Published by UI

Arboretum Associates

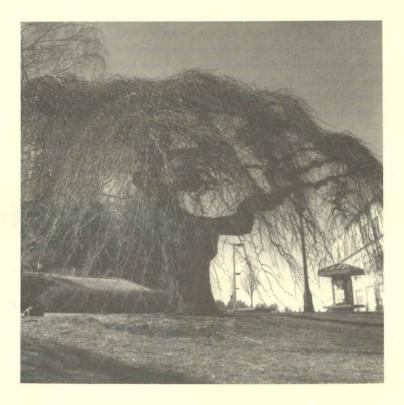
April 1990

Idaho's Wych from Camperdown House, Scotland

by Richard J. Naskali, Arboretum Director

Perhaps UI's most memorable established trees are the nine gracefully pendant 'Camperdown' elms along Campus Drive and the three west of the Administration Building. These specimens, planted circa 1917-1920, have elicited numerous questions over the decades. Their origin, propagation, and establishment in our landscape have generated a circuitous story which transcends landscape horticulture and botany.

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A seventy-year-old 'Camperdown' elm near the Margaret Ritchie School of Home Economics, University of Idaho.

R.J. Naskali photo, 2/25/90.

The 1990 Annual Meeting of the Arboretum Associates will be 7:00 P.M., Wednesday, May 9 at the Sweet Avenue House (across from the parking lot behind the Music Building). Among items on the agenda are the vote on revisions to the Constitution and Bylaws of the Arboretum Associates, the election of one board member for a three-year term, and short reports of progress during the past year. A slide presentation of English gardens will be presented by Dick Naskali, Arboretum Director. All members, as well as anyone interested in learning more about the arboretum project, are encouraged to attend. MNJ

The likely progenitor (*Ulmus glabra* Hudson) of the UI trees is native in the United Kingdom (U.K.), northern and continental Europe, and north central Russia. Trees of the wild type are frequent in southern Norway, Sweden, Finland, northern Germany, and the Baltic States; they are less common in the lower Pyrenees, Black Forest upland in Germany, moderate elevations in the Alps, Carpathians, and the northern Balkan mountains. Although trees of this species have been known as "Wych" or "Wych elm" for centuries, the term "Wych" also has been applied to numerous other woody plants (e.g., *Carpinus, Ulmus laevis, U. campestris*). Wice also meant "elm".

Among the elms of the U.K. today, the Wych elm (also called Scotch elm) has the largest leaves; leaves have a pronounced rough upper surface and a rather prominent "drip tip". The specific epithet, glabra, alludes to the smooth twigs, at least on one to two-year-old twigs of some plants.

During prehistoric to medieval times, there were many terms that designated elms and other trees which were then not clearly distinguished from elms: ip, iper, iep, ipen, lem-, lm-, elm, ilm, olm, olmo, ulme, ulmu, almr. The Celtic tribal name Lemovices is generally interpreted as "elm warriors". In England, the two words elm and wice persisted until standard English spread from London. "Wych" remains a common name of some elms in the U.K. today. It is interesting to contemplate how wych and wice (meaning "elm") became confused with wice, later witch.

Elms, important in prehistoric times, are found in archaeological artifacts: elm bows were found in Mesolithic deposits in Denmark; wheel hubs were preferentially of elm where it was available; in Mycenean times there were records of elm chariots; a wheel rim of a bent single piece of elm was found at an Iron Age site in Switzerland; there are records of two Bronze Age human burials (one in an elm trunk, one on an elm plank) from the Salisbury Plain of England. There is much evidence that the tree we now know as "English" elm (*Ulmus minor* Miller) was introduced into the U.K. from continental Europe through human activities.

Today, continuing a practice of centuries past, forked, pliable twigs of the upright-growing, wild Wych elms are occasionally used by water dowsers wyching (literally, "elming") for water. Was it by a grammatical error in interpreting the medieval root words that this practice become "witching" for water?

