July 1984

The Boxwood Bulletin

A QUARTERLY DEVOTED TO MAN'S OLDEST GARDEN ORNAMENTAL

Photo: Robert L. Frackelton

Formal Boxwood Garden of Mrs. James M. Sykes, Raleigh, North Carolina. *(See Page 14.)*

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Editor — Scot Butler
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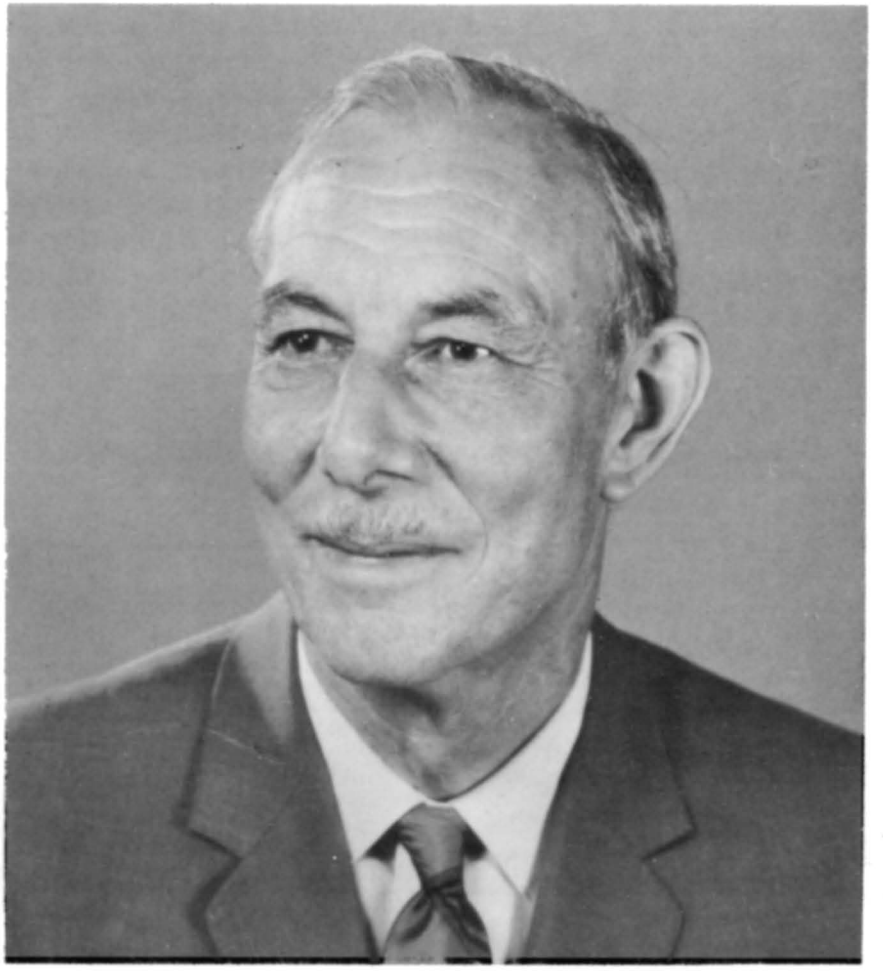
Skinner Awarded Veitch Medal 1
Report on Twenty-Fourth Annual Meeting 2
Members and Guests Attending Annual Meeting 5
In Memory 5
Scholarship Fund in Memory of Clara McCarty 5
Mycorrhizal Fungi-Friends or Foes of Boxwood 6
Charlottesville Boxwood Workshop 9
Introducing *Buxus sempervirens* 'Joy' 12
Fifth ABS Garden Tour 14
List of Participants, ABS Tour 18
The Seasonal Gardener 19
Identification of Boxwood Insects 20
Boxwood Honors Memory of Mt. Vernon Slaves 21
Message from VPI & SU Plant Disease Clinic 22
Boxwood Research at Virginia Beach Station 23
Restoration and Maintenance of Boxwood Gardens at Gunston Hall 24
Minutes of Directors' Spring Meeting 25
Minutes of Annual Meeting Business Session 27
Boxwood Stars in Holiday Decorations 29
Sixth International Conference on Jojoba 30
Notable Boxwood on Maryland Pilgrimage 31
Harrison Symmes at Maymont Garden Market 31
Notices 32
Membership Dues and *Bulletin* Subscriptions
Information Wanted on Balkan Boxwoods
Workday at Blandy Set for Fall
Directory ..... Outside Back Cover

ILLUSTRATIONS

Boxwood Garden of Mrs. James M. Sykes, Raleigh, NC Cover
Dr. Henry T. Skinner 1
Walnut Grove, 1779 farmhouse of Mr. & Mrs. Bryarly 2
Bell used to announce sessions of Annual Meeting at Blandy 3
Blandy Director Ewert chats with Lynn Batdorf and the Gambles 3
ABS members on tour of Memorial Boxwood Garden 3
Boxwood has overgrown paths of gardens at Scaleby 4
East portico of Scaleby through sea of boxwood 4
Mycorrhizal and nonmycorrhizal roots of cherry and sweet gum 7
Life-size sprig of *Buxus sempervirens* 'Joy' 13
Fifth ABS Garden Tour Party 14
Hedge of boxwood screens Wileman's rear garden 15
Wiley's guest house has own small boxwood garden 15
Octagonal herb garden at NC Botanical Garden 16
Mrs. Beecher enjoying view in Sarah P. Duke Gardens 16
Massive planting of box at Menius' house 17
Betsy Sykes and Joan Butler at Betsy's guest house 17
Drawings of Boxwood mite, leafminer and psyllid 20
Monument commenorating Mount Vernon slaves 21
Boxwood test plot at Virginia Beach 23
Dr. Schultz inoculating boxwood with leafminer 23
Display of boxwood decorations at Holiday Workshop 29
Dr. Carroll House with old boxwood, Annapolis, MD 31
Boxwood at St. Luke's, St. Michael's, MD 31

DR. HENRY T. SKINNER, FORMER ABS DIRECTOR, AWARDED THE VEITCH MEMORIAL MEDAL



The Council of the Royal Horticultural Society this year conferred the Veitch Memorial Medal on Dr. Henry T. Skinner, former Director of the U. S. National Arboretum. This is the highest honor that the Royal Horticultural Society can bestow on a foreign national who has contributed to the advancement of the science and practice of horticulture. Dr. Skinner, among other contributions, developed the national plant hardiness zone map that is basic to our understanding of the locations where cultivated plants may be expected to thrive in the United States. The gold medal was presented to Dr. Skinner in late February at the meeting of the Royal Horticultural Society in London.

Dr. Skinner is a Charter Member of the American Boxwood Society and served continuously as a Director from its founding in 1961 to 1979, when he retired to Hendersonville, North Carolina. During this period Dr. Skinner named three new cultivars in *Buxus L.*: 'Morris Dwarf', 'Morris Midget' and 'National'. All three clones were selected by Dr. Skinner from open-pollinated seedlings of *Buxus microphylla* var. *japonica* in the early 1950s when he was at the Morris Arboretum in Philadelphia. They were registered in the early 1970s (see *The Boxwood Bulletin,* Vol. XI, No. 3, Page 45 and Vol. 12, No. 4, Page 62) while he was Director of the National Arboretum in Washington, D. C. Dr. Skinner has contributed his professional knowledge to the pages of *The Boxwood Bulletin* and frequently advised on boxwoods at Annual Meetings. In addition to his interest in boxwood, he is a recognized authority on our native azaleas and has developed several hybrids from them. Dr. Skinner continues to pursue an active horticultural life in retirement.

Report on the Twenty-Fourth Annual Meeting of The American Boxwood Society

Sixty-six members and guests assembled at the University of Virginia's Blandy Experimental Farm, which serves as ABS headquarters, to take part in our twenty-fourth Annual Meeting. Regretfully, several registrants were unable to attend. Though the weather was marked by blustering winds and scattered showers at the outset it quickly cleared and the meeting proceeded under the fair skies that we have come to expect for this annual spring gathering.

Tuesday, May 8

The first event on the schedule was a wine-and-cheese reception at 4:30 p.m. graciously hosted by Mr. William A. Bryarly, retiring Executive Treasurer of the ABS, and Mrs. Bryarly. Guests found much of architectural interest in the Bryarly's 1779 brick farmhouse which has been continuously occupied by male descendants since it was built: the flemish-bond exterior brickwork, the incredibly high interior ceilings, the mellow old pine floor boards, the handsome old mantels and woodwork, and much more. In the tradition of Southern hospitality Mr. and Mrs. Bryarly and some of their family and friends immediately made ABS members feel at home in the warm, welcoming atmosphere. The Bryarly farm, which is just down the road and around the corner from Blandy, is operated today as a true working farm and visitors are treated to all the sights, sounds and smells that go with it, from grazing herds of Charolais cattle to noisy guinea fowl and peacocks. In the three years of their occupancy of Walnut Grove, as the family homestead is known, the Bryarlys have made great progress in reclaiming it from previous benign neglect.

Mr. Bryarly has sought sound agricultural and horticultural advice in bringing the farm to a higher state of cultivation. This includes care of the large old boxwoods planted by past generations. These boxwoods were severely pruned this spring to remove branches damaged by winter kill and scald. A newly established boxwood garden in the rear of the house also suffered from winter kill; the north and west sides of these plants remained green, while the

Photo: Scot Butler

Walnut Grove, the 1779 farm house of Mr. and Mrs. William A. Bryarly.

south side suffered from ice glare. After being trimmed, however, new growth has become established. Trimming was done in April at which time the bushes were fed with dehydrated bone meal. The Bryarlys spray against insects in May and plan this fall to wrap the larger bushes with burlap and to shield the boxwoods in the garden with a length of snow fence. Upon retiring as Executive Treasurer Mr. Bryarly wishes to convey this following message to the ABS membership: "Our recent association with the American Boxwood Society has created a new awareness of the dignity and beauty of boxwood and inspired us to commence a garden that we hope our son and his children will appreciate and enjoy."

Following a dinner-on-your-own hour the twenty-six early comers to the Annual Meeting gathered at 8 p.m. in the Blandy Library for an illustrated lecture by ABS President Richard D. Mahone on "Boxwood Gardens Visited." As Director of Horticulture, Colonial Williamsburg, Mr. Mahone has assembled an outstanding slide collection of boxwood plants and boxwood gardens at Williamsburg. In the course of his travels he has also captured on color slides the boxwoods of many world-famous gardens as well as more modest plantings. He has also been interested in photo-

graphing examples of boxwood decline and methods of dealing with winter problems of boxwood.

Upon completion of Mr. Mahone's presentation the enthusiastic audience adjourned to the Blandy dining room for refreshments.

Wednesday, May 9

The Annual Meeting started at a leisurely pace, with Mr. and Mrs. Robert L. Frackelton and Mrs. George W. Burton at the registration desks from 9 to 11 a.m. At 9:30 members and guests joined the tour of the Boxwood Memorial Garden, ably conducted by Blandy Director Thomas E. Ewert, or strolled around the grounds on their own enjoying the freshness of the early morning air and the incomparable beauty of the Orland E. White Arboretum. Beginning at 10:15 a.m. coffee was served in the Blandy dining room. Finally the tranquillity was shattered shortly before 11 a.m. by the peal of the brass bell in the yard announcing that the hour for the Business Meeting had arrived. Gradually members and guests made their way to seats in the Library and at 11 a.m. President Mahone called the Business Meeting to order. (The minutes of the Business Meeting are reported on Page 27.)

