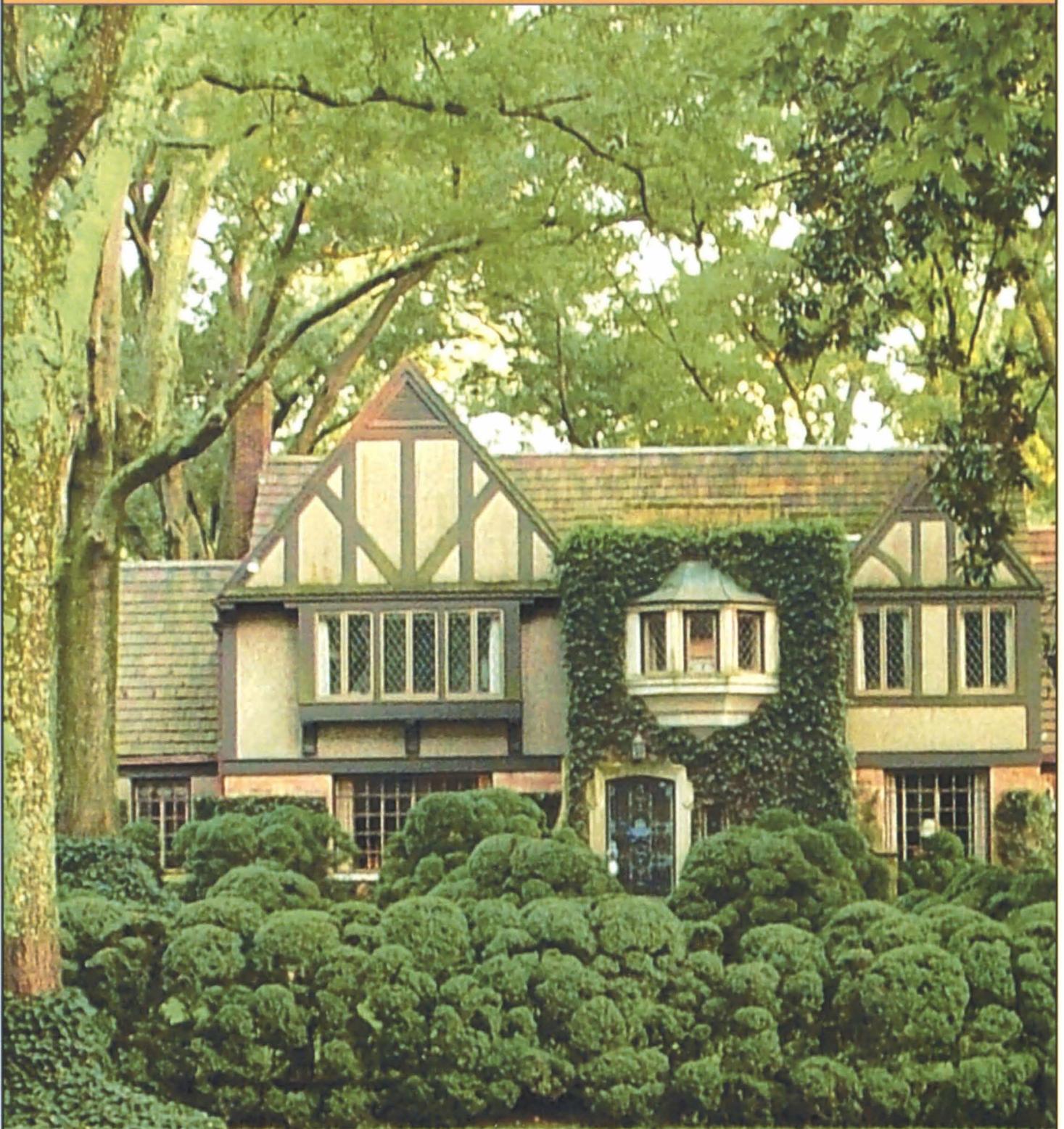


The Boxwood Bulletin

A quarterly of the American Boxwood Society devoted to our oldest garden ornamental



January 2006

Vol. 45 No. 3

MEMPHIS!



Cover and above photo of cloud-pruning at Boxwood Acres in Memphis, TN by John Hoffman. Come and visit these boxwood in May at the American Boxwood Society's Annual Meeting and Symposium!

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American Boxwood Society,
POB 85, Boyce, VA 22620-0085

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Hi everyone!

First, I want to thank those who sent in their postcards and let us know their preferences about the *Bulletin*. Appreciate all the kind words and the good ideas too! Will be following up on most of them soon.



Last time, I made several errors, the worst of which was getting the date of the Memphis meeting/symposium wrong...it's the 11th, 12th and 13th of May, 2006. Don't want you to miss a thing! Edna has a great adventure planned, with fabulous tours of private homes, great speakers and a river cruise!

Continuing to collect propagation recommendations and encourage you to get yours in to me as soon as you can. I'm planning to devote a good part of an upcoming issue to this important part of boxwood multiplication.

So get comfortable and we will take you to Russia and the western Caucasus, Richmond and the Internet, Memphis and Versailles while we marvel at the beauty of boxwood in winter and dream of spring.

Donna

Notices

Hi!

WE HAVE SEVERAL LARGE, HEALTHY ENGLISH BOXWOOD IN OUR YARD. THEY HAVE GOTTEN TOO BIG FOR THE SPACE AND WE DON'T KNOW HOW TO TRIM THEM TO MAKE THEM LOOK NICE. WE WANT SOMEONE TO COME GET THEM AND ARE OFFERING THEM AT A VERY REASONABLE PRICE. WE ARE IN RICHMOND, VA AND TELEPHONE INQUIRIES ARE WELCOME AT 804-264-6956.

PAT AND OTIS WILLIAMS



Lynn Batdorf

Steve Southall and Dick Mahone, on right, at US National Arboretum in 1987.

In Memoriam

It is with sorrow that we report the death on October 16, 2005, of our former President, Richard D. Mahone, at his home in Williamsburg, Virginia. Many of us remember with great delight the garden tours when Dick was with us – it was as if he were the Pied Piper! Members followed him constantly, for we were confident he would be able to identify any and every plant we observed. His knowledge was voluminous and his friendly personality most engaging.

Dick was born and grew up in Williamsburg and after Army service and graduation from North Carolina State University with degrees in Forestry and Horticulture, he returned to work for Colonial Williamsburg, finally becoming Director of Horticulture. He helped in the creation of the magnificent gardens that attract so many visitors today. He also served on the Board of the Holly Society of America. His wife Helen and four children survive him. Our Society was fortunate to have had his dedication and forcefulness offered to promote our growth.

Joan Butler

Deadline for all submissions to April Boxwood Bulletin: February 15, 2006

President's Letter

Hello Folks!

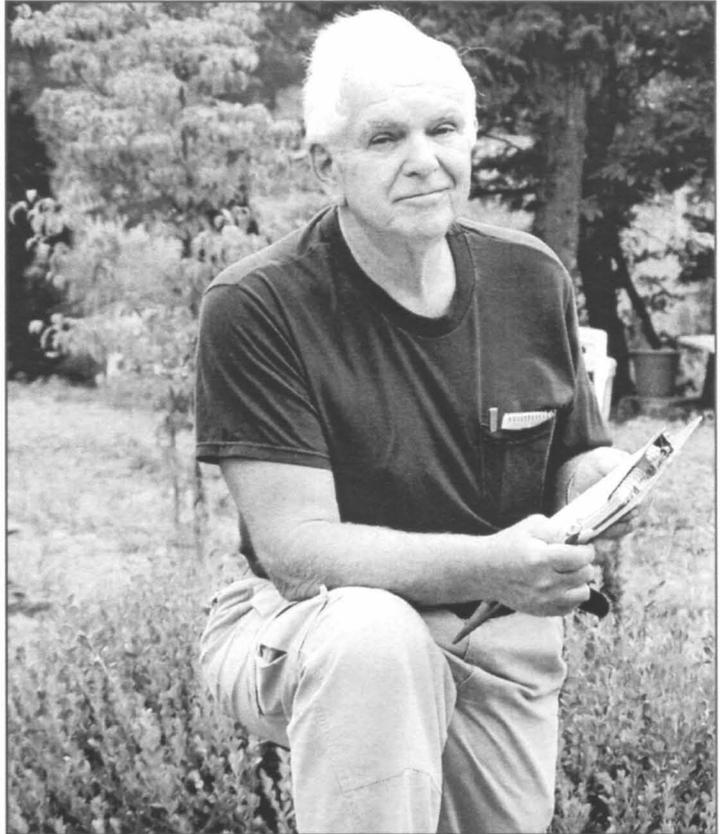
At this writing in mid-November, the long summer drought is broken, and we are well on our way to winter. The rains of autumn, at least in this location, have been sporadic and rather gentle with most of the water being absorbed directly into the ground. Groundwater has not been replenished yet and for the first time after 137 years of use, there is no water running in the springhouse. Established boxwood show little or no adverse effects after being through this stress.

The governing board of our society has been in a flurry of activity. A membership drive is currently underway, and we are ready to put our name and mission before the public in the form of advertising in select trade periodicals and horticultural magazines. This will bring more commercially-involved individuals into our group. We are also currently accepting advertising in **The Boxwood Bulletin**. Contact our editor for rates and details.

Details are now being finalized for our booth at the Maymont Garden Show. According to Ross Hotchkiss, "We all owe Eddie Goode a huge round of applause. He has pulled off a real coup for the ABS. The ABS participation in the Maymont Flower and Garden Show will be the equivalent of a full page ad in the top gardening magazines. Way to go, Eddie." This will prove to be a very positive way to raise awareness about boxwood! The time and place of the show is February 9 through 12, 2006 in Richmond, Virginia. For further details, see Ross' article on page 174. Oh yeah, there is something else to remember and I quote Ross directly:

"I am confident that we will come away from the Maymont Show with a number of new members...or I'll eat my ABS hat!"

Since we are on the subject of new members there is one other story that I have to tell you. An avid gardener and potential ABS member, (I treat all gardeners now as potential ABS members)



called me on the phone several months ago asking for guidance in planting and caring for boxwood. She explained how she purchased a pair of 'Green Velvet' boxwood at a silent auction held by the organization "Women in the Outdoors." I had donated these boxwood, and also a pair of 'Green Mountain' to that organization. I gave her the usual lecture on how, where, when, and why, and I explained a few attributes and the versatility of boxwood. I also told her of its deer-resistance, probably as close to deer-proof as you can get. I told her of the hardness of selected boxwood, and the many cultivars available, and last, I told her about ABS. She said that I sounded so enthused when giving my spiel that she might like to join the society. I sent her an application and Ms. Joline McClure is now a new member reading this message in Butler, Pennsylvania.

Welcome to ABS, Ms. Joline McClure! I hope your association with ABS is a long and enjoyable one. And I wish all the other new members the same welcome.

Clyde Weber

Annual Meeting and Symposium
Memphis, Tennessee
May 11, 12 and 13, 2006

Edna Hoffman, Meeting Chair

I can hardly wait until May 11th, 12th and 13th, 2006 when members of the American Boxwood Society will be coming to Memphis! Memphis is a beautiful, vibrant city, especially in the spring-time of the year.

Thursday, May 11, 2006

Each morning you will have breakfast at your motel. On Thursday the bus will leave the motel at 8:15 a.m. The first stop will be my home and garden. You will be invited inside to see New England antiques my husband and I have enjoyed collecting, preserving our American history. Most of the furnishings and accessories pre-date 1840. In my garden I have a number of boxwood, all transported here from Virginia. Boxwood is truly the aristocrat among shrubs.

At 9:45 a.m. the bus will leave for *Boxwood Acres*, the home of Dr. and Mrs. Jack Sanford. It is a breathtakingly beautiful garden with boxwood done in the clouding effect. There is also a rose garden, perennial garden, herb garden and much, much more. It will be worth the trip to Memphis to meet the homeowners of this garden. They are very enthusiastic boxwood lovers! She has the charm and grace of Laura Bush, but can also get her hands in the dirt with the best gardeners. You will not want to miss this garden, for truly it is one of the most beautiful gardens I have seen here or in England.

At 11:30 a.m. we will visit the home of Charlotte Mayfield. Her late husband, Dr. Henning Mayfield, was a boxwood lover and he started this garden. This interesting, charming and sparkling lady of 39+ keeps this garden alive and beautiful. As a matter of interest, this home is three doors from the first home bought by Elvis Presley in Memphis.