Enter Adam Duncan (1731-1804) second son of Alexander Duncan of Lundie in Perthshire, Scotland. In 1746 he entered the navy, served on the sloop Trial under his maternal uncle; he attained flag rank in 1787, became viceadmiral in 1793, and admiral in 1795. Prior to the Napoleonic Wars (1793-1815) Adam Duncan had a career in the British Navy with little excitement and recognition during most of his service. Commencing in 1795, Adam Duncan was commander-in-chief in the North Sea: he hoisted his flag on board the Venerable. His summer of 1797 was one of mutiny and anxious vigil: a Dutch fleet with 30,000 troops was preparing for the invasion of Ireland. Subsequently, Duncan, with a fleet of 16 ships, decisively defeated the Dutch in the Battle of Camperdown, October 11, 1797. Duncan in the Venerable. assisted by Vice-admiral Onslow in the Monarch, cut through the Dutch fleet of 16 ships and prevented it from reaching safe shoals along the Netherlands' coast between Kamperduin ["camp" +"dune": "Camperdown"]and Egmond aan Zee ["Egmont"], NNW of Alkmaar. continued on page 6



On trunks, the clear graft union has wild type Wych elm bark (below) and the 'Camperdown' stem and bark (above).

R.J. Naskali photo, 2/25/90.

FYI The Arboretum Associates will sponsor a non-judged flower show in Moscow in early June. Details are not final vet but all gardeners will be encouraged to bring either flowers and/or arrangements with named varieties of flowers. We request named varieties so visitors seeing flowers they might like to include in their gardens can ask for them by name at their nursery or garden store. More information on this in the local Moscow paper when plans become final. MNJ

WORKSHOP REMINDER

"Residential Landscaping." will help the homeowner find solutions to landscaping problems. Glenda Hodge. landscape designer, suggests that anyone interested in participating bring a sketch of his/her property (drawn to scale if possible) as well as photographs of the problem areas. This is a marvelous opportunity to meet and get sound advice from a professional. The workshop will be limited to 20 people so each person will receive some individual attention. To reserve a place in the workshop, sign up on the special sheet at the UI Student Union Information Desk. The workshop will be at 7 p.m., Thursday, April 26, at the Student Union Building. MNJ

Hybrid Tuberous Begonia Culture

By Mary Luther

After seeing the beautiful flowers of tuberous begonia (Begonia X tuberhybrida Voss), we all may be tempted to try their culture. There are several types that are especially attractive: flowers of the "Rosiflora" types look like rose flowers. By hybridization of the "Carnation" types with the "Camellia" types, attractive double, ruffled types originated. The begonias are available in shades of pink, red, yellow and orange. "Picotee" types have combinations of colors: white with a red edge, or yellow with a pink petal edge much like that of the 'Peace' rose. Hanging basket types make spectacular displays. "Mini-strains" have smaller than usual plants. Usually, not all types are found in most garden stores; there are several mail order sources of tuberous-rooted begonias.

I like to culture the Pacific Coast Hybrids which are the results of hybridization by central California growers since 1916. These hybrids have outstandingly beautiful, large flowers which surpass the other forms that I have tried.

Tuberous begonias originated in the Andes of Peru, Bolivia and Ecuador where night temperatures are cool (50-55F) and day temperatures are moderate (75-80F). I find that these begonias can thrive at higher day temperatures if I mist them regularly at the hottest part of the day. Tuberous begonias grow best in partial shade/filtered sunlight. The greater the amount of light that these begonias receive without burning the leaves, the more abundant the flowers. Plants are brittle and must be protected from winds. It is sad to have a prize plant broken off by the wind at show time—and I speak from experience.

The most important factor in preparing soils for tuberous begonia is perfect drainage. Plants will grow in any good garden soil which drains well. For an ideal potting mixture, use four parts of leafmold or peatmoss, one part coarse sand, and one part garden soil. (You can use well rotted manure for part of the humus). I like to add a tablespoon of bone meal and a small amount of slow release fertilizer for each potful of culture medium.

