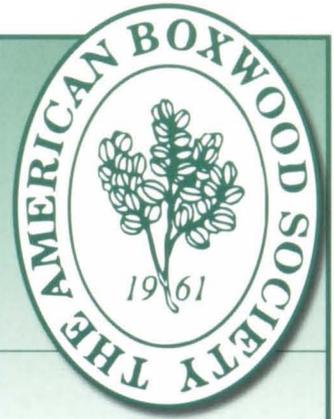


THE BOXWOOD BULLETIN



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

Vol. 50 No. 3

January 2011



Participants of the American Boxwood Society 50th Symposium at the home of Bert and Susan Hendley, founders of Mission Oaks Gardens in Zanesville, Ohio.

The American Boxwood Society

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Be part of *The Boxwood Bulletin*! Submit an article, photograph, question, idea or report of your own experience.

The Boxwood Bulletin (ISSN 0006 8535) is published quarterly by the American Boxwood Society, P.O. Box 85, Boyce, VA 22620. POSTMASTER: Send address changes to the American Boxwood Society, P.O. Box 85, Boyce, VA 22620.

The EBTS - France Returns to the U.S.

A fantastic eight-day Boxwood Tour of New York and New Jersey was organized by Patrick Salembier, President of the EBTS (European Boxwood and Topiary Society)-France and Andrea Filippone, Director of the American Boxwood Society. François Goffinet and Camilla G. Hellman provided additional guidance in organizing this tour with 27 to 35 participants, most from France.

The tour began with the arrival of the EBTS-France members on the morning of October 9, 2010 into John F. Kennedy International Airport in New York City. The group stayed at the Wolcott Hotel, located three blocks from the Empire State Building. The remainder of the day was spent briefing the group on the various activities, shopping and dining while adjusting to jet lag.

The tour began in earnest on Monday, October 10 with Andrea Filippone guiding a tour of Battery Park, a 25-acre public park located at the southern tip of Manhattan Island. It is named for the artillery battery that was stationed there by the Dutch and British prior to 1783. After touring one of the oldest gardens in New York City, the group toured one of its newest gardens, the High Line Gardens. A public park, it is built on a 1.45-mile-long elevated rail structure on the west side of Manhattan. Renovation began in 1999, with the first of three phases opening in June 2009. Originally opening in 1934 it was a 13-mile long elevated train track platform which connected directly with factories and warehouses. Today, it is a carefully landscaped park inspired by the self-seeded plants that grew on the unused tracks for 25 years prior to its reclamation and renovation. Managed by New York City, this park is destined to become a popular and successful world-class garden. The remainder of the

evening was filled with shopping and fine dining.

On Tuesday, October 11 the group toured Saint Patrick's Cathedral on 5th Avenue. Opened in 1879, it is a beautiful Gothic Cathedral built with white marble, located in what was originally a near-wilderness site. Extensively renovated in the 1980s and 1990s, it is a much-beloved landmark in the heart of New York City. This was followed by a quick tour of the Hall of the Time Warner Center. Opened in 2003, it is a mixed-use skyscraper with two 750-foot towers with upscale dining, shopping, living and working accommodations. It has the highest-listed market value in New York City at \$1.1 billion. This included a visit to the adjacent Columbus Circle, featuring an 1892 (4th centenary of the discovery of America) marble statue of Columbus atop a 70-foot column with reliefs of Columbus' three ships. In the afternoon the group was able to choose any one of several guided walking tours which included highlights such as: Central Park, the Dakota building at 72nd Street where John Lennon was assassinated, Strawberry Fields garden dedicated to peace, funded by Yoko Ono, the Frick Collection on Fifth Avenue or the Belvedere Castle (79th street level), the Metropolitan Museum of Art (5th Street), and the Guggenheim Museum (5th Street). The volunteer-led walking tours were organized by the Central Park, New York City.

On Wednesday, October 12, the group traveled to the Pepsico world headquarters in Purchase, NY to tour The Donald M. Kendall Sculpture Gardens, a well-tended 168-acre landscape with 45 pieces of outdoor sculpture from major modern sculptors. After lunch, the group visited the Kykuit Garden, also known as the John D. Rockefeller Estate. Located one



High Line Gardens



Pepsico World Headquarters



Caryatids, made out of car parts, at Pepsico



Pepsico

hour north of New York City, the 40-room, six-floor stone mansion, which took six years to build, was completed in 1913. The surrounding estate occupies almost 3,500 acres. At the next stop, the group toured the nearby Philipsburg Manor House in Sleepy Hollow. Land purchases between 1680 and 1686 totaled 52,000 acres. After the American Restoration, the land was split between 287 buyers. The largest tract of 750 acres was acquired by Sleepy Hollow Restorations. The Philipsburg Manor House was restored with a donation by John Rockefeller, Jr. Several original structures still stand and are National Historic Landmarks. Afterwards, the group returned to New York City to enjoy dinner at the Knickerbocker Club, a Georgian style building which opened in 1915.

Thursday, October 13 began with a tour of the world-class Brooklyn Botanic Garden. This 52-acre garden was founded in 1910 and holds over 10,000 taxa of plants welcoming over 900,000 visitors annually. The group toured many notable gardens to include the Japanese Hill-and-Pond Garden and the Steinhardt Conservatory. After

lunch they met with Camilla Hellman, President of the British Memorial Garden at Hanover Square, in the heart of lower Manhattan, and received a private tour. This English garden serves to honor and memorialize the 67 British citizens who lost their lives in the World Trade Center attacks of September 11, 2001. It was opened by Queen Elizabeth II on July 6, 2010. Afterwards, the participants had some free time for afternoon sightseeing and shopping which was followed by dinner at the River Cafe in Brooklyn located beneath the Brooklyn Bridge with a romantic view of southern Manhattan.