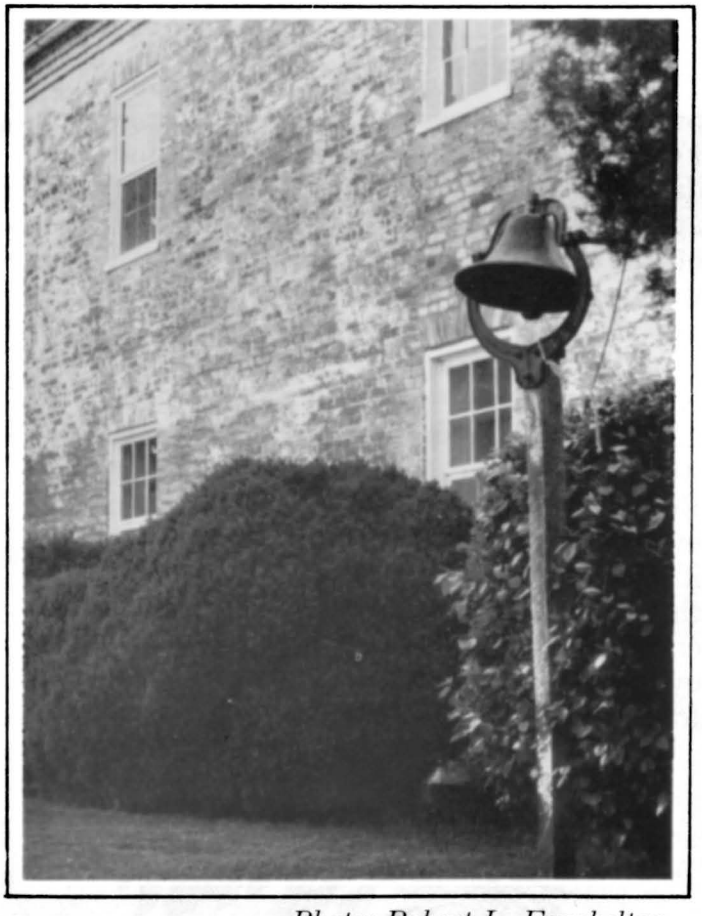


Photo: Robert L. Frackelton

This bell, used to summon members to sessions of the Annual Meeting, can be heard from great distances.

Photo: Scot Butler

Blandy Farm Director Thomas E. Ewert (left) chats with Mr. Lynn Batdorf, Curator of Boxwood at the U. S. National Arboretum (center), and Mr. and Mrs. D. Goodrich Gamble, Boxwood Society of the Midwest, St. Louis, Missouri.

Photo: Robert L. Frackelton

ABS members on tour of the Memorial Boxwood Garden.

A tasty box lunch was served after the Business Meeting concluded: some members picnicked on the grounds while others preferred the comfort of the Library or dining room. During the lunch hour there was an opportunity for those members who had brought labeled rooted cuttings to exchange them for cuttings brought by others.

The Meeting resumed at 1:15 p.m. with the Educational Program. The three speakers addressed quite different subjects; these are covered separately elsewhere in this issue (Dr. Hendrix on "Mycorrhizal Fungi — Friends or Foes of Boxwood?"; Mr. Taylor on "Restoration and Maintenance of the Boxwood Gardens at Gunston Hall;" and Mrs. Holekamp on "Boxwood Stars in Holiday Decorations"). At the conclusion of the talks First Vice President Mrs. Frackelton announced that a tour of the grounds of Scaleby, home of the late Mrs. Kenneth Gilpin, a Charter Member of the ABS, had been arranged by Mrs. T. Haliburton McCoy. Before the Meeting adjourned Mrs. Frackelton acknowledged with thanks the help of all persons, known and unknown, who helped with the Meeting. In addition to those already mentioned in this report she thanked Mrs. Scot Butler and Mrs. Thomas Ewert for serving as hostesses Tuesday evening, Mrs. McCoy and her committee for the flowers, coffee and lunch arrangements, Mr. Thomas Ewert and Mrs. Katherine Ward for helping to set up everything for the meeting at Blandy, and the University of Virginia for allowing us to use the facilities of the Farm.

Photo: Scot Butler

Boxwood in profusion has overgrown the paths of the formal gardens at Scaleby.

Photo: Scot Butler

East portico of Scaleby viewed through a sea of billowing boxwood.

Scaleby, built and planted on the grand scale, provided an impressive finale for the Twenty-Fourth Annual Meeting. Boxwood, much of it dating from the early part of the century, was apparently chosen, almost to the exclusion of other ornamentals, to landscape Scaleby. It is the principal foundation planting around the mansion and is the predominant taxon on the grounds and in the extensive formal gardens. ABS members enjoyed talking with the gardener of many years at Scaleby and wondered at the boxwood maintenance task. Because of the sheer quantity of boxwood everywhere, both common and dwarf, much of it has been neglected in recent years. Nevertheless, to stand among a sea of boxwood stretching in every direction almost as far as the eye can see is an experience not soon to be forgotten by those who visited Scaleby.

Members and Guests Attending the Twenty-Fourth Annual Meeting

Mr. & Mrs. F. A. Alley

Mrs. John A. Baden
Charlotte Ballard
Mr. Lynn R. Batdorf
Mr. Albert S. Beecher
Mr. & Mrs. John Boyd
Mrs. Timothy Bryan
Mr. & Mrs. William Bryarly
Mrs. George W. Burton
Mr. & Mrs. Scot Butler
Mrs. W. Dimmock Buxton

Mrs. Ruby P. Chism
Mr. William J. Chism

Mr. & Mrs. Ralph Denn

Mrs. & Mrs. Thomas Ewert

Mrs. Imogene C. Fair
Mr. James A. Faiszt
Dr. Walter S. Flory
Mr. & Mrs. Robert L. Frackelton

Mr. James T. Gallagher
Mr. & Mrs. D. G. Gamble
Mr. Wilburn B. Graves
Mr. William A. Gray

Mrs. John Haggerty
Mrs. Paul Halderman
Mr. & Mrs. John Hart
Dr. & Mrs. James Hendrix
Mr. & Mrs. Malcolm Holekamp

Cdr. & Mrs. P. D. Larson
Mrs. Robt. De Lawrence & Guest

Mr. Richard D. Mahone
Mr. Dayton Mak
Mr. & Mrs. Frank A. Matuszak
Mr. William N. Mays
Mrs. J. B. McCarty, Jr.
Mrs. T. Haliburton McCoy
Dr. Graham Morrison

Mrs. B. C. Pearce
Mr. Robert Penney
Miss Jacqueline Phillips

Mrs. Antone Rodgers

Mr.Wilmer Saufley
Mrs. G. Shingleton
Mr. & Mrs. J. W. Showalter
Mrs. H. Solenberger & Guest
Mrs. Frederick Sturm
Mr. Harrison Symmes

Mr. Donald R. Taylor

Mrs. Katherine Ward

Mr. Steve Zapton

In Memory

Thomas G. Bennett
William H. Kerfoot
Mrs. Peter J. Kurapka
Mrs. John Moxon
Paul H. Rhoads
Elie Weeks

Scholarship Fund Established in Memory of Clara S. McCarty

Clara Stover McCarty of "Waverley" is a legend in the American Boxwood Society. A Charter Member of the Society when it was founded in 1961 she was immediately made an Honorary Life Member in recognition of "her appreciation of boxwood as evidenced by her notable and large plantings of it and her charming and informative book on the history of boxwood in the ancient pleasure gardens and commerce of the world, from Phoenician times to the present."

Mrs. McCarty died in 1982 and a group of her former students has now established a scholarship fund in her memory. Before operating a private school for many years at "Waverley" she taught in the schools of Fauquier County, Virginia and later became Superintendent of those schools. Some of her students went on to graduate from top colleges, and she was very proud of them. They, in turn, gave credit to Mrs. McCarty for the excellent foundation they had acquired under her instruction. Many of them were devoted to her and came to visit her when they were in the area. She loved seeing them.

This scholarship fund was established in gratitude to provide loans to deserving students at a low interest rate. ABS members wishing to honor Clara S. McCarty by contributing to the fund may send their tax-deductible gifts in the form of money or stock to:

James M. Warren, Treasurer
Piedmont Parish
P. O. Box 42
Delaplane, VA 22025

Mycorrhizal Fungi — Friends or Foes of Boxwood

James A. Hendrix

Editor's Note: Dr. Hendrix is a Professor in the Department of Plant Pathology at the University of Kentucky. He was born in Greenville, North Carolina and attended North Carolina State University from which he received a B.S. degree in 1959 and a Ph.D. degree in 1963. He earned his M.S. degree at the University of Arkansas in 1960. One of his areas of specialization has been soilborne fungi, including their mutualism with and pathogenicity to plants. He is the author of a number of papers and has participated in several symposia on this subject.

At its 1984 spring meeting the Board of Directors voted to grant $500 to the University of Kentucky to initiate research on the possible role of mycorrhizal fungi in boxwood decline. Dr. Hendrix came to speak at the ABS Annual Meeting on May 9 on mycorrhizal fungi and the proposed boxwood study. We wish to thank Dr. Hendrix for preparing the following summary of his talk especially for *The Boxwood Bulletin.*

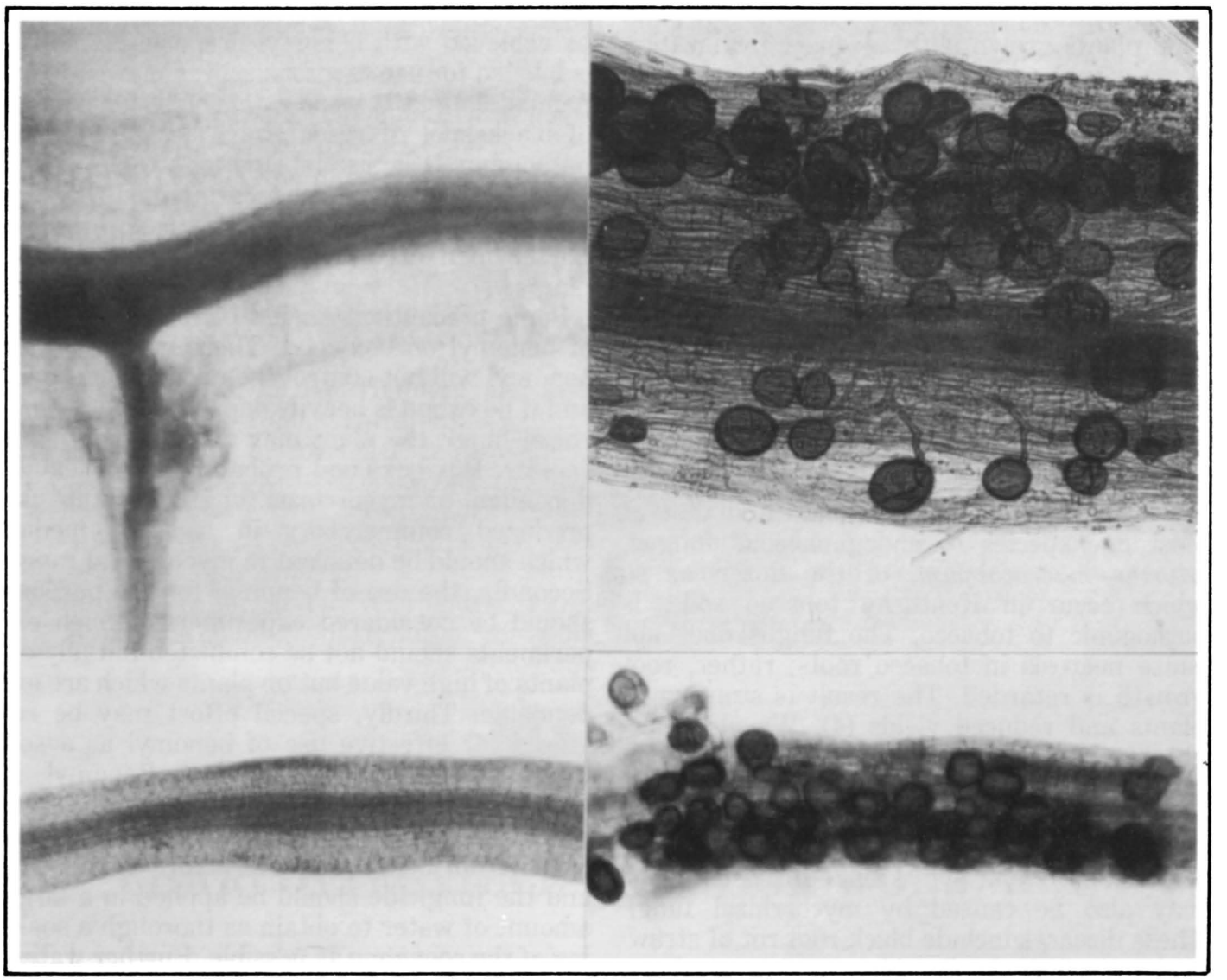
* * * *

Mycorrhiza is derived from the Greek words meaning *fungus* and *root.* The term refers to feeder roots, sometimes called "fine" or "short" roots. Mycorrhizae have been seen for nearly a century, and the term has come to be used for root parasites (in the sense of obtaining food from a host) which do not cause necrosis or otherwise damage the host obviously. In recent decades spectacular increases in growth rate were found in response to inoculation of certain plants by mycorrhizal fungi. These experiments led to the current generalization that mycorrhizal fungi and plants are *mutualistic symbionts,* or organisms living together in mutual benefit. Nearly all plants have mycorrhizae. Notable exceptions are marsh or aquatic plants and a few families, notably the Cruciferae (cabbages and related crops).