Tubers are rather flat-rounded with a convex bottom and a concave top. They usually are sold in three sizes: small, medium, and large. "Bigger is better" is not necessarily true with these begonias, for tuber size is not the primary determinant of flower size. Flower size is determined by genes gained by selective breeding. Large tubers do, however, yield larger plants and more abundant flowers than small and medium tubers. I personally find that medium size tubers are more than satisfactory for the plants are easier to move, and the medium tubers are considerably less expensive than the large ones.

The first step in starting the spring growth of the tubers is very important. Delay planting until tubers have sprouted on the top. Place unsprouted tubers in a dark, warm place until sprouts appear. When the fragile sprouts are about 1/4-1/2 inch long, they are ready for initial planting in flats. At this time, I fill a nursery flat with a 1:1 mixture of sand:leafmold or peatmoss. No fertilizer or manure should be used at this stage. Space the sprouted tubers evenly in the flat, allowing 3-4 inches between tubers. I recommend that you cover the tubers so that they will form roots at the sides and the top.

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Then, water carefully so that the medium is uniformly moist. Move the flat to a warm, well lighted place and keep the rooting medium barely moist.

Young plants will be ready for careful transplanting from flats to individual pots in about six weeks. For potting, I recommend using azalea pots (which are as wide as high) or bulb pans (which are wider than high). Place a piece of broken pot over the hole (convex side up), and fill to one half with the potting mix. Place the begonia plant in the center, and finish filling the pot. Water thoroughly. I then place the pots at the north side of my small greenhouse until all danger of frosts is past. After danger of frost is past, I keep my potted tuberous begonias on sturdy outdoor shelves on the north side of my garage where they will be exposed to open skylight.

I like to use individual pots because I am in control of watering. Watering is one of the most important factors in the successful growth of these begonia. Overwatering is one of the most common mistakes; it can cause root and tuber decay and causes flower buds to drop without opening. Water well—but only when the surface of the potting mixture is starting to dry out.

Tuberous begonias grow rather well without fertilizer, but the response they give to careful fertilization is rewarding—especially in the case of potted plants or those in hanging baskets. I use a high phosphorous content fertilizer according to directions on the package. The appearance of begonia leaves will give good clues to times for fertilizing. Leaves should be bright green and flexible. If the leaves are dark, bluish green, brittle, and downward curled at the edges, they are receiving too much nitrogen fertilizer.

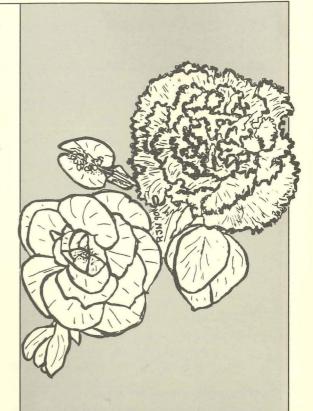
After the first frosts of autumn, you should begin withholding water. Do not let the tubers freeze! If the aerial stems have not dropped from tubers by early November, I cut them off about three inches from the tuber. Place the pots on their sides in a dry, frost free place. After the aerial stems drop off, carefully clean the tubers and store them overwinter in horticultural vermiculite in a cool, dry area.

Tuberous begonias are very rewarding!

—Mary Luther (Mrs. Vernon Luther), Moscow, ID, has years of experience with tuberous begonias and was named "Idaho State Horticulturalist of the Year", "Idaho State Garden Club Woman of the Year", and "Idaho State Flower Arranger of the Year" at the June 14-16, 1989 annual convention of the Idaho State Federation of Garden Clubs, Idaho Falls, ID.

WATERFOWL ALERT!

