

Text of “Where Nature is the Guiding Hand” Cell Phone Tour

Welcome and Instructions

Hello and welcome to Willowwood Arboretum, a facility of the Morris County Park Commission. This cell phone tour guides you through Willowwood’s core garden areas and will take about an hour to complete.

You will proceed from one “Stop” or place of interest, to the next.

At each tour stop you can listen to several audio clips.

At the end of each audio clip are directions for where to walk next.

You can start, stop or replay it whenever you please.

To stop, simply hang up.

To re-start, re-dial the cell phone tour number again and you will automatically pick up where you left off.

To repeat a stop, press the Stop Number again.

There are also opportunities for your feedback.

Please leave us a comment about your visit today.

In section one of the tour, stops 1-14, you will hear about the Tubbs’ brothers and their gardens.

In section 2 of the tour, stops 15-22, you will hear about the plant species that were brought to the United States by E.H. Wilson, an extraordinary plant explorer of the early twentieth century.

Press #1 to hear the introduction of section 1

Stop #1 – Introduction

Over 100 years ago, two brothers stood on this spot.

Their names were Henry and Robert Tubbs and they loved plants.

Looking for a country home that was a commutable distance from their jobs in Manhattan, they rambled around the Gladstone area until they found Paradise Farm, as Willowwood was then known.

They purchased this 130+ acre property in 1908 and named it for the groups of big willow trees that grew along the original entrance of the property.

The Willows are gone now and the road has a new name, Longview.

But Henry and Robert’s dream of a garden in which “nature takes you by the hand,” continues to grow and thrive.

Press #101 to hear more about the property or walk straight ahead to STOP #2, the Stone Barn

Stop #101 – Context

Every garden must be viewed within its physical and historic context. Willowwood is at the crossroads of 2 counties – Morris and Somerset, and of 2 geologic regions – the Highlands and the Piedmont. When the Tubbs brothers purchased this property, much of it was under cultivation or in pasture.

Through their collection and curation, the landscape was transformed into an intimate composite of pleasant woodlands, meadows, and gardens.

Henry Tubbs often counseled visitors to “Study nature’s way. Study the plants which grow naturally in your own countryside. Make notes at all seasons of the trees, shrubs, and other plants whose characteristics you particularly admire.” Once when a visitor inquired as to the identity of WW’s landscape architect, Henry Tubbs replied, “Nature, I’m only the Head Gardener. “

Take the left fork in the road and walk straight ahead to STOP #2 the Stone Barn

Stop #2 Stone Barn

Part of Willowwood’s great charm is the marrying of its many structures to the gardens and landscape. Materials used throughout the property were carefully chosen. The Stone Barn, raised in the early 1800s, is constructed of locally mined Puddingstone. Puddingstone is a conglomerate of round pebbles whose colors contrast sharply with the finer grained, often sandy matrix or cement surrounding them. Here in Northern NJ it is formed of Paleozoic sandstone and quartz conglomerate.

Press #201 to hear about featured plants in this area.

Press #202 to hear about the man for whom this structure is named, or walk directly ahead to Stop #3 - the Red Barn

Stop # 201 Japanese Umbrella Pine - *Sciadopitys verticillata* sp.

Imagine being the only surviving member of your family. Such is the fate of the Japanese Umbrella Pine or *Sciadopitys verticillata*, growing at the right corner of the Stone Barn.

The sole member of the genus *Sciadopitys*, this tree is a living fossil.

One of a number of primitive trees here at WW, paleo-botanists have found evidence of this tree’s existence as far back as 230 million years ago.

The Baltic Amber in which insects are preserved and exhibited at natural history museums is from the sap from the Japanese Umbrella Pine.

Press #202 to hear about Russell Myers or walk straight ahead to the Red Barn

Stop #202 - Russell Myers

In 1956, Mr. Russell Myers was appointed as the first Secretary- Director of the Morris County Park Commission, a term he served for more than a quarter of a century. His dynamic leadership established the Morris County Park System as the largest county park system in the State of New Jersey and one of the finest in the nation.

In 1960, he and Dr. Benjamin Blackburn established the Willowwood Foundation to protect this horticultural treasure. He then served as the President of that foundation and as a Trustee of the Tubbs Trust. A graduate of Rutgers University and then the Graduate School of Design at Harvard University, Russell Myers was an outstanding leader in the field of conservation. Under his stewardship, Willowwood became one of New Jersey’s horticultural treasures.

For information about renting the Stone Barn for your private or corporate event, contact the Morris County Park Commission at 973- 326-7619.

Walk straight ahead to Stop #3, the Red Barn

Stop #3 - Red Barn

This barn was used by the entire Tubbs family, first for carriages, and later for automobiles. Having visited the property, the Tubbs brothers' parents, Benjamin and Carrie Ladd Tubbs, fell equally in love with both the setting and the dream.