Mycorrhizae may be classified into four groups, each containing plants treasured by gardeners. *Ectomycorrhizal fungi* are associates of only a few tree families, but these are important: pine, hemlock, fir, larch, and related conifers; oak; birch; hickory; and a few other hardwoods. These fungi are mostly Basidiomycetes and Ascomycetes producing gilled or pored mushrooms, truffles, and puff balls, some of which, like truffles, are subterranean and thus inconspicuous. Most mushrooms and puff balls found in forests are mycorrhizal. Those on living or dead wood or on dead vegetation in pastures are not.

Ericaceous mycorrhizal fungi are associates of members of the Ericaceae, including azalea, rhododendron, and blueberry. These fungi are difficult to isolate and thus are poorly understood. *Orchidaceous mycorrhizal fungi* are associates of orchids. These fungi, which are species of *Rhizoctonia* and related fungi, are easily isolated and have long been known.

Endogonaceous or *vesicular-arbuscular mycorrhizal fungi* are associates of over 90% of plant genera. Included are most trees, including tulip poplar, crabapple, dogwood, redbud, and locust; perennials such as strawberry, asparagus, and ornamentals; nearly all annual crops; and probably boxwood. Root infections by endogonaceous fungi have been known since the turn of the century, but efforts to isolate them by conventional cultural methods failed. Hence, the fungi, readily seen in roots cleared chemically of contents and stained appropriately (Fig. 1), were known as "phycomycetous endophytes," and only in the late 1950's were the spore stages of the fungi associated with the root infections. Fortunately, the spores are relatively large (up to 0.8 mm for *Gigaspora gigantea*), and techniques developed for nematology have been used the past two decades to study the relationships of these obligate parasites of plant roots with their hosts. Mycorrhizal and nonmycorrhizal plants can be produced experimentally with many plant-fungus combinations (Fig. 1).



Photos: James W. Hendrix

Fig. 1. Upper left: nonmycorrhizal branching root of cherry. Upper right: mycorrhizal cherry root. Lower left: nonmycorrhizal sweetgum root. Lower right: mycorrhizal sweetgum root. Both mycorrhizal roots are colonized by Glomus fasciculatum. The dark tissue in the center of each root is the stele, containing the vascular tissue. The stele does not become colonized by mycorrhizal fungi. The fungal vesicles, internal spores, and hyphae are evident in the mycorrhizal roots.

The mechanism of the beneficial effect of mycorrhizal fungi on their hosts is different from that of a better known mutualistic symbiosis, the association of *Rhizobium* spp. with legumes. Rhizobia convert N_2 to nitrogen forms usable by plants, but mycorrhizal fungi do not fix atmospheric nitrogen. Rather, they are thought to benefit plants by extending the absorptive capacity of roots. A root hair absorbs immobile minerals, such as phosphate, copper, and zinc, from no more than 0.25 mm away. Mycorrhizal hyphae, however, extend the absorptive range of a root at least 200-fold. In addition to mineral uptake, the fungi are also believed to enhance water uptake.

The degree of *host dependency* determines the growth response of plants to mycorrhizal fungi. Bar Harbor juniper roots became more heavily colonized than those of southern magnolia, but mycorrhizal juniper plants did not grow better than nonmycorrhizal plants. Mycorrhizal southern magnolia plants, however, grew twice as fast as nonmycorrhizal plants, regardless of fertilizer rate (1). The responses of magnolia and less than a dozen other species, including redbud (2), peach, and citrus, have led to the generalization that plants are mutualistically symbiotic with mycorrhizal fungi. This generalization may be more valid for plants growing in the wild than

for cultivated plants; but for most garden and crop plants grown with adequate fertilization and water, host benefit is not demonstrated.

Endogonaceous fungi are ubiquitous where their hosts grow. Gardeners need not be concerned about not having them unless they fumigate soil with chemicals such as methylbromide or scalp the soil in construction without replacing the top soil. Mycorrhizal deficiency may occur in road cuts or around building sites. Future research may suggest that we should get rid of the indigenous fungi and replace them with strains which produce superior results, however. We have written a more extensive discussion of mycorrhizal fungi in relation to horticultural plants (3).

Recent research has demonstrated that at least one species of endogonaceous fungus, *Glomus macrocarpum,* of the dozen or so which occur in Kentucky tobacco soils, is pathogenic to tobacco. The fungus does not cause necrosis in tobacco roots; rather, root growth is retarded. The result is stunting of plants and reduced yields (4). We also have observed that some mycorrhizal fungi originally isolated from phosphorus-deficient soils may be beneficial to plants if fertilizer is low but harmful if fertilizer is high (5).

Many perennial plants have diseases which may also be caused by mycorrhizal fungi. These diseases include black root rot of strawberry, peach replant problem, and peach short-life. Probably all such crops are afflicted with such a disease which occurs when one planting is removed and replaced with another of the same species. If new feeder roots are prevented from forming in the spring by a mycorrhizal fungus, the only feeder roots present are the decaying roots from the previous year which senesced naturally the previous fall. Thus a root rot appears to be occurring, but the problem would be a scarcity of new roots to support the current year's functions. The plant thus fails to grow well and may be more subject to various environmental stresses.

Decline of *Buxus sempervirens* var. *suffruticosa* may be one of these diseases. If so, control may be straight-forward. The fungicide benomyl is exceptionally toxic to mycorrhizal fungi (6), and we have observed that benomyl controls tobacco stunt caused by *Glomus macrocarpum.* If, indeed, boxwood decline is caused by a mycorrhizal fungus, control might be achieved with benomyl drenches. Benomyl is labeled for use as a foliar spray on woody ornamentals and is used extensively for control of black spot of roses and other fungal leaf pathogens. It is also labeled for use on woody ornamentals as a drench treatment in propagation beds and containers and is used by some nurserymen on containerized English boxwood plants.

Some precautions should be used in the use of benomyl on boxwood. There is a risk that benomyl will not control the decline pathogen; and if boxwood is heavily dependent on mycorrhizal fungi, the plant may decline even more rapidly. But boxwood probably is not heavily dependent on mycorrhizal fungi, for plants are produced commercially in soil-free media, which should be deficient in mycorrhizal fungi. Secondly, the use of benomyl for the purpose should be considered experimental. Such experiments should not be conducted initially on plants of high value but on plants which are expendable. Thirdly, special effort may be required for effective use of benomyl as a soil drench on established plants. Benomyl is known to be bound to soil and to organic matter. Thus, all leaf litter and debris should be raked from beneath plants before treatment, and the fungicide should be applied in a large amount of water to obtain as thorough a soaking of the root zone as possible. Further watering of plants may aid in moving the fungicide deeper into the root zone. The foliage should be separated so that the fungicide reaches and saturates all the soil beneath the plant. A heavy spray on the foliage may be shed primarily to the drip zone, or perimeter of the root zone; so the use of a watering can into the interior of plants may be more effective.

Our research on boxwood has two initial objectives: 1) to assess the degree of dependency of boxwood on mycorrhizal fungi, and 2) to investigate mycorrhizal fungi as pathogens in the decline of English boxwood. A corollary of the first objective is to seek mycorrhizal isolates which produce growth effects superior to those produced by commonly occurring fungi. A corollary of the second objective is to develop a control—benomyl or some other measure—for decline. The research will start as soon as we have produced nonmycorrhizal rooted cuttings.

Our agreement with the American Boxwood Society is that members participate in the research when needed. Some have already assisted in helping us obtain plant material and soil samples from beneath healthy and declined English boxwood plants. We welcome your comments, observations, and suggestions on boxwood decline.

Literature Cited

1. Maronek, D. M., J. W. Hendrix, and Jennifer Kiernan. 1980. "Differential growth response to the mycorrhizal fungus *Glomus fasciculatus* of southern magnolia and Bar Harbor juniper grown in containers in composted hardwood barkshale." *J. Amer. Soc. Hort. Sci.,* 105: 206-208.
2. Maronek, D. M., and J. W. Hendrix. 1978. "Mycorrhizal fungi in relation to some aspects of plant propagation." *Proc. Int. Plant Propagators' Soc.,* 28:506-514.
3. Maronek, D. M., J. W. Hendrix, and Jennifer Kiernan. 1981. "Mycorrhizal fungi and their importance in horticultural crop production." *Horticultural Rev.,* 3:172-213.
4. Modjo, H. S. 1983. "Relationship between *Glomus macrocarpus* var. *macrocarpus* Tul. & Tul., an endomycorrhizal fungus, and burley tobacco stunt disease in Kentucky." Ph. D. Dissertation, Univ. Kentucky, Lexington, 85 pp.
5. Kiernan, Jennifer M., J. W. Hendrix, and D. M. Maronek. 1983. "Fertilizer-induced pathogenicity of mycorrhizal fungi to sweetgum seedlings." *Soil Biol. Biochem.,* 15:257-262.
6. Menge, J. A. 1982. "Effect of soil fumigants and fungicides on vesicular-arbuscular fungi." *Phytopathology,* 72:1125-1132.

CHARLOTTESVILLE BOXWOOD WORKSHOP

William A. Gray

Sixty-four gardeners and professionals met on May 24, 1984 for the first boxwood workshop held in Charlottesville, Virginia. It was jointly sponsored by the American Boxwood Society, the Piedmont Professional Ground Managers, the Cooperative Extension Service of Albemarle/Charlottesville, and VPI & SU. ABS life member Larry Steward, Assistant Director for Landscape at the University of Virginia, arranged for the use of the South Room in UV's Newcomb Hall. The workshop was organized by Mr. J. Thomas Brown, Extension Agent in Albemarle/Charlottesville, and Professor James Faiszt of VPI & SU. Others assisting in the arrangements were, William Gray for ABS, and Cathy Dent and Mary Larson for the PPGM.

Mr. Brown opened the morning session and introduced Mr. Richard Mahone, President of the ABS, and Professor Tom Fretz, Chairman of the Horticulture Department, VPI & SU.

The first item on the morning program was a presentation by Mr. Gray on the history of boxwood. Bits of history, legend and myth covering a span of 6000 years were reviewed. The evolution of *Buxus sempervirens* as an ornamental, from ancient Greece to modern Virginia, was sketched; the utility of boxwood as lumber, its former medicinal uses, and its historic symbolic roles were discussed. For further details see *The Boxwood Bulletin,* October 1982, pp 17-19.

Mr. Mahone then described the American Boxwood Society, its objectives and activities; he invited those present to join, and several did that day. Mr. Mahone's presentation, "Boxwood in Colonial Williamsburg," contained much information of interest, supported by an excellent selection of slides. There are some

50,000 box plants in Colonial Williamsburg—in formal sheared hedges, informal unclipped hedges, various garden arrangements, landscape groups, and many topiary specimens. One topiary group, the famous Apostles, has been converted from box to yaupon holly, to reduce maintenance cost. Winter damage, especially foliage discoloration, was worse on *microphylla* than on CW's many *sempervirens* plants. For snow removal, careful use of a pitchfork was effective. The CW staff performs any required severe pruning in March, light pruning in June, and some late fall plucking for Christmas decorations. Ajuga and vinca are preferred as ground covers compatible with boxwood. Where gardens include trees and box in proximity, the legumes mimosa and locust are favored; yaupon holly and beech are also used. Many trees, including oak and maple, cause problems because of root competition. Views of selected landscape designs and of many CW gardens were presented, including the Draper, Brush, Randolph, Tayloe, Jones, and Palace gardens.

