July 1987

The Boxwood Bulletin

A QUARTERLY DEVOTED TO MAN'S OLDEST GARDEN ORNAMENTAL

Photo: Robert L. Frackelton
Boxwood nursery at Missouri Botanical Garden, maintained by Boxwood Society of the Midwest members. *(See Page 5)*

Boyce, Va. Vol. 27, No. 1

Edited under the Direction of

THE AMERICAN BOXWOOD SOCIETY

The Editor solicits and will welcome contributions of articles; news; notes; photographs, suitable for reproduction, of boxwood specimens, gardens, and plantings; and other items of probable interest to readers. It is requested that every item of such material carry the name and return address of the sender and be accompanied by an addressed envelope carrying the proper postage for return. While every effort will be made for the protection of all materials submitted for publication, the Editor cannot assume responsibility for loss or injury.

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The Boxwood Bulletin

July 1987 Vol. 27, No. 1

Edited by the ABS Bulletin Committee

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ILLUSTRATIONS

MEET ME IN ST. LOUIS — WE DID!

Boxwood Society of the Midwest Hosts ABS 27th Annual Meeting at Missouri Botanical Garden

Scot Butler

Twenty-one members of the ABS journeyed to St. Louis, Missouri to attend the Society's 27th Annual Meeting. In addition, 12 ABS members resident in the St. Louis area were also present as were a number of members of the Boxwood Society of the Midwest. The meeting was held amid the wonders of the Missouri Botanical Garden (MBG)—the third largest botanical garden in the world—at the invitation of Director Dr. Peter H. Raven and the Boxwood Society of the Midwest (BSMW). The atmosphere was stimulating and the accomplishments of the BSMW in propagating and raising many named boxwoods in their nursery at the Garden were impressive.

Friday, May 8

The pre-meeting program opened in the Shoenberg Auditorium of the Ridgway Center (see photo) at 7:30 p.m., Friday, May 8, with a welcome from BSMW President Ellen Chamberlain. Mary Holekamp, a founder of the BSMW and present Second Vice President of the ABS, then introduced Dr. Raven who has many distinctions to his credit and enjoys international recognition as botanist and horticulturist. He is especially well-known for his efforts to preserve and study plants of the tropical forests, some of which are fast disappearing.

Introduction to the MBG

Dr. Raven briefly traced the growth of the MBG—the oldest botanical garden in the United States—from its conception in the 1850s by Henry Shaw as a public garden patterned after the English "Chatsworth" to its present prominence as a plant research center of world importance. He stressed the MBG's affiliations with numerous U.S. and foreign institutions, including particularly close ties with Washington University in St. Louis. With an annual budget of some 8½ million dollars financed from taxes, endowments, memberships, admissions and voluntary contributions

Photo: Scot Butler
MBG: Ridgway Center viewed from Spoehrer Plaza.

the MBG is constantly engaged in maintaining and improving its facilities as well as introducing new programs. The current budget will be used to replace the 1912 greenhouses, replace the glazing of the climatron and develop an 8½-acre demonstration center on home gardening. Future plans call, among other things, for the creation of a boxwood garden in memory of Dr. Edgar S. Anderson. The MBG's center for the collection and study of tropical plants is the largest in the world; it receives plants from Central and South America, Africa and Southeast Asia.

ABS President Mrs. Robert L. Frackelton thanked Dr. Raven and the BSMW for inviting us to hold our Annual Meeting at the MBG. On behalf of all the ABS members present she expressed great pleasure at being there and a sense of anticipation to see the Garden. She presented Dr. Raven with a gift from the ABS of a fine Paul J. Stankard glass paperweight depicting St. Anthony's Fire Flower (see photo), a botanical interpretation of traditional folklore concerning a medicinal plant of France in the seventeenth century.

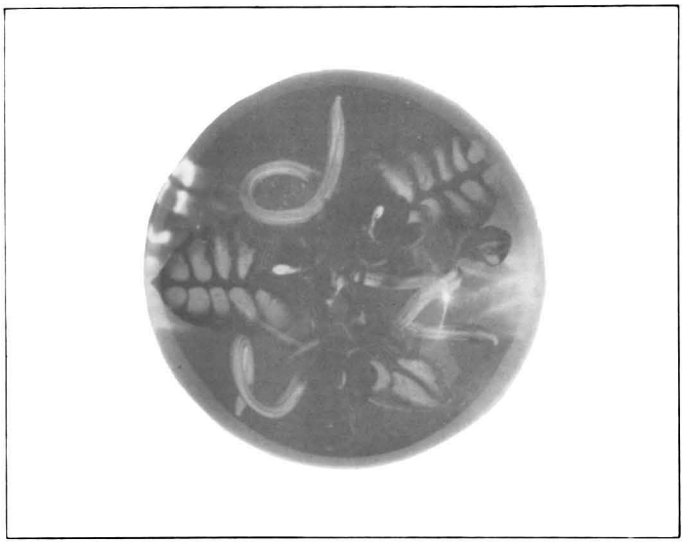


Photo: MBG
ABS gift to MBG—interpretation of St. Anthony's Fire Flower by Paul J. Stankard of Mantua, NJ.

"A Presence of Boxwood"

ABS member Mary Gamble, a guiding force in the founding of the BSMW in 1976, paid loving tribute to boxwood in her slide lecture entitled "A Presence of Boxwood." Before showing the slides she spoke briefly on the BSMW view of boxwood's place in the home garden.

Boxwood, she said, has both beauty and utility. While a formal boxwood garden may be the ultimate goal of some, boxwood does not depend on numbers to make its presence felt. An individual plant can have great beauty, distinction and charm. It has the architectural qualities sought by landscape gardeners. Boxwood comes in a wide range of colors and shapes. One of its great attractions is the manner in which it catches, reflects and refracts light at different times of the day and in different seasons of the year. A boxwood is never as beautiful as in the winter when it is decked out in a mantle of snow.

Mrs. Gamble said that it has been necessary in the Midwest to develop an appreciation of individual plants based on their particular merits, for although it is a treat to view a great classical garden it is a lifetime work to create one. Many people want plants to enjoy today and the individual boxwood specimen can fill this bill.

Mrs. Gamble noted that boxwood is an immigrant to the United States. The earliest recorded date of European box, *Buxus sempervirens*, in this country is 1652 when it was planted at Sylvester Manor on Long Island. In 1860 the first *Buxus microphylla* var. *japonica* was brought to the United States from Japan, followed in 1919 by a different *B.m.* variety from Seoul, Korea. In 1926 Dr. Wilson sent one of the latter variety to the MBG where it has been extensively propagated and used. Today it is referred to as a variety of *Buxus sinica*. Boxwood provides us with a link to great gardens of the past in many parts of the world.

In conclusion, Mrs. Gamble asked that the uses of boxwood be noted in the MBG during the tour on Saturday and in the private gardens on the Sunday tour. An excellent selection of slides illustrated many of the points that Mrs. Gamble made in her talk.

* * * *

Photo: Robert L. Frackelton
Mr. and Mrs. Albert S. Beecher enjoy repast and check boxwood plants.

Reception

The members of the ABS and BSMW then adjourned to the Beaumont Room for a reception. In this attractive meeting area, which featured *Buxus microphylla* var. *japonica* growing in planters at the entrance, the group was greeted by tables laden with finger foods

and pastries. A hostess served a delicious rosemary punch. Also awaiting the ABS guests were gift plants of *Buxus sempervirens* 'Henry Shaw', carefully potted by Charlotte Ballard. To our delight there was also an opportunity to buy some potted plants of the last three *B. s.* cultivars which the BSMW has registered: 'Mary Gamble', 'Hood' and 'Natchez' as well as *B. s.* 'Hermann von Schrenk'. Our hosts thoughtfully supplied shopping bags containing small favors from a new deluxe St. Louis department store; the bags proved to be well-suited for carrying small potted boxwood plants. In this festive setting members of the two boxwood societies met and mingled; there was much lively conversation. The 27th Annual Meeting of the American Boxwood Society was off to an auspicious beginning.

Photo: Robert L. Frackelton
Mr. Richard D. Mahone and Mr. Dale T. Taylor inspect Boxwood plants prepared for sale by Mrs. Charlotte Ballard (left).

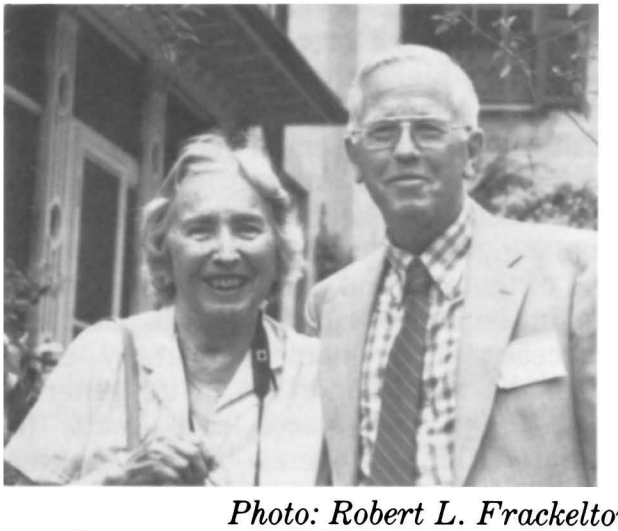


Photo: Robert L. Frackelton
Two Editors: Mrs. D. Goodrich Gamble and Mr. Scot Butler.

Saturday, May 9

A full day of events began for ABS members at 9 a.m. with the viewing of an orientation film on the MBG. Seen through the eyes of a young girl writing a letter about what she had seen on a visit to "Shaw's Garden" (the MBG) the various buildings and plant collections are identified and take on a life of their own.

The MBG Library

At 9:30 a.m. members of both the ABS and the BSMW gathered in the auditorium to hear Constance Wolf, MBG Library Department Head, describe the library and herbarium collections.

When Henry Shaw was preparing to open his public garden he was encouraged by J.D. Hooker, then Director of the Royal Botanic Gardens at Kew, to create a scientific research garden as well. Accordingly, when the garden first opened in 1859 the beginnings of a research program in systematic botany was included. Shaw organized his own book collection as the basis of a library. He also commissioned Dr. George Engelmann, a prominent St. Louis physician and scientist who became Shaw's sceintific advisor, to purchase books in Europe for the library.

Initially both the library and an herbarium were housed in the Museum Building (see page 4). William Trelease, who became Director of the Garden after Shaw's death in 1889, had Shaw's townhouse (see page 4) moved to the Garden in accordance with Shaw's instructions and in 1891 the library and herbarium were relocated to this house. In 1901 they were again moved, this time to the administration building. By 1972 these collections had far outgrown their space and were moved to their present site, the John S. Lehmann Building which was created to serve as a botanical research center.

Today the library is recognized as one of the world's finest botanical research libraries, thanks to an ongoing commitment from the outset to collect taxonomic botanical literature on a worldwide comprehensive basis. Ms. Wolf said that there are more than 90,000 volumes in the general book and journals collections. In addition there is a rare book collection of some 5,000 volumes including the Sturtevant Pre-Linnean Collection (over 1,000 volumes on

botany and natural history published between 1474 and 1753), the Linnean Collection (books by Carolus Linnaeus and revisions of his works) and over 3,000 other rare volumes. A volume dated 1484 is the first known volume containing illustrations of plants. The archives and nonbook materials (some 250,000 items) include personal papers of botanists, manuscripts, photographs, biographical material, botanical art and maps. At present the herbarium, the fastest growing one in the world, contains some 3½ million herbarium specimens.

Photo: Scot Butler
MBG: Museum Building (original library from 1859 to 1891).

Photo: Scot Butler
MBG: Shaw's townhouse (moved to garden after his death). Now an adminstration building.

The library maintains an in-house book conservation center which restores, rebinds and repairs volumes that are too valuable or rare to send to a commercial bookbinder. The full-time staff of 12 persons is supplemented by 20 volunteers. Since 1978 the library has used the OCLC automated system of cataloging which permits 6,000 libraries around the world to use and contribute to a consolidated listing of their combined holdings. Ms. Wolf's talk was illustrated with appropriate slides, including a picture of the earliest book in the library—a 1474 agricultural treatise in Latin.