They moved in that first spring along with the boys' sister, Claire, and remained at WW for the rest of their lives. It is likely this barn housed many of their garden tools and today, the barn is still used for storing horticultural tools and supplies.

Press #301 to learn about featured plants in this area

or proceed down the curved path to stop #4, the Tubbs Residence

Stop #301

At the back right corner of the barn grows *Trochodendron aralioides*, whose common name, "wheel tree", is derived from its single main trunk on which are carried a whorl of horizontal branches, somewhat like the spokes of a wheel. Planted as single specimen, its distinctive growth habit is eye-catching. This tree grows well in open woodland settings. Come back in June to see its distinctive chartreuse flowers borne in a way that also resembles a wheel.

The fields to the left of the Red Barn are home to Willowwood's impressive Lilac Collection. The first lilac planted at WW was *Syringa vulgaris* 'Alba,' brought here from the Tubbs family home in Kingston, PA. Now, 61 lilac cultivars flourish on the Arboretum's grounds. The low knoll rising up from the sweeping meadows, which was the farm a century ago, offers the good air movement and soil drainage in which Lilacs thrive. Many of the plants in the collection were gifts from friends or crown offshoots from selected plants in other garden's collections. Some, like the distinctive Peking Tree Lilac, with its shredding and curling bark, have been raised from seeds. Come back from late-April to early June to enjoy their scent. The Willowwood Foundation sponsors a Mother's Day event which includes guided tours of the Lilac collection. Proceed down the curved path to stop #4, the Tubbs Residence

Stop #4 - Tubbs Residence

Originally built in 1783 the Tubbs residence has undergone many alterations. When purchased by the Tubbs brothers in 1908, there was a front porch running along part of the front of the house. The brothers enclosed the porch, adding multiple windows to create a good space for growing indoor plants. They added a kitchen wing and a second floor bedroom for servants, along with front and back dormers to the third floor.

Standing at the front door one's eye goes immediately to the beautiful wrought iron gate of the Cottage Garden and onwards to the hillside and a group of trees noted for their seasonal color.

With the rear door open, the eye is drawn down the center hall, out the porch, to Pan's garden. With this view, the house is thus integrated into the landscape.

Today, the house serves several functions. The third floor is a staff residence. On the second floor there is a library and offices for Park Commission staff and the WW Foundation. The first floor has been preserved as it was when the Tubbs family resided here and features an Entry Hall, Dining Room, Parlor, and Book Room. The interior of the house is open to the public at special events. Check the WW Foundation's website for further information.

Press #401 to learn about featured plants in this area or move to the Conservatory on the left side of the house

Stop #401 - *Quercus Rubra* - Red Oak

The Red Oaks here were planted in 2011 and were chosen to replace Horse Chestnuts. Red Oak, or *Quercus Rubra*, is a structurally sound and durable tree and therefore was a very good choice for plantings so near a residence. The Red Oak is New Jersey's state tree. Oaks are valued for supporting many kinds of wildlife.

Now, walk to the left side of the house to see Stop #5 - the Conservatory

Stop #5 – Conservatory

This Lord and Burnham conservatory was installed by the Tubbs brothers in the 1930's. The Lord and Burnham Company was a noted greenhouse manufacturer and builder of major public conservatories in the United States until its demise in 1988. Peek thru the windows. Can you see the decorative tiles adorning the wall? These were made by Henry Chapman Mercer at the Moravian Pottery and Tile Works in Doylestown, PA. Mercer was an archeologist, architect, collector, tile maker, noted proponent of the Arts and Crafts Movement, and a friend of the Tubbs brothers. You will see more of his tiles as you tour the gardens.

Press #501 to learn about featured plants in this area or

Take the gravel path past the Conservatory and take a left up the hill to the Rosarie.

Stop #501 - Conservatory Plants

An eclectic mix of subtropical plants grows in the conservatory - succulents, vines and flowering houseplants. From January to March, you can see a lemon tree among the plants. Ernest Henry Wilson was a famous Victorian British plant explorer who you can hear more about in the second section of this tour. While in China on a plant collecting expedition, he broke his leg and recuperated in the home of a Chinese friend. A type of dwarf Lemon tree, especially well-suited to life in a container grew there. Wilson made some cuttings from those trees and brought them back to America. This tree is a descendant of those cuttings. In summer, it lives under the Oaks.

Take the gravel path past the Conservatory and take a left up the hill to the Rosarie.

Stop # 6 - Rosarie

The Rosarie is not a traditional rose garden, although a number of roses do grow here. Mediterranean plants are featured, including citrus, fig, olive, oleander, agave, yucca, palms and rosemary arranged in large groupings. This Mediterranean style garden was created by Dr. Benjamin Blackburn in the 60's and 70's and features plants with "hot" flower colors and bold foliage. Its design was reminiscent of gardens seen on a trip that he and Henry Tubbs took to southern Europe. A rustic wooden fence encloses the garden. A wisteria arbor and bench provide a quiet place to pause and reflect. The large ceramic jar has been converted into a fountain and serves as a focal point within the garden. A whimsical "door to nowhere" provides a sense of intrigue.