Friday, October 14 the group set out for New Jersey. In the morning, the group toured Greenwood Arboretum, a 28-acre public garden in Short Hills, New Jersey, nationally significant for its beauty, history, and design. Listed on the National Register of Historic Places, it is a time capsule of New Jersey's gracious past and a haven of tranquility in the busy New York metropolitan area. Greenwood Gardens combines formal gardens, open meadows, woodlands, and pasture. Surrounded on all sides by protected



Garden at Kykuit



Patrick Dougherty sculpture titled, Natural History, made in three weeks, by weaving sticks, at the Brooklyn Botanic Garden, New York.

parks and wilderness, its sweeping views create a sense of solitude and serenity. Then they were off to the nearby home of ABS director Andrea Filippone in Pottersville for a catered lunch and a private guided tour.

The home of Andrea Filippone and William Welch, architects, and headquarters of Tendenze Design, their firm of architecture, interior and landscape design, was formerly a 19th century dairy farm. Settled among gentle hills and pasture in horse country, it embraces a strong European influence with beautiful stone walls, gravel courtyards, and formal flower borders. The barns, silo and property stood abandoned for 30 years until the couple bought it in 1993. They spent seven years creating its renaissance. It has been described as a second Versailles. An extraordinary French potager provides fresh flowers, fruits, vegetables, and is surrounded by espaliered fruit trees and hedges which help to keep the garden looking orderly. Countless adornments of stone, water and architectural sculptures provide distinctive structural elements to ten of the garden's thirty-five acres. A solar-powered and-heated greenhouse, salvaged from Rutgers University, is designed around a charming English-style orangery.

On Saturday, October 15 the group boarded a bus for Old Westbury Gardens. Completed in 1906, this Charles II-style mansion includes 200 acres of formal gardens. Of special interest is the Boxwood Garden which was installed in 1931. The 100-year-old *Buxus sempervirens* were transplanted from Virginia. This garden also includes a marble-lined reflecting pool and a Corinthian colonnade. The Italianate style Walled Garden, Rose Garden, Cottage Garden, the formal Lotus Pond, and Orchid Hill are only a few of the garden features at Old Westbury Gardens. Afterwards, the group lunched at and toured Long House Reserve in Hampton. Opened in 1991, this 16-acre arboretum has an art and education emphasis which features outdoor sculpture from various artists. There are nearly 40 intensive and contemporary gardens which are well-maintained by a nonprofit public charitable organization.

Sunday, October 16 was a free day and participants encouraged to tour a variety of exciting option which included: Greenwich Village, Harlem, Shiloh Baptist Church, the Spice Market, or the Boat House on Central Park. Also, there were shopping opportunities on the Upper East Side, museums (Cloisters, the Metropolitan Museum of Art), and various up-scale restaurants.

All too quickly, it was time to bid *au revoir* to our dear French cousins as they returned home from an exciting horticultural, cultural, and culinary-week long extravaganza, the likes of which only New York City (with Patrick Salembier and Andrea Filippone) can provide.



The mansion at Old Westbury Gardens.



Boxwood at Old Westbury Gardens



Old Westbury Gardens



One of the numerous gardens at Old Westbury Gardens.

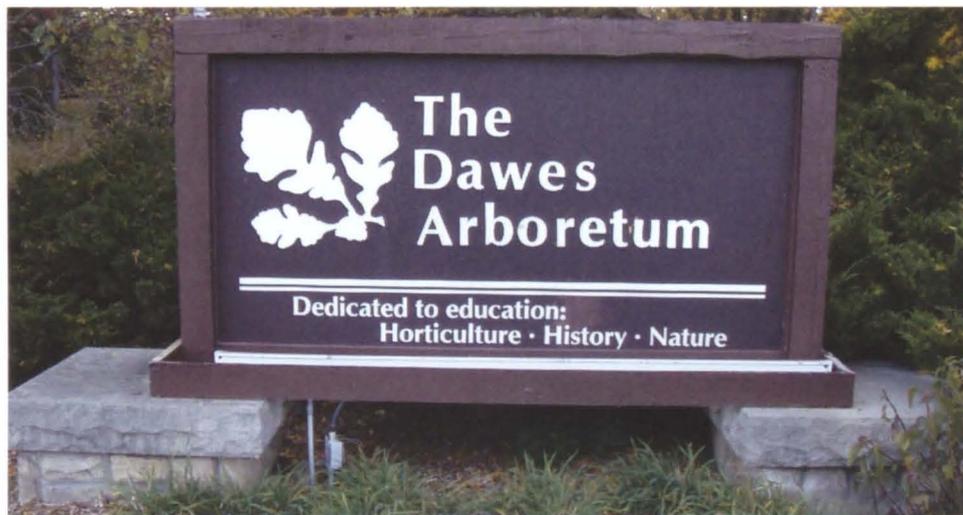
ABS 50th Annual Symposium

The participants arrived in Newark, Ohio on Thursday, October 14, 2010. The evening was filled with members enjoying a welcome reception. Afterwards, the ABS Board met. Their minutes are included in a report at the end of the article.

Dawes Arboretum

The symposium began in earnest on Friday, October 15 with a full day at the Dawes Arboretum. It began with a guided tour of the entire Arboretum, aptly lead by Michael Ecker, Director of Horticulture, on an open wagon pulled by a farm tractor. Afterwards Richard Larson, Plant Propagator at Dawes, provided an informative and comprehensive 2-hour private tour of the Dawes Arboretum boxwood collection. He provided many astute and personal observations on the growth habits and performance of the extensive collection of boxwood cultivars.

The group started at the lower end of holly hill. The cultivars we first saw were: *Buxus sinica* var. *insularis* 'Russ'; *B. microphylla* 'Green Pillow'; *B. microphylla* var. *japonica* 'Morris Midget'; *B. sempervirens* 'Aristocrat', 'Elegantissima', 'Morrison Garden', 'Pier Cove', 'Pullman' (received originally under the name 'Fiore'), 'Suffruticosa', and then *B. sinica* var. *insularis* 'Justin Brouwers'.



In the middle of holly hill the group looked at: *Buxus sempervirens* 'Fernwood.'

