

The

APRIL 1971

Boxwood Bulletin

A QUARTERLY DEVOTED TO MAN'S OLDEST GARDEN ORNAMENTAL



The Powell-Warner garden in Williamsburg at the peak of the dogwood season. From 'The Gardens of Williamsburg', published 1971 by Colonial Williamsburg, Williamsburg, Virginia.

Edited Under The Direction Of
THE AMERICAN BOXWOOD SOCIETY

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The Boxwood Bulletin

APRIL 1971

Vol. 10 No. 4

EDITOR — MRS. EDGAR M. WHITING

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NOTICE FROM THE PRESIDENT

We are faced with a potential personnel crisis. I should like to tell you about it briefly now, to prepare you for the discussion at the May Annual Meeting.

For reasons of health Mrs. Whiting may shortly have to retire as editor of the Bulletin, or at least to relinquish a considerable number of her editorial duties. We therefore shall have to set up an editorial board which will very actively assist Mrs. Whiting. Volunteers from the membership are urgently needed. It is not necessary that such persons live in or near Winchester, Virginia (Mrs. Whiting's home): in fact, a geographical distribution may be desirable.

Likewise, Mrs. Kirby must resign or greatly curtail her duties as Secretary-Treasurer, effective on the date of the Annual Meeting — May 12, 1971. Paid clerical help will be needed for this department in the future. This help preferable should be in the Winchester — Boyce — Berryville area, since Mrs. Kirby and the Blandy authorities very kindly have indicated that our extensive files may remain at Blandy Farm.

The dedicated work of Mrs. Whiting and Mrs. Kirby over many years is primarily responsible for the remarkable achievements, and international recognition, of ABS. I urge every member to help us in making the transition as easy and satisfactory as possible for these two devoted servants of our Society.

Neill Phillips

MORE MEETINGS OF THE BOXWOOD SOCIETY?

The President has received a number of letters from ABS members suggesting that since the May meetings are so much enjoyed, the Society might add a second meeting in the autumn, possibly in early October. This was discussed at a meeting of the Board of Directors on February 27 at Heronwood. The Board expressed appreciation of the members' interest but felt it not advisable at this time to hold two formal meetings in each year. Informal meetings or get-togethers of smaller groups are desirable at any time, and the editor hopes they will be fully reported to the Bulletin.

It has also been suggested that many owners of beautiful box gardens might be willing to invite other ABS members at such times as arrangements convenient to both, especially to the host, can be made. The Bulletin will be happy to print such invitations, and suggests that dates and hours be stated, as well as location and telephone number.

"BLESSED BOXWOOD"

Honore de Balzac's dedication of his novel *Eugenie Grandet* reads:

"To Maria

May your name — you whose portrait is the fairest adornment of this work — be like a branch of blessed boxwood, cut from no one knows what tree, but assuredly sanctified by religion and kept eternally fresh and green by pious hands for the protection of the house."

Translation by Dorothea Walter and John Watkins. The Modern Library (Random House), N. Y. 1950. Sent in by Prof. Scott H. Lytle, University of Washington in Seattle.

Many ABS members will remember Dr. A. J. Bernet Kempers' summary (in English) of his *Om Een Struik Die Palm Werd*, telling of the green branches of boxwood carried in procession to the churches on Palm Sunday, to be consecrated (blessed) and then distributed as a symbol of resurrection and eternal life. Because of this custom, boxwood is popularly called *palm* in the Netherlands.

This summary appeared in The Boxwood Bulletin, in July and October 1967, and January 1968; Vol. 7, Nos. 1, 2 & 3.

A THANK-YOU NOTE:

We are indebted to Colonial Williamsburg, Inc., for the color cover which makes this issue of The Boxwood Bulletin something special.

Boxwood, brick walks, blooming tulips and dogwood, and benches to sit and enjoy them all — simple elements which make up a charming Spring garden for city or country. The Powell-Waller garden is an example of successful landscape design for a relatively small space.

ABS is grateful to Colonial Williamsburg for adding seasonal color to our April issue, with this lovely picture of one of Williamsburg's many delightful gardens.

Eleventh Annual Meeting
of the
American Boxwood Society

Wednesday May 12, At The U. S. National Arboretum



Administration Building at the U. S. National Arboretum. The main building, where the ABS Annual Meeting will be held.



Boxwoods at the National Arboretum - a part of the Anderson collection of Balkan Boxwoods.

ANNUAL MEETING INFORMATION

Date: Wednesday, May 12, 1971

Place: The United States National Arboretum, by the kind invitation of Dr. Henry T. Skinner, Director of the Arboretum and a member of the Board of Directors of ABS.

The Arboretum occupies 415 acres in the north east section of Washington, D.C. It is bounded on the west by Bladensburg Road (U. S. 50), on the north by the Baltimore Parkway, and the south by M Street. The main (M Street) entrance is just east of the point where Maryland Avenue terminates at M Street. (*Directions for reaching the Arboretum, with a map, are given on the inside back page.*)

Times: (all Eastern DST): 9:30 A.M. Registration begins.

10:30 A.M. Business meeting convenes, Admiral Phillips presiding. After the usual annual business, Dr. Baldwin will report

briefly on the progress of plans for a bulletin on Boxwood.

Dr. Francis Stark, Head of the Department of Horticulture, University of Maryland and/or Mr. M. Wayne Hefley (student investigator on the boxwood project) will discuss their plans for Nutritional Studies in Boxwood at the University of Maryland.

