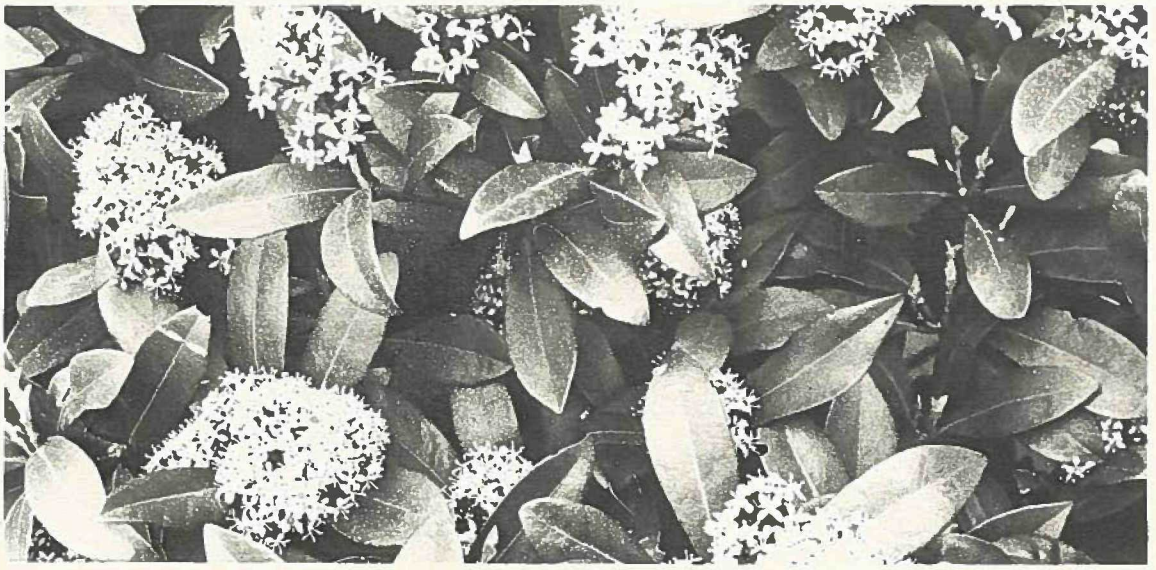
One of the pathways leading to the residences featuring extensive Rhododendrons used as under-storey planting for native coastal forest tree species. The common conifer here is Western Red Cedar, Thuja plicata.



A courtyard with a northerly exposure adjacent to one of the residence entrances. The specimen tree is the Tamarack or American Larch, Larix laricina and the under-storey planting is Kalmia latifolia, the Mountain-laurel.

Two specimen trees, the American Elm, Ulmus americana, which were grown from the same seed lot. The tree on the left represents the typical form whereas the tree on the right is a unique globose form which has potentiality for use as a street tree. These two trees are found at the corner of University Boulevard and West Mall.

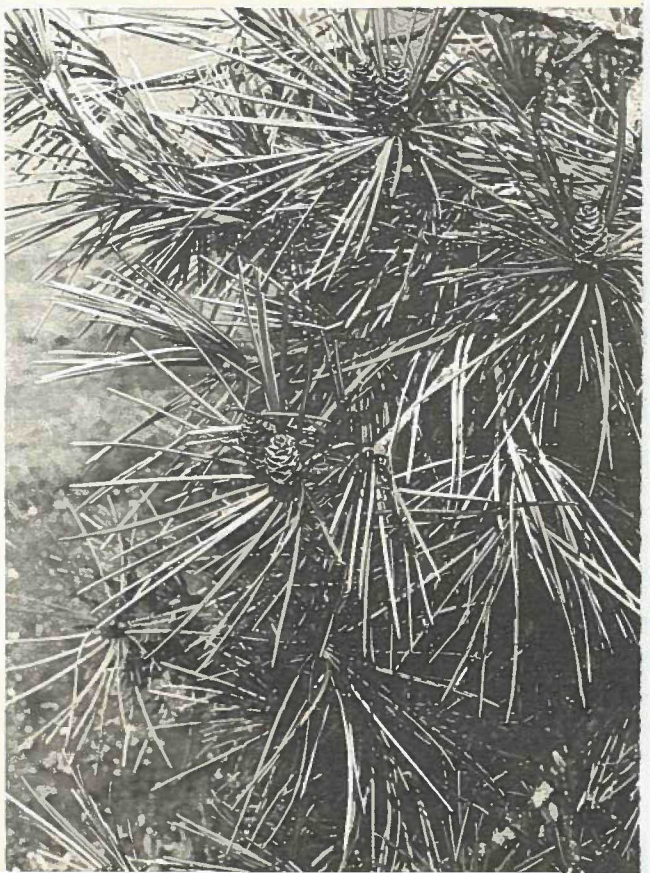
A colourful and most successful compact shrub used for landscaping in semi-shade or full shade conditions, Skimmia japonica. The evergreen foliage remains attractive throughout the year and the white flowers and red berries are showy during the spring and fall seasons respectively.