In the upper part of the hill, where the bulk of the collection lies, the participants studied: *Buxus sempervirens* 'Ohio', 'Zehrunge', 'Inglis', 'Rochester', 'Schmidt', 'Pullman', 'Fastigiata', 'Handsworthiensis', 'Jensen'. Additionally, the collection had *Buxus microphylla* 'Compacta' (syn. *B. microphylla* 'Kingsville Dwarf'), 'Curly Locks', 'Grace Hendrick

Phillips', 'John Baldwin'; *B. microphylla* var. *japonica* 'Faulkner' and 'Jim Stauffer'; *B. sinica* var. *insularis* 'Tide Hill', 'Bob' (Sweet n Low™), 'Herb', 'Pincushion', 'Tall Boy', and 'Wintergreen' (the oldest accession in the collection). Various hybrids included the Sheridan series: 'Green Mound', 'Green Mountain', 'Green Velvet'; as well as the Chicago Land Growers selection 'Glencoe' Chicagolandgreen®.

Proceeding in roughly circular pattern down the hill the group



Michael Ecker, Director of Horticulture at Dawes Arboretum, gives the ABS participants a private guided tour.



A few of the participants, in the boxwood collection, led by Richard Larson.



Richard Larson, Plant Propagator, gives a definitive tour of the boxwood collection at Dawes Arboretum.



Walking through Dawes Arboretum admiring the rare and mature plant specimens.

finished by looking at: *B. sempervirens* 'Myosotidifolia', small and recently planted *B. sempervirens* 'Latifolia Maculata' and 'Vardar Valley'.

On the lower end of the opposite side there were: *B. sempervirens* 'Route 50', 'Dee Runk' and small recently-planted specimens of: *B. 'Elizabeth Lawrence'*, *B. microphylla* 'Helen Whiting', and 'Quiet End'. The group was treated to wild collected specimens from Longwood Gardens: *B. sempervirens* /AGRU-79/, /AGRU-80/, /AGRU-81/, /AGRU-82/ and /AGRU-86/.

Returning to our starting point, the group observed some of the older plants in the collection such as: *B. sempervirens* 'Abilene' and 'Joe Gable', *B. microphylla* 'Green Prince', 'Sunnyside' and 'Winter Gem'.

The group had a short and pleasant

walk back to the Visitors Center for a refreshing lunch. Lynn R. Batdorf, the International Registration Authority for *Buxus* gave a 45-minute presentation on the culture of boxwood.

Afterwards, Rich Larson once again led the group for a more thorough tour of other areas of Dawes Arboretum. Our first stop was the world's longest living hedge, the 2,040-foot-long hedge spells out "Dawes Arboretum" a world famous feature of the Arboretum, first planted in 1930 and replanted in 1990. The group climbed up the 36-foot observation tower to take in the view which is visible for miles by aircraft approaching Columbus International Airport.

Next, the group had a leisurely stroll through the dwarf conifer collection, the Azalea Glen, and the

Japanese Garden. Unfortunately, it was time to part company with Rich Larson who had led an interesting and informative tour through the boxwood collection, as well as the entire grounds of Dawes Arboretum. The group was very appreciative for his time, professional knowledge, and enthusiasm. Rich Larson was the perfect host and made the experience at Dawes Arboretum a very special event for all the participants!

The group returned to the hotel for the Annual Meeting. This was followed by a relaxing wine and snack reception which provided an enjoyable social time among the participants. This was followed by the traditional ABS Auction which was once again led by the able and enthusiastic John Boyd, the Second Vice-President of the ABS.



The world famous 2,040 ft. Woodward arborvitae hedge at Dawes Arboretum, originally planted in 1939 then replanted in 1990, as seen from the 36-foot tall observation tower).



The large conifer collection at Dawes Arboretum.



Boxwood knot garden at Inniswood Metro Gardens.