The next event on the program was the business session of the Annual Meeting, the minutes of which will be found on Page

Plant Taxonomy

At the conclusion of the business session members had the pleasure of hearing guest speaker Dr. George Rogers, Horticultural Taxonomist at the MBG and Editor of *The Annals of the Missouri Botanical Garden.* After apologizing for trying to cover the subject of plant taxonomy in 40 minutes Dr. Rogers proceeded to elucidate the major problems encountered in classifying and naming flora. Leaving aside the broadest categories in the taxonomic hierarchy—division, class and order—he focused on the categories with which we primarily deal in our work with boxwood: family, genus and species. Each of these three classifications may have subclassifications, e.g., subgenus, section and series in the case of genus, and subspecies, variety and form in the case of species. Of the plant family Buxaceae (family names generally end in-aceae) the most important of its genera are *Pachysandra, Sarcococca* and *Buxus* (boxwood). Within the genus *Buxus* the major species are *balearica, harlandi, microphylla, sempervirens* and *sinica.* The cultivated varieties of boxwood—so-called "cultivars"—

are in a separate taxonomic category from the varieties found in nature.

Dr. Rogers said that species is an "interbreeding unit" and that, therefore, this taxon does not work very well for plants. The plant world is enormous, there are thousands of species with a wide distribution and there are not enough people engaged in field work to be able to determine the interbreeding units. The basis for classification therefore is not clean-cut. The best that can be done is to make use of specimens. Dr. Rogers gave the example of the leaves of the many different species of oaks (which belong to the genus *Quercus* and the family Fagaceae—to which the beeches, genus *Fagus,* also belong—and to the order Fagales).

On the other hand all dandelions are from one big clone; there is no sexual reproduction. The step from clones to clines is one of morphological gradation usually due to environmental or geographic influences on a plant.

Breeding relationships are often due to ecological factors. Hybridization leads to intermediate plants and the lines for classification may be fuzzy. Darwin saw nature as competitive with not enough resources to go around. In this environment there are chance happenings, mutations occur, unrelated organisms come to look alike and selective forces lead to evolution. On the one hand "convergent evolution" occurs and on the other, changes occur within lineages as species split.

Dr. Rogers spoke of the impact on plant forms over the ages resulting from the shifting of continents, climatic changes and geographic changes. Once-continuous forests across the northern hemisphere gave way to plains. Even now, however, there are residual pockets in the southern Appalachians of plants that also grow in Japan.

New species develop gradually. Sometimes new lineages fizzle out but other times they take a firm hold. There may be generations of diversity. The splitting and resplitting of plants into subgroups leads to our hierarchical system of classification. Flowering plants are assigned to families.

Dr. Rogers explained the internationally prescribed steps in collection, identifying and naming (or renaming) species. The purpose is to avoid naming inconsequential variations, which often are sporadic. Using slides he illustrated the field collection of plants—the drying and pressing process required to produce a dead flat plant as a herbarium specimen. Herbarium specimens are stored and studied with a dissecting microscope. Botanists today also examine seeds, make anatomical comparisons and investigate chromosomes chemically. If the plant is new it is named by its discoverer and an illustration of it is made. The choosing of a name must conform to the principles set down in the International Code of Botanical Nomenclature. (This code is reviewed every four years to permit changes or additions; the last review was in 1983.) Among other things the rules require that a type-specimen be established to serve as a fixed example and that its name be in Latin.

Dr. Rogers gave the following example of the correct notation at the species, subspecies and variety level of a boxwood that has recently been redesignated as *sinica* instead of *microphylla* (the portions in parentheses indicate the earlier name-givers and/or the earlier names; the person making the changes in this case is Cheng).

1. *Buxus sinica* (Rehd. & Wils.) Cheng
   a. subspecies *aemulans* (Rehd. & Wils.) Cheng
   b. Subspecies *sinica*
      1. var. *pumila* Cheng
      2. var. *insularis* (Nakai) Cheng (*Buxus microphylla* var. *insularis* Nakai)
      3. var. *sinica*

Cultivars have their own code of nomenclature. A type-specimen is not required for registration of a new cultivar. A fictitious example of a cultivar name is *Buxus bonus* 'Emerald Princess' where the cultivar name is not in Latin and is placed in single quotation marks after the specific or vertical name.

The BSMW Boxwood Nursery

Following Dr. Rogers' presentation guests and hosts were transported on the MBG tram to the boxwood nursery maintained at the Garden by the BSMW. This was a long anticipated experience and one not to be forgotten. Row upon row of boxwood varieties hardy in the St. Louis area sparkled in the midday sunlight (see Cover). The plants were of various sizes up to about five feet in height. For the most part they were allowed to grow in their natural shape, having been plucked

where necessary to improve on this shape and to prevent plants from growing into each other. The interiors of the plants were clean and the ground free of weeds. No signs of disease or insect damage were noted. In short, the nursery is very well maintained. The plants, tagged with the names that have come to be associated with the BSMW, are used to make the annual cuttings offered each year to ABS members. The plants are also available as replacements or additions on the grounds of the MBG. We assume that some may be used in the Boxwood Garden when it is created. We congratulate the BSMW on their perseverance and wish them continued success in making boxwood's presence felt in the midwest landscape.

Luncheon at the Flora Gate House

Before entering the Flora Gate House for a catered luncheon our party wandered through the adjacent Iris Garden where the flowers were in full bloom, creating a panoply of color. This is an outstanding collection of iris of different varieties with a wide range of hues. Inside the Gate House the tables were set with place cards arranged so that there were members of the ABS and BSMW at each table as well as owner of one of the private gardens scheduled on the Sunday tour. This thoughtful method of meeting those individuals who were kind enough to share their gardens with us was conducive to easy-flowing and entertaining conversation throughout a luncheon that was a gourmet's delight. It was an effort to break away from this pleasant social gathering and leave the cool dining room with its attractive floral arrangements, but the lure of seeing the sights of "Shaw's Garden" won out.

Tour of the MBG

The afternoon program was a tour of the Garden. As a gesture of hospitality all entrance and tram fees were waived for ABS members. Immediately after luncheon a guide showed us through the John S. Lehmann Building by special arrangement. This building, which is not open to the public, houses the research center with the library and herbarium. In addition to shelves of herbarium specimens and books, the modern equipment designed to make efficient use of the vast resources was of much interest.

A high point of the afternoon was a walk with Mary Holekamp as guide through the English Woodland Garden and the beautiful 14-acre Japanese Garden (see *The Boxwood Bulletin*, October 1985, Pages 54-59, for a full description and interpretation of this unique garden). The spell of this garden—only partially captured in accompanying photos—the water garden, a dry garden, lanterns, a waterfall and the artistic placement of rocks and plant material—is to create an esthetic world apart. Japanese boxwood is a prominent plant in the garden.

Photo: Scot Butler
Japanese Garden. Example of dry garden with pebbles raked to simulate waves.

Photo: Scot Butler
Lantern near exit of Japanese Garden

Japanese Garden:

Rock island in center

Photo: Decca Frackelton

Among the architecturally and functionally interesting buildings of the MBG—in addition to those already mentioned—are: the Linnean House, the enormous first greenhouse; the Tower Grove House, Henry Shaw's country seat (see photos); and the Mediterranean House, which contains some 200 plant species from the Mediterranean and areas of a similar climate.

Photo: Scot Butler

Henry Shaw's Tower Grove House.

Photo: Scot Butler

Entrance to Linnean House.

Directly behind the Tower Grove House is the attractive herb garden of the St. Louis Herb Society. Several varieties of boxwood are planted in or around this garden, including two large specimes of *B.s.* 'Henry Shaw', on either side of a gate (see page 8). An entrance to the Mediterranean House leads through the fascinating Dwarf Conifer Garden; inside the Mediterranean House we were pleased to locate the specimen of *Buxus balearica* which Mary Gamble documented in an article appearing in *The Boxwood Bulletin*, July 1986, Pages 12-15.

Photo: Scot Butler

Herb Garden (2 B.s. 'Henry Shaw' flanking the gate).

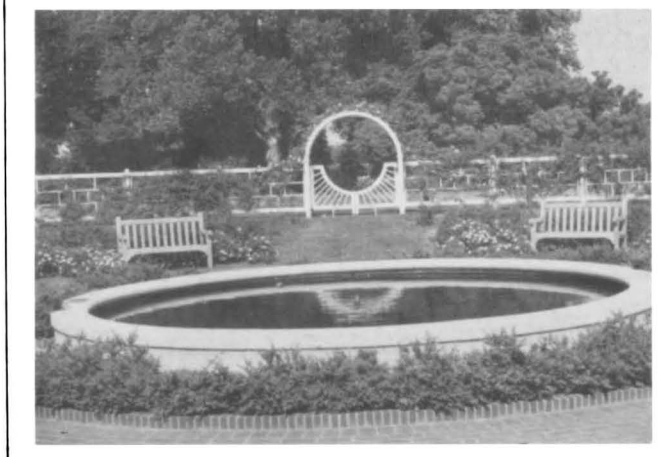


Photo: Scot Butler

Gladney Rose Garden.

There are many plant displays and collections of interest to the gardener, horticulturist and botanist. There are also many beautiful gardens, vistas, and walks for the general public to enjoy. Among the latter is the Scented Garden with its unusual wind chimes and the Gladney Rose Garden with its tranquil pool (see photos). The Latzer Fountain provides a lovely sight and sound; everywhere there are magnificent specimens of trees and shrubs, including a few in topiary form. The grounds are impeccably maintained with comfortable benches for resting and meditating.

The Annual Meeting Program ended at 5 p.m. with the closing of the Garden to the public. Unfortunately we had not had time to visit all the areas we had wanted to visit. But we thoroughly enjoyed what we saw and felt that we had good reason to return some day to complete (and repeat) our tour. We had been told that the MBG is a "world-class" botanical garden but we had to see for ourself, even though we're not from Missouri.

Photo: Scot Butler

Wind chimes in scented garden.

Revised Buyer's Guide

Almost sold out, The Buyer's Guide for Boxwood is under revision. We expect to have the new edition off the press next spring. Anyone having corrections or wishing to be added to the listing, please contact Mr. Lynn R. Batdorf, 1409 Elm Grove Circle, Silver Spring, MD 20904.

THANKS

The Bulletin Committee is grateful to those who contributed to and assisted with this issue. In addition to thanks for the timely articles, we would like to express appreciation to Mr. Lynn R. Batdorf, Mr. Scot Butler, Mrs. Charles Dick and Miss Carter Frackelton for their invaluable help.

ABS MINUTES — ST. LOUIS, MO

May 8, 1987

At 7 P.M. the membership convened in the auditorium of the Missouri Botanical Garden and received a warm welcome from Mrs. E. F. Chamberlain, President of the Boxwood Society of the Midwest. Mrs. Malcolm Holekamp then introduced Dr. Peter Raven, MBG Director, and listed his many achievements and affiliations. Dr. Raven spoke briefly of the risky climatic conditions in St. Louis for growing boxwoods and praised the members of the BSMW for their perseverance. He explained that this is the oldest botanical garden in the United States, begun in 1859. It has evolved from the Victorian garden of Shaw's day to the present form. Many botany students from local universities work in and use the garden for research. There are 450 volunteers giving time to various projects. Dr. Raven spoke of the many ongoing projects.

Mrs. Robert Frackelton, President of the American Boxwood Society, expressing appreciation to the MBG and to the BSMW, presented to Dr. Raven for the Missouri Botanical Garden a piece of botanical art in the form of a glass paperweight, an interpretation of St. Anthony's Fire Flower, made and donated by the artist, Mr. Paul Stankard of Mantua, NJ.

Mrs. D. Goodrich Gamble's talk entitled "A Presence of Boxwood" was a worthy tribute to boxwood and, with slides, set the stage for an excellent meeting.

After Mrs. Holekamp outlined the schedule for Saturday and Sunday, the group adjourned to a lovely reception with refreshments made and served by members of the BSMW. Gifts and, befitting the occasion, a plant of *B. s.* 'Henry Shaw' were presented to the ABS members.