Our bus will take us to Dixon Gardens, where

we will be greeted by Diane Reed, the horticulturist at the gardens. Diane is someone you will like, a very charming, down-to-earth lady. We will have lunch and hear a combined talk with Diane and Ben Page, a well-known landscape architect from Nashville, Tennessee. He does classical designs for southern gardens. His gardens have been featured in *Southern Accent*, *Architectural Digest* and *Veranda*. We will have time to tour the beautiful grounds of Dixon Gardens and see new boxwood plantings.

Back to the motel for a little R & R before we board the bus for downtown Memphis for a cruise and dinner on the *Mighty Mississippi*. A band will play for our enjoyment and entertainment.

Friday, May 12, 2006

We will leave the motel at 8:15 a.m. Our first garden will be at the home of Bickie McDonnell who owns the most-visited garden in Memphis. It is so beautiful and pleasing that "each one takes one back to see". Much of the plant selection and garden design was done by Tom Pellett, our speaker for Saturday morning. Next we will visit the garden of Bruce and Judith Campbell. The garden was designed by Ben Page, one of our previous speakers. When you see this garden, you will understand why the name Ben Page is so well-known in the South. Lots of interesting places to visit and see in this garden!

Next, we will go to the home and garden of Tommy and Buff Adams. Buff is a true boxwood lover. Her enthusiasm for boxwood and the beauty of her garden are a good match. She has the best collection of boxwood in Memphis. She has graciously invited us to have lunch at her home.

Back to the motel for an interesting and informative talk by Lynn Batdorf. It would be hard to describe Lynn, so I'll just call him "Mr. Boxwood". Since he will be coming into the Memphis area for the first time, his talk will be on *Knowing and Caring for Boxwood*. His topic will include care and culture, site conditions and all we need to know about boxwood.

The Boxwood Auction will be at 5:00 p.m. I'm quite certain we will again have a spirited auction led by John Boyd. This will be followed by dinner. Our speaker for the evening will be Vada Vance. Her topic will be *Organic Gardening*. Our grandparents did not get into their automobiles and drive to the nearest garden shop or box store for their gardening needs. No, they used whatever was available: manure, egg shells, vinegar, detergent, sugar or other items. She will tell you why these products and more are good for your plants and environment. The first time I heard Vada speak I was with my good friend Joy Wells. We walked to our cars and looked at each other in amazement. We had gardened for 25 years and had never used some of the products. You will be glad you heard Vada Vance.

Saturday May 13, 2006

8:15 a.m. American Boxwood Society business meeting

At 9:00 a.m. we will have a wonderful presentation from Tom Pellett on *Plants for the Shady Garden*. Tom is a very respected and knowledgeable designer with a very practical way of working with the homeowner. He likes to balance plants so they can talk to each other and invite the viewer into the garden.

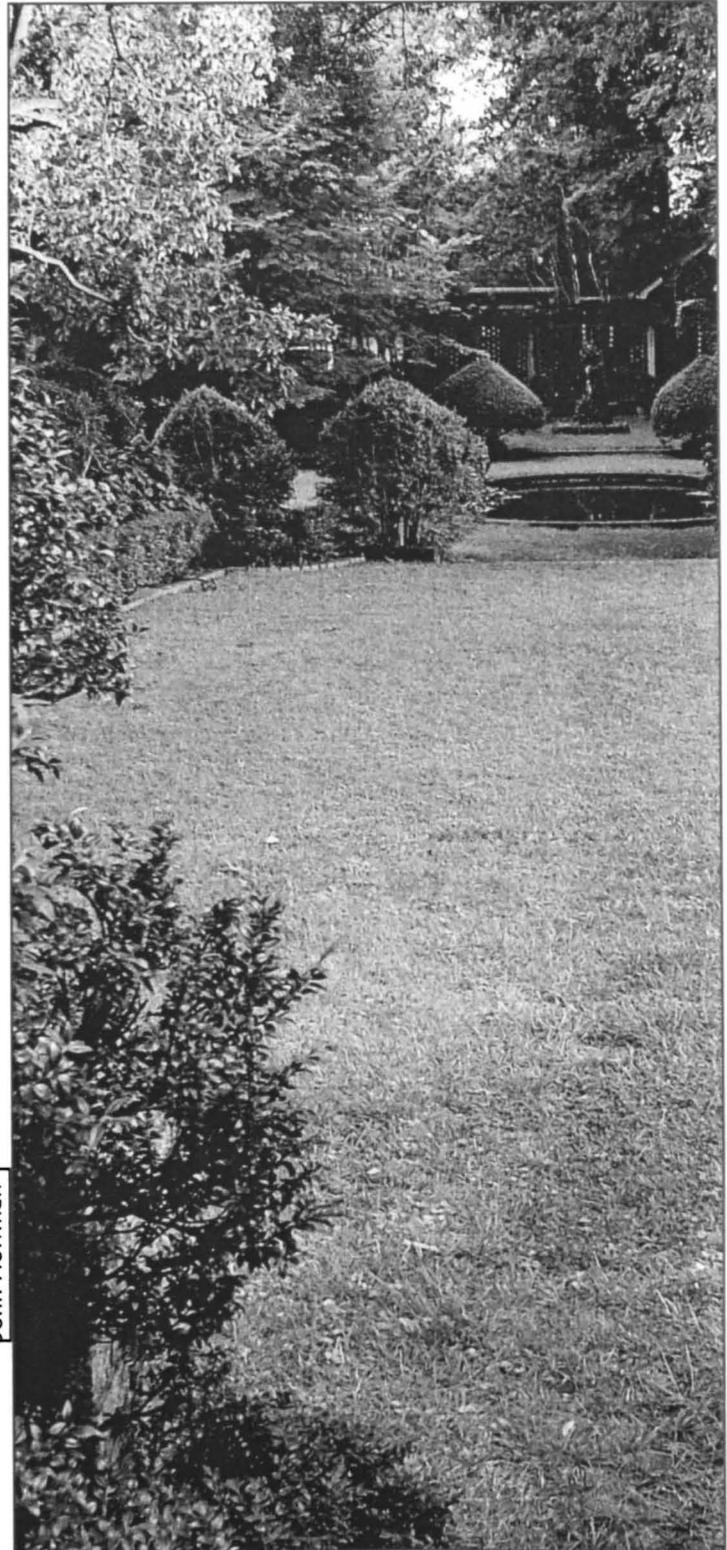
At 10:15 we will have the privilege of hearing Rich Larson of the Dawes Arboretum in Newark, Ohio. Rich is the nursery manager, plant propagator and curator of the holly, azalea and witch-hazel collections. He coordinates all woody plant trials including evaluations of boxwood.

At 11:00 a.m., we will have a panel of the top boxwood experts in the country! That panel will include Paul Saunders, who will tell us about his boxwood trials, Charlie Fooks on his recent travels studying boxwood, and our President, Clyde Weber, who will tell you anything not already mentioned about boxwood. Is that possible?

I'm looking forward to seeing all of you in Memphis! If there is anything I can do to help you with your visit here, call me at 901-685-6813 or send mail to Edna Hoffman, 5330 Timmons

Avenue, Memphis, Tennessee 38119. Sorry, no email.

Please Note: While Graceland is not on our very full official itinerary, visitors are welcome to visit. No reservations are required and Wednesday or Saturday afternoon might be a good time!



John Hoffman

What is Topiary Art?

The Garden Service of Versailles

Topiary art refers to the practice of shaping trees or shrubs in order to give them a particular form (geometric, animal, human, etc.,). The word topiary comes from the Latin *topiarius* which in time has become topiarist, the equivalent of the landscape gardener.

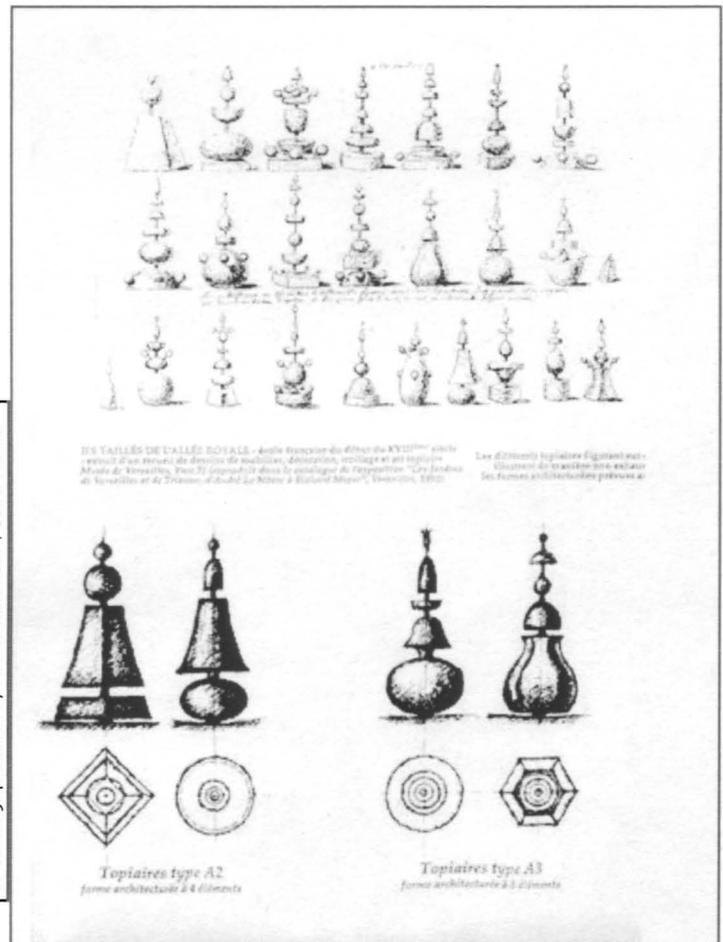
History of Topiary

One of the oldest references to topiary art is attributed to Pliny the Elder who credited the discovery of the pruning technique for transforming trees and shrubs in topiary to Gnaeus Mattheus between 38 B.C. and 14 A.D. Elsewhere Pliny the Elder, in his *Historia Naturalis*, describes cypresses pruned all around and crimped down the sides. These trees not only had a protective function sheltering plantations against the wind, but were also used in gardens as ornamental and structural objects.

In Roman gardens, topiaries often represented wild and mythical animals. In ancient Greece and Egypt, there were gardens embellished with trimmed hedges. Finally the Roman conquests of Gaul in 50 B.C. and Great Britain in 48 A.D. transmitted the art of topiary to Western Europe.

But it was mainly in Italy that the tradition of topiaries survived. The monasteries allowed this art to survive there over the centuries. In fact, after the fall of Rome, in the fifth century and until the beginning of the Renaissance, one could still find clipped hedges and a formal design in the monastery cloisters. The two most frequently used species for topiaries were box and cypress.

It was in the 15th century in Italy that the Renaissance brought topiaries back into favor, inspired by the literature of the classical period, such as writings of Pliny the Younger. People became interested in the Romans of antiquity and in their practice of bringing art into gardens. Thus one can say that Italian gardens are rooted in antiquity.



All drawings provided by Patrick Salembier, EBTS-France

These informative articles about topiary and the Palace of Versailles were contributed in French by members of the French Chapter of the European Boxwood and Topiary Society. Joan Butler translated the French to English and Martine Higonnet provided the final polish.

“Poliphile’s Dream”, written in 1499 by the monk Francesco Colonna, is considered to be one of the most consummate expressions of the esthetic of the Renaissance. It seeks to recreate the splendor of the ancient world observed through its enigmatic vestiges. The work portrays the imaginary quest of Poliphile who tries to find his beloved Polia in a landscape of ruins, of ancient palaces and temples. In his dream, Poliphile is led by Amor toward the island of Cythera, island of Venus. The author leaves us a very detailed description of this island, presented as a sumptuous garden. Its perfectly geometric layout testifies to a concept of nature as an esthetic ideal of a nature tamed. The garden is divided into different rooms arranged in a particular manner and yet in the midst of the profusion of vegetation, have been interspersed alien elements such as stone colonnades, marble paths, and mosaic pavements. The landscape is characterized by the presence of trees and bushes pruned in many varied shapes. Thus Colonna renews with topiary art. His imagination surpasses both the forms which filled ancient Roman gardens and those a gardener will be able to create. Bushes take on human and animal forms but also represent imaginary creatures. Pottery and other objects are integrated into the topiary, which thus resembles sculpture. It is a story of a vision rather than a treatise on gardening but nevertheless it will have a considerable influence on ways of thinking about the art of gardening.

Therefore, the gardens of the 15th century are characterized by a wish to reconstruct nature according to fancy. The strict pruning of hedges is associated with more structural techniques.

France will welcome this Italian influence and shortly give birth to what is known as “Jardin à la française.”

These gardens are characterized mainly by their hedges, which, as in tapestries, can form complex designs. But the French-style garden is to separate from the Italian model. It is destined to be seen from the house rather than explored on foot. The garden and its geometrical logic extend as far as the eye can see. Le Nôtre is concerned with creating drawn-out perspectives, first at

Vaux-le-Vicomte, then at Versailles where he began to work in 1662.