Paul Saunders of Saunders Orchard and Nursery, Piney River, Virginia, described with enthusiasm and in detail the operation of a large-scale, container plant nursery. This is a family farm, depending heavily on eight sons; in addition to the fifteen-acre ornamental plant nursery, the Saunders operate an extensive peach orchard, and run several hundred head of Angus cattle. Mr. Saunders first sold field-grown boxwood in 1947, began container production in 1959, and after the hurricane Camille floods of 1969, converted fully to container production—now highly mechanized. With well over 100,000 boxwoods in containers, the Saunders Nursery is possibly this country's largest supplier of *suffruticosa.* Clippings are taken after July 15 and before March 31 and rooted in burlap-shaded frames. The container growing medium is a bark-sand-peat mix, supplemented by limestone and fertilizer. Typically, English boxwood plants remain in 1-gallon containers for three years, are then sold or stepped up to 2-gallon units (for 10" plants), and some are eventually moved to 3-gallon containers for 15" plants. All plants are irrigated by sprinkler every one or two days for a period of one to two hours, thus requiring an unlimited water supply. Boxwoods overwinter outside on a protected hillside under a light conifer canopy. Some of the more tender woody ornamentals are moved to unheated plastic greenhouses for the winter.

After a "deluxe" box lunch on the Newcomb Hall Terrace in perfect weather, Mr. Brown opened the afternoon session by introducing Professor Faiszt. Professor Faiszt reviewed the ABS boxwood workshop program, noting that many of these events were scheduled at historic preservation sites. In his beautifully illustrated lecture on "Landscaping with Boxwood," Professor Faiszt stressed that the image of boxwood as a feature only of large estates was not valid, and that boxwood was a plant for everyone. There are many boxwood cultivars suitable for ornamental purposes; quite interesting landscape designs can be developed by making use of the variety of form, texture, and hue. Boxwood also shows up well when combined with other plant material for contrast. English boxwood decline is still a problem, but generally can be avoided through appropriate cultural practices. Professor Faiszt's lecture was published in more detail in *The Boxwood Bulletin,* October 1983, pp 33-34.

The afternoon meeting concluded with a panel discussion on boxwood problems. Mr. Brown served as moderator and the panelists were Professor Faiszt, Professor Fretz, ABS Director William Gray, and ABS President Richard Mahone. Audience participation was enthusiastic; as so often the case when *Buxus* is the subject, solutions offered were frequently multiple choice. With respect to disease, it was agreed that the only real problems were in the root systems, and that improved cultural practices were about the only course of action at this time. Two fungicides (Aliette and Subdue 2E) are now registered for use on boxwood as a control for *Phytophthora* root rot, but boxwood damage from this pathogen is not common. The effect, if any, of these chemicals on decline is not yet known, and the material cost is high. The well-known insect pests were reviewed: the psyllid, the leaf-miner, the boxwood mite, and less commonly, the scales.

Recommendations on cultural practices varied in detail, but the general rule is to keep the plant happy. New stock set out should be planted high, and for container stock the root system should be "butterflied". Since many box plantings are in lawns, concern was expressed over the recommended practice of fall

fertilization for cool-weather grasses; Larry Steward reported that UV lawns were fed in late November and December, when plants had hardened and were no longer in danger from nitrogen. Another lawn problem noted was that of treating lawns in the spring with broadleaf weed-killers. Since these commercial products often contain dicamba, which is soil-mobile, roots of nearby plants can suffer serious damage.

Upon conclusion of the panel discussion all workshop participants were invited to tour the University grounds with Larry Steward. In addition to the famous pavilion gardens, the grounds cover acres of special trees and shrubs, including extensive boxwood plantings. All on the tour profited from Mr. Steward's commentary and advice.

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Introducing *Buxus sempervirens* 'Joy'

Mary A. Gamble

"To get full value of a joy you must have someone to divide it with." — Mark Twain

In 1970 when Marion Rombauer (Mrs. John W. Becker) learned that a garden to honor the memory of Dr. Edgar Anderson was planned at the Missouri Botanical Garden in St. Louis, she offered cuttings to the Boxwood Study Group, precursor of the Boxwood Society of the Midwest. Mrs. Becker wrote:

"As one of Edgar Anderson's great admirers I would like to send you cuttings of an extremely beautiful dark green, full-bodied box I acquired in Michigan which has proved excessively hardy for me in Ohio...it's performance has been perfect for 20 years."

Of course, we accepted. The cuttings rooted well; and we set some 10 to 15 plants in our nursery at the Garden. "Becker," as we called the plant, thrived. We thought it had great possibilities for use in the Midwest and we asked Mrs. Becker, first, if she would send us additional cuttings and, second, what did "Becker" look like full-grown? The cuttings came at once and Mrs. Becker wrote: "I keep my bushes clipped and have never seen fruit on them....sent you a few extras as I am so anxious that this clone be spread around. It is **so** hardy."

Our Society's horticulture committee has kept a close eye on "Becker" throughout years of drouth, sudden freezes and thaws, some good years, and a move from the Society's old nursery to the new. "Becker" continued to do well; and this year (1983-84) when it survived the worst summer in a century and then the worst winter in 99 years we decided that indeed we had a duty to carry out Mrs. Becker's wish that the clone be spread around.

We chose the name 'Joy' because the word is so closely associated with Marion Rombauer Becker. She worked with her mother, Irma S. Rombauer, on the first small, private printing in 1931 of *Joy of Cooking,* a cookbook which has become a trusted guide to millions of cooks. Marion Becker continued to work with her mother on subsequent editions; and when Mrs. Rombauer retired from active co-authorship, her daughter became her successor.

Before our Society approached the American Boxwood Society with the aim of registering the boxwood Mrs. Becker had sent us, we knew that we wanted its name to be 'Joy'. But first we consulted with Mrs. Becker's son, Ethan Becker (Marion Becker died shortly after publication of the 1975 edition of *Joy of Cooking*). Mr. Becker wrote: "I am delighted with the news and I am sure my mother would have been even more so, as well as honored by the chosen name — *Buxus sempervirens* 'Joy'."

We do not think we can improve upon Marion Becker's description of the plant we have named 'Joy'. We will add only that 'Joy's' uniformly elliptic leaves measure some 3/4 inch long and 3/8 inch wide; and that when measured by the Royal Horticultural Society's Colour Chart they belong to a Green Group 136-A. 'Joy' grows at a medium rate to make a medium shrub. We hope that in naming and registering the boxwood in which Marion Rombauer found such gardening joy, we will have taken the first step in dividing this joy with other gardeners.

* * * *

Editor's Postscript: On the occasion of the Twenty-Fourth ABS Annual Meeting, Mary Gamble presented two handsome specimens of *Buxus sempervirens* 'Joy' to the American Boxwood Society on behalf of the Boxwood Society of the Midwest. One has been planted in the Boxwood Memorial Garden at Blandy Farm.

Buxus sempervirens 'Joy'. The life-size sprig on the opposite page shows the density of foliage characteristic of the plant. Nursery plants some dozen years old are 18 to 20 inches tall; their size at maturity is unknown. We have not observed 'Joy' to bloom, but believe it will. Note the uniformity of the elliptic leaves; their color is a deep, lively green.

Photo: Boxwood Society of the Midwest

Photo: Robert L. Frackelton

Fifth ABS Garden Tour Party.

Fifth ABS Garden Tour Scores Success in North Carolina

Scot and Joan Butler

With the Radisson Plaza Raleigh as headquarters from April 27 to April 29 the Fifth ABS Garden Tour focussed on the area of North Carolina known as the Research Triangle: Raleigh, Durham and Chapel Hill, each with its respective university and research complex. Thus, in addition to the many beautiful private homes and gardens tucked away in the wooded suburbs we visited fine horticultural displays at the University of North Carolina (Chapel Hill), Duke University (Durham) and North Carolina State University (Raleigh). We were left with a strong desire to go back and study these displays more thoroughly.

Our elegant headquarters set the tone for the tour that followed. From the moment that we stepped into the lobby and saw a cascading waterfall, a mime clowning his way up and down the escalator and an unusual skylighted dining area we knew that here was something out of the ordinary. Following a dinner of New Orleans style cuisine we were more grateful than ever to the tour's chairman, Betsy Sykes, for having slected this deluxe hotel as a place to stay. A pre-tour social hour was held Friday night in the adjoining rooms of ABS President and Mrs. Mahone and ABS First Vice President Mrs. Frackelton and Mr. Frackelton to allow tour members to get acquainted. On hand to extend a welcome with wines made from native grapes were Mr. and Mrs. John Dorsey of Pinebluff, North Carolina.

Saturday morning the tour bus departed promptly at 9 a.m. for Chapel Hill. En route we passed Research Triangle Park, located on a 5,200 acre site between Raleigh, Durham and Chapel Hill and recognized as one of the nation's outstanding centers for the research activities of private industry and governmental agencies. A brief detour took us around the new building of the Burroughs-Wellcome Company, which is unique in architectural design having windows angled toward the ground to cut glare inside.

The first stop in Chapel Hill was at the home of Dr. and Mrs. Ralph Wileman on Country Club Road (see photo in the January 1984 issue

Photo: Scot Butler

A dense, luxuriant hedge of boxwood screens the Wileman's rear garden.

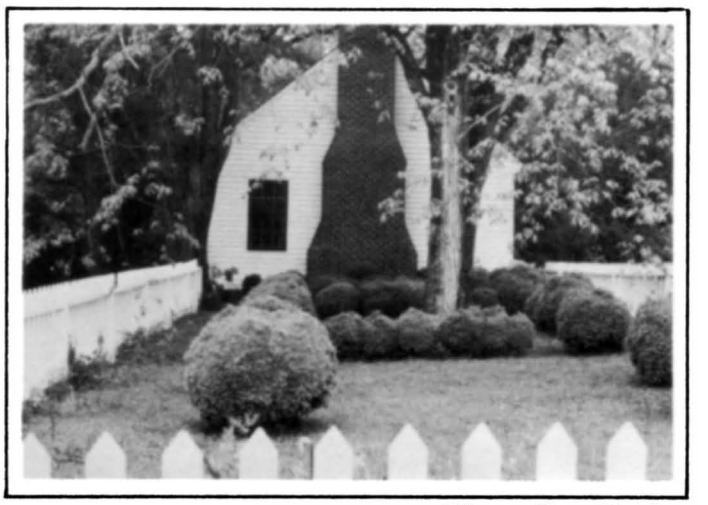

Photo: Scot Butler

The Wiley's guest house has its own small boxwood garden.

of *The Boxwood Bulletin,* Page 53). As impressive as the approach to the house is with its foundation and accent plantings of large dwarf (*suffruticosa*) boxwoods it in no way prepared us for the luxuriant bank of boxwood in the garden at the rear of the house. Dr. Wileman said that these large plants were placed there about 40 years ago and have been under the continuous care of a local nurseryman. The smaller plants edging the garden walk and stone walls suffered winter damage this year and had been heavily pruned to remove all injured growth, but were recovering nicely.

Diagonally across the road from the Wileman's is "Havilah," the home of Mrs. Bernard Boyd who graciously served us coffee in a restful woodland setting. We missed the full blooming of her azaleas by about a week but could picture the riot of color that makes her hillside garden a spectable to behold. Every window of her house brings the beauty of woodland gardens inside, where many house plants further contribute to a feeling of close affinity with nature.

On then to the home of Dr. and Mrs. Lee Wiley on Cameron Avenue in Chapel Hill. Mrs. Wiley immortalized her boxwood garden in an article in the April 1984 issue of *The Boxwood Bulletin,* "Happy Birthday, Daughter or The Making of a Boxwood Garden." Our expectations were entirely fulfilled as we stood in this delightful garden some forty years after its making and inhaled the scent of the dwarf boxwood. We also admired the smooth clean bark of the crape myrtles rising out of a boxwood parterre. Adding to the charm of the main house and garden was a guest house with a miniature boxwood garden in the Williamsburg style. The tour then proceeded to the boxwood garden of Mrs. Josephine McMillan Killefer on Franklin Street. This garden was built at the same time as the Wiley's, but is more in the open and includes both common and dwarf box. Again the garden was laid out in a formal Williamsburg design.