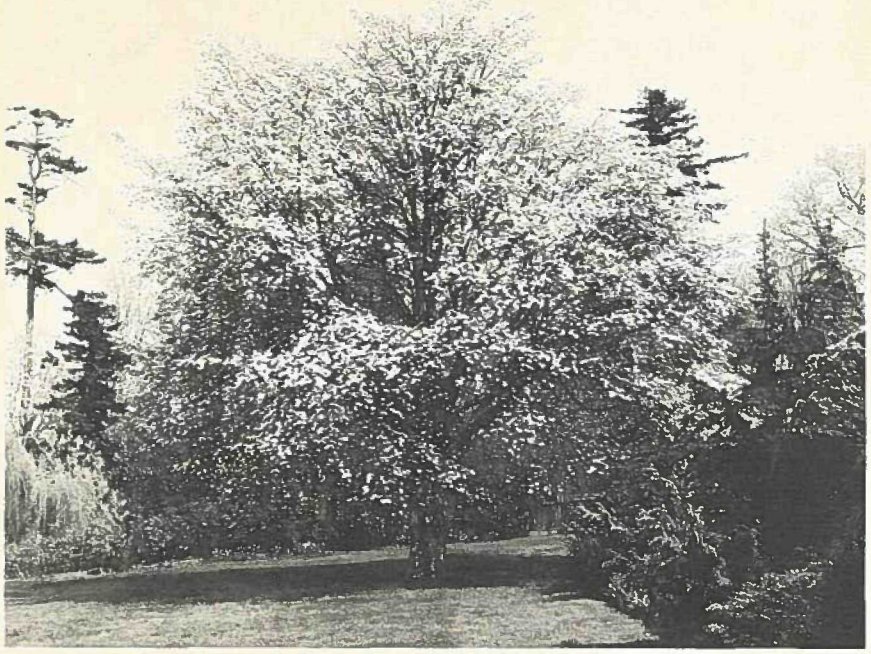


Old Arboretum

Many large exotic specimens are found in the old arboretum below the West Mall. Shown to the right is a mature trunk of the Paper Birch, *Betula papyrifera*. Several new office buildings have been constructed on the site and a serious attempt has been made to retain many of the important specimens in the arboretum. The arboretum was designed and established by Professor John Davidson during the early construction period of the University campus. The trees and shrubs are arranged according to the evolutionary system proposed by Engler and Prantl. The conifers are found in evolutionary sequence beginning at the northwest corner of the arboretum. The deciduous and evergreen broad leafed non-conifers are arranged in evolutionary sequence beginning with the catkin bearing trees and shrubs such as the Alders, Birches and Willows. Most of the trees in the arboretum are labelled and are used extensively by people studying botany or forestry.