An host of gardeners is employed in endlessly pruning the raised hedges that encircle the wooded part of the park.

Beside the clipped hedges there are other forms of topiary. However, only geometric forms are allowed, animal forms being forbidden in the name of good taste. The transformation of plants into geometric forms (alien forms born of the



Long view at Versailles

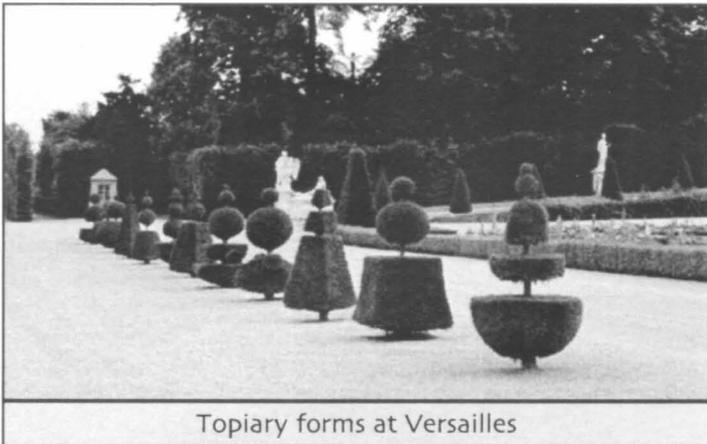
imagination) also symbolizes the domination of man over Nature, following 16th century humanism.

Thus gardens are strewn with trees clipped in the form of spheres, half-balls, cones, pyramids, pompoms, bells, plateaus, circular or rectangular planes, ovoid platforms and all sorts of parallelograms. All these elements are assembled around the same trunk or are superposed, creating harmonious structures with conical volumes and respecting the natural silhouette of the plants selected. The topiaries are pruned from yew, *Taxus baccata*; from box, *Buxus sempervirens*; from holly, *Ilex aquifolium*; from cypress, *Cupressus sempervirens*; spruce, *Picea abies*; or fir, *Abies alba*.

This concept of topiary art related to royal absolutism. The pruning of trees results in imposing a rigid authority upon plants, such as the one which comes from the king.

The progressive spread of topiary art

Gardening in the French style spread throughout all of Europe and even into Russia. The influence of Versailles made itself felt in England.



Topiary forms at Versailles

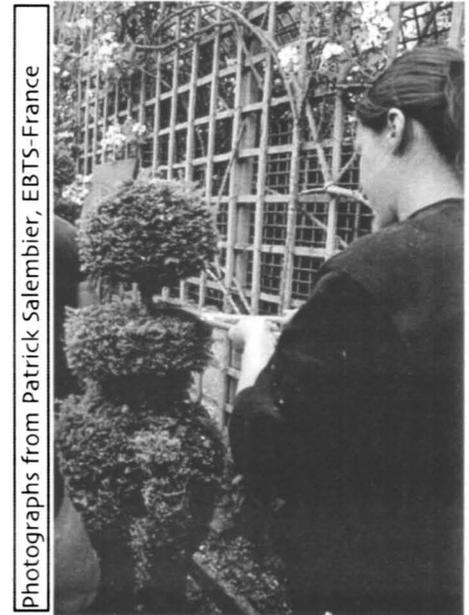
However the English gardens of the 16th and 17th centuries separated little by little from the formalism that characterized the French gardens. As on the isle of Cythera dreamed of by Poliphile, there reappeared topiary representations of humans and animals.

But while the forms may be multiplying, topiary art is disapproved of by romantics who reject the concept of Nature dominated and maimed. However, topiary art is finally being reborn in all its forms and develops all across the world.

The gardens of Versailles, a tradition perpetuated

Today at Versailles, topiaries are clipped by hand with shears and hand pruners. To obtain beautiful topiaries, select a mono-axial shrub, that is to say with a single principal axis that supports the shrub. This axis must be perfectly vertical. One then uses templates or guides that outline of the shape to be attained. These are boards in which the form is pre-cut. The template is then placed perpen-

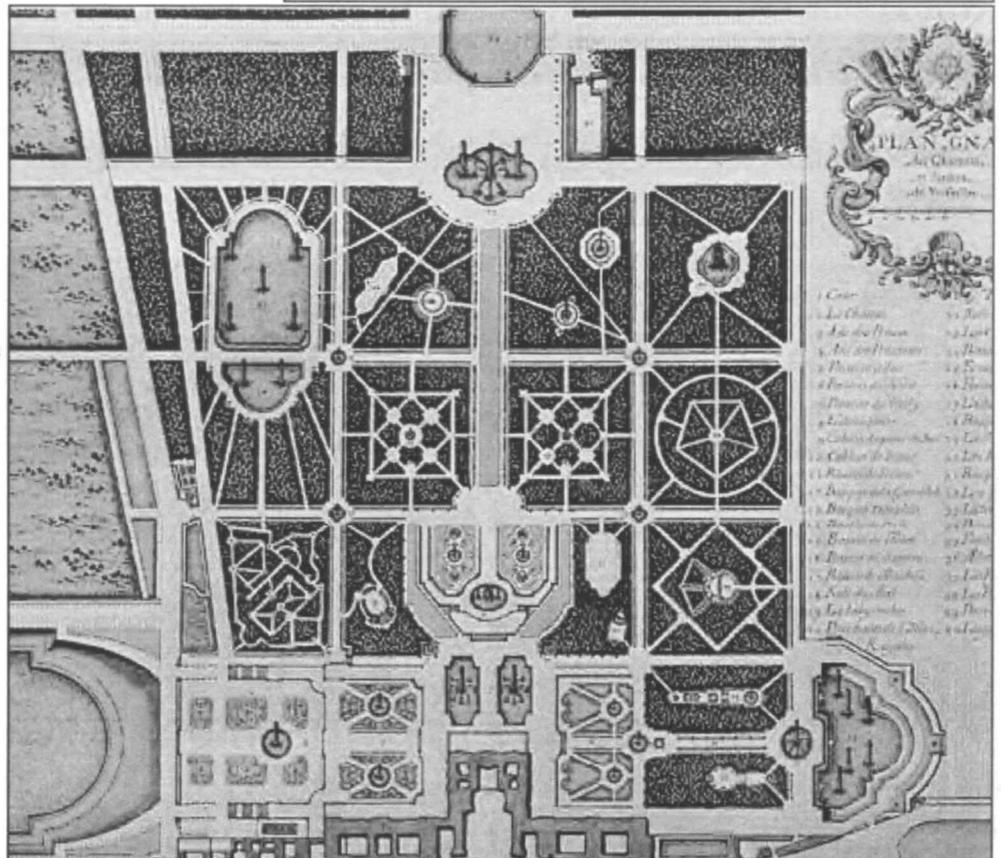
dicular to the ground beside the bush or tree. The clipping is done turning it around the axis of the trunk, while keeping it vertical.



Photographs from Patrick Salembier, EBTS-France

Bibliography:
 Colonna, Francesco.
Le songe de Poliphile,
 1499. Imprimerie
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 Cleverly, A.M.
*Topiaires: l'art de tailler
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 d'ornement*. 1990, la
 maison rustique.

Petit Parc or Little Park at Versailles



Garden Practices at Versailles

J.Y. Haberer

It is well known that following the devastating storm in 1989 and 1990 it was decided to restore the gardens, the park and the groves at Versailles to their original condition, just as Louis XIV would have known them and wished them to appear.

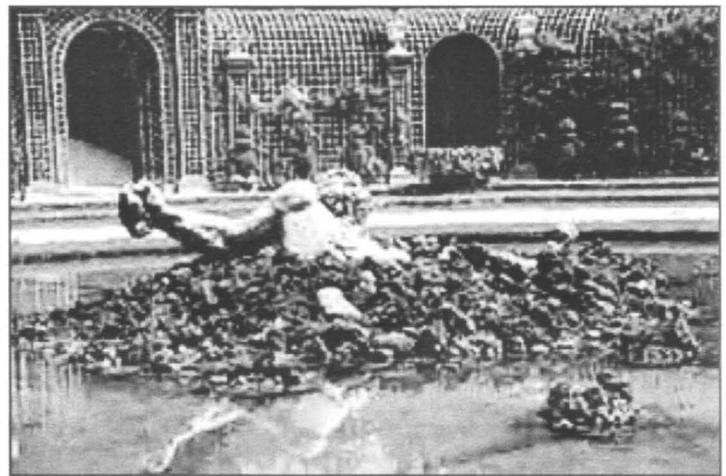
Topiaries had disappeared from Versailles long before that and, since André Le Nôtre (1661-1693) hadn't left any records of them, it was necessary to turn to the 17th century plans and rough sketches ordered at the time by the courts of Sweden, Prussia and Austria for their information.

On June 16, 2005, a group of members of the European Boxwood and Topiary Society-France was given a technical demonstration by Joël Cottin, Nicolas Aubailly and Thierry Sass. As the tour was limited to only 20 members, it will be offered again.



Tour members and Versailles garden staff

Today at Versailles there are 505 yew topiaries, exhibiting 65 different sophisticated shapes. These figures do not include either the cone-shaped yews nor box trimmed into balls. They are clipped twice a year, in June and September, by eight specialized gardeners. Purchased in 1991 when they had already attained their present height and a straight central mono-axial trunk, they were then shaped in the Palace's own nursery. Each was set in position several years ago in their chosen decorative site and maintenance clipping began the second year after they were planted.



Enceladus in his grove, with topiary amphora in background.

We were taken to the Grove of Enceladus where 54 topiaries in the shape of amphora with two handles have been planted. Attaching an ascending branch and a descending one creates the handles. The June pruning was being done as we visited. These sculptures are about the height of a man.

The workers use two tools: rather lightweight shears with relatively short blades, made in Japan, and a hand pruner with a spring.

In addition, the workers use a template guide. Actually the topiaries of Versailles are, if one may say so, the high fashion of topiary art. These are veritable plant sculptures, which set against fixed decorative structures and planted in strict alignments, must be absolutely stable, without any unplanned growth or loss of shape. A template strictly guides clipping. It is a revolving frame cut into a counter-plate 2 centimeters thick and designed as a negative to represent half of



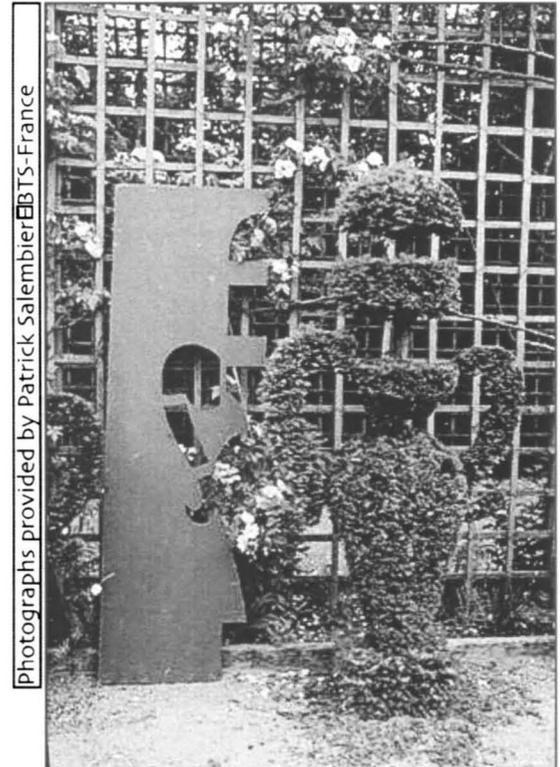
Template used to prune topiary at Versailles

the desired shape to be created. Its voids correspond to the full body of the yews to be clipped. Fastened to the trunk of the yew by a tie, the template turns gradually as the clipping progresses with the help of shears and the hand pruners. A level shows that the template is properly placed on the ground.

At a second location, in the Royal Allée that leads down to the Grand Canal, the workers, in order to neutralize the slope, use a platform of planks on which the template remains flat, as it must. Since the topiaries at this site are taller (with a 3-meter template), a stool is used to stand on.

In this task where precision and perfection are astonishing, what problems may be encountered?

If a hole appears in the tight smooth texture of the yew, with a fingernail one must pinch out the



Photographs provided by Patrick Salembier/BTS-France

Template behind partly-pruned amphora. Right side pruned, left side not yet done.



Garden staff move template onto living amphora to guide pruning.

terminal bud of the young shoots growing inside, to promote growth of the lateral buds that will grow to fill in the hole. On the other hand, nothing can be done to slow the development of the mono-axial trunk. It may be acceptable for some years, until the ultimate replacement of the yew itself becomes necessary. We note that no herbicides are used anywhere nearby.