May 9, 1987

At 9:30 A.M. Mrs. Malcolm Holekamp introduced Miss Connie Wolf, Librarian at the MBG for the past 3 years. Miss Wolf gave an overview of the history of the garden and library which was begun by Henry Shaw who patterned his garden after those he had seen in England. He began it as a public garden rather than it becoming one after his death. Mr. George Englemann and Mr. Hooker were influential advisors to Mr. Shaw and Mr. Englemann left his personal book collection to the library.

The library now contains more than 90,000 volumes, including over 5,000 rare books. There are Pre-Linnaean, Linnaean and many other rare books. The oldest book is dated 1474. Miss Wolf presented interesting slides showing how the library has expanded until now there is a large modern building housing the collection of books and herbarium specimens.

At 10:00 A.M. Mrs. Robert Frackelton, President of the ABS, opened the annual business meeting. She expressed thanks to the BSMW for the wonderful welcome and hospitality.

A motion was made and passed to dispense with the reading of the minutes of the last meeting.

TREASURER'S REPORT: Mrs. Katherine Ward gave her report (attached) and it was moved and seconded to approve the report.

BULLETIN COMMITTEE: Mr. Richard Mahone read and presented to Joan and Scot Butler a Resolution by the Board (attached), praising their outstanding work as Co-Editor and Editor of *The Boxwood Bulletin,* respectively. They were also presented a bound copy of the *Bulletins* they had produced and each given a letter opener made from boxwood. Mrs. Frackelton mentioned that a new editor is still being sought.

BUYER'S GUIDE: Mr. Lynn Batdorf said the present supply of the *Buyer's Guide* is running low and he plans to update the future edition which should be ready next spring.

HANDBOOK: Prof. Albert Beecher remarked on the ongoing work toward completing the *Handbook.* He hopes to have the final copy ready for review this summer.

MEMORIAL GARDEN: Mr. Phillip D. Larson, Chairman, reported on the accomplishments of and future plans for the Memorial Garden (summary attached).

REGISTRAR: Mr. Lynn Batdorf announced the registration of 3 new boxwoods in the past year - *B.s.* 'Hood', 'Mary Gamble' and 'Natchez'. He has produced an updated registration list which was published in the April 1987 issue of *The Bulletin* and is available from the ABS as a separate publication. It consists of 3 lists -I. Standardized Plant Names (Botanical and Common), II. Registration List of Cultivated Buxus L. and III. Excluded Cultivars. He told of work in preparation of the Monograph which is still in draft form and incomplete.

RESEARCH: Mr. William A. Gray, Chairman, was unable to attend. The Board has voted to continue two ongoing research projects and a committee has been formed to refine details for an evaluation project.

WORKSHOPS: Prof. James A. Faiszt, Chairman, was unable to attend. Mrs. Frackelton announced there will be a workshop June 4 at Blandy Farm.

Mrs. Frackelton expressed her appreciation for the help and support of the Board members during the past year, thus, making her job a real pleasure.

NOMINATING COMMITTEE: Mr. Richard D. Mahone, Chairman, presented the following slate: President - Mrs. Robert L. Frackelton; First Vice-President - Mr. Lynn R. Batdorf; Second Vice-President - Mrs. Malcolm Holekamp; Secretary - Mrs. Scot Butler; Executive Treasurer - Mrs. Katherine D. Ward and Directors - Prof. James A. Faiszt, Mr. William A. Gray, and Mr. Dale T. Taylor. A motion was made, seconded and approved to accept the slate.

Mrs. Holekamp outlined the activities for the rest of the day. The tram would take us to the boxwood nursery and to the Flora Gate House for lunch. Mrs. Frackelton asked the Board to remain for a short meeting following Dr. Rogers talk and the business meeting was adjourned.

Mrs. Holekamp introduced Dr. George Rogers who spoke on the subject of Taxonomic Hierarchy. He presented a slide show to illustrate his talk. Dr. Rogers is Horticulture Taxonomist at the Missouri Botanical Garden.

Respectfully submitted,

Beverly C. Larson,
Secretary

In Memory

A. Slater Lamond
Alexandria, Virginia

James C. Wilfong, Jr.
Prince Frederick, Maryland

Annual Report of the
American Boxwood Society
May 12, 1986 to May 5, 1987

Checking Account Balance 5/12/86	$ 3,575.23
Receipts:	
Membership	7,621.00
Contributions	1,762.00
Sale Boxwood Bulletins	107.00
Sale Buyer's Guide	240.00
Sale of Index	296.00
Sale of List	44.00
Annual Meeting	408.50
Plant Sale (annual meeting)	743.00
Woodlawn Workshop	340.00
Lynchburg Workshop	275.00
St. Louis Meeting	186.00
Interest on Checking Account	63.17
Total Receipts	$12,085.67
Disbursements:	
Annual Meeting	$ 323.00
Postage	755.14
Treasurer's Salary	864.00
Telephone	53.94
Woodlawn Plantation Luncheon	214.96
Amer. Horticultural Society (Signs)	151.19
Printing	9,967.85
Lynchburg Workshop	60.39
Charles Zuckerman (Signs)	35.53
J.P. Darlington (Mulch-Garden)	125.00
Shenandoah Valley Bindery	22.18
Total Disbursements	$12,573.18
Checking Account Balance	$ 3,087.72
Certificate of Deposit 5/5/87	14,759.46

Respectfully submitted,

Katherine D. Ward
Treasurer

Photo: Robert L. Frackelton
Mr. Mahone presents Resolution to Mr. and Mrs. Butler.

IN RECOGNITION

Whereas, Joan and Scot Butler have served, respectively, as Co-Editor and Editor of *The Boxwood Bulletin* since the fall of 1982 with great faithfullness, distinction and dedication to excellence;

Whereas, the Butlers graciously accepted these editorships when said vacancies occurred in the American Boxwood Society; and

Whereas, the Butlers, having officially resigned from their duties after the October 1986 issue of *The Bulletin*, due to increasing personal responsibilities, agreed to aid their replacements producing *The Bulletin* for January and April 1987; and

Whereas, the Butlers extended their commitment to produce said January and April issues in spite of other obligations when a new editor was not forthcoming; now, therefore, be it

RESOLVED, 1. That the Officers and Directors of the American Boxwood Society hereby express to Joan and Scot Butler their appreciation and gratitude for their years of dedicated service as editors of *The Boxwood Bulletin*; and

2. That in recognition of their valuable contributions of time and talent to the American Boxwood Soceity, Joan and Scot Butler are hereby presented with this bound volume of remembrances of their fruitful labors.

Adopted by the Board of Directors and presented at the Annual Meeting of the American Boxwood Society in St. Louis on this the ninth day of May, 1987. (Signed by the officers and directors.)

ABS - 27th ANNUAL MEETING

ST. LOUIS, MISSOURI

List of Participants

Mr. Claude J. Badensz
Mrs. Charlotte Ballard
Mr. Lynn R. Batdorf
Mr. and Mrs. Albert S. Beecher
Mr. and Mrs. John W. Boyd, Jr.
Mr. Dan Brennan
Mrs. Arnold J. Brody
Mr. and Mrs. Scot Butler
Mrs. E.F. Chamberlain
Miss Audrey Claus
Mrs. Dwight Coultas
Mr. and Mrs. William C. Dixon
Mrs. J. Donzelot
Mrs. Kerry Elgin
Mrs. H.F. Estill
Mr. and Mrs. Anthony Fathman
Mr. and Mrs. R.L. Frackelton
Mr. and Mrs. D. Goodrich Gamble
Dr. and Mrs. Thomas Hall
Mr. and Mrs. Malcolm Holekamp
Mrs. J.C. Horner
Mr. and Mrs. R.C. Jaudes
Cdr. and Mrs. P.D. Larson
Mr. and Mrs. Morgan Lawton
Mr. Richard D. Mahone
Mr. Charles Main
Mr. John Maxwell
Mrs. Francis A. Mesker
Mr. and Mrs. S.F. Morris
Mrs. Stratford Morton
Mrs. Barbara O'Brien
Mr. and Mrs. George Penhale
Mr. and Mrs. Winfield Preston
Mr. and Mrs. John R. Sutter
Mrs. James M. Sykes
Mr. Dale T. Taylor
Mrs. Katherine Ward
Mr. and Mrs. George Warner
Mrs. J. Wenger
Mrs. Howard Wilkinson
and a few other guests

Photo: Robert L. Frackelton

Ten ABS Board Members flanked by ***B.m.*** var. ***japonica*** *at MBG for Annual Meeting.*

SUMMARY OF MEMORIAL GARDEN REPORT

May 9, 1987

Of the stated goals for 1986-87, the major pruning program is 90% complete. Garden policy, procedures and responsibilities were published in the January 1987 *Bulletin.*

Additional accomplishments: expanded brochure; added 2 plants - 'Memorial' and 'Nana', relocated 'Joy'; remulched; started a propagation program; and distributed 10 different boxwood plants to the BSMW for testing.

Additional goals: add 8 new specimen plants; develop a landscape plan to be in consonance with the forthcoming Information Pavillion and reevaluate labeling in relationship to the new International Registration List of Cultivated Buxus L. promulgated in the April 1987 Bulletin.

The 1986-87 effort involved over 300 volunteer manhours plus the efforts of the Blandy staff in fertilizing and spraying.

The Committee seeks and looks forward to all advice and assistance that those interested in boxwood are willing to provide us toward making the ABS Memorial Garden one of the finest in the country. P.D. Larson, Chairman

Minutes of the Board of Directors' Meeting, St. Louis

A brief meeting of the ABS Board of Directors was held following the Annual Meeting on May 9, 1987 at the Missouri Botanical Garden in St. Louis, Missouri.

President Frackelton asked for two nominees to the Executive Committee, to join the President, Secretary and Treasure. Those nominated were Mr. Batdorf and Cdr. Larson. They accepted and were unanimously elected.

The Executive Committee named a Nominating Committee for 1988 consisting of Mrs. Scot Butler, Chairman, Mrs. George W. Burton, and Mr. William N. Mays.

Five officers and five Board members were present: Mrs. Robert L. Frackelton, Mr. Lynn R. Batdorf, Mrs. Malcolm Holekamp, Mrs. Scot Butler, Mrs. Katherine D. Ward, Prof. Albert S. Beecher, Cdr. Phillip D. Larson, Mr. Richard D. Mahone, Mrs. James M. Sykes and Mr. Dale Taylor.

Respectfully submitted,
Joan Butler, Secretary

BOXWOOD IN ST. LOUIS GARDENS

Sunday, May 10, 1987

WELCOME to a sampling of Saint Louis gardens. We wish time permitted us to show you more; and that you could linger in each of the seven. We opted to show you a diversity of gardens, with less time in each, so that you could enjoy a broad range of designs and ideas.

In each of the gardens you will see boxwood: boxwood used in the traditional manner, as well as boxwood used on a more limited scale, as a presence in the garden.

We have included large, medium and small gardens to show that boxwood has a commanding presence in gardens of every size; and that size itself is not the dominant factor in the success of a garden.

Mary Gamble has given thumbnail descriptions of each of the seven gardens, not dwelling on the obvious, which you will see for yourself; but rather telling you a little about the gardener, and how the garden developed. For it is the gardener who makes the garden, as you will see.