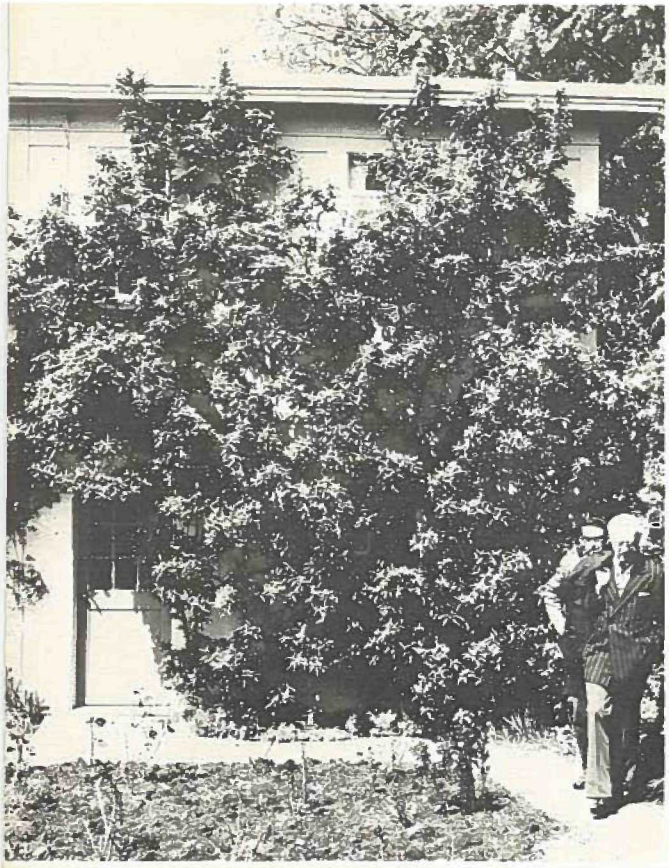
On the lower right can be seen the details of the cones and needles of the Japanese Umbrella Pine, *Sciadopitys verticillata*.



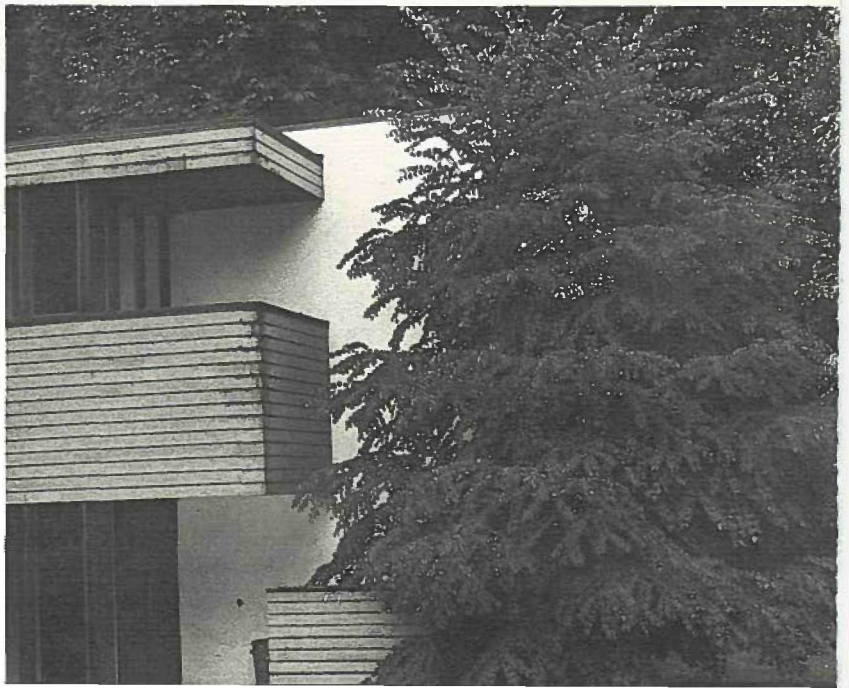


A fine flowering specimen tree of Western Flowering Dogwood, Cornus nuttallii. The species is the provincial emblem of British Columbia. This particular plant may be found at the Graham Residence in the extensive lawn area just above the cliffs.