Press #601 to learn more about Dr. Benjamin Blackburn or re-trace your steps to the rear of the Tubbs residence and stand on the covered porch to face Stop #7 – Pan's Garden.

Stop #601 - Dr. Benjamin Blackburn

Sometime around 1935, the Tubbs brothers made the acquaintance of Benjamin Blackburn. Blackburn had recently graduated from Cornell University where he studied Landscape Gardening. In 1936, Rutgers University hired him as an Extension Specialist and appointed him to the faculty of the College of Agriculture where he eventually earned his Doctorate Degree. In his role as Extension Agent, Blackburn lectured at garden clubs, judged flower shows and was a frequent guest on the WOR Garden Radio Club. Dr. Blackburn became good friends with both brothers and shared their enthusiasm and passion for Willowood.

In 1946, after serving in the armed forces during WWII, he came to live at Willowood. Robert Tubbs died in 1942, but Henry's interest in making Willowood a public arboretum persisted. Dr. Blackburn played a major role in the continuing development of Willowood, finally becoming executor of the estate upon Henry's death in 1958. Through the Tubbs Trust, the property exchanged hands several times, until in 1980, its title was transferred to the Morris County Park Commission. Dr. Blackburn continued to live at Willowood, working to improve its collections and design. In 1986, the Garden Club of America presented Blackburn its Medal of Honor for his distinguished service to botany and horticulture. The following year he died quietly here at Willowood.

Re-trace your steps to the rear of the Tubbs residence and stand on the covered porch for Stop #7 Pan's Garden

Stop # 7 - Pan's Garden

Built around 1915, Pan's Garden was WW's first pleasure garden. Originally designed so that the inner plantings of perennials and annuals would be interwoven like a Persian rug, Pan's garden has undergone a number of renovations over the years. One design element that has endured is that of a forced perspective. This garden device helps to elongate the view to the statue of Pan, the Greek god of the wild. This was achieved by keeping the flower borders and green path narrower at Pan's end than at the house end and keeping the boxwood taller near the porch than at Pan's end of the garden.

Press #701 to hear about the most recent renovation or walk under the arbor, take the steps down and turn right to Stop #8

Stop #701 – Pan’s Garden Renovations

Pan’s Garden underwent a renovation in 2001 to improve drainage and also redesign the plantings. Critical plants were bare rooted, washed, and saved. Over the summer, grit was spread and rototilled into the beds, improving the heavy clay soil. The bluestone edging was lifted to grade, aligned, and reset to emphasize the forced perspective. The new garden theme here is “tapestry in white.” As the garden has grown shadier over the years from the surrounding tree canopy, white flowers such as *Phlox paniculata* ‘Davidii’, and Astilbe ‘Deutschland’ pop against the greenery. Walk under the arbor, take the steps down and turn right to Stop #8

Stop # 8- Wood Walk

The naturalistic streamside path known as Wood Walk creates a unique contrast to both the open meadows and cultivated gardens at Willowood. This area is characterized by enclosure, texture, dappled shade, the sound of water and richly layered plants. Dr. Blackburn’s love of and familiarity with Asian plants, honed while stationed in Japan during WW II, is especially evident here. The hard scaping as well reflects the Japanese theme, from the bow bridge, constructed with local stone in the Do-Bashi style, to the stone lanterns, which were gifts from friends.

Press #81 to learn more about featured plants in this area or continue walking past the stone Pagoda towards the house to Stop #9 – the Cypress Pool.

Stop #81

The *Rodgersia* growing here is actually from a cutting Dr. Blackburn brought back from Japan. This bold perennial makes a statement with its lovely large foliage and attractive plumes of white flowers. In the wild, this plant grows along streams and pond margins. In our gardens, this Asian native prefers moist, rich soil and full sun to part shade. Its leaves turn attractive shades of coppery-brown in the fall and their seed heads make for good winter interest.

Now, continue walking past the large stone pagoda to Stop #9 – the Cypress Pool

Stop #9 - Cypress Pool

The Cypress Pool is a fine example of what a good selection of plants and time can create. Texture, shape, color, and water come together here to form a serene environment. The naturalistic and Asian-influenced theme of Wood Walk is continued here. The pool was constructed of puddingstone circa 1910 by Robert Tubbs to display lotus, but now shade has

made lotus culture impossible. Restored in 1985, this area includes a granite signpost known as *michi shi rube* that was hand-carved in China.

Two Japanese maples live happily here - Ornatum, the Brocade Maple, and Waterfall. Both are mutations of *Acer palmatum*, the beautiful, small forest tree of Japan.