Canadian geese and Mallards have returned and are using the new arboretum ponds. Please keep dogs out of the arboreta in order to prevent disturbing the birds and to prevent killing of the ducklings as happened to two Mallard families during 1989. Enjoy the waterfowl from a distance. Thanks. RJN



In every city and town there are a number of interesting gardens that passersby peer into from a distance, not knowing the people who live there or whether a closer look would be permissible. One such garden is that of Dick and Marlene Johnston, Highland and Orchard Avenues in northeast Moscow. An invitation is extended by them to area garden clubs or interested individuals to visit the garden when irises bloom. Over 150 marked, named varieties bloomed last year and more varieties are expected to bloom this year. Feel free to wander in for a closer look at some fine iris

If you pass an especially nice garden or plant that you'd like a to look at more closely, don't hesitate to ask for permission. It's been my experience that people who cultivate gardens are more than pleased to have their work enjoyed by others. MNJ

News from the Arboretum Director:

ANNEXATION OF NEW ARBORETUM & UI GOLF COURSE:

By unanimous vote at its regular meeting February 26, 1990, the Moscow City Council approved the annexation of the new arboretum, the golf course, and some other UI land into the University Zone of Moscow. Previously these state owned lands were not within the city limits of Moscow. The zone change now consolidates these university lands into Moscow Police Department jurisdiction for university regulations.

USEFUL PUBLICATIONS:

Although most fruit tree pruning is completed, there is a leaflet that includes useful sketches and summarizes some methods: **Training and Pruning Apple and Pear Trees**, March, 1983, 20 pages, Number PNW 156 (a Pacific Northwest Extension Publication), for \$0.50. Dr. Robert Tripepi's six-page leaflet, **Pruning Landscape Trees and Shrubs**, CIS No. 766, for \$0.45, has many valuable guidelines for anyone who is a novice in the proper pruning of woody plants.

For a brief listing of some potential home landscaping plants for our region, obtain **Plant Materials for Landscaping**, Number PNW 185, May, 1978, 30 pages, for \$ 0.50. This booklet lists potential home landscaping plants by height, growth pattern, flowering habits, common & botanical names, and U.S.D.A. hardiness zones.

A free List of Available Publications (Bulletin No. 401), and the booklets listed above, may be obtained upon payment of proper fees plus Idaho sales tax from Ms. Connie King, Ag Publications Building, Building J40, Idaho Street, University of Idaho, Moscow, ID 83843.

Selection of woody ornamental plants for outdoor landscaping should become more reliable as a result of two important new publications. The USDA Plant Hardiness Map of the United States [GPO stock number 001-000-04550-4, \$6.50, Superintendent of Documents, Government Printing Office, Washington, D.C. 20402] is a recently released four color edition. The new 4' X 4' map incorporates 1974-1986 data of annual minimum low temperatures of some 14,500 weather stations in the U.S., Canada, and Mexico.

The National Arboretum Book of Outstanding Garden Plants, March, 1990, is a 320 page first edition by Jacqueline Heriteau with Dr. H. Marc Cathey and other staff of the U.S. National Arboretum. It has some 450 color photographs and presents a guide to selection of outdoor woody plants for landscaping. This book incorporates new hardiness data and many facets of plant qualities that will be useful for selecting plants for home gardens. This \$39.95 publication may be purchased through retail booksellers.

AZALEA AND RHODODENDRON TIPS:

Because of the many and local variations (and vagaries) in weather and microclimates, any book, map, or guide is only a first approximation for hardiness in outdoor plant selection. This caution should be particularly heeded in Idaho where great altitudinal variations are partially responsible for this state's three major U.S.D.A. hardiness zones: 4 (coldest) through 6. Although many garden and landscape publications incorporate the older U.S.D.A. plant hardiness data, be aware that the "zones" of the Sunset publications are based upon another zone system that is not as widely published or accepted as that of the U.S.D.A.

Perhaps plant hardiness is not any more widely ignored than in the spontaneous sales and purchases of rhododendrons and azaleas during springtime in the Intermountain West. When these spectacular plants are offered in flower for sale at modest prices by supermarkets and chainstores, they are difficult to resist. Many that are sold stand little chance of long-term survival in Idaho. With proper site selection and preparation, and careful choice of varieties, it is possible to have successful plantings of rhododendron and azalea in Idaho.