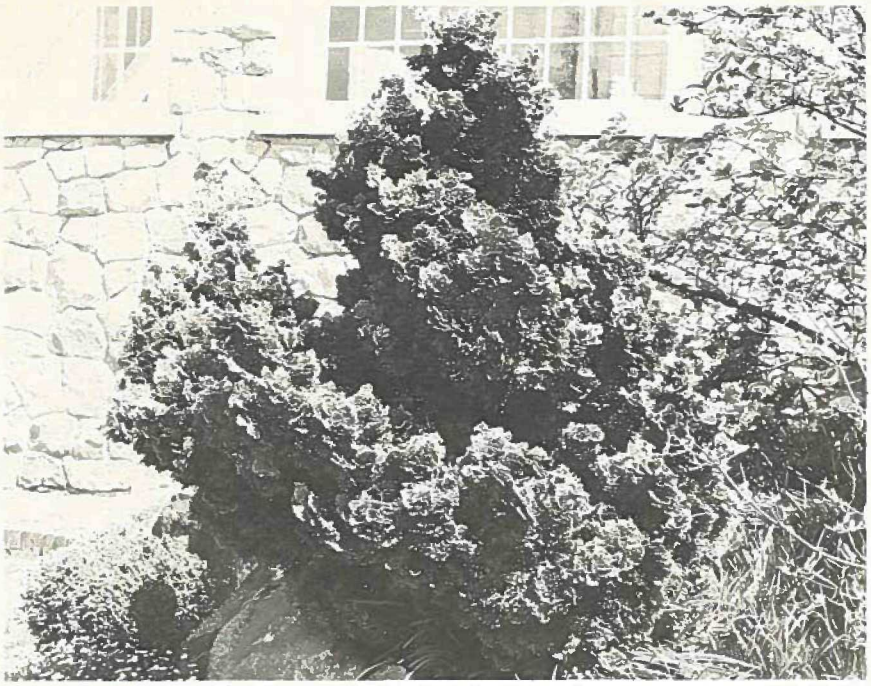
An unusual specimen of the Norway Spruce, Picea abies, found near the U.B.C. Entrance number 6 and the Lower Mall. This tree is near the site of the original Japanese Garden prior to the development of the well-known Nitobe Memorial Garden.



A most unusual flowering and fruiting shrub grown in the Vancouver area is the Medlar, Mespilus germanica. This shrub, well-known in Europe for its fruit used in jams and jellies, is not common in North America. The specimen shown is espaliered against the south wall of the handball court in Cecil Green Park.



An Asian tree which is often used in landscaped plantings where graceful form and attractive foliage is desirable. The Katsura-tree, Cercidiphyllum japonicum is found at the northwest corner of the Panhellenic House near the Nitobe Memorial Garden.



Chamaecypaeris obtusa 'Filicoides', the Fern-spray Cypress, found in the rock garden area near the west side of the Alumni House, Cecil Green Park. The garden at Cecil Green Park contains many fine specimens of horticultural interest.

Pieris japonica is one of the most widely used small flowering and foliage shrubs in the west coast landscape. The fine mature specimens shown serve as part of the shrubbery border along the driveway to the President's residence.

Opposite: "Transcendence", a cast and welded fountain sculpture in the pool of the Thea Koerner Graduate Centre. Lilacs, Syringa vulgaris and Cotoneaster franchetii ring the fountain pool. Opposite the pool can be found excellent specimens of Carpinus tschonoskii, a Hornbeam native to Japan, Korea and China.

REFERENCES

Hilliers' Manual of Trees and Shrubs. 1971. Hillier and Sons, Winchester, England.
Wyman, Donald. 1971. Wyman's Gardening Encyclopedia. The MacMillan Company, New York, New York.

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CLIMATOLOGICAL SUMMARY*

Data 1972	*April*	*May*	*June*
Mean temperature	44.15°F	55.15°F	57.25°F
Highest temperature	63°F	81°F	71°F
Lowest temperature	32°F	41°F	46°F
Grass minimum temperature	21°F	31°F	36°F
Total rainfall/No. days with rainfall	4.69/18	.99/11	2.06/14
Total snowfall/No. days with snowfall	NIL	NIL	NIL
Total hours bright sunshine/possible	135.9/404.02	228.1/468.03	168.0/482.29
Max. wind speed for 1 hour/direction	14/SE	16/SE	12/NW
Mean mileage of wind at 3'	87.6	79.0	65.4
Mean mileage of wind at 40'	128.9	113.5	103.0

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

Periwinkle, *Vinca minor*, a common ground cover used in many areas on the campus.

DAVIDSONIA

Volume 3 Number 2 *Summer 1972*

Contents

Campus plants 9
Buchanan Building-Sedgewick Library 11
Lassere Building-Music Building-North Administration Building 14
Ponderosa Cafeteria Area 19
Education Building 22
The Main Mall 23
MacMillan Building of Agriculture and Forestry 24
Vanier Student Residences 27
Old Arboretum 32

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