Waterfall was a chance seedling found along the upper brook by Robert Tubbs in the 1930s.

You can purchase *Acer palmatum* 'Waterfall' at plant nurseries specializing in Japanese Maples.

This tree is a great choice for New Jersey gardens and was designated as a Gold Medal Plant by the Pennsylvania Horticultural Society in 1999.

Press 901 to learn about featured plants in this area or continue walking straight until you reach the paved road to stop #10 Dawn Redwood.

Stop #901

If you are visiting in the summer, you cannot miss the very large-leaved petasites, commonly known as butterbur. In the days before refrigerators, its leaves, with their downy undersides, were used to wrap butter. The leaves are still used today as impromptu sunshades or umbrellas; indeed the name of the genus *Petasites* is derived from the Greek word *petasos*, a type of hat with a wide brim. Place this plant carefully as it can be an aggressive grower and difficult to eradicate. Spreading can be controlled by planting in a metal or plastic bucket and burying it. Continue walking straight until you reach the paved road to stop #10 Dawn Redwood.

Stop #10 – Dawn Redwood - *Metasequoia glyptostroboides*

The Dawn Redwood is a unique, deciduous conifer. It is easy to grow in NJ. The largest of its kind in the state, this 100' high "Champion" tree is noteworthy for more than its size alone. In 1950, Willowood received a special gift of three 8" pots containing Dawn Redwoods grown from seeds collected on an Arnold Arboretum plant-collecting expedition to China just a few years before. At that time, *Metasequoia* were thought extinct and were known to science only thru plant fossil records. Dr. Blackburn called this stately tree the "most exciting introduction of the generation," and nursed the seedlings in a cold frame until they were ready to plant.

Press #110 to learn about the Stone Cottage just to the left or walk thru the ornate metalwork fence to the end of the Cottage Garden and turn right to Stop #12 The Helen Gardiner Propagation Unit

Stop #110 - Stone Cottage

It is thought that the Stone Cottage was constructed in about 1823 by Frederick Hunnell, the owner of this property known at that time as Paradise Farm. It may have been used as living quarters for farm laborers since a large peach orchard was established here. Constructed out of the same locally mined Puddingstone as the Stone Barn, the Stone Cottage's architectural elements are of the Greek Revival period including a symmetrical gable-end front façade and

heavy flat arch lintels with large keystones over all the openings. Many renovations, both in the time prior to the Tubbs ownership and during it, have taken place. Most recently, in the 1960's when the porch was reconstructed to its present footprint. In 2005, a Preservation Plan was commissioned by the Park System. The Stone Cottage remains an important part of the original farmstead and it is significant in that it contributes to the overall character of Willowwood. Walk on along the paved path to the left and Stop #11 – the Cottage Garden

Stop # 11 - Cottage Garden

Flowers and vegetables crowded each other for room when this area was started, as the Tubbs grew mostly vegetables here. Today, the Cottage Garden is home to an informal assemblage of annuals, perennials, shrubs, small flowering trees and vegetables. Rectangular beds and tall boxwood emphasize the axis from the Tubbs residence front door, across the meadow to the hillside. Planted with various edging and flower favorites, many plants were trialed here before going to more permanent locations. An ancient pear tree stands sentry at the garden's center. Press #111 to learn about the featured plants in this area or walk thru the ornate metalwork fence to the end of the Cottage Garden and turn right to Stop #12 The Helen Gardiner Propagation Unit.

Stop #111 - Featured plants of the Cottage Garden

Magnolia stellate 'Royal Star' or Star Magnolia, growing here at the garden's entrance, is a native to Japan. This tree was planted in 1962 and has attained its maximum height. The flowering, which takes place in late March or early April, is worth a return visit. The color of its flowers will vary from year to year depending on the day and night temperatures prior to and during flowering. *Magnolia stellata* produces a reddish-green fruit in the fall. As it matures, the fruit opens to reveal crimson seeds.

Magnolias play an important role in Willowwood's history. This from "The Story of Willowwood" by Marta McDowell:

Dr. Blackburn describes the adventurous addition of (Magnolias)

"The next Magnolias planted at Willowwood were Sweetbays, collected as small plants in the New Jersey Pine Barrens in 1912. Henry and Robert Tubbs had taken their parents and sister "down Jersey," for a day's outing in their redoubtable Reo motorcar, and after getting stuck in the loose sand at an innocent appearing but thoroughly treacherous spot near Speedwell, the excursionists had more bad luck in having a flat tire.

Finally, with these upsets passed, all were cheered and revived by the contents of the picnic basket, and the horticulturally inclined members of the party dug several plant treasures they had discovered along the small stream with velvety black waters where they had been resting. Small seedling or sucker plants of the abundant Magnolias were carved out in blocks of the moist, peaty soil, and packed in the car with a few Swamp Azaleas and Clethras for the brook edges at Willowwood."