12:30 A. M. Recess for luncheon. Box luncheons will not be available this year, please bring your own sandwiches. There is a Coke dispenser, but if you wish coffee or tea, bring your own thermos.

1:30 P. M. Meeting reconvenes for unfinished business, if any; and a program of distinguished speakers, including Dr. Frederick G. Meyer, who will talk on "Boxwood in Europe", and Dr. Henry T. Skinner, Director of the Arboretum, who will supplement a talk on the special features of the Arboretum with a short film. Guided tours

of the Arboretum (using a minimum number of members' cars) have been planned by Dr. Skinner to follow his talk. The Arboretum advises that two of the major plant collections should be very colorful on May 12. Many of the late azaleas will be in bloom on that date as well as the rhododendrons, mountain laurel and Chinese dogwood that are interplanted with the azaleas. Fern Valley should be at its best then with many of the wildflowers in bloom and the fern croziers starting to unwind. The Gotelli collection of dwarf conifers is, of course, interesting at any time of the year. The tours are planned to end at the Arboretum's boxwood collection, fairly close to the Administration Building where the meeting will be held. About an hour is allowed for the tour, but people may stay at the last stop as long as they wish.

Adjournment about 3 P.M., the Arboretum will be open until 7 P.M.

All ABS members are urged to send postcards indicating whether they will attend the meeting or not, as soon as possible, not later than May 8th. The Arboretum staff needs to know approximately how many are coming, in order to provide adequate seating. The public is welcome, but anyone not already a member is also requested to send a post card indicating the intention of attending the meeting to

THE AMERICAN BOXWOOD SOCIETY

Box 85
Boyce, Virginia 22620

Note: Members are now requested not to pay their dues at the meeting. This avoids confusion and possible mistakes, and simplifies the work of our Secretary-Treasurer by having all renewal and new membership dues come to her office at Blandy Farm. (Address given above). Please mail in the return envelope you have received.



Boxwoods at the National Arboretum - the variety collection.

All photographs from the U. S. National Arboretum, Washington, D.C.

The Scent of Box

By ALICE MORSE EARLE

From *OLD TIME GARDENS*, The Macmillan Company, N. Y., 1901

"They walked over the crackling leaves in the garden, between the lines of Box, breathing its fragrance of eternity; for this is one of the odors which carry us out of time into the abysses of the unbeginning past; if we ever lived on another ball of stone than this, it must be that there was Box growing on it."

Elsie Venner, by Oliver Wendell Holmes, 1861.

To many of us, besides Dr. Holmes, the unique aroma of the Box, cleanly bitter in scent as taste, is redolent of the eternal past; it is almost hypnotic in effect. This strange power is not felt by all, nor is it a present sensory influence; it is an hereditary memory, half-known by many, but fixed in its intensity in those of New England birth and descent, true children of the Puritans; to such ones the Box breathes out the very atmosphere of New England's past.

I cannot see in clear outline those prim gardens of centuries ago, nor the faces of those who walked and worked therein; but I know, as I stroll today between our old Box-edged borders, and inhale the beloved bitterness of fragrance, and gather a stiff spray of the beautiful glossy leaves, that in truth the garden lovers and garden workers of other days walk beside me, though unseen and unheard.

About thirty years ago (c. 1870) a bright young Yankee girl went to see island of Cuba as a governess to the family of a sugar planter. It was regarded as a somewhat perilous adventure by her home-staying folk, and their apprehensions of ill were realized in her death there five years later. This was not, however, all that happened to her. The planter's wife had died in this interval of time, and she had been married to the widower. A daughter had been born, who, after her mother's death, was reared in the Southern island, in Cuban ways, having scant and formal communication with her New England kin.

When this girl was twenty years old, she came to the little Massachusetts town where her mother had been reared, and met there a group of widowed and maiden aunts and great-aunts. After sitting for a time in her mother's room in the old home, the reserve which so often exists between those of the same race who should be friends but whose lives have been widely apart, and who can never have more than a passing sight of each other, made them in semi-embarrassment and lack of resources of mutual interest walk out into the garden.

As they passed down the path between high lines of Box, the girl suddenly stopped, looked in terror at the gate, and screamed out in fright, "The dog, the dog, save me, he will kill me!" *No dog was there*, but on that very spot, between those Box hedges, thirty years before, her mother had been attacked and bitten by an enraged dog, to the distress and apprehension of the aunts, who all recalled the occurrence, as they reassured the fainting and bewildered girl. She, of course, had never known aught of this till she was told it by the old Box.

Many other instances of the hypnotic effect of Box are known, and also of its strong influence on the mind through memory. I know of a man who travelled a thousand miles to renew acquaintance and propose marriage to an old sweetheart, whom he had not seen and scarcely thought of for years; having been induced to this act wholly through memories of her, awakened by a chance stroll in an old Box-edged garden such as those of his youth: at the gate of one of which he had often lingered, after walking home with her from singing-school.

I ought to be able to add that the twain were married as a result of this sentimental memory-awakening through the old Box; but, in truth, they never came very close to matrimony. For when he saw her he remained absolutely silent on the subject of marriage; the fickle creature forgot the Box scent and the singing-school, while she openly expressed to her friends her surprise at his aged appearance, and her pity for his dullness. For the sense of sight is more powerful than that of smell, and the Box might prove a master hand at hinting, but it failed utterly in permanent influence.