For the rhododendrons (broadleaf evergreen forms), favorable sites in most of Idaho would be eastern and northern exposures to open sky such that direct sunlight is avoided during wintertime. Southern and western exposures should be avoided. A moist, well drained planting medium should be prepared carefully. The soil pH should be acid; fertilizers which maintain the proper pH should be used. The carefully mulched rooting/planting medium should not be disturbed by interplanting with annuals, spading, digging, for such activities are destructive of the fragile, fine root systems of rhododendrons and azaleas. If you intend to start and have successful plantings of rhododendrons and azaleas, carefully consult reliably authored books or persons who have mastered the art before you invest in the plants. If you are serious about wanting to give your rhododendrons and azaleas a good chance for survival in Idaho, be cautious about purchasing unlabeled and poorly labeled plants at supermarkets, chainstores, and poorly operated nurseries.

Camperdown House ... continuation

Admiral Adam Duncan had defeated De Winter, the Dutch admiral, and captured 11 ships! Then recognition came: Admiral Duncan became Baron Duncan of Lundie and First Viscount Duncan of Camperdown (October 21, 1797). Some historians saw Duncan's battle at Camperdown as the forerunner of Trafalgar. A portrait of Duncan was hung in the Painted Hall at Greenwich and, at public expense, a statue was erected in St. Paul's. In 1831, 27 years after Adam Duncan's death, his eldest son became the Earl of Camperdown and his other son and four daughters were presented the rank and precedence of the children of an earl.

Camperdown, formerly Lundie, House, is some three miles north of Dundee, Scotland. Dundee, place where jams are famous and "Dennis the Menace" originated, lies on the north side of the Firth of Tay and west of the North Sea. In 1846, the Camperdown House was described as "...an elegant modern Grecian structure, embellished on the east with a portico supported by eight massive Ionic columns; it is built of white Killala sandstone. The interior contains a beautiful saloon, lighted by a cupola; and among the ornaments of this splendid mansion is a striking and much-admired painting by Sir John Copley, representing the scene on board the Venerable immediately after the battle of Camperdown, in which De Winter appears as one of the principal characters, delivering up his sword to the British admiral. Adjoining the house is a large mass of wood exhibiting the effigy of a lion, which was the bulkhead of De Winter's ship, Vryheid; and about a quarter of a mile from the house are extensive shrubberies and gardens."

Among the Wych elms, there are at least two different weeping forms. *Ulmus glabra 'Pendula'*, the Weeping Wych or Scotch elm, trees have picturesque, pendulous branches; the overall tree profile is flat topped. This mutant was described in an 1869 English publication which also elucidated a "weeping" form of American elm (*Ulmus americana*). That 1869 publication ambiguously alludes to another "weeping" elm, described by Thos. Rivers as, "...a very graceful pendulous tree. My specimen is about 30 years old and 30 feet in height." Was the latter in reference to a 'Camperdown' elm?

According to all of the literature that I found, the origin of the 'Camperdown' elm (Ulmus glabra Hudson 'Camperdownii' was at the Camperdown House, Scotland, about 1850. In The Gardeners' Chronicle (London), September 25, 1911, A.D. Richardson of Edinburgh wrote, "Mr. Mitchell, nursery foreman to Messrs. R.B. Laird & Sons, Ltd., Edinburgh, informs me that some 30 years ago he saw the original plant of the variety growing at Camperdown House, the Earl of Camperdown's seat near Dundee. The tree, Mr. Mitchell states was of considerable age then, and quite prostrate in habit, creeping along the ground amongst other Elms." Richardson added that "...excepting in British and American nursery catalogues, the Camperdown variety very rarely receives notice in any of the literature pertaining to trees....the Camperdown variety is undoubtedly the choicer of the two. It forms a fine, umbrella-shaped head, which is in marked contrast with the flat, somewhat stiff-looking crown of the other variety [Ulmus glabra 'Pendula']." By 1911, there were many fine specimens of the 'Camperdown' Wych elm in the Grange Cemetery, Edinburgh, Scotland.