After a hearty buffet luncheon at the Hotel Europa, a handsome new Chapel Hill hotel, the bus took us to the North Carolina Botanical Garden for a guided tour through their collection of native plants, a small potted one of which was given to each member of the tour. This is a fascinating labeled collection of mostly wood- and swamp-growing native species, *including* poison oak. The fern display was especially beautiful. All of the plants were shown in a natural environment and were accessible from the nature trail. In the open area there was an exhibition herb garden, octagonal in shape, edged by small dwarf boxwoods.

The Sarah P. Duke Gardens of Duke University provide a sharp contrast with the University of North Carolina's Botanical Garden. Here the grounds are fully landscaped and highly cultivated. Beds of colorful annuals border the walks or are interspersed among decorative ornamentals. A series of terraces leads down to a large pool which serves as the focal point of the gardens. A magnificient row of large dwarf box extends along one of these terraces, creating a solid mass of compact green clumps.

Photo: Scot Butler

Octagonal herb garden edged with box in the North Carolina Botanical Garden.

Behind and above this bank is an arbor of wisteria whose showy blossoms were striking against the shiny green leaves of the boxwood below.

Photo: Robert L. Frackelton

Mrs. Albert S. Beecher enjoying view of pool from a terrace in the Sarah P. Duke Gardens.

Cocktails and a roast beef dinner were served Saturday evening at the North Carolina University Faculty Club. Noteworthy were the table centerpieces of azaleas arranged by Mrs. John Dorsey and selected from her thousands of plants at Pinebluff. The guest speaker at the dinner was Dr. J. C. Raulston, Director of the North Carolina State University Arboretum, who prepared us—but not fully—for a tour of the amazing collection of woody and herbaceous ornamental plants which he has gathered from many sources in a short seven years. His excellent illustrated lecture left all tour participants in a state of anticipation for our visit the next morning to the NCSU Arboretum.

The hour allotted for viewing the NCSU Arboretum on Sunday, April 29, was all too short considering the amount of unusual plant material to be seen and the information about it which Dr. Raulston imparted as he led us from one collection to another. At present, 6 acres of the 8-acre site have been imaginatively laid out and planted with over 2,500 different plants. It is expected that four more years will be required to develop the remaining area, plant another 1,000 species and complete specialized gardens and facilities. The primary goal of the collection is to display a wide range of exotic species and superior cultivars of landscape plants for educating students of horticulture and the public in landscape plant identification and usage. It also serves as a facility for testing and evaluating new landscape plants for use in North Carolina. The Arboretum propagates and distributes successful introductions to other public institutions and the nursery and landscape industries. The specialized collections are too numerous to mention here, but are well worth the attention of any of our readers who, aside from boxwood, are interested in horticultural science in general and unique plants of merit in particular.

As reluctant as tour members were to leave each stop at the appointed time the next stop seemed always to have its own special surprise and reward. So it was with the visit to the home of Dr. and Mrs. A. C. Menius on Hertford Street, Raleigh. Their home is an adaptation of Holly Hill, a house built in Anne Arundel County, Maryland in 1698. Inside it is furnished in part with antiques and in part with reproduction furniture which Dr. Menius, retired Dean

Photo: Scot Butler

In entering the Menius' house visitors pass through a massive planting of box.

Photo: Scot Butler

Betsy Sykes (left) and Joan Butler discuss the boxwood around Betsy's guest house.

of Physical and Mathematical Sciences, NCSU, has made in the more than 30 years since he began working with wood. Curtains throughout the house were sewn by Mrs. Menius. We marvelled at the perfect scale, design and finish throughout the interior. Outside, a mass of vigorous boxwood embellishes the architecture of the house and complements the warm brick color. This solid foundation planting of boxwood has now reached the height of the windows and promises one day to engulf the house.

The last home and garden on the tour was that of Mrs. James M. Sykes (Betsy) on Randolph Drive, Raleigh. Here again there was a high state of perfection, both inside and out. For sheer quantity of dwarf boxwood it would be hard to beat Mrs. Sykes' garden. But is was the condition of the bushes, their placement on the terrain, the arrangement of each grouping and the artistry of the overall effect that produced a spontaneous burst of admiration from the tour party. It was clear that the gardens here serve as outdoor living areas. Of all the boxwood gardens on different levels none could match in elegance of design the small formal boxwood garden pictured on the front cover. All of the elements one could wish for are here: parterres with clipped boxwood borders, topiary box, a gazebo, raised brick edges along white gravel paths, a beautiful old mill stone at the entrance and so on. Mrs. Sykes designed the garden herself and told us that the boxwood in the parterres was directly rooted there from cuttings. As the time came to down our bloody marys and leave this delightful setting a common refrain was heard from many in the party, "I don't want to leave yet," "I could stay in this spot forever," "I wish I lived here," and the like. Taking a last look at the incredible interior of the house with its fine woodwork and beautiful antiques, all did finally wend their way up the box-bordered walk to the bus.

The last event on the tour was a visit to North Carolina's 1840 Capitol building in Raleigh, the interior of which was restored in 1971-1976. It has been called one of the finest and best preserved examples of a major civic building in Greek Revival Architecture. The grounds boast a splendid collection of trees labeled in 1952, but the box bushes which once adorned the entrance walkways no longer remain.

The quality and variety of places visited, the fine accommodations, the smoothness of the entire operation, and the hospitality which was everywhere encountered were the results of long and careful preparation by the tour's organizer, Betsy Sykes. The same attention to detail that mark her lovely home and gardens was apparent in the arrangements that she had made. We want to thank you, Betsy, for the hours that you devoted to making this visit to North Carolina such a pleasure. We also thank those, mentioned above, who generously opened their homes and gardens to us and greeted us with such cordiality. In addition we would like to recognize the following persons who worked to make the Fifth ABS Garden Tour a

great success: Mrs. Ollie Adams, Mr. Larry Daniel, Mr. and Mrs. John Dorsey, Mr. J. D. Foust, Mr. and Mrs. Robert Frackelton, Mr. and Mrs. Richard Mahone, Mrs. Edith Medlin, Mr. Ken Moore, Dr. J. C. Raulston, and Mrs. Mary Richardson. We also wish to thank our driver who expertly steered his bus through narrow city streets and fearlessly ignored the speed limits to deliver us on time to our destinations. Finally we wish to thank all of you who came on the tour (pictured on Page 14 and listed below) for making it such an enjoyable and memorable experience.

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April 28-29, 1984

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THE SEASONAL GARDENER

Tips on Summer Care of Boxwood

Albert S. Beecher

Check Boxwoods Planted This Spring. The summer can be a critical time for boxwoods planted during the spring. Check to see if they are suffering from transplanting shock. If there is evidence of some dieback or off-color in the upper foliage, it is important to do some thinning or plucking. Reducing the top foliage will help to establish a better balance between the top and the root system. In transplanting, many smaller roots are destroyed and the roots that are left may be inadequate to support all of the foliage.

Newly transplanted boxwoods need to be watered every 7 to 10 days, if there is no natural rainfall. Mulching will help conserve moisture. If you have not mulched, do it now.

Established Plants. Have you checked your boxwood plants recently to see whether they have become so compact that very little light and air reach the center of the crown? If this is the case, the interior shoots may die and the overall plant be weakened. Pruning or plucking of some of the inner branches will help to open up the plant to admit light to the interior; this will encourage a green center with green leaves all the way up the stems. If you do not do some of this annual thinning or plucking, even though the plants are growing exuberantly, you are asking for future trouble.

Check also to see whether you have an accumulation of dead leaves inside your boxwood. At least once a year clean out leaves or twigs that have accumulated in the center of the boxwood plants. Without such cleaning, fungus growth on leaves and twigs is promoted, the development of interior shoots is suppressed and sometimes aerial root development along the branches is induced.

Cultivation - Weed Control Avoid digging around boxwoods because the roots are shallow and can easily be damaged. It is very easy to weaken or kill boxwoods by too much cultivation. Pull the weeds by hand or use a mulch to eliminate the need for digging around individual plants.

Do not apply herbicides around the base of boxwoods for weed control. Also, care must be exercised when using weed killers to treat lawn areas that are adjacent to boxwood plantings; the material used may be detrimental to boxwood roots that extend into the turf.

A Special Warning. Boxwoods adjacent to brick walks or patios are often injured or killed when the run-off or spray from weed killers used to kill grass or weeds growing in the joints comes in contact with the roots or foliage of the boxwood. When applying herbicides be careful to avoid any run-off or spray drift. Do not use a pressure sprayer, but use a sprinkling can with the majority of the holes closed so that only a small amount of herbicide will reach the weed or grass foliage.

Propagation. July 15 to September 15 is an ideal time to root boxwoods outdoors. Plant the cuttings in sand and protect them from the sun and wind. Keep the rooting area moist. If you want to propagate by using a plastic one gallon milk jug and a plastic bag, read the instructions for this technique outlined on Page 29 of the July 1983 issue of *The Boxwood Bulletin.*

Autumn Transplanting. If you have boxwoods that need to be transplanted do it in early September or wait until early next spring. Plants transplanted in early fall may establish a new root system before winter. Shading and wind protection for newly set boxwoods can be beneficial especially if the plants are moved from a shaded area to full sunlight. Temporary screens can be provided using burlap, pine or juniper boughs, or sections of snow fence.

In the transplanting operation you will probably injure some of the roots. Therefore, it is important at the time of transplanting to cut back or thin some of the top foliage in order to maintain a balance between the top and root system. If you need to move large boxwoods, plan to root prune the bushes one year in advance if possible.

IDENTIFICATION OF BOXWOOD INSECTS

Daniel J. Hilburn, Lab Specialist, VPI & SU

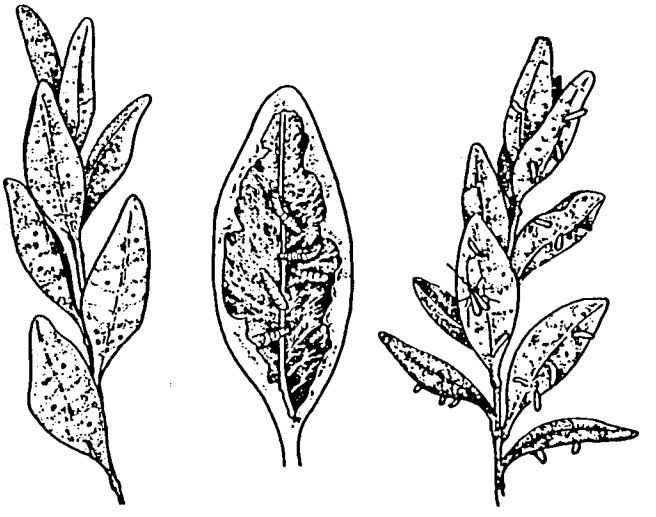
Drawings by Kathryn A. Born

(Reprinted with permission of the author from *Plant Protection Newsletter,* Vol. 3, No. 4, April 1984, published by the Virginia Cooperative Extension Service.)

Three pests of boxwood are particularly common among specimens sent to the Insect Identification Laboratory of the Department of Entomology, VPI & SU. All three can be easily and reliably diagnosed by characteristic leaf damage.

Boxwood mite is one of the spider mites. Both American and European boxwood varieties are susceptible to attack. Leaves of infested plants appear to be pin-pricked or scratched with tiny white or yellow marks. The mites themselves are difficult to find even under a dissecting microscope. Egg shells and cast skins can be important clues but they are not as apparent as they are with other spider mites species.

Boxwood leafminer is a small, delicate fly. Damage is caused by larvae which feed between the upper and lower layers of leaves. Two to six larvae typically occur in a single leaf. Infested leaves appear blistered on the underside and are often discolored. Boxwood leafminer larvae overwinter within their mines. With a little practice, they are easily found by breaking open a blistered leaf with your thumbnail. Adult flies are evident around boxwoods in late April and early May.



Boxwood psyllid is a member of a family of insects closely related to aphids. Adults are active during July and early August, but they are rarely seen. Eggs are laid between bud scales and nymphs emerge from them in mid-to-late April. Nymphs soon cover themselves with white, cotton-like secretions. Their feeding on tender new growth causes leaves to cup and stunts the growth of shoots.