Those who have not loved the Box for centuries in the persons and with the partial noses of their Puritan forbears, complain of its curious scent, say, like Polly Peachum, that "they can't abear it," and declare that it brings ever the thought of old graveyards. I have never seen Box in ancient burying-grounds, they were usually too neglected to be thus planted; but it was given a limited space in the cemeteries of the middle of this century (*the 1800s*). Even these borders have now generally been dug up to give place to granite copings.

The scent of Box has been aptly worded by Gabriel d'Annunzio, in his *Virgin of the Rocks*, in his description of a neglected garden. He calls it a "bitter sweet odor," and he notes its influence in making his wanderers in this garden "reconstruct some memory of their far-off childhood."

DOMINO MEO VENERABILI PISSIMOQUE
OMNIUM BRITANNIE INSULAE XPIANO
RUM . RECTORI . ÆLFRED . ANGLORUM SAXO
NUM . REGI . ASSER . OMNIUM . SERVO
RUM DEI ULTIMUS . MILLE MODAM
ADVOTA DESIDERIORUM . VTRIVSQUE
VITAE . PROSPERITATEM .

ANNO DOMINICAE
INCARNATIONIS . DCCC . XLIX . NATUS
EST ÆLFRED ANGUL SAXONUM REX IN ILLA
REGIA QUE DICITUR MANATING MILLA PAGA
QUE NOMINAT^r BERROC SCIRE QUE PAGATA HIC
UOCATUR ABERROC SILVA UBIBUXUS BABUNDAN
EISSIME NASIT^r CUIUS GENELOGIA TALIS SERIE

A History of Box in the British Isles

By M. J. C. STAPLES

(Department of Botany, University of Bristol)

III. THE HISTORICAL PERIOD

EARLY WRITTEN RECORDS

To the author's knowledge, there are only two written records of *Buxus* predating the Norman Conquest (1066). The earlier occurs on the first page of the 'Life of King Alfred' by Asser, Bishop of Sherborne (893). Written in Latin it reads:

'Anno Dominicae Incarnationis DCCCXLIX natus est Aelfred, Angul Saxonum rex, in villa regia, quae dicitur Uuanating, in illa paga, quae nominatur Berrocschire: quae paga taliter vocatur a Berroc silva, ubi *buxus abundantissime nascitur.*'

(Author's italics)

In past centuries this passage gave rise to some confusion. Being mis-translated, it was construed as meaning that Berroc was synonymous with *Buxus*, and that the county of Berkshire (Berrocschire) owed its name to the boxtree. What it does tell us, however, is that *Buxus* was very abundant in *Berroc silva*.

Buxus seems to have been frequent in Berkshire. Wise (1738) writes that "the last remains of Boxgrove were grubbed up not above two years ago." This locality was in the parish of Sulham near Reading. He also adds that the memory of the growth of *Buxus* in Tilehurst nearby was still current in his time. Bowen (1968) records *Buxus* as "possibly native" in beechwoods at Sulham, (also at Childs Court Farm and Park Place), but one can only speculate as to whether there is any connection with the *Buxus* there in the 18th century. Wise (*op cit*) considered that Berroc was identical with Boxgrove, but Stenton (1911) said that it lay to the west of Frilsham. Boxford itself lies 7 miles to the westward; however Stevenson (1904) suggested that the wood lay near Letcombe Bassett which is 9 miles northwest of Boxford. The location of *Berroc silva* must remain a matter for conjecture.

The other record is given by Kemble (1839) in his 'Codex Diplomaticus Anglo-saxonicus.' Here is a copy of a charter between King Aethelstan and Bishop Aelfric. The King granted ten hides of land to Aelfric at a place called Clere (aet Cleran). Dated the 21st March 931, the charter delineates the boundaries of this land, including:

"... of tham slo to thon rihte treowe aet gosleage wicum westweardon; of tham treowe to their wica aet tham boxe; of tham boxe to thaere germearcodan aec aet alerburnan ..."

Today the parish of Highclere still exists in north Hampshire, about 10 miles southeast of Boxford. Townsend (1904) records *Buxus* as "abundant on Sidown Hill, Highclere." Bromfield had written in 1850 that "It is an evident, and indeed acknowledged, introduction at Highclere." The historical evidence would tend to cast doubt on this latter statement and to suggest that *Buxus* has been present on this site for at least a millenium. If this indeed is so, then Sidown Hill must be one of the oldest continuously occupied sites in Britain.

ANCIENT BRITISH CLEARANCES

The forest clearance of Britain was begun by Neolithic man about 2,000 years BC. It was not extensive at first as, it is estimated, up until Roman times the population did not exceed more than a few hundred thousand people. The ancient Britons colonised upland areas, which, with their lighter and drier soils, were more easily cleared. The Chalk and Oolite formations provided suitable sites. At first sheep were pastured on the resulting grassland, but later extensive agricultural field systems were developed. The Roman invaders more or less followed this practice. They believed in allowing existing agricultural systems to continue when they conquered a new territory. Their roads opened up large areas of the country for trade and commerce, but their villas were most frequently situated on the North and South Downs and on the Cotswolds. Hoskins (1955) estimated that in Roman Britain only 3% of the landscape was cultivated or used for pasture.