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News from ... continuation

Generally, rhododendrons and azaleas are rated for hardiness according to a system that differs from that of the U.S.D.A. Reputable rhododendronazalea propagators, nurseries, and sellers should give reliable hardiness ratings for the plants that they distribute. The rhododendron-azalea hardiness rating system ranges from -25F bud hardiness ("H-1", most hardy) through higher temperature ratings and higher "H" numbers (= ever decreased chances of survival in most of Idaho and the Intermountain West). With the exception of Lewiston, Idaho, most of northern Idaho should be considered as -25F ("H-1") whenever you select these plants for your outdoor gardens. Elsewhere, consult with your Extension Service Agents or reliable zone maps and nursery operators to ascertain your average minimum winter temperatures.

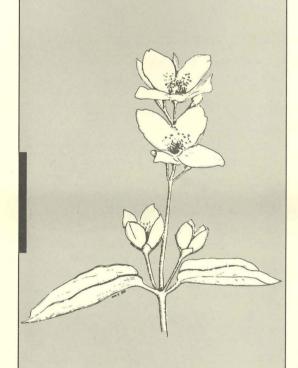
Most of the evergreen azaleas sold as pot plants by florists and supermarkets are not winter hardy in Idaho. With the exception of Lewiston, Idaho, most evergreen azaleas are not winter hardy in northern Idaho even though many are sold through some chainstores here. For azaleas, the best prospects for winter hardiness in Idaho come by selecting the various deciduous forms of 'Exbury'/Knap Hill. These can have an array of flower colors from yellows, oranges, through pinks.

Among the hardiest (to -25 F) rhododendrons are:

'Nova Zembla', 'Boule de Neige', 'Euclid', 'H.W. Sargent', 'Parson's Gloriosum', 'P.J.M.', 'Pioneer', 'President Lincoln', 'Purple Gem', 'Ramapo', 'Roseum Elegans', 'Spring Parade', 'Waltham', 'Windbeam', Rhododendron catawbiense 'Album', 'America' and 'Boursault'.

Happy Gardening! -R. J. Naskali

There is still time to plan to plant a tree on Arbor Day, Friday, April 27. Check your yards for likely places, visit your local nurseries, determine varieties appropriate for the chosen site, make your selection and plan to celebrate Arbor Day the way it was meant to be celebrated—by planting a tree. MNJ



We thank those of you who have recently sent in contributions for the Shattuck Arboretum. That mail is most welcome and makes those of us who contribute our time to the project feel that what we do is not in vain. We also enjoy receiving your comments and suggestions. Our next issue of ARBORNOTES will be out in late August. MNJ

In the early 1900's, grafted 'Camperdown' elms were commonly planted in the northern U.S.A. There were many fine specimens in eastern U.S.A. (e.g., Greenlawn Cemetery, Columbus, OH). In western U.S.A., in addition to the UI specimens, there are mature 'Camperdown' Wych elms at the Strybing Arboretum, San Francisco, the University of Washington Arboretum, Seattle, and many other places. Dutch elm disease continues to take its toll, however.

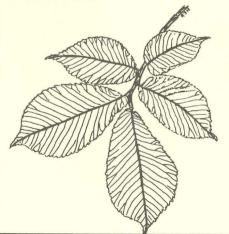
Propagation of the 'Camperdown' Wych elm is usually by grafting or budding, for elms are sometimes difficult to propagate by stem cuttings. In addition, it is desirable to graft the scions of 'Camperdown' elm at about one meter above the soil onto the stock of an established, upright growing seedling of the wild type of *Ulmus glabra*. If one were to have 'Camperdown' elms on their own roots, or if they were grafted onto a stock at ground level, one would have a very dense ground cover!