Photo: Courtesy The Mount Vernon Ladies Association

Guests place sprigs of boxwoods beside boxwood wreath at dedication of new monument commemorating the burial ground of Mount Vernon slaves.

Boxwood Honors Memory of Mt. Vernon Slaves

Donald M. Sweig, Ph. D.
Editor, *Fairfax Chronicles*

(Extracts reprinted, with permission of the author, from *Fairfax Chronicles,* Volume VII, No. 4)

A newly constructed memorial to the black slaves who labored at George Washington's Mount Vernon plantation was formally dedicated on September 21, 1983, at a ceremony which included Virginia's Governor Charles S. Robb, Mount Vernon Regent, Mrs. Thomas D. Anderson, representatives of the Fairfax County black community, the Howard University choir, and numerous invited guests.

The memorial's broken column of granite bears the inscription "In Memory of the Afro-Americans who served as Slaves at Mount Vernon[,] this Monument Marking their Burial Ground [,] Dedicated September 21, 1983 [,] Mount Vernon Ladies Association." The column sits atop three concentric rings, each faced with granite, bearing the words "Faith, Hope, Love," and planted with boxwood. The

memorial is located on a small ridge at Mount Vernon, about fifty yards from the tomb of Washington, on a site where numerous Mount Vernon blacks (both slave and free) are thought to be buried.

There is also a newly completed arch and walkway providing access to the memorial and the burial ground.

In his remarks, Virginia's Governor Charles Robb noted that the dedication was a posthumous completion of the passage into full human dignity that Washington had envisioned in his emancipation of the men and women whose station as slaves the first President came to see was "fundamentally incompatible" with the American freedom he had helped bring into being.

Governor Robb and Mrs. Anderson concluded the dedication by placing a boxwood wreath on the memorial, and each of the guests was invited to place the sprig of boxwood, given them on entering, beside the wreath as they left.

MESSAGE FROM THE VPI & SU PLANT DISEASE CLINIC

Editor's Note: Dr. Robert L. Wick, Plant Pathologist, Clinic Manager and Diagnostician of the Department of Plant Pathology, Physiology and Weed Science, VPI & SU contributed an article on "Diseases of Boxwood" to *The Boxwood Bulletin,* Vol. 23, No. 1, July 1983. He has now left VPI & SU to take up a new position in the State of Massachusetts; we take this opportunity to wish him well in his work there. Before departing, he issued the following "Suggestions for Handling Boxwood Specimens" in the *Plant Protection Newsletter,* Vol. 3, No. 4, April 1984. Although his remarks are directed to Extension Agents who send samples of diseased boxwood to the Clinic for diagnosis they are likely to be of interest to those of our members who seek help in this area.

* * *

Some Extension Agents have expressed dismay over lack of definitive diagnoses and practical control measures, after having submitted soil, roots and foliage specimens of boxwoods. Please keep in mind that we can only confirm or rule out the presence of plant parasitic organisms. In the absence of plant parasites, it is very difficult for the diagnostician to arrive at a satisfactory answer; particularly when he is physically separated from the problem.

Control measures are nearly always the same, regardless of the diagnosis. We have no fungicides or nematicides registered for use on boxwood in the landscape. We can only suggest that the vigor of the plant be improved. Pruning dead or unhealthy branches, providing winter protection, watering and fertilizing are cultural practices that will usually result in increased plant vigor.

A few suggestions are offered here for handling routine inquiries concerning decline of boxwood.

1. In the majority of cases, it is not necessary to submit a specimen to the Plant Clinic. Try to determine if environmental or cultural practices are at fault. Have the soil tested and follow the recommendations. Suggest pruning and watering as necessary.
2. If the plant is an English boxwood and part of a formal garden or hedge, then the client will probably want to replace the plant with the same. In this case, it would be useful to determine if the "English boxwood decline" syndrome, i.e., *Paecilomyces buxi,* is the cause. A root and soil specimen (include symptomatic branches) would be appropriate. We do not recommend replanting English boxwood in the same site where this disease has been identified.

BOXWOOD RESEARCH CONTINUES AT VIRGINIA BEACH STATION

William A. Gray

In March 1982 the American Boxwood Society agreed to sponsor and partially fund a research project on boxwood to be conducted at the Commonwealth of Virginia's Truck and Ornamentals Research Station in Virginia Beach. This field study is under the supervision of Dr. Thomas J. Banko, Research Horticulturist (*The Boxwood Bulletin,* Vol. 22, No. 4, pp 68-69, April 1983).

The current status of this program was reported as follows in a letter of 18 May 1984 from Dr. Banko, who also supplied the accompanying pictures.

> "Uniform plantings of four Boxwoods-English, American, Japanese, and Korean-are now well established in the field, and they appear to have come through the winter in good shape. Weeds are being controlled primarily by maintaining a mulch of wood chips (mostly assorted hardwoods) with occassional directed sprays of Roundup or Paraquat. Last year a study was initiated on the use of chemical growth regulators to control growth and branching of Japanese and Korean boxwood. This study will continue this year. Dr. Schultz, Entomologist at this station, is studying boxwood leaf miner, and he has recently inoculated some of the plants with leaf miner for chemical control research. Dr. Lambe (VPI & SU) recently informed me that he intends to start work this spring on chemical control of *Phytophthora* root rot on boxwood. This work will be done with the cooperation and assistance of the staff of this station. These three projects will actively involve our entire planting of boxwood in one or more aspects of boxwood research this year and probably for some years to come."

Photo: Thomas J. Banko

Boxwood test plot at the Virginia Truck and Ornamentals Research Station, Virginia Beach (May 1984).

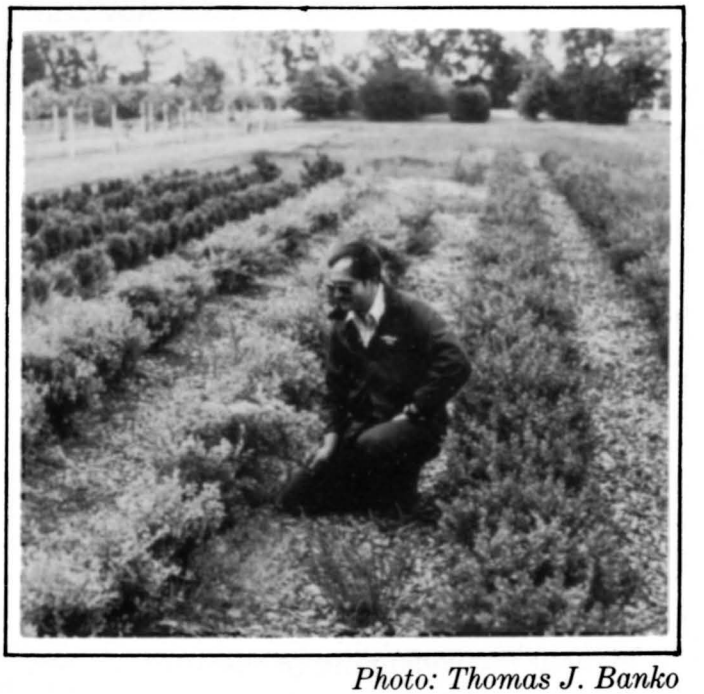


Photo: Thomas J. Banko

Dr. Peter Schultz, Entomologist, inoculating boxwood with leaf miner, Virginia Truck and Ornamentals Research Station, Virginia Beach (May 1984).

Restoration and Maintenance of the Boxwood Gardens at Gunston Hall

Donald R. Taylor

Editor's Note: Mr. Taylor has been Director of Gunston Hall since May 1, 1983. Born in Hampton, Virginia he was educated at the College of William and Mary where he earned an A. B. degree in 1951 and a Master of Education degree in 1957. Following ten years of teaching in Hampton, Mr.Taylor in 1962 became Curator of Education at Tryon Palace, New Bern, North Carolina, and from 1974 until coming to Gunston Hall he was Administrator of Tryon Palace. He is the author of a history of Hampton and served as Coordinator of Hampton's 350th Anniversary Celebration in 1959-60. Mr. Taylor prepared the article that follows as an address at the Twenty-Fourth Annual Meeting of the ABS.

* * * *

In our recent architectural research, we have discovered that George Mason built a far more ornately decorated mansion than survives today. Twelve additional pilasters were used in the Palladian room and study. Wallpaper, painted a solid color, will be put on the walls of the Palladian room, replacing the red damask installed in 1950. Thus we enter a challenging and exciting period at Gunston Hall as its Board of Regents plan for the reinstallation of these lost elements.

A challenge presents itself also in the maintenance of the gardens and grounds of Gunston Hall. But first, for those unfamiliar with the story, let me give you a little background on the gardens of Gunston Hall.

George Mason, author of Virginia's Declaration of Rights, constructed Gunston Hall on his 5000-6000 acres on the Potomac River from 1755 to 1759. His was a working plantation. He must have been anxious to frame this mansion with appropriate gardens for we have a number of box surviving which he planted.

Passing out of the Mason family in 1866, Gunston Hall had a succession of owners throughout the remainder of the 19th century. Some were interested in the land; some in its timber; others in the house. In 1913 the estate was purchased by Mr. Louis Hertle, a retired Marshall Field executive of Chicago. Until his death in 1949, Mr. Hertle developed the gardens of Gunston Hall, introducing modern plant material and arrangements according to his personal tastes.

Upon the death of Mr. Hertle in 1949, Gunston Hall passed on to the Commonwealth of Virginia, as arranged by a 1932 deed of gift. The property was to be opened to the public in order to teach Americans of the life and contributions of George Mason, and was to be administered by a Board of Regents of the National Society of the Colonial Dames of America.

As some restoration work was done in the mansion, the Board of Regents also turned their attention to the gardens. Alden Hopkins, then landscape architect of Colonial Williamsburg, was in charge of the project which was financed by the Garden Club of Virginia. Hopkins wrote that little documentary evidence remained as to the exact landscape details of Mason's garden. The 19th century recollections of his son shed some light on the subject. Hopkins wrote:

"In plotting the reconstruction of the garden the greatest assistance was found in the existing English box hedges, of so great antiquity; and in the topography that gave a good idea of the form of the garden. The probable length and breadth of the garden was indicated in the central axial walk of boxwood now tremendous in size; and the opening in this box, half way of its length, gave the clue for the location of crosswalks that placed and determined the size of the four 'parterres,' so much a part of an eighteenth century garden. The original topography exists in the two mounds at the outer corners, probably much as George Mason knew them, and in the center mound, removed early in this century and now restored. There is likewise the original lower terrace with its projecting mounds and banks."

As great a problem as making an 18th century garden was the unmaking of a 20th century one. Again I quote Alden Hopkins:

"The restoration of the gardens presented a problem in the transformation of a twentieth century garden back through the years into one of eighteenth century character that we think might have been familiar to George Mason. There was first the task of removing much of the veneer that later years had left: the elimination of figures, fountains, pools, and much garden material that George Mason could not have known, as tea roses of this day, abelia, buddleia, Japanese flowering cherries, among others. Except for a few canals, water gardens were not known in colonial Virginia, and those later established must be replaced by such features as topiary work. Beds were replanted with authentic eighteenth century material."

Our legacy is the maintenance of these gardens. In preparation for this report, I took 20 slides of the gardens in their present condition. We still have a long way to go to replace all of the box damaged by the severe freezes of January and February 1981. Recently $1500 ($500 from the Garden Club of Virginia and $1000 from friends of Gunston Hall) was paid for 64 replacement plants, 15 to 20 inches in height. We have far more to do in the gardens than three regular gardeners can accomplish and seasonal labor is either non-existent or useless!

This year we have plucked our box, trimmed some of the beds. Next comes fertilizer and then spraying. Our irrigation system runs at night through the warm weather to avoid spraying guests.

The boxwood at Gunston Hall is improving in its overall condition. Some of you noted this during your visit last June at the boxwood seminar. We shall continue to replace the dead plants and encourage the remaining plants. We shall have to wait until fall to resume our transplanting of replacement plants. But rest assured we are aware of our responsibility in preserving this historic garden.