It may be supposed that when *Buxus* reached its zenith at the end of the Atlantic Period, 3,000 years BC, having migrated as far north as the Lake District, it occupied quite restricted habitats. Prior to that time it would have colonised relatively open habitats, dominated by *Betula* (birch) and *Pinus* (pine), which characterised the Boreal Period (6,000 BC). As forest cover increased *Buxus* must have become restricted typically to calcareous rocky outcrops, such as the Carboniferous Limestone pavements of Lancashire, or the Chalk and Oolite escarpments of southern England. It may also have formed an understorey in some of the climax woods of

Quercus (oak), as it is found on the steeper hillsides of central France today.

With its 'preference' for steep and unstable slopes *Buxus* may have survived the Neolithic clearances unreduced in quantity. Indeed, the clearing of old mixed forest must have provided an opportunity for renewed colonisation as scrub, perhaps associated with *Juniperus* (juniper) and other shrubs. The Ancient Britons then would have known *Buxus* from firstly, the major sites where mature boxtrees grew, similar (and possibly the same) situations to the three main sites in Britain today, Boxwell, Box Hill and Chequers; and secondly, many scrub localities on the downs, in old abandoned arable and pasture land, and where the forest had been cleared for timber. Pigott & Walters (1953) suggest *Buxus* at Fleam and the Devil's Dyke (near Ancient British Trackways) may date back to this period.

At this time, in the Sub-Atlantic Period, *Fagus* (beech) was increasing in extent over southern Britain. In part this was due to the milder climate, but was probably encouraged by the Neolithic clearances. Where mature beechwoods formed, especially on slopes, *Buxus* may have grown as the only major understorey plant capable of maintaining itself under heavy shade. A situation similar to this exists on Mickleham Down, near Box Hill, in Surrey.

We do not know what use, if any, the Ancient Britons had for *Buxus*. The charcoal that survives indicates that it was burnt, but this probably only happened incidentally when the wood became available in the course of forest clearance. The inhabitants of those times may have used the wood for small tools. The earliest definite use of *Buxus* is shewn by the various Romano-British burials. This association with funeral rites may have been introduced by the Romans, who certainly used the wood of the tree as well.

ROMAN OCCUPATION

The comb discovered at Caerhun in Wales is typical of the many small artifacts for which the ancient civilised world used boxwood; writing tablets, flutes, spinning tops, jewel cases, images, inlays and veneers are other examples. Naturally the Romans would have increasingly exploited *Buxus* in Britain, and the mature woods would be the first to suffer. There is very scant information on Roman forestry practices. Very likely, at first, the trees were simply felled when needed, and in this way, elsewhere in Europe, large areas were deforested. In Britain, though, forest cover was extensive throughout the Roman occupation, and there are suggestions in literature that clear felling was avoided. *Buxus* was always a minor component of the vegetation, and to be exploited successfully it was more likely to be 'managed' than other arboreal species. The Romans certainly cultivated vines, olives, and other fruit trees. They grew large quantities of *Buxus* (perhaps var. *suffruticosa*?) for their gardens. It would follow that a grove of *Buxus* could be maintained by planting. However *Buxus* is easily coppiced — by leaving a slope on the stump remain-

ing after cutting, which prevents water rotting it, when regrowth will occur from the base — this giving much faster regeneration. Planting, if it occurred, would have been used to supplement or extend an existing grove. Boxwell, settled by the Romans, who had many villas on the Cotswolds, may very well have been exploited in this way.

ANGLO-SAXON BRITAIN

The arrival of the Belgae and the Anglo-Saxons from the middle of the fifth century onwards radically altered the form of human settlement. Driving out many of the Celts, the new colonists did not occupy the upland sites but turned their attentions to the moister and richer soils of lowland Britain, making use of their more advanced agricultural implements. Their villages along the valley bottoms and rivers replaced the villa and farmstead system. The Chalk and Oolite uplands were already degenerating before the Saxon arrival, and this process was accelerated, giving natural vegetation a further chance for re-encroachment. *Buxus*, as scrub or understorey, may have spread again. It was the Anglo-Saxons, who found so many of their sites characterised by *Buxus*, that have given many of the 'box' place-names which survive down to the present day.

The Anglo-Saxons were not destructive of their environment, although during their ascendancy clearing steadily continued. The West Saxons are known to have imposed fines for burning or cutting trees, which indicates a care for their resources. What use they had for *Buxus* is not known. They were not followers of Roman tradition, but the monasteries may still have followed Roman practice in places, and their gardens probably contained *Buxus*, although whether of the cultivated variety or not we cannot tell. I have mentioned previously the doubt as to whether the Romans used the native form of *Buxus* in their gardens. Assuming they grew large box-hedges then it seems quite likely that they did utilise native *Buxus*. This being so, old abandoned Roman and Monastery gardens may have been a source whence *Buxus* became naturalised.

NORMAN EXPANSION AND THE MIDDLE AGES

Subsequent to the Norman invasion deforestation increased considerably. At the time of the Conquest the population stood at 1½ million, but increased rapidly afterwards. The land came under increasing pressure for cultivation. Some areas were defined as Royal Forest, although they did not necessarily have to be forested. The Chiltern plateau, largely unoccupied in Saxon times, was one; large tracts of Hampshire and Wiltshire were also protected. Elsewhere clearing went on apace, and much of the native *Buxus* was lost. Only the sites that were useless for cultivation survived. During this time of great human expansion many of the places founded were also named from the 'box' which then characterised the site, only later to be chopped down. Boxley in Kent and Boxgrove in Berkshire are two sites where *Buxus* was until recent times recorded as flourishing.