Grafting or budding scions of these elms onto the proper stem or rootstock is fairly simple; grafting has been practiced by humans for centuries. Indeed, Francis Bacon (1626) stated, "A Cions of a Weech-Elme, grafted vpon the Stocke of an Ordinary Elme, will put forth Leaues, almost as broad as the Brimme of ones Hat." Contrary to some folklore and opinions, 'Camperdown' Wych elms and other "weeping" or pendulous trees are NOT the consequence of inserting the scions upside down in the grafting process. Today, young 'Camperdown' elm trees are available at many garden stores/ retail nurseries in Moscow and elsewhere around America for approximately \$50-70, a price that reflects the extended care in a nursery for some 2-3 years after grafting/budding.

At UI there are two 'Camperdown' elms not of the 1917-1920 original planting. The 30-year-old tree at the Physical Plant Center originated in 1960 when UI's Bill Snyder, (now Professor Emeritus of Landscape Architecture) budded 'Camperdown' onto a sapling elm; the small 'Camperdown' elm west of the Administration Building Auditorium was planted there circa 1986-87. Our 14 UI 'Camperdown' elms continue in peril, for these trees are not immune to the Dutch Elm Disease's causal fungus. There is regular control of the European and American species of elm bark beetles which are vectors of the fungus that can be lethal to our elms. The crown gall tumor bacteria that caused burls at trunk bases or at graft unions of some UI trees have been systemic for decades.

Had not Admiral **Adam Duncan**'s warships defeated De Winter's fleet at **Kamperduin**, would the UI 'Camperdown' elms be called 'Lundie' elms?

©-Richard J. Naskali 3/23/90



"A Cions of a Weech-Elme, grafted vpon the Stocke of an Ordinary Elme, will put forth Leaues, almost as broad as the Brimme of ones Hat."

Francis Bacon 1626

Constitution and Bylaws: Suggested Revisions:

In accordance with the wishes of the general membership present at the Annual Meeting of 1989, the Constitution Committee, (**Dean Vettrus**, Chairman, **JoAnn** (Mrs. Eugene) **Thompson** and **Lillian Pethtel**), has recommended the following revisions to the Constitution of the Arboretum Associates. The changes are identifiable in this manner: deletions are indicated by strikeouts; additions are indicated by **bold face**.

CONSTITUTION OF ARBORETUM ASSOCIATES

ARTICLE I

DESIGNATION

The organization shall be designated as the Arboretum Associates of the University of Idaho.

ARTICLE II

PURPOSE

The Arboretum Associates is organized to further the development of, and interest in, the University of Idaho Arboretum (Shattuck Arboretum) and to disseminate information about, and from, the Arboretum.

ARTICLE III

MEMBERSHIP

Membership is open to all who are interested upon payment of annual or life membership dues make charitable donations to support the purposes of the Arboretum Associates. Categories of membership and dues shall be as described in the bylaws.

ARTICLE IV

ORGANIZATION - OFFICERS

- a. Officers Shall be a president, a vice president, a secretary, and a treasurer, each elected from the general membership of the organization for two year terms. An officer The president, vice president and secretary may serve for two consecutive terms but may not be reelected to the same office thereafter until four years have elapsed. The treasurer may serve as many consecutive years as the membership deems appropriate.
- b. Executive Committee The Ongoing business of the organization shall be conducted by an executive committee consisting of the officers and three members at large elected from the general membership to staggered three year terms. A member at large may serve for two consecutive terms but may not be re-elected thereafter until four years have elapsed. The Director of the Shattuck Arboretum shall be an ex officio, nonvoting member of this committee.

ARTICLE V

MEETINGS - MANNER OF ACTING

- a. There shall be one annual meeting of the general membership held in the spring of each year at a time and place determined by the executive committee. Special meetings may be held on call, if and as determined necessary by the executive committee. Included on the agenda of each annual meeting shall be a report on the status of the organization by the president, a financial report by the treasurer, election of officers and/or members at large, and such other business as may be brought before the group for consideration, information or action. For purposes of transacting business, members present shall constitute a quorum.
- b. The executive committee shall meet at least quarterly but may meet more frequently if necessary. For purposes of transacting business, members present shall constitute a quorum.
- c. General manner of conducting business shall be in accordance with bylaws developed by the executive committee and ratified by the general membership.