Jane Penhale, Chairman
BSMW Garden Tour

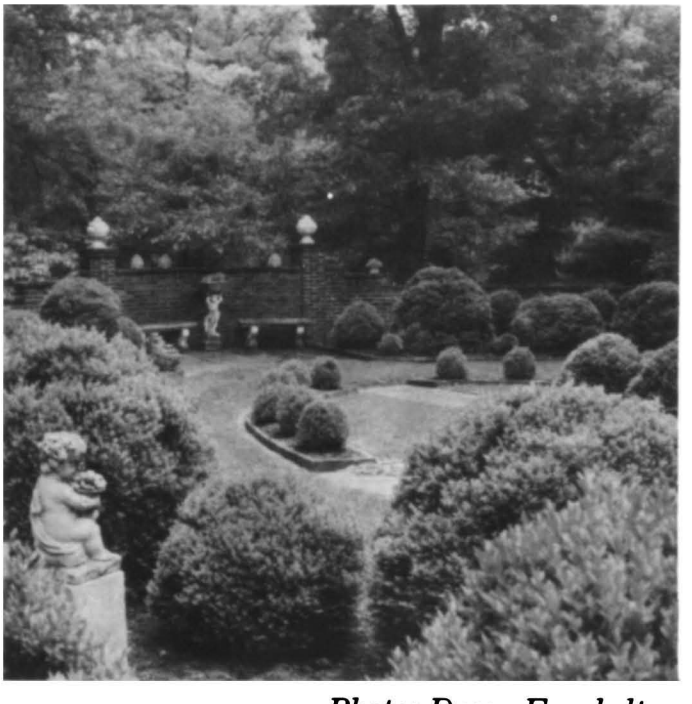


Photo: Decca Frackelton
Mrs. Stratford Lee Morton's formal boxwood garden.

The Garden of Mrs. Stratford Lee Morton

Mrs. Morton says she became fascinated by boxwood while visiting Virginia many years ago, and she has never lost that fascination. When she and her late husband moved to this house in 1943 she took the opportunity to transform its large perennial garden into a beautiful boxwood garden. Its design—an oval within an oval—was laid down by Peter Seltzer, a leading St. Louis landscape designer in the 1930s. The garden's charming ornaments were collected by the Mortons over the years. The brick walls are Mrs. Morton's work. She built them! The concrete footings were poured, but she set each brick herself. She had expert advice. Early in her building a passing brick-layer saw her at work. He informed a union officer who called on Mrs. Morton to ask if she didn't want help. "No," she said; "I like to lay brick." "Then let me show you how to do it right," was his answer. The union official then corrected her mortar mix and showed her how to slope a batter. Elise Morton says she thought her boxwood garden would be a five-year project. It has turned into a lifetime affair. She protects her boxwoods with burlap shields from early winter until early spring. She mulches her boxwoods with an organic compost which also serves to feed them; this she reduces to no more than 2 in. in spring. She waters her boxwoods on a regular schedule. And regretfully she resorted to sprays when a serious infestation of leaf miners threatened her garden.

Photo: Decca Frackelton
Mr. Frackelton photographs the Morton gardens while Mrs. Morton and Mr. Holekamp exchange greetings.

The Garden of Mrs. John Gates William

Mrs. John Gates Williams has Virginia roots; her great-grandmother grew up in Carter Hall in that state. Her grand-daughter and namesake, Mary Randolph Ballinger (a member of BSMW), tells us that Mrs. Williams has always loved an English garden. In the 1920s when she built her home and established her garden on a 100 acre tract that was then an open field, she chose Tudor architecture and the seventeenth century English style of garden. Since then, Mrs. Williams has reduced acreage about one-half. She planted shade trees which give her grounds the tranquil look of an English country estate. A Boston architect designed her swimming pool but she designed her garden. It is a series of gardens, formal and informal. Typical English "long walks" lead from garden to garden, past the orchard and the roses and the perennial borders. Garden statuary, gateways, stonework and balustrades embellish the garden. Specimen plants of fine shrubs catch the connoisseur's eye. The boxwood garden is the charming climax to this garden experience. It is the essence of simplicity, a gracefully pro-

Photo: Scot Butler

B.s. 'Ste. Genevieve' *used to create a rectagular boxwood garden planted by Mrs. John Gates Williams.*

portioned rectangle surrounded on three sides by boxwood. You will be interested to note that Mrs. Williams has had the courage to prune drastically some specimen boxwoods to restore them to good health and beauty. With the exception of a clipped hedge of an Asian boxwood adjacent to the house as one enters the garden space, Mrs. Williams has planted *Buxus sempervirens*.

Photo: Scot Butler

Tour members Goodrich and Mary Gamble, John Maxwell and Lynn Batdorf rest on balustrade in Mrs. Williams' formal boxwood garden.

The Garden of Mrs. Harriet Moore Bakewell

Harriet Moore Bakewell is one of this country's most eminent landscape architects. She is a member of the Council of Fellows of the American Society of Landscape Artists; and in 1983 the Garden Club of America awarded her the Medal for outstanding achievement in garden design. She is responsible for some of the most distinguished public and private landscape in St. Louis. Today we see the garden she designed for herself. Her garden is comparatively small and completely perfect. It is an extension of the house in which she lives and has her work studio; it attracts the visitor as a magnet draws iron. It lies beyond the broad, bricked an shaded porch where one can sit and look at the dipping pool

Photo: Decca Frackelton
Mrs. Harriet Bakewell's front garden featured boxwood.

Photo: Decca Frackelton
B.m. numbered seedling from Dr. J.T. Baldwin in early 1970's—in Penhale garden (foreground).

in the sunlight and listen to the sound of water as it falls from the fountain wall which forms a background for the pool. The water sheets from wall to pool, falling with a sound which can range from murmur to splash. When asked to explain its operation, Harriet says a switch controls volume thus sound. As to sheeting, that is because the water flows between two metal bars *exactly* 1/8 in. apart. I filed the bars myself! I didn't know how to make the water sheet, but I knew someone who did. "That," she added with a smile, "is one of the secrets of success!" As Harriet Moore, she grew up in Tower Grove House at Shaw's Garden. Her father was the late George T. Moore, Director of the Missouri Botanical Garden for more than 30 years. She says she learned about plants "by osmosis." The rare and beautiful plants (some of which must winter indoors) attest to her botanical skills.

The Garden of Mr. and Mrs. George E. Penhale

For the past half-century this garden has known two owners: Max M. and Lucy Mason, and their next-door neighbors, George and Jane Penhale. The house was built in 1869 (you'll see a Ferguson Historical Marker at the deck door). We wrote about the Mason garden in the July 1976 ABS BULLETIN. Now, 11 years later we see the Penhale garden. Rather slowly and with sensitivity to the beauty of the Mason garden, it has been changed to what the Penhales believe is the object of a garden: a place to study and indulge special plant interests, to home gardening skills, to live in and with day by day, to entertain friends and neighbors, and to offer as a meeting place for civic groups working for a good cause. The spacious contemporary deck grew out of the desire for more outdoor living space. It was designed by the Mason's eldest son, Max M. Mason, Jr., a landscape architect who practices in the Boston area. It was built by George Penhale and Claude Bedeusz, the Penhale's lifelong friend. Both men are retired aeronautical engineers. Both like to build moderately small structures, lay bricks, etc., etc. Jane, who is a collector of boxwoods, has broadened the number left by Lucy Mason. She has also moved her herb garden from the hidden nursery area to center-front in the main garden. There her herbs are at her finger tips

when she needs them for the gourmet cooking she enjoys. When the Penhales feel any change in the garden is indicated, they consult Max Mason who then designs it. Ask Jane why she likes boxwood and she'll answer: "For the same reason I have a purebred cat; I want the best." Her cat is an Abyssinian, named Curry, for his color.

The Garden of Miss Audrey Claus

Audrey Claus is the co-author (with Dr. William Kottmeyer) of "Basic Goals in Spelling", a nationally and internationally used text book for grades one to eight, now in its eighth edition. She brings to her garden the same precision, patience and discipline demanded by her work with words. She has lived in her present home for 32 years. She built her garden from scratch, transforming the clay the bulldozer left into soil which will support handsome plantings and the finest stand of Bluegrass you'll see outside Kentucky. Her lot is 80 by 150 ft. with a northern exposure. "It is," she says, "a small, flat suburban lot. I decided to do my best with it." Madeline Sutter (who shares membership in the St. Louis Herb Society with Audrey) designed the charming, traditional herb garden in which boxwood is a presence. The herbs support one of Audrey's hobbies: cooking. Jane Penhale introduced her to boxwood which Audrey plans to use increasingly in border plantings. Presently, she has some 20 small plants of B.S. 'Herman von Schrenk' planted on the yard's perimeter. "I like to live for today," she says: "I use my yard as a nursery so I can enjoy my small boxwoods as they grow. I will give about half of these to friends." She chooses strong and sensitive words to describe how she feels about boxwood. "It is such a stately plant. It is so beautiful and steadfast; it has substance." For 25 years her weekly garden helper has been Carnal Propps who worked in the cotton fields of Arkansas as a boy. He helps tend the garden with the same loving care which Audrey bestows upon it. As is Audrey's garden custom, he will serve us lemonade on our afternoon visit.

Photo: Decca Frackelton
Miss Audrey Claus' Herb Garden.

The Garden of Mrs. Francis A. Mesker

Mrs. Francis Mesker says that she learned about gardens from the hours she spent in her uncle's handsome gardens. He was Smauel Untermeyer who lived at Greystone-on-Hudson. The garden which Polly—with the help of her late husband—built on the Missouri shows she learned her lessons well. The Mesker home and garden are on a promontory 150 ft. above the Missouri River which, at this point, is 8.6 miles from its confluence with the Mississippi. When a landscape designer wanted to build a high wall to shield the garden from strong winds off the river, the Meskers decided to plan their own garden. "We knew exactly what we wanted," says Polly Mesker. "We loved the river and wanted our garden to lead naturally to the view." (We doubt there is a better one!) The garden has an elegant but easy formality. Because of the winds, rather low clipped boxwood is used as a design element. Many other fine shrubs show the hand of a knowledgeable gardener. A slim rectangular pool in the forefront of the garden reflects a charming dolphin and boy sculpture from Italy. Almost hidden by a hawthorne hedge there is a small abstract garden sculpture by the St. Louis artist Trova. This reflects Polly Mesker's interest in contemporary art. A path through the adjacent woods winds from garden to swimming pool, safely above river flood stage.

Photo: Robert L. Frackelton
Boxwood hedge in Mesker garden, overlooking the Missouri River.

Photo: Scot Butler
Guests gathered at garden of Mr. and Mrs. Holekamp to admire the yatsuhashi bridge, the conical B.s. Agram *on the "mountain" and to enjoy the food.*

Pool swimmers and sunners can relax in the wheel house of the Mississippi River excursion steamer "Washington" on which Louis Armstrong played his trumpet. Polly Mesker once remarked that her consuming interest was the theater. In her house and garden she has created great theater.

..... and after a chance to freshen up, we were led by Mrs. Anthony Fatham in her van to the Holekamps' for refreshments and a delicious buffet. Receipts were sought for the dill mustard and various dips. These multi-talented ladies not only earned a well-deserved reputation for growing boxwood under difficult conditions, but also, for making good use of their skill with herbs, their avocation before boxwoods.

The Garden of Mr. and Mrs. Malcolm L. Holekamp

Mac and Mary Holekamp prefer to call their garden an "informal water garden." It has a pool and a stream which tumbles down two waterfalls as it flows from pool to pond. It has strong elements of Japanese garden design. There is an island reached by a footbridge. There is a stone bridge over the stream where it flows from the pool. There is Yatsuhashi or zigzag bridge. The plantings include Japanese maples. Mary says her fascination with things Japanese began in 1962 when she visited a number of Japanese gardens in the American Northwest and in Canada. The garden, started in the fall of 1985, fills the better half of their 90 x 300 ft. lot which, until then, sloped gently upward to the far end where Mary had her greenhouse. Until their four children (two boys, two girls) outgrew childish things, it was a playground surrounded by large oaks. Mary and Mac talked of a future garden and Mary dreamed of it. In fall 1985 Mac hired an earth-mover and transformed the landscape. He is the architect of the garden. He directed the operator where to dig, where to fill, where to make a mountain. He built the comfortable walkways, the stone and Yatsuhashi bridges. He installed the pump system which makes the water flow. He also built the viewing deck. He transplanted their large collection of boxwoods and chose the conical form to stand on the island's peak. At summer's end when Mary returned from their Michigan cottage she found her dream come true. The pond has a resident swan, named Margaret T. Hatcher, or Maggie for short. Itinerant pairs of Mallard and wood ducks drop by. Mac and Mary say their water garden will not reach the perfection they seek for several years. We see it well on its way.

FINALE

St. Louis, MO - May 11, 1987

An excursion to Shaw Arboretum at Gray Summit was the icing on the cake. This arboretum, presently consisting of 2400 acres, has been developed by the Missouri Botanical Garden as a center for environmental education.