Currently 69 magnolia cultivars flourish at Willowwood. The goal is to showcase the best magnolias for growing in north-central New Jersey. Walk thru the ornate metalwork fence to the end of the Cottage Garden and turn right to Stop #12 The Helen Gardiner Propagation Unit.

Stop #12 - Helen Gardiner Propagation Unit

In this small propagation unit, more than 8000 seedlings are raised each year. In addition to propagating plants, the Morris County Park Commission staff participate in the Index Seminum, a seed exchange program run by international plant societies and botanic gardens. Through this program, Willowwood distributes exotic and wild-collected New Jersey native plants to institutions throughout the world. The program enables the Morris County Park Commission to broaden its sources for plants of known wild origin to augment its existing collection and helps us to obtain rare and interesting plants for display purposes. To your left is the Shingle Barn, Stop #13.

Stop #13 - Shingle Barn / Cedar Arbor

Re-shingled in 2008 for Willowwood's centennial celebration, the barn sports a distinctive weathervane. Tools and supplies are stored here and Restrooms are located at the Barn's rear. Growing in and out of the cedar arbor is *Wisteria floribunda* or Japanese Wisteria. Admired for its hardiness, vigor, and longevity, Wisteria blooms in early May. Wisteria grows vigorously, so be prepared to keep it in the space allotted by pruning, which also promotes flowering. Notable wisteria may also be found on the arbor in the Rosarie, Cottage Garden, and Pan's Garden. To the right of the shingle barn is the Japanese Wisteria, a small bench, and Stop #14- Conclusion of section 1 of the tour.

Stop #14 – Conclusion

You have come to the end of section 1 of "Where Nature is the Guiding Hand." We hope you have enjoyed this part of the tour. As you sit on this weathered bench, please consider these words of former Director of the Morris County Park Commission, Quentin Schleider. "There has always been a profound understanding at Willowwood that nature is dynamic.... and so there is a constant metamorphosis of this landscape. Just as many works of art benefit from their patina, so too the landscapes here have matured, growing more beautiful with the passing years. Willowwood is a tribute to Henry and Robert Tubbs love and understanding of the rural landscape, which "took them by the hand" so long ago. "

If you would like to continue the tour to explore the plants of EH Wilson proceed to Stop #15. Proceed to the kiosk in the parking lot.

"Marvel at the Treasures of the China"
An Introduction to EH Wilson's Plant Discoveries

He made outstanding contributions in exploration, in the introduction of valuable plants to cultivation, and in the literature of horticulture, thereby enriching us all and particularly the American people. His place in the horticultural world will not be filled.

Liberty Hyde Bailey

Ernest Henry Wilson's (1876-1930) reputation today is certainly that of one of the most successful plant hunters, having collected over 100,000 specimens of more than 5,000 species, and seeds of 1,500 different plants. Over 1000 species of these were horticultural plants from China, new to Western gardens; these have since become established in the horticultural trade. E.H. Wilson made 4 trips to China to gather new plant species. For political reasons, this was a dangerous time for Westerners to be traveling in China; hundreds of local people had been killed, foreign missionaries were murdered, and entire villages had been burned to the ground. Nevertheless, in February 1900, Wilson purchased a boat, hired assistants and began traveling up the Yangtze River to access the interior region of western China. On this trip, Wilson collected seeds of 305 plant species and 900 herbarium (dried plant) specimens of many other plants before returning to England in April of 1902. His trip was acclaimed as a great success. Wilson's fourth expedition began in March of 1910 and would unfortunately be cut short that September due to his getting caught in a sudden rock slide in the remote wilderness of the Sino-Tibetan border. This resulted in multiple breaks in his leg, a serious six-week long infection and an operation that saved the leg but left it an inch shorter so he walked with a slight limp for the rest of his life. Still, he brought back over 1200 packages of seeds and more herbarium specimens.

Not all of Wilson's introductions succeeded in cultivation, in either the United States or Europe. Some grew at first but eventually died out, unable to adapt to environments outside their native habitats. However, many of Wilson's introductions are currently available in the nursery trade. Here at the Willowood Arboretum, we are lucky to display a collection of some of the plants E.H. Wilson brought back from China. Look behind the kiosk, walk to the first "W" sign and turn left.