ARTICLE VI

AMENDMENT

This constitution may be amended by a two-thirds vote of the membership present at any annual or special general membership meeting providing that printed copies of the proposed amendment have been distributed to all members not less than four weeks prior to such a meeting.

ARTICLE VII

EFFECTIVE DATE

This constitution shall become effective upon ratification by a two-thirds vote of Associates called into special session for the purpose of adopting a constitution for the organization.

BYLAWS

FISCAL YEAR - January 1 to December 31 July 1 through June 30.

DUES - Dues due at beginning of each calendar year and to be paid to the treasurer per schedule:

SECTION 1. CATEGORIES AND MEMBERSHIP

Charitable gifts received from donors during the Associates fiscal year (July 1 through June 30 each year) qualify those donors as members at the levels identified below:

Annual membership fees (1979)

Membership Levels	Annual Contributions	
Student	\$ 2.50 5.00	
Individual Associate	15.00	
Family Associate	30.00	
Business	40.00	
Contributing Associate	75.00	
Sustaining Associate	100.00	
Clubs & Organizations (less than 50 members)	15.00	
Clubs & Organizations (more than 50 members).	25.00	
Life Associate	1000.00	

Donors who contribute \$1,000 or more during a fiscal year become Life Associates and will be recognized as such regardless of whether or not contributions are made in the future.

SECTION 2. DISTRIBUTION OF FUNDS

At the discretion of the Board of Directors, all money shall be: 1) deposited in a local bank with any reserve funds to be deposited in an interest bearing account as authorized by the Board of Directors, or 2) deposited with the University of Idaho Foundation, Inc. in accounts designated for the benefit of the Arboretum Associates and/or the Shattuck Arboretum Phase II.

SECTION 3. BILLS

All bills in excess of \$100.00 are to be approved by the Board of Directors before being paid. Two officers' signatures are to be used on checks if the Board of Directors is expending funds from a bank account that is not in the name of the University of Idaho Foundation, Inc.

SECTION 4. MEMBERSHIP CARDS

To be issued annually and dated.

SECTION 5. BOARD OF DIRECTORS

The Board of Directors is composed of the Executive Committee (elected officers and members at large) and the heads of each of the standing committees. The Director of the Shattuck Arboretum shall be an ex officio, nonvoting member of the Board of Directors. It shall meet at least quarterly as per constitution or on call by phone at least five days in advance. The call can be made by the president or two members of the board.

SECTION 6. COMMITTEES

Standing committees shall be appointed by the president and ratified by the Executive committee.

These Standing committees may include membership, finance, special grants, publications, nominations. Special committees shall be appointed as needed.

SECTION 7. PARLIAMENTARY AUTHORITY

Robert's Rules of Order, revised, shall be the parliamentary authority in all matters not covered by the constitution or the bylaws of this organization.

SECTION 8. HISTORICAL

The University of Idaho Library special collections shall be the depository for all Arboretum archives.

SECTION 9. DISSOLUTION

Upon dissolution of this organization, any money or property shall be given to the University of Idaho Foundation, Inc. Moscow, Idaho, for use of the Arboretum.

SECTION 10. RESIGNATION

If anyone resigns before the his/her term is completed, the president can appoint a person to fill the position with the approval of the Executive Committee.

-Marlene Johnston, 2/23/90

your convenience. Membership categories: NAME Student\$ 5 ADDRESS Individual Associate\$ 15 Family Associate\$30 Contributing Associate\$ 75 Sustaining Associate\$ 100 STATE ZIP Business\$ 40 Club & Organizations\$ 25.00 Enclosed is my contribution of \$ Please charge my MasterCard /Visa Expiration Date_____ Signature Contributors receive our periodic newsletter ARBORNOTES. Please mail your tax deductible contributions to: Arboretum Associates, P.O. Box 3391, University Station, Moscow, ID 83843. We invite your comments. COMENTS

We invite you to support the SHATTUCK ARBORETUM AND BOTANICAL GARDEN project. This form is provided for

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