Finally our group was led to a nursery, both a laboratory and a clinic, where yews in preparation or repair spend several years. Under the expert supervision of the three men who led us, we benefited from a special lesson in shearing yews, each in his turn taking the appropriate tools. When using shears, the main advice is to keep one arm almost motionless, which means that one blade stays in place against the foliage to be clipped, while the other blade makes the cut. You can relax by alternating the active arm.

The templates used are created by the gardeners, starting with plans from the period of the end of the 17th century.

At the end of that exciting morning, we gathered for a picnic inside the cool shelter of the Orangerie.



The Coat of Arms of André Le Nôtre

1613 Born in Paris, the son of Jean Le Nôtre and grandson of Pierre Le Nôtre, both of whom were head gardeners at The Tuileries royal gardens.

1635 André Le Nôtre is appointed head gardener to the brother of King Louis XIII, Gaston d'Orleans.

1637 He succeeds his father as head gardener at The Tuileries which he supervised until his death.

1655 Nicolas Fouquet, Louis XIV's chief minister, calls on Le Nôtre to create his gardens at Vaux-le-Vicomte.

1661 Fouquet is arrested on order from Louis XIV, who entrusts Le Nôtre with the creation of his own gardens at Versailles.

1681 King Louis XIV honors Le Nôtre with the title of Knight of the Order of Saint-Lazare.

1693 Le Nôtre retires after 32 years at Versailles.

1700 Death of Le Nôtre. He was buried in the Chapel of Saint André in the church of Saint-Roche, rue Saint Honoré in Paris.

When Le Nôtre was knighted, he was asked to choose a coat of arms. He decided on three snails around a chevron (to symbolize the gardener's spade) surmounted by a cabbage in the manner of a helmet with cascading plumes. One might suppose that Le Nôtre selected snails to reflect (not without irony) that he had started his career rather late, at the age of 42.

On the occasion of the tricentennial of the death of André Le Nôtre (2000), the garden staff at Versailles chose his coat of arms as its emblem in honor of the Sun King's landscape architect.

Topiary Art at the Palace of Versailles

Patrick Salembier and Hubert de Cerval

The gardens at Versailles were completely overhauled during the past several years with the primary aim of recreating the topiary. To inform themselves more fully about this project, Patrick Salembier and Hubert de Cerval met with Joël Cottin, one of the two head gardeners at Versailles. The head gardeners carry the title of Gardeners-in-Chief, as in the time of Le Nôtre.

Question: How are the "green spaces" at Versailles managed?

Reply: The Great Park, with an area of 750 hectares (1,875 acres), including the Trianon, is the responsibility of Mr. Baraton and the Little Park or the Chateau Garden, with an area of 80 hectares (200 acres), is my responsibility.

Q: Major work has been undertaken, particularly with great regard to the topiary. How can one explain this sudden change of emphasis?

R: From 1985 to 1990, Mr. Bigot, who was then the chief architect, recreated the main alignments such as the Allée of the Seasons and a first grove, the Emperor's Room. But the true impulse coincided with the arrival of Mr. Lablaude on February 3, 1990, just before the first great storm.

On the basis of the inventory which had been ordered by Jack Lang (President Mitterand's Minister of Culture), Mr. Lablaude proposed a 20-year development plan; however, because the great storm necessitated the rehabilitation of the entire gardens, Mr. Lablaude chose to recreate them as they existed under Louis XIV, rather than to restore them in the style of Napoleon III, which was their appearance before the storm. The idea was to present the Palace at the time of its greatest splendor.

Q: When did this work begin?

R: From 1991 on.

Q: What were the preliminary considerations?

R: It was a question of reproducing the identical plans of Le Nôtre.

Q: Who supervises this restoration work?

R: The work is carried out under the direction of Mr. Lablaude, with the help of the head gardeners, Mr. Baraton and myself.

Q: What has been the program of restoration?

R: In 1991-1992, the first project to be completed was the Grove of the Three Fountains (the periphery is bordered by a hedge of young hornbeams), followed by the Grove of the Arch of Triumph.

In 1993, Ring of Apollo was completed. The Grove of Enceladus (a statue of Titan from Greek mythology) was restored starting in 1993 and opened in 1998. The Girandole and the Dauphin, the oldest of Le Nôtre's groves, were opened in 2001.

The Orangery Garden (9 sections of lawn in arabesques) was done in 2001-2002. In 2003 the Green Circle Grove or Water Theater, the Grove of the Star and the Grove of the Obelisk are awaiting donors. The Grove of the Three Fountains was opened on June 12, 2004.

Q: Have you benefited from private funds?

R: The Enceladus Grove received a gift from the Paris stock exchange. Companies such as Novartis, foundations, private individuals like Madame Hanoet, have also helped us. But we still need private funds to carry on the work.

Q: Let's go on to the topiaries. Can you tell us how many there are at Versailles?

R: We have 505 topiaries in the Little Park, with 65 different shapes. Thus 65 different templates or guides are necessary.

Q: When is shearing done?

R: In June and September.

Q: Who carries out this work?

R: Eight workers participate in clipping the topiaries.

Q: What tools do you use?

R: Light shears, to avoid possible tendonitis, and small pruning clippers.

Q: What is your advice about the best shrubs for topiary art?

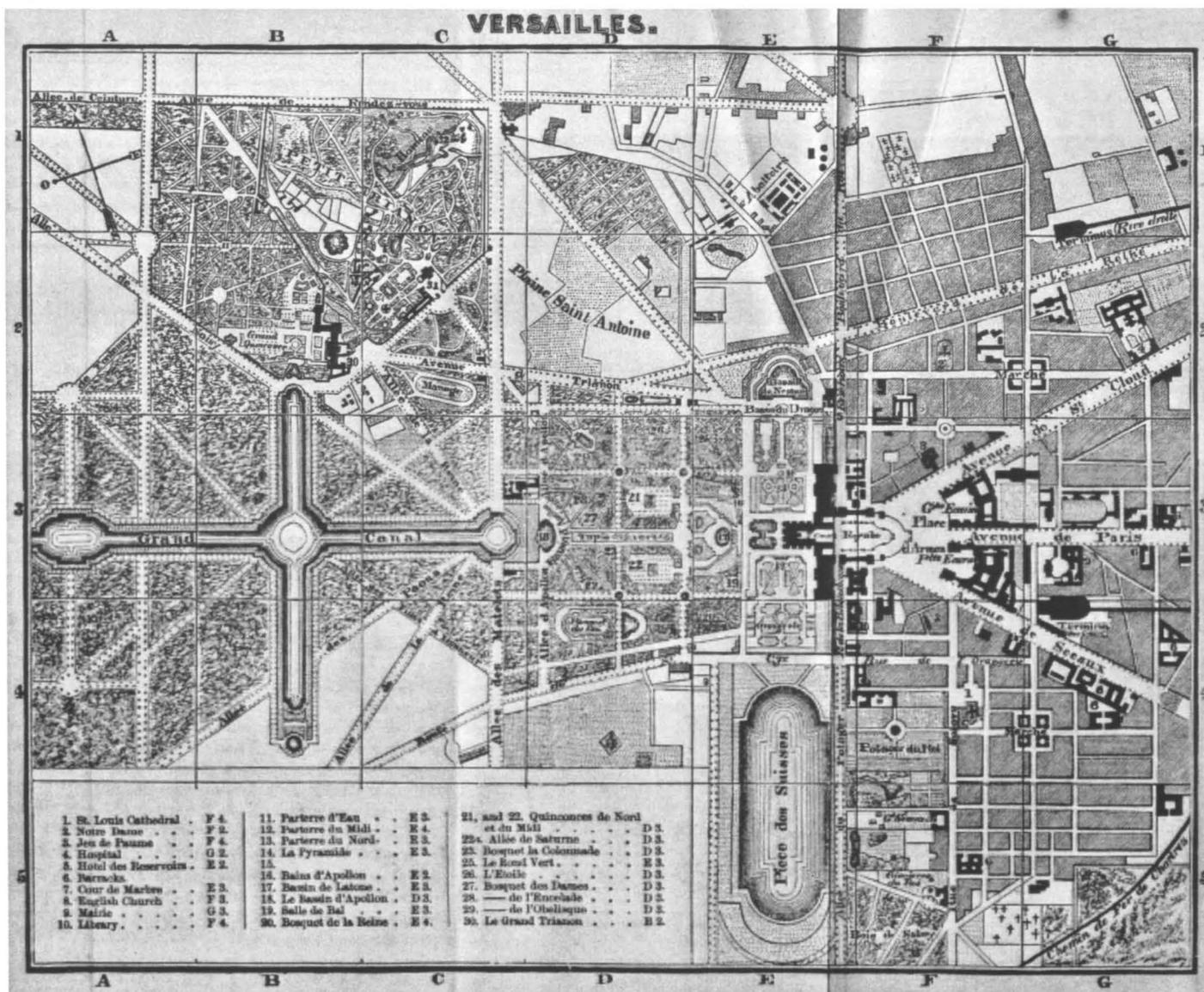
R: Plants used for topiary art are shrubs with evergreen foliage, especially for clipped hedges. Among them we find box, of course, and also yew, privet, Italian cypress, which are basic for this purpose. One can also trim arborvitae, false cypress, young hornbeam, Portuguese laurel, cherry laurel, box honeysuckle, holly and green

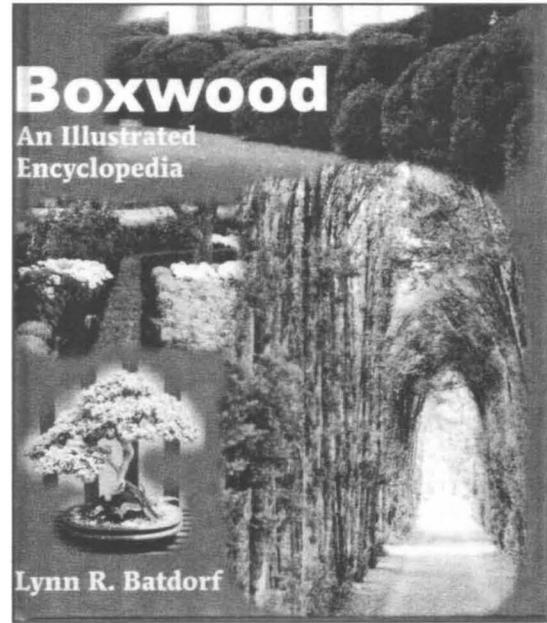
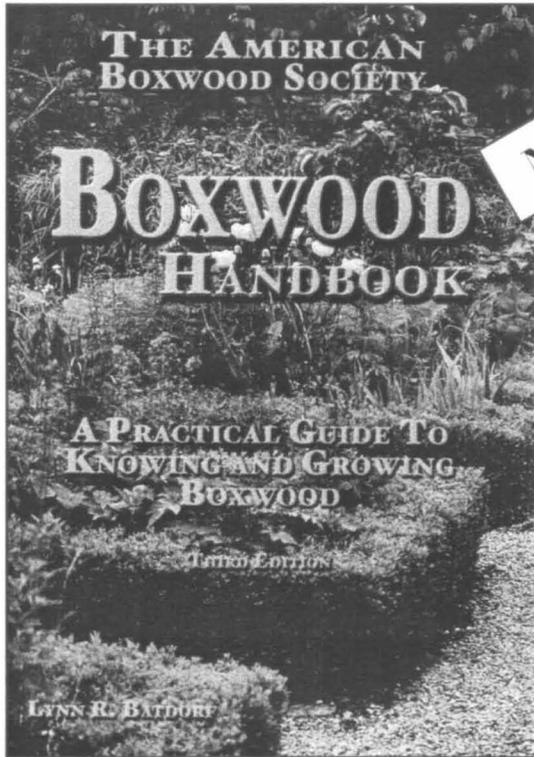
or purple beech.

Box honeysuckle grows much more rapidly and requires repeated trimming. Boxwood, which trims more easily than yew, will yield the smoothest contours. Privet needs to be clipped every month. We should not forget the orange trees in large pots with their ball-shaped form.

Q: Have some examples become victims of disease?

R: To the best of my knowledge, no topiary has suffered from parasitic attacks. It must be noted that the majority of our topiaries are created from yew, which is very resistant to disease.