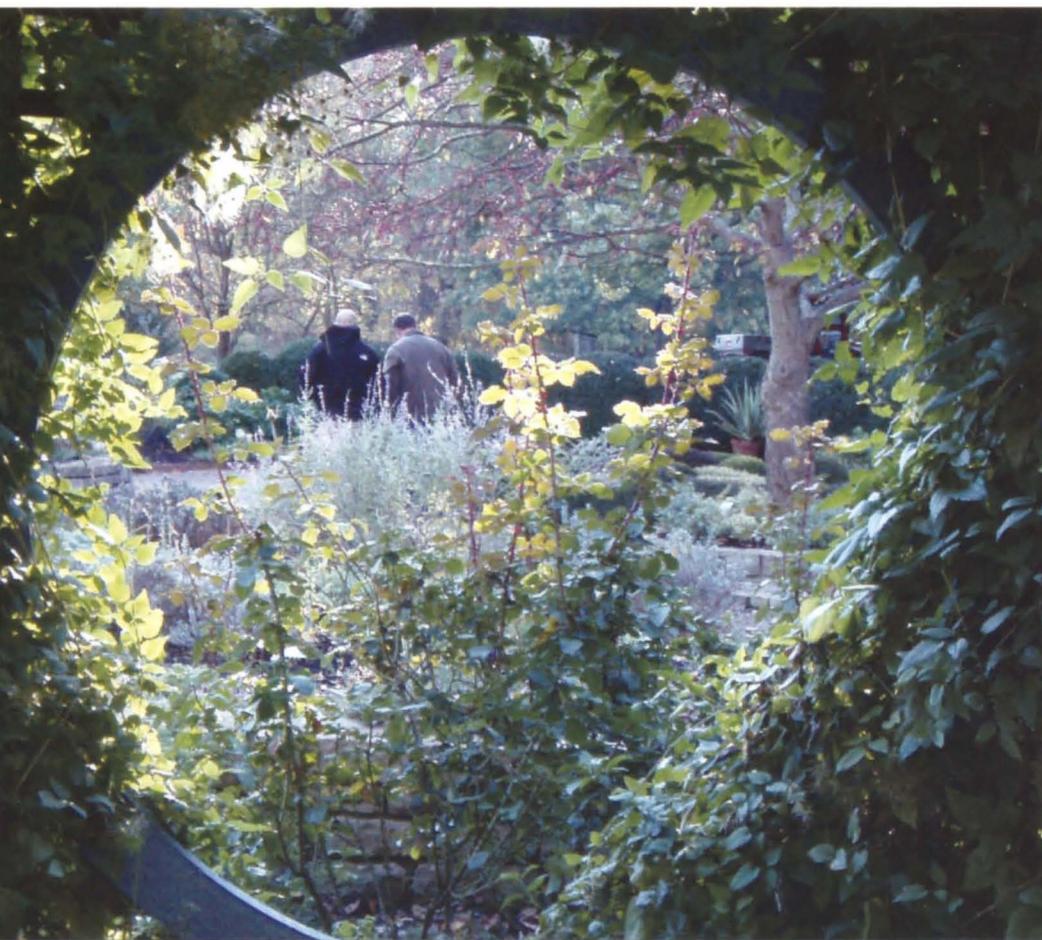
Inniswood Metro Gardens

Saturday, October 16 began with a departure for Inniswood Metro Gardens in Westerville, Ohio. Nestled within a scenic nature preserve, the 121-acre public garden has streams and woodlands filled with wildflowers, and wildlife provide a majestic backdrop to the beautifully landscaped flowerbeds, rock garden and lawns. It

features more than 2,000 species of plants, specialty collections and several theme gardens including the rose, herb and woodland rock garden. There are three miles of trails and paved pathways which allows visitors to stroll along and enjoy the beauty of the gardens and natural areas.

Inniswood Metro Gardens was

once the 37-acre estate of sisters Grace and Mary Innis, who enjoyed gardening and wildlife observation respectively. The Innis sisters' desire to preserve and enhance their gardens and woodlands for the enjoyment of all people resulted in the generous donation of their home and property to Franklin County Metro Parks in 1972.



Lee Hahn (L) and Hugh Crump (R) admiring the boxwood knot garden at Inniswood Metro Gardens.



One of the many speciality gardens at Inniswood Metro Gardens.



A herb evaluation garden at Franklin Park.



Glass artwork at the Franklin Park Conservatory.

Franklin Park Conservatory

The group had the distinct pleasure of touring the world-class, Franklin Park Conservatory in Columbus, Ohio. It features world-class gardens with various flora themes including: the **Himalayan Mountain biome**, plants found in the temperate climate of the mountain range with an elevation between 6,000 and 9,000 feet; **Tropical Rainforest biome**, epiphytes that climb or cling to large trees forming the upper canopy of the forest; **Desert biome**, plants adapted to the sparse annual rainfall of arid land-

scapes featuring cacti and succulents; **The Pacific Island biome**, with tall, emergent trees that form the canopy, tree ferns, and a waterfall covered bridge with a Koi pond; **John F. Wolfe Palm House** includes 43 species of palms from around the world, some of which are considered endangered and threatened in the wild featuring a Fiddle-leaf Fig which is over 110 years old.

The group toured other areas of Franklin Park Conservatory which included the **Brides Garden**, opened in

August 2008, its winding paths leading under the heart-shaped leaves of the Redbud alleé and a bubbling fountain and gardens; the **Cascades**, with waterfalls, unique plantings, and wildlife; the **Annual, Perennial & Vegetable Trials**, which has completed its 2nd year, includes vegetables in trial gardens designed to feel like a secret garden oasis filled with season-long color and interest. The group had a catered lunch in a white-colored pavilion in the center of the trial area.



Boxwood edging beds in a test garden at Franklin Park Conservatory in Columbus, Ohio.



Aerial view of the Topiary Garden at the Deaf School.

Topiary Garden at the Deaf School

The Old Deaf School Park in downtown Columbus, Ohio is the site of a unique arts project. Georges Seurat's famous post impressionist painting, "Sunday Afternoon on the Island of La Grande Jatte", is recreated in topiary. It is the only topiary interpretation of a painting in existence. This "landscape of a painting of a landscape" consists of 54 topiary people, eight boats, three dogs, a monkey, a cat and a real pond. The largest figure is 12' tall. The pond, representing the River Seine, was installed in 1989, along with the hills. Seurat would have sketched his scene from the top of the easterly hill.

Topiary Park is a project of the

Columbus Recreation and Parks Department. The concept came from artist James T. Mason who teaches sculpture at the Department's Cultural Arts Center. He designed, created and installed the metal frames as well as the living topiaries. Elaine Mason, initial topiarist and retired arts coordinator for the Department, trains city gardeners to trim the figures.

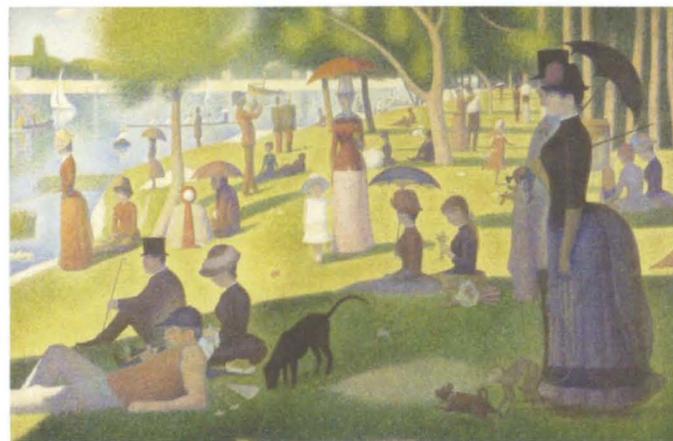
The Old Deaf School site was purchased in 1829 by the State of Ohio for \$300 from one of Columbus' original founders. In 1834 the first Deaf School was built. The second was built in 1869 and burned down in 1981. A third Deaf School Building was built in 1899 and is in

use today for office space.

Georges-Pierre Seurat (1859-1891) was a French painter and the founder of Neo-impressionism. "Sunday Afternoon on the Island of La Grande Jatte" is his most famous work, an example of pointillism that is widely considered to be one of the most remarkable paintings of the 19th century. Seurat spent two years painting this picture, concentrating on the landscape before focusing on the people. There is an intellectual clarity in which the people are in pairs and groups, yet they seem alone in their precision of form—alone, but not lonely. No figure encroaches on another's space, all coexisting in peace.