Minutes of the Spring Meeting of the Board of Directors

March 22, 1984

The Board of Directors held its spring meeting at the U. S. National Arboretum in Washington, D. C. Present were President Richard D. Mahone, First Vice President Mrs. Robert L. Frackelton, Secretary Dayton S. Mak, and Directors Lynn R. Batdorf, Albert S. Beecher, Scot Butler, Thomas E. Ewert, James A. Faiszt, Walter S. Flory, William A. Gray and Harrison M. Symmes. Second Vice President Mrs. D. Goodrich Gamble, Executive Treasurer William A. Bryarly and Registrar Bernice M. Speese were unable to attend. Mr. Thomas Dilatush of Dilatush Nursery, Robbinsville, New Jersey was present as an invited guest.

The President called the meeting to order at 10:15 a.m. In Mr. Bryarly's absence, Mr. Butler read the Treasurer's Report as of the end of 1983, at which time there was a balance of $2,093.43 in the checking account and $10,579.84 in invested funds.

Committee Reports:

Memorial Garden. The President received the Board's approval to commit $200 to $300 for maintenance of the garden out of general funds and $75 for plant labels out of the Memorial Garden Fund.

Boxwood Registration. Mr. Mahone reported that the Boxwood Society of the Midwest was preparing to nominate a new *Buxus sempervirens* cultivar, 'Joy', for registration. Mr. Batdorf reported that he had completed documentation on BEF 35 and, together with Mr. Ewert, will seek to register this *Buxus sempervirens* cultivar as 'Mr. Blandy'.

Research. Mr. Gray reported on the status of the boxwood field study at the Virginia Truck and Ornamentals Research Station, Virginia Beach, to which the ABS has thus far contributed $1,000. An illustrated article covering this study is being prepared by Dr. Thomas J. Banko for publication in *The Boxwood Bulletin*.

Mr. Gray said that only one positive response had been received from the five letters sent to

universities proposing research on the relationship between mycorrhizal fungi and boxwood decline. Acting on Mr. Gray's recommendation, Mr. Symmes moved that the Board approve a grant of $500 to Dr. James W. Hendrix, University of Kentucky, to initiate the project this year.

Boxwood Workshops. Professor Faiszt reported that two workshops are scheduled this spring: one at North Carolina State University, Raleigh, on April 5 and the other at the University of Virginia, Charlottesville, on May 24. The Board authorized payment of an advance to Professor Faiszt for expenses in setting up these workshops.

Buyer's Guide and Boxwood Handbook. Professor Beecher distributed copies of the list he has compiled of nurseries in the US and Canada that carry boxwood; he asked that Board members add to it any nurseries that he had missed. A discussion followed about whether the list should include both wholesale and retail sources of boxwood, non-commerical sources (private growers, arboreta, etc.) as well as commercial sources, and the best way to publish this information. Professor Beecher said that he needs help in reviewing the sections of the forthcoming *Handbook,* and he suggested the following division of responsibilities: landscape design—Faiszt; propagation—Ewert; varieties—Batdorf; photos—Mahone; commercial production—Gray; history—Symmes; garden club viewpoint—Frackelton.

Spring Tour. Mr. Mahone reported that the spring tour scheduled for April 28 and 29 in North Carolina had proven to be very popular. It is already fully subscribed and a waiting list has been established. He asked Board members to be thinking of locations for future tours.

Membership. Mrs. Frackelton reported that she had contacted 181 members who were delinquent in their dues and removed from the membership list the names of those who did not wish to continue or did not send in dues. Mrs. Frackelton proposed, and the Board approved, that in the future anyone who sends in dues after January 1 will be credited with membership for the year thereafter beginning May 1, but will be sent a complimentary copy of the April issue of *The Bulletin.* Mr. Symmes reported on the number and types of non-members to whom complimentary issues of *The Bulletin* are regularly mailed; these recipients are primarily institutions (libraries, arboreta, educational institutions, horticultural agencies of foreign governments) or persons attached to such institutions, with which the ABS at some time has had an exchange relationship. Mr. Symmes presented a list containing his recommendation of recipients to be retained or added and those to be deleted. He also circulated a draft questionnaire to be sent to those on the complimentary mailing list. He asked that Board members respond to his initiative in trying to put the regular mailing of complimentary copies of *The Boxwood Bulletin* on a more rational basis.

The meeting adjourned for luncheon and to hear a slide lecture presented by Mr. Dilatush, who spoke on the growing of boxwood from the nurseryman's point of view and economic factors in the boxwood trade. In addition to illustrating techniques of growing boxwood in nurseries, Mr. Dilatush spoke on how the ABS can influence the commercial availability of boxwood and the introduction of desirable new cultivars into the trade. He praised the boxwood workshops which the ABS sponsors and thought that the *Boxwood Handbook* could have a considerable impact in stimulating demand among the public for a whole range of new cultivars on the market. He said that growers were supportive of the research sponsored by the ABS and felt that it was important to get the media to pay more attention to boxwood. In conclusion he donated a variegated boxwood that grows on Long Island and the west coast to be planted in the Memorial Garden. The President thanked Mr. Dilatush for coming to the meeting. He also thanked Mr. Batdorf and Mr. Symmes for hosting the meeting.

Nominating Committee. Mr. Mahone asked Mrs. Frackelton to serve as chairman of the Nominating Committee and enumerated the positions to be filled.

The Boxwood Bulletin. Mr. Butler said that the April issue of *The Boxwood Bulletin* would be published very shortly and would contain a list of new members. He recommended that copies of recent issues of *The Bulletin* be placed on sale at the Annual Meeting and asked that the Board take over completion of the indexing project.

Turning to old business, the President announced that Dr. Skinner had been named a recipient of the Veitch Medal awarded by the Royal Horticultural Society (see Page 1 of this issue). He then passed around the ABS boxwood gavel bearing a newly made brass plate identifying Colonel Thomas E. McCracken as the donor.

Under new business Mr. Butler suggested that appropriate recognition be given to Dr. Edgar Anderson on the fiftieth anniversary of his introduction of hardy Balkan boxwoods, including 'Vardar Valley', into this country. The Board approved the suggestion and authorized Mr. Butler to proceed with a suitable tribute in *The Boxwood Bulletin* in cooperation with Mary Gamble and the Boxwood Society of the Midwest. Mrs. Frackelton reported that she has two *suffruticosa* plants at Kenmore that are setting seeds; she hopes to be able to give seeds to Mr. Ewert, Mr. Batdorf and Dr. Speese to see if they can get them to germinate. Mrs. Frackelton then gave the schedule for the 1984 Annual Meeting and said that full details were being printed in the April *Bulletin.*

The meeting adjourned at 2:30 p.m.

Respectfully submitted,

Dayton S. Mak
Secretary

Minutes of the Business Session of the ABS Annual Meeting

May 9, 1984

President Richard D. Mahone called the business session to order at 11:00 a.m. All Officers and Directors were present with the exception of Dr. Bernice Speese. The President extended a welcome to members, guests and guest speakers. Among the states represented in addition to Virginia and Maryland were Kentucky, West Virginia and Missouri.

The President called for the minutes of the previous Annual Meeting to be read, but a motion to dispense with the reading was approved by the members.

The Treasurer, Mr. William A. Bryarly, presented his report for the period from May 11, 1983 through May 7, 1984, showing receipts of $11,238.67, disbursements of $10,174.63 and assets amounting to $15,244.32. (The itemized report follows these minutes.)

Mr. Thomas E. Ewert reported that the Boxwood Memorial Garden was doing well despite some winter damage. Additional plant labels are on order. Some of the plants are now of a size where they are beginning to encroach on other plants.

Professor Albert S. Beecher announced that the typing of a *Boxwood Buyer's Guide* would soon begin. The compiling of the *Boxwood Handbook* continues and will soon be to the point where a printer will be contacted concerning its costs.

Mr. William A. Gray described the two research projects which the ABS is helping to fund: a field study at Virginia Beach of the response of boxwoods to a variety of cultural practices over a five-year period and a study of the dependence of boxwood on mycorrhizal fungi and a possible connection with boxwood decline.

In the Registrar's absence President Mahone announced that a new cultivar was being registered and details would be published in a future issue of *The Boxwood Bulletin.*

Mrs. Robert L. Frackelton reported that she had sent letters to 181 members who were delinquent in their dues to ask if they wished to continue their memberships; about half of them did. The present membership numbers about 630.

Mr. Mahone described the recent ABS garden tour in North Carolina as "outstanding" and thanked chairman Betsy Sykes for her able organization. He expressed the hope that a tour could be arranged in 1985 on the Eastern Shore of Maryland.

Mr. Scot Butler expressed his appreciation of material contributed by members for publication in *The Boxwood Bulletin* and encouraged more members to submit articles and items.

Mr. Harrison M. Symmes reported that he had distributed information sheets about the ABS and membership envelopes while representing the Society at the Maymont Garden Market in Richomd on April 27-29.

Professor James A. Faiszt commented on the two boxwood workshops already held this year in Raleigh, North Carolina and Charlottesville, Virginia. A fall workshop is planned at Stratford Hall, east of Fredericksburg, and perhaps one will be scheduled at the University of Maryland, College Park.

Mrs. Scot Butler presented the following report of the Nominating Committee, composed of Mrs. George Burton, Mrs. Scot Butler and Mrs. Robert L. Frackelton:

President: Mr. Richard D. Mahone
First Vice President: Mrs. Robert L. Frackelton
Second Vice President: Mrs. Malcolm L. Holekamp
Secretary: Mr. Harrison M. Symmes
Executive Treasurer: Mrs. Katherine Ward
Directors: Professor James A. Faiszt
Mr. William A. Gray
Mr. William N. Mays

Two nominees not presently incumbents of office, Mrs. Malcolm L. Holekamp and Mr. William N. Mays, were introduced to the members. There being no nominations from the floor, the slate was unanimously elected.

There being no further business the President adjourned the meeting for lunch at 12 noon. He announced that the plant exchange would take place at the table on the porch and that, in addition, there were rooted cuttings of 'Helen Whiting' for all.

Respectfully submitted,

Dayton S. Mak
Secretary

Treasurer's Report, Annual Meeting
May 9, 1984

Checking Account balance, May 11, 1983	$ 3,173.49
Receipts:	
Membership	7,647.50
Gifts and donations	740.00
Sale of *Boxwood Bulletin*	639.50
Interest income, checking	131.67
Raleigh, NC Workshop	250.00
Gunston Hall, VA Workshop	430.00
Christmas Workshop	1,400.00
Total receipts	$11,238.67
Disbursements:	
Annual Meeting, May 11, 1983	$339.10
Gunston Hall Workshop	338.76
Board Meeting, October 6, 1983	73.32
Christmas Workshop	1,400.00
Raleigh Workshop	214.50
Thomas Printing	5,833.91
Postage	393.52
Post office box rental	7.00
Telephone	4.77
Checkbook charge	17.08
Photographic material	13.25
Mulch (Memorial Garden)	240.30
Plant labels (Memorial Garden)	197.62
Treasurer's salary	1,101.50
Total disbursements	$10,174.63
Checking account balance, May 7, 1984	$ 4,237.53
Certificate of deposit #007-0023966	7,508.05
Balance in savings account #8-621-578	3,498.74
Total assets	$15,244.32

All accounts are deposited in the Farmers and Merchants National Bank, Winchester, Virginia.

Respectfully submitted,

William A. Bryarly
Executive Treasurer

Boxwood Stars in Holiday Decorations

Editor's Note. The following article, prepared by a small group from the Boxwood Society of the Midwest which conducted a Holiday Workshop, served as the basis for an illustrated report given by Mary Holekamp at the ABS 24th Annual Meeting. Mrs. Holekamp is a past President of the Boxwood Society of the Midwest and was elected Second Vice President of the ABS in May. Readers desiring more detailed information on the organizing of the Workshop or on instructions for making the ornaments may write to the Society's current President, Mrs. R. C. Jaudes, 10433 Starhill Acres, St. Louis, MO 63128.

* * * *

Boxwood, and we think we speak without prejudice, is the supreme evergreen for holiday decorations. Further, and here we admit bias, we think the most beautiful boxwoods for this purpose are the dark green elliptic-leaved cultivars of *Buxus sempervirens*, the European species which was first to reach our country and which long has been associated with immortality. As the leaves reflect and refract the light—whether it comes from sunny window, lighted candle, or flames of an open fire—they capture the spirit of a season rich in memories. Even a few sprigs will suffice. Used lavishly or sparingly, boxwood will star in the decorations which customarily celebrate a time of good will and good cheer.