We assembled at the Gate House where the "secret" boxwood garden is located. After admiring the large and healthy boxwood plants near the Gate House, we followed Mr. William Davit, who is in charge of the Prairie Restoration at Shaw Arboretum, to the Trail House. There the Holekamps as if by magic produced another delicious repast.

Mr. Davit gave us a tour of the Wildflower Trail which passes through a large dolomite glide. (See a future issue for more detail.)

Back at the Gate House, we bid adieu. With us went so many wonderful memories—of people and places and plants—that made this an unforgetable experience.

A PLEA FOR RESEARCH FUNDS

From 1971 through 1987, the American Boxwood Society has awarded research grants totalling $18,500 to five study programs. It has been the concensus of members that, if at all feasible, research funds should be generated through donations designated for that purpose.

With the recent authorization of $500 grants to the continuing field study program at the Hampton Roads Agricultural Research Station and the long-range basic research effort of mycorrhizae at the University of Kentucky, our Research Fund balance had disappeared.

An additional task, now in the planning stage, will evaluate a number of selected *Buxus* cultivars, to promote a greater diversity in the availability and use of boxwood. It is likely that some future Society funding will be needed.

Accordingly, your Research Committee, for the first time, is appealing to all Society members for donations to the ABS Research Fund. All contributions, large or small, will be most welcome.

William A. Gray, Chairman

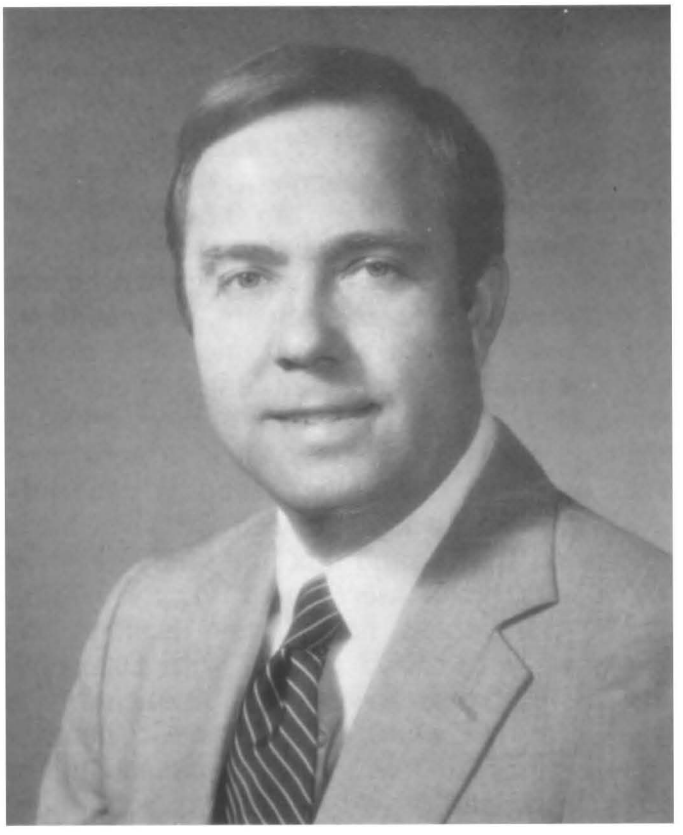
New ABS Secretary

JOAN (MRS. SCOT) BUTLER

At the Annual Meeting on May 9, 1987 Joan (Mrs. Scot) Butler was elected Secretary of the American Boxwood Society. She has served as Co-Editor of *The Boxwood Bulletin* since January 1983. She was born in India, grew up in New York State, graduated from Swarthmore College and has lived in Northern Virginia since 1948. She comments on her interest in boxwood:

"My first exposure to the charm of boxwood was during a visit to Williamsburg in the early 1930s when, in my teens, I announced my aim to live in Virginia and raise boxwoods. A spate of years intervened before I realized this objective. From 1950 to 1980 my husband and I tended small parterre gardens edged in dwarf box. After joining the American Boxwood Society in 1972 I learned of the great diversity of boxwood shapes, forms and color. My small nursery is now composed of unusual cultivars which can add variety and sparkle to a landscape. I particularly support the effort by the ABS to develop, test and promote new boxwoods so that gardeners and nurserymen will find them a valuable addition to their collections."

New ABS Director



DALE T. TAYLOR

I first became a member of, and actively involved in the work of, the American Boxwood Society several years ago. From the very beginning, I was most impressed with the sincerity, dedication, and enthusiasm of the Society's leadership, its core of active members, and with the very important and worthy goals that have been set, and strived for, for so many years.

I have always had a love of horticulture and a love of history. I belive that it is almost inevitable for anyone with two such loves to eventually discover yet another: boxwood, man's oldest garden ornamental.

The story of the American Boxwood Society is a story of many people who have supported the study of boxwood in so many ways, so many times. When I think of the many positive reasons for supporting the work of the American Boxwood Soceity, three in particular come to mind.

First, as a horticultural society, the American Boxwood Society (formed twenty-six years ago in 1961) is still very much a young organization. There is so much pioneering yet to be done, and those early members and officers of the American Boxwood Society have left us an important and treasured legacy to carry forward.

Second, the work of the American Boxwood Society is internationally recognized. As the international registrar for boxwood taxonomy, the Society also supports significant research into boxwood culture, diseases, propagation and care; it sponsors important and interesting workshops and seminars; and, through its excellent quarterly -*The Boxwood Bulletin* - it provides a wealth of information covering a wide range of boxwood subjects and topics for amateurs and professionals alike.

Third, a society as useful and as important as the American Boxwood Society offers many challenges, excitement, and lasting friendships to those members who make a difference by rendering their time, talents and energies to this most worthy organization.

By way of personal introduction, I am forty-one years old, married to the former Nora Alkire, and the proud father of two daughters: Rebecca, age eight, and Amanda, age four. I have lived in Southern New Jersey all of my life.

Educationally, I received a Master of Business Administration Degree (MBA) in international economics from Drexel University, and a Bachelor of Science, with honors, in Business Management from Rutgers University. I own and operate a consulting practice in the banking field. A Marine Corps veteran of Vietnam and an elder in my church, I belong to numerous civic, professional and charitable organizations.

NOTICE

The desire to open a vista south from the "Quarters" building at the University of Virginia's Blandy Experimental Farm makes it necessary to relocate several large specimens of *Buxus sempervirens*. Twenty-nine plants varying in size from three to ten feet will be offered for sale, to be moved by the purchaser after Sept. 15 and before Dec. 31, 1987. Anyone interested in all or part, please contact Dr. Edward F. Connor, P.O. Box 175, Boyce, VA 22620 for details. (Phone (703) 837-1758)

RESEARCH

Growth of Boxwoods in Container Media Containing Composted Sewage Sludge

Marcia A. Stefani and Thomas J. Banko

The increasing availability of composted sewage sludge for use as a soil additive for growing plants has generated a great deal of interest in the horticultural community. Just what is composted sewage sludge and what are its applications?

Here is Southeastern Virginia, composted sewage sludge is produced by the Hampton Roads Sanitation District in Newport News. The process involved is based on traditional composting methods, where naturally occurring microorganisms break down organic materials. First, the dewatered sludge is mixed with woodchips to reduce the moisture content and increase the porosity. The mixture is stacked in piles which are aerated to allow the microorganisms to decompose (compost) the sludge. The heat which is generated by the organisms raises the temperature of the pile to above 131°F (55°C), which is sufficient to destroy disease causing organisms. All weed seeds are inactivated and many organic chemicals are degraded. The mixture is then dried, screened to remove approximately 2/3 of the woodchips, and allowed to cure before the final compost product is distributed for use. The compost produced is a natural organic product with a high humus content similar to peat. The particle size and consistency are uniform, and the compost has the odor, color, and texture of rich fertile soil (1). Compost produced by the Hampton Roads Sanitation District has pH range of 5.9 - 6.8. The N:P:K ratio is approximately 2.6-0.6-0.3 (1). The compost also contains calcium, magnesium, iron, and micronutrients. Addition of supplemental micronutrients to a potting medium is unnecessary, as is the addition of lime. Though not a problem here, in some areas the pH of the compost is so high that the addition of elemental sulfur is required to bring the pH down to acceptable levels. This is particularly important for species which grow better at lower pH levels (4,5).

Previous research at the Hampton Roads Agricultural Experiment Station has found that composted sewage sludge can be used effectively in media for container grown plants. In studies with azaleas, junipers, and Japanese hollies, best growth was obtained with a pine bark:compost medium containing about 40% compost (2, 3). For work with nursery crops, a mix containing 4 parts pine bark, 2 parts compost, and 1 part builder's sand is generally used. This mix was compared with a 6 parts pine bark: 1 part sand mix in a study growing boxwoods *(Buxus microphylla* var. *koreana),* junipers, Japanese hollies, and azaleas. All plants were fertilized equally with Osmocote 18-6-12; half also received an application of Micromax micronutrients (Sierra Chemical Co., Milpitas, CA). While the Japanese hollies and the azaleas grown in the mix containing compost were slightly larger than those in the bark: sand mix, the results showed a dramatic difference in size for the boxwoods and junipers.

Although growth of these two species in the compost: bark mix was good, the differences in growth observed actually reflected the very poor growth obtained with the bark: sand mix. The reason for the poor growth of boxwood and juniper in the bark: sand mix is not known at this time, but it may relate to the fact that lime was not added to the mixes. Possibly the compost provided enough calcium, magnesium, and pH control so that lime was not needed in the compost: bark mix, but growth of the plants in the bark: sand mix was inhibited. Research is continuing to investigate these factors along with other possible effects of composted sludge.

It is interesting to note that, regardless of the medium used, the addition of Micromax to the medium had no effect whatever on the growth of any of the 4 species.

The only problem we have encountered thus far with using composted sludge in media is the initial high soluble salts level. This problem is minimized by using 40% or less compost in the medium, heavy initial irrigation to leach the excess salts, and delaying supplemental fertilizer

applications until 2 to 3 weeks after planting.

Composted sewage sludge can be used effectively in preparing container media for growing boxwoods. The sludge seems to substitute for application of additional lime to pinebark: sand media and the boxwoods respond very favorably. It also appears that some reduction in the amount of fertilizer applied may be possible.

Editor's Note. Dr. Thomas J. Banko is an Associate Professor of Horticulture at VPI&SU. Marcia Stefani, co-author of the paper, is a research scientist at the Hampton Roads Agricultural Experiment Station (formerly Virginia Truck and Ornamental Research Station). This paper is the fifth in a series on the results of boxwood research at the Hampton Roads Agriculture Experiment Station. This research has been partially funded by grants from our Society.

* * * *

Literature Cited

1. Anonymous. Compost produced by the Hampton Roads Sanitation District. HRSD Promotional Brochure.
2. Banko, T.J. 1983. Composted sewage sludge as a medium for container grown nursery crops. Proc. SNA Res. Conf. 28:58-62.
3. Banko, T.J. 1986. Use of composted sewage sludge in container media. Va. Nurserymen's Assn. Newsletter Sept.-Oct.:38.
4. McCoy, M. and J.L. Green. 1984. Composted sludge and granulated straw in container media produce good growth if used properly. Am. Nurseryman 159 (1):73-80.
5. Smith, E.M. and S.A. Treaster. 1985. Sludge in media promotes early growth. Am. Nurseryman 161 (1):105...112.

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MAIL BOX

Time and Eternity

Charles Henry Helsper
10000 Colvin Run Road
Great Falls, Virginia 22066

March 8, 1987

Editor
The Boxwood Bulletin

Dear Sir:

Enclosed is a view of our garden which contains more than a hundred boxwood of different sizes. Many of them are variety 'Suffruticosa' and exhale the "fragrance of eternity" (to quote Oliver Wendell Holmes' description). In this respect the garden is not unlike many other boxwood gardens. What is different—and therefore may be of interest—is our use of several different types of sundials as accents in the garden. Not only do they show the fleeting hours against the backdrop of "eternity" but also provide axial lines for the paths, beds and plants of the garden.