In the Domesday Book for Shropshire (1086) is recorded:

“QUOD TENET SANCTI MICHAELIS

Ecclesia Sanctis Michaelis tenetur de Comite POSSETORN. Chetel tenuit. Ibi una virgate terrae. Terra demidia caruca. Unus homo reddit inde fascem buxi in die palmaru.”

The last sentence translates: “One man renders thence a bundle of box on Palm Sunday.” Presumably then, *Buxus* grew, or was grown, locally. The sole record for Shropshire of *Buxus* is in “woods and thickets on Tinker’s Hill, near Ludlow.” (Leighton, 1841). This locality is only a few miles south of Lesser Poston (= Possetorn), but there is no indication as to the status of *Buxus* on this site. This, the first English reference to the use of *Buxus* twigs in place of palms, illustrates the very ancient origin of this custom (*vide* Kempers, 1967), which may have been widespread in the past. A second reference to it comes in ‘Speculum Sacerdotale’, c 1425 (ed E. H. Weatherley, 1936):

“When we haue no palmes, let us bere lorey or boxe, the which for here perpetual schynynge betokeneth vertues.”

There is too the use of *Buxus* in funerals in the north of England, alluded to by the poet Wordsworth, and in the decoration of homes from Candlemas until Easter. It may be doubted that *Buxus* was ever cultivated specifically for these purposes. The alternative of laurel, in the quotation *supra*, indicates that any shining evergreen was symbolically correct. *Buxus* was used because it was available, in the garden or in the wild.

After the 13th century the Royal Forests became progressively dis-afforested and the expanding population caused large areas of land to be cleared and brought into cultivation. At this time the largest inroads into the native *Buxus* must have been made, on the old abandoned Romano-British upland areas where the invading scrub and tree cover was re-cleared. *Buxus* would still have remained on the steeper slopes, and may have survived sheep and rabbit grazing — young plants are certainly avoided



Looking northwest down Happy Valley at Chequers in Buckinghamshire. On the left of the valley is a well-developed boxwood. The box on the right was cut in 1941-2 and is now regrowing from the bases of the old trunks.



Interior of the box wood at Chequers in Buckinghamshire. On the right in the foreground is a shrub of elder growing in a clearing.

by the rabbits at Chequers today. In the valleys the boxwoods must have continued to be exploited.

Commercially, in the Middle Ages, *Buxus* was used for the manufacture of many of the same objects as in Roman times: spice boxes, combs, dagger hafts, pipes etc. In the 15th century it was still being used for writing *tabellae* (boards coated with black wax which were inscribed with a stylus) to which the following refers:

“A payr of large tabelles of box.” — Paston 1465 (Gairdner, 1904) From the 15th to 19th centuries *Buxus* was in great demand for use in wood engraving, the cross grain of its wood lending itself to perfection in the engraver’s art. Various records extant for Box Hill suggest it especially to have been exploited to fulfil this demand. Receipts for boxwood were £50 in 1608, £3,000 in a few years up to 1712, and £10,000 in 1815 alone. With these prices it is no wonder that several well known sites were exploited to the extinction of the species there.

Box-groves are thought to have been planted for their wood in France, but no record of such activity in Britain exists. The majority of the place-name

suffices indicate the characterisation of a natural feature by *Buxus*, and it is not unreasonable to suppose *Buxus* itself to be native in these sites. The present-day surviving localities for *Buxus* are too suitable, for the natural growth and regeneration of the species, for them to have been chosen by coincidence for a plantation. If tended, *Buxus* grows perfectly well on a level site, and on many soil types: no one would have chosen Box Hill for planting! It is, nonetheless eminently probable that the stock of plants on the native sites has been supplemented by man.

RECENT PLANTINGS AND EXPLOITATIONS

By the 16th century *Buxus* was being planted extensively in parks for ornamental purposes or as a cover for game. Very many of the naturalised populations today are descended from these plantings. *Buxus* was also in vogue at this time in gardens, and its decline in the wild state was accompanied by a corresponding increase in horticultural interest.

In the 19th century demand for English boxwood fell off very sharply, being replaced by imports of foreign boxwood (especially from the Balkans) and

component of the scrubland community of species inhabiting relatively poor and unstable soils, associated with *Ligustrum* (privet), *Cornus* (dogwood), and *Euronymus* (spindle-tree) in the open; or it may grow under a canopy of *Fagus* (beech). Under the most favourable conditions, in some places due to the absence of human interference, in others through the influence of man, the plant may grow into a tree and form a small wood, usually with *Sambucus* (elder) or *Taxus* (yew). Its distribution is a relict one. The large discontinuities are rather due to human, than vegetational or climatic, influences. The species will survive for Boxwell is classed as a 'Site of Special Scientific Interest' by the Nature Conservancy, with whom the owner co-operates, whilst Box Hill is owned and managed by the National Trust. These two sites and Chequers are of virtually no use to man and *Buxus* should continue to flourish there.

ACKNOWLEDGEMENTS

I would like to express my thanks to C. G. Down who drew the maps; to N. Lee of the English Department who gave assistance in the translating of mediaeval English; and Dr. M. H. Martin for proof reading and his constructive comments.