The Boxwood Society of the Midwest held a Holiday Workshop on December 9, 1983, as a pilot project to see if such a venture was workable and filled a need. Careful advance planning, coupled with a diversity of holiday ornaments displayed for inspiration, resulted in a productive event for both beginners and experienced hands.

The workshop was held in one of the rooms of Tower Grove House, the country home of Henry Shaw, the Englishman who developed the Missouri Botanical Garden and bequeathed it to the citizens of his adopted city, St. Louis, upon his death in 1889. Participation in the workshop was limited to 12, with acceptance on a "first come, first served" basis. The fee covered cost of materials and provided a modest surplus shared by Tower Grove House and our Society.

The workshop plan permitted each participant to make three holiday ornaments: first, a boxwood wreath; and second and third, choices

Photo: Jack Horner

This picture shows some of the committee's ornaments displayed: far left, centerpiece built on a Colonial Williamsburg apple cone. It uses less than ¼ lb. of boxwood sprigs, but requires 5 lbs. of small red apples. It rests on a bed of magnolia leaves on a pewter platter; center left, a tree form which rests in a silver urn; center right, centerpiece composed of a pineapple (symbol of hospitality), surrounded by lemons and a ring of boxwood sprigs; far right, small, unclipped boxwood standard; above it, an unadorned boxwood bouquet; foreground, a table swag some 4 ft. long, resting on a thick base of boxwood clippings thrust into blocks of oasis, the whole set on a firm board with apples, kumquats and pine cones to complete the picture; hanging, a kissing ball created from a baking potato and a 2 ft. length of 18 gauge wire thrust through it lengthwise with loops formed at both ends, one from which the ball hangs, the other from which ribbons dangle.

of kissing ball, topiary or tree-form ornaments. Basic materials were provided, plus ribbons. Each participant received a 13-gallon plastic bag filled with large boxwood clippings, about five pounds in all. A substantial portion of the boxwood was a gift from a Virginia gardener who offered it when La Verne Jaudes inquired about commercial sources during her attendance at the 1983 Annual Meeting of the ABS. He told her he wasn't "commercial," but would be happy to ship cuttings from his garden. The shipments arrived in fine shape, and the donor wrote that he had "clipped only two bushes."

Outdooor ornaments can be hung and forgotten; they will last the season in the cold air. Indoor ornaments will retain their beauty much longer if removed from display and placed in a cold room overnight or when no one is around.

Workshop plans should be firm and commitments—financial and otherwise—made by September. The workshop date should be as close to the holidays as practical, and the supply of boxwood should be received as close to the date as feasible. To prevent drying out, the boxwood clippings should be soaked occasionally and stored in a cold place prior to the workshop.

Supplies should be tailored to the number of participants and parceled out in advance. All a participant need bring is a pair of small shears and a sharp instrument with which to pierce the potatoes, plus energy, enthusiasm and perserverance. The Holiday Spirit is guaranteed to do the rest!

THE SIXTH INTERNATIONAL CONFERENCE ON JOJOBA AND ITS USES

Editor's Note. Recognizing that the interest of some ABS members in the box family, *Buxaceae,* extends beyond the genus *Buxus, The Boxwood Bulletin* endeavors to report developments in research on and commercial production of jojoba (*Simmondsia chinensis*), a genus of *Buxaceae* that grows in the desert. The most recent statement on jojoba appeared in "Strange Relatives—The Box Family," published in the January 1984 issue of *The Boxwood Bulletin.* Below is information on the *Sixth International Conference on Jojoba and Its Uses* to be held in Israel in October 1984.

* * * *

The Conference is co-sponsored by the International Jojoba Council; the Israeli Ministry of Trade and Industry (Chief Scientist's Office); Delek, the Israel Fuel Corporation; and the Negev Jojoba Company. It will be held October 21-26 at the Ben-Gurion University of the Negev, Beer Sheva.

This University was founded in 1969 and charged with spearheading the development of the Negev, Israel's vast desert area. Jojoba research in Israel actually began in 1960 and by the mid-1970s the potential of jojoba as a desert crop was established. A commercial enterprise, the Negev Jojoba Company, was created. In the last five years, over four million dollars have been invested in the development of jojoba plantations and in basic and applied research on jojoba oil, its derivatives and by-products.

The program of the Conference will include sessions on: Jojoba Around the World; Jojoba Physiology; Agricultural and Genetic Development; Cultivation Practices; Plantation, Yields, Costs and Financing; Marketing; Industrial Uses of Jojoba Oil and Derivatives; Process Technology; Panel Discussions.

The program also contemplates a one-day tour that will include visits to different plantation sites, experimental sites, the prototype of the harvesting machine, and the Tissue Culture Plant of the Negev Jojoba Company. This plant is being built and in its first stage will produce one million plantlets per year. It is expected that papers will be presented on irrigation and fertilization, use of brackish water, pollination, selection, tissue culture, mechanical harvesting, chemistry of jojoba oil, lubrication uses, toxicology, etc.

The official travel agent for the Conference is ORTRA LTD., 431 Namir Square, Tel Aviv 61033, Israel, which will also arrange pre- and post-conference tours to all parts of Israel, including the Holy places, archeological sites and other tourist attractions.

Notable Boxwood on Maryland Spring Pilgrimage

Photos: James C. Wilfong

To compensate for our lack in the April Boxwood Bulletin of advance pictures of the Maryland House and Garden Pilgrimage, Mr. Wilfong, an inveterate investigator of Maryland antiquities—be they buildings or boxwood (and preferably the two together) — has sent us two pictures taken during the tour. Above is the Dr. Charles Carroll House in Annapolis, built in 1722 and moved in 1955 from Main and Conduit Streets to the campus of St. John's College. A boxwood garden, over 200 years old, was also moved from the original site and placed appropriately beside the house. To the right is a picture of dense dwarf boxwood, also of great age, growing at St. Luke's Methodist Church, St. Michael's, on the Eastern Shore of Maryland. Mrs. Wilfong obligingly provides a scale for gauging the height of the bushes.

Harrison Symmes Represents ABS at Maymont Garden Market

The Society was represented at the Maymont Garden Market in Richmond, Virginia, on April 27, 28 and 29 by ABS Director (now Secretary) Harrison M. Symmes. On Saturday morning April 28, Mr. Symmes held a seminar on types of boxwood, their characteristics, and culture. The seminar was attended by thirty or forty people. A number of questions were stimulated by sprigs of about twelve different cultivars of boxwood which had been supplied by President Richard Mahone from Williamsburg.

The ABS booth at the Garden Market attracted many visitors who asked questions about boxwood varieties and culture. Visitors were supplied with information sheets on the Society and application envelopes. Also available were information sheets on the upcoming Charlottesville Boxwood Workshop on May 24 and the Society's Annual Meeting on May 9.

The Maymont Garden Market is an annual event sponsored by the Maymont Foundation Guild and features a broad range of gardening and outdoor-related activities.

NOTICES

Membership Dues and *Bulletin* Subscriptions

It has been the policy of the Society to credit the dues of new members to the membership year in which they are received, the membership year running from May 1 of one year through April 30 of the next year. This has entitled the new member to the four numbers of *The Boxwood Bulletin* for that membership year **regardless** of when the dues were paid. (In each volume of *The Boxwood Bulletin* the July issue is always the first number and the issue published in the following April is the fourth number, in keeping with the membership year.)

At its meeting on March 22, 1984 the Board of Directors voted to modify this policy as follows. Dues received from new members between January 1 and April 30 of any year will automatically be credited to the next membership year, beginning on May 1, but the new member will receive a complimentary copy of the April issue published in the current membership year, i.e., before his membership takes effect. The old policy remains in effect for dues received between May 1 and December 31 of each year.

Information Wanted on Anderson's Balkan Boxwoods

In commemoration of the fiftieth anniversary of Dr. Edgar Anderson's introduction into the United States of boxwood seedlings and seeds from his 1934 Balkan expedition, the October issue of *The Boxwood Bulletin* will focus on that event and its significance. We urgently request information on collections—public and private—containing specimens of Anderson's Balkan boxwoods. We would also appreciate hearing from anyone having records or recollections of the disposition of these Balkan boxwoods. Only a few bear names ('Vardar Valley', 'Agram', 'Ipek', 'Nish', 'Edgar Anderson', 'Serbian Blue') but many bore numbers assigned by the Arnold Arboretum or Mr. Henry Hohman of Kingsville Nurseries (the K Series). If you have any knowledge of, or experience with, these generally hardy strains of *Buxus sempervirens,* please let us know immediately so that we can determine whether your information is germane to our search for missing pieces. Please send your comments to: Mr. Scot Butler, P. O. Box 190, Bluemont, VA 22012.

Boxwood Workday at Blandy Set for Fall

Blandy Farm Director Thomas E. Ewert has offered to host another boxwood workday for ABS members in September. Two dates are open: Wednesday, September 26 and Saturday, September 29. Depending on the response he will select one of these days or, if there is sufficient interest, he will schedule both days for a fall clean-up of the boxwood collections at our Society's headquarters. Please make your interest known and indicate the preferred date by sending a card to the American Boxwood Society, P. O. Box 85, Boyce, VA 22620 or calling (703) 837-1758. If you plan to come from a distance it may be possible to arrange overnight accommodations at Blandy Farm.

Last fall our first such workday met with an enthusiastic response from those who attended, and they expressed a desire for more workdays. Under Mr. Ewert's supervision participants can gain practical knowledge about pruning and plucking as well as contribute to the well-being of the boxwoods at Blandy. As last year, the workday will be held from 9:30 a.m. to 3:00 p.m. with time out for lunch. If you decide to attend, please provide your own lunch, bring gloves and pruning shears, and wear work clothes.

THE AMERICAN BOXWOOD SOCIETY

INFORMATION

Address: Box 85, Boyce, Virginia 22620

DUES AND SUBSCRIPTIONS

Regular (individual) membership dues of The American Boxwood Society are now $10.00. This includes a subscription to *The Boxwood Bulletin.*

The Boxwood Society membership year runs from May of one year through April of the following year. Dues are payable in advance of each membership year. New members who join the Society at intervening times of the year are sent all four issues of *The Bulletin* for that membership year and then, like other members, pay dues in advance of the next membership year.

Non-member subscriptions are for groups and institutions such as botanic gardens, libraries, etc. Subscriptions are $10.00 per year, and run by the calendar year.

At the present time all back issues of *The Boxwood Bulletin* are available except Vol. 22, No. 1, July 1982 (photocopy can be supplied, however). Price per single copy of any and all issues is $2.50.

The present classes of membership are:

Category	Annual Dues
Individual	$ 10
Family	15
Contributing	25
Sustaining	50
Life	250
Patron	500 or more
Institutional Subscriber	10

Gift memberships are announced to the recipients by boxwood-decorated cards which state that four issues of *The Boxwood Bulletin* are included in membership.

Contributions are welcome for the Research Fund, the Boxwood Memorial Garden and the Boxwood Handbook.

Members of the American Boxwood Society are reminded of the 1968 IRS decision that contributions to and for the use of the Society are deductible by donors as provided in Section 170 of the Code.

FOR YOUR ADDRESS BOOK

If your letter is concerned with:

- Change of address
- Membership: new, renewal or gift
- Dues
- Donations to research programs or memorial gifts
- Ordering back issues of *The Bulletin*
- Ordering List of Registered Boxwoods

Write to:

Treasurer
American Boxwood Society
Box 85
Boyce, VA 22620

If your letter is concerned with:

- General information about the Society
- Advice concerning boxwood problems or cultural information
- Boxwood cultivar selection

Write to:

American Boxwood Society
Box 85
Boyce, VA 22620

Your request will be forwarded to a member of the Board or another appropriate member who can provide the help you have requested.
You are also welcome to write directly to the President of the American Boxwood Society:

Mr. Richard D. Mahone
P. O. Box 751
Williamsburg, VA 23185

If you have contributions for *The Boxwood Bulletin* — articles, news, notes, photographs, suggestions or anything of probable interest to boxwood people — it saves time to direct them to the Editor:

Mr. Scot Butler, Editor
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