Topiary Garden at the Deaf School in Columbus, Ohio.



Georges Seurat's painting titled, Sunday Afternoon on the Island of La Grande Jatte.

Mission Oaks

Mission Oaks Gardens in Zanesville, Ohio is a five-acre oasis tucked into a residential neighborhood. For 20 years, Albert “Bert” Hendley, the original owner, passionately acquired unusual plants from around the world to fill his garden, but he most enjoys sharing his garden with others. A once-abandoned property, Hendley and his wife Susan began the overwhelming task of restoring Mission Oaks in 1988. It matured into a collection of 300 hardwood trees, 200 conifers and hundreds of flowering shrubs and perennials.

The home had been built in 1925 by a local businessman for his mistress. Over time, it passed through multiple owners and eventually sat empty for a few years before the Hendleys took possession. After a team of local craftsmen helped restore the indoor living spaces, the couple turned their focus to the gardens. They began by removing the seemingly-endless invasive and overgrown plants. In planting, there was no Master Plan, rather, the land-



Albert Hendley welcoming the ABS participants to his home and public garden, Mission Oaks.

scape evolved as they collected plants and trees discovered while traveling

and from gardening friends’ recommendations and books.

In 2003, the garden was expanded into an adjoining ravine, one filled with discarded auto parts and the other buried in broken pottery from a former tile company. An excavator worked for six months, hauling away 50 dump truck loads of rubble to clear the site. The ravine now features a pond and 200 conifer varieties from around the world.

The gardens were accepted into the prestigious Smithsonian Institution’s Archives of American Gardens’ Garden Club of America Collection.

Hendley created a Mission Oaks Foundation in 2001 to preserve the gardens and other local green spaces for future generations. Mission Oaks Gardens, and its buildings, will be donated to the Muskingum County Parks District. In a community spirit, there are nearly 30 Master Gardeners and garden society members who volunteer to maintain Mission Oaks.

“We used to be the pottery capital of the world,” says Hendley. “One of these days, we’re going to be the gardening capital of Ohio.”

Granville Inn

The final event of the symposium was dinner at the Granville Inn in Granville, Ohio. A historic English manor inn, it has been a landmark, in the heart of Granville, since 1924. Listed on the National Register of Historic Places, the Inn’s old-world charm, hand cut oak paneling, the custom cut native sandstone architecture and well landscaped grounds made it a special dining experience for all the participants of the 50th ABS Symposium.



John Boyd Jr. led another successful auction at the ABS 50th Annual Symposium!



The Question Box

Q: The following is in response to your article “Commercial Production of Boxwood” which appeared in the November 2010 (volume 210, issue 10) of the *American Nurseryman* magazine.

I operate Northern Nurseries, a small production nursery in Denmark Township, on the fringe of the Minneapolis - St. Paul, Minnesota metro area. Except for the last two decades, this area has generally been considered to be in USDA Plant Hardiness Zone 3. Currently, most people consider it in Zone 4. Given the desiccating winter winds it experiences, I think the potential winter damage to plants certainly justifies a Zone 3 rating.

Years ago I saw a superior boxwood (presumably mostly *B. sempervirens*) in a field of year old seedlings at Cross Nurseries in Lakeville, MN which they had purchased from Western Maine Nurseries, I think. With their permission, I took a cutting and propagated from it. It was a good ornamental plant which suffered the same problems that all boxwood plants, grown in this area, seem to encounter. They flush and harden 6” to 10” of new growth each season and then lose half of that new growth to desiccation, “winter burn”.

As luck would have it, I took a winter quarter plant pathology course at the University of Minnesota when I was growing the a forementioned boxwood. Though not part of the curriculum, the instructor, a Professor McDonald, gave a lecture on his special interest, nematodes. His talk about nematode root damage producing failure to thrive and susceptibility symptoms reminded me of the boxwood problems.

One brisk, -20° F, day I dug through two feet of snow and a foot of frozen ground in our nursery to the bases of

a few of the boxwood. There I recovered soil samples and pieces of their roots. Separation by the water and milk filter technique produced many nematodes which Dr. McDonald identified as meadow nematodes. I have long since forgotten both their genus and species. In my undergraduate days I spent hours sharpening microtome blades. Because I believed it was virtually impossible to get all of the grit off/out of root pieces and out of respect for some unknown student technician who might have to sharpen a microtome blade which was badly scored by grit, I did not embed and section the root material to confirm that they were, in fact, infested with nematodes. Dr. McDonald did tell me that the meadow nematode infests many plants, particularly all parts of genus *Populus* and roots of *Buxus*. This area has lots of poplars, primarily *P. deltoides*, though none were growing within 1000 feet of the experimental area, though their autumn wind-borne leaves were everywhere.

The following spring I treated half of a previously planted row of my rooted boxwood cuttings with Temik. It was the only systemic soil-applied poison which I had on hand at the time. The treated plants did flush slightly better than the untreated ones. The following year none of the treated plants had any winterburn at all, whereas the untreated ones had the usual winter dieback. Subsequent tests have shown me that biannual soil treatment will cut at least a year off the production cycle and produce slightly less woody, more pleasing plants.

It seems as if others might benefit from my findings.

A: This comment/inquiry was forwarded to me, as I am now retired from my academic and extension career as Extension Nematologist and Professor at the University of Florida and am serving part-time as a pest management consultant. This inquiry brought up many fond memories of old comrades, and I earned my doctorate working on the very nematode with which your question is dealing.

The short answer: Yes, meadow (aka lesion) nematodes could easily account for the extra stress that would reduce boxwood resistance to cold. Unfortunately, we no longer have products as effective for its suppression as was Temik or other commonly-used nematicides of many years ago such as Vydate and Nemacur. I know of no traditional chemical nematicide that would fill this bill in the same way as did Temik.

Now, if you have the patience, I will go into details of both people and nematode biology.