I have long been interested in sundials, and the one pictured in the foreground is an unusual type known as an analemmatic sundial. To the best of my knowledge there are only about 10 of this type in the world. The greatest book on sundials that I know of is entitled *Sundials and Old Roses*, but we hope that someday our garden will be noteworthy for its sundials and old boxwoods.

Sincerely
Charles H. Helsper

Photo: Charles H. Helsper
View of boxwoods and analemmatic sundial at Crescent Hill, home of Mr. and Mrs. Charles H. Helsper, Great Falls, Virginia.

RESEARCH

Use of Antogonistic Microorganisms to Control *Phytophthora* Root Rot on Boxwood*

Melinda M. Gates and Wirt H. Wills

Former Graduate Research Assistant and Professor
Department of Plant Pathology, Physiology and Weed Science
Virginia Tech, Blacksburg, VA

Phytophthora parasitica Dastur is an important root pathogen of *Buxus sempervirens* and *B. sempervirens* 'Suffruticosa', Common and Truedwarf Boxwood, respectively, shrubs used extensively in the landscape in Virginia and North Carolina. *Phytophthora* root rot development is favored by poorly-drained soils of high moisture content and soil temperatures of 26.6 C and above (2). Typically, in infected plants the basal portion of the stem turns chocolate brown to black for several cm above ground. Below-ground symptoms include a reddish-brown to dark brown water-soaked root system accompanied by sloughing of the cortex from all but the large woody roots. The foliage becomes chlorotic (yellow) followed by wilting and defoliation.

Fungicides are used to prevent root infection, therefore, chemicals are effective only if applied prior to infection with the fungicide concentration remaining at or above the effective rate (1). Due to timing difficulties involved with application prior to infection, fungicides are applied at 2 to 8-week intervals throughout the growing season. Reliance on strictly chemical means for disease control can be costly, moreover, resistance by several species of *Phytophthora* have been noted with the use of such fungicides as metalaxyl (3). Biological control methods are playing an increasingly important role in a trend towards a more integrated approach to disease management. Using ecologically adapted rhizosphere/rhizoplane microorganisms, it is conceivable that long-term protection of boxwood plants against *Phytophthora* may be achieved if the organisms were to be applied to the root system prior to disease development.

Investigations were conducted at Virginia Tech to: 1) isolate and screen microorganisms from the rhizosphere/rhizoplane of healthy boxwood roots for *in vitro* inhibition of *Phytophthora*; 2) further subdivide the microorganisms selected into compatible pairs; 3) examine two organic compounds, carboxymethyl cellulose (CMC) and methylcellulose (MC) for their suitability as carriers and as storage media and carbon substrates for these organisms; and 4) evaluate the pairs for their ability to protect containerized Common Boxwood against *Phytophthora* under greenhouse conditions.

One hundred and twenty microorganisms representing three major groups, bacteria, fungi and actinomycetes, were isolated initially from American boxwood roots. These organisms were screened for *in vitro* inhibition of *Phytophthora* utilizing an agar dual culture technique in which the target organism was challenged with each potential antagonist to test for zones of inhibition or hyphal lysis. On the basis of this test, 14 organisms were selected for further study. These included five fungal isolates, six bacteria and three actinomycetes. Utilizing the agar dual culture technique, the 14 were further subdivided into seven compatible pairs for further investigations of biocontrol activity. Since biocontrol may be obtained by various different mechanisms depending on the biocontrol agents employed, the use of combinations of organisms rather than single antagonists would increase the chances of success.

An important aspect relative to commercial application of biocontrol agents is selection of a

carrier material which maintains the integrity of the organisms with a minimum risk of contamination. To facilitate this aspect, the material should function as both a storage and carrier substrate for ease of application and maintenance of viability. To determine the ability of the isolates to survive and maintain stable population levels in the polymers CMC and MC under storage conditions, each of the 14 isolates were suspended in flasks containing a 0.25% concentration of the polymers, stored at one of three temperatures depending on the survival characteristics of the organism and sampled at regular intervals to determine changes in population viability.

In the past, unsuccessful attempts to establish biocontrol agents in the infection court prior to introduction of the target pathogen may have been due in part to the absence of a suitable carbon source or food base for the microorganisms. The carrier should serve as a readily available carbon and energy source until the organisms establish themselves as the dominant individuals and are able to utilize the naturally occurring root exudates. To test the ability of the organisms to utilize CMC and MC as a carbon source, a buffered basal synthetic medium was employed with CMC or MC added at a concentration of 0.25%. These complete media were inoculated with each organism and sampled for growth determinations at regular time intervals. Growth was evaluated either as an increase in colony-forming units/ml (bacteria, actinomycetes) or as mg dry weight (fungi).

The results of these studies indicated a significant change in viability for non-spore-forming fungal isolates when stored in both CMC and MC, with viability decreasing linearly over time. This was in direct contrast to the spore-forming fungal isolates which remained fairly stable or increased slightly in population viability with time. Methylcellulose was a more effective storage substrate for spore-forming fungal isolates than was CMC. There was no significant change in actinomycete cell viability in either compound during the storage period of 12 weeks. In general, there was no change in bacterial populations in either CMC or MC.

All 14 isolates were capable of utilizing CMC as a carbon source. Carboxymethyl cellulose was utilized at a more rapid rate than was MC as indicated by higher growth rates (colony-forming units/day) in this medium. An important factor to consider when screening compounds for their suitability as carrier suspensions for antagonistic microorganisms is the ability of the target pathogen to utilize them as a carbon source. The compound should not be metabolized by the pathogen, a factor which could result in an increase in disease severity. The results of the present study indicated an inability of *Phytophthora* to degrade either CMC or MC.

The final and most important aspect of the research was protection of boxwood roots against *Phytophthora* by application of the antagonist pairs in CMC and MC. Each pair was suspended in a 0.25% concentration of CMC and MC and incorporated as a soil drench and as a 2 second boxwood root dip. Boxwood root systems were challenged with the pathogen after a suitable incubation period for establishment of stable population levels of the antagonists on the roots. Disease severity was evaluated using a visual rating scale of 1-5 with 1 = 0% roots rotted, 2 = 1-30, 3 = 31-60, 4 = 61-90 and 5 = >90% of the root system exhibiting root rot symptoms.

With the exception of one bacterial pair, with CMC as the carrier, all antagonist pairs provided significant control of the disease relative to the *Phytophthora*-infested control plants in one experiment (Table 1). Whereas disease ratings were not statistically significant from the control plants with MC as the carrier, all antagonist pairs exhibited a lower mean root rot rating than the controls. A similar experiment followed the same trend but without significant differences. Further testing is needed using larger plant populations.

In general, those organisms which provided good control of *Phytophthora* root rot also possessed he ability to maintain stable populations under storage temperatures and utilize one or both polymers as a carbon source. Con-

trol of *Phytophthora* in the present study could have occurred at the root surface in the form of a physical barrier provided by the organisms, or the pathogen may have been subject to antaganism before reaching the infection court. The use of antagonistic microorganisms to control *Phytophthora* root rot of boxwood appears promising and could have a significant application especially in a greenhouse or nursery situation.

Table 1. Effect of seven antagonist pairs suspended in 0.25% carboxymethyl cellulose (CMC) and methylcellulose (MC) on *Phytophthora parasitica* root rot of Common Boxwood, artificially inoculated with *P. parasitica.*

Antagonist pairs	Disease rating CMC	MC
control (no antagonists)	3.0 a[1]	3.0 a
bacterium - bacterium	3.3 a	1.7 a
bacterium - bacterium	2.0 b	2.7 a
fungus - actinomycete	2.0 b	2.3 a
actinomycete - bacterium	1.7 bc	1.7 a
bacterium - fungus	1.7 bc	2.0 a
fungus - actinomycete	1.3 bc	2.0 a
fungus - fungus	1.0 c	2.0 a

[1]Means within a column followed by the same letter not significantly different according to a Waller-Duncan K-Ratio test.

REFERENCES

1. Benson, D.M. 1986. Phytophthora Root Rot -It's Life Story. Ornamental Plant Pathology Update. October-December. Cooperative Extension Service. University of Georgia. pp 4-8.
2. Lambe, R.C. and Baldwin, R.E. 1980. Phytophthora Root Rots and Wilt of Woody Ornamentals. Cooperative Extension Service. Virginia Tech. 8 pp.
3. Schwinn, F.J. 1983. New developments in chemical control of Phytophthora. Pages 327-334. In: Phytophthora, Its Biology, Taxonomy, Ecology and Pathology. D.C. Erwin, S. Bartnicki-Garcia and P.H. Tsao eds. Amer. Phytopathol. Soc., Minnesota. 392 pp.

Editor's Note. *This paper represents the final report to the American Boxwood Society, in response to the Society's research grant. As noted in the discussion, some promising results were achieved, indicating a potential for biological control of root rot in Boxwood, especially for container-growing operations. Further testing is scheduled at VPI&SU.*

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see **INFORMATION** *inside back cover*

BOXWOOD ROOTS IN THE HUDSON VALLEY

Herbert H. Cutler

A photograph of Rod and DeGuerre Blackburn's garden at Kinderhook, New York in the 1986 summer edition of *Colonial Homes* brought an inquiry from the American Boxwood Society about the history of the garden. As the boxwood originated in my garden in Kingston, New York, the Blackburns asked if I would be willing to outline the ancestry of the boxwood in their garden.

To put it briefly, boxwood from my garden in Kingston was planted at Dr. William Appell's garden in Kinderhook and boxwood from Dr. Appell's garden was planted in the Blackburn garden. But it might be interesting to go into a bit more detail and summarize one person's experience with boxwood in the area of the mid and upper Hudson Valley. Seldom does anyone encounter any mention of its use in colonial times, although it has been reported that Peter Stuyvesant imported it from Holland to plant on his bowery at New Amsterdam.

Shortly after graduating from Syracuse University in 1930 with a degree in Landscape Engineering, I worked for a time in the New York office of the eminent Landscape Architect Annette Hoyt Flanders. Mrs. Flanders was just completing the restoration of the gardens at Morven, near Charlottesville, Virginia, and was designing several estates on Long Island and Westchester County, New York. In some of these gardens were extensive plantings of boxwood. About then I was in the process of creating a small garden at my parents' home at Malden-on-Hudson, a tiny village on the west bank of the Hudson River about one hundred miles north of New York City. To try boxwood there, would be a challenge. The little garden was a portion of what had been the vegetable patch of a Greek Revival house that my grandparents had bought around 1880. Although my mother was very young when she went to live there, she said she remembered remnants of a boxwood garden. My grandfather was more interested in berry shrubs and fruit trees so he made no attempt to restore the boxwood. Seeing the existing boxwood, gave me the assurance that I might be successful in growing them in this climate. I knew of no boxwood in the area, but since have seen vestiges of nineteenth century plantings. Evidently it was highly prized by those who appreciated its fine qualities and planted their gardens a century and a half ago.

My knowledge was limited to the fact that there were two types, the so-called "American" and "English" boxwood (properly called Common and Truedwarf Boxwood respectively) and, obviously, I could not distinguish one from the other. As for the oriental species and the many variations of *Buxus sempervirens,* I did not know that they existed. A nursery in Pennsylvania, fortunately, I have forgotten the name, advertised rooted cuttings as "English" boxwood. I asked for a sample and it appeared to be a fine little specimen so I bought 100 more for the great sum of $10.00. At the time, my salary in New York was $25.00 a week. The cuttings arrived, were planted, and all survived. Soon the beds were edged with a pretty border. But there seemed to be a variation as they matured which I had not noticed when they were cuttings. As it turned out, the only plant resembling Truedwarf Boxwood was the original sample. There were two or three similar clones of *Buxus sempervirens* but a fourth variety had broad heavy leaves. There were several other plants which were *Buxus microphylla* var. *japonica.*

The first offspring of this medley were produced during the 1940s when we were living in an apartment in Kingston, N.Y., where there was a small area at the rear for a tiny garden. Kingston is a small city also on the west bank of the Hudson about ninety miles from New York. By this time the care of my first garden had been taken over by my father and since the hedge had grown considerably he cut it back severely. Rescuing a quantity of the cuttings, I soon had a miniature hedge in our city backyard. The soil in the area is very sandy and cuttings root readily if kept well watered. Here they flourished for a number of years until the owners reclaimed the apartment and planned to build over the garden area. Trying to find a home for the now substantial plants, I offered them to the Unlster Garden Club, a member of the Garden Club of America. The boxwood was

moved to a temporary nursery and about two years later, in 1956, the garden club decided to plant a dooryard garden at the Senate House in Kingston, a New York State Historic Site built in 1676. I was delegated to prepare the design. Bluestone walks were installed and the boxwood was moved to its permanent location. The garden is still flourishing and I continue to advise and work with the Ulster Garden Club on the maintenance. We have had problems in one area which is more or less of a thoroughfare and the liberal use of salt on the walks in the winter has played havoc with some of the plantings. At first the hedges were not protected during the winter but we soon found it to be quite necessary, particularly where the snow must be removed from the walks exposing the hedge to the wind and sun. It is now covered with burlap stapled to wooden stakes that are driven into the ground. But it does appear that the burlap covering has its hazards for in the winter of 1986-1987 vandals set fire to the covering and before the fire could be extinguished about ten feet of the hedge on both sides of the walk were destroyed.