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NEW MEMBERS

Added since January 1971

- Adkinson, Mrs. Joseph E., 3807 Laland Street, Chevy Chase, Md.
- Anderson, W. B., Waterford, Va.
- Bell, Mrs. George T., 4821 Dexter St., N. W. Washington, D. C.
- Brown, H. Clifford, Plough Penny Farm, Van Beuren Rd., Morristown, N. J.
- Elkins, John K., Box 874, Louisburg College, Louisburg, N. C.
- Fraher, E. S., 311 S. High St., Blackstone, Va.
- Havemeyer, Mrs. Horace, Jr., Route 3, Chestertown, Md.
- Lytle, Mrs. Scott H., 1716 N. 50th St., Seattle, Washington.
- West, J. Francis, Dillwyn, Va.
- West, Mrs. J. Francis, Dillwyn, Va.

The American Boxwood Society regrets to report the loss by death (reported since October 1970) of these valued members:

- Mrs. H. Clifford Brown, Plough Penny Farm, Van Beuren Rd., Morristown, N. J.
- Gordon M. Buck (*charter member*) "Whilton", Greenwood, Va.
- Carl W. Fenninger (*charter member*), Chestnut Hill, Pa.
- Mrs. Augustus S. Goodyear, 1630 Missouri Ave., S. W., Washington, D.C.
- Dudley R. West, The Sully Cottage, Dillwyn, Va.



Prolific Flowering and Fruiting of Boxwood

J. T. BALDWIN, JR.

During the Spring of 1970 in Williamsburg, Virginia, boxwoods of various kinds flowered and fruited more prolifically than I can recall having seen in previous years.

Col. D. W. Noake, U. S. A. Ret., photographed a plant of *Buxus Sempervirens* in flower and in fruit. His photographs are reproduced here. We stripped the leaves from one of the branches to show the frequency of the immature fruit; in the process we lost some of the capsules. Remember that each fruit contains six seed, and we show only a small part of a twelve-foot-tall plant!

In an article on the same subject, printed in The Boxwood Bulletin, January 1964, Vol. 3, No. 3, Dr. Baldwin paraphrased from Alfred Rehder's Manuel of Cultivated Trees and Shrubs (Macmillan, 1940) the descriptions of boxwood flowers and fruitss

The flowers are without petals and occur in axillary or terminal clusters which usually consist of a central pistillate flower and several staminate flowers (Fig. 1 a & b). The staminate flower has four sepals and four stamens much longer than the

sepals (Fig. 1 f). The pistillate flower has six sepals and a 3-celled ovary with three short styles (Fig. 1 c, d & e).

The pistillate flowers, of course, develop into fruits (Fig. 2). The fruit is subglobose or obovoid, 3-horned capsule which at maturity opens into three 2-horned valves; on each valve are two lustrous black seeds (Fig. 3). Philip Miller in his **Gardeners Dictionary** (1733) wrote more picturesquely about the Box-Tree: "The fruit is shap'd like a Porridge-pot inverted, and is divided into three cells, containing two seeds in each; which, when ripe, are cast forth by the Elasticity of the Vessel."

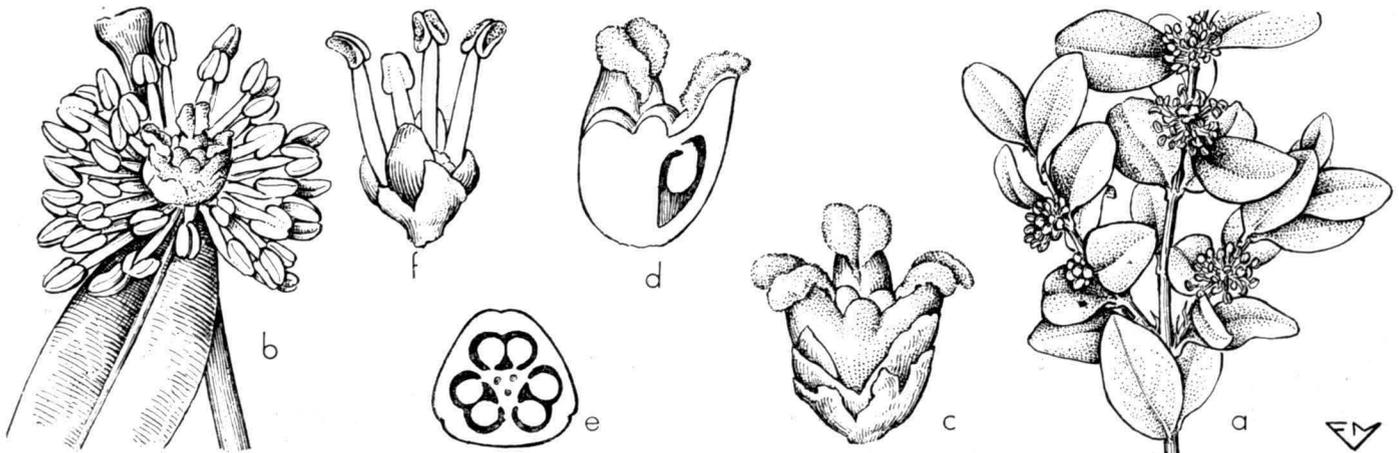
The seeds may be thrown several feet. If duff or leaf mold are present, the seeds will germinate and establish seedlings by the hundreds. Those in the dense shade of the mother plant will die soon after germination unless some boxwood enthusiast rescues them. In Virginia seeds are discharged from the exploding fruits in June and July.