Dave McDonald completed his Ph.D. at Cornell University while I was an undergraduate in the same lab, that

of W.F. Mai. In fact, I helped Dave collect samples for some of his work and helped with the nematode counting process. He and I both worked on the meadow or lesion nematode, *Pratylenchus penetrans*, which is widespread in cool temperate regions. We have it here in Virginia in some areas, but I found it very rarely in the field in my career in Florida except in one ornamental crop, leatherleaf fern. This nematode feeds in the cortical tissues of fine feeder roots of an incredible number of plants, including both woody and herbaceous ornamentals, fruits, vegetables, and weeds.

Dave now is retired, and the nematology professor at Minnesota now is Senyu Chen, who received his doctorate in nematology in Don Dickson's lab at the University of Florida while I was a professor there. I have copied both of them with this note to let them know that I still remember some of the things that I should. In addition, Dr. Chen is the one who should be most familiar with options for reducing the effects of *P. penetrans* on boxwood in Minnesota. His work has been directed primarily toward soybean cyst nematode, which is a costly pest of that major cash crop, soybean. He has done a lot with potential biological controls of that nematode, and perhaps some of that work could extend to lesion nematode.

Lesion nematodes cause serious damage to the cortex of the roots in which they feed, killing substantial amounts of tissue themselves, and opening the roots to invasion by destructive fungi that normally should not be able to get in. The net effect can be significant reduction of the total root mass, and especially of the fine feeder roots that absorb the water and dissolved nutrient minerals that the plant needs to thrive. Anything that reduces root function of a boxwood (or any other plant) can dramatically reduce its ability to deal with cold injury and other environmental stresses. Incidentally, the freezing soil conditions normal to Minnesota should have little effect on this nematode. They can survive prolonged periods in the 20s, but in fact soil normally does not get colder than the upper 20s, even there - it just freezes deeper. In my own work with potato soils near Cornell I found that I could chip out soil samples (frozen 6-12 inches deep, but only about 29-30 F rather than the teens and single digit air temperatures that we experienced) in February, and the little beasts would be moving actively when the soil thawed out in the lab. There are, however, many biological enemies of nematodes in the soil that may be enhanced by some cultural practices to help reduce the nematodes' effects.

Additional note about detecting lesion nematodes. They are endoparasites, meaning that they live almost entirely inside of root tissues. Therefore, for a nematology

lab to determine a population level of these nematodes, the sample must include lots of the fine feeder roots in which they live actively. I have found as much as over 95% of a population in roots rather than the soil with which they came, to the point that we could have overlooked the problem entirely if we had only soil to assay.

I have much sympathy for your undergraduate job. Sitting in front of a microscope identifying and counting nematodes was far preferable to sharpening microtome blades. From your comment, you might have agreed.

If there are further questions, comments, ideas related to this problem, feel free to contact me. I hope Dr. Chen would be able to address specific questions about nematode management in Minnesota. Another nearby world-class expert in lesion nematodes in especially cold climates is Dr. Ann MacGuidwin, professor of Nematology at the University of Wisconsin.

[Editor's note: This answer was graciously provided by Dr. Robert A. Dunn Professor Emeritus, University of Florida. Our appreciation and gratitude to Dr. Dunn for his authoritative and insightful response.]

Q: I work for a large boxwood grower and the owner referred me to you in regards to several questions that I have. When the owner brings cuttings for propagation it is part of my job to try and label them with the correct name. The *Boxwood Encyclopedia* has been a valuable reference. It surprises me how many samples are incorrectly labeled.

On page X in the *Boxwood Encyclopedia* it is written under 'Cultivar Name'. That is, valid cultivar names appear in 'bold type', while invalid names appear in 'standard type'. How does an invalid name become a valid cultivar? I feel like I am opening a can of worms. If you can point me in the right direction I would appreciate it.

Additionally, how would you denote a hybrid when writing the name?

For example:

Buxus 'Glencoe'

Buxus hybrid 'Glencoe'

Buxus x 'Glencoe'

OR

None of the above

A: Yes, those cultivar names appearing in light-face type are invalid cultivars. However, they have been verified as unique from all other cultivars. Typically, there is insufficient (or vague) information available to properly document and publish the plant characteristics according to the requirements enumerated in The Code to give it a valid status. Once this information is provided, or obtained, the

respective registrar would promote the name to a valid cultivar status, with the respective bold print.

The correct way to write a hybrid is: *Buxus* x 'Glencoe'

It is correct to use a small "x" either between the names of the taxa involved (ie. *Ascozentrum* x *Rhynchostylis* x *Vanda*; x *Vascostylis* is a correct method to condense my hybrid formula example) or by assigning a name prefixed by the "x".

All taxonomic cultivar questions (regardless of genera) are easily answered in the *International Code of Nomenclature for Cultivated Plants* (The Code), published by the ISHS (Int'l Soc. for Hort. Science). It is used for all cultivars. Are you familiar with either this organization, or The Code? I greatly encourage you to obtain a copy of this important reference! Please refer to: <http://www.ishs.org/pub/scripta.htm>.

Q: Unfortunately I was unable to attend the recent boxwood meeting in Ohio. I attended my first in Atlanta. I had attended that meeting in hopes of finding more information about the cause of my boxwood woes. I was not one of the "regulars."

After all the years (since the latter half of the 19th century) the boxwood here have thrived though they are pushing the limit of their southern boundaries. My home is in the Upper Coastal Plain about 50 miles south of Augusta, GA. The live oaks and magnolias are their friends. Away from them they do not thrive. Since that meeting I have been more diligent in my observations since I did not find the answers I had hoped to find.

It seems evident I have more than one problem, but one that is most prominent is an ambrosia beetle. It bores a tiny hole in a stem and sets up its fungus. From that point the stem dies. It is not noticeable until one sees the straw color. I have consulted more than one entomologist and was dismayed to learn there is no miracle chemical to rid me of them. Systemic insecticides are useless as well as contact sprays. The only chemical that might help is one that if sprayed at the right time will discourage the beetle from eating through it. The timing would have to be precise and coverage thorough.

I have boxwood that have declined from healthy, bushy plants to ones so thin there are only a few stems left and with lots of stubs of broken stems.