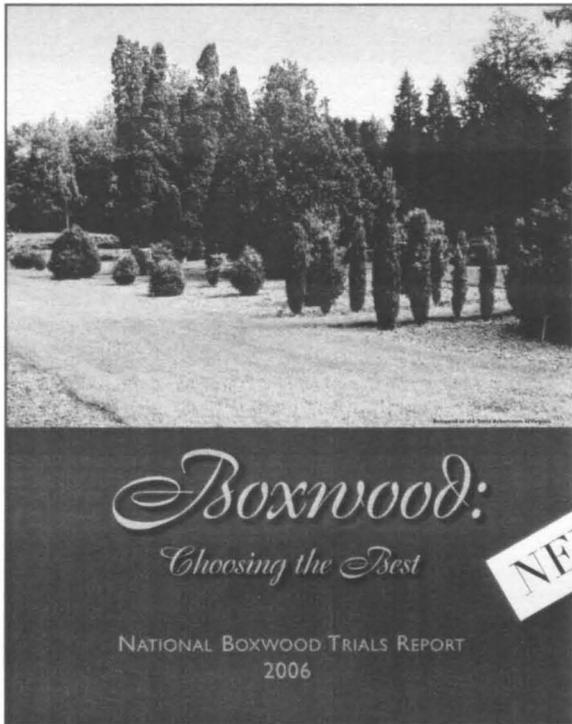
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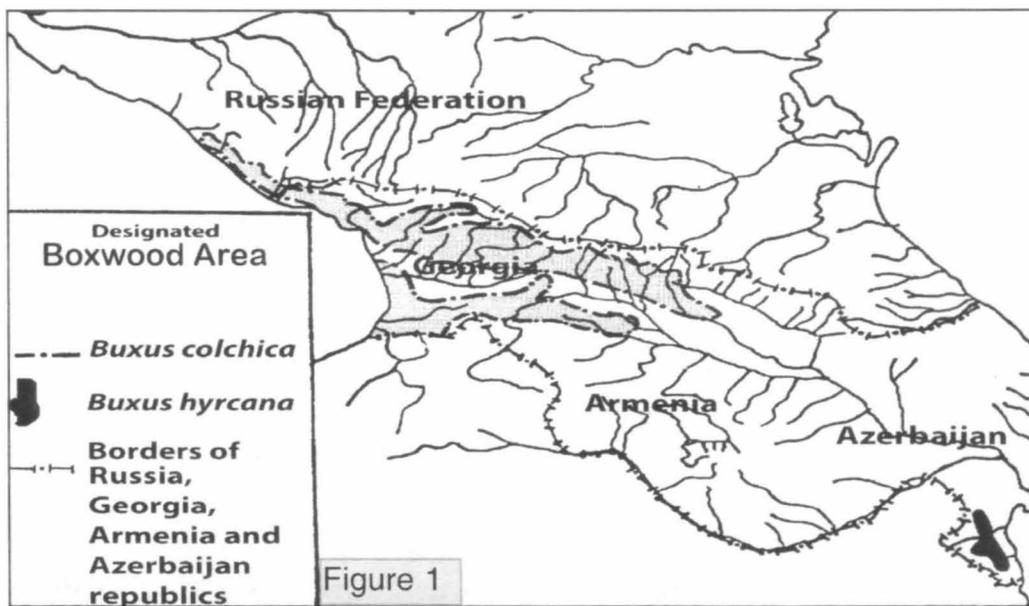
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The Condition of the Plant Community of Colchian Boxwood in the Western Caucasus

M. V. Pridnya, A. B. Romashin,
D. M. Ryl'tsev and B. P. Shevtsov

Colchian boxwood, *Buxus colchica* (classified as *B. sempervirens* by non-Russians), occurs primarily in a small area of the broad geographic range of the Caucasus and extends to the Mediterranean Sea, to the south of Europe, to Northern Africa and to Central and Eastern Asia. Caspian or Girkansky boxwood, *Buxus hyrcana*, extends to the south of the Caucasian isthmus in the Talish Mountains (Fig. 1).



For centuries, boxwood was intensely exploited for its hard, durable and beautiful wood, which substantially diminished the geographical area in which it is found, especially in the Middle Alps (Italy), the South Alps (Switzerland) and the Alps (Brittany, France). Loss of habitat for boxwood in Central America and the West Indies has made it urgent to initiate research projects on these native populations in their natural refuges, just as in the Colchian botanical provinces of the Caucasus and certain regions of Novyi Svet.

Serious attention has been paid in the last 30 years to the problem of the condition of boxwood populations in the Caucasus with the goal of developing measures to preserve this excep-

tionally valuable wood species, which underwent intense exploitation at the end of the nineteenth and beginning of the twentieth century.¹ In field work the Forestry Department of the formerly named Leningrad but currently named St. Petersburg Institute assessed the boxwood area at more than 1000 hectares, but only in the Sochi region of the Western Caucasus.² The overall boxwood area in the basin of the River Shakh in the village of Golovinka, however, is denser at about 900 hectares. There is significantly less boxwood, about 150 hectares, in the basins of the Rivers of Sochi and Khost. In Abkhazia and Georgia to the southeast, boxwood occurs much

higher in the mountains, extending from the shoreline to 1000 meters above sea level. These elevations are significantly lower, however, than those occupied by boxwood in the countries of Southern Europe, where it extends up to 2000 meters. Above, a pre-revolutionary expert on the flora of the Western Caucasus, precisely identified this feature.³ It is possible that in other regions, in

addition to the Sochi Region, people raised the elevation at which boxwood grows, as boxwood is cultivated as sacred wood in populated areas, especially around cultural buildings.⁴

¹ Borisovskaia, G. M. "The Family of Boxwood (*Buxaceae*). The Life of Plants." *Education*. v5, 1980, pp 249-262.

² Sokolov, S. Ia. "General Essay on the Natural History and Forestry of the Sochi Region." *Work of the Caucasus Expedition*. Part I. Moscow: Leningrad Scientific Research Institute on Forestry, 1931, p. 271 and pp. 74-89.

³ It is notable that after the October Revolution there was no place in Soviet Russia for this remarkable Russian botanist and his loved ones, so he emigrated to South America. There he successfully conducted research in the flora of the region, his last study being on the flora of Tierra del Fuego, where he found his last refuge, and where he was buried.

⁴ Sosnin, L. I. "Types of Wood in the Caucasus National Parks." *Work of the Caucasus National Park*. Second Edition. Moscow: 1939, pp. 71-77.

Among the relationships of boxwood to ecological factors are its higher than usual suitability to high relative humidity and soil humidification. It springs up under cover of hornbeam and beech trees along cliffs and under cover of the very same kind with an admixture of ash and oak trees. Without this cover, boxwood occurs only where a river and shade along the embankment of a ravine or gulch maintain the humidity.

Overcast light, very high relative humidity, even changes in temperature, and the presence of compost-calcareous soil are the necessary conditions for the existence of boxwood. The growth of boxwood in the mountains, where the temperature reaches -20° Celsius, is explained by the warming effect of flowing rivers, in which the water holds a temperature of $4-6^{\circ}$ Celsius and by the sheltering moss 'Neker'⁵ which saves the boxwood from other adverse factors in the environment such as heat, frost and even fire.

A particular type of forest in the valleys and ravines is indicated by stands of field maple and sycamore with boxwood and an admixture of hornbeam, basswood, and yew. Boxwood occurs in a narrow range of soil types, which are primarily rich in humus, compost-calcareous layers, but sparser in sandstone and the black earth-like variety that lie under calcareous rocks. It is related to shade-tolerant plants and requires humidity in the air and soil. It is an evident calciphile, and it has adapted to rocky soil.

As a rule, boxwood springs up under cover of a mixed stand of trees, which give excellent shade. It occurs under cover of hornbeam on the beach sand of Imeretin Bay and the Pitsundskii Cape, which has comparatively little shade, although here its stems are characterized by a marked narrowing. Boxwood takes direct sunlight. Its great range of adaptation – from full light to the extreme shading – is a characteristic, thanks to which it has been preserved in the Western Caucasus since the Tertiary Period. It is not unusual for a boxwood stand to be 10-20 years

older than the cover of the wood that protects it.

The cycle of conservation in the Russian preserves beneficially affects the restoration and growth of boxwood. In many places a healthy renewal is observed, and the number of sprouts reaches several thousand per hectare. The boxwood stands expand in these areas.⁶

Boxwood seed propagation works very well, not only under its very own cover, but also noticeably farther up the slopes. As a component of a mixed forest, boxwood has its own ecological niche, which increases the biodiversity and resources of the ecosystem. The most valuable wood, given the removal of a small quantity of dead trunks, can offer a material gain in terms of conservation and restoration.

In the last decade, attention to the condition of the population and plant community of this valuable relic and endemic type has waned. We return to this research after a 25-year break,⁷ but in the main, we observe this population from a perspective of 35 years. The *Red Book* for all levels of the former USSR, for the Republic of Adygei and the City of Sochi of the Krasnodar Region, Russia, USSR, repeats almost verbatim the same inaccurate information; namely, that boxwood is under threat of extinction. The cause for this is cutting, but this does not square with reality. The practice of writing these books in this style is explained by those who were closer to the totalitarian distributors of perks in the administrative system of the former USSR.

The goal of this work is to evaluate the general ecological conditions and resources of the Colchian boxwood population in the Western

⁵ *Peltigera polydactyla* (Neker)

⁶ Lazuk, P.D. "The Natural Regeneration and Artificial Reproduction of Common Yew and Boxwood in the Caucasian Reserve." *Research Report of the Khosta Department for 1951*. Sochi: KGBPZ, 1951, p. 106.

⁷ Pridnya, M., Molchanov, B. "The Boxwood Forest and Man." Moscow: *The Timber Industry*, 1980, pp. 141.

Caucasus. For this reason the hardiest, those representative of the stand, have been constantly examined and tested. Stationary test sites were established, and model stands were analyzed for growth rate by diameter, height and size of trunk. Tables and graphics of the dynamics of biomass accretion were designed, all of which enumerate the stands and reserves of boxwood in the Western Caucasus. The results of this research characterize the direction of the contemporary success of boxwood formation.

Generally accepted methods in forest geobotany have been employed. Geobotanic surveys of the represented boxwood stands have been conducted by compiling geobotanic descriptions of the plant community and by creating stationary test sites. Model forest patterns were taken and analyzed by standard methods accepted in Russia, which are similar to those of the International Biological Program, and were applied to the study of the biological productivity of these woods⁸. Some of the data compares with the results of our predecessors, which they received on the very same research objects. These function to obtain a wider spectrum of varying characteristics of the populations and behaviors of this species in its geographic range. It is natural, when isolating the variables of bioecological characteristics, that specific features are reflected in the tables and graphics. An assessment of the overall growing stock of trunk mass was conducted on a calculated basis on typical areas of boxwood, according to the available government account (allowing for corrections of details) and according to the results of the Plots of Constant Supervision (PPN) planting inventory, as well as an account of the volume of trunk models.

Results

The characteristics presented in Table 1 of the boxwood plant community are related to the populations of the Northern and Southern macro

slope of the Western part of the Main Caucasian mountain range. The indicated characteristics reflect a rather significant geographic range for boxwood, practically corresponding with the Western Third Caucasian Preserve and almost entirely encompassing Sochi National Park and several neighboring regions of forest management, including Tuapsinsky, Apsheronky and others. It should be noted that the area occupied by boxwood on the Black Sea Shore of the Western Caucasus comprises 2.9 thousand hectares. On the Southern macro slope of the territory of the Caucasian Government National Biosphere Park (KGBPZ), boxwood occupies an area of 0.2 thousand hectares. Thus, boxwood occupies 3.1 hectares on the Southern macro slope, which is principally along the ravines of the rivers Shakh, Bzych, Azhu, Mzymt, Sochi, Alek, Daromys, Khost, and Kudepst. To the north on the Apsheronky Forest Management area, the KGBBZ, which is on collective farm earth, there are 0.7 thousand hectares in the river basins of the Tsitse and Kurdzhips Rivers. On the whole the geographic area of the boxwood in the Western Caucasus comprises 3.8 hectares. The growing stock of the boxwood forests along the Southern macro slope of the Main Caucasian mountain range comprises 49.6 thousand square meters. Along the Northern macro slope, the stock of boxwood comprises 10.3 thousand square meters. Overall boxwood stock comprises 59.9 square meters. The average quantity of trunks, disregarding the adolescent ones of one hectare, comprises 3.5 thousand.

A particular characteristic of boxwood communities is that they develop in two stages, and in the process, boxwood predominates in the second. The first stage consists of the fundamental forest forming species of the region: Eastern hornbeam, Caucasian basswood, Durmast and English oak, field maple, Eastern beech and Caucasian fir. Quite often, the majority of these are encoun-

⁸Pridnya, M., Molchanov, B. "The Boxwood Forest and Man." Moscow: *The Timber Industry*, 1980, pp. 141.

tered in the first stage, but only fir with oak and boxwood are encountered on the North macro slope, whereas the other types are encountered on both macro slopes (Plot 11). As a rule, boxwood rarely participates in the composition of the first stage.