For reasons not yet known certain clones (vegetative lines) of boxwood set fruits in which some or all of the seeds abort.



*Boxwood branch stripped to show frequency of immature fruit.
Many lost in the process.*

*Fig. 1. Buxus sempervirens: a, flowering branch, X .85; b, inflorescence and flower, X 3.5; c, pistillate flower, X 4.5; d, same, vertical section, X 4.5; e, ovary, cross-section, X 8.5; f, staminate flower, X 4.5. (From L. H. Bailey, **Manual of Cultivated Plants**, The Macmillan Company, 1949. Copyright 1924, 1949 by Liberty H. Bailey.*



Injuries To Boxwood

Caused By The Fungus

Phytophthora Parasitica

By ROBERT C. LAMBE

Extension Specialist, Plant Pathology Virginia Tech

The boxwood, one of man's oldest and most prize ornamentals, has come under increasing attack by a water mold fungus disease which can cause sudden, unexpected losses. Unfortunately, the romanticism surrounding the plant, dating from the philosophers of Rome to the settlers of colonial America to today's boxwood culturists, has often obscured such earthly considerations as foliage blight and root rot. Cold injury, low soil fertility, insufficient moisture, nematodes found in dead roots and insects have been named as causes for leaf yellowing and stem blight when the real culprit has been the fungus, *Phytophthora*. Because both English and American boxwood grow slowly and become increasingly valuable and difficult to replace with age, serious attention must be given to the damage this fungus can cause, although no effective treatment exists for infected plants.

A shoot from a declining boxwood can offer both clues and confusion as to the probability of its illness. Although a diseased plant will show both foliage blight and root rot, the *Phytophthora* fungus is confined to the roots and lower main stems with other portions of the plant appearing healthy. None the less, there are some diagnostic symptoms a boxwood culturist can look for.

The first readily observable symptoms are a bronzing or unhealthy yellow-red leaf color. The disease generally progresses slowly, a branch at a time, or the entire center portion may die. Stem cankers or localized brown to black areas may show close to the ground. The capillary structure of larger infected stems blackens at or near the soil line. Pale yellow leaves indicate that moisture and nutrients from the soil have been restricted. Eventually, though the declining plant retains its yellowed leaves, the smaller stems become completely darkened and the normally white roots turn a dark brown. The outer root tissues rot and peel but the inner root remains fairly sound.

Once the disease reaches the main stem, the roots may be largely destroyed. Research performed

at another university has shown that small, localized pockets of root infection may exist for long periods in the root structure of an otherwise apparently healthy plant. Death may come suddenly when the fungus reaches the main stem.

Once a boxwood becomes infected, it must be removed. But care must be taken in replanting the healthy cuttings. Research at Virginia Tech has found that healthy rooted cuttings planted in soil where boxwood had previously died will develop the disease. The research showed the healthy plants died when certain selective fungicides, previously found to be effective for other *Phytophthora* diseases of azaleas and rhododendrons, were applied. The chemicals either killed the boxwood or allowed the disease to take hold. Once a boxwood becomes infected, it must be removed.

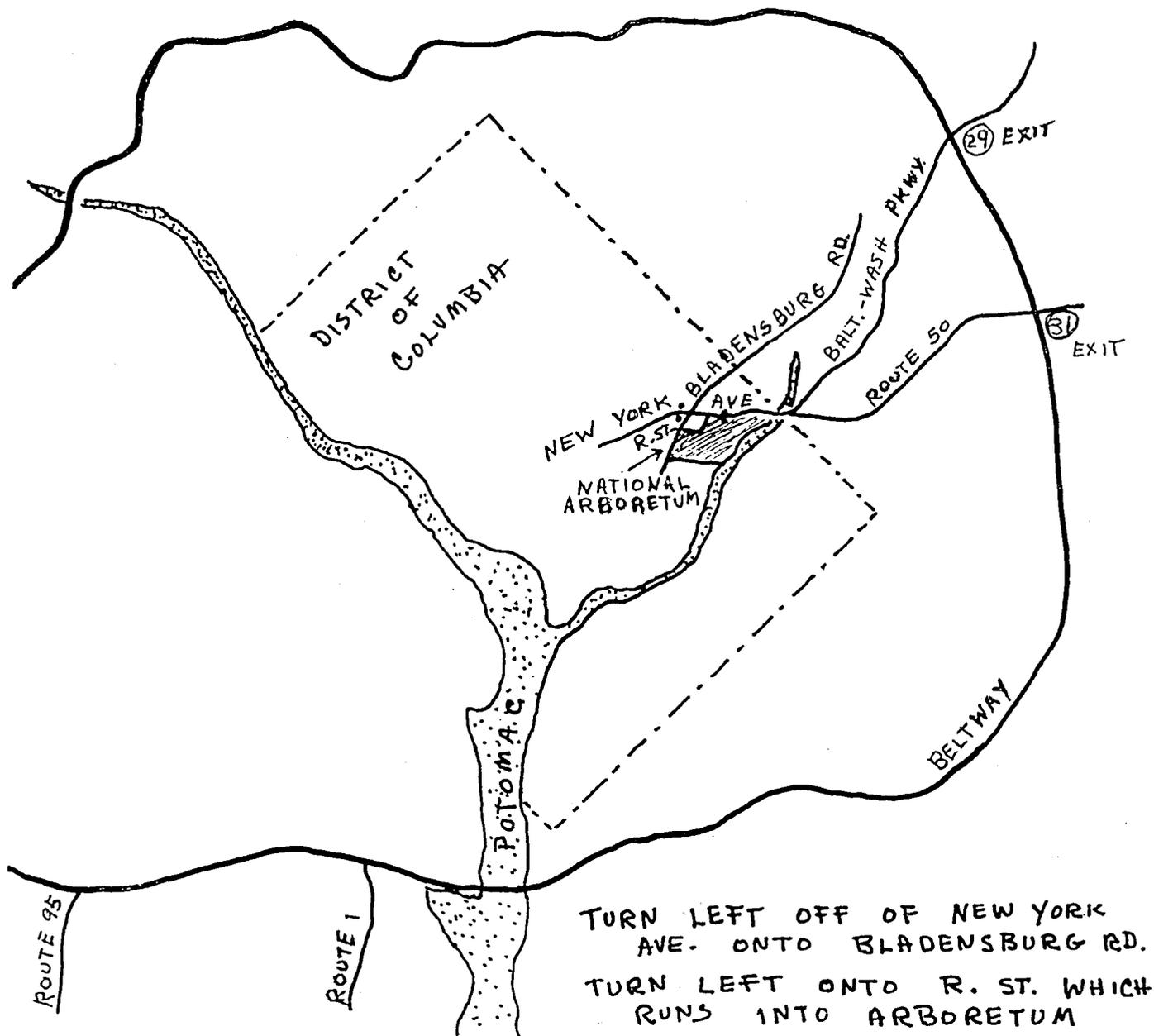
Nurseries propagating boxwood from cuttings should be sure the plants are rooted in a rooting medium that has been treated with steam or the proper fumigants or consists of sterile materials. When replanting in a location where a boxwood had died, consider treating the soil with a non-selective fumigant like methyl bromide to eradicate the fungus before planting. Every effort should be made to maintain a healthy planting by providing a *Phytophthora* free site. Optimum pH, proper drainage, mulching and protection from insects are the only means currently available for preventing *Phytophthora* diseases of established boxwood. Replanted boxwood does not regain its former grandeur until it has outlived several generations.

