

Text of the EH Wilson Cell Phone Tour at The Willowood Arboretum

"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 been 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.

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.