Only one (PCS 1) of the eleven PPN (Plots of Constant Supervision) achieved 30% variety, given the overall high level of variety. Here there are four types of maple, hornbeam, basswood, ash, birch, elm, oak and beech. This section belongs to the basin of the River Tsitse on the North macro slope, and it is a special refuge of tertiary-relic vegetation, a northern analogue of the pre-Black Sea Colchian, like the Khost center of this formation. At the second stage, boxwood in most cases is at 100%, while at the very least it numbers 70-90%.

To reveal the distinctions in the condition of the plant community along the phytogeographic sub-provinces (they correspond to the macro slopes: Colchian – to the North and Kuban to the south) offers the possibility of data from the sixth PPN in the first (5th to 9th and 11th) and fifth in the second (1st to 4th and 10th). Analysis of their composition indicates that in the Kuban sub province (PCS 11) at the greatest diversity, the community also possesses an increased portion of boxwood in the second stage. The portion along the cross section of trunks in the second stage reached 20% of the sum of cross sections of the first stage, while an available 10% consisting of the second stage of yew improved the biodiversity value.

Another plant community in the Kuban province (PCS 10), given the high original composition of the first stage in view of the mixed community of wide-leaved beech-fir, has a clear boxwood second stage. The sum of the cross sections of its trunks comprises 25% of this indicator of the upper stage. In the process boxwood makes its mark by having increased yield in all the sections.

In the Colchian province, the community of boxwood stands out under cover of ash with hornbeam (PCS 11), in which the increased sum of cross sections of boxwood in the second stage in comparison with other plant communities is revealed. On the whole these data certify that the distinctions consisting of communities of both provinces and the increased indicators of species diversity in the Kuban area are explained by the weaker edificatory characteristics of boxwood in the area in comparison with Colchian.

Overall indicators of a forest stand are found within the limits of conventional planting of a given species minus boxwood participation, which attests to the advantage of this formation of boxwood. Here we stop to discuss the renewal of boxwood in a given plant community. An adolescent stage of growth constitutes, in this case, the third layer of planting. Most PPN in the Colchian province have successfully renewed boxwood, the number varying from two to 12 thousand specimens in one hectare, while the opposite occurs in the Kuban province, where most of the plots are characterized by a weak rate of natural renewal, the number of those under full growth fluctuating approximately 1,000 specimens per hectare. Unique names in the plant community stand out in this area. They are beech-fir with boxwood, which number more than 12,000 specimens of adolescent boxwood per hectare. Among the possible reasons for why this boxwood suffers such a weak renewal rate in the Kuban province may be its cyclical nature. In 1951 at the time of inventory there was a decline in its ability to restore itself, which restoration later acquired an active phase (Plot 10). Considering the relatively low age of the boxwood under study (100 years, rarely 200-300 years), we can fully trust the process will intensify in the future (Table 1).

Editor's Note: A hectare is 2.47 acres.

TABLE 1

PCS	Forest type, year established	Location	Composition of main stratum (1-10% - 10 -100%, + <5%)	Square section trunks, m ²	Average Diameter cm	Average Height m	Composition Undergrowth	Average Height m	Thousand copies/he
1	2	3	4	5	6	7	8	9	10
1	<i>Carpinus orientalis</i> , <i>Tilia caucasica</i> with <i>Taxus baccata</i> , <i>Buxus colchica</i> (C.o., T.c., T.b., B.c.) 1951	CSNBR (Caucasian State Nature Biosphere Reserve), Watershed Tcyce	1) 3 <i>Buxus colchica</i> (B.c.), 3 <i>Carpinus orientalis</i> (C.o.), 2 <i>Tilia caucasica</i> (T.c.), 1 <i>Acer platanoides</i> (A.p.), 1 <i>Acer pseudoplatanus</i> (A.ps.) + <i>Acer laetum</i> (A.l.), <i>Acer campestre</i> (A.c.), <i>Fraxinus excelsior</i> (F.e.), <i>Betula litwinowii</i> (B.l.), <i>Ulmus laevis</i> (U.l.), <i>Fagus orientalis</i> (F.o.), <i>Quercus robur</i> (Q.r.) 2) 9 B.c., 1 <i>Taxus baccata</i> (T.b.)+A.p., 1 A.ps., A.l., A.c., F.e. B.l., U.l., F.o., Q.r.	23.1 5.3	26.6 .7	15 6	6 B.c., 2 F.e., 1 C.o., 1 A.c. + A.ps., T.c., B.l., Q.r.	0.2	1.3
2	<i>Carpinus orientalis</i> with <i>Buxus colchica</i> 1951	CSNBR, Watershed Tcyce	1) 4 C.o., 2 F.e., 2 Q.r., 1 T.c., 1 A.p. + A.ps., B.l., F.o., C.o., <i>Sorbus torminalis</i> (S.t.) 2) 9 B.c., 1 C.o. + F.e., B.l., A.ps., A.c.	26.6 4.7	32.4 4.3	21 5.2	4 F.e., 3 B.c., 1 C.o., 1 A.p., 1 T.c. + 1 A.ps., A.c., F.o., Q.r., B.l.	0.4	1.7
3	<i>Carpinus orientalis</i> , <i>Fagus orientalis</i> + <i>Buxus colchica</i> 1951	CSNBR, Tcyce, left-side river Kuja	1) 4 C.o., 3 F.o., 2 Q.r., 1 A.l. + F.e., <i>Cerasus avium</i> (C.a.), <i>Pyrus caucasica</i> (P.c.), T.c., S.t. 2) 8 B.c., 2 C.o. + T.c.	26.6 4.5	31.1 4.2	21 5.1	7 F.e., 1 B.c., 1 T.c. 1 A.pl. + A.ps., A.c., F.o., C.o., S.t., C.a., Q.r.	0.2	0.7

PCS	Forest type, years established	Location	Composition of main stratum (1-10% - 10 -100%, + <5%)	Square section trunks, m ²	Average Diameter cm	Average Height m	Composition Undergrowth	Average Height m	Thousand copies/he
1	2	3	4	5	6	7	8	9	10
4	<i>Carpinus orientalis</i> , <i>Tilia caucasica</i> + <i>Buxus colchica</i> 1951	CSNBR, left-side river Tcyce	1) 5 F.e., 2 C.o., 2 T.c., A.pl., + Q.r., B.l.	26.0	31.4	23	7 B.c., 2 T.c., 11 F.e. + C.o., A.c., A.l., F.o.	0.25	1.2
			2) 10 B.c. + A.l., T.c., Q.r., B.l., C.o., A.pl., A.c., F.e.	2.1	4	3.3			
5	<i>Carpinus orientalis</i> , <i>Buxus colchica</i> 1951	CSNBR, watershed Shahe, plot Babuk	1) 7 C.o., 2A.c., 1 F.o. + F.e., A.l., A.b., T.c., S.t.	27.6	35.6	22	8 B.c., 2 C.o. + F.e., A.l., A.c., C.s., S.t., T.c.	0.1	1.5
			2) 9 B.c., 1 C.o. + A.pl., A.b., T.c., F.o., S.t., <i>Castanea sativa</i> (C.s.), A.c.	4.7	6.6	5.5			
6	<i>Carpinus orientalis</i> , <i>Buxus colchica</i> 1951	CSNBR, watershed Bzich	1) 6 A.c., 2 S.t., 1 C.o., 1 F.e.+ U.l., <i>Alnus barbata</i> (A.b.)	25.4	36.2	23	8 B.c., 2 F.e. + A.c., C.o., S.t., C.a., A.b., T.b.	0.1	2.6
			2) 10 B.c.+A.c., U.l., C.o., F.e., S.t., A.b.	4.7	6.6	5.2			
7	<i>Juglans regia</i> , <i>Buxus colchica</i> 1951	Looforestry, Shahe	1) 8 <i>Juglans regia</i> (Ju.r.), 1 C.o., A.c. + S.t., A.b., F.e.	24.4	49.1	19	6 F.e., 3 B.c., 1 S.t. + C.o., Q.p., T.c., Ju.r.	0.1	3.3
			2) 10 B.c. + A.b., F.e., T.c., S.t., C.o., A.pl., A.c.,	5.2	6.3	5.5			
8	<i>Carpinus orientalis</i> , <i>Buxus colchica</i> 2002	Sochi National Park (SNP)	1) 10 C.o.	26.6	30.1	18	10 B.c. + C.o.	0.3	3.7
			2) 10 B.c.	2.1	3.3	1.7			

PCS	Forest type, years established	Location	Composition of main stratum (1-10% - 10-100%, + <5%)	Square section trunks, m ²	Average Diameter cm	Average Height m	Composition Undergrowth	Average Height m	Thousand copies/he
1	2	3	4	5	6	7	8	9	10
9	<i>Carpinus orientalis</i> , <i>Buxus colchica</i> 2002	SNP	1) 10 C.o. 2) 10 B.c.	35.6 3.1	33 3.9	18.5 2.0	10 B.c. + F.e., A.ps.	0.5	0.1
10	* <i>Fagus orientalis</i> , <i>Abies nordmanianna</i> , <i>Buxus colchica</i> 2004	Apsheronk forestry, plot Mezmai	1) 5 F.o., 3 <i>Abies nordmanianna</i> (A.n.), 2 A.pl. + C.o., A.b., T.c. 2) 10 B.c.	27.6 7.2	34.2 9.0	35.0 9.2	10 B.c., A.n.	1.0	6.4
11	<i>Fraxinus excelsior</i> , <i>Buxus colchica</i>	CSNBR. Khost Plot	1) 9 F.e. + Q.p., T.c. 2) 7 B.c. + F.e.	32.7 8.3	35.6 7.7	18 5.5	8 B.c., 1 F.e., 1 C.o. + T.c.	0.15	12.0

*It is suggested we place a category of this especially valuable plant community in the *Green Book* of the Krasnodar Region and the Russian Federation.

Comparing the indicators of boxwood growth at our test site with the results of the growth rate in the Table, which was created with the materials of the specialized research forest management expedition and by the given models of the Tiso boxwood grove (TCP-Table of Standard Growth in Khost in Table 2), it is easy to notice the great amplitude of changeability of the growth indicators at an early age (Table 2).

Table 2- Growth Rate in the Forest of Boxwood Stages in Shallow Soil

Height, m	Diameter, cm	Number trunks	Sum square section trunks, m ²	Stock wood, m ³	Average increase, m ³	Current increase, m ³
3.3	2.5	4277	2.1	5.5	0.4	
4.0	3.6	3045	3.1	8.6	0.17	0.30
4.7	4.4	2631	4.0	12.4	0.21	0.33
5.3	4.9	2492	4.7	15.5	0.22	0.31
5.9	5.3	2357	5.2	18.4	0.23	0.26
6.3	5.6	2273	5.6	20.4	0.23	0.20
6.7	5.8	2233	5.9	22.3	0.22	0.19
7.1	6.0	2193	6.2	24.2	0.22	0.19
7.5	6.2	2120	6.4	25.7	0.21	0.15
7.7	6.3	2117	6.6	27.2	0.21	0.15
8.0	6.4	2098	6.7	28.7	0.20	0.15
8.3	6.5	2079	6.9	29.9	0.20	0.12

Figure 2 - Growth Rate in the Forest of Boxwood Stages in Shallow Soil

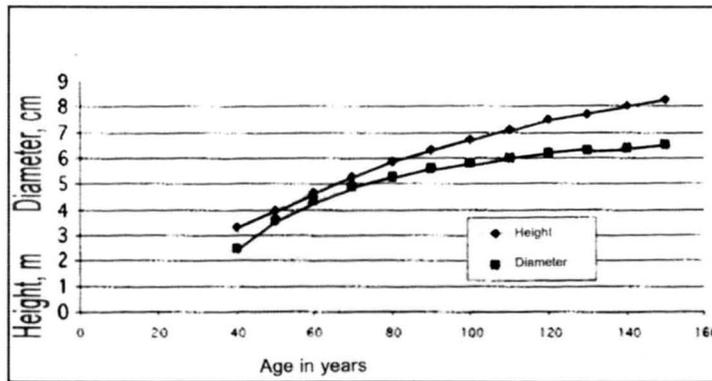
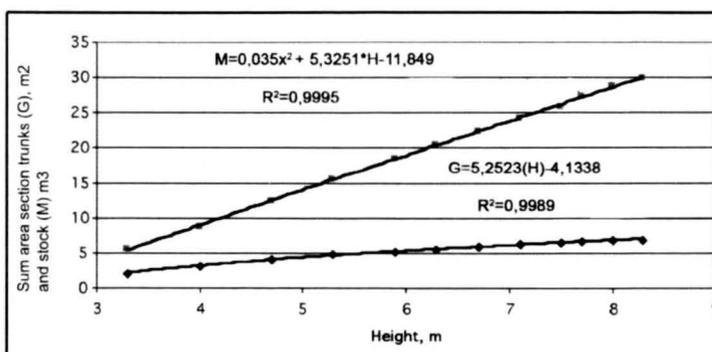


Fig. 3 Table of Boxwood Standards



For example, the model woods 3 and 5 in Table 3, given a difference of 3 years, show a 1.5 multiple distinction in height and a third multiple in diameter. The growth rate has fewer indicators closer to the givens of the standard table, while the heightened indicators show the possibility of increases in the productivity of boxwood planting in more favorable conditions of humidity and soil richness, that have a place in the Table of Standard Growth. In and of itself high changeability in growth and the combinations of community composition, including even variants of the regenerative process, indicate an evolutionary adaptation of boxwood populations to the modern ecological situation and its more contemporary path in ecosystems (Table 3).

Table 3 – Boxwood Growth Variability in the Colchian Sub Province

Source	Age, year	Height, m	Diameter, cm	Sum square of section trunks/stock m ³ /hectare
Lasuk, 4	53	5.9	3.8	0.0037
Lasuk, 2	86	10.6	7.9	0.0243
Lasuk, 1	109	9.7	9.9	0.0349
Lasuk, 3	112	7.7	4.5	0.0065
Lasuk, 5	115	11.7	12.2	0.0676
Lasuk, 6	126	11.5	13.5	0.0712

In conclusion, we would like to highlight the fact of the exceptionally abundant and multifaceted variety of forms of boxwood populations. Not less than 12 boxwood forms have been detected in its geographic area, including the urban plantings, which are the treelike, pyramidal, weeping, shrubby, gold-spotted, silver-brindled, and blue. Such abundance, as well as the characteristic of boxwood to be propagated by cuttings, makes it possible to plant these in parks for decorative purposes.⁹ The forms just listed, however, do not exhaust the multifaceted variety of boxwood, since alternative phenotypes have been discovered, which include whole leaves (acute or curved) and leaves that have a depression (divided upper leaves). Insofar as they are encountered

⁹Pridnya, M., Molchanov, B. "The Boxwood Forest and Man." Moscow: *The Timber Industry*, 1980, pp. 141.

among the named shapes, the general number of phenotypes can be doubled. The greatest boxwood productivity is concentrated under cover of beech trees, fir and ash, and the greatest quantity of adolescent growth is concentrated under the very same beech and fir. Having analyzed eleven test sites, it may be said with certainty that boxwood springs up mostly in community with hornbeam. Boxwood grows principally in forests concentrated in the natural boundaries of mountain rivers, humid gorges and hollows. On the whole its biocenotic and ecological position in the last decade has noticeably weakened, and in the Table of Standard Growth areas of destruction have appeared, which are linked to drought-afflicted periods of time. In England it was discovered that boxwood is withering under the influence of *Cryphonectria parasitica* (Murr. and Barr.), which could also happen in the Caucasus, where this parasite has been observed in the noble chestnut. Even though these areas of destruction have stopped increasing and are even decreasing, it is necessary all the same to consider boxwood a separately protected species, in the third and not the second category of the Federal and Regional *Red Books*.

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Meet our new Board Member



In the plant world, my first love affair was with perennials, primarily hosta. Twenty-five years ago I started a nursery that was founded on growing hosta from tissue culture, then in its infancy. How things have changed!

Windy Hill Plant Farm in Aldie, VA was also the playground for my son and daughter. Located in rural Virginia at the foot of Bull Run Mountain in Loudoun County, the inventory expanded, year after year, with sun and shade perennials, annuals and a handful of woodies, including boxwood. Only 45 minutes from Blandy, I often visited the American Boxwood Society's collection to evaluate different varieties. Joan Butler was a source of inspiration with her tales of new species in Cuba and efforts to procure and grow them here. Much of my childhood was spent in the tropics where poinsettias grew outside and orchids hung from trees. Surrounded by tropical flowers in my youth, it's a wonder I have grown up and fallen for foliage.

Recently I closed the nursery and sold off the stock. Owning a retail nursery is demanding, not just with serving the public but with seasonal plant responsibilities. I look forward to having my own garden and traveling. My good friend, Donna Williamson, suggested I join the American Boxwood Society and I am really looking forward to meeting others interested in boxwood.

Karen Rexrode

A TABULATION OF BOXWOOD OFFERINGS

LYNN R. BATDORF

There are nearly 150 different boxwood cultivars available in the domestic and foreign retail and wholesale nursery industry, which portend an exciting and diverse inventory. As curator of the National Boxwood Collection at the U.S. National Arboretum, I have been intimately involved with boxwood for 30 years. Through my worldwide travels, research and nursery industry contacts, I had an idea of which boxwood were most popular. I thought it would be interesting to test my assumptions. Using five of the most comprehensive and contemporary boxwood inventory resources, I created a list of the number of occurrences of individual boxwood species and cultivars. My assumption is that this list, drawn from retail and wholesale catalogs, would provide a correlation between the success (popularity) of a particular boxwood and the frequency with which it is offered in catalogs. While this data does not include the actual number of plants sold by these nurseries, one can assume the nursery industry, in its highly competitive and discriminating marketplace, is always motivated to offer the most dependable and distinctive boxwood. The public will then chose the best plant for their situation; in other words, these are the most successful and popular boxwood which the producer and consumer have worked together to produce.

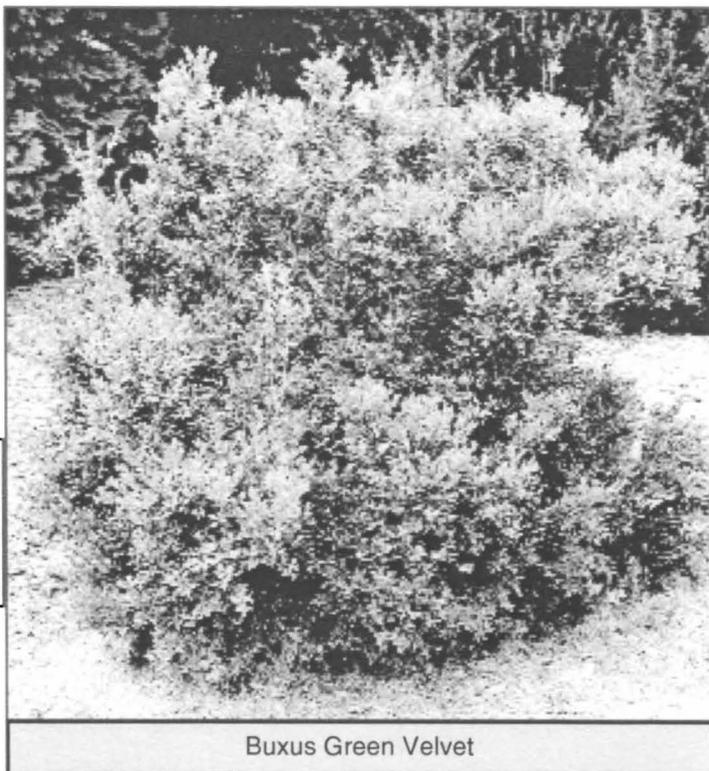
To conduct my survey, I used five resources: Anderson Horticultural Library October 2004; *Boxwood Buyers Guide 5th edition*; *RHS Plant Finder 2004-2005*; www.nurseryguide.com October 2004; and www.plantsearchonline.com October 2004. These five references provide a statistically significant 5,494 entries citing 143 different boxwood. Nurseries and their offerings that appeared in more than one reference were only counted once. The number before the plant is its ranking, while the number following is the number of nurseries offering it. Boxwood with an identical number of offerings were placed in alphabetical order.

1. *Buxus* 'Green Velvet' 594
2. *B. sinica* var. *insularis* 'Wintergreen' 511
3. *B. sempervirens* 466

4. *B. sempervirens* 'Suffruticosa' 448
5. *B.* 'Green Mountain' 442
6. *B. sinica* var. *insularis* 'Winter Gem' 354
7. *B. microphylla* var. *japonica* 313
8. *B. sinica* var. *insularis* 302
9. *B. microphylla* var. *japonica* 'Green Beauty' 181
10. *B.* 'Green Gem' 181
11. *B. sempervirens* 'Vardar Valley' 156
12. *B. sempervirens* 'Graham Blandy' 145
13. *B. sempervirens* 'Aureo-variegata' 80
14. *B.* 'Glencoe' Chicagoland Green™ 75
15. *B. microphylla* 'Compacta' 70
16. *B. sempervirens* 'Elegantissima' 66
17. *B. sempervirens* 'Variegata' 60
18. *B. microphylla* var. *japonica* 'Faulkner' 57
19. *B. sinica* var. *insularis* 'Winter Beauty' 55
20. *Buxus* 54
21. *B.* 'Green Mound' 54
22. *B. sempervirens* 'Newport Blue' 53
23. *B. microphylla* 53
24. *B. microphylla* var. *japonica* 'Morris Midget' 39
25. *B. harlandii* 31
26. *B. sinica* var. *insularis* 'Tide Hill' 31
27. *B. sempervirens* 'Fastigiata' 30
28. *B. microphylla* var. *japonica* 'Morris Dwarf' 27
29. *B. sinica* var. *insularis* 'Justin Brouwers' 27
30. *B. sempervirens* 'Rotundifolia' 26
31. *B. sempervirens* 'Marginata' 22
32. *B. sempervirens* 'Welleri' 22
33. *B. sempervirens* 'Argenteo-variegata' 21
34. *B. microphylla* 'Curly Locks' 20
35. *B. microphylla* var. *japonica* 'Jim Stauffer' 20
36. *B. sempervirens* 'Aurea Pendula' 19
37. *B. sempervirens* 'Latifolia Maculata' 19
38. *B. microphylla* var. *japonica* 'National' 18
39. *B. microphylla* 'Green Pillow' 16
40. *B. harlandii* 'Richard' 13
41. *B. microphylla* var. *japonica* 'Sunnyside' 13
42. *B. sinica* var. *insularis* 'Franklin's Gem' 13
43. *B. sempervirens* 'Inglis' 12
44. *B. microphylla* 'Kingsville Dwarf' 11
45. *B. sempervirens* 'Pioneer' 11
46. *B. sempervirens* 'Schmidt' 11
47. *B. microphylla* 'John Baldwin' 10
48. *B.* 'Green Ice' 10
49. *B. balearica* 9
50. *B. sempervirens* 'Myrtifolia' 9
51. *B. microphylla* 'Grace Hendrick Phillips' 8
52. *B. sempervirens* 'Handsworthiensis' 8
53. *B. sempervirens* 'Angustifolia' 7
54. *B. sempervirens* 'Blauer Heinz' 7

55. *B. sempervirens* 'Myosotidifolia' 7
56. *B. sempervirens* 'Notata' 7
57. *B. microphylla* 'Julia Jane' 6
58. *B. sempervirens* 'Pendula' 6
59. *B. sempervirens* 'Dee Runk' 5
60. *B. sempervirens* 'Jensen' 5
61. *B. sempervirens* 'Prostrata' 5
62. *B. sempervirens* 'Pullman' 5
63. *B. sempervirens* 'Green Tower' 4
64. *B. sempervirens* 'Handsworthii' 4
65. *B. sempervirens* 'Shandy Hall' 4
66. *B. sinica* var. *insularis* 'Nana' 4
67. *B. wallichiana* 4
68. *B. sempervirens* 'Alyce' 3
69. *B. sempervirens* 'Latifolia Macrophylla' 3

85. *B. sempervirens* 'David's Gold' 2
86. *B. sempervirens* 'Denmark' 2
87. *B. sempervirens* 'Edgar Anderson' 2
88. *B. sempervirens* 'Henry Shaw' 2
89. *B. sempervirens* 'Hermann von Schrenk' 2
90. *B. sempervirens* 'Herrenhausen' 2
91. *B. sempervirens* 'Joe Gable' 2
92. *B. sempervirens* 'Pride of Rochester' 2
93. *B. sempervirens* 'Rosmarinifolia' 2
94. *B. sempervirens* 'Salicifolia' 2
95. *B. sempervirens* 'Salicifolia Elata' 2
96. *B. sempervirens* 'Truetree' 2
97. *B. sempervirens* 'Waterfall' 2
98. *B. sinica* var. *insularis* 'Filigree' 2
99. *B. sinica* var. *insularis* 'Tall Boy' 2
100. *B. henryi* 1
101. *B. microphylla* 'Bert Chandler' 1
102. *B. microphylla* 'Helen Whiting' 1
103. *B. microphylla* 'Golden Triumph' 1
104. *B. microphylla* 'Rococco' 1
105. *B. microphylla* var. *japonica* 'Belvedere' 1
106. *B. microphylla* var. *japonica* 'Green Jade' 1
107. *B. microphylla* var. *japonica* 'Green Prince' 1
108. *B. sempervirens* 'Anderson' 1
109. *B. sempervirens* 'Appalachian Pyramid' 1
110. *B. sempervirens* 'Arabesque' 1
111. *B. sempervirens* 'Bentley Blue' 1
112. *B. sempervirens* 'Bullata' 1
113. *B. sempervirens* 'Clembrook' 1
114. *B. sempervirens* 'Fiesta' 1
115. *B. sempervirens* 'Fleur de Lys' 1
116. *B. sempervirens* 'Glauca' 1
117. *B. sempervirens* 'Grand Rapids' 1
118. *B. sempervirens* 'Haller' 1
119. *B. sempervirens* 'Harry Logan' 1
120. *B. sempervirens* 'Hollandia' 1
121. *B. sempervirens* 'Joy' 1
122. *B. sempervirens* 'Lace' 1
123. *B. sempervirens* 'Langley Beauty' 1
124. *B. sempervirens* 'Latifolia' 1
125. *B. sempervirens* 'Lawson's Golden' 1
126. *B. sempervirens* 'Liberty' 1
127. *B. sempervirens* 'Maryland' 1
128. *B. sempervirens* 'Nish' 1
129. *B. sempervirens* 'Ohio' 1
130. *B. sempervirens* 'Parasol' 1
131. *B. sempervirens* 'Ponteyi' 1
132. *B. sempervirens* 'Pyramidalis Hardwickensis' 1
133. *B. sempervirens* 'Paramus' 1
134. *B. sempervirens* 'Rungeana' 1



Buxus Green Velvet

70. *B. sempervirens* 'Memorial' 3
71. *B. sempervirens* 'Meyers' 3
72. *B. sempervirens* 'Nela Park' 3
73. *B. sempervirens* 'Silver Beauty' 3
74. *B. sinica* var. *insularis* 'Pincushion' 3
75. *B. 'Antzam'* Antarctica™ 3
76. *B. 'Wilson'* 3
77. *B. bodinieri* 3
78. *B. microphylla* 'Northern Emerald' 2
79. *B. microphylla* var. *japonica* 'Trompenburg' 2
80. *B. sempervirens* 'Agram' 2
81. *B. sempervirens* 'Arborescens' 2
82. *B. sempervirens* 'Argentea' 2
83. *B. sempervirens* 'Asheville' 2
84. *B. sempervirens* 'Broman' 2

135. *B. sempervirens* 'Sentinelle' 1
136. *B. sempervirens* 'Verdant Hills' 1
137. *B. sinica* 1
138. *B. sinica* var. *insularis* 'Sunburst' 1
139. *B.* 'Bailey' 1
140. *B.* 'Garrisoni' 1
141. *B.* 'Goddard College' 1
142. *B.* North Star™ 1
143. *B.* 'Willowwood' 1

It is interesting to note that *Buxus sempervirens* 'Suffruticosa' (English boxwood), which has always epitomized boxwood, barely secured fourth place. Two hybrids, 'Green Velvet' and 'Green Mountain', and two Korean boxwood, 'Wintergreen' and 'Winter Gem', dominate the top six spots, illustrating the strong demand for cold-hardy selections. Indeed, eight of the top eleven boxwood are well-known for their exceptional cold-hardiness. There is a clear interest in variegated boxwood, with three cultivars ranking very competitively between 13th and 17th place.

Slightly more than one-half of the entire list (those ranked between 68 and 143), have three or fewer entries – these should not be dismissed as being less desirable or poor performers. Rather, many are very promising plants that have recently entered the marketplace and are available only in a few specialty nurseries. In the next few years, as they become better known, some are destined to competitively challenge boxwood with the highest rankings. In a never-ending quest for improvement, new and exciting boxwood to meet evolving future challenges are only a moment away.

Lynn R. Batdorf is the International Cultivar Registration Authority for Buxus, and Curator of the National Boxwood Collection at the U.S. National Arboretum in Washington, D.C. He has written three books and over 50 articles on a variety of boxwood topics. He lectures nationally and internationally to professional audiences on a variety of boxwood topics. He has been awarded Honorary Life Membership in both the American Boxwood Society and the European Boxwood and Topiary Society.

Historic Garden Week in Virginia *April 22-29, 2006*

Visitors will enjoy an inside look at more than 200 of Virginia's finest houses and gardens during Historic Garden Week in Virginia, April 22-29, 2006.

Architectural styles, landscape designs, furnishings and artwork span more than four centuries. Most of the properties have not been open previously for public touring, or have been refurbished since last featured. Events are sponsored by member clubs of The Garden Club of Virginia, and proceeds benefit the restoration of historic gardens and grounds throughout the state.

Tour locales range from the Blue Ridge to the Chesapeake Bay and include rural, urban and suburban settings. Houses represent major architectural styles found in Virginia: 18th century James River plantations, restored Victorians, and 20th and 21st century city designs. Gardens range from formal parterres, backyard retreats, boxwood mazes, and water, cutting, herb and "secret" gardens.

Each tour offers a variety of five to six local houses and gardens. More than 30 tours are conducted across the state on different days of the week by member clubs. A list of tour dates is available by accessing the schedule page of the web site www.VAGardenweek.org. Tour details will be posted in January. A 220-page guidebook may be obtained by sending a \$5 donation to Historic Garden Week, 12 E. Franklin St., Richmond, VA 23219. The book provides descriptions of houses and gardens, directions, ticket prices, and the names and telephone numbers of local tour organizers. Phone is (804) 644-7776 or e-mail at gdnweek@verizon.net.

Prices for tickets range from \$10 to \$40. Tickets may be purchased on the day of the tour at any of the properties open, at information centers, and on-line beginning in February at www.VAGardenweek.org. It is not necessary to buy tickets in advance, although bus groups may wish to make earlier plans. Tours will be held on their scheduled days, rain or shine.

THE INTERNET AND BOXWOOD

HOLLY A. HAMILTON

The Internet has quickly changed numerous aspects of everyday life for many individuals. It has resulted in immediate and comprehensive access to sources of boxwood plants and boxwood information. In an effort to quantify this dynamic electronic environment and its positive effect on boxwood and related subjects, three lists were created.

This first list indicates the average number of searches, per day, in English language search engines, using various key words as reported by Webster's Online Dictionary. The frequency with which these words and phrases are used indicates the topics and their relevance to on-line users searching for information.

Boxwood	244
Boxwood shrub	83
Boxwood inn	34
Japanese boxwood	31
Boxwood plant	30
Boxwood hedge	30
English boxwood	27
Boxwood bush	23
Boxwood winter gem	20
Boxwood green mountain	20
Green velvet boxwood	19
Korean boxwood	10
American boxwood	15
Boxwood pruning	13
Boxwood tree	12
Boxwood wintergreen	12
Boxwood dwarf	8
Boxwood topiary	7
Boxwood garden gift	7
Boxwood disease	6
Boxwood planting	6
Boxwood picture shrub	6
Boxwood wreath	5
Boxwood technology	5
Boxwood care	5
Boxwood garden	5

Boxwood bonsai	5
Boxwood green gem	4
Boxwood landscaping	4
Boxwood dwarf English	4
Green beauty boxwood	4
Green velvet boxwood	4
Boxwood evergreen	4
Boxwood trimming	4
Boxwood picture	3
Boxwood topiaries	3
Common boxwood	3
Boxwood café	3
Fastigiated boxwood	3
Wintergem boxwood	3
Green Mound Boxwood	3

"Boxwood" is the clear leader and serves as a reference point for phrases that include the word "boxwood". While the Boxwood inn is quite popular and its name is relevant, it is not germane to this survey. Boxwood cultivar names are popular and rank throughout occupying high and low positions. Perhaps most significantly, the use of boxwood and its culture control more positions than any other topic. This indicates the strong demand for reliable information by the general public.

The second list is an effort to evaluate how boxwood compares to other woody ornamental shrubs. An additional search of the Webster's Online Dictionary was undertaken. While the rose is not a woody shrub and is not classified similarly to boxwood or other shrubs on the list, it is included as the national flower and as a reference as a point of comparison – the rose was the highest scoring plant that could be identified by this survey.

Elaeagnus	15
Aucuba	24
Bayberry	75
Ligustrum	85
Yew	106
Cotoneaster	120
Euonymus	139
Boxwood	244

Viburnum	268
Spruce	305
Juniper	554
Holly	1,034
Azalea	3,340
Rose	24,518

From this one resource, boxwood scores about twice as much interest as yew and euonymus, two shrubs with a broad and popular appeal. Holly, a popular evergreen or deciduous shrub with ornamental fruit, has about five times more interest than boxwood. Azalea, grown primarily for its prolific spring flowers, has nearly 14 times more interest than boxwood. Nevertheless, boxwood compares favorably to its peers of broad-leaved evergreen shrubs, primarily ligustrum, yew, cotoneaster, euonymus, viburnum, and even spruce.

The third list is an effort to document the dramatic growth of internet websites and resources for boxwood in just the past 12 months. The number of websites listing key words identified by GOOGLE has grown. Two surveys were conducted, one in October, 2004 and a similar search one year later in October, 2005.

	<u>Oct. 2004</u>	<u>Oct. 2005</u>	<u>Change</u>
Buxus	347,000	804,000	+232%
Boxwood	334,000	1,220,000	+365%
Boxwoods	15,800	53,000	+335%
American Boxwood Society			
	1,250	2,160	+173%
Boxwood plants	508	345	-68%
Boxwood Society	237	2,210	+932%
Boxwood Handbook			
	85	248	+292%
Boxwood Bulletin	42	1,030	+2,452%
Boxwood Encyclopedia			
	17	172	+1,012%

The clear "winner" in terms of the largest gain in increased interest is the quarterly journal of the American Boxwood Society, *The Boxwood Bulletin*, with an impressive gain of nearly 2,500%. The release of the long awaited *Boxwood Encyclopedia* in Fall 2004 is largely responsible for the impres-

sive gain in these websites. The word "boxwood", the most popular word or phrase in websites, had an impressive and strong increase. While the non-existent word "boxwoods" increased nearly as much as "boxwood", for every website using "boxwoods" there are 23 that use "boxwood". The word "Buxus", second only to "boxwood" in actual number of websites, more than doubled in the past year. "Buxus" websites have popular appeal, especially nurseries and their offerings, but more often include a wealth of scientific and technical websites. Finally, in the only word or phrase to experience a decrease, "boxwood plants", was reduced by more than one-half. The use of "English Boxwood", "American Boxwood" etc., (not included in this survey) experienced a dramatic increase demonstrating more focused website offerings that are replacing vague terms such as "boxwood plants."

Holly A. Hamilton is an accomplished Internet enthusiast with a fascination for all things boxwood.



ABS AT MAYMONT
FLOWER &
GARDEN SHOW

Ross A. Hotchkiss

The American Boxwood Society will have a 400 square foot exhibit at the annual Maymont Flower & Garden Show at the Greater Richmond Convention Center in Richmond, Virginia, February 9-12, 2006. This show is sponsored by the Maymont Foundation in Richmond and is attended by several thousand gardening enthusiasts from Virginia and surrounding states.

We are delighted to be participating in this show for the first time in a number of years. Our exhibit has been designed by Saunders Brothers Nursery, who will be providing professional staff and plants to set up our exhibit.

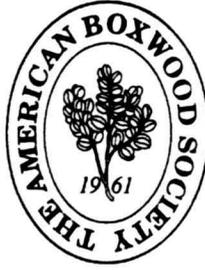
The exhibit will display a number of different boxwood cultivars so visitors can examine and understand the unique and distinct diversity among boxwood. The average gardener is not aware of the fact that there are hundreds of different cultivars of boxwood besides English and American, and many of these cultivars are beginning to appear in nurseries and public gardens. The cultivars being exhibited are those that are the most readily available at nurseries in the mid-Atlantic area.

Board members will be there to meet and greet show visitors. We will be showcasing Lynn Batdorf's two recent publications, as well as Paul Saunders' new boxwood trials publication. And we'll tell folks of the many advantages of including boxwood in every landscape plan.

We will also encourage visitors to consider joining our Society by promoting our quarterly publication and the many services our Society provides. We will strive to use this opportunity to educate as many visitors as possible about the world's oldest ornamental plant. Look for pictures and show results in our next issue.

Photograph provided by Maymont Foundation





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