Preservation of boxwood having historical or sentimental value depends largely on good cultural practices. It is well worth remembering that the cost of replacing a large plant may amount to several hundred dollars. The fact that some extremely old plantings still survive is a tribute to their hardiness and a measure of the importance of preserving them.



Fig. 1. Diseased American boxwood on right and healthy plant on left. *Phytophthora* fungus has destroyed the root system of the diseased plant.

Plants approximately 18" tall; collected last year.



HOW TO REACH THE ARBORETUM

Cars or Taxicabs. — From downtown Washington, take Maryland Avenue northeast from the Capitol to M Street, and turn east on M Street to reach the main gate. The Arboretum can also be reached by way of Bladensburg Road (U. S. Route 50) by turning onto R Street.

Public Transportation. — From central Washington, take bus No. 42 to Thirteenth and D Streets Northeast; then change to bus B-2, "Mt. Rainier", to intersection of Bladensburg Road and R Street. Walk east on R Street 300 yards to the R Street gate.

The map above shows how to reach the National Arboretum from the Beltway (Route 495). This may shorten the journey for some Maryland members. For those coming from Virginia this route will be a few miles longer than if they came through the city; but the chances of getting lost are not nearly as great and the time saved, will make the extra mileage worthwhile.

Map and directions from the U. S. National Arboretum.

THE AMERICAN BOXWOOD SOCIETY

INFORMATION

DUES AND SUBSCRIPTIONS

Regular membership dues of The American Boxwood Society are now \$5.00. This includes a subscription to *The Boxwood Bulletin*, to the publication of which the Society allots about 2/3 of the money received from dues.

Non-member subscriptions are for groups and institutions such as botanic gardens, libraries, etc. These are \$5.00 a year, and run by the calendar year.

The Boxwood Society year runs from one Annual Meeting to the next; from May of one year to May of the next year. Those joining the Society at other times are sent all the *Boxwood Bulletin* issues for the current Society year, beginning with the July number. Their dues are then again due and payable in the following May. This was voted by the Society in order to lighten as far as possible the heavy work load of our busy Secretary-Treasurer; who, like all other officers of the Society, is an unpaid volunteer.

Price per single copy \$1.25 plus 5¢ postage to members: \$1.50 plus 5¢ postage to non-members. Orders of five or more copies are sent postpaid. At the present time any or all *Bulletins* are available, back to Vol. 1, No. 1 (Vol. 1 consists of three issues only, there was no Vol. 1, No. 4.)

Besides regular membership dues at \$5.00 per year, there are other classes of membership available: Contributing, \$10.00; Sustaining, \$25.00; Life, \$100.00; and Patron, \$500.00.

Gift memberships are announced to the recipients by boxwood-decorated cards which carry the information that *The Boxwood Bulletin* will come as your gift four times a year.

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
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write to
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The American Boxwood Society
Box 85, Boyce, Va. 22620

If you have something of real importance — a question of policy, a new project for the Society, a matter which needs top-level consideration, write to

Rear Adm. Neill Phillips, USN Ret'd., President,
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Upperville, Virginia 22176

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

Mrs. Edgar M. Whiting, Editor,
The Boxwood Bulletin,
415 West Clifford St.,
Winchester, Va. 22601

This applies to criticisms and corrections, too — "We regret errors; we welcome corrections."