By the time the boxwood was moved to the temporary nursery I was able to sort out the plants of *Buxus microphylla* var. *japonica* and they were planted in Palenville where we have a cottage. You will hear more of these later.

Palenville is a the foot of the Catskill Mountains about eight miles west of the Hudson as the crow flies. My father-in-law, Dr. Albert C. White, had an estate on the eastern escarpment of the Catskills at an elevation of about one thousand feet. Here is one of the most remarkable boxwood gardens in the area. Early in this century a sixty-year-old garden of *Buxus sempervirens* 'Suffruticosa' in the village of Catskill, near the bank of the river, was being demolished. A wagon-load of plants was carted to Palenville and a formal garden was laid out adjacent to a pseudo-Italian villa which was emerging on the mountainside. The exact date is not certain but there is a water color of the garden dated 1917 in which the boxwood hedges appear to have been well established for a number of years. The garden was carefully tended for over fifty years by a full-time gardener. During the winter the boxwood was covered with evergreen branches. An extremely cold winter in the early 1930s did considerable damage in spite of the covering but most if not all recovered. That same winter unprotected boxwood on Long Island was burned to a straw color and many did not survive. As long as the house was occupied by the family, the boxwood garden was one of the most cherished features of the estate. However, in the 1960s it became neglected when it was passed onto new owners. The garden has been more or less reclaimed twice, but at present it is completely neglected and overgrown with sumac. Even with neglect, however, the boxwood continues to survive and at present could still be rejuvanated.

#1 Photo: Roderic H. Blackburn
Garden of Mr. Herbert Cutler,
Kingston, New York.

Now we come to my present garden from whence the Kinderhook boxwood originated. In 1956 we purchased a small townhouse, vintage 1840, in Kingston. It is on a narrow, deep lot but fortunately the house is almost on the street with nothing wasted on a useless front yard. It had grown up to weeds and brush so there was no problem of what should be saved. As soon as the design was completed I returned to my first garden in Malden and took quantities of cuttings, being careful this time to select only the *Buxus sempervirens*. The layout is quite simple with a large center lawn and brick paths on each side (see photo #1). The cuttings were placed close together along both sides of the paths. Soon there was a close hedge and thinning was necessary. Enough were removed to plant a garden in Kingston which I had designed. This planting has survived for more than twenty years with no

#2 Photo: Roderic H. Blackburn Garden of Dr. and Mrs. William T. Appell, Kinderhook, New York. The house was built in 1766 in the then popular Georgian style.

winter protection. Then Dr. William Appell of Kinderhook, N.Y. asked me to design a small garden for their recently restored 1766 Dutch Colonial house (see photo #2). Again the hedges in Kingston were thinned and planted in Dr. Appell's garden where they are still thriving. From this planting Dr. Appell took cuttings and soon had quite an extensive nursery. These offspring were the basis for the planting in the garden which I helped design for Rod and DeGuerre Blackburn, also in Kinderhook. The design was adapted from a 1660 map of lower Manhattan Island, then New Amsterdam. The map is known as the Castello plan and shows many small formal gardens. (See photos #3 and #4.)

For my own garden in Kingston the *Buxus microphylla* var. *japonica,* which has been sorted out from the stock used at the Senate House, had increased in size while planted in Palenville so that they were large enough to lend some substance to the design. There were enough to border both sides of the T-shaped lawn, which is more than 100 feet in length. They grew so well that by 1975 the sheared hedge was almost three feet high and as wide. But then disaster struck. For some undetermined reason plants began to turn brown and eventually died. This left great gaps in the hedge. Someone at Williamsburg suggested it might have been the result of close shearing. No insect or fungus attack could be discerned, and a few plants at one end survived and are growing vigorously. They are no longer sheared. The Japanese Littleleaf Boxwood seem to be perfectly hardy in this climate because two plants left in Palenville are growing in a restricted root area and are thriving with no care whatsoever.

During the early years of the Senate House project it was observed that a few plants were quite different in leaf texture, so they were weeded out and planted as a short hedge in my garden. There are only a half dozen or so which indicates that there was probably only one specimen in the original lot. They have survived with no winter protection in recent years. Cuttings of this variety root readily and probably benefit with winter protection until well established. A number of years ago I gave a friend in Kingston enough rooted cuttings to border a bed and they have performed most satisfactorily with no winter covering. But that, I think, is tempting fate. I sent a sample of this variety to Mrs. Mary Gamble of The Boxwood Society of the Midwest and she thought it might be *Buxus sempervirens* 'Bullata'.

The large Japanese Littleleaf hedge bordering the lawn, beginning in 1979, was cut out as the plants died and were consumed in the fireplaces. It made excellent kindling wood. A new hedge of small plants and rooted cuttings was planted. The appearance of the garden was changed completely but perhaps for the better. The large hedge was beginning to overwhelm the small garden. There was no dearth of material for it is quite evident I have a penchant for making more cuttings than my backyard can support. There were three types available. In 1979 on one of my frequent visits to Williamsburg as a guest at the Ludwell Paradise house, the boxwood in the garden were trimmed and shaped up by the staff of gardeners. From the sweepings I rescued

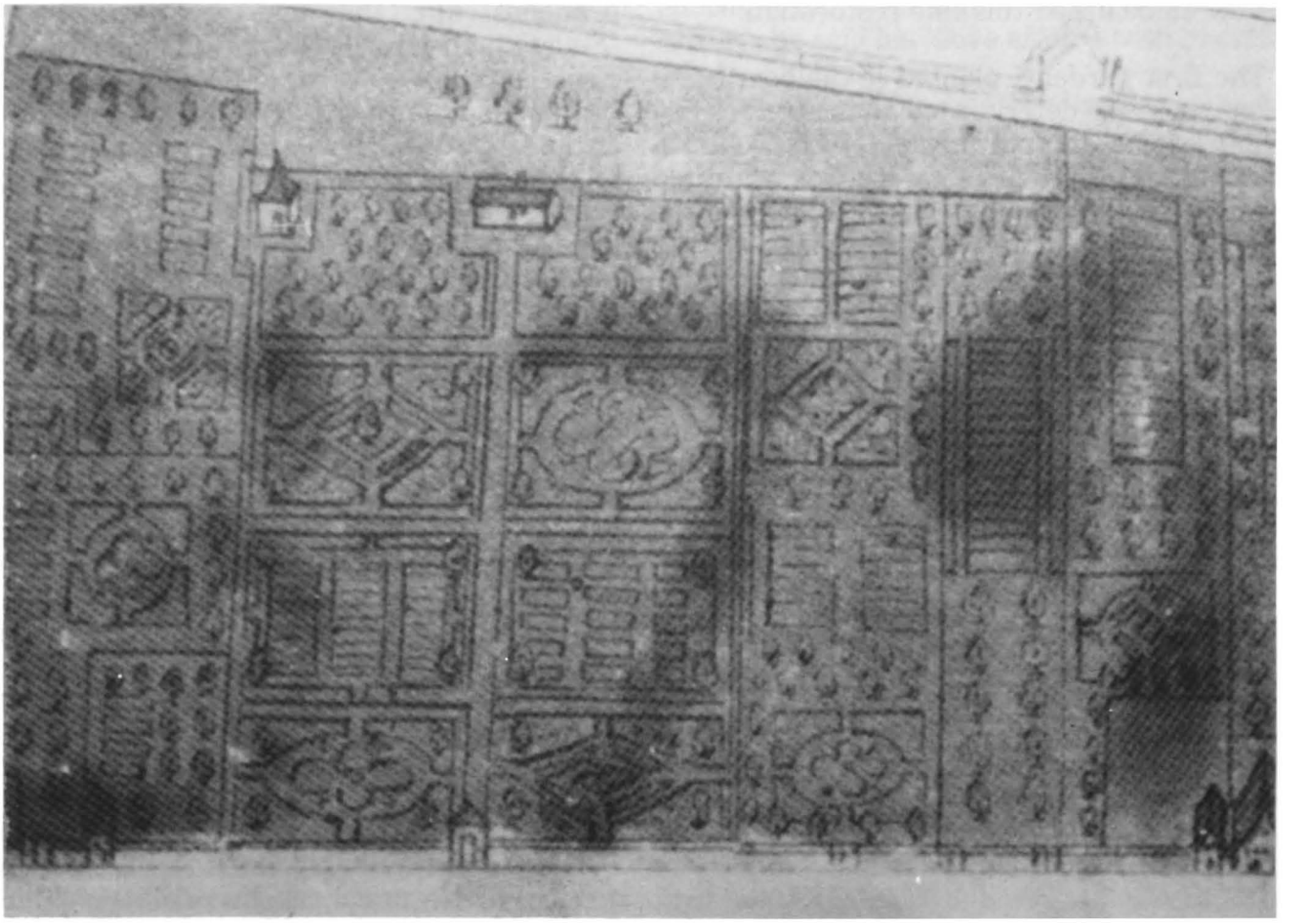
#3 Photo: Michael Fredericks, Jr.

A portion of the Gardens of Dr. and Mrs. Roderic H. Blackburn, Kinderhook, New York. The plan was adapted from those appearing in the Castello Plan of New Amsterdam (see #4 Photo).

about two hundred cuttings from the tall *sempervirens* near the kitchen and of the very old 'Suffruticosa'. These were stuck in the odd corners of the Kingston garden. not being able to decide which type to use I sidestepped the decision and planted the hedge alternating the three. There were now the *sempervirens* and 'Suffruticosa' from Williamsburg, and the third which we will call 'Bullata'. Two years ago in 1985 the *sempervirens* were removed for there was little doubt that they would soon outgrow their alloted space. They were given to a friend who was eager to plant a boxwood garden on one of the Livingston estates on the east bank of the Hudson. While looking over the site for the new garden I was surprised to see on the property two *sempervirens* 6-8 feet high which were thriving on this exposed bluff high above the river. As far as I could determine they had not been given winter protection from the cold winds sweeping off the Catskill Mountains to the west. When the *sempervirens* were removed the vacant spaces were filled in with rooted cuttings of 'Bullata' so the infant hedge is now composed of alternating plants of 'Bullata' and 'Suffruticosa'. This year the final choice must be made and against my better judgement the less hardy 'Suffruticosa' will remain. It will require winter protection but no shearing, which I try to avoid, and it will not outgrow its alloted space for many years whereas the 'Bullata' grows much faster and larger. Another friend has asked for the 'Bullata' for a garden now in the planning stage. Since boxwood is at best chancey in this climate, without a considerable amount of attention, I never advise clients to invest large sums for nursery stock. There always seems to be excess stock in my garden. One exception was for fifty large globes of 'Suffruticosa' which were overwhelming my garden, and were wanted to replace missing box in the restored garden at Locust Lawn, the Young Morse historic site at Poughkeepsie, N.Y. These I did sell, for it was well understood what the cultural requirements

are. They were fine specimens, and had I known that the *japonica* was about to expire I would have used them for replacement. But it is fun to start again from scratch. These *sempervirens* were of mixed origin which I had grown from cuttings collected here and there but they were all uniform. To be sure, they would not fit the official definition of 'Suffruticosa' growing at the rate of one-half inch in two years. One of the largest specimens I did keep because my daughter had brought it to me from Berkley Plantation about twenty years ago. In return, 'Suffruticosa' and *japonica* specimens have gone from the Kingston garden to her pocket handkerchief-size garden at Southampton, Long Island.