Stop #15

Chinese *Stewartia* (*Stewartia sinensis*)

E. H. Wilson collected seeds of Chinese *Stewartia* (*Stewartia sinensis*) while in Western Hubei, China, in 1901. Chinese *Stewartias* are true multiple-season interest trees. The beautiful June/July blossoms are fragrant, white, and camellia-like in form. The deciduous, medium-green, leaves are disease and insect-free throughout the summer, later providing colorful hues of orange, maroon, or beige for autumn display. The specific autumnal tones of *Stewartia* vary from tree to tree even within the same species; it has often stated that in terms of fall foliage, no *Stewartia* is alike! The bark provides dramatic, unusual color year-round, but is especially attractive in the winter landscape. This thin bark peels and curls off in pieces to create an

alabaster like collage of beige, reddish-brown, silver, and olive. The beautiful bark patterns are reason enough to plant one of these trees. No winter garden should be without *Stewartia* for winter interest. This tree is a great choice as a specimen tree in a small landscape. Our plant, still young, has not yet matured enough to display the exfoliating habit of its bark that is common to the species. Our *Stewartia*'s varying trunk colors are still unexposed but will soon manifest themselves as our specimen approaches maturity. Patience is required when growing *Stewartias* as they do not do anything in a hurry.

Turn to your left

Stop #16

Paperbark Maple (*Acer griseum*)

The renowned Paperbark Maple (*Acer griseum*) was first found by Wilson in May of 1901 in Hubei province on steep slopes of moist woodlands between 4000 and 5500 feet. He wrote in his field notebook "Hubei's best maple." He later came to regard it as China's best maple, notable indeed when he knew China lists eighty-five native species of maples. Many horticulturists consider this the best of all the Asian plants Wilson introduced.

It is the bark of this tree that is truly unique. With colors ranging from rich brown to reddish brown to cinnamon, the bark peels off in curling translucent wisps. The effect in the winter landscape, enhanced by snow, is a natural masterpiece. Wilson later wrote "...*Acer griseum*, with its cinnamon-red bark exfoliating like that of the River Birch, is the gem of all maples." This is a slow growing tree usually reaching only 20-30 feet in landscape use. Paperbark Maple is especially dazzling when given a western exposure on a site that allows the late afternoon and setting sun to illuminate its bark. Careful and judicious pruning is important to allow the tree to reach its full artistic potential. Paperbark Maple is a tree that should be encouraged to develop a multiple trunked habit to best show off its beautiful bark. Small lower secondary and tertiary branches can be removed to further expose the copper-cinnamon trunks. There are also many new maple hybrids that are being created using this species as a parent to impart beautiful exfoliating bark to its progeny through careful breeding and selection. Many of the newer hybrids show increased heat tolerance, vigor and stamina. These selected traits allow the greatest attributes of this species to be passed on while expanding its range to new environments through inherited adaptations.

Walk back toward the stone barn and take the lilac trail. Look for a sign on your right.

Stop # 17

BeautyBush (*Kolkwitzia amabilis*)

BeautyBush (*Kolkwitzia amabilis*), found on the watershed of the Han and Yangtze Rivers, is another plant introduced from Wilson's first plant hunting expedition to China. In his book *China Mother of Gardens* Wilson states, "There are many other shrubs that should be grown for their flowers alone, but this list may end with reference to a newcomer aptly styled the Beautybush (*Kolkwitzia amabilis*). About mid-June, each shoot and branchlet develops terminal

clusters of pure pink blossoms which transform the whole shrub into a fountain of the purest pink. The flowers are followed by fruits immersed in shining white hairs, which gives it a smoky appearance. It is perfectly hardy, abundantly floriferous and one of the greatest gifts of the Orient to American gardens.” This is a plant that many may recognize as an “old fashioned” inhabitant of their grandparents gardens. Recently, a new cultivar named *Kolkwitzia amabilis* ‘Dream Catcher’ has been named. This selection greatly expands the plants seasons of interest through spring, summer and fall as it exhibits chartreuse to golden foliage spring through summer that transforms to striking orange tones in autumn. The multicolored foliage changes throughout the seasons, embellishing the plants floral display, while creating further drama and interest in the garden.

Turn right, look for a sign on your right as you follow the path.

Stop # 18

Dragon Spruce (*Picea asperata*)

Wilson brought the seed of Dragon Spruce (*Picea asperata*) back from China in 1911. It covers a wide area there and is a stronger grower than most other native Chinese spruces. Its light-gray-green foliage is striking when seen from a distance and has been given a Chinese name that means “cloud spruce.” The leaves are stiff, their tips sharp, making the foliage very prickly, which may have influenced the tree’s common name, Dragon Spruce. These trees grow slowly and reach 50-60 feet in height.

Wilson writes, “*Picea asperata* has not been in cultivation long enough for a definite statement to be made, but it gives promise of being a first-class ornamental. It grows freely and has withstood with impunity the severest of New England winters experienced since its introduction some twenty years ago.” Our specimen, despite climactic challenges not known in its native haunts, has proven to be a lucky survivor in our landscape. Our Dragon Spruce offers a ruggedly weathered presence to the arboretum grounds. It may not be pretty... but it sure has character! It is interesting to note that this extremely rare species is so unique that it is not even covered in Dirr’s Manuel of Woody Landscape Plants (The staple, go-to reference in the Woody plant world) If it’s not in Dirr, it is rare indeed.

Follow the path across to the other side past the Dragon Spruce and look to the right of the Spruce.

Stop #19

Chinese Sweet Gum (*Liquidambar formosana*)

EH Wilson brought the Chinese Sweet Gum (*Liquidambar formosana*) tree back from Southern China. This tree is only marginally hardy in our planting zone, so you will not see it in cultivation. It is most noteworthy for its medicinal qualities. Every part of the tree can be used. The leaves and roots are used to treat cancerous growths. The bark is used to treat skin disease. The fruits or gumballs are used to treat arthritis, lumbago, and skin disease. The resin from stems is used to treat toothache and tuberculosis and the resin from the trunk is used to promote blood circulation and relieve pain. Here in our area we grow Sweet Gum (*Liquidambar styraciflua*) as a shade tree with beautiful fall color. Our native tree does not have the same medicinal qualities as the Chinese version. Recent Chinese Sweetgum selections have new foliage with reddish to burgundy tones and striking crimson fall foliage, further increasing the ornamental

appeal of the plant in gardens. The tree is also known to have spiny fruits which are less rigid and woody than its American native counterpart and therefore less cumbersome in the landscape. Children will find many uses for the fruits in arts and craft applications. *Liquidambar formosana* is self-sterile and will not hybridize with the American species due to different blooming times, so there will be no “vegetative volunteers” in the garden to worry about as the fruits will not contain viable seed.

Continue down the path to the next stop.

Stop # 20

Hardy Rubber Tree (*Eucommia ulmoides*)

This EH Wilson discovery is from Central China. The Hardy Rubber Tree (*Eucommia ulmoides*) is hardy from zone Zone 4(5) -7 although there may be regional variations on this due to the location of seed sources. As the name implies you can make rubber out of the latex-like sap, however, the process is too costly to do commercially. This tree is grown as a shade tree in China but it is now extinct in the wild. Our specimen is tall and slender, a result of growing up amongst many competitive plant neighbors. Typically, the plant offers a rounded and wider habit that is pleasing in the landscape and well suited for shade creation. Branched low to the ground, a typical specimen would have leaves accessible for picking, much to the delight of children, as the sap oozes from the leaves when they are removed. This is one of the few deciduous trees known for complete absence of autumn foliage color expression. The leaves of the Hardy Rubber Tree always die off green before falling

Follow the path around the bend to the next stop.

Stop #21

Chinese Dogwood (*Cornus kousa chinensis*)

The *Cornus kousa chinensis* (Chinese Dogwood) is often seen in our local landscapes in full bloom in June. In contrast to our native dogwood, it blooms after the tree has grown its leaves for the season. After the flowers fade they leave behind berry like fruits. These fruits are edible but are usually left for the birds. It is also much more disease resistant than our native dogwood. This tree is one of EH Wilson’s most successful introductions. This tree is also well known for its beautiful, multicolored exfoliating bark, which is similar to that of *Stewartia*. *Cornus kousa chinensis* exhibits greater plant and flower bud hardiness than the American Dogwood. It will bloom unaffected after very cold winters that often damage the buds of *Cornus florida*. This species is also resistant to the maladies of anthracnose and powdery mildew that often affect our native species. The Chinese Dogwood has been used as a parent to create disease resistant hybrids with American Dogwood because of its stronger genetic armors. *Cornus kousa chinensis* typically holds its decorative flower bracts for 4-6 weeks, even longer during cool summers, which extends its bloom time way past that of native dogwoods. One trade off however, is that the tree often blooms heavily only in alternate years. The specimen here before you is truly spectacular, exhibiting the layered habit and beautiful bark that make *Cornus kousa chinensis* a standout in the landscape.

Head towards the stone barn to the conservatory. Follow the “W” signs.

Stop #22

Evergreen Clematis (*Clematis armandii*)

Clematis armandii (Evergreen Clematis) is growing here in the conservatory because it is not hardy in our planting zone but can be put outside in the growing season. It is loved by gardeners for its large 2 ½ inch fragrant white flowers that bloom in the spring. Its dark green leaves droop to give a textured look and it can be used for screening. The species can present with pink and rose variations in flower color within local populations and could also be selected for hybridization to offer increased plant hardiness to the progeny.

Proceed from the conservatory to the propagation house. Follow the “W” signs.

Stop #23

Viburnum rhytidophyllum

In *More Aristocrats of the Garden* Wilson wrote “A remarkable *Viburnum* and totally unlike any other is *Viburnum rhytidophyllum* with six to eight inch long deep green, lance-shaped, strongly wrinkled leaves which on the underside are covered with a dense white felt. It is a shrub from five to ten feet tall, compact in habit and has broad flat heads of yellowish-white flowers succeeded by handsome fruits, which as they ripen change to pink and crimson and are finally jet black. It is the enormous heads of these fruits combined with the bold wrinkled foliage that has won for this plant so many friends. This is hardier than other evergreen species mentioned, flourishing in this country as far north as Providence, Rhode Island. It is a woodland species and should be given protection from strong winds”. *Viburnum rhytidophyllum*, like many of its relatives in the genus, are relatively deer resistant. This plant is also beneficial as a food source for native wildlife such as birds and chipmunks.

Stop #24

Holly Olive (*Osmanthus armatus*)

Commonly called holly olive because the leaves resemble holly. This shrub is only marginally hardy in Zone 6 but in Zones 7-9 it can grow up to 12ft and makes an excellent hedge. Notice that it is planted by the stone wall. This keeps it protected from winter winds and has helped this plant to survive here in Zone 6. Wilson brought this plant back from Western China. A common variety that you may see in the gardens of our area is *Osmanthus heterophyllus* ‘goshiki’. This is a slow growing shrub with beautiful golden variegation. Plant taxonomists will note that *Osmanthus* leaves are oppositely arranged, a distinctly different pattern from the alternate leaf arrangement common to all Hollies. This is a great plant to grow in outdoor containers for the summer months if local conditions are too cold. *Osmanthus* can be easily overwintered in a minimally heated garage or basement to help it survive the coldest times of the year.

Proceed up the road, turn right at the “W” sign and follow the path to the next stop.

Stop #25

Magnolia sprengerii

This is a hardy magnolia with beautiful, fragrant, pink flowers often achieving a size of 8-10 inches in diameter when blooming in early spring. It typically grows to about 20ft. You will not see this plant in cultivation, but you will see the many cultivars that have been developed from it, such as Diva, Lanhydrock, and Wakehurst. These forms are especially apparent when touring the large estate gardens in southern Brittan where the climate is especially favorable to this Magnolia’s growth. It is noted historically that Wilson was very taken with the sheer beauty of this Magnolia species when he first came upon it in the mountainous regions of China. He described a sense of awe as one of the first westerners to see the plant. It is not difficult to imagine the sense of wonderment Wilson must have felt when seeing *M. sprengerii* through his own eyes, eyes accustomed to a very different, far –away continent. He noted, “the impossibly large and beautiful flowers of *M. sprengerii* materializing out of the mist and fog that draped the ravines where it was endemic, to be like something out of a dream.” This is by far one of the rarest plants at the arboretum and it blooms heavily in alternate years when the conditions are favorable. It is susceptible to late freezes and windy conditions, which can damage the paper-thin petal-like sepals. Today the species is again being used as one parent for new hybrid cultivars that may be later blooming and better adapted to more varied growing conditions. You will note that this tree is favored also by our resident yellow- bellied Sapsuckers. Although disfiguring, these small holes are rarely harmful to most plants.

Turn to your left to see the next stop.

Stop #26

Acer davidii

Acer davidii, commonly called snake bark maple, is a native of Central China. It is most noted for its snake-like bark and unlobed and attractive leaves. It grows best in areas with cooler summers so it is not typically seen in our area. It was originally discovered by Jean Pierre Armand David and was brought back to the Europe by Veitch of Veitch Nursery where EH Wilson worked. It did not get widespread distribution until EH Wilson brought it back from one of his expeditions. Although not native to our local environment, this specimen of *Acer davidii* appears to be reveling in its shaded and cool microclimate here at the arboretum. In its native haunts, the species enjoys life as a protected understory tree in cool and moist, forested environments. In general, when growing exotic trees from far-off lands, it is best to try to approximate the local conditions as much as possible for greatest success.

Stop #27

Davidia involucrata

The Dove Tree (also known as Handkerchief Tree) was not discovered by Wilson but he was commissioned by Peter Veitch (an influential nurseryman at the time whose name is credited with the introduction of many other plants) to bring back the seeds of *Davidia* – the fabled Handkerchief tree, to Europe. He was told: “Do not dissipate time, energy, or money on

anything else!!!” Wilson was successful in this endeavor and every tree in cultivation today can be traced to this initial collection of seeds in 1899.

The tree is known for its spectacular white bracts (modified leaves) which protect and decorate its smaller and ornamentally non-significant true flowers. Blooming in late May and most heavily in alternate years, the tree is not soon forgotten by those who are fortunate enough to see it. The tree is often propagated by grafting as it can take many years to blossom from seed. Our new specimen is planted to celebrate and honor the spirit of exploration that Earnest Wilson so famously exhibited. He remains to this day of the greatest adventurers’ in the world of Botany, the real- life, horticultural “Indiana Jones.” His legacy remains and lives on through the plants he introduced to the Western World- some of which you have seen today.

Thank you for your time and we hope the tour inspires you to learn more about one of the greatest legends of modern Horticulture exploration.