If you are interested I can forward the University of Georgia's report on identification. They did not identify my sample to exact species. Perhaps for you they would but that means I have to find another one. I can also send pictures and/or samples from the plants.

Another problem I have throughout my yard that in-

cludes boxwood is voles. When they can't find enough roots of choice they will also go after boxwood. Have found no solution to that problem either. Neither of these are addressed in the *Boxwood Handbook*. They must not exist in the more northern climes.

A: The ambrosia beetle, *Xylosandrus germanus*, is a scolytid beetle which originated from Asia. It is found in many regions of North America including the Northeast (reports from CT, MD, NJ, RI) South and Southeast (AL, OK, GA, MS, TN, TX), , and Pacific Northwest (OR, BC). The Long Island area is the site where *X. germanus* is thought to have been first introduced into the US in 1932.

The borer has been reported to attack over 200 species of plants, including boxwood. In addition to the physical damage, there is concern that *X. germanus* is responsible for carrying Fusarium fungus into the plant as they tunnel into the wood.

As you correctly noted, there is no mention of the ambrosia beetle in the *Boxwood Handbook*. While they do cover a large region of the US, their damage (which can be severe) is limited to small localized areas. No book is ever all inclusive - thus, the author, Lynn Batdorf, chose to omit this pest due to its small impact and a lack of any effective control measures. Thus, in your situation, I recommend that you consider other shrubs which have known resistance to the ambrosia beetle.

However, voles are mentioned in the *Boxwood Handbook*. Please refer to page 87 of the third edition.

Follow-up comment:

Thank you for your precise and detailed explanation of my beetle problem. I will pass it on to those who were unaware of this information. Several years ago I had described finding a borer to my county agent who referred to the UGA extension service for an explanation. The answer was short: boxwood don't have borers. That was a dead end. I could find nothing else about it.

They have gone unnoticed until the last couple of years which made me think they might be the ambrosia beetle that is decimating the redbay in south Georgia. This summer I also found them in my *Laurus nobilis*. Reports I have read indicate this one entered through the port of Savannah.

Either way, the lack of a solution is depressing. I have over 1500 *Buxus sempervirens*, some well over a century old, which have thrived on no more than water and a little manure until less than five years ago. Now I will turn to page 87.

American Boxwood Society

Governing Board of Directors' Meeting — Minutes Thursday, October 14, 2010; Newark, Ohio

The meeting was called to order at 9:00 P.M. by President Eddie Goode. The following attendance did not present a quorum: Lynn Batdorf, John Boyd III, Walter Carell, Jr., Jan Carter, Eddie Goode, Jr., Lee Hahn, Bennett Saunders.

President Goode presented the latest edition of the itinerary for the 50th Boxwood Symposium and Annual Meeting in Newark, Ohio. A list of attendees and their contact information was distributed. President Goode, as chair of the Symposium, presented a proforma expense report for the event.

A tentative working itinerary for the 51st Symposium and Annual Meeting (50th Anniversary of ABS) was presented. The dates are the evening of Thursday, May 12 through Saturday, May 14, 2011.

A letter to solicit support from members and other benefactors for the Sixth Annual Giving Campaign was presented. The letter will be distributed to all members imminently.

President Goode asked the Board to consider holding a Strategic Planning Session in November to address the concerns and issues that confront the Society. The Directors present endorsed the initiative; the Secretary was asked to poll all members of the Governing Board for suitable dates.

The minutes of June 24, 2010 were reviewed and agreed to be in order.

Treasurer Saunders presented a report from the Society's new accountant, Jeffrey W. Matthews, CPA of Lovelace, Norvelle, Matthews & Crews, from Lynchburg, VA. The report included a list of recommendations relative to the financial operations of the Society, plus detailed and summary reports of the last four years of financial activity of the Society.

One of the recommendations questioned the classification of the restricted funds, and suggested this area be reviewed and clarified. These assets may need to be reclassified, so as to be more in line with accounting rules and tax codes.

Mr. Matthews brought current the filing of tax returns for the Society. The aggregate fee for all of the work to date is \$3,500.00. Treasurer Saunders will have a proposal from Matthews for an annual accounting of the Society's finances and returns.

An internal profit and loss statement from Executive Director Jeff Miller will be distributed at the next meeting.

Membership Committee Report by Walter Carell, Jr. presented a working spreadsheet of the membership list, which includes all members for years 2007 through 2010. The absolute number of members has persistently declined on a year over year basis during that four year period. It was agreed that member-

ship retention is as essential as new membership development. This matter will be assigned high priority for the Strategic Planning Session.

The editor of *The Boxwood Bulletin* reported that the October issue (Vol.50, No.2) is ready for the printer. After five years as editor, the January 2011 issue (Vol.50, No.3) will be the last issue for the current editor.

Mr. Batdorf has begun work on a fourth edition of the *Boxwood Handbook*, in anticipation of a reprinting in the future.

Walter Carell Jr., Chairman of the Memorial Garden at Blandly, will coordinate the Memorial Garden workday with Board Members Dean Norton, Bennett Saunders and the staff leadership at Blandly. Mr. Carell offered his thoughts regarding the possible expansion and redesigning of the Memorial Garden. One of the chief concerns is to afford the individual plants sufficient space to grow into their more natural sizes and habits. The progression of questions leads to style of design, possible location/relocation and with whom at Blandly to coordinate for collaboration and support of the effort.

Walter Carell Jr., as Chairman of the Nominating Committee, gave his report and its prepared slate to be presented at the Annual Meeting.

This session was concluded at 10:15 P.M.

Annual Meeting — Minutes Friday, October 15, 2010; Marriott Courtyard; Newark, Ohio

President Edward Goode, Jr., called the meeting to order at 6:10 P.M. The President welcomed all members and guests and established that a quorum was present. He announced the 51st Symposium to be held at Blandly Arboretum in Boyce, VA in celebration of the 50th Anniversary of the American Boxwood Society. The dates are May 12-14, 2011. An interesting itinerary is being developed.