Another *B.s.* 'Suffruticosa' which was brought from Virginia as a present, probably about 1950, has acclimated itself to the Hudson Valley. It was planted on the grounds of an early nineteenth century house where it grew for a number of years. When the house and



#4 Photo: Roderic H. Blackburn

Castello Plan of New Amsterdam *(detail)*
Done by an unidentified maker after an original by Jacques Cortelyou at New Amsterdam, New Netherland, in 1670 (after a 1660 original).
Ink and watercolor on paper *H. 18 5/8 inches (47.3 cm)*
W. 25 inches (63.5 cm)
Collection of the Biblioteca Medicea Laurenziana, Florence

The issue that prompted the execution of this plan was the conviction of the city burgomasters that too much land was devoted to gardens and orchards for purposes of speculation for higher land values which made it difficult to settle newcomers. Ironically the Dutch West India Company that controlled the colony agreed that additional buildings were more desirable than the "excessively large plots and gardens" even though the Company's gardens (illustrated in the central portion of this detail) were the largest and most elaborate in the town. The gardens were laid out in formal parterres with orchards beyond, much as in old country plans.

grounds were restored about 1960 there was no place for the immigrant so it found a home in my garden. Here it grew for about twenty years into a fine specimen between three and four feet tall. Eventually I needed its space for a piece of sculpture and fortunately, William Pillsbury who was restoring the 1716 Ariaantje Coeymans house, one of the great early houses of the upper Hudson, was looking for a mate for a *sempervirens* he had already planted. Fortunately mine, with a bit of judicious pruning, filled the requirements and it now embellished this fine restoration.

The first garden I planted in Malden, in recent years, has deteriorated and there are few if any of the original medley of boxwood remaining, but there progeny are well scattered along the Hudson Valley. How I wish I had the information now available on the many different species, genera, and clones when I started out over sixty years ago and could have intelligently selected those types suitable to the locations and climate in which I worked. But that was many years before *The Boxwood Bulletin.* When I planned my present garden in 1956 I moved the original 'Suffruticosa' and gave it a prominent place in the design. Now after about fifty-five years, having been cut back severely once and moved once, it is about 44 inches high and about as wide. It is protected by burlap during the winter. Other 'Suffruticosa' plants are protected with evergreen branches but the mature *sempervirens,* 'Bullata' and *japonica* are given no protection. Four large *sempervirens* which were weeded from an old planting in Palenville and planted at the front of the house, have never been protected nor has any winter injury had been evident. Anti-dessicant sprays have never been tried, partially because they have received faint praise in *The Boxwood Bulletin.*

* * * * * *

James C. Wilfong, Jr.

We report with regret the death of ABS member James C. Wilfong, Jr. on April 2, 1987. A native of Washington, D.C., Mr. Wilfong graduated from the old Central High School and attended George Washington University. In 1975 he retired from a 44-year career with the Chesapeake and Potomac Telephone Company.

His interest in boxwood developed as an outgrowth of his romance with Maryland architecture and history, which began in 1948 after a visit to His Lordship's Kindness in Prince George's County, Maryland. Thereafter he compiled thousands of photographs and wrote many articles on historic buildings and sites in all but two of Maryland's counties.

His writing career began in the early 1950s with publication in the *New York Times* of an article entitled, "Seeing Maryland in a New Way." For seven years he wrote a weekly column on historic architecture for the *Washington Post.* For the last 12 years the *Calvert Independent* has published his column, "Historically Speaking." His articles and photographs have also been published in the *Baltimore Sun, Washington Star, Richmond Times Dispatch* and *Fredericksburg Times* among others. Along with historic structures and boxwood he reported on especially ancient trees and early cemeteries. In an entirely different vein, he wrote a popular series of articles on the high jinks of his two cat, the charismatic Reds and the more prosaic Sam.

Mr. Wilfong served as president of the Prince George's Historical Society for a number of years. After moving to Calvert County he was active in the Calvert County Historical Society and on the Calvert County Historic District Commission. He was also a member of the Board of Trustees of the Calvert County Library. In 1985 Mr. Wilfong donated 52 historical articles and several hundred photographs from his personal library to the Charles Community Library where they are displayed in the Maryland Room.

We shall greatly miss Jim's light touch in *The Boxwood Bulletin,* whether extolling the glories of centuries-old boxwood that now seal entrances to many old Maryland houses or his well-turned captions enlivening the fine photos of boxwoods taken over several decades. He was most generous in sending photos from his vast collection for use in *The Bulletin.*

To his wife Annette, his three daughters and other family members we extend our deep sympathy.—*Scot Butler*

ABS BOXWOOD WORKSHOP AT BLANDY FARM

June 4, 1987

James A. Faiszt, Department of Horticulture, VPI&SU and Chairman of the ABS Workshop Committee produced another excellent "Boxwood Show". Sponsored by the Cooperative Extension Service of VPI&SU in cooperation with the American Boxwood Society and hosted at the University of Virginia's Blandy Experimental Farm, Boyce, Virginia, this workshop was one of the best attended. (Mr. Robert Frackelton who manned the registration table turned in over 80 names, not including those pre-registered who were unable to attend.) Participants came from Pennsylvania, West Virginia, Maryland, and Washington, DC as well as Virginia.

Professor Faiszt introduced ABS President, Mrs. Robert Frackelton who expressed pleasure at seeing so many participants and hoped each would learn something of interest and return home with a renewed enthusiasm for boxwood.

The program began with a slide lecture on species and cultivars by Mr. Lynn R. Batdorf, Curator of the Boxwood Collection at the National Arboretum, Washington DC and First Vice President of the ABS. He took us on a most interesting journey through collections of living plants and herbarium specimens at the U.S. National Arboretum, Kew, Wisley, Hillier and Edinburgh.

He said there were 100-110 species and some 125 cultivars with *Buxus sempervirens* having the most cultivars. From *B. balearica,* photographed in England, and first described in 1758, *B. harlandi* described in 1873 by Hance, various forms of *B. microphylla,* many forms of *B. sempervirens* to *B. wallichiana,* there was a size, shape of coloring to fit every taste. *B.s.* 'Elegantissima' seemed to be his favorite among the variegated forms and possibly the most unique is B.s. 'Prostrata'. Mr. Batdorf concluded with slides of Hemorocallis, White Pampas Grass and a fish to remind us that boxwood isn't everything. However, after such a fine display of boxwood, we may not have been convinced.

Following a coffee break, new ABS Director, Mr. Dale T. Taylor, a self-styled amateur with a very professional approach, entertained and educated us. With a love of horticulture and history, he said his "love affair" with boxwood was inevitable.

Three things he said we must remember were "1) Attitude, 2) Attitude and 3) Attitude". Our philosophy should be - have fun! He suggested that one pick up some knowledge before starting and inserted a commercial that joining the American Boxwood Society was a good way to begin. He said, the caveat "it all depends" applies to many of his suggestions.

Two methods of propagation are the use of cuttings and seeds. As the latter was to be taken up in the afternoon program, he shared his experiences with cuttings.

Photo: Robert L. Frackelton
Cuttings and equipment inspected by (from left) Mr. Dale T. Taylor, Prof. James A. Faiszt, Mrs. Robert L. Frackelton and Mrs. William C. Seipp at the ABS Workshop at Blandy.

A 98% success rate the first year dropped to 20% the second year, but you may be sure it didn't remain there. If possible, take cuttings from a healthy plant. There are different proponents for the size and timing of cuttings. Mr.

Taylor suggested 5-6″ lengths and July-August for timing. Moisture is critical. Invest in good pruning shears and keep them with you. (His go in the car trunk in lieu of golf clubs!) Root hormones are beneficial. Boxwood Society of the Midwest members had shared their experiences which were helpful to him.

The use of good plastic sticks to record data, tie-on labels later, and a demonstration of his plastic tray "greenhouse" were among the many tips given us. Check for rooting in 8-10 weeks.

Mr. Taylor maintains a specimen garden with textures, sizes and shapes set to display the specimens. Frequent relocation to set off the plants to best advantage is part of the hobby.

The speakers and participants adjourned for a delicious lunch prepared and served by Mrs. T. Haliburton McCoy and her committee. The ABS is most grateful for this service which she has so graciously provided us upon many occasions. We always look forward to the flowers on the table and the other special touches.

Mr. Harrison Symmes, President of Friends of Blandy and a former ABS Director, enlightened us about propagation by seeds. For the uninitiated, we learned that seedlings can be so prolific as to be a nuisance. Brouwers' Seedling #1 (*B.m.* var. *insularis* 'Brouwers' Seedling #1') is his favorite and, no doubt, will be popular when it is readily available to the public. (He had brought a small specimen of this as a door prize and this most coveted plant was won by Alma Culver.)

Mr. J.B. Brouwers was a former landscape gardener at Colonial Williamsburg. He selected this seedling and planted it on the grave of a favorite cat. It became known locally as "Cat's Grave Seedling". Familiar seedlings are some of Edgar Anderson's collected in Yugoslavia. *B.s.* 'Vardar Valley' is perhaps the most widely known of these. The late Prof. A.G. Smith of VPI (a former ABS Honorary Life Member) also grew seedlings, but never reported on them. (Perhaps someone may know more about this?) Two of Sam Appleby's seedlings, introduced by the late Henry J. Hohman of Kingsville Nurseries, are *B.m. compacta* and *B.m.* 'Green Pillow'. (These two are not known to have fruited.)

'Suffruticosa' produces seed under stress, but the late Dr. Speese noted a clone of 'Suffruticosa' which fruited regularly under normal conditions.

Phillip Miller in *The Gardener's Dictionary* (1733) described the fruit as "shap'd like a Porridge-pot inverted". By early August the fruit is usually dry enough to collect. Take a bag and shake the fruited sprigs into it to gather the seeds. The late Dr. J.T. Baldwin advised sowing the seeds immediately after collecting. Use a moistened sterile soil. Keep in a well-lighted place inside. After 6 weeks seedlings should appear. Repot 3-4 weeks later.

Mr. Symmes mentioned the "Lee-Washington boxwood". Two of the 10 Lee had sent to George Washington were still at Mr. Vernon when Mr. Symmes was there. One survived moving, but suffered considerable stress. He does not know if any still exist.

Prof. Albert S. Beecher, an ABS Director, followed with slides showing different landscape uses. A testimonial to the popularity of his talk was that he was approached about future programs. Among the helpful hints incorporated with the talk was to keep boxwood thoroughly watered after fertilization and not to damage the roots by planting too close to established plants. Use of weedkiller on paths can also damage boxwood edging those paths. As to the use of snow fences for protection, it's unsightly. His advice was to go to Florida for the duration and to have the fences removed before returning! Do drastic pruning in early spring, but otherwise it can be done at almost anytime.

Slides ranged from lovely formal gardens, restored gardens at the UVa. and Stratford Hall to several examples of farm entrances. Boxwood hedges at Guston Hall and Mary Washington House were also shown.

Mrs. Butler, new ABS Secretary, concluded the program with a capsule report on the exciting ABS meeting/tour in St. Louis in May.

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DUES AND SUBSCRIPTIONS

Regular (individual) membership dues of The American Boxwood Society are now $15.00. This includes $12.00 for 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 $15.00 per 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 $4.00.

The present classes of membership are:

Category	Annual Dues
Individual	$ 15
Family	20
Contributing	30
Sustaining	50
Life	250
Patron	500 or more
Institutional Subscriber	15

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, the Boxwood Handbook and the Boxwood Monograph.

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
P.O. 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
P.O. 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:

Mrs. Robert L. Frackelton
1714 Greenway Drive
Fredericksburg, VA 22401

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:

The Boxwood Bulletin Committee
c/o Mrs. Robert L. Frackelton
1714 Greenway Drive
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