The minutes of the 2009 Annual Meeting in Atlanta, GA were approved. (Walter Carell/Lynn Batdorf/unanimous by voice)

Treasurer Bennett Saunders provided an update on the financial status of the Society. The ABS is in "sound financial shape in general, with room for improvement". All of the accounts are going through an audit and the tax returns are being brought to a current status.

Nominating Committee Chairman Walter Carell Jr., and committee members, Charles Fooks and Les Hoffman, submitted the following slate of nominees: President: W. Eddie Goode, Jr.; First Vice President: Kenneth Lee Hahn; Second Vice President: John Boyd III; Secretary: Jan S. Carter; Treasurer: J. Bennett Saunders; Directors (2013): Walter S. Carell, Jr.; Charles Fooks; Dr. Henry F. Frierson, Jr.; Director (2012)[Saunders' term balance]: Hugh Crump; Director

(2011)[Carter's term balance]: Dr. Tomasz Anisko. There were no additional nominations for any positions from the floor. Motion to close the nominations and adopt the slate by acclamation carried. (John Boyd/Lynn Batdorf/unanimous by voice)

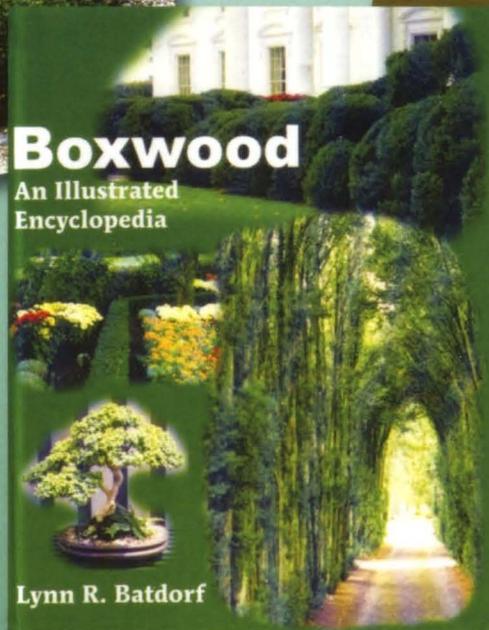
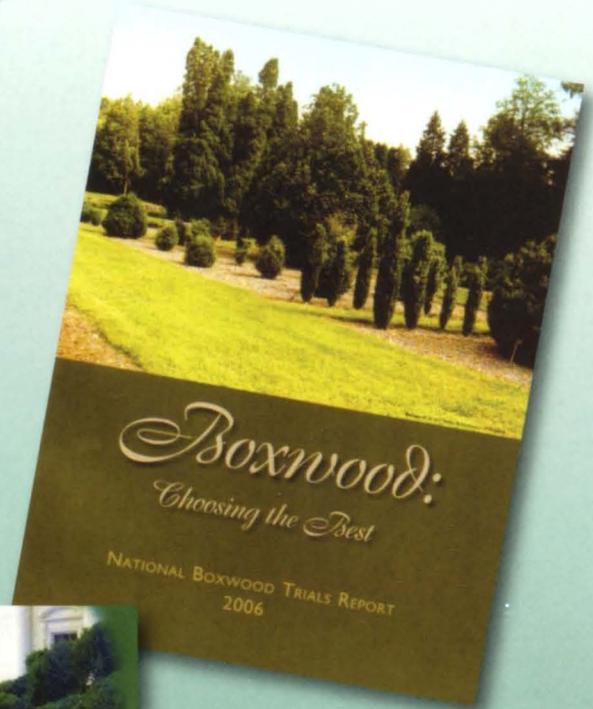
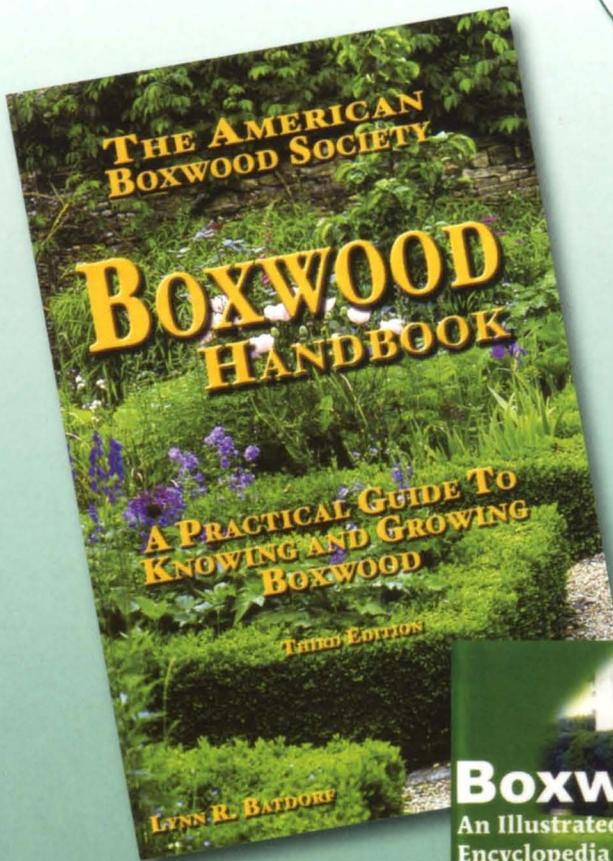
Seeing no unfinished business, nor new business, the President asked for a motion to adjourn, which carried. (Walter Carell/Lynn Batdorf/unanimous by voice)

Executive Committee Meeting — Minutes Friday, October 15, 2010; Newark, Ohio

President Goode called the meeting to order. He appointed Walter S. Carell, Jr. to serve as the Chairman of the Nominating Committee for the coming year, and requested approval of the appointment. Motion for approval carried. (Lee Hahn/John Boyd III/unanimous by voice).

Seeing no need to transact further business at this time, President Goode ordered the meeting adjourned, without objection.

Mark your calendar for the 50th Anniversary of the American Boxwood Society at the Boxwood Symposium and Annual Meeting at the Virginia State Arboretum in Boyce, Virginia on May 12-14, 2011!



Order Now! Essential Boxwood Reading – See Details on